

Brent Cross Cricklewood

in the London Borough of Barnet

planning application no. C/17559/08

Strategic planning application stage 1 referral (old powers)

Town & Country Planning Act 1990 (as amended); Greater London Authority Act 1999; Town & Country Planning (Mayor of London) Order 2000.

The proposal

Outline application for comprehensive mixed use redevelopment of the Brent Cross Cricklewood regeneration area comprising residential, town centre uses including retail, leisure, hotel and conference facilities, offices, industrial and other business uses, rail-based freight facilities, waste handling facility, petrol filling station, community, health and education facilities, private hospital, open space and public realm, landscaping and recreation facilities, new rail and bus stations, vehicular and pedestrian bridges, underground and multi-storey car parking, works to the River Brent and Clitterhouse Stream and associated infrastructure, demolition and alterations of existing building structures, electricity generation stations, relocated electricity substation, free standing or building mounted wind turbines, alterations to existing railway infrastructure including Cricklewood railway track and station and Brent Cross London Underground station, creation of new strategic accesses and internal road layout, at grade or underground conveyor from waste handling facility to combined heat and power plant, infrastructure and associated facilities together with any required temporary works or structures and associated utilities/services required by the development.

The applicant

The applicants are **Hammerson, Standard Life Investments** and **Brookfield Europe** (“the Brent Cross Development Partners”), and the architect is **Allies & Morrison Architects**.

Strategic issues

The principle of **comprehensive mixed use redevelopment** of the Brent Cross Cricklewood regeneration area is fully supported. The proposal broadly accords with the strategic principles of the **Cricklewood, Brent Cross and West Hendon Opportunity Area Planning Framework**. The creation of a **new town centre** is strongly supported and the proposed quantum of **retail** floorspace is acceptable. The creation of around 7,500 new **residential** units is supported. A baseline of **15% affordable housing** is proposed; the outcome of a viability review is currently awaited. The masterplan is of a high quality and subject to detailed points of clarification and agreeing limits of deviation accords with London Plan **urban design** policies. The package of **social** and **community facilities, open space** and **public realm improvements** is acceptable. There are a number of outstanding **transport** issues, which require further work and discussion. The creation of an **access forum** is recommended in order to ensure that the principles of **inclusive design** are integrated and implemented in future reserved matters applications. The **noise, air quality** and **biodiversity** impacts of the development have been assessed and

mitigation proposed where appropriate. The replacement **waste management** site is London Plan policy compliant and the proposed use of **refuse derived fuel** to supply the **site-wide combined heat and power network** is supported. Commitments to **energy efficiency** and provision of the CHP network will need to be secured in the section 106 agreement, including options for a back up renewable energy strategy. Implementation of the scheme and infrastructure provision will be controlled by a series of **Grampian conditions** and **infrastructure triggers**, which require further discussion before these can be formally agreed.

Recommendation

That Barnet Council be advised that the principle of the proposed development is fully supported but that a number of issues (transport: as summarised in paragraph 66 and other matters as summarised in the conclusions to this report) that need to be resolved before the application is referred back to the Mayor for final decision.

Context

1 On 11 April 2008, Barnet Council consulted the Mayor of London on a proposal to develop the above site for the above uses. Under the provisions of the Town & Country Planning (Mayor of London) Order 2000 the Mayor has the same opportunity as other statutory consultees to comment on the revised proposal. This report sets out information for the Mayor's use in deciding what comments to make.

2 The application is referable under Categories 1A, 1B, 1C, 2B, 2C, 3A, 3B and 3F of the Schedule to the Order 2000:

1A: *"Development which -*

- (a) Comprises or includes the provision of more than 500 houses, flats, or houses and flats; or*
- (b) Comprises or includes the provision of flats or houses and the development occupies more than 10 hectares".*

1B: *"Development (other than development which only comprises the provision of houses, flats, or houses and flats), which comprises or includes the erection of a building or buildings -*

- (c) Outside Central London and with a total floorspace of more than 15,000 square metres."*

1C: *"Development which comprises or includes the erection of a building in respect of which one or more of the following conditions is met -*

- (c) The building is more than 30 metres high and outside the City of London.*

2B: *"Waste development to provide an installation with capacity for a throughput of more than 50,000 tonnes per annum of waste produced outside the land in respect of which planning permission is sought."*

2C: *"Development to provide -*

- (d) a railway station;*
- (f) a bus or coach station."*

3A: *"Development which is likely to -*

(a) result in the loss of more than 200 houses, flats, or houses and flats (irrespective of whether the development would entail also the provision of new houses or flats)."

3B: "Development –

(a) which occupies more than 4 hectares of land which is used for a use within Class B1 (business), B2 (general industrial) or B8 (storage or distribution) of the Use Classes Order."

3F: "Development for a use, other than residential use, which includes the provision of more than 200 car parking spaces in connection with that use".

3 If Barnet Council subsequently decides that it is minded to grant planning permission, it must first allow the Mayor an opportunity to decide whether to direct the Council to refuse permission.

4 The environmental information for the purposes of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 has been taken into account in the consideration of this case.

5 The Mayor's comments on this case will be made available on the GLA website www.london.gov.uk.

Site description

6 The 151 hectare site is defined to the west by the Edgware Road (A5) and the Midland mainline railway line and to the east by the A41, and is bisected east to west by the A406 North Circular Road. It is adjacent to junction one of the M1 and includes the existing Brent Cross shopping centre and bus station to the north of the North Circular; Brent South shopping park, existing Tesco store and Toys 'R' Us to the south of the North Circular; the Whitefield estate, comprised of approximately 220 residential units; Whitefield secondary, Mapledown and Claremont primary schools; Brent Cross London underground station to the east; Clarefield and Claremont parks and Clitterhouse playing fields (metropolitan open land); a waste transfer station; and Cricklewood rail station to the far south. The Templehof bridge provides the only direct north-south link across the North Circular Road. A section of the River Brent, contained within a uniform concrete channel, flows east to west through the site to the south of the shopping centre. The London Borough of Brent is located to the immediate west of the application site, on the opposite side of the A5 Edgware Road.

7 The site is both heavily dominated and highly constrained by the existing road network and rail infrastructure, as well as industrial land, former railway land, retail sheds and large swathes of surface car parking, which collectively create a hostile and unattractive urban environment. To the north, east and south, the site is surrounded by traditional low rise suburban development, predominantly two storey semi-detached houses with associated infrastructure including schools and open spaces, the largest and most significant of which is the Clitterhouse playing fields.

8 The application site currently has a public transport accessibility level (PTAL) of between 1 and 5, where 1 is low and 6 is high. It includes key parts of the Transport for London Road Network (TLRN) at Hendon Way (A41) and the North Circular Road (A406). The site is also bounded by the A5 Edgware Road, part of the Strategic Road Network (SRN). The area also includes sections of the Midland Mainline railway between London St. Pancras and Derby including the existing Cricklewood station. The Edgware branch of the Northern line also runs close to the site and Brent Cross Underground station is included in the regeneration area. Brent Cross bus station provides access to 18 bus routes (including Green Line). The majority of these services provide access from and through the site via the TLRN or SRN.

Details of the proposal

9 The application proposals subdivide the site into a series of character areas, or 'development zones.' There are nine in total: Brent Cross East and Brent Cross West (both to the north of the North Circular Road), Station Quarter, Market Quarter, Eastern Lands, Brent Terrace, Railway Lands, Clitterhouse playing fields and Cricklewood Lane (all to the south of the North Circular Road).

10 The development zones are identified in figure 1 below. The mix of uses proposed for each development zone is as follows:

- Brent Cross East: mixed use including retail, residential, business, leisure, community facilities and enhanced public transport facilities.
- Brent Cross West: predominantly residential development.
- Market Quarter: mixed use including residential and retail, with a hotel and community uses including health care and leisure provision.
- Eastern lands: mixed use including education, leisure and health care facilities, business and retail uses and residential.
- Brent Terrace: residential development with retail and education facilities.
- Clitterhouse playing fields: improved and enhanced open space, including education and community facilities.
- Station Quarter: new mainline rail station and business uses, with residential, retail and leisure uses.
- Railway lands: industrial development, including waste handling facility, rail freight facility and other business uses.
- Cricklewood Lane: mixed use including residential, retail and health care facilities with improvements to Cricklewood rail station.

11 Figure 1 below illustrates Parameter Plan 001 which identifies the nine development zones. Figure 2 below shows the total development floorspace proposed, in square metres and by gross external area.

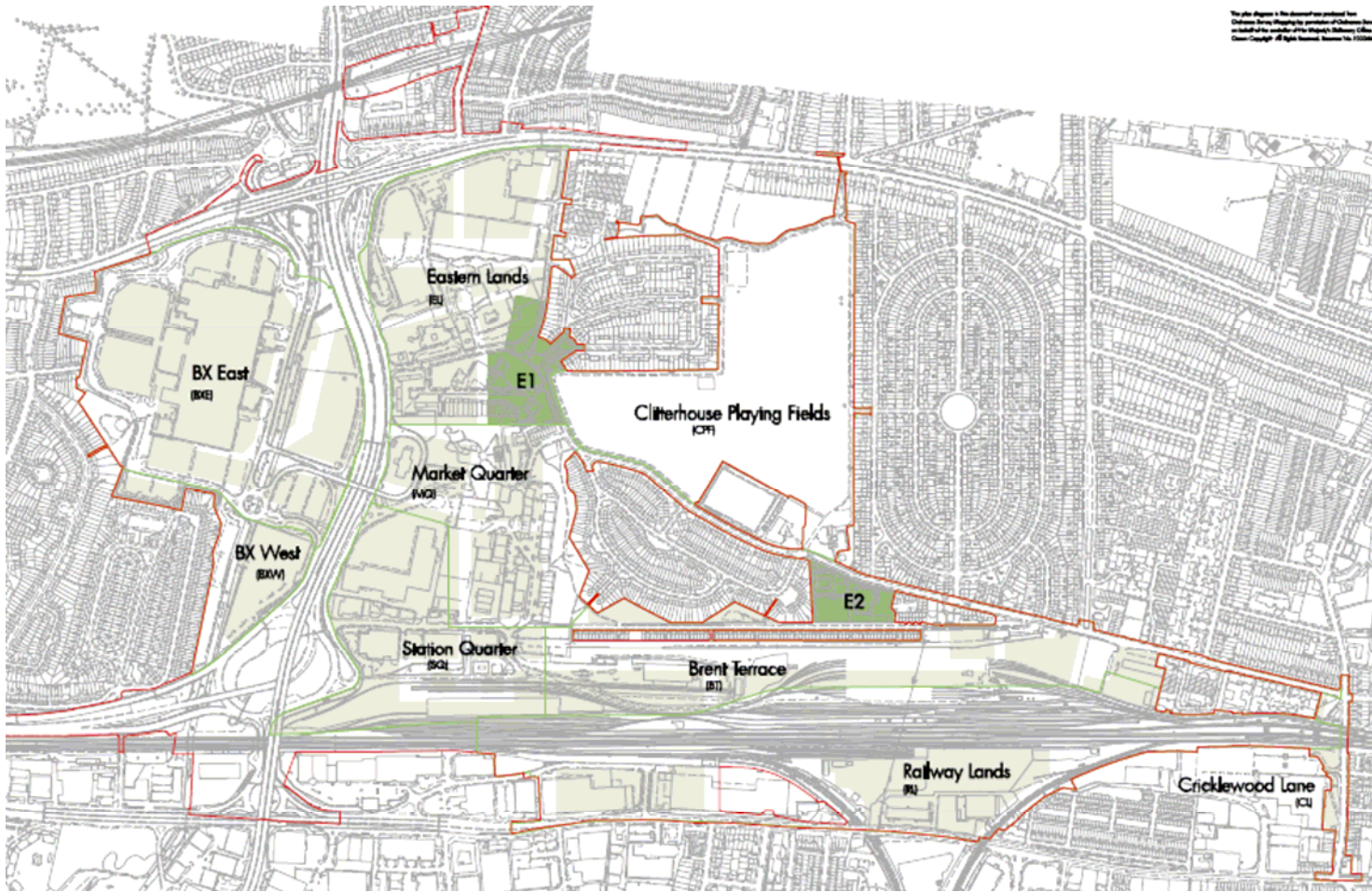


Figure 1 Parameter Plan 001 showing development zones (source: Development Specification and Framework document).

- Planning Application Boundary
- Development Zones
- Education Zone (The general location of Plot E1 and E2 is identified.)
- Building Zones

	Market Quarter	Station Quarter	Eastern Lands	Clitterhouse Playing Fields	Brent Terrace	Cricklewood Lane	Railway Lands	Brent Cross East	Brent Cross West	TOTAL (per use)
Residential (Class C3) (indicative units numbers)	170,752 (1,866)	35,230 (385)	230,761 (2,500)	0	194,554 (1,923)	2,380 (26)	0	26,034 (278)	52,342 (572)	712,053
Retail and related uses North of the A406 (Classes A1, A2, A3, A4 and A5)	0	0	0	0	0	0	0	78,133	0	78,133
Retail and related uses South of the A406 (Classes A1, A2, A3, A4 and A5)	6,735	4,645	20,438	0	372	604	0	0	0	32,794
Business (Class B1)	4,645	373,551	6,131	0	0	0	5,574	5,396	0	395,297
Industrial/Storage & Distribution (Classes B2 and B8) inc rail and freight (of which 6,500sq.m may be used within Use Classes B1, B2 and B8 as small units)	0	0	0	0	0	0	61,314	0	0	61,314
Hotel (Class C1)	11,148	29,542	0	0	0	0	0	20,574	0	61,264
Leisure (Class D2)	4,961	2,787	2,880	0	0	0	0	15,450	0	26,078
Private Hospital (Class C2)	0	0	18,580	0	0	0	0	0	0	18,580
Community Facilities (Class D1)	1,075	232	21,813	251	5,096	1,150	0	1,998	0	31,615 ¹⁵
Rail & Bus Station (Sui Generis)	0	2,416	0	0	0	46	0	71	0	2,533
PFS (Sui Generis)	0	0	326	0	0	0	0	0	0	326
TOTAL (per zone)	199,316	448,403	300,929	251	200,022	4,180	66,888	147,656	52,342	1,419,987

Figure 2 total development floorspace proposed (source: Development Specification and Framework).

12 The main components of the outline planning application as a whole are as follows:

A new town centre

13 The application proposals seek to expand and remodel the currently inward-looking Brent Cross shopping centre and integrate it into a new town centre spanning the North Circular Road, including the creation of a new High Street from the existing shopping centre, extending south of the North Circular Road by means of a new bridge, with a range of town centre uses including new retail, restaurant, cafes, bars, leisure and community uses. This new high street would pass through a new market square and lead onto a new public space in front of the proposed new railway station. The character would change from all retail at the existing shopping centre through to largely commercial office uses close to the station. The new town centre would be supported by a significant quantum of new residential development.

14 The existing surface car park to the west of the shopping centre will be redeveloped to accommodate new retail provision in the form of a department store. The application proposes to relocate the bus station to the existing surface level car park immediately north of the North Circular Road. The environment of the town centre would be enhanced by the realigned River Brent, with associated landscaping and riverside walkway.

Retail

15 The application includes substantial new retail floorspace, with a total net increase of circa 75,000 square metres of comparison, convenience and other retail (class A2-A5) uses. This will comprise extensions to the existing shopping centre, provision as part of the new town centre, and further provision in the Market Quarter, Station Quarter and Eastern Lands development zones. Existing retail space at Tilling Road (Tesco and Toys 'R' Us) and Edgware Road (Lidl) will be redeveloped for other uses. The existing John Lewis department store in the shopping centre is proposed to be relocated to new premises to the west of the shopping centre, with the existing unit remodelled and sub-divided to form a series of smaller units. A replacement Tesco store of 13,285 sq.m. is proposed in the Eastern Lands zone, to form part of town centre south.

16 The total retail floorspace proposed by development zone is as follows:

Table 1 Retail floorspace by development zone (source: Development Specification and Framework).

Development zone	Floorspace sq.m. gross		
	Proposed	Decommissioned/demolished	Net increase
PDP (north)	38,626	6,545	32,081
PDP (south)	22,575	5,313	17,262
Brent Cross East	39,507	0	39,507
Market Quarter	3,669	0	3,669
Eastern lands	929	4,229	-3,300
Station quarter	4,645	17,803	-13,158
Brent Terrace	372	0	372
Cricklewood Lane	604	0	604
Rail lands	0	1,372	-1,372
Total	110,927	35,262	75,665

Design and tall buildings

17 The masterplan has been developed over a series of nine discrete development zones. Each zone has its own character in terms of the predominant land use, building heights including tall buildings, quantity of development, type of open space and transport infrastructure.

18 The outline nature of the application means that the detailed design and locations of buildings will be controlled by a set of broad parameters and design guidelines set out within the Design and Access Statement and within the Development Specification and Framework, which includes a set of Parameter Plans.

19 The Parameter Plans and design guidelines will inform the detailed design of buildings as they progress to reserved matters applications. Currently building heights across the masterplan will range from between 6 metres to 100 metres. The Parameter Plans will specify which zones will conform to the relevant heights, land uses, street typology and other design factors, having regard to the context of the masterplan and surrounding area as a whole.

20 These documents are further supplemented by scale thresholds which consider the width and length of development blocks within building zones. These are set out in the Development Specification and Framework (appendix 10). A set of detailed Design Guidelines will inform the building frontages and public realm based on street typology and other design criteria. The key theme across the masterplan is the use of the perimeter blocks, courtyard gardens and a mix of open spaces. This approach applies to the range of land uses proposed across the application, not just residential use. Each development zone is described in further detail within the design section of this report.

Housing

21 The application seeks outline planning permission for 712,053 square metres (gross external area) of residential development. The rationale for this approach is to ensure sufficient flexibility to enable the total unit numbers to be determined with reference to the detailed design of individual block layouts, efficiency of floorspace and appropriate unit sizes at the time of delivery. It is, however, expected that in the region of 7,323 new homes will be delivered, of which at least 15% are proposed to be affordable, with a tenure split of 70:30 social rented: intermediate, which would equate to 769 social rented and 329 intermediate units. In terms of the mix of unit sizes, 33% (c. 2,423 units) are proposed to be 1-bedroom, 46% (c. 3,364 units) 2-bedroom and 21% (c. 1,536 units) 3- and 4-bedroom. These numbers are, however, indicative and are not fixed as part of the planning application. Three housing typologies are proposed: perimeter blocks, point blocks and terraced housing, the majority of which will be located in the Market Quarter, Eastern Lands and Brent Terrace development zones. The existing Whitefield estate is proposed to be redeveloped and replaced.

Open space

22 As a whole the regeneration area already benefits from seven existing areas of open space, providing a total of 25.23 hectares, the most substantial of these being Clitterhouse playing fields. The masterplan provides five new areas of open space and ten new civic spaces providing a total (including existing areas of open space) of 33.76 hectares. Each development zone has been designed to include a piece of public realm or public open space at its core. The range and scale of open spaces proposed across the masterplan is set out in table 3 in the open space section of this report.

Transport

- 23 The application includes a package of transport and highways measures. These include:
- A new railway station on the Midland Mainline between the existing Cricklewood and Hendon stations.
 - Works to Brent Cross London underground station to provide improved bus access, improved accessibility via a new pedestrian bridge link across the A41 and A406, and step-free access.
 - A new and improved bus station which replaces the existing and will be located on the existing surface car park immediately north of the A406.
 - Improved bus services.
 - Works to Cricklewood station.
 - A new vehicular, pedestrian and cycle bridge over the A406, to replace the existing Templehof bridge.
 - A new pedestrian bridge over the A406 connecting Brent Cross East with the Eastern Lands.
 - Alterations and improvements to thirty highway junctions.
 - A new junction and road bridge over the Midland mainline railway, to connect the site to the A5 to the west.
 - New rail stabling infrastructure and rail-based freight facilities.
 - A network of pedestrian and cycle routes.
 - Travel plan measures including car clubs.
 - A transport fund and transport advisory group (TAG).

Primary Development Package

24 The primary development package (PDP), which in effect constitutes phase one of the development, represents the initial commitment by the applicants regarding the delivery of the regeneration scheme. It comprises the following.

- 885 residential units in the Market Quarter.
- 428 residential units in the Eastern Lands.
- 36 residential units in Brent Terrace.
- 38,626 sq.m. new retail floorspace at Brent Cross East.
- 3,066 sq.m. new retail floorspace at the Market Quarter.
- 19,509 sq.m. new retail floorspace in the Eastern Lands.
- two new hotels (in Brent Cross East and Market Quarter)
- 12,292 sq.m. leisure use at Brent Cross East.
- 4,961 sq.m. leisure use at Market Quarter.
- 500 sq.m. community facility at Brent Cross East.

- 1,075 sq.m. community facility at Market Quarter (temporary health centre/neighbourhood policing unit).
- 4,864 sq.m. community facility at Brent Terrace (new Claremont Primary school).
- 251 sq.m. community facility at Clitterhouse playing fields.
- new waste handling facility at Railway lands (24,619 sq.m.).
- creation of new Brent Cross and Market Square.
- removal of Clarefield park, and improvements to Claremont park and Clitterhouse playing fields.
- Modification works to the River Brent.
- Replacement of Templehof Bridge.
- Brent Terrace Green Corridor.
- Initial set up of the scheme wide combined heat and power plant.

25 The remaining build out of the proposed development will be controlled by a series of triggers. These are discussed in more detail in the phasing section of this report.

Case History

26 The existing Brent Cross shopping centre was the subject of planning applications in the mid-1990's for an extension to provide an additional circa 27,000 sq.m. of retail floorspace and for a new multi-storey car park. The applications were called in for determination by the Secretary of State and were subject to a public inquiry in 1999. In April 2000, the Secretary of State granted planning permission for the multi-storey car park but refused permission for the extension to the shopping centre. The latter was subject to judicial review and subsequently High Court challenge. In issuing the final refusal of planning permission in December 2003, the Secretary of State concluded that Brent Cross shopping centre was not a town centre, that he was not satisfied as to the need for the development and that the site selection did not properly follow the sequential approach.

27 The applicants had, by this time, began working with the Council, Greater London Authority and other key landowners in the area to secure a joint approach to the wider regeneration of the Brent Cross and Cricklewood area, within which Brent Cross would emerge as a new fully functional mixed use town centre. The Cricklewood, Brent Cross and West Hendon Opportunity Area Planning Framework was produced collaboratively by the Council, Greater London Authority and landowners and developers in the area. The framework has the status of supplementary planning guidance.

28 The creation of a new town centre together with the wider regeneration of the area was also promoted through the review of the Council's unitary development plan (UDP) and was considered as part of the 2004 public inquiry into the replacement UDP. The planning inspector agreed with this new approach and the replacement UDP was adopted in 2006 with a specific chapter relating to the regeneration of Cricklewood, West Hendon and Brent Cross.

29 The current planning application is the product of several years of collaborative working between the applicant, Barnet Council and the Greater London Authority and seeks to realise the vision set out in the planning framework.

Strategic planning issues and relevant policies and guidance

30 The relevant issues and corresponding policies are as follows:

- Economic development *London Plan; the Mayor's Economic Development Strategy*
- Housing *London Plan; PPS3; Housing SPG; Providing for Children and Young People's Play and Informal Recreation SPG;*
- Affordable housing *London Plan; PPS3; Housing SPG*
- Density *London Plan; PPS3; Housing SPG*
- Urban design *London Plan; PPS1*
- Mix of uses *London Plan*
- Regeneration *London Plan; the Mayor's Economic Development Strategy*
- Transport *London Plan; the Mayor's Transport Strategy; PPG13; Land for Transport Functions SPG*
- Parking *London Plan; the Mayor's Transport Strategy; PPG13*
- Retail *London Plan; PPS6; PPG13*
- Open land *London Plan; PPG17*
- MOL *London Plan; PPG2*
- Playing fields *London Plan; PPG17*
- Employment *London Plan; PPG4; draft PPS4; Industrial Capacity SPG*
- Biodiversity *London Plan; the Mayor's Biodiversity Strategy; Improving Londoner's Access to Nature: Implementation Report; PPS9*
- Access *London Plan; PPS1; Accessible London: achieving an inclusive environment SPG; Wheelchair Accessible Housing BPG; Planning and Access for Disabled People: a good practice guide (ODPM)*
- Equal opportunities *London Plan; Planning for Equality and Diversity in Meeting the spatial needs of London's diverse communities SPG; Diversity and Equality in Planning: A good practice guide (ODPM)*
- Tall buildings *London Plan;*
- Ambient noise *London Plan; the Mayor's Ambient Noise Strategy; PPG24*
- Air quality *London Plan; the Mayor's Air Quality Strategy; The Control of dust and emissions from construction and demolition BPG; PPS23*
- Health *London Plan; Health Issues in Planning BPG*
- Climate change *London Plan; PPS, PPS Planning and Climate Change Supplement to PPS1; PPS3; PPG13; PPS22; the Mayor's Energy Strategy; Sustainable Design and Construction SPG*
- Waste *London Plan; the Municipal Waste Management Strategy; PPS10*
- Flooding *London Plan; Mayor's draft Water Strategy; PPS25*

31 For the purposes of Section 38(6) of the Planning and Compulsory Purchase Act 2004, the development plan in force for the area is the 2006 Barnet Unitary Development Plan and the London Plan (Consolidated with Alterations since 2004).

32 The following are also relevant material considerations:

- The Barnet Core Strategy Development Plan Document (Issues and Options), July 2008. This document is at an early stage in the Local Development Framework process and therefore can be afforded little material weight.

- The Cricklewood, Brent Cross and West Hendon Opportunity Planning Framework, December 2005.

Principle of proposed development

33 Cricklewood, Brent Cross and West Hendon are identified as an Opportunity Area by policy 5B.2 of the London Plan on the basis that together they are capable of accommodating substantial new jobs and homes. The opportunity area has an indicative capacity of 20,000 new jobs and a minimum of 10,000 new homes in the period 2001-2026. London Plan policy 2A.5 *Opportunity Areas* states that “*strategic partners should work with the Mayor to prepare, and then implement, spatial planning frameworks for opportunity areas.*”

34 The Cricklewood, Brent Cross and West Hendon Opportunity Area Planning Framework (hereafter referred to as “the planning framework”) provides further guidance for the development of the opportunity area. The Barnet UDP also contains a specific chapter on the Cricklewood, Brent Cross and West Hendon regeneration area, the objectives of which are closely aligned with those identified in the planning framework. It should be noted that a separate planning application for the West Hendon estate regeneration was approved in 2006 and that part of the opportunity area does not form part of the current proposals.

35 The strategic principles underpinning the planning framework are as follows:

- A new town centre with major new shopping and leisure development as part of a comprehensive mix of uses.
- A range of employment uses located around a new transport interchange.
- In the region of 10,000 new homes.
- A commitment to the provision of affordable housing and places of local employment for the existing and new communities.
- Improvements or additions to existing community facilities as part of the creation of a sustainable community (including health and education).
- An additional main line railway station.
- New bridges across the A406 North Circular Road and the Midland Mainline Railway.
- A new High Street to integrate the areas to the north and south of the A406 North Circular Road.
- A new market square.
- A new food store.
- A new bus station with modern facilities and improved services.
- A high quality transit system from Cricklewood Station to Brent Cross Shopping Centre and Brent Cross Underground Station via the new town centre.
- Improvements to the highway network including a new road junction on to the A41 to provide access to the Eastern Lands.
- Improved pedestrian connections to existing public transport, particularly Brent Cross Underground Station, including two new pedestrian bridges across the A41 and the A406.
- Provision of freight facilities.

- Provision of strategic waste handling and recycling facilities for local residents.
- Improvements to the River Brent and links to the Welsh Harp Reservoir.
- The provision of new public open space, enhancement of the existing green spaces and links to established neighbourhoods.
- A fully accessible street network that positively encourages the use of public transport, walking and cycling over the car.
- A comprehensive approach to regeneration that embraces implementation on both sides of the A406 North Circular Road concurrently.
- A commitment to deliver sustainable development.

36 The principle of comprehensive mixed use redevelopment of the Brent Cross Cricklewood regeneration area, to the extent that it complies with the London Plan and planning framework, is strongly supported. The planning application seeks to address the strategic principles and provide all of the main components identified in the planning framework. The evolution of Brent Cross as a new town centre supported by substantial new residential development and measures to improve integration and connectivity of the currently under-utilised brownfield site, with the wider north-west London area is acceptable in strategic planning terms. The provision of 7,500 new homes, in addition to the 2,000 already approved through the West Hendon estate regeneration scheme, supported by a variety of community and leisure uses, open space and public realm improvements is welcomed. There are, however, a number of outstanding issues relating to various aspects of the scheme, which are considered in this report and will need to be resolved before the application is referred back to the Mayor for final determination.

Retail and new town centre

37 London Plan policy 2A.8 seeks to sustain and enhance the vitality and viability of town centres. This is supported by policies 3D.1 and 3D.2, which seek to strengthen the role of London's town centres and secure a sustainable pattern of retail provision. The scale of retail, commercial and leisure development should be related to the size and role of a centre and its catchment, and retail provision should be managed in accordance with the sequential approach set out in Planning Policy Statement 6 (PPS6): Planning for town centres.

38 Chapter 5B of the London Plan sets out specific policies for the North London sub-region. Policy 5B.1 states that a strategic priority for the sub-region will be to enhance the attractiveness of town centres and manage the restructuring of town centres in need of change. Paragraph 5.53 of the London Plan recognises that the North London sub-region will face the greatest growth in consumer expenditure, and that much of the associated demand for more comparison goods floorspace should be accommodated in the dense network of town centres taking into account guidance in the North London sub-regional development framework. It goes on to state that it is intended that Brent Cross regional shopping centre will evolve into an integrated town centre with a mix of uses including housing.

39 The Barnet Unitary Development Plan endorses a specific policy approach to Brent Cross as part of the retail planning strategy for the borough and promotes its evolution as a new town centre supported by the wider regeneration of the area. Policy TCR1 states that the preferred locations for development of new retail and other key town centre uses are *"within the primary and secondary shopping frontages of the Major and District Town Centres and the main shopping areas of the District Town Centres, as defined on the Proposals Map, and at Brent Cross Regional Shopping Centre (primarily for comparison goods)."* Policy C6 also states that *"The council will*

support additional retail development at Brent Cross as part of a new town centre extending north and south of the North Circular Road (A406), subject to:

i. The scale of new comparison retail floorspace falling within the identified requirement of 55,000 square metres; and

viii. Any proposal for retail floorspace in addition to that stipulated in Condition i above will need to be assessed against the tests contained in PPS6, other policies in this UDP, and any overall limits for the scale of convenience retail floorspace that are supported by the results of a retail impact assessment."

40 The UDP policy was underpinned by the North West London Retail Study (NWLRS) 2004, which also informed the amount of retail floorspace specified in the planning framework. PPS6 states that *"The sequential approach to site selection should be applied to all development proposals for sites that are not in an existing centre nor allocated in an up-to-date development plan document."* By virtue of the approach set out in the UDP, the proposed development is in effect allocated in the development plan and it is not necessary to reconsider the validity of the overall approach nor undertake the sequential test, the requirements of which have already been fulfilled through the UDP process.

41 There is, therefore, 'in principle' local and strategic support for an additional 55,000 square metres of gross comparison goods floorspace at Brent Cross by 2011. The planning framework also endorses the provision of 20,000 sq.m. of convenience floorspace, although the UDP policy requires convenience floorspace to be supported by the results of a retail impact assessment. The application proposes a net increase of 60,776 sq.m. of comparison goods floorspace (decreasing to 42,973 sq.m. upon redevelopment of the Brent South Shopping Park for office purposes), 11,354 sq.m. of convenience floorspace and a further 15,150 sq.m. of other retail (class A2-A5) uses.

42 Barnet Council commissioned independent consultants to review the methodology and appropriateness of the assumptions underpinning the applicants' revised retail report (November 2008). The review concluded that the report satisfies the criteria of PPS6 and that a conservative approach has been taken to the assessment of need and impact.

43 The revised retail report (November 2008) has regard to the NWLRS, which concluded that Brent Cross was capable of supporting an additional 55,000 sq.m. of gross comparison floorspace by 2011 without any significant harmful effects on the viability and vitality of existing town centres. The report sets out an impact assessment taking into account forecast growth in turnover at Brent Cross (based on actual growth rates 1998-2005 and with a long-term growth rate applied), potential trade draw from other town centres, and sensitivity testing. The growth in the forecast turnover figures used in the retail report exceed those used for the purposes of the GLA's London Town Centre Assessment – Comparison Goods Need (2004) and are considered reasonable, i.e. they do not underestimate growth in turnover and therefore impact on or trade draw from other centres. The figures confirm that there is also sufficient capacity to absorb the temporary net increase of 60,776 sq.m. of gross comparison floorspace prior to the redevelopment of Brent South Shopping Park.

44 In the context of expected growth in consumer expenditure in the medium to long term, which exceeds the predicted level of impact of retail development at Brent Cross on existing town centres, impacts on other centres are likely to be alleviated by predicted growth. Further mitigating factors, in particular planned retail expansion in a number of the affected centres e.g. commitments at Wembley, are also relevant. The identified trade diversion impacts are considered to be reasonable and acceptable, but the health of the identified centres should continue to be monitored over time through strategic and local town centre health checks.

45 In terms of convenience goods, the proposed floorspace will contribute to the role of the new town centre and does not raise any strategic concerns.

46 The proposed office floorspace, the majority of which will be located in the Station Quarter development zone close to the proposed new railway station, will complement the role of the new town centre and will deliver a significant number of new jobs. This is accepted in line with London Plan policies 3B.1 and 3B.2.

47 The planning policy framework, particularly that set by UDP policy C6, is clear that the acceptability of retail development at Brent Cross is dependent upon, among other things, the provision of a broad range of uses, significant public transport improvements, enhanced pedestrian and cycle links, significant improvement to the setting and environment of the town centre, and measures to include access to the town centre by means other than the private car. The primary development package (PDP), which the applicant is committed to implementing, contains approximately half of the new retail floorspace, hotel, leisure and community facilities, the new Templehof bridge, two new civic squares and approximately 1,300 residential units. This will provide a variety of uses of the kind that would normally be expected to be found in a typical 'town centre' and is acceptable. Timing of delivery of the remaining retail floorspace should be appropriately related to the build out of the rest of the scheme including infrastructure delivery. Clarification of the applicants' intentions in this respect is sought.

48 Notwithstanding the above, there are concerns about the adequacy of the public transport improvements in the PDP to support the new town centre, in particular whether they will provide sufficient and realistic alternatives to car use. This concern is exacerbated by uncertainty over delivery of longer term improvements such as the new bus station, and relates to wider concerns about the transport aspects of the scheme as a whole, as addressed in transport section of this report and Appendix 1 to this report. Discussions with the applicant and Council are ongoing and will need to continue in order to agree a solution, which is mutually acceptable to all parties.

Housing

49 London Plan policy 3A.1 seeks to increase London's supply of housing and sets a London-wide target of 30,500 additional homes per year between 2007/8 and 2016/17. Table 3A.1 sets borough housing targets, of which Barnet's is 20,550 additional homes per year between 2007/8 and 2016/17. Although delivery of the proposed development will continue beyond 2016/7, it will make a significant contribution towards this and future housing targets for both the borough and London as a whole.

50 London Plan policy 3A.10 requires borough councils to seek the maximum reasonable amount of affordable housing when negotiating on individual private residential and mixed use schemes. In doing so, each council should have regard to its own overall target for the amount of affordable housing provision. Policy 3A.9 states that such targets should be based on an assessment of regional and local housing need and a realistic assessment of supply, and should take account of the London Plan strategic target that 35% of housing should be social and 15% intermediate provision, and of the promotion of mixed and balanced communities. In addition, Policy 3A.10 encourages councils to have regard to the need to encourage rather than restrain residential development, and to the individual circumstances of the site. Targets should be applied flexibly, taking account of individual site costs, the availability of public subsidy and other scheme requirements.

51 Policy 3A.10 is supported by paragraph 3.52, which urges borough councils to take account of economic viability when estimating the appropriate amount of affordable provision. The 'Three Dragons' development control toolkit is recommended for this purpose.

52 The Barnet unitary development plan (UDP) specifies an overall target for 50% of all new residential development in the borough over the plan period to be affordable provision. UDP policy H5 states that, having regard to this target, the Council will seek to negotiate the maximum reasonable amount of affordable housing on sites of 10 or more units or 0.4 hectares or more, and that the precise proportion of affordable housing “will be determined in relation to viability issues, site characteristics and the provision of social and physical infrastructure.”

53 The application proposes 712,053 square metres (gross external area) of residential floorspace, with a baseline of 15% affordable housing and a tenure split of 70:30 social rented: intermediate. In terms of unit numbers, the indicative total of 7,323 units would generate 1,098 affordable homes, of which 769 would be social rented and 329 intermediate.

54 Clarification is sought as to the provision of affordable housing in the primary development package. The Development Specification and Framework states that “the application will deliver 15% affordable housing across the PDP” but verbal discussions have suggested that there will be no net increase in affordable housing in the PDP over and above the re-provision of the Whitefield Estate. For the avoidance of doubt, the re-provision of the Whitefield Estate does not count towards the percentage of affordable housing provision. A commitment is sought from the Council and the applicants that at least an equivalent amount of replacement affordable floorspace will be re-provided in accordance with London Plan policy 3A.15 *Loss of housing and affordable housing* and paragraph 3.75 of the London Plan, which states that “Where redevelopment of affordable housing is proposed, it should not be permitted unless it is replaced by better quality accommodation, providing at least an equivalent floorspace”. Further policy guidance is set out in the GLA’s Supplementary Planning Guidance on Housing in respect of estate renewal (paragraph 20.1).

55 The proposed overall mix of units is 33% one bedroom, 46% two bedroom, and 21% three and four bedroom, broken down by tenure as follows:

Table 2 housing mix by unit type and tenure (source: Housing Strategy).

	Market	Inter.	Social Rent	Total Units	Split
1 Bed Flat	2,179	121	123	2,423	33%
2 Bed Flat	2,926	153	285	3,364	46%
3/4 Bed Flat/House	1,120	55	361	1,536	21%
Total Units	6,225	329	769	7,323	100%
Market: Affordable Split	85%	15%			

56 The planning framework suggests an overall mix of units in the order of 26% 1-bedroom, 50% 2-bedroom and 24% 3- and 4-bedroom. The proposed mix is not significantly dissimilar from this and has been informed by assessments of local housing need and the anticipated demand that will arise from the development. In terms of the affordable housing mix, the aspiration to provide 47% of the new social rented homes as 3- and 4-bedroom is welcomed.

57 The baseline position of 15% affordable housing is lower than would normally be expected of a large scale mixed use development. This is attributed to the significant costs involved in the provision of physical and social infrastructure and other planning benefits as well as uncertainty over the long term availability of social housing grant funding. The applicants have submitted financial viability information, which is currently being independently reviewed on the GLA's behalf. Further detailed information relating to inputs and assumptions has been requested and has been received. Subject to the conclusions of this review, further negotiation may be required, the outcome of which can be reported back to the Mayor, prior to or at the final determination stage.

58 The applicants have agreed, in principle, to the inclusion of a review mechanism in the section 106 agreement to enable the percentage of affordable housing to increase subject to a beneficial change in the inputs and values affecting the overall viability of the scheme. Viability would be reviewed at agreed milestones, likely to be related to delivery of unit numbers. Given the scale of the development and long term approach to delivery, but notwithstanding the conclusions of the independent viability review, this approach is supported in principle, subject to agreeing the detailed wording of the section 106 agreement.

Transport

59 The transportation issues are complex and far reaching due largely to the inaccessible and segregated nature of the development caused by strategic roads and railway lines. There are capacity problems at each of the key highway and public transport gateways into the site, which suffer from severe congestion during weekday peak periods and at weekends. The location of existing public transport nodes with the exception of the existing bus station are divorced from the core of the regeneration area which makes accessibility difficult and highlights the need for significant front loading of public transport provision in this area. These problems are such that the assessment of transportation effects and proposed mitigation must be robust.

60 TfL supports the masterplan objective, which seeks to deliver a comprehensive town centre development including improved public transport, walking and cycling at Cricklewood and Brent Cross. TfL's main concerns are surrounding phasing and delivery and in particular the lack of robust interim assessments for each development phase. TfL is particularly concerned about the lack of a clear sequencing of development beyond phase 1 (PDP).

61 The applicant has proposed a series of development triggers and infrastructure improvements, however the rationale behind them is not yet clearly articulated or calibrated. TfL will work with Barnet Council and the applicant in order to try and ensure that the approach to phasing and triggers is robust.

62 The transport assessment (TA) includes a number of transport improvements but does not sufficiently demonstrate how mitigation measures contribute to achieving mode shift as the development proceeds. The achievement of mode split targets is vital to the success of the development, however the means of achieving these targets is currently lacking.

63 There are clear barriers to delivery, which could be overcome through pump priming of the bus network, enhanced cycle and pedestrian accessibility, and through highway improvements, which allow for additional bus priority. Given the severity of highway congestion and the need to ensure that the mode split targets are achieved, car parking must be restrained from the outset. This should be balanced with significant public transport improvements being provided in advance of development thresholds being reached.

64 The applicant has proposed a package of public transport improvements as part of phase 1 (PDP), some of these proposals are welcomed but TfL is expecting the applicant to commit to delivering a more substantial proportion of the overall transportation package during phase 1 (PDP) in order to safeguard against the lack of sequencing beyond this phase. This will ensure that public transport, walking and cycling is efficient and attractive to all users

65 Importantly, TfL must be a section 106 party in order to ensure that public transport improvements are provided when they are needed. Barnet Council and TfL must through this application retain the ability to carry out their duty as highway authorities and be able fulfil their responsibility to provide London with the highest quality public transport, walking and cycling networks. The mechanisms put forward by the applicant for assessing the development post permission are yet to be agreed with Barnet Council and TfL. TfL will, however, continue to work with the Council and the applicant to address these concerns.

66 A detailed appraisal of the transport aspects of the scheme and outstanding issues is provided in Appendix 1 to this report. These issues must be resolved before the application can be considered to comply with the London Plan, Cricklewood, Brent Cross and West Hendon Opportunity Area Planning Framework and the Mayor's emerging transport strategy. In summary, issues requiring attention and further discussion are:

- Further assessment of interim phasing for AM, PM and SAT peak periods by reference to network performance and capacity.
- Clarification of mode split forecasts in the TA and agreed mechanism for achieving targets in the Framework Travel Plan.
- More information on how mode split targets will be met progressively.
- Planning controls limiting development based on achievement of mode split targets by reference to network performance and capacity and a clear strategy for monitoring and auditing.
- Infrastructure delivered at suitably early stages in implementation allowing controls to be relaxed on achievement of mode split targets by reference to performance and capacity.
- Triggers rationale and sequencing to be provided in more detail and agreed concurrently with mitigation.
- Sign off of strategic junction assessments, including assessment of junction capacity in line with development thresholds.
- Further clarification of trip assignment, mode split, network capacity and performance as part of the no railway station, M1 Junction and Midland Mainline Bridge sensitivity tests.
- Agreement of the scope of future Reserved Matters planning applications and transport assessments.
- More robust analysis of construction impact during the peak periods and at interim stages.

- A commitment to front load a significant proportion of public transport, walking and cycling improvements as part of Phase 1 (PDP).
- Reduction in the number of proposed car parking numbers, including a 0.5 spaces per unit site wide residential car parking ratio; capping of retail car parking to current levels; reduced parking ratios or capping of parking levels for office and other uses across the site.
- Further clarification of car parking restraint measures.
- Further discussion regarding a revised strategy for delivering a new bus station, including a response to each of the issues raised in the report.
- Further assessment of bus journey times to ensure that they will be improved as the development proceeds.
- Study assessing the potential for additional bus priority measures external and internal of the site, including a schedule of potential schemes.
- Agreement of total bus subsidy and mechanism for payment
- Removal of proposed Rapid Transit System and replacement with an enhanced bus network.
- PEDROUTE and PERS pedestrian modelling at the key interchanges and along the main corridors and between transport nodes, including the strategic walk networks. Preparation of a schedule of contributions towards improvements.
- Agreed cycling strategy for the key routes and interchanges, including priority for cyclists and pedestrians at the southern junctions and on the main corridors, including linkages into the strategic cycle network, and to West Hendon, Hendon Central and Colindale, and across the M1/A406 junction.
- Development of a mechanism for linking site wide travel plans into achievement of the Framework Travel Plan (FTP) objectives including penalties for failure to meet targets and a clear commitment to desired outcomes.
- Further details pursuant to buses, bus station, Brent Cross Underground Station, Cricklewood Station, the new railway station and walking and cycling routes.
- Terms of reference for the Transport Advisory Group and Transport Fund to be agreed with TfL and Barnet Council. A clear indication of the total value of the Transport Fund and a list of specific desired outcomes.
- Heads of terms for the section 106 to be agreed with Barnet Council and TfL.

Urban design

67 Good design is central to all objectives of the London Plan and is specifically promoted by the policies contained within Chapter 4B which address both general design principles and specific

design issues. London Plan Policy 4B.1 sets out a series of overarching design principles for development in London. Other design policies in this chapter and elsewhere in the London Plan take forward in detail, the principles outlined in policy 4B.1 and other detail design matters. These include specific design requirements relating to maximising the potential of sites, the quality of new housing provision, tall and large-scale buildings, built heritage, views, and the Blue Ribbon Network amongst other design areas.

Masterplan structure

68 The detailed masterplan has been developed over a considerable period of time and has been through detailed consultation since the preliminary planning issue for comment published on 30 April 2007. The design team (Allies & Morrison architects) has been set the challenging goal to bring the existing super scale of the site, dominated by strategic roads and large pieces of infrastructure, back to the human scale.

69 The masterplan structure is broadly similar to that set out in the planning framework but is also based on an analysis of the existing connections, spaces and routes, plots and hierarchy, and sets out how these can be enhanced and maximised through new access networks and proposed urban form, set across a series of districts known as development zones.

70 To formalise each of the development zones in terms of its character, the application includes a set of Parameter Plans, which identify elements of the scheme that will be fixed as part of the planning permission, or within approved levels of deviation. This is an approach taken for other major development sites such as Kings Cross and Stratford City. The Parameter Plans are discussed in further detail later in this report but include detail of key elements including transport infrastructure, public realm and open space, maximum and minimum building frontage heights and land uses, including floor space thresholds. Each development zone includes an indicative zonal layout Parameter Plan, which is supplemented by the descriptions provided within the Design and Access Statement and Design Guidelines. Further guidance regarding maximum scale thresholds is also provided in appendix 10 of the Development Specification and Framework document, which repeats some of the scale guidance regarding frontage heights but also includes maximum and minimum block widths and lengths. As with the Parameter Plan 015, which illustrates the overall masterplan, the Parameter Plans for each zone (020 – 029) are indicative and illustrate one possible outcome for a particular zone, within the parameters of the permission being sought.

Development zones

71 Parameter Plan 001 identifies each of the development zones across the masterplan (shown in figure 1 of this report). There are nine zones, which comprise the masterplan area, each with a discrete character relating to context and with a key element of public realm as their focus. Whilst character of each zone forms part of the design rationale, zone boundaries will overlap and will not necessarily conform to development zone boundaries in a fixed manner.

Building zones

72 Building zones represent a further magnified plot breakdown within each development zone. Each building zone includes specific floorspace thresholds shown in Parameter Plan 014, and scale thresholds shown in appendix 10 of the DSF and Parameter Plans 007 and 008 regarding maximum and minimum building frontage heights.

Market Quarter (parameter plan 020)

73 The Market Quarter is centrally located within the regeneration area and will include a mix of uses with ground floor uses mainly for retail, hotel and leisure use. Upper levels will comprise

residential or other permitted uses. The minimum building frontage heights will be set at between 7.5-16 metres and maximum frontage heights of between 15 – 100 metres.

74 The block structures illustrated in the parameter plan are supported, however some of the block lengths could be substantial as set out in the scale thresholds provided in appendix 10, table 5. The maximum block sizes needs further consideration as this could result in a relentless frontage of built form that could, if applied across this and other development zones, significantly alter the fine grain character proposed within the indicative masterplan layout. This principle of maximum block lengths and widths, therefore, applies across all the development zones and is discussed later in the design section of this report.

75 The refurbishment of Claremont Park is supported. The treatment of the boundary between the existing terraced dwellings (Clitterhouse Crescent) that back onto the Claremont Park need careful consideration. This relationship, where the backs of existing properties meet either new or existing and refurbished open spaces is a consistent theme within the masterplan and an inherent design problem leading to lack of natural surveillance of public open spaces. The design team will need to ensure that the parameters and guidance within the design and access statement and design guidelines sufficiently addresses this relationship and appropriate solutions are illustrated to inform the reserved matters applications.

Eastern Lands (parameter plan 021)

76 The Eastern Lands forms the nearest part of the regeneration area to Brent Cross London Underground Station. A mix of uses is proposed in this zone. Ground floor uses will comprise a mix of residential, predominantly overlooking the new park, with non-residential uses along the spine road and facing the A406. A new food store and the new Whitefields School will be provided along the Market Quarter boundary. The zone also includes the new Mapledown School and primary Health Care Facility and leisure centre. Upper levels will be predominantly residential use.

77 Minimum frontage heights will be between 6-12 metres with maximum frontage heights set at between 12-65 metres. A new mixed-use spine road will link the new A41 pedestrian bridge from Brent Cross Underground Station to the Market Quarter. A further pedestrian footbridge will link the Eastern Lands to Brent Cross East, over the A406.

78 The indicative layout shown illustrates how new perimeter blocks will be formed incorporating the backs of existing dwellings outside the regeneration area. This approach is welcomed and will avoid dead, un-surveyed spaces, which can give rise to crime and antisocial behaviour. This design approach is consistent with good urban design practice and is clearly set out in section A3.3 of the design and access statement and will help to inform the reserved matters detail, and illustrates a solutions to the problems raised elsewhere within the masterplan, such as the Claremont Park relationship.

79 The new Eastern Park forms the key piece of public realm within the Eastern Lands. The spine link cuts through the park allowing natural footfall into this new space. The re-provided Whitefields Secondary school will be located to the west of the zone with the School benefiting from the close proximity to Clitterhouse playing fields to the south and the new sports pitches.

80 The mix of uses and indicative layout are broadly supported. The transition of scale of built form is important within this zone given the zone will link directly to adjacent lower scale residential properties to the south. The relationship has been reasonably well considered as set out in parameter plan 007 and 008 which is consistent with the principles of height and massing set out in A2.4.1 within the design and access statement and the principles identified within London Plan policy 4B.1. Further discussion regarding maximum block length and widths is required to maintain a fine grain across the building zone.

Station Quarter (parameter plan 022)

81 The Station Quarter will be the new commercial hub for the regeneration area. This will include approximately 370,000 sq.m. of office space and around 17,000 new employees. The predominant uses within the zone will be business and employment with some retail and commercial at ground floor and some residential at upper levels. The built form will be at its tallest within this zone. Minimum building frontage heights will range between 4 - 30 metres with the maximum frontage heights up to 100 metres. As such, tall buildings will be contained within this zone. The nature of this zone will ultimately be the focus of business activity in close proximity to the mainline railway station and new transport interchange at Station Square.

82 The appropriateness of including tall buildings within this zone is supported given the level of public transport accessibility will be at its highest and tall buildings are illustrated as being in this location within the planning framework. The transition of scale has been mapped within parameter plans 007 and 008 and responds well to the principles with the design and access statement regarding appropriate scale given the surrounding context. Having regard to the proximity of Station Quarter to the surrounding suburban fabric tall buildings are appropriate within this zone.

83 The indicative layout is structured around three key areas of public realm. The Station Square, Tower Square and the Office District Park. The Station Square forms the key focus of the zone, with priority being given to pedestrians making the transition from rail to bus or those pedestrians moving further into the new town centre. Further detail is set out in the design guidelines for the layouts to the Station Square and the District Park. The layouts proposed and parameters therein are supported; the principle of scale of the built form, including the maximum block lengths and widths in this zone is also broadly supported.

Brent Terrace (parameter plan 023)

84 Brent Terrace development zone forms the southern part of the regeneration area between Station Square and Millennium Green and comprises land between the Midland Mainline Railway and the existing row of railway cottages (Brent Terrace). The centrepiece of this zone will be the new Brent Terrace Linear Park. The predominant use within the zone will be residential. Other non-residential uses may be permitted facing onto the railway line and space for community use is proposed at the new Clitterhouse Primary School.

85 In terms of the scale of the built form, minimum frontage heights will be between 6 - 12 metres with the maximum frontage heights up to 65 metres (facing the railway). The new linear park will be approximately 700 metres in length and provide the transition between new and existing residential elements. The park will act as a key buffer in terms of scale of new buildings proposed along the railway line. The scale set out in Parameter Plan 007 and 008 is acceptable in the context of the existing features of the zone, specifically, Brent Terrace railway cottages, provided adequate buffer is retained in the form of Brent Terrace Linear Park.

86 The infilling of the triangle plots of land to the east of Brent Terrace is supported. These areas are somewhat secluded at present and are poorly surveyed against the rear of Clitterhouse Crescent. New residential units will create a new street relationship with Brent Terrace that helps to knit the existing residential properties into the masterplan.

87 The new Midland Mainline bridge is a further key feature of the zone and will be accessible from the new southern spine road that links up to the Station Square. Millennium Green will be retained and enhanced with new residential blocks linking this part of the regeneration area to the existing neighbourhoods around Claremont Road. The approach to block layouts, lengths and widths requires further discussion, however the scale of the built form has given reasonable consideration to the existing context and is broadly supported.

Cricklewood Lane (parameter plan 024)

88 Cricklewood Lane development zone forms the smallest of the development zones and will include a refurbished Cricklewood Station and urban form repair to the high street along Cricklewood Lane by filling the gap between the existing B&Q site. In terms of scale, buildings will be set to minimum frontage height of 6 metres and maximum frontage height of 16 metres. This seems reasonable given the context of the existing High Street. Land uses will include mix of commercial at ground floor, a new heath drop in centre with residential at upper levels. Improvements to the station layouts shown in the indicative Parameter Plan are supported. The transition of scale is also appropriate in the context of this zone, particularly given the scale of the existing B&Q site. The approach to block layouts, maximum block lengths and widths requires further discussion to ensure the fine grain across the masterplan is not lost.

Railway Lands (parameter plan 025)

89 The Railway Lands development zone bookends the regeneration area to the west and will provide the new waste handling facility and the new rail freight facility as well as the southern landing point for the new Midland Mainline Bridge linking to Brent Terrace. The character of the zone is defined by its predominant land use and the existing context of the Edgware Road. As such, uses will not include residential in this zone, although some residential uses exist beyond the boundaries of the regeneration area. The scale of development will range from 16 –65 metres in terms of minimum and maximum building frontage heights, with some smaller business units fronting the southern elevation of the freight facility to retain continuity along Edgware Road.

90 Parameter Plan 018 provides further detail on the waste and freight facilities illustrating approximate building footprints and circulation routes amongst other matters. The principles of fine grain represented across the other development zones has not been used in this instance given the nature and scale of uses proposed within the zone. This is acceptable given permeability of these plots could compromise the proposed land use functions. The overall approach is supported in design terms.

Clitterhouse Playing Fields (parameter plan 026)

91 Clitterhouse Playing Fields comprise an existing substantial area of open space that will be refurbished to provide new all weather sports pitches, new community play facility and a complete restructure to the layout and organisation of pitches. Pedestrian and cycle routes will also become more structured through the new design that will delineate various areas of the park. A new park pavilion will be located at the centre of the park with a central square. Other than the central pavilion, there will be no new buildings erected on the playing fields.

92 The restructuring of Clitterhouse playing fields is supported, new layouts and pitches will provide a significant improvement to this underutilised area of open space. The layout will help to realise the full potential of this space as a community and borough facility. The design team should consider carefully how the treatment of the boundary between the existing park and the rear of properties on Grampian Gardens and Cotswold Gardens would be treated. Similar to the boundary treatment in Claremont Park, the lack of natural surveillance at this point is an inherent problem. Links beyond the playing field at the southwest corner as shown on Parameter plan 026 are not clear and require further explanation.

Brent Cross East

93 Brent Cross East will form the new core of the retail for the new town centre and forms the extension of the existing shopping centre. The existing shopping centre is detached from the rest of the regeneration area by the A406. A mix of uses will be delivered including the majority of the

new retail comparison floor space, hotel and leisure and residential uses at upper levels. Car parking is currently at surface level, and will be consolidated to underground and multi storey parking. The scale of new buildings will range from between 5 and 22 metres as the minimum frontage heights to between 6 and 65 metres as the maximum frontage height.

94 The transition of scale is well considered in this instance. The broad layout shown in the Parameter plan is supported and again represents the finer grain approach to block scale. The approach to maximum block lengths and widths requires further discussion, as whilst those on the illustrative plan are supported, other more substantial frontages would be inappropriate.

95 The new Brent Cross Square and high street will be key focal points for visitors and the re-alignment of the River Brent provides a new feature for the new south facing retail courtyards. As with similar comments made above, improvement to Sturgess Park are welcome, however, it will be important to ensure the boundary treatment between the park and the backs of properties on Sturgess Avenue are carefully considered and appropriate solutions illustrated to inform the reserved matters applications.

Bus Station

96 The new bus station is proposed to be located within this zone, south of its current location. The new bus station location is broadly consistent with the indicative location identified within the Planning Framework. TfL has raised serious concerns regarding the new location (see appendix 1, paragraph 69 - 71). In design terms the location of the new bus station is generally appropriate given the nature of use and the nature of the A406, both likely to be poor environments in terms of air quality. Provided appropriate links to the bus station are secured regarding pedestrian access from Templehof Bridge and from the new bus station to high street north, the approach in design terms is acceptable and broadly consistent with the location identified in the framework. Further detailed discussion may be required given the nature of the concerns raised by TfL.

Brent Cross West

97 Brent Cross West abuts the M1 slip road and the A406 and is currently used as surface car parking. The River Brent forms the key existing feature of the zone and will be realigned to create the Brent Riverside Park.

98 Predominant uses within the zone will be residential with the scale of development ranging from 6 - 20 metres as the minimum frontage height, and from 12 - 65 metres as the maximum frontage height. The transition of scale is key in this location given the existing residential properties that back onto the River Brent from Brent Park Road. The parameter plan shows a broadly acceptable indicative layout that buffers the slip road and creates internal courtyard block arrangement, providing protection from the strategic road network by framing the site. Other layouts within the parameters set would also achieve an acceptable relationship to both the existing properties and the slip road. The courtyard, sheltered approach to the residential block is likely to be the only acceptable solution in achieving residential development at such close proximity to the slip road.

Tall Buildings

99 London Plan Policy 4B.9 Tall buildings – location, seeks the development of tall buildings where they, amongst others, create attractive landmarks, provide coherent location for economic clusters, act as a catalyst for regeneration and are acceptable in terms of design and the impact on

their surroundings. Policy 4B.10 Large-scale buildings – design and impact, requires all large scale buildings, including tall buildings to be of the highest quality design, in particular, being suited to their context, attractive, demonstrate sustainable design and construction methods, sensitive to micro climates (wind, sun, reflection and overshadowing), be safe, provide high quality spaces with a mix of uses and give consideration for transport requirements.

100 Tall buildings are proposed within and around the Station Quarter and Market Quarter development zones. These represent the most appropriate locations for tall buildings in the context of the master plan having regard to existing context and the broad locations identified within the Planning Framework. The parameter plans will secure the appropriate locations based on building heights. A similar approach was taken at Stratford City to identify locations for tall buildings within a parameter plan. Given the scale of development and timescale of phasing, whilst detailed applications would usually be required for tall buildings, CABE and English Heritage guidance recognises exceptions where there are large masterplan schemes. Individual tall buildings would be subject to the submission of full design details, which will be required to comply with the guidelines and component pallets, set out in the submitted documents. This will ensure a high architectural quality consistent with London Plan policy 4B.9 and 4B.10.

Design guidelines

101 The design guidelines intend to explain how the proposals provide a framework within which architectural diversity and quality can thrive, while priority is given to the public realm and an integrated urban grain. The guidelines address two detailed principle elements, building frontages and public realm. A worked example is also provided within the design and access statement, which illustrates a typical flat layout for a family maisonette. Whilst this is welcome, it may be insufficient to help inform future reserved matters applications and therefore further examples are requested.

102 A number of precedent boards are set out within the guidelines showing component pallets for landscaping, public realm and building frontages. A high quality finish is illustrated throughout the component palettes. The worked example illustrates how a typical plot could evolve and how the parameters and design guidelines in place allow a certain element of flexibility whilst informing high quality design solutions, consistent with London Plan design policies objectives.

Points of clarification

103 Whilst the masterplan and design guidelines are strongly supported, there are some elements that need further clarification.

- Block sizes- maximum and minimum: The following zones include significant maximum block length frontages and require further discussion:
 - Brent Cross East zone Max length 155 metres.
 - Brent Cross West zone Max length 170 metres.
 - Market Quarter zone Max length 178 metres.
 - Eastern Lands zone Max length 160 metres.
 - Brent Terrace zone Max length 146 metres.
 - Cricklewood Lane zone max length 165 metres.

- Limits of deviation for the locations of open space (discussed in the open space section).
- Treatment where the rear of existing properties backs onto open space.
- Further illustrative flat layout examples to inform the reserved matters applications.

Summary of development zones

104 Each development zone has a discrete character that is present within the indicative Parameter Plan layouts. This is controlled by the other Parameter Plans, which illustrate minimum and maximum frontage heights and land uses amongst other matters. Each key open space will also define the particular character of the development zone, all of which vary in scale, use and structure. The well established and successful use of perimeter blocks, and central courtyards, linear blocks and terraces with a generous mix of open and amenity space all provide a high quality masterplan. Provided block lengths and widths can be appropriately restricted the approach is broadly consistent with design policies set out in the London Plan

Design summary

105 The overall masterplan is strongly supported. There are some minor elements within the limits of deviation that need further consideration or testing regarding open space locations, and maximum and minimum block lengths and widths and illustrative flat layouts. Subject to these points and if the design guidelines, Parameter Plans and principles set out in the design and access statement are implemented and enforced correctly, the proposal will result in a high quality development consistent with London Plan policy 4B.1.

Inclusive access

106 London Plan Policy 4B.5 'Creating an inclusive environment' states: "Design and access statements should be submitted with *development proposals explaining how the principles of inclusive design, including the specific needs of disabled people, have been integrated into the proposed development, and how inclusion will be maintained and managed*". The policy further underpins that "the Mayor will require all future development to meet the highest standards of accessibility and inclusion... so that development:

- *can be used safely, easily and with dignity by all regardless of disability, age, gender, ethnicity or financial circumstances,*
- *are convenient and welcoming with no disabling barriers, so everyone can use them independently without undue effort, separation or special treatment,*
- *are flexible and responsive taking account of what different people say they need and want, so people can use them in different ways,*
- *are realistic, offering more than one solution to help balance everyone's needs, recognising that one solution may not work for all."*

107 The level of detail provided within the design and access statement provides the overarching and broad commitments to achieving an inclusive environment across the masterplan area. Should planning permission be granted the section 106 agreement should incorporate the following requirements with regard to achieving an inclusive development following similar approaches adopted for the Stratford City development.

- An Access Strategy is developed for Brent Cross Cricklewood and submitted to the local planning authority for approval, which sets out the vision and establishes appropriate

mechanisms and inclusive access design standards for ensuring inclusive design is integrated into the regeneration which designers abide by.

- An access statement is submitted for each of the reserved matters applications for approval by the local planning authority, which is based on and reflects the vision and mechanisms set out in the approved Access Strategy.
- An independent Brent Cross Cricklewood Consultative Access Forum is set up by the applicant for the applicant to consult with and take advice from. Other strategic access forums could be used as a role model, e.g. ODA BEAP, SCCAG, Brent Access Forum. Clear terms of reference for the group should be established at the outset and set out in the section 106 agreement, including details of the size and membership of the group; payment of members (expenses and time as appropriate); timing, protocols and locations of meetings amongst other matters. Members should consist of people with expertise in inclusive access and personal experience of disability issues drawn from the local and regional community including existing users of the local area and other facilities surrounding facilities. The function of the group should be to:
 - Help develop the access strategy – the group should be consulted and their comments incorporated into the strategy prior to its submission for approval to the local planning authority.
 - Comment on the proposed inclusive access standards that will guide the detailed design prior to their submission for approval to the local planning authority.
 - Help ensure that designers, project managers and others involved in the project to regenerate Brent Cross have a thorough understanding of, and a commitment to, inclusive design principles and how to achieve the highest standards of accessibility, and to disability equality and working with disabled people throughout the design process.
 - Work with the designers at each stage of the detailed design process, prior to the submission of any reserved matters applications.
 - Submit independent comments to the local planning authority on the access statement and detailed design of each appropriate reserved matters application.
- Undertake an access audit of Brent Cross in conjunction with the consultative access forum and identify and agree recommendations for improvement. Use the results of the audit to inform the development of the access strategy and the detailed design.
- Undertake an assessment of accessible public and private transport provision including blue badge parking and pedestrian routes from surrounding streets into the regeneration area and use the results to inform the detailed design.
- The travel plans and parking management plans should make specific reference to how the needs of older and disabled people are addressed and integrated into the proposals (including the initial provision of blue badge parking bays, their enforcement, and monitoring future supply and demand).
- Undertake a feasibility study into the development of a Clitterhouse playing fields Mobility Scheme.

- Prepare and submit for approval to the local planning authority a accessible wayfinding, information and interpretation strategy for visitors to the area and users of the sporting and other facilities.

108 GLA officers would welcome further discussion on the opportunities from the Brent Cross Cricklewood Consultative Access Forum to ensure the application guarantees implementation of the Mayor’s policy to meet the highest standards of accessibility and inclusion (Policy 4B.5, outlined in more detail in the Supplementary Planning Guidance to the London Plan ‘Accessible London: achieving an inclusive environment’ published in April 2004) and that the principles of inclusive design are fully integrated and implemented in all the detailed work that will follow through reserved matters applications. The commitment to provide 100% lifetime homes and 10% wheelchair homes is supported and should be secured by condition by Barnet Council.

Open space, public realm and children’s play space

109 The London plan makes consistent reference to the protection and enhancement of London’s open spaces. Paragraph 3.262 states that “*London’s distinctive network of open spaces, from the green belt to local play spaces should be strongly protected, made more accessible and enhanced*”. Detailed polices to underpin this aspiration are set out throughout the plan but in particular in Chapter 3D. Specific policies include Policy 3D.8 ‘realising the value of open space and green infrastructure’ and Policy 3D.13 ‘Children and young people’s play and recreation strategies’. The latter is supplemented by the GLA SPG ‘Providing for children and young people’s play and informal recreation’ March 2008.

110 Other policies within the plan seek the highest standards in terms of public realm. These polices are set out in Chapter 3C and 4B of the plan, in particular 3C.1 ‘Integrating transport and development’, 3C.18 ‘Allocation of street space, 3C.19 ‘Local transport and public realm enhancements’, 4B.1 ‘Design Principles for a compact City’ and 4B.3 ‘Enhancing the quality of public realm’.

Public realm and open space strategy

111 The design and access statement sets the aspiration of knitting together new and existing communities, development parcels and infrastructure to provide a network of new and existing parks, gardens, streets and squares that will constitute a diverse new public realm for Brent Cross.

112 The scheme proposes a series of new parks and garden spaces with existing open spaces being refurbished. The scope of the application area currently offers seven existing areas of open space, providing a total of 25.23 hectares. The masterplan provides 5 new areas of open space and ten new civic spaces providing a total of 33.76 hectares.

113 The public realm and open space strategy draws on the London Plan public open space hierarchy set out in Table 3D.1 of the London Plan. A three tier approach is set out for the proposed development based on large open spaces, medium sized open spaces and small open spaces. Parameter Plan 003 further defines each space type and is read in conjunction with table 5 of the Open Space Strategy. This identifies the following network of open spaces and new public realm that will be created:

Table 3 Network of open spaces (source: information taken from public realm and open space strategy).

type of space	location in masterplan	size (Ha)	facilities
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Large Open Spaces			
<i>Community Park</i>	Clitterhouse Playing fields	15.2	sport play community facilities habitat gardens parking
Medium Open Spaces			
<i>Neighbourhood Parks</i>	Eastern Park Claremont Park Brent Terrace Park Surgess Park	1.2-2	play sport recreation
<i>Riverside Park</i>	Brent Riverside Park	2.7	informal recreation habitat
Small Open Spaces			
<i>Cite Gardens</i>	Millennium Green Office District Park	0.2-0.5	informal play recreation
<i>Nature Parks</i>	River Brent Nature Park Clitterhouse Stream Nature Park Northern Nature Park Railway Lands Nature Park	0.2-0.5	nature trails habitat informal recreation education
<i>Main Squares</i>	Station Square Market Square Brent Cross Main Square	0.3-0.6	event space art instillations café pavillions public facilities planting
<i>Squares</i>	Community Square Tower Square School Square Whitefield Square Gas Govenor Square Brent Cross LUL Station Square Cricklewood Station Square	0.05-0.3	art installation planting

114 These spaces will contain a variety of facilities for play leisure and sport for visitors and residents, while also being utilised by local schools.

115 As set out in the design and access statement the nature of the proposals as an outline application has led to the production of Parameter Plans that will illustrate the broad limits of deviation for key elements of the planning permission. A Parameter Plan has been included regarding public realm and open space. The Parameter Plan specifically defines the following aspects.

- The principal circulation corridors for pedestrians and cyclists
- The approximate locations of:
 - secondary and tertiary routes for pedestrians and cyclists.
 - managed pedestrian and cyclist routes.
- The network of open space and public realm and minimum areas for each.
- Key building frontages.

116 The Parameter Plan is consistent with the rationale within the design and access statement to deliver a key piece of public realm within each district or development zone. This approach is strongly supported.

Delivery

117 London Plan policy 3D.8 seeks to protect and improve access to London's network of open spaces. The strategy will, in principle, achieve this aspiration. Whilst the overall provision and supported within the masterplan, further discussion regarding the parameters of deviation and location need to be established to provide a reasonable level of comfort to the GLA regarding delivery of each open space/public realm area within a specific development zone.

118 In particular whilst table 3 above identifies proposed delivery of a mix of new open spaces, the broad location do not appear to be fixed within the Parameter Plan. The opportunity for some of these open spaces to disappear from the master plan is therefore not currently controlled.

119 Each of the areas of open space has been coded within the public realm and open space strategy. This includes a reasonable level of detail showing size, indicative layout and landscaping options. The strategy could include zones of deviation, in broad terms to allow the principle of the open space to be secured within the relevant development zone, whilst still ensuring some level of certainty regarding approximate location.

Play space

120 The GLA SPG Providing for children and young people's play and informal recreation seeks that new developments should provide a range of play space opportunities to cater for a range of children of all ages based on the expected child occupancy levels. The scale of development and

regeneration for the masterplan will provide facilities for new and existing children within the regeneration area as well as visitors to the new Town Centre.

121 Three play space typologies are proposed:

- Doorstep play: Informal play areas with setting that encourages and stimulate play (communal courtyards and public realm).
- Neighbourhood play space: Play spaces provided to complement neighbourhood park provision. Provision will be made for both formal and informal play activities including play equipment sports facilities and social spaces. (Claremont Park, Eastern Park, Sturgess Park and Brent Terrace Park).
- Community play space: A destination play area to be included within Clitterhouse playing fields. Provision will be made for both formal and informal play activities including play equipment, sports facilities and social spaces. Water and adventure play areas will also be included. (Clitterhouse playing fields).

122 Child occupancy levels will depend on the mix of market and affordable housing eventually agreed and delivered. Flexibility is likely to be built in to assess the quantum of affordable housing as the build out programme proceeds. Based on the current housing strategy and delivery of units set out in table 2 of this report, the expected child occupancy levels will be as follows:

Under 5 year olds	1,089
5 – 11 year olds	1,199
12 – 16 year olds	716
Total	3,004

123 The SPG provides guidance that a benchmark standard of 10 sq.m. per child should be applied to establish the quantitative requirements for play space provision arising from new developments in the area. This would generate a need for approximately 30,000 sq.m. of open recreation space. This target is comfortably met across the masterplan area by access to a range of spaces as set out in the open space section of this report.

124 To ensure that appropriate play space is provided consistently on development plots, the Council should consider a condition that reserved matters applications provide on-site play space (doorstep play) for the under 5 age group, where feasible.

Private amenity space

125 The residential element of the proposal will comprise approximately 7,500 units, a mix of houses and apartments. A mix of balconies, terraces, communal courtyards and private gardens will be delivered using the following guidelines:

Table 4 Access to private amenity space (source: public realm and open space strategy).

Housing type	Amenity: minimum size	Type of space
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Houses		
3 bed house	25 sq.m.	Private garden, balcony or terrace
4 bed house	40 sq.m.	Private garden, balcony or terrace
Apartments		
1 and 2 bed (ground floor)	5 sq.m.	Private terrace minimum 1.5m deep separate from communal courtyard
1 and 2 bed (upper levels)	5 sq.m.	Communal courtyard, terrace or balcony minimum 1.5m deep Private terrace minimum 1.5m deep separate from communal courtyard
3 and 4 bed (ground floor)	14 sq.m.	Private terrace minimum 1.5m deep separate from communal courtyard
3 and 4 bed (upper levels)	8 sq.m.	Terrace or balcony minimum 1.5m deep

126 The guidance will inform the reserved matters applications to ensure that as residential blocks come forward for development each flat will benefit from direct access to either communal or private amenity space, consistent with the objectives of London Plan policy 4B.1.

Social infrastructure

127 London Plan policy 3A.18 *Protection and enhancement of social infrastructure and community facilities* states that adequate provision for social infrastructure and community facilities is particularly important in major areas of new development and regeneration. Policies 3A.21 *Locations for healthcare* and 3A.24 *Education facilities* are also relevant.

128 The application includes a package of social infrastructure provision including new facilities and improvements to existing facilities. The demand arising from the proposed development has been calculated on the basis of population projections and the need to provide new facilities has been assessed in relation to spare capacity in existing facilities.

129 The application seeks to provide, as a minimum, additional facilities identified as being necessary to mitigate the impact of the development. This approach is consistent with the provisions of circular 05/2005 *Planning obligations*. The methodology used to assess the need for new social infrastructure provision arising from the proposed 7,500 new homes is generally sound. It identifies a need for:

- Pre-school provision for up to 130 to 180 full time places.
- 700 to 950 primary school places, with an additional 100 from West Hendon.
- Around 354 to 507 secondary places, plus 120 to 160 sixth form places, although the net figure could be significantly lower.
- An eight-GP surgery and upto fourteen additional primary care staff (including mental health services, and five adult social services staff).
- A 400 sq.m. library facility.
- Safer Neighbourhood provision for the Metropolitan Police.

- Other community provision providing a range of room types, which can be used for general community use, faith provision, access to information technology, and arts and cultural uses. This has the potential to be co-located with the facilities described above and/or through multi-functional space.
- A UK Online centre, probably co-located with another facility.

130 The delivery of new social infrastructure provision will be primarily driven by the development of new residential units. The submitted social infrastructure strategy estimates that there is sufficient capacity within schools to accommodate demand arising from the primary development package (PDP). Post-primary development package, delivery of new facilities will be determined by a series of development triggers related to the development of new residential units and other elements of the scheme.

131 The redevelopment of the Eastern Lands development zone includes relocation and re-provision of three facilities currently located there. These are Whitefield secondary school, Mapledown school and Hendon leisure centre. All three facilities will be re-provided as part of a community campus together with a new primary care facility and, subject to a future needs assessment, a new children's centre. Clarification is sought as to the applicants' intentions in relation to the new primary care centre, which the development specification and framework states will be located in either the Eastern Lands, Market Quarter, Station Quarter or Brent Terrace, hence contradicting the aspiration to co-locate this facility with others as part of the community campus in the Eastern Lands.

132 Timing of delivery of the new leisure centre, which will provide as a minimum the current level of facilities, will be dependent on redevelopment of its existing site. In order to ensure continuity of provision for current and future users, planning conditions will prevent closure of the existing centre until such time as the new centre is ready to open.

133 In addition to the above, improvement and expansion of the existing Claremont primary school in Brent Terrace will be provided in the form of a section 106 financial contribution. Other new facilities are proposed to be located at the heart of the new town centre in the Brent Cross East and Market Quarter development zones, including 1,500 square metres of multi use community floorspace to be provided as part of the PDP. The remaining facilities, including two new safer neighbourhood units and a new library, are located to ensure a broad geographical dispersion, including in the Station Quarter, Brent Terrace and Cricklewood Lane development zones.

134 Social infrastructure provision by size and zone is as follows:

Table 5 Social infrastructure provision by size and zone (source: Social Infrastructure Strategy).

Use	Size	Zone
Pre-School, Education & Learning		
Claremont School		Brent Terrace
Children's Centre	558 sqm	Eastern Lands
Non-Statutory Pre-School (1)	232 sqm	Eastern Lands
Whitefield School		Eastern Lands
Library and UK Online Centre	400 sqm	Eastern Lands
Mapledown School		Eastern Lands
Non-Statutory Pre-School (2)	232 sqm	Brent Terrace
Non-Statutory Pre-School (3)	232 sqm	Station Quarter
Health		
Primary Care Centre (incl. Social Services)	Up to 3,000 sqm	Eastern Lands
GP Surgery/ Drop In Centre	Up to 1,150 sqm	Cricklewood Lane
Temporary GP Surgery	Up to 300 sqm	Market Square
Community & Other		
Multi-Use Community	1,000 sqm	Market Square
Multi-Use Community	1,000 sqm	Eastern Lands
Multi-Use (Training)	500 sqm	Brent Cross East
Leisure (Replacement)	2,800 sqm	Eastern Lands
Police Unit 1	75 sqm	Market Square
Police Unit 2	75 sqm	Brent Cross East

135 The proposed approach to social infrastructure provision is acceptable in relation to London Plan policy. The robustness of the development triggers will, however, be key to timely delivery of the new facilities. The Council should be satisfied that the overall package of provision is adequate and that timing of delivery is appropriately related to local need arising from the new residential units.

Climate change mitigation

136 The London Plan requires developments to make the fullest contribution to the mitigation of, and adaptation to, climate change and to minimise carbon dioxide emissions (Policy 4A.1).

137 Policies 4A.2 to 4A.8 of the London Plan focus on how to mitigate climate change, and the carbon reduction targets that are necessary across London to achieve this. Developments are required to be adaptable to the climate they will face over their lifetime and address the five principles set out in policy 4A.9 of the London Plan.

Energy

138 The London Plan energy policy objectives are to support the GLA's Energy Strategy to reduce carbon dioxide emissions, improve energy efficiency and increase the proportion of energy generated from renewable sources. New developments are required to include energy efficient design measures and energy efficient and renewable energy technologies wherever feasible.

139 Major developments should provide an assessment of energy demand and demonstrate the steps taken to apply the energy hierarchy set out in London Plan policy 4A.1 which include 'Using less energy (policy 4A.3)', 'Supply energy efficiently (policy 4A.6)' and 'Using renewable energy (policy 4A.7)'.

140 A key factor in the assessment of policy 4A.1 is the extent to which major commercial and residential schemes have demonstrated that the proposed heating and cooling systems have been selected in accordance with the preference set out in policy 4A.6, specifically in the following order:

- Connection to existing CCHP/CHP distribution networks.
- Site-wide CCHP/CHP powered by renewable energy.
- Gas-fired CCHP/CHP or hydrogen fuel cells, both accompanied by renewables.
- Communal heating and cooling fuelled by renewable sources of energy.
- Gas fired communal heating and cooling.

141 Major developments should show how the development would generate a proportion of the site's electricity or heat needs from renewables with a target of 20% reduction in carbon emissions, wherever feasible (policy 4A.7).

Baseline emissions and energy efficiency (Be lean: policy 4A.4)

142 London Plan policy 4A.3 seeks that borough's *"ensure future development meets the highest standard of sustainable design and construction."* The buildings have not been modeled with building regulations approved compliance software, neither for the dwellings or the non-domestic buildings. Instead, benchmark figures have been used to establish baseline emissions.

143 For detailed planning applications a sample of example dwellings for the scheme is normally modeled using SAP 2005 and estimates of the non-building regulations energy use is also provided. The nature, scale and timeframe for the hybrid application are important factors in the appropriateness of modeling work in such cases. The masterplan will be phased across a substantial timeframe up to 2026. As such it would be more appropriate for the applicant to make phased commitments or an overarching commitment to exceed building regulations requirements at the time of the relevant submission of the reserved matters application.

144 In the current strategy energy efficiency measures are considered in detail and a commitment is indirectly made within the fallback solution relating to the fuel source for the combined heat and power plant. In this scenario, should the applicant fail to negotiate supply of refuse derived fuel for the combined heat and power plant a fall back strategy is proposed which seeks to provide 20% carbon reduction of which 10% would be renewable and 10% through energy efficiency measures.

145 The merits of the back up strategy are discussed further below, however this type of commitment should be brought forward as a general commitment, albeit not necessarily as a percentage figure, rather endeavors to exceed in terms of energy efficiency in accordance with policy 4A.3. The section 106 agreement can be used as the appropriate mechanism to secure this type of commitment that would be relayed down through to the detailed design at reserved matters stages. This type of approach has been agreed with other similar scale developments including Heathrow and Barking Riverside. GLA officers would welcome further discussion on this matter and will look to agree a commitment to exceed building regulations as each reserved matters application stage.

Combined heat and power and communal heating network (Be clean: policy 4A.5 and 4A.6)

146 London Plan policy 4A.6 states that the Mayor will expect all major developments to demonstrate that the proposed heating and cooling systems have been selected in accordance with the hierarchy identified in Policy 4A.6, as set out in paragraph 140 above.

Heating infrastructure:

147 The development is suited to communal heating and there appears to be a willingness to install district heating for the residential and commercial buildings on the development.

148 Whilst this is the case, there is limited consideration of how the district heating will evolve in relation to the phasing of the development which, given the scale of development proposed, is essential to understand. Two options are considered in very high level terms. First, district heating linking the residential and hotels and, second, district heating (and cooling) linking the residential, hotels and offices.

149 It is vital that commitments to district heating are secured within the section 106 agreement and that these are clearly related to the trigger points for the development where appropriate. An analysis demonstrating how the district heating could potentially evolve in relation to the primary development package and triggers needs to be provided. This needs to demonstrate how, over time, the networks will be linked into a site wide network and the number of energy centres minimised.

Combined heat and power

150 Given the significant size, type and nature of the buildings within the development, the proposal is suitable for combined heat and power in principle. Combined heat and power has been considered for the development, although uncertainty remains as to the sizing and fuel source of the plant. For example, at one end of the scale a large multi-megawatt centrally located combined heat and power unit is considered and at the other end a 50kWe combined heat and power unit is investigated for a single plot in the primary development package. As described above a clear understanding of the phasing options for the energy strategy needs to be established.

151 In relation to fuel source for the combined heat and power plant, the applicants preferred plan is to use syngas produced from the waste handling facility that is planned to be located on the site. However, this is subject to approval from third parties, specifically North London Waste Authority. Therefore, the contingency strategy is to use conventional natural gas fuelled combined heat and power.

152 The commitment should be secured to deliver large scale combined heat and power serving the whole development. Multiple small combined heat and power units of equivalent total capacity will not achieve the same carbon reductions.

Renewable energy technologies (policy 4A.7)

153 London Plan policy 4A.7 requires development to achieve a reduction in carbon dioxide emissions of 20% from using on site renewable energy generation.

154 The renewable contribution for this scheme is envisaged to come from the use of syngas (a synthetic gas produced from waste) within the combined heat and power plant. If all technical constraints can be overcome (e.g. ensuring the quality and quantity of the gas produced), this potentially presents itself as an innovative use of renewable energy at the kind of scale that is likely

to prove sustainable over the long term. The total carbon savings from such as system could be as high as 50-60%, significantly surpassing the 20% policy requirement.

155 If the applicants are, however, forced to revert to using natural gas in the combined heat and power plant, the renewable energy contribution will need to be achieved via a different route. A range of possible renewable technologies are discussed in the report however no commitment is given to the use of any technology or combination of technologies. The strategy as proposed is to consider the detail at a later stage in the development process. At this stage, a commitment is given to achieving a 20% carbon reduction, 10% through the use of renewable energy and 10% from energy efficiency measures.

156 Accounting for the possibility where the generation and use of syngas is not available, further site-specific consideration of the potential contribution from renewable energy needs to be undertaken to meet the 20% target set out in London Plan policy 4A.7.

Section 106 and delivery:

157 As discussed above, it is crucial that adequate section 106 clauses are negotiated in order to ensure that the installation of the district heating infrastructure is tied in to either the trigger points, where appropriate, or an appropriate phased mechanism for the development.

158 To ensure delivery of the agreed strategy the applicant should consider the possibility of establishing a specific energy panel. A similar approach was introduced by the GLA during negotiations on the Barking Riverside planning application. The terms of reference for the panel are set out in the section 106 agreement for Barking Riverside and includes a representative from the GLA. Barnet Council should also be invited to any such panel. The panel is intended to assist in the delivery or selection of an energy provider if required, and in the formulation of an energy implementation plan, which will realise agreed carbon reduction targets and commitments made at this outline stage.

Summary

159 The applicants have applied the energy hierarchy in broad terms. A range of demand reduction measures are highlighted, however the extent to which this will enable Building Regulations 2006 to be exceeded is not clear and therefore a specific commitment to exceed building regulations is being sought by the GLA.

160 Although there appears to be an in principle commitment to site wide district heating, the report is not clear as to how this will be delivered. For example, it is unclear at what point the buildings in the primary development package will be connected, when the district heating networks will be linked and the plans in relation to energy centres

161 The applicants envisage installing combined heat and power plant fuelled using syngas produced from a waste handling facility that is planned to be located at the site. The renewable combined heat and power plant is claimed to reduce carbon emissions by 50 to 60%.

162 Whilst this is supported in the event that conventional fuels are used for the combined heat and power plant, commitment is given to reducing carbon dioxide emissions by 10% with renewable energy, although no technologies are specified. A full commitment to a back up energy strategy is required. The back up renewables strategy should be consistent with London Plan policy 4A.7 to meet the 20% carbon reduction target.

163 Overall, the applicant has provided information that enables the basic idea behind the energy proposals to be understood.

164 Provided commitments to site wide district heating and the minimum possible number of energy centres are agreed in the section 106 agreement, the proposals are acceptable in technical terms but subject to further information and revisions.

- Sustainable design and construction commitments need to be tied into the energy strategy. The example of minimum commitments for Barking Riverside should be considered.
- For phase 1, the applicant needs to deal with each proposed land use comprehensively in terms of how it does or does not link to any power, heating and cooling infrastructure. If there is no commitment to link it to that infrastructure then there needs to be justification.
- CHP and CCHP need to be dealt with more fundamentally in terms of the delivery strategy.
- Back up renewable energy strategy that complements the use of CHP/CCHP.

Climate Change adaptation

165 The London Plan promotes five principles in policy 4A.9 to promote and support the most effective adaptation to climate change. These are to minimise overheating and contribution to heat island effects, minimise solar gain in summer, contribute to flood risk reductions, including applying sustainable drainage principles, minimise water use and protect and enhance green infrastructure. Specific policies cover overheating, living roofs and walls and water. The applicants have committed to meeting the essential standards and some of the preferred standards set out in the GLA's sustainable design and construction SPG.

Overheating (Policy 4A.10)

166 The policy requires that developers should demonstrate how new development could be made heat resilient in terms of design, construction and operation. As set out in the energy section of this report, the detailed design and modelling of buildings has not been undertaken at this stage. A commitment to deliver energy efficient buildings is being sought by the GLA, however the design and access statement provides an illustrative block study with a model illustrating a typical family maisonette. Overheating is considered in so far as dual aspect accommodation being illustrated within the worked example. The example highlights that other individual plots will need to consider these type of design issues at reserved matters stages. A clear commitment to achieving energy efficient building including minimising overheating can be agreed and secured within either planning conditions or the section 106 agreement.

Living roofs and walls (Policy 4A.11)

167 The policy expects these to be incorporated where feasible. The sustainability strategy considers the inclusion of these and estimates approximately 10% of roof space could be used as either green roof space or as additional living/amenity space.

168 The commitment to the inclusion of green roofs is welcome. The target proposed should be set as a minimum across the regeneration area. The Council should consider a condition to include green and brown roofs and walls wherever feasible.

Flooding (Policy 4A.13) and sustainable drainage (Policy 4A.14)

169 Part of the site is within flood zone 3a and a flood risk assessment has been carried out. This demonstrates that no inappropriate uses are proposed for zone 3a and there is no requirement for any part of the development to pass the Exceptions Test of PPS25.

Surface water

170 The proposals conclude that the existing flood risk to the North Circular Road will intensify with increased depths of flood water, within a generally similar flood envelope. The Mayor wishes to see this problem reduced rather than exacerbated.

171 Thames Water has notified the GLA that there is currently a shortage of foul sewer capacity in the vicinity of the North Circular/A41 junction to the immediate east of the site. This issue is not apparent in the drainage strategy attached as part of the Flood Risk Assessment, possibly as it lies outside the boundary of the site. Thames Water and TfL have examined the issue and identified additional foul sewer storage as a potential solution. The Mayor needs to be assured that the applicant will work with Thames Water and TfL to ensure that this issue is addressed.

172 The proposals include a 45% reduction in surface water run-off from the development. A range of sustainable urban drainage systems are proposed, including green and brown roofs, detention basins, gravelled areas, swales (where appropriate), permeable paving and pipe storage. The Council should consider a condition to include appropriate sustainable urban drainage technologies where feasible across the regeneration area. The approach is supported and is consistent with London Plan Policy 4A.14.

River Brent

173 The River Brent flows through the site in a narrow concrete channel of little amenity or environmental value. The proposals include the re-alignment and remodelling of the River Brent to create an improved river corridor. These proposals are in line with Policy 4C.3 and supported by the London River Restoration Action Plan.

Water use (Policy 4A.16)

174 The policy sets a maximum water use target of 105 litres per person per day for residential dwellings. The policy seeks to maximise rainwater-harvesting opportunities and promotes the use of grey water recycling and dual potable systems. The water use strategy commits to the policy target and the use of water saving and harvesting technologies. The Council should consider appropriate conditions to ensure these are met.

Waste

175 London Plan policies 4A.21 to 4A.24 provide the strategic policy framework for the provision of waste management facilities in London. Key issues relevant to consideration of the proposed development include the development of new and emerging advanced conversion technologies for waste in preference to any increase in conventional incineration capacity and the desire to generate renewable energy and renewable hydrogen from waste (4A.21); and if, for any reason, an existing waste management site is lost to non-waste use, compensatory site provision will be required that normally meets the maximum throughput that the site could have achieved (4A.24).

176 The existing Hendon waste transfer station, operated on behalf of the North London Waste Authority (NLWA) by the Waste Recycling Group under an agreement with London Waste Limited (LWL), is proposed to be redeveloped as part of the proposals for the Brent Terrace development zone. It currently provides for the transfer of municipal waste delivered to the site by road onto rail wagons for onward disposal to landfill. This site is identified as an existing waste transfer site in the emerging North London Waste Development Plan Document (Preferred Options stage), for which Barnet Council is a member of the joint working group.

177 The application proposes a replacement waste management site to be located between Edgware Road and the Midland mainline railway, on a site currently occupied by a cash and carry store. The principle of the replacement site is acceptable in relation to London Plan policy 4A.24.

178 In terms of the collection, treatment and disposal of waste, the applicant anticipates providing a materials recycling facility (MRF) together with bulking facilities, and potentially a composting technology should demand for the compost be identified. The remaining residual waste is intended to be treated through a mechanical biological treatment (MBT) or mechanical heat treatment (MHT) technology in order to generate a refuse derived fuel (RDF) to be used in the combined heat and power plant. The applicant should ensure that the MBT or MHT produces the highest grade material possible to maintain a high calorific RDF value, thus ensuring the maximum benefit for energy production.

179 The proposal is applauded for its potential diversion of waste from landfill, with only recyclable material and ash from the proposed thermal facility to be transferred outside of London for subsequent management. Notwithstanding the strong policy support for the applicant's preferred solution, the technology finally implemented will be determined through NLWA's procurement process. It would be extremely regrettable if the final technology did not deliver the wider sustainability benefits associated with the preferred MBT or MHT technologies. NLWA has also expressed concerns about the ability of the new site to support MBT or MHT technologies capable of meeting the maximum throughput that the existing site could achieve (300,000 tonnes per annum). GLA officers would welcome further discussions with NLWA and the applicant on both of these matters, with a view to resolving these issues before the application is referred back to the Mayor at stage two.

Noise

180 London Plan policy 4A.20 *Reducing noise and enhancing soundscapes* states that the Mayor will, and boroughs should reduce noise by, among other things, "*minimising the existing and potential adverse impacts of noise on, from, within, or in the vicinity of, development proposals*" and that new noise sensitive development should be separated from major sources of noise wherever practicable. The advice contained in Planning Policy Guidance note 24 (PPG24): Planning and noise is also relevant.

181 The application site contains several major sources of noise including road traffic noise from the A406 and A41 and rail and freight noise from the Midland mainline railway. The residential parts of the proposed development will be particularly sensitive to road and rail noise and mitigation will be required as appropriate.

182 The recognition in paragraph 9.2.5 of the revised environmental statement that the scale of the proposed development presents particular opportunities for designing for an optimal noise environment is welcomed. However, it would be helpful to draw up a set of design principles, for example, a hierarchy of preferred mitigation methods for new housing where it will be subject to significant noise from existing sources – in order to ensure successful designs are achieved. The GLA would be happy to discuss such a hierarchy with the developers and Barnet.

183 The application includes proposals to facilitate resurfacing of parts of the A406 with a low noise surface. Whilst this is supported in principle, the noise reduction achieved in practice will depend on many factors, including the current surface materials and their condition. More detailed studies will be needed to confirm the actual noise reductions before these can be assumed in the design process, and it is recommended that these are secured by condition.

184 Table 9.3 of the revised environmental statement indicates that most of the new residential properties will, on a worst case scenario basis, fall within PPG24 Noise Exposure Category (NEC) 'C' or 'D'. PPG24 advises that in such cases, planning permission should normally be refused. Whilst it is not uncommon in London to grant planning permission for residential development in NEC 'D', this is normally where noise levels do not exceed the relevant thresholds by large margins, and in such circumstances, very high levels of sound insulation must be provided.

185 The application proposes to use sound insulation to protect new residential properties from unacceptable noise conditions. However, in line with London Plan policy 4A.20, it will be essential to fully explore the sort of design and layout measures referred to in paragraph 9.5.56, e.g. placing habitable rooms on quieter facades, and only to use sound insulation when design measures alone are unable to achieve acceptable noise conditions. There is sufficient flexibility in the application for these issues to be properly addressed at reserved matters stage. Where sound insulation is essential and windows need to be kept closed, the need for ventilation systems (preferably passive) should be assessed.

186 For the Brent Terrace development zone, the intention to install a noise barrier alongside the railway line (paragraph 9.5.60) is welcome. The need for a barrier alongside the new spine road beside the northern end of Brent Terrace itself should also be considered, as significant increases in noise levels appear likely due to the new road, as identified in tables 9.2 and 9.3 of the revised environmental statement. In relation to the new freight facility, the use of an acoustic screen is welcomed.

187 On a point of clarity, the noise levels specified for Brent Park Road West (Table 9.1 of the revised environmental statement) seem very low, given its position adjacent to the M1, and should be checked. Compared to the LAeq (10 minutes) of 61 dB(A) in the table, the DEFRA London Road Traffic Noise Map indicates a daytime (12 hour) LAeq of at least 72 dB(A), which is consistent with the map in Figure 9.2 ('2026 Do-minimum') of the revised environmental statement.

Biodiversity

188 London Plan policy 3D.14 states that *"the planning of new development and regeneration should have regard to nature conservation and biodiversity, and opportunities should be undertaken to achieve positive gains for conservation through the form and design of development,"* and that *"where development is proposed that would affect a site of importance for nature conservation or important species, the approach should be to seek to avoid adverse impact on the species or nature conservation value of the site, and if that is not possible, to minimise such impact and seek mitigation of any residual impacts."*

189 Two sites of importance for nature conservation (SINCs) will be affected by the proposed development. These are Clarefield Park and Clitterhouse recreation ground. Clarefield Park is proposed for development and in effect, re-location elsewhere within the regeneration zone. Clitterhouse recreation ground is to be retained and its sports facilities intensified.

190 The revised environmental statement contains a thorough ecology and nature conservation chapter, which fully investigates the existing ecology of the application site. This appears to have genuinely informed the landscape design masterplan.

191 The approach to the design of the new open spaces to include nature areas, bioswales (as part of sustainable urban drainage systems), wildflower meadows is welcomed. These measures will, in theory, more than compensate for the loss of the Clarefield Park SINC. Their success in terms of attracting and maintaining significant biodiversity value will, however, be dependent on

the quality of their construction and future management regimes. Appropriate provisions for future management should be secured in the section 106 agreement.

Air quality

192 London Plan policy 4A.19 *Improving air quality* states that the Mayor will, and boroughs should, achieve reductions in pollutant emissions and public exposure to pollution by, among other things, “*improving the integration of land use and transport policy and reducing the need to travel especially by car*” and “*ensuring at the planning application stage, that air quality is taken into account along with other material considerations and that formal air quality assessments are undertaken where appropriate, particularly in designated Air Quality Management Areas.*” Both the borough of Barnet and the neighbouring borough of Brent are designated Air Quality Management Areas.

193 A comprehensive assessment of the air quality impacts of the proposed development has been undertaken. The assessment methodology is appropriate and includes impacts from the construction and operational phases of the development, including construction dust and construction traffic emissions, emissions from the combined heat and power plant, waste handling facility, traffic and rail movements.

194 A package of mitigation measures to reduce the air quality impacts of construction activity is proposed. This is acceptable. The identified air quality impacts of the operational phase are potentially more significant, with anticipated exceedences of the annual average air quality objective at certain receptors e.g. at roadside locations, and some existing residential properties are predicted to be exposed to increased concentrations of nitrogen dioxide. Equally, some locations will experience improved air quality, such as at the A406/A5 flyover, where a significant reduction in the annual mean concentrations of nitrogen dioxide is predicted to occur.

195 Potential mitigation measures in relation to emissions from the combined heat and power plant are described. Specifically, stack height will be key; this has a greater and more significant impact on air quality concentrations at ground level than emissions from vehicles servicing the facility. Ultimately, a balance will need to be struck between visual amenity criteria and air quality considerations. The height of the CHP stack will be determined at reserved matters stage. Given the likely impact of the CHP emissions on nitrogen dioxide concentrations, the Council is urged to give ground level air quality greater priority so as to reduce the impact on nearby receptors.

196 Detailed design considerations including the orientation of individual buildings and their proximity to areas where air quality is likely to be worst, may have a significant impact on the emissions they are exposed to. Where reserved matters applications may significantly and adversely differ from those predicted in the revised environmental statement, screening will be required and further air quality assessments may be necessary.

Phasing and infrastructure triggers

197 The scale and complexity of the proposed development necessitates a long-term approach to redevelopment up to 2026. The application seeks flexibility in relation to the build out of the scheme post-PDP in order to respond to evolving market conditions. The revised Development Specification and Framework (DSF) (November 2008) and associated Parameter Plans and Design and Access Statement (and Guidelines), form the basis of the scheme for which outline planning permission is sought. The DSF specifies the principles, parameters, constraints and restrictions within which the flexible elements of the scheme are contained. The environmental impact assessment process has assessed the scheme within defined principles and parameters, with which future reserved matters applications will be required to comply, unless any proposed variations

would be unlikely to have any significant adverse environmental impacts beyond those already assessed.

Parameter Plans

198 Appendix 2 of the DSF comprises a set of 28 Parameter Plans. Each plan identifies an element, or elements of the application that will be fixed or flexible to within approved levels of deviation. Each plan is also supported by explanatory text outlining key features and relevant limits of deviation.

199 The principle of setting key parameters and agreed limits of deviation is supported. These are essential tools that will inform the detailed preparation of subsequent reserved matters applications and ensure the environmental impact has been appropriately assessed on the basis of the worst-case scenario. They will also shape the appropriate design solutions across individual development zones and identify key locations of public realm, public open space and transport infrastructure, which all form essential elements that must be fixed, to an extent, in order to provide a degree of certainty as to the permission being sought and to ensure any subsequent planning permission is robust and has been robustly assessed in terms of the environmental impact.

Physical and social infrastructure triggers

200 In terms of delivery, the outline application is effectively divided into two sections: the PDP delivery stage and post-PDP delivery stage. A breakdown of development contained within the PDP is set out in paragraph 24 of this report. Similarly, the transport infrastructure associated with the PDP is set out in paragraph 14 within Appendix 1 to this report.

201 The applicants are unwilling to commit to a pre-set programme of implementation of the development beyond the primary development package. This is regrettable. Instead, an indicative construction programme (ICP) within the environmental statement identifies seven indicative phases with a total of 114 building plots, to which construction is allocated according to a 'likely' order of build out. This indicative phasing plan is also set out in the design and access statement. For the purposes of the environmental statement, the ICP is used to illustrate the anticipated timing and pattern of development and forms the basis of the assessment of impacts. It claims to represent an interpretation of the worst case construction impacts which may occur. The robustness of this approach remains subject to detailed discussion between the applicants, the GLA and the Council.

202 Appendix 7 of the DSF includes a series of physical and social infrastructure triggers, which are intended to act as a set of prerequisite conditions that must be met to allow a set quantum of development to proceed. The triggers are divided into PDP and post-PDP. The post-PDP triggers are set out according to each of the nine development zones.

203 The triggers will require specific pieces of infrastructure – physical and social – to be delivered before certain elements of the scheme can proceed, and will, in theory, ensure that as the scheme progresses, the emerging quantum of development is supported by necessary infrastructure or mitigation measures.

204 The triggers remain a point of ongoing discussion with Barnet Council and the applicants. A summary of the PDP triggers should be provided in a similar format to the summary of post-PDP triggers. This will assist a clear understanding of what pieces of infrastructure are required and when they will come forward within the PDP.

205 Whilst the use of triggers could be supported as an innovative approach to securing delivery of key pieces of physical and social infrastructure relating to quantum of development, provided

these can be fully understood and agreed. At present many of the proposed triggers are arbitrary and it remains unclear as to how each one relates to impact. For example, one suggested trigger states that no more than 1,000 units south of the A406 shall be occupied or the new foodstore south of the A406 be brought into use before the Cricklewood Lane/Claremont Road and Cricklewood Lane/Edgware Road junction works have been completed. The rationale or justification behind each trigger is not explicit and requires further explanation.

206 In an effort to overcome ongoing concerns over the absence of a phasing plan, the Council and the applicants are discussing the use of a macro delivery programme, the purpose of which is to demonstrate the delivery of the scheme against the indicative construction programme and the triggers. It would essentially be used as an assessment tool which would facilitate monitoring and implementation of the triggers at the reserved matters stage. GLA officers strongly encourage the applicants to sign up to its use.

London Development Agency's comments

207 The LDA welcomes submission of the outline planning application for the comprehensive development of Brent Cross Cricklewood. This area is identified as an Opportunity Area within the London Plan and as such there is a requirement to maximise the number of new jobs and homes within a newly created town centre. The LDA supports the principle of development to comprehensively regenerate the area to form a new town centre comprising a mix of uses and looks forward to seeing further detail on the proposals as they come forward.

Mix of uses

208 The LDA welcomes the significant job creation potential of the Brent Cross/Cricklewood Opportunity Area and notes that the Socio Economic Assessment of the Environmental Statement estimates that 30,000 new jobs will be created as a result of the regeneration proposals representing substantial opportunities for the local community.

209 The LDA also welcomes the range of employment generating floorspace proposed including office, retail, leisure, industrial and community facilities and the diverse range of employment opportunities that will be created.

Industrial

210 London's enterprises especially small and medium enterprises (SMEs) need an adequate supply of suitable workspace and therefore the LDA would encourage a range of industrial floorspace to be provided with the Opportunity Area. A robust evidence base should be developed and used to identify the needs of SMEs and business start ups within the Brent Cross/Cricklewood Opportunity Area and provision of such premises to meet these identified needs should be provided. This includes the provision of flexible and affordable workspace within the industrial floorspace offer, including a proportion of the office accommodation/industrial floorspace being provided as affordable, well serviced and managed workspace. Provision of such floorspace supports Economic Development Strategy objectives to, 'Address barriers to enterprise start-up growth and competitiveness' and to 'Maximise the productivity and innovation potential of London's enterprises'

Offices

211 In accordance with London Plan Policy 3B.2 'Office Demand & Supply', the LDA request that in order for the developments with the Opportunity Area to enhance the quality and flexibility of London's office market office, within the office space provision, developers should ensure that

floor plates provided are flexible enough to be used entirely by a single occupier or can be subdivided for multiple tenancies.

Barriers to employment

212 The Economic Development Strategy highlights that London's low levels of employment are a result of a complex interaction of factors including a lack of good quality, affordable childcare suitable for London's population. Given the significant job creation potential of the proposed regeneration of Brent Cross/Cricklewood, consideration should be given to the provision of affordable childcare to ensure that this barrier to employment is addressed and local residents are able to take advantage of the job opportunities created.

213 Given the scale of regeneration proposed within the Brent Cross Cricklewood Opportunity Area and in particular, the estimated 30,000 new jobs to be created over a 20 year period representing substantial opportunities for the local community, every opportunity should be taken to ensure that local residents and business benefit from the proposals both in the construction and operational phases of the development build out. The LDA therefore welcomes the commissioning of a Skills Development Plan, which considers the construction skills needs in the borough. As more detailed development proposals come forward the LDA would expect the Skills Development Plan to be extended further than the construction sector in order that appropriate skills requirements of end users in the office, retail, leisure and industrial sectors are identified and developed within the local community.

214 The LDA would recommend that as individual schemes (where there is significant job creation potential) come forward, an individual Employment and Training Strategy should be produced and agreed with Barnet Council and secured through a section 106 agreement. It should provide detail on initiatives to create training and employment opportunities, utilise the goods and services of local businesses and SMEs and address barrier to employment for example, provision of affordable childcare. In addition, the Employment and Training Strategy should be used to set targets and establish arrangements for monitoring progress.

Local planning authority's position

215 Barnet Council is expected to report the application to committee in March. The officer recommendation is as yet unknown.

Legal considerations

216 Under the arrangements set out in article 3 of the Town and Country Planning (Mayor of London) Order 2000 the Mayor has an opportunity to make representations to Council at this stage. If the Council subsequently resolves to grant planning permission, it must allow the Mayor an opportunity to decide whether to direct it to refuse planning permission. There is no obligation at this present stage for the Mayor to indicate his intentions regarding a possible direction, and no such decision should be inferred from the Mayor's comments unless specifically stated.

Financial considerations

217 There are no financial considerations at this stage.

Conclusion

218 The principle of the proposed development and the comprehensive regeneration of this currently under-utilised part of north west London is strongly supported in strategic planning terms. The aspiration to transform the existing Brent Cross shopping centre and surrounding area into a new mixed use town centre is welcomed. The proposed mix of uses, including the quantum of retail, leisure and office uses, complies with the London Plan. The provision of around 7,500 new residential units will make a significant contribution towards meeting local and strategic housing targets and in the creation of the new town centre. The provision of new key infrastructure including new bus station and mainline rail station and improvements to existing London Underground access is supported in principle.

219 Further discussion is, however, required on a number of matters before the application is referred back to the Mayor for final determination. The key areas include the following:

- Housing: Further discussion on the provision of affordable housing may be required subject to the conclusions of the viability review, in order to ensure compliance with London Plan policy 3A.10.
- Transport: Further discussion is required on transport, in particular the key concerns set out in paragraph 59 – 66 of this report and the detailed comments provided at the attached Appendix 1.
- Design: The overall masterplan is strongly supported. There are some elements within the limits of deviation that need further consideration or testing regarding open space locations, and maximum and minimum block lengths and widths and flat layout examples to ensure the scheme is fully consistent with the objectives of London Plan policy 4B.1.
- Energy: The energy strategy has followed the London Plan energy hierarchy in broad terms, however a clear understanding of how the site wide network could evolve needs to be illustrated and commitment to a backup renewables strategy is required to ensure consistency with London Plan policy 4A.1 and 4A.7. The GLA will also seek commitment to exceed building regulations through energy efficiency measures and that the site wide network and back up energy strategy is secured within the section 106 agreement.
- Noise: Clarification is required on technical aspects of the noise strategy as set out in paragraph 187 of this report.
- Phasing and triggers: Whilst the use of triggers could be supported as an innovative approach to securing delivery of key pieces of physical and social infrastructure relating to quantum of development, it is unclear how many of the proposed triggers relate to impact. Further understanding of how the triggers relate to impact needs to be provided.
- Advisory groups: The GLA seek discussion on the opportunity to form advisory groups for the duration of the reserved matters application and where appropriate, construction period. In particular an inclusive access group and where appropriate an energy panel.
- Conditions and section 106 agreement: The GLA request that Barnet Council consider a number of conditions and that various clauses, in particular relating to energy and transport are set out within the section 106. Further discussion on these matters will be required.

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Appendix 1: Detailed TfL transport comments

Summary

1. Planning permission is sought for redevelopment of one of the largest regeneration areas in London. The transportation issues are complex and far reaching due largely to the inaccessible and segregated nature of the development caused by strategic roads and railway lines. There are capacity problems at each of the key gateways into the site which suffer from congestion during peak periods and at weekends. The location of existing public transport nodes with the exception of the existing bus station, are divorced from the core of the regeneration area which makes accessibility difficult. These problems are such that the assessment of transportation effects and proposed mitigation must be robust.
2. TfL's main concerns are surrounding the lack of robust interim assessments for each development phase, given that the applicant cannot commit to a clear sequencing of development beyond Phase 1 (PDP). The applicant has proposed a series of development triggers which are not clearly articulated or calibrated. The Transport Assessment (TA) does not demonstrate how mitigation measures contribute to achieving mode shift as the development proceeds. The achievement of mode split targets is vital to the success of the development, however the means to achieving them is currently lacking. There are clear barriers to delivery which could be overcome through improvements to the bus network and through highway improvements and reduction in car parking. TfL will require the applicant to commit to delivering a more substantial proportion of the overall transportation package during Phase 1 (PDP) in order to safeguard against the lack of sequencing beyond this phase. TfL will also need to be a s106 party in order to maintain control over the development in the future. The mechanisms put forward by the applicant for assessing the development post permission are yet to be agreed with TfL. TfL will work with Barnet Council and the applicant to address these concerns.

Policy Background

3. London Plan *Policy 2A.5 Opportunity Areas* and *Policy 5B.2 Opportunity Areas in North London* set out the strategic policy guidance for development at Cricklewood and Brent Cross. In transport terms these policies set out to '*maximise access by public transport*', ensure that '*development is geared to the use of public transport*', and '*would require public transport improvements to support development*'. At Cricklewood and Brent Cross public transport will need to be capable of providing capacity for 10,000 new homes and 20,000 new jobs, including 120,000 sq m of retail and 400,000 sq m of office. A full breakdown of the proposals is provided earlier in this report.
4. Policy 5B.2 para 5.42 explicitly states '*the planning framework seeks the redevelopment of Brent Cross as a town centre complementing the roles of other centres nearby*' and would include '*a railway station*'. The policy also states '*any development should be phased with improved public transport and accessibility across the area*'.
5. Policy 3C.2 *Matching development to transport capacity* and Policy 3C.11 *Phasing of transport infrastructure provision and improvements* also emphasise the need for appropriate

phasing, in particular where existing transport capacity is not sufficient to meet the demand generated by the development.

6. The scale of this development is such that regard should be had to all transport policies found within Chapter 3C of the London Plan.

7. The consultation draft of *Way to Go: Planning for better transport (November 2008)* makes a number of commitments about the future of London with the underlying objective of smoothing traffic flow and getting London moving:

- *Our job is not to punish the motorist.....it is to help people recognise that there are cleaner, greener, cheaper and more efficient alternatives. And where those alternatives don't exist – as in many parts of outer London - our job is to supply them (p11);*
- *If we are to make London more liveable, we need a transport network that is as safe and attractive as possible, but which also gets you where you need to go as quickly as possible' (p20);*
- *it is no use having complete calm on the top deck of a bus, if that bus is itself beached in the traffic like an expiring whale, or indeed a queue of expiring whales, it is time for a ruthless review of all the obstacles to the free flow of traffic in London (p20);*
- *Exploring new ways of preventing deliveries from choking traffic (p21);*
- *Though cycling has increased in popularity, it only represents one percent of journeys – nowhere near the achievements of Copenhagen (20%) or Amsterdam (30%). If we are to attain a level of even five per cent of journeys by bike, we will need a step change – and that can only be accomplished with a series of deeply meditated improvements (including launching a cycle hire scheme and new cycle routes) (p26);*
- *We want to be fair to all modes, and we believe we can do this by improving public transport, increasing safety, smoothing traffic flow, encouraging cycling, speeding the development of urban realm projects and thereby making the city easier to get around and more liveable (p24).*

8. The *Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework* (December 2005) provides an indicative strategy for redevelopment of the area including a transport vision. It should be noted that a separate planning application has been submitted and approved for West Hendon which is not considered in this report.

9. The Framework states *'travel in outer London will remain predominantly by car'*. The Framework forecasts a total of 132,800 new person trips into the area per 12 hour weekday period, including 29,100 additional private vehicles. Importantly the framework predicts a mode split target of 49% in favour of public transport including walking and cycling on completion of the development in 2026.

10. The Framework provides a transport vision including a list of principles which seek to minimise additional car use, including new and improved public transport services, integration

between modes, improved accessibility and limited new parking. The development framework states *'The movement strategy has been developed to include measures that will maintain or improve current conditions for existing highway and public transport users, provide enhanced access to all parts of the regeneration area, and improve capacity for all travel modes consistent with the above forecast demands'*. The framework also states there will be *'limited new parking associated with development to discourage the use of the car for non essential journeys'*. The development framework defines development proposals within 4 illustrative phases including highway and public transport improvements, subject to details being considered through future planning applications and transport assessments.

Site accessibility

11. The site currently has a Public Transport Accessibility Level (PTAL) of between 1 and 5, where 1 is low and 6 is high. The PTAL is at its highest at Brent Cross Bus Station and at the rail and Underground stations. The TA states that the site will have a PTAL of between 5 and 6 on completion of the development in 2026. The development site includes key parts of the Transport for London Road Network (TLRN), A41 Hendon Way and A406 North Circular Road. The site is also bounded by the A5 Edgware Road, part of the Strategic Road Network (SRN). The framework area also includes sections of Thameslink and the Midland Mainline railway between London St Pancras and Sheffield including the existing Cricklewood station. The Edgware branch of the Northern Line also runs close to the site and Brent Cross Underground station is included in the regeneration area. Brent Cross Bus Station includes access to 18 bus routes (including Green Line) providing connections to a wide range of town centres across London, the majority of these services provide access from and through the sites via the TLRN or SRN. TfL will need to undertake a detailed PTAL assessment in order to clarify conclusions in the TA.

Description of transport proposals

12. A detailed description of the development proposals by land use and by quantum are provided earlier in the report. The applicant is seeking outline permission for the completed development in 2026 (1.5 million sq m of development), however the applicant is only able to commit to a defined build programme for Phase 1 or the Primary Development Package (265,000 sq m of development), also summarised earlier in the report. This represents approximately 20% of the completed scheme and 50%, some 61,201 sq m, of retail development and 1,300 homes. The Transport Assessment (TA) assumes that the development will be completed by 2026 assessing the development with all public transport and mitigation in place.

13. The application includes a package of transport proposals for the completed end state in 2026, however there is no clear commitment to their sequencing or operation. The proposals can be summarised as follows:

- Creation of or alteration to 11 gateway highway junctions including 5 strategic junctions on the A406 and A41 Transport for London Road Network (TLRN) and A5 Strategic Road Network (SRN);
- Midland Mainline bridge

- circa 12,000 additional car parking spaces;
- a new relocated bus station;
- increased frequency on existing bus routes and additional bus routes;
- proposed Rapid Transit System (RTS), consisting of a minibuss between Brent Cross Underground Station and Cricklewood Railway Station;
- A406 pedestrian bridge;
- enhanced A406/A41 pedestrian underpass;
- A41 pedestrian bridge;
- enhanced Templehof Bridge;
- minor interchange enhancements at Brent Cross London Underground station;
- step free access at Brent Cross London Underground Station;
- minor bus interchange enhancements at Cricklewood rail station;
- step free access at Cricklewood Station
- new rail station on the Thameslink/ midland mainline;
- new rail freight facility;
- new waste transfer facility;
- Framework Travel Plan (FTP);
- Framework Servicing and Delivery Strategy (FSDS);
- car club;
- cycle club;
- 9,125 cycle parking spaces (including 7,550 residential spaces);
- Transport Advisory Group (TAG);
- transport fund.

14. As described above the applicant is only able to commit to a defined sequencing of development and transport improvements for Phase 1 (PDP). The transport improvements included in Phase 1 can be summarised as follows:

- creation and alteration to some of the gateway junctions and to the local road network;
- replacement of Templehof Bridge

- A406 Brent Cross Ingress/Egress junctions works;
- A41/A406 junction works;
- Cricklewood Lane/ A5 junction works
- diversion of Prince Charles Drive
- 1,300 residential car parking spaces (1 space per unit);
- Implementation of permitted Fenwick multi-storey car park comprising 800 spaces;
- unspecified parking for other non-residential uses;
- increased frequency of bus route 232 from 3 to 4 buses per hour;
- Rapid Transit System (RTS) consisting of a minibus between Brent Cross Underground Station and Cricklewood Railway Station;
- car club;
- enhanced Brent Cross A406/A41 pedestrian underpass;
- 1,300 cycle parking spaces;
- Unspecified cycle parking for other non residential uses;

Phasing and Delivery

15. An illustrative sequencing of delivery through 7 phases is provided in the Design and Access Statement and in the Indicative Construction Programme (ICP), however the applicant is not committing to a rigid phasing plan or to a clear sequencing of transport mitigation beyond Phase 1 (PDP).

16. The Design and Access Statement includes illustrative phases which show infrastructure and public transport improvements developed incrementally through each phase. The EIA also includes statements about highway and public transport networks having sufficient capacity to meet demand created by the development during each illustrative phase and time period. However, these statements about transport capacity are not substantiated in the TA. Instead the TA relies on a series of development triggers and interim assessments, the rationale behind which is not calibrated or robustly assessed in the TA.

17. The TA does not currently specify the maximum amount of development which can come forward in advance of highway and public transport mitigation being provided, nor does it specify highway and public transport capacity at the point when a development trigger bites. The way the TA has been structured allows for large volumes of development to come forward without firm commitments to deliver the necessary mitigation.

18. TfL must be confident that sufficient checks and balances are in place to ensure that capacity is continuously provided ahead of demand by reference to performance and capacity of the transport networks and achievement of mode split targets including travel demand

management. On this basis Barnet Council and TfL must be party to the s106. This agreement provides a key mechanism in ensuring that at no stage, will impacts arising from the development, lead to transport network being overcrowded or inoperable.

19. By comparison with other major development sites in London, the current proposals defer vital public transport improvements until a later stage, beyond which the applicants are not willing to commit, or triggered by land uses and quantum which may not be delivered. On this basis TfL cannot accept that the package of transport proposals within Phase 1 (PDP) as listed above adequately reflect the quantum of development being proposed particularly given the uncertainties over the detail and timing of future phases of development. For example, development at Wembley, Stratford, Olympics and White City (Westfield) included a commitment to provide significant public transport infrastructure investment and capacity in advance of development.

20. The approach to future planning applications is critical to the delivery and success of this development. The applicant proposes to provide further assessment of the development impact as it progresses through Reserved Matters Applications and Reserved Matters Transport Reports (RMTR). The applicant has also proposed that development impacts can be assessed against a hypothetical TA Matrix which it is proposed will provide an envelope by which predicted development impact of proposed reserved matters applications can be measured by reference to the end state 2026 TA. The matrix is based upon trip rates being assigned to different land uses and then calculated as a percentage of assumed mode split targets set out in the FTP.

21. TfL remains to be convinced that the TA Matrix is workable for a number of reasons. As such the Matrix:

- is hypothetical in nature and is not based on a robust form of transport assessment;
- does not reasonably accept that growth on the network will be adequately assessed or mitigated;
- does not consider or articulate the combined impact of growth on the network with that of construction traffic plus development related traffic;
- does not account for robustly assessed road or public transport capacity and performance across Sat, AM and PM peak periods;
- relies on the assumption that the infrastructure proposed within the scheme is the maximum that will be required to mitigate the impacts that may arise from it;
- relies on travel plan surveys being prepared by a travel plan co-ordinator as the only means of assessing future development;
- assumes that the infrastructure proposed will provide sufficient capacity;
- is based upon the premise that the applicant does not have to undertake any further transport assessment or modelling beyond outline permission being granted;
- is attempting to provide the basis for RMTR, the scope of which is yet to be agreed with TfL.

22. TfL will need to agree the scope of the proposed transport reports with the applicant to ensure that they allow for assessment of network performance and capacity at the time when the RMTR's are submitted. Reserved matters applications will be submitted to Barnet Council as the local planning authority who will consult with TfL, but the council is not obliged to accept TfL's views on the application. Under the Town and Country Planning (Mayor of London Order) 2008 the Mayor has no right to be consulted on all reserved matters or s73 applications.

23. TfL does not consider that the applicant's proposal to date has sufficient controls to ensure that there will be sufficient capacity on the network or that the transport impact of the development will be adequately mitigated. The TA and Matrix approach described above is based upon the premise that there would be no requirement for full transport assessment as the development progresses, instead relying on more limited RMTR's and surveys.

24. Importantly, TfL will require further full transport assessment at key interim stages as the development progresses. TfL will also require a clear commitment from the applicant that the impact of development on the transport networks within each phase of development will be adequately mitigated. The mechanism to achieve this will need to include a combination of clearly enforceable restrictions on the progress of development. For example TfL and Barnet Council could enforce the bringing forward of infrastructure triggers and public transport provision at a precautionary early stage suitably in advance of development thresholds being reached.

25. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies *2A.5 Opportunity Areas, 5B.2 Opportunity Areas in North London, 3C.1 Integrating transport and development, 3C.2 Matching development to transport capacity, and 3C.11 Phasing of transport infrastructure provision.*

Mode split

26. The Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework (December 2005) sets an indicative daily mode split target for all trips of 49% in favour of public transport. This target is welcomed by TfL as long as the mechanism for achieving it is pragmatic. The TA observes that current mode split is in the pm is 15% and forecasts that approximately 65% of new trips at the end state 2026 will be made using public transport including walking and cycling. With regard to the end state the TA assumes that these are new trips and not existing trips. The TA suggests that the current baseline public transport mode split is approximately 15%. A summary of baseline and forecast public transport mode split for the development area (including walking and cycling) is provided below.

Table 6 baseline and forecast public transport mode split for the development area

	AM	PM	SAT
2005 base year	27%	15%	10%
2026 do minimum (without development)	28%	19%	25%
2026 end state (with development)	75%	62%	45%

27. The applicant has prepared a Framework Travel Plan (FTP) which is welcomed by TfL. The FTP provides a hypothetical daily mode split progression by phase but it does not demonstrate how the proposed package of infrastructure improvements influences mode split incrementally, or how site wide travel plans will achieve the FTP targets. The mode split targets for public transport are set out in the FTP as follows:

- 35%: Phase 1 (PDP)
- 38%: Phase 2
- 43%: Phase 3
- 45%: Phase 4
- 56%: Phase 5
- 67%: Phase 6
- 67%: Phase 7

28. TfL requests further clarification of the mode split assumptions which have been applied in the TA for the baseline and forecast mode splits. For example, the evidence base for the observed existing mode split, how new and existing trips have been assessed, the origin of trips and further information illustrating how the mode split targets in the FTP were derived. TfL will also requests further clarification from the applicant on how mode split assumptions for the Phase 1 (PDP) have been derived.

29. The aspiration of the applicant to increase the mode share of sustainable transport from current levels is welcomed by TfL. However, there is insufficient evidence in the TA to demonstrate how this mode split target will be achieved progressively having regard to capacity and performance on the network, or how constraint on private vehicle use and parking restrictions will contribute to meeting the mode split targets.

30. Achievement of mode split progression is inherent upon public transport capacity being provided ahead of demand. The TA does not currently provide the rationale for how the proposed triggers and mitigation will contribute to this progression.

31. Importantly, Barnet Council and TfL must be able to limit the amount of development which can come forward if the mode split targets are not being achieved. This could be

controlled by setting development triggers and mitigation at a precautionary early stage and assessing mode split as part of future transport assessment.

32. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies *3C.1 Integrating transport and development*, *3C.2 Matching development to transport capacity*, and *3C.11 Phasing of transport infrastructure provision*.

Transport Advisory Group

33. The applicant has proposed that a Transport Advisory Group (TAG) will be set up to promote and encourage sustainable public transport across the development. The group would make recommendations to the Barnet Council and TfL and allocate investment from a 'transport fund'. TfL has agreed with the applicant that the scope of the TAG will be limited to minor recommendations and would not be responsible for influencing investment decisions on major infrastructure works.

34. The TAG would however receive regular monitoring reports from the applicant and Travel Plan Co-ordinator with the aim of contributing towards meeting mode split targets. The TAG will also consider other FTP measures and make recommendations on how site wide travel plans are contributing to the overall FTP.

35. The terms of reference of the TAG should be agreed in writing with TfL and Barnet Council prior to planning permission being granted. It should be noted that the TAG would not have any decision making powers, it can only make recommendations. Wherever possible the TAG must avoid conflict that may result in delays in delivery and investment.

36. Importantly, Barnet Council and TfL must be able to determine the need for expenditure on transport at the appropriate stage of the development and would therefore expect planning obligations and financial contributions to be agreed up front. On this basis it is imperative that Barnet Council and TfL are party to the s106 agreement as this will be the mechanism by which the majority of public transport improvements will be made.

Car parking

37. The number of car parking spaces for which planning permission is being sought is not defined within the TA. The TA instead refers to parking standards. The car parking proposed can be summarised as follows:

- circa 12,000 additional car parking spaces;
- for residential car parking consideration of a sliding scale set from 0.81 spaces per unit down to 0.5 spaces per unit;
- 1,300 residential spaces are proposed in Phase 1 (PDP) at a ratio of 1 space per unit;
- 6,800 existing retail parking spaces;
- 800 permitted spaces in the Fenwick Multi-Storey car park in the PDP;

- an additional 300 spaces at the re-provided Tesco superstore in the PDP;
- other retail spaces set at a ratio of 1 space per 50-75 sq m;
- 1,320 B1 Office spaces (1 space per 300m);
- 120 spaces at the rail freight facility;

The TA sets out car parking standards north and south of the A406 but it does not clearly state what level of car parking has been assumed for the purposes of forecast demand on the network. Should the standards set out in the TA be applied, TfL has calculated by applying maximum standards there could be an estimated 19,000 (12,000 additional) car parking spaces across the site at end state 2026 including existing spaces at the shopping centre. TfL expects the applicant to clarify the total number of spaces proposed and then prepare a site wide parking strategy which demonstrates how these numbers will be delivered, seeking to restrict car parking from first occupation.

38. In the context of *London Plan Policy 3C.23 Parking strategy (including Annex 4) and 3C.24 Parking in town centres* the level of car parking proposed is considered to unsustainable for a town centre location with a predicted PTAL of 5 or 6. The wider planning aspiration for Cricklewood and Brent Cross is to provide a town centre location where homes, jobs and services are located in close proximity thus reducing the need to travel. Currently, the TA approach is heavily weighted in favour of car use with only limited public transport improvements proposed in Phase 1 (PDP). Despite this fact the TA assumes a 20% mode shift during Phase 1 (PDP) alone which is considered unrealistic to TfL given the lack of public transport improvements proposed during or prior to this phase.

39. The TA mode split forecasts and FTP mode split targets are ambitious but fail to demonstrate how using car parking restraint and increasing public transport capacity will help achieve them. For example, the TA should demonstrate how car parking restraint, car free development and car clubs will contribute to achieving mode split targets.

40. In the Context of London Plan policy 3C.24 TfL considers the proposed car parking ratios must be significantly reduced. A 0.5 space per unit site wide residential car parking ratio. For B1 office use the applicant must commit to a ratio of 1 space per 600 sq m. For retail use in Phase 1 (PDP) TfL requests that the applicant cap retail car parking at the current number of spaces, both at the shopping centre and at other major retail uses such as Tesco, where the existing 460 spaces could increase to 800 spaces. This level of parking is considered highly unsustainable for a town centre location with a predicted PTAL of 5 or 6.

41. TfL will require car parking standards to be consented on a site by site basis and considered against transport accessibility by reference to site wide car parking ratios/caps. Planning applications should also be considered against achievement of mode shift targets by reference to network capacity and performance. A site wide parking management plan and accumulation plan will be required to inform the decision making process.

42. The provision of a car club is welcomed. TfL requests that further information is provided on the scope and sequencing of the car club which should as far as possible be in operation from first occupation. The car club will be secured by use of planning obligation.

43. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies 3C.23 *Parking strategy (including Annex 4)* and 3C.24 *Parking in town centres*.

Highways

44. There is a major emphasis in the planning application on providing additional highway capacity and junction improvements to establish the primary means of access to the site. TfL has been working with the applicant to agree 2026 end state junction assessments for the strategic junctions: M1/A406/A5; A41/A406; A41/A407; and new A41 junction. The M1/Staples Corner A406 junction improvements have been signed off by both TfL and HA as being fit for purposes for the end state 2026 subject to detailed design as part of the s278 agreement. TfL is still awaiting a traffic model for the A41/A406 mid level and the new A41 junction.

45. The feasibility of capacity assessments for each junction relies on a significant mode shift to public transport, including a new railway station and bus station and new and enhanced bus routes. As previously stated the rationale behind the sequencing of highway works and public transport improvements has not been fully substantiated in the TA, for example the timing of highway works at M1 junction 1/Staples Corner, Midland Mainline Bridge and other strategic junctions, and how these works impact upon mode shift and network capacity and performance.

46. The TA does not include full interim junction assessments that would demonstrate whether the junctions can operate without key pieces of public transport infrastructure in place. If the assumptions in the TA change as a result of changes in the sequencing of development there will be a need to reassess the junctions as part of the proposed Reserved Matters Transport Assessments. Furthermore, a full multi-modal assessment of Phase 1 (PDP) has not been undertaken. This assessment is essential given the quantum of development proposed in Phase 1 (PDP) and because this phase does not include significant public transport mitigation despite the mode split forecasts in the TA.

47. The validity of the AM peak assessment is questioned by TfL as Brent Cross Shopping Centre does not open until 10am which is 1 hour after the am peak period assessment, therefore it must be assumed that most of the highway traffic is not related to the predominant retail development during Phase 1 (PDP). If this is the case it is questionable whether those trips on the network could realistically be expected to transfer to public transport. On this basis the PM and Saturday assessments are more significant to TfL and must be robustly assessed, where junction capacity also has significant implications on bus journey times.

48. Bus priority measures must be established now for all stages of the development to ensure that buses remain an attractive option and to demonstrate how they contribute to the mode shift targets. The congested nature of the highway network and the applicant's assumptions about bus journey times is of great cause for concern to TfL. TfL requires the applicant to provide a fuller assessment of how highway improvements will contribute towards improving the situation for buses, for example the Midland Mainline Bridge works. To date the TA does not fully consider the impacts of highway works on public transport provision and accessibility. TfL wishes to engage more with Barnet Council in considering these bus priority benefits at the southern junctions.

49. TfL has commissioned a review of the TA assumptions for Phase 1 (PDP) to inform its decision on the acceptability of the TA and in order to inform future reserved matters applications. This work is expected to assist in understanding the sequencing of highway improvements and to provide guidance on how this Phase of the development should be assessed. For example, TfL currently has serious concerns about the timing of the M1 Junction 1/ Staples Corner works and as a result cannot yet support the assumption in the TA that this will not be needed during Phase 1 (PDP).

50. Following planning permission being granted TfL will need to agree the s278 agreements for the approved package of improvements. TfL has provided the applicant with guidance on its s278 process to assist with this process. It should be noted that the developer will be required to fund all s278 costs. Further issues of design will also need to be addressed and TfL reminds the applicant that any improvement to strategic junctions and signals will need to be in accordance with DTO guidelines.

51. Should this application be granted permission the applicant is reminded that this does not discharge the requirements under the Traffic Management Act 2004. Formal notifications and approval may be needed for both the permanent highway scheme and any temporary highway works required during the construction phase of the development. With a redevelopment of this type construction management will be absolutely critical and controls and obligations will need to be put in place to ensure that buses, pedestrians, cyclists and general traffic can safely and efficiently access the site.

52. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies Policies *3C.1 Integrating transport and development*, *3C.2 Matching development to transport capacity* *3C.14 Enhanced bus priority*, *3C.16 Road scheme proposals*, *3C.17 Tackling congestion and reducing traffic*, *3C.18 Allocation of street space*, *3C.19 Local transport and public realm enhancements* and *3C.20 Improving conditions for buses*. TfL will continue to work with the applicant to address these concerns.

Construction Impact

53. The applicant has prepared an Indicative Construction Programme (ICP) which illustrates how the development could be built by phase, but is only committed for Phase 1 (PDP) following its commencement, the date of which is unknown. The Construction Impact Assessment (CIA) is based on the phasing plan in the Design and Access Statement and shows completion of all 7 phases by 2026.

54. The CIA only assesses the impact of construction over an average 3 month period, it does not provide a peak hour assessment. The CIA does not take account of additional traffic on the road as the development is occupied, nor does it allow for development phases to overlap and does not take account of ongoing junction improvement works themselves.

55. The CIA assumes that the majority of trips will be by large (15m³) lorries, however in practice TfL's experience is of contractors using more smaller vehicles. Therefore, the impacts of white vans and workers cars are underrepresented in the CIA.

56. TfL is concerned that a master development programme that shows zones and outputs from zones, linkage between built development output and infrastructure requirements is

needed to ensure a comprehensive approach to development. This is in order to account for the phasing of development and any overlap of phases coming forward. The total development thresholds will be influenced by the sequencing of development concurrently with construction traffic.

57. When considered in more detail the specific impacts associated with each development plot and concurrently with highway works are likely to lead to delays and impacts on the construction programme. TfL also requires further clarification on the impact of building in highway improvements.

58. There is a need for the applicant to undertake additional sensitivity testing of construction impact as the TA does not provide a full or robust assessment of construction affects and does not provide a sufficiently robust worst case scenario.

59. The rail freight facility would be able to consolidate construction material in particular aggregates, early in the development life. TfL sees early delivery of this facility as necessary to ensure that highway impact is reduced. Similarly, use of the waste handling facility would also minimise highway impact.

60. TfL notes that a draft Construction Worker Travel Plan has been submitted by the applicant and this is welcomed. The content of the plan will need to be agreed with the authorities prior to it being implemented.

61. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies *3C.14,16,17,18,19 and 20*. TfL will continue to work with the applicant to address these concerns.

Buses

62. Bus improvements will be vital in delivering a sustainable package of public transport improvements which achieve the mode split forecasts provided in the TA, or achieve the targets set by the applicant in the Framework Travel Plan (FTP). There are four main elements to enhancing the experience of bus passengers and improving conditions for buses:

- Brent Cross Bus Station, including location, design and specification;
- On and off-site bus priority and movement, including penetration into the site and to the community including journey times and bus speeds;
- Bus service improvements, including further consideration of capacity and level of service;
- Rapid Transit System (RTS).

63. Further work is required by the applicant in each of these areas before TfL can accept the applicant's conclusions in the TA.

64. The bus station is dealt with separately below.

65. The FTP and TA provides an illustrative phase by phase bus strategy which is based upon an agreed in principle end state bus network and the cost of which has been calculated by TfL. TfL supports this approach in principle subject to there being sufficient flexibility to allow for

changes to be made as the development rolls out, and based on the developer funding improvements as part of Phase 1 (PDP). It should be noted that TfL is yet to agree the sequencing of improvements, delivery mechanisms and financial contributions. TfL will insist upon bus subsidy being paid direct to TfL who will ultimately decide the best way for this subsidy to be spent. TfL maintains that such Investment decisions cannot be made by the proposed Transport Advisory Group (TAG).

66. The applicants will be required to pay for a review of and upgrade to all bus stops within 400 metre radius of the site boundary and make financial contributions towards any upgrade works required to bring them up to London Buses standards. The applicant must also review and fund improvements to pedestrian routes to bus infrastructure in accordance with TfL TA guidance.

67. TfL is currently unable to support the proposed RTS. The TA does not provide sufficient justification that this service would be more attractive to bus users than use of conventional bus services, as the TA modelling forecasts low demand for such a service. TfL therefore questions whether the proposed RTS represents good value for money. On this basis the proposed RTS should be withdrawn in favour of improving and enhancing the existing bus network. TfL considers it inappropriate to spend s106 or other funding on this service when this could be spent on other more beneficial bus transport improvements, including bus priority measures.

68. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies *3C.1 Integrating transport and development*, *3C.2 Matching development to transport capacity*, *3C.4 Land for transport*; *3C.14 Enhanced bus priority, tram and busway transit schemes* and *3C.20 Improving conditions for buses*.

Bus Station

69. The principle of delivering a suitably enhanced bus station at Cricklewood and Brent Cross has always been supported by TfL and is absolutely vital in achieving an acceptable public transport package within this key opportunity area. The bus station proposals are presented illustratively in the adopted Development Framework. The Framework states *'the bus station is the focal point for many of the existing bus services in North London'* and *'it will be conveniently located to serve the high street'* and *'walking distances between alighting stops and the town centre will be minimised'*. The proposals currently put forward do not support these objectives because they do not consider the objectives of enhancing public transport serving the development.

70. TfL commissioned an independent review of the proposed bus station relocation. The key findings are provided in a report which has been circulated. The findings can be summarised as follows:

- currently around 7million users per annum potentially doubling on completion of the development;
- over 90% of trips are retail based;
- over 70% of bus station users are satisfied with the bus station;

- the proposed relocation moves the bus station away from the shopping centre entrances and lengthens the journey time for bus passengers using the shopping centre;
- travel times would be lengthened from the north away from the primary retail focus;
- and from the south, as there is no direct access from Templehoff Bridge, instead pedestrians would have to follow extended pedestrian routes north;
- users of the bus station currently consider the bus station to be a safe environment due to its location at the shopping centre entrance, its proposed location next to the A406 raises surveillance and security concerns which are not currently evident;
- bus station users are more exposed to noise and air pollution close to the A406 North Circular Road resulting in a poor environment within the bus station;
- insufficient buffering is evident between the bus station and the North Circular Road.
- increased bus journey times because of the revised road layout;
- no clear proposals on how bus priority will be guaranteed, Prince Charles Drive must be made car free; bus priority must be provided on the two roundabouts to the east and west of the bus station;
- Insufficient information on the nature of frontages on the proposed high street, core town centre uses must be located adjacent to the bus station;
- pedestrian and cycle desire lines not fully established or protected;
- increased bus operating costs.

71. Given the significance of the bus station in the context of a successful development, a level of detail well beyond what has been provided by the applicant is needed before TfL can properly consider these proposals. The location and function of the bus station relocation must be considered more carefully in the context of the wider public transport offer, having regard to mode split forecasts in the TA and targets in the FTP. The urban design and masterplan process should give more consideration to the role of the bus station and the importance of bus passengers to the retail and town centre. Satisfactory resolution of these matters is required to ensure that the development proposal accords with Policy 3C.4 Land for transport and Supplementary Planning Guidance on Land for Transport Functions.

Coaches

72. Consideration needs to be given to a private hire/charter coach pick up/set down facility for the enlarged shopping centre and a parking facility within one of the car parks or in another practical location, not in the bus station as it will impact upon bus operations. There should be an improvement to the scheduled coach stop environment on the A41/A406 slip roads for both stops and improved footway access from the site. There should also be consideration of means of improving speed and reliability of access from the A41 to M1 for coaches. There are concerns about moving stop 15745 due to demands for space with new larger coaches in use, for example

Green Line now have 14.4 metre coaches in operation. Further coach provision should be considered as part of future reserved matters applications for retail, hotel and leisure uses.

Taxis

73. The planning application does not give specific details of taxi provision. A taxi rank needs to be positioned in a convenient location adjacent to the main retail entrance of the shopping centre in a visible and accessible position, which includes nearside-loading. Capacity is also a key consideration as currently about 10 taxis can be accommodated. The future rank does not need to be of continuous length but could be separated by a feeder rank as long as capacity replicates the current facility. In addition, TfL will need to consider and approve taxi facilities at the new Cricklewood Station transport interchange and at Brent Cross Underground Station as part of future detailed planning applications, for which the developer will need to submit and agree design with TfL and Barnet Council.

Rail

74. The planning application includes a new railway station on the Midland Mainline, the principle of which is supported by TfL. The new station must be delivered in order for the application to conform with London Plan *Policy 5B.2.para 5.42*, as without a new railway the station the development cannot be supported by TfL. The railway station will bring additional employment to the area and will help support the proposed town centre uses, without the railway station this site cannot be considered to be a functional town centre. From a transport perspective the highway network will fail and the mode shift targets will not be achieved. The applicant has agreed to limit the build and occupation of 400,000 sq m of B1 employment space until such time as the station is completed and fully operational by use of a Grampian condition.

75. In addition the applicant has a conditional contract with the land owner Network Rail to construct and complete the railway station should outline planning permission be granted. The developer has not committed to the sequencing of the railway station which is the most fundamental transport aspect of the proposal. TfL sees the delivery and control mechanisms for the timing and implementation of the railway station, including, the number of services and capacity of services passing through the station as absolutely critical.

76. TfL must be satisfied that the transport assessment provides sufficient evidence to demonstrate that the highway and public transport networks can cope until such time as the station opens. Where appropriate TfL will request that planning obligations and conditions are used to control the level of development based on transport capacity and performance, and may request that the station be delivered earlier to ensure mode split targets are met. For example, by limiting the quantum of other land uses coming forward, or by committing the applicant to make contributions towards other public transport improvements should the railway station not open in accordance with the Indicative Construction Programme (ICP).

77. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policies *3C.1 Integrating transport and development, 3C.2 Matching development to transport capacity, 3C.4 Land for transport, 3C.8 Improving strategic rail services, 3C.11 Phasing of transport infrastructure provision and*

improvements, 3C.12 New cross-London links within an enhanced London National Rail network and 5B.2 Opportunity Areas in North London.

Rail freight

78. The applicant has proposed to develop a new waste handling and new rail freight facility. TfL requests that the applicant consider linking operation of the rail freight facility to development quantum in order to ensure use of the rail freight facility for construction consolidation during the construction of Phase 1 (PDP) and subsequent phases thereafter, in particular for transportation of aggregates during construction. TfL has discussed the potential with relevant bodies and considers that this Opportunity Area represents one of the few sites in London where rail facilities close to the railway tracks can be utilised so as to minimise the highway impacts of car based freight and servicing.

79. TfL will use planning conditions and obligations to ensure implement these requirements. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan Policy 3C.25 *Freight strategy* and Policy 3C.26 *Strategic Rail Freight Interchanges*. Because there are existing facilities on site Policy 3C.4 *Land for transport*, and Supplementary *Planning Guidance on Land for Transport Functions (March 2007)* are also relevant.

London Underground

80. The TA demonstrates that the relevant sections of the Underground network can operate satisfactorily at the end state 2026. The land use assumptions in the London Plan are supported by the programmed signalling upgrade works which will provide additional capacity from 2011/2012. The key risk to TfL is if the development timescale slips or if the new Thameslink Cricklewood Station is not built, as there may be a much higher demand on the Underground than is currently forecast in the TA. Patronage on the Underground will also depend upon the quality of pedestrian and bus routes to and from the development. The applicant has not demonstrated whether the contra-peak flows in the Northern Line are justified under different development scenarios. This will need to be reviewed through future transport assessments.

81. London Underground concerns are summarised below:

- need to secure step free access at Brent Cross station and forecourt improvements;
- high quality pedestrian and cycle links to be provided from the site to the London Underground station;
- need for improved bus interchange at Brent Cross;
- need for improved cycle parking at Brent Cross and Hendon;
- further assessment of crowding effect of development on the Northern line as services approach central London;
- need to clarify net increase in LUL trips and impact on existing LUL stations, including element such as gateline, staircases, ticket halls etc;

- need to identify the impact of the additional traffic and any mitigation measures.

82. LU will require the developer to pay the full cost of making Brent Cross station fully accessible, in accordance with full DDA requirements, including full lift access to both platforms. Also clarification is required on the rationale for the proposed trigger for the point at when these works will take place requires further understanding. These improvements will need to be undertaken in advance of any development taking place and secured through planning obligation. The specification supplied to TfL by the applicant for undertaking this work are not based on a realistic understanding of the cost of providing step free elsewhere on the London Underground network.

83. The link between the underground station and the rest of the development is very poor and must be improved ahead of development taking place. In addition TfL requires the pedestrian bridge over the A41 brought forward within the development programme.

84. Other proposals to improve, redevelop the station interchange will need to be discussed in detail with LU before a decision is reached on their acceptability as this land is in London Underground ownership.

Walking

85. On completion of the development it is anticipated that the environment for walking will be improved from its existing poor condition. New and improved pedestrian bridges will be provided across the A41 and A406 and new desire lines created between the core functions of the development, including the route from Brent Cross Shopping Centre to Brent Cross Underground station. TfL supports these proposals as long as they are provided early in the delivery programme. TfL sees a considerable risk in piecemeal pedestrian improvements because there is no committed sequencing beyond Phase 1 (PDP).

86. Instead the applicant has relied upon the completed development without giving clear details of how and when these improvements will be provided. TfL accepts that much of the detail can be agreed through reserved matters applications but is disappointed that the applicant is yet to undertake a thorough pedestrian modelling exercise. Full pedestrian PEDROUTE modelling will need to be undertaken at the 4 key interchanges: Brent Cross Bus Station; Brent Cross Underground Station; existing Cricklewood Railway station; and the new Cricklewood Station, prior to detailed design being agreed.

87. A PERS analysis of the surrounding pedestrian network is also required beyond the immediate site boundary. The TA currently describes conditions internal of the site but does not assess or commit to wider improvements which link the development to the wider community and to existing networks, for example the London Ring or Strategic Walk Network.

88. TfL will require the applicant through planning conditions and Construction Management Plans (CMP) to guarantee and maintain safe and efficient pedestrian access during construction.

89. TfL still needs to see details of the walking schemes (pavement widths, gradients etc) and quality, detailed maps which should identify where people will be travelling to and from, to justify the selected walking routes and improvements. TfL is still awaiting a response from the applicant on the detail of the Strategic Walk Network (SWN), which passes through the area,

ultimately as a leisure route, but which should be used as another route for pedestrians accessing the site. TfL expects the applicant to contribute towards improvements to the SWN.

90. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan *Policy 3C.21 Improving conditions for walking*.

Cycling

91. The Mayor and TfL view promotion of cycling as one of the most critical mode shift objectives in changing travel behaviour. This development represents an excellent opportunity to provide an efficient way of travelling in North London. As with walking the applicant has committed to providing new bridges and roads which are supported by TfL as long as they provide for safe and unrestricted cycling penetration. The approach which does not commit to necessary works or improvements particularly at junctions.

92. The proposals seek to provide cycle lanes throughout the internal network of the site without providing sufficient detail or reference to TfL recognised standards and guidelines. The proposals fail to demonstrate fully a commitment to linking cycle routes up to the wider network in a comprehensive manner.

93. Further detailed design will also need to be agreed with TfL in order to give priority to cyclists. Of particular concern to TfL is how cycling will be designed into the M1/A406/A5 strategic junctions, and into the local southern gateway junctions. TfL requires commitment from the applicant to improve links to Cricklewood, Colindale, West Hendon and Hendon Central.

94. TfL has requested that a cycle hire scheme be provided, managed and funded by the applicant. Further detail of the club will need to be agreed with TfL and Barnet Council. This facility could play a key role in managing cycle parking and cycle use across the site by reference to the Mayors strategic cycle hire proposals and safeguarding for parking and facilities.

95. The applicant will need to exceed the end state 2026 mode shift targets for cycling of 2% applied in the FTP which is not considered sufficiently aspirational for a town centre location compared to those set for bus and rail.

96. TfL will require the applicant through planning conditions and Construction Management Plans (CMP) to guarantee and maintain safe and efficient pedestrian access during construction.

97. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan *Policy 3C.22 Improving conditions for cycling*.

Cycle parking

98. The applicant has suggested that cycle parking will be consolidated across different uses, TfL requests further clarification of how this will be implemented and how it relates to the overall numbers proposed. To strengthen the case for cycle use, the applicant must provide cycle parking ratios by use in accordance with TfL cycle parking standards as defined in *London Plan Policy 3C.22 Improving conditions for cycling*. The absolute number of spaces and their location should be clearly illustrated in a set of drawings and the design and detail will need to be agreed in writing with TfL at each reserved matters stage. TfL will use planning conditions and

obligations to ensure that this development meets the current Mayoral objective of enhancing cycle use across London having regard to cycle hire schemes.

Delivery and servicing

99. The applicant has prepared a draft Framework Servicing and Delivery Strategy (FSDS) to accompany the TA. The document is welcomed by TfL and includes a number of measures for site specific and land use allocations. TfL will require firm commitments from the applicant to undertake further assessment of the strategy as detailed at each stage of the planning process by phase and as part of the Reserved Matters applications. .

100. The key objective will be to ensure that the planning permission places an absolute obligation on the applicant to intervene and fund necessary controls to successfully implement the strategy. The role of the strategy should not be underestimated in reducing the demands for freight traffic and minimising activity during peak periods.

101. TfL will endeavour to insist upon use of planning conditions and obligations to encourage early delivery of some infrastructure provision including rail freight, waste handling, retail consolidation centre and in setting up freight operating systems and management practices.

102. TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan *Policy 3C.25 Freight strategy*.

Summary

103. The applicant is yet to satisfactorily address a number of concerns about the TA which are highlighted in this report which must be resolved before the application can be considered to comply with the London Plan, Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework and the Mayor's emerging transport strategy. These can be summarised along with requirements for further work, non-exhaustively as follows

- further assessment of interim phasing for AM, PM and SAT peak periods by reference to network performance and capacity;
- clarification of mode split forecasts in the TA and agreed mechanism for achieving targets in the FTP;
- more information on how mode split targets will be met progressively;
- planning controls limiting development based on achievement of mode split targets by reference to network performance and capacity;
- infrastructure delivered at suitably early stages in implementation allowing controls to be relaxed on achievement of mode split targets by reference to performance and capacity;
- triggers rationale and sequencing to be provided in more detail and agreed concurrently with mitigation;
- sign off of strategic junction assessments, including assessment of junction capacity in line with development thresholds;

- further clarification of trip assignment, mode split, network capacity and performance as part of the no railway station and Midland Mainline Bridge sensitivity tests;
- agreement of the scope of future Reserved Matters planning applications and transport assessments;
- more robust analysis of construction impact during the peak periods and at interim stages;
- a commitment to provide significant public transport as part of Phase 1 (PDP);
- substantial reduction in the number of proposed car parking numbers, including a 0.5 spaces per unit site wide residential car parking ratio; capping of retail car parking to current levels; reduced parking ratios or capping of parking for office and other uses across the site;
- further clarification of car parking restraint measures;
- a revised strategy for delivering a new bus station, including response to each of the issues raised in the report;
- further assessment of bus journey times to ensure that they will be improved as the development proceeds;
- study assessing the potential for additional bus priority measures external and internal of the site, including a schedule of potential schemes;
- withdrawal of the proposed RTS in favour of an enhanced bus network;
- agreement on total bus subsidy and mechanism for payment;
- removal of proposed Rapid transit System and replacement with enhanced bus network;
- PEDROUTE and PERS pedestrian modelling at the key interchanges, external of the site boundary and between transport nodes, strategic walk network, including contributions towards improvements;
- agreed cycling strategy for the key routes and interchanges, including priority for cyclists at the southern junctions, linkages into strategic cycle network, and to West Hendon, Hendon Central and Colindale, and across the M1/A406 junction;
- mechanism for linking site wide travel plans into achieving the Framework Travel Plan (FTP) objectives and targets and a clear commitment to desired outcomes;
- further details pursuant to buses, bus station, Brent Cross Underground Station, Cricklewood Station, the new railway station; walking and cycling routes;
- terms of reference for the TAG and Transport Fund to be agreed with TfL and Barnet Council .
- heads of terms for the s106 to be agreed with TfL and Barnet Council.

104. Given the scale of the development, amount of contribution required for transport and uncertainties surrounding the sequencing of development, Mayoral approval must be predicated on TfL being a party to the s106 agreement. This will give TfL greater comfort that the development can be managed and controlled post permission. TfL and Barnet council as highway authority and custodians of the public transport networks are responsible for making decisions on their operation and management.

105. TfL continues to support the principle of town centre development at Cricklewood and Brent Cross as defined in the London Plan. However, based on the information provided in the TA, TfL is unable to make a firm recommendation to the Mayor until the issues set out above are satisfactorily addressed.