SCHEDULE 17

Matrix and Transport Reports Schedule (as at the date of this Agreement) (subject to replacement and amendments as approved under the conditions of the Permission)

This is the Schedule number 17 to the Section 106 Agreement dated October 2010 and made between (1)THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF BARNET (2)KLEINWORT BENSON (CHANNEL ISLANDS) CORPORATE SERVICES LIMITED (3) KLEINWORT BENSON (JERSEY) TRUSTEES LIMITED (4) HAMMERSON (BRENT CROSS) LIMITED (5) CRICKLEWOOD REGENERATION LIMITED (6) HAMMERSON (CRICKLEWOOD) LIMITED and (7) TRANSPORT FOR LONDON

PARTY	SIGNATORY/SIGNATORIES
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF BARNET	00000
KLEINWORT BENSON (CHANNEL ISLANDS) CORPORATE SERVICES LIMITED	THE CAD
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TRANSPORT FOR LONDON	MAR) f

THE MATRIX AND TRANSPORT REPORTS SCHEDULE

BRENT CROSS CRICKLEWOOD

TRANSPORT MATRIX AND TRANSPORT REPORT SCHEDULE

September, 2010

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SECTION 1: INTRODUCTION

- 1.1 This Appendix defines the operation of the Transport Matrix, Monitoring Strategy, Phase Transport Reports and Reserved Matters Transport Reports which have been agreed by the Development Partners, the London Borough of Elarnet (LBB) and Transport for London (TfL) as a framework of control to ensure that the BXC development is carried out in a manner which (a) is consistent with the transport impacts forecast within and (b) meets the criteria for success defined in, the BXC Transport Assessment¹ (the "TA") by demonstrating that the development as it proceeds will:
 - i. meet policy objectives;
 - ii. mitigate people movement effects through better public transport services and improvements to transport infrastructure; and
 - iii. only proceed within the forecasts and assumptions as to impacts on the transport network as set out in the TA Volumes 1-4 (which expression shall include the TA Supplementary Report (November 2008) and Supplementary Report II (March 2009)).
- 1.2 For the scheme to be consistent with the impact predicted in the TA at all phases of the development, there should be a rigorously enforceable control mechanism preventing the development coming forward unless it reflects (to the reasonable satisfaction of LBB and TfL) the full transportation characteristics and effects of the development as generally no worse than the impacts forecast in the TA. To facilitate the operation of the control mechanisms, this will need to include the following:
 - a monitoring strategy that measures all trips generated by the development (as well as travel behaviour) such as development traffic, construction traffic and the impact of overlapping phases on the public highway and public transport networks;

¹ The term "TA" includes the Transport Assessment (BXC 05 - September 2008) submitted in support of the BXC planning applications together with the Transport Assessment Supplementary Reports submitted in November 2008 and March 2009, and updated Road Safety Audits and List of Errata Rev 4 submitted 2nd July 2009.

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- an appraisal methodology that uses best available up to date BXC data from the monitoring strategy at the time of that assessment;
- c) a report for the relevant phase or, where appropriate, the relevant reserved matters application which responds to benchmarks as defined in this Appendix to ensure that the development continues to behave in accordance with the transport characteristics forecast in the TA;
- a mechanism to ensure that the transport investments being made by the Developers are appropriately integrated into the surrounding transport network satisfactorily for all modes – this will require studies to be undertaken of defined transport corridors and areas which properly connect the development to the wider transport network;
- e) a means of ensuring that full account is taken of transport issues and a comprehensive pedestrian and cycle network is provided within the site and connecting to adjacent areas as the development progresses.
- 1.3 Specific objectives for the Transport Matrix, Corridor and Area Studies and the Transport Reports have been defined by TfL and the LBB and relate the London Plan to the development proposal, as follows:-
 - *i.* matching development phases to overall transport capacity (policy 3C.2);
 - *ii.* to provide an assessment tool that monitors the achievement of the sustainable transport objectives set out in the Framework Travel Plan and ensures that the impacts of the Development (measured in trips) as it proceeds are within the forecast levels as represented by the Benchmarks defined in this Appendix (policy A.1 and policy 3C.3);
 - iii. ensure land is made available by the applicant for the transport needs of the scheme and ensure that the transport network provided can service the site (policy 3C.4);
 - *iv.* ensure that the transport corridors that serve the site are improved by the Developer to mitigate the impact of the development, to support improvements to network performance and sustainable transport objectives (policy 3C.16);

- ensure public transport facilities are upgraded alongside service enhancements which are to be funded by the applicants and to be provided in collaboration with Network Rail, TfL or appropriate other transport providers (policy 32.19 and 3C.20);
- vi. promote the safety of all transport users, in particular pedestrians, cyclists, disabled people, public transport, freight and business (policy 3C.21, 3C.22, 3C.25 and 3C.26);

- vii. help to mitigate the impacts of the development on the transport network (policy 3C.2 and 3C.3);
- viii. ensure no over provision of parking supply at any phase of the development and that car parking provision is made consistently with the objectives in the TA to achieve enhanced mode shares for non-car modes (policy 3C.23 and 3C.24).
- 1.4 This Appendix explains how the Transport Matrix, A5 Corridor Study, Area Wide Walking & Cycling Study, Phase and Reserved Matters Transport Reports will help to meet these shared objectives, in accordance with the provisions which it is proposed will be contained in the planning conditions and the associated Initial Planning Agreement.

SECTION 2: A FRAMEWORK OF CONTROL

a) Summary of Controls

- 2.1 The measures which are described in this Appendix form part of a wider framework of controls which it is intended will be contained within the planning conditions and the associated Initial Planning Agreement in relation to transport matters. These include:-
 - provision for residential car parking to reduce over time on a sliding scale from a ratio of 1:1 in the Primary Development Package (PDP) down to 0.7 with the precise level to be set out in each Phase Transport Report (PTR) (parking strategy / demand management section) – this may include a proportion of car free housing with the agreement of the planning authority;
 - ii. charging for retail, office, residential and on street car parking, save for special needs requirements (such as disabled);
 - iii. walking and cycling network that properly connects the development within a phase or sub-phase or reserved matters application to the surrounding areas of the site and the wider network at each phase of the development and in accordance with the A5 Corridor Study, Gateway junction designs and Area Wide Walking and Cycling Study;
 - iv. a Framework Travel Plan which sets objectives for a progressive enhancement of mode split towards public transport, reinforced by continuous monitoring and by a requirement for Individual Travel Plans (ITPs) for each plot development;
 - v. the appointment of a Travel Plan Co-ordinator (TPC) and a Construction Traffic Management Officer (to be approved by LBB and TfL) to co-ordinate and enforce compliance with the transport obligations;

vi. as part of the Consolidated Transport Fund provision of bus stop improvements (compliant with TfL guidance and DDA requirements) within 400 metres of the application boundary, provision is also made, beyond the consolidated Transport Fund, toward mitigating the construction impact on the bus network and provision of a bus subsidy;

- vii. a Contingency Transport Fund (within the Consolidated Transport Fund) to be potentially spent by the authorities on a wide range of detailed mitigation measures that respond to any unpredicted circumstances and to enhance the transport performance of the development;
- viii. a contribution towards improving the corridors outside the development, specifically the A5, and pedestrian and cycle routes, including the reasonable and proper costs of any detailed mitigation measures which are found to be necessary by the A5 Corridor Study and the Area Wide Walking and Cycling Study;
- ix. the establishment of a Transport Advisory Group, drawn from the principal stakeholders to receive output from monitoring and to liaise and advise on the evolving implementation of the transport strategy, as the development proceeds; and
- x. provision of on street parking controls through the progressive implementation of the development and the extension of existing or introduction of new off site parking zones as reasonably necessary, in accordance with the Initial Planning Agreement.
- 2.2 In addition to these measures, the planning application defines a series of infrastructure investments (priced in excess of £400 million) which are to be delivered as the development proceeds in accordance with detailed Delivery Programmes which will be consistent with the parameters and principles as to sequencing of operations for the delivery of Critical Infrastructure as set out in the Indicative Construction Programme. The delivery of critical infrastructure is also linked to defined triggers and Grampian conditions/obligations proposed to ensure that the infrastructure item is provided prior to the opening or occupation of specific floorspace or elements of the development.

- 2.3 The PTR would be required to explain and justify, as appropriate, the proposed physical layout of the transport infrastructure and proposals for its phased implementation, including primary and secondary roads, pedestrian and cycle routes, bus routes and infrastructure, other public transport infrastructure and services, freight and servicing arrangements, proposed level and location of cycle and car parking.
- 2.4 A generic scope for the PTRs is contained in Annex 5, together with the scope of the Reserved Matter Transport Reports (RMTR). The final scope (which shall be within the terms of the generic scope) for each PTR and RMTR will be agreed with LBB and (for certain matters covered by the Town & Country Planning (Mayor of London) Order 2000 and which are likely to have a significant impact on the Strategic Transport Network in respect of RMTRs insofar as these have not already been covered in approved PTR) TfL to allow appropriate specific issues to be considered.
- 2.5 The detailed scope of transport monitoring is set out in Annex 6. For the avoidance of doubt, monitoring will be carried out on trips with an origin or destination within the BXC development site and will allow the authorities to assess whether the impact of development trips are similar to the impact assessed in the TA on the transport network, taking account of 2026 end state, various sensitivity tests and Primary Development Package (PDP) assessments.
- 2.6 In considering the appropriate level of residential and other car parking regard shall be had to the following:
 - i. the need to achieve the progression toward the end state mode share target set out in the TA and the Transport Matrix;
 - ii. the need to ensure that the viability of development is not unnecessarily constrained by parking limitations and/or traffic congestion;
 - the role of car parking charges, car parking management and car club/car sharing and provision for electric cars;
 - iv the capacity of strategic and local transport networks;
 - v. the need to achieve a high quality, sustainable development;

vi. Public Transport Accessibility Levels (PTAL).

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- vii In respect of residential car parking the aim to provide lower than the maximum car parking standards in condition 38.2 so that the level of car parking will be constrained which is likely to allow low car and car free development in areas of high public transport accessibility; and
- viii The need to have regard to changes in adopted planning policy and best practice as appropriate.
- 2.7 Against this background more detail is set out in the following sections on the proposed operation of the Transport Matrix, the Corridor and Area Studies and the PTR and RMTRs.

SECTION 3: TRANSPORT MATRIX

- 3.1 The Transport Matrix must demonstrate, on a Phase by Phase and/or Sub-Phase by Sub-Phase basis, that the proposed development will continue to operate in accordance with the impact predicted within the BXC TA. A robust mechanism is proposed which would ensure that:
 - the development will at each Phase or Sub-Phase demonstrate progress toward the end state mode share consistent with the objectives set in the Framework Travel Plan;
 - the development will in no Phase or Sub-Phase impose demands or impacts on the transport network which are greater than those assessed in the BXC TA; and
 - transport infrastructure will be provided that caters for the needs of the development and is in accordance with gateway junction designs (which will be informed by the outcome of the A5 Corridor Study and Area Wide Walking and Cycling Study).
- 3.2 The Transport Matrix is a spreadsheet based assessment based on the predictions in the BXC TA and end state target in the Framework Travel Plan, which must be undertaken by the Development Partners and approved by LBB and TfL prior to the submission of the each PTR. The Transport Matrix will inform the final scope of the PTR. Where the set benchmarks (discussed below) are exceeded during the completion of the Matrix, those issues will be considered and addressed within the PTR. As such, the submission of the Transport Matrix will be accompanied by the proposed scope of the PTR which shall be agreed by LBB and TfL as providing sufficient information to demonstrate that the Benchmarks are fulfilled before a Phase Transport Report may be submitted.
- 3.3 If the Transport Matrix demonstrates that the development is unlikely to meet the benchmarks in Table 3.1 (the narrative for which are set out in Annex 3) or that the Phase or Sub-Phase in question is likely to have impacts which are worse than predicted in the BXC TA then one or more of the following actions would need to be proposed by the Development Partners and approved by LBB and TfL as part of the PTR:-

- 1. to demonstrate that the deviation is within acceptable bounds across all of the benchmarks, acknowledging that variation will be acceptable, unless the variance is so adversely significant such that a new planning application or Transport Assessment would be required. For example, overall traffic generation is much lower even though mode target is not fully achieved and that as a result the impacts on the transport network are within acceptable limits.
- 2. alternative or additional demand management measures to mitigate the impacts so that they fall within the forecast (or otherwise acceptable) levels. For example, reduced car parking supply or additional incentives to cycle, walk or use public transport.
- 3. variation of timing of committed transport infrastructure and service improvements. For example, earlier delivery of new bus services.
- 4. additional transport infrastructure and service improvements. For example, traffic management measures on approaches to gateway junctions.
- 5. submit a revised planning application with a new Transport Assessment.
- 3.4 The Development Partners will keep available the BXC Transport Model, or to use such other model as may be agreed by the Development Partners, LBB and TfL, together with relevant monitoring information, necessary to inform future decisions in the context of bullets points 2-5 above. The Development Partners' detailed proposals for any appropriate modelling tools that are required in the circumstances at the time, shall be submitted to LBB and TfL for approval prior to submission of the relevant PTR and the relevant PTR shall be based on such details as so approved.

- 3.5 The benchmarks are related to predictions in the BXC TA and current development quantum. The purpose of the benchmarks is to assess whether the local transport and strategic networks are performing as forecast in the TA and whether any additional impact is being or likely to be caused by the development. The long term forecasting of transport impact is subject to variability. Therefore, it is intended that these benchmarks should not be used as definitive tests but they shall be considered with potential variances and these shall be taken into account in scoping the Phase Transport Reports, unless the variation is so adversely significant such that a new planning application and Transport Assessment is required. Appendix 1 contains a table which illustrates the headings and approach of the Transport Matrix. Appendix 2 contains a series of work sheets, with written narratives in Annex 3, which describe and define the Benchmarks for each heading within the Transport Matrix. The structure and content of the Transport Matrix is summarised as follows:-

T1	Introduction.	
T2 – T10	Details of Development Quantum – does the proposed Phase and RMA floorspace fall within the land use and locational parameters set out in RDSF Appendix 5?	Compliance or Non-Compliance
T11 – T19	Total Number of Development Trips (excluding any allowance for trips from existing land uses that may be replaced) - does the trip rate based on monitoring of occupied floorspace within the BXC development indicate that more trips will be generated by the the floorspace proposed within the Phase or Sub-Phase, and cumulatively overall, than the trip rates assumed in the TA?	If the cumulative BXC trip generation of all uses within a phase or sub-phase, and cumulatively overall, based on monitoring, is likely to be greater than that based on TA trip rates, then the issue will be considered and addressed in the PTR.
T20 – T22	Total Trip Generation by Mode – Using any monitoring information obtained to date and the forecasts for the next proposed Phase or Sub-Phase of the development, is the BXC weekday mode share of trips by car consistent with the objectives set out in worksheets for this stage of the development?	If the proportion of BXC trips by car during the weekday is likely to be more than the percentage predicted in the work sheets, then the issue will be considered and addressed in the PTR. This Benchmark also takes account of (average) car occupancy benchmarks: AM: 1.3 people per car PM: 1.48 people per car Saturday: 1.62 people per car

Table 3.1 - Details of the BXC Transport Matrix

T23	Mitigation and Triggers - have the	Compliance or Non-Compliance.
	defined items of infrastructure come forward in accordance with or before the triggers defined in work sheets T23 and set out in greater detail in the RDSF at Appendix 7 (and incorporated into the planning conditions in the Permission), having regard to the quantum of floorspace approved and now additionally applied for?	
	Is the relevant programme for delivery of Critical Infrastructure in the relevant Phase or Sub-Phase consistent with a) the Indicative Construction Programme (as it may have been updated with the requisite approval of the Council) and b) the relevant approved Detailed Delivery Programme.	
⊺24	Gateway Junction Demand – using the trip generation and mode share information above, is the BXC development forecast to generate a greater number of trips at the gateway junctions in the weekday, am, pm or Saturday peak hours than work sheet T24 indicate would have been anticipated for the development so far approved and additionally now proposed?	If the number of BXC passenger car unit trips passing through any gateway junction is more than the number predicted by the worksheets, then the issue will be considered and addressed in the PTR or (as appropriate) RMTR and/or detailed engineering design for the S.278 Agreement.
T25	Construction Traific – having regard to monitoring information and forecasts for the next proposed stage of development, does the number of construction vehicle movements generated by the development and passing through the gateway junctions conform with that anticipated by the work sheets?	If the number of BXC related construction vehicle movements passing through these junctions is forecast to be more than the maximum peak hour movements predicted in the work sheets, then the issue will be considered and addressed in the PTR or (as appropriate) RMTR and/or detailed engineering design for the S.278 Agreement.

3.6 It will be for the Development Partners to demonstrate to LBB and TfL, through the use of the Transport Matrix, that the assumptions and forecasts in the TA are met, having regard to the benchmarks and parameters set out above before any PTR or RMTR is submitted for approval (provided that in respect of RMTRs, TfL's approval will only be required for certain matters covered by the Town & Country Planning (Mayor of London) Order 2000 and which are likely to have significant impact on the Strategic Transport Network).

- 3.7 Once a Transport Matrix (and scope for the PTR) has been approved for a Phase the relevant developer may proceed to submit substantive PTRs, and (subject to having obtained approval to the relevant PTR) Reserved Matter Applications supported by a RMTR, as necessary, if and to the extent that these are consistent with the outcomes of the approved Transport Matrix.

SECTION 4: TRANSPORT REPORTS AND CORRIDOR STUDIES

a) <u>Transport Reports</u>

- 4.1 PTRs are required to be submitted and approved by LBB and TfL in respect of any Phase or Sub-Phase prior to the submission of any Reserved Matters Application (and accompanying RMTR) for any part of the Development within such Phase or Sub-Phase. RMTR shall be submitted for approval by LBB and (for certain matters covered by the Town & Country Planning (Mayor of London) Order 2000 and which are likely to have significant impact on the Strategic Transport Network in respect of RMTRs – see above) TfL only after the relevant PTR has been approved and the content and scope of such RMTRs shall be fully consistent with the relevant approved PTR.
- 4.2 Annex 5 to this Appendix comprises a document explaining the generic scope of the PTRs and RMTRs. The final scope of the PTRs (which shall be within the terms of the generic scope) will be approved by TfL and LBB under the planning conditions and obligations, and will be informed by the relevant Transport Matrix. Those benchmarks in the Transport Matrix which exceed the forecast figures in the TA shall be considered and addressed in the PTR. The final PTR scope for approval shall be submitted simultaneously with the relevant Transport Matrix.
- 4.3 In summary, the principal matters that will fall to be considered in the PTR and RMTR are as follows:-
 - the scale of development proposed in the relevant Phase, Sub-Phase or RMA or relevant Other Matters Application in which transport impacts may reasonably need to be considered and the cumulative scale of development taking into account that which may have already been approved as part of the BXC regeneration;

- ii. the detailed design of transport infrastructure forming part of the relevant Phase, Sub-Phase or RMA, including the internal highway network, pedestrian and cycle provision, on-street parking management measures if appropriate; public realm and public transport services and facilities and how these will integrate with the wider network, having regard to the framework of transport infrastructure approved in the PTR;
- the appropriate off-street parking strategy for the relevant Phase, Sub-Phase or Plot(s) and proposed improvements to site accessibility via sustainable modes of travel, if and to the extent that these are not already settled in the approved PTR;
- iv. the appropriateness of the transport infrastructure proposed in the RMA having regard to both the existing and forecast BXC trip generation and the terms of the approved PTR;
- v. provision for the cumulative impacts of all BXC development approved, under way or applied for (including construction, delivery and servicing traffic) across all transport modes and at all junctions and links within the development site;
- vi a clear statement as to the assumptions as to the programming and delivery of the Critical Infrastructure in relevant Phase or Sub-Phase or Plot Development in accordance with the approved detailed delivery programme.
- 4.4 The PTR and RMTR shall report comprehensively on all relevant detailed transport issues raised by the RMA and shall demonstrate the acceptability of the proposals contained within the relevant Phase or RMA, consistent with the terms of the outline planning permission and (in the case of an RMTR) the approved PTR. The final scope and specification for each Transport Report (which shall be within the terms of the generic scope and have regard to the completed Transport Matrix) will need to be approved by the LPA and (in the case of Phase Transport Reports) TfL. In this way, the PTRs and the RMTRs will complement and be fully consistent with the strategic assessment reported in the BXC TA, the findings of the Transport Matrix and (in the case of the RMTRs) the matters settled in the approved PTR.

4.5 The Transport Matrix, the PTRs and the RMTRs will operate alongside and in conjunction with the separate but related mechanisms under the planning permission and the planning obligations including the Transport Advisory Group, the Consolidated Transport Fund, the operation of the Framework Travel Plan and the Travel Plan Co-ordinator. The PTR and RMTR will be required to take full account of, and to implement the initiatives set out in the A5 Corridor Study and the Walking and Cycling Study and the approved Servicing and Delivery Strategies insofar as they are relevant.

b) Corridor & Area Studies

- 4.6 As part of the consideration of the BXC proposals, the authorities have required the applicant to commit to necessary improvements to the localised transport infrastructure between the interface of the site and the surrounding communities and to determine what these improvements should be by carrying out corridor and area studies. The A5 Corridor Study will provide information to inform the detailed design process. It is intended that these will be dealt with in the planning conditions and the Initial Planning Agreement.
- 4.7 The A5 Corridor Study will be carried before the development commences. This will be required to be addressed in the relevant PTR(s).
- 4.8 The A5 Corridor Study will have the following scope set out in Annex 7.
- 4.9 The detailed approach to modelling for the purposes of the A5 Corridor Study will be agreed with Brent and Barnet Borough Councils, and TfL before it is undertaken. In principle, however, it is proposed that the existing BXC strategic transport model should be used as the basis for constructing a more specific local model. Using the existing model will retain the fundamental traffic assumptions inherent within the TA.
- 4.10 It is proposed that a VISSIM micro-simulation model is formed based on the area defined in Annex 7. The aim will be to cordon out the A5 area from the strategic BXC model and then introduce the modelling of more localised junctions and movements into the analysis.

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- 4.11 This work would be undertaken for the AM and PM peak periods for development scenarios to be agreed with LB Barnet, in consultation with TfL and adjoining boroughs as necessary.
- 4.12 The Area Wide Walking and Cycling Study will examine pedestrian and cycle routes in accordance with the following scope:
 - examine pedestrian routes connecting the site with key destinations (i.e. Cricklewood town centre, Brent Cross and Hendon Central Underground stations and Hendon Thameslink) and local residential area (i.e Dollis Hill, Cricklewood, Childs Hill, Golders Green, Hendon and West Hendon) to the BXC site;
 - examine cycle routes connecting the site with key destinations, nearby existing local or strategic cycle routes (i.e. LCN routes and the A5) and local residential areas;
 - the study would need to conducted in close liaison with the TAG and consult local cycle groups and other key stakeholders;
 - the study area will be defined in agreement with LBB and TfL in relation to key destinations;
 - the study is expected to deliver a programme of potential schemes for improvements to pedestrian and cycle facilities adjacent to or beyond the site boundary, providing improved access to and/or from the BXC site. Any necessary supplementary mitigation will be funded by the Development Partners, with other costs funded by the Consolidated Transport Fund.
- 4.13 The detailed requirements of future monitoring, within the overall scope set out in Annex 6, can be agreed with LBB, TfL, and the developers (and tailored to the situations at the time) and, where appropriate, other highway authorities including but not limited to the LB Brent and the LB Camden.

- 4.14 Cycle link existence and performance Comprehensive cycle network ensures that for each Phase of development it is possible to cycle along a designated cycle route between those parts of the development in that phase, and where appropriate those Phases already completed or in the process of being constructed, and to join links to the strategic cycle network where practical and consistent with Parameter Plan 003.
 - To pass this test the links need to be deliverable in compliance with London Cycle Design Standards and/or agreed audited benchmark.
 - The network of relevance includes Parameter Plan 003 as shown indicatively in Figure 4 in the Non-Technical Cycling Strategy and it outlines the proposed network to be used by cyclists.
- 4.15 Pedestrian link existence and performance Comprehensive pedestrian network that ensures that at each phase of development it is possible to walk safely between all parts of the phase and to key destinations, transport nodes and neighbouring residential areas by direct, convenient, comfortable, convivial and usable by all abilities where practical. The benchmark should aspire to a Pedestrian Environment Review Score of +3 for each link below, for which it is acknowledged that the Development Partners will only be liable to undertake any works suggested which are fairly and reasonably related to the development.
 - Links to West Hampstead and Dollis Hill, including the A5 Corridor;
 - Links towards Childs Hill, including Cricklewood Lane;
 - Links through and around A41 Mid Level junction and A5/M1 Staples Corner junction, and pedestrian movement within A406 and A41 areas;
 - Links to Brent Cross London Underground Station;
 - Links to Hendon Thameslink (via residential area to north-west of BXC);
 - Links to Capital Ring, 100 metres north of the site;
 - Links to Hendon Central London Underground Station.

<u>Annexes</u>

Annex 1:	Overall Matrix Spreadsheet
Annex 2:	Matrix Worksheets
Annex 3:	Matrix Benchmark Narratives
Annex 4:	Explanatory Notes to Worksheets
Annex 5:	PTR & RMTR Scopes
Annex 6:	Monitoring Strategy
Annex 7:	A5 Corridor Study

Annex 1

BRENT CROSS, CRICKLEWOOD MATRIX REPORT

THE MATRIX

Development	Development	Modal Split	Trips by	Available Capacity		Capacity	Mitigation/Trig	Network	
Phase	Quantum		Mode	Trip Distribution	Impact	Shortfall	gers	Outcome	
					-				
							1		

Illustration of the BXC Transport Matrix

MATRIX WORKSHEETS

Transport Matrix - Annex 2: <u>Table T1</u> - Introduction

LINKAGE TABLE contents

Development Phase Development Quantum (by use) Trip numbers Trip numbers Modal Split (as related to FTP) Trigger at this quantum Available Network Capacity (assignments/impacts) Capacity shortfall (current vs impacts, all modes, 3 time periods) Mitigation/Triggers (re-visit each time) Network Performance Outcome.

Contents of the individual worksheets are described in the accompanying Technical Note D119038/42 Reserved Matters Transport Reports and Matrices, Scott Wilson, January 2009.

Capacity is in general being introduced ahead of demand

If development is brought forward so are the triggers, they accompany each other

Illustrative strategy for the progressive development of bus services as proposed in TA and Bus Strategy Document

Other Reference Documents

BXC Transport Assessment, Volumes 1-4, Scott Wilson, 15 September 2008 (BXC 05) BXC TA Supplementary Report, Scott Wilson, 15 November 2008 (BXC 05) & TA Supplementary Report II (March 2009) Construction Impact Assessment, Woolf, September 2008 (BXC 21) Development Specification & Framework, RPS. (BXC 01) 02-Feb-09

Annex 2

Transport Matrix: <u>Table T2</u> - Development Quantum by Development Zone/Area, By Illustrative Phase PDP (Phase 1)

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL m2
Retail Uses										
BXSC	38626									38626
Food Retail			19,509							19,509
PFS										
Neighbourhood				3066						3066
Office										
Hotel & Conference	20574			11148						31722
Community Uses	500			1075					251	1826
Medical Centre										
Private Hospital										
Schools						4864				4864
Leisure Uses	2064									2064
Sports Centre	in the second			4961						4961
Cinema	10228									10228
Residential			39165	80984		4181				124330
Industrial uses										
General Industrial										0
Waste Handling Facility							24619			24619
Rail Freight Handling Facility										
TOTAL m2	71992		58674	101234		9045	24619		251	265815

Transport Matrix: <u>Table T3</u> - Development Quantum by Development Zone/Area, By Illustrative Phase Phase 2

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Plaving Fields	TOTAL m2
Retail Uses										
BXSC	39507									39507
Food Retail										and him have refer in
PFS			326							326
Neighbourhood			372	3391	1			604		4367
Office	5396		3809							9205
Hotel & Conference										
Community Uses	1498		1957							3455
Medical Centre	1400		3000					1150		4150
Private Hospital										
Schools			19624							19624
Leisure Uses	3158									3158
Sports Centre			2880							2880
Cinema									1	
Residential	26034		69211	89768				2380		187393
Industrial uses										
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility										
TOTAL m2	75593		101179	93159				4134		274065

Transport Matrix: <u>Table T4</u> - Development Quantum by Development Zone/Area, By Illustrative Phase

Phase 3

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL m2
Retail Uses		T4_								
BXSC										
Food Retail										
PFS										
Neighbourhood			557							557
Office			2322							2322
Hotel & Conference										
Community Uses			232							232
Medical Centre										
Private Hospital			18580							18580
Schools										
Leisure Uses								1		
Sports Centre										
Cinema										
Residential		52342	122385							174727
Industrial uses										
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility										
TOTAL m2		52342	144076							196418

Transport Matrix: <u>Table T5</u> - Development Quantum by Development Zone/Area, By Illustrative Phase Phase 4

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL m2
Retail Uses										
BXSC				l						
Food Retail										
PFS										
Neighbourhood						140				140
Office							5574			5574
Hotel & Conference							T5_			
Community Uses										
Medical Centre										
Private Hospital										
Schools										
Leisure Uses										
Sports Centre										
Cinema										
Residential						47006				47006
Industrial uses							7432			7432
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility							29263			29263
TOTAL m2						47006	42269			89415

Transport Matrix: <u>Table T6</u> - Development Quantum by Development Zone/Area, By Illustrative Phase Phase 5

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Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL m2
Retail Uses										
BXSC										
Food Retail										
PFS										
Neighbourhood					1858	232				2090
Office					36416					36416
Hotel & Conference										
Community Uses						232				232
Medical Centre										
Private Hospital										
Schools										
Leisure Uses		_			929					929
Sports Centre										
Cinema										
Residential					35230	143367				178597
Industrial uses										
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility										
TOTAL m2					74433	143831				218264

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Transport Matrix: <u>Table T7</u> - Development Quantum by Development Zone/Area, By Illustrative Phase Phase 6

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL m2
Retail Uses										
BXSC									1	
Food Retail										
PFS										
Neighbourhood					1626					1626
Office					196391					196391
Hotel & Conference		l			29542					29542
Community Uses	1				232					232
Medical Centre										
Private Hospital										
Schools										
Leisure Uses					1858					1858
Sports Centre										
Cinema										
Residential										
Industrial uses										
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility										
TOTAL m2					229649					229649

Transport Matrix: <u>Table T8</u> - Development Quantum by Development Zone/Area, By Illustrative Phase

Phase 7

Land Use Quantum m2	Brent Cross East	Brent Cross West	Eastern Lands	Market Quarter	Station Quarter	Brent Terrace	Railway Lands	Cricklewood Lane	Clitterhouse Playing Fields	TOTAL
Retail Uses										
BXSC										
Food Retail							1			
PFS										
Neighbourhood				276	1161					1437
Office				4645	140744					145389
Hotel & Conference										
Community Uses										
Medical Centre										
Private Hospital										
Schools										
Leisure Uses										
Sports Centre	1									
Cinema										
Residential										
Industrial uses										
General Industrial										
Waste Handling Facility										
Rail Freight Handling Facility										
TOTAL m2				4921	141905					146826

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Transport Matrix: <u>Table T9</u> - Total Development Quantum By Illustrative Phase, Whole BXC Sitearea

Land Use Quantum m2	PDP (Phase 1)	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	TOTAL m2
Retail Uses								
BXSC	38626	39507					1	78133
Food Retail	19,509							19,509
PFS		326						326
Neighbourhood	3066	4367	557	140	2090	1626	1437	13283
Office		9205	2322	5574	36416	196391	145389	395297
Hotel & Conference	31722					29542		61264
		1						
Community Uses	1826	3455	232		232	232		5977
Medical Centre		4150						4150
Private Hospital			18580					18580
Schools	4864	19624						24488
Leisure Uses	2064	3158			929	1858		8009
Sports Centre	4961	2880						7841
Cinema	10228							10228
Residential	124330	187393	174727	47006	178597			712053
Industrial uses				7432				7432
General Industrial								0
Waste Handling Facility	24619							24619
Rail Freight Handling Facility				29263				29263
Total	265815	274065	196418	89415	218264	229649	146826	1420452