

LOCATION: Brent Cross Cricklewood Regeneration Area, London, NW2

REFERENCE: 14/07402/CON **Received:** 11/11/2014
Accepted: 11/11/2014

WARD: Childs Hill, Golders **Expiry:** 06/01/2015
Green, West Hendon

APPLICANT: Brent Cross Development Partners

PROPOSAL: A5 Corridor Study submission to address condition 2.7 of S73 planning application ref: F/04687/13 dated 23/07/2014 for the comprehensive mixed use redevelopment of the Brent Cross Cricklewood Area.

RECOMMENDATION

This application is recommended for **APPROVAL**.

Informatives:

1. The plans accompanying this application are as follows:
A5 Corridor Study (BXCR-URS-47065005-TP-RPT-050 Rev 07) (Dated: July 2015)
 2. In accordance with Reg 3 (4) and Reg 8 (2) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, it is considered that:
 - i. the submission under Condition 2.7 reveals, with regard to the subject matter of the condition, that there are no additional or different likely significant environmental effects than is considered in the environmental information already before the Council (the Environmental Statement (ES) (BXC02) submitted with the Section 73 application (F/04687/13) and any further and/or other information previously submitted; and
 - ii. the environmental information already before the Council (the ES submitted with the Section 73 application, along and any further and/or other information previously submitted) remains adequate to assess the environmental effects of the development.
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1. APPLICATION SUMMARY

This application seeks approval of the A5 Corridor Study which has been submitted pursuant to condition 2.7 of the 2014 S73 Consent (reference F/04687/13).

The objectives of the A5 Corridor Study are to:

- Ensure any local traffic impacts are identified in the adjacent boroughs of Brent and Camden, as well as any further impacts in the London Borough of Barnet by ensuring the traffic modelling for the design stage is sufficiently detailed in areas of interest.
- Assess any identified impacts using appropriate junction modelling tools and produce outline designs of any mitigation measures where appropriate.
- Develop an A5 VISSIM design model, in conjunction with supporting local area models using complementary modelling packages TRANSYT and LinSig to assist with the following:
 - The development of detailed designs for the new and improved junctions.
 - The testing of any temporary traffic management measures during the construction period on highway operations.
- Define any new or improved facilities required in regard to multi-modal user requirements, e.g. walking and cycling and bus priority and setting out the identified interventions in line with the indicative phasing.
- Review of parking, loading and waiting restrictions along the A5 corridor, including any proposed changes to the existing provision and parking controls.
- Assess streetscape improvements, including enhancements to the public realm in relation to all modes.
- Undertake a road safety and accident analysis review.

The preparation of the A5 Corridor Study has involved officers working with the Developers, their advisors and other key stakeholders, such as TfL and the London Borough of Brent. The study includes an assessment of any local impacts of the BXC scheme, including in the adjoining areas within LB Brent and LB Camden, and builds on the outline scope originally contained in the 2010 Section 106 Agreement for the 2010 consented scheme. The full scope for the study, set out in the appendices to the BXC volume 5 Transport Report (2013) and attached as **Appendix 1**, has been agreed with all the relevant transport authorities and encompasses the detailed modelling of the A5 corridor and an assessment of all transport facilities along the A5 itself.

The assessment of any local impacts uses a new traffic model based on TfL's sub-regional model for north London, which is also being used for the detailed

junction design and approval processes under the Highways Act. This is known as the BXC Detailed Design Model (BXCDDM) and has been built using a national recognised traffic modelling package known as SATURN. This is discussed further in section 5.3. The developer is required under the 2014 S73 / S106 Agreement to fund any supplementary mitigation measures in Barnet, Brent and Camden that may be identified as part of the study.

The information submitted within the A5 Corridor Study (BXCR-URS-47065005-TP-RPT-050 Rev 07) dated 17th July 2015 uses the BXCDDM to identify the predicted changes in traffic flow across the study in 2021 (end of Phase 1) and 2031 (end state), with and without the development. A microsimulation (VISSIM) model has been utilised to assess the interaction of the junctions within the study corridor and alterations to all vehicular and bus journey times. Existing patterns of pedestrian and cyclist movements have been observed and existing associated facilities assessed. Bus priority, parking and servicing / delivery have also been reviewed.

Working in conjunction with officers of the London Borough of Barnet and Transport for London an agreed package of supplementary mitigation measures and improvements has been proposed by the Developers encompassing all modes of travel. The agreed package includes measures that the Developers will deliver directly in addition to and as part of schemes already part of the BXC phased improvement programme; alternatively, Developer contributions have been agreed so that the appropriate highway authority can implement the measures. The contributions include a capped sum of £300,000 secured for any potential traffic management measures that may be required on the local roads of Brent and Camden, should monitoring of future traffic levels identify noticeable increases in traffic that can be attributed to the BXC development.

2. BACKGROUND

2.1 Outline Consent

The principle of development at Brent Cross Cricklewood was first established by way of a site-specific Development Framework produced in April 2004 as Supplementary Planning Guidance (SPG) in accordance with the London Plan. The SPG established a vision to *'to create a new gateway for London and a vibrant urban area for Barnet'*.

The comprehensive redevelopment of the wider Brent Cross Cricklewood regeneration area was subsequently granted planning permission in outline in 2010 under planning permission C/17559/08 (the 2010 permission). Subsequently, this permission was revised under a Section 73 Planning application (F/04687/13) which was approved on 23 July 2014 (the 2014 permission) described below:

Section 73 Planning application to develop land without complying with the

conditions attached to Planning Permission Ref C/17559/08, granted on 28 October 2010 ('the 2010 Permission'), for development as described below: Comprehensive mixed use redevelopment of the Brent Cross Cricklewood Regeneration Area comprising residential uses (Use Class C2, C3 and student/special needs/sheltered housing), a full range of town centre uses including Use Classes A1 - A5, offices, industrial and other business uses within Use Classes B1 - B8, leisure uses, rail based freight facilities, waste handling facility and treatment technology, petrol filling station, hotel and conference facilities, 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 parking, works to the River Brent and Clitterhouse Stream and associated infrastructure, demolition and alterations of existing building structures, CHP/CCHP, relocated electricity substation, free standing or building mounted wind turbines, alterations to existing railway 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 CHP/CCHP, infrastructure and associated facilities together with any required temporary works or structures and associated utilities/services required by the Development (Outline Application).

Both the 2010 and 2014 permissions were subject to Environmental Impact Assessment.

The transport aspects of the approved BXC planning permission include the creation of new strategic highway accesses, a new internal road layout, infrastructure and associated facilities together with temporary works, structures and associated utilities/services required by the development. Rail based measures include provision of a new railway station and freight facilities. A new bus station is planned, together with vehicular and pedestrian bridges, underground and multi-storey car parking. Works to the River Brent and Clitterhouse Stream and associated infrastructure are also included together with improvements to Brent Cross London Underground Station. Pedestrian and cycle connectivity will be improved, in particular with the provision of the Living Bridge over the A406 North Circular Road which will provide better integration between the northern and southern components of the development.

The following transport documents were issued in support of the 2014 S73 application:

- BXC05 Volume 1 Consolidated Transport Assessment Main Report;
- BXC05 Volume 2 Consolidated Transport Assessment Appendices;
- BXC05 Volume 3 Consolidated Transport Assessment Travel Plans;
- BXC05 Volume 4 Consolidated Transport Assessment Highway Engineering Proposals;
- BXC05 Volume 5 S73 Transport Report; and
- BXC05 Volume 6 S73 Highway Engineering Report.

Phased Delivery

The Section 73 Consent proposes the phased delivery of acceptable comprehensive development for the whole site in accordance with the planning policy framework.

Phase 1 is proposed to be delivered in sub phases which are divided between north and south. The sub phases are as follows:

- Phase 1A (North) – this includes all the highways infrastructure to support the northern development including the key highways infrastructure to support the Phase 1 South, such as the improvements to the southern junctions of the A5/A407 Cricklewood Lane and the A407 Cricklewood Lane/Claremont Road Junction improvements. In addition the River Brent re-routeing and Bridge works will be delivered as part of Phase 1A (North), along with the Clitterhouse Playing Fields Part 1 (excluding the Nature Park) and the Claremont Park Improvements. The Living Bridge is included in (and its details will be approved before the commencement of) Phase 1A (North). Under the Revised Section 106 Agreement, its delivery will be triggered by the commencement of Phase 1B (North) and its delivery will be programmed to commence and be completed no later than before the occupation of Phase 1B North plots.
- Phase 1A (South) – A number of highway improvements needed to support Phase 1 of the Southern Development will be provided including the Waste Handling Facility (Diverted Geron Way/A5 junction); Claremont Park Road (Part 1) and the School Lane Works. In addition Waste Handling facility Rail Sidings and Gantry Craneworks and Threshold spaces at Layfield Place, Fenwick Place and Templehof Circus and Access to Plot 28 would come forward.
- Phase 1B (North) – This includes all of the plot development on the north side with the exception of the residential development within the Brent Cross West Zone. The sub phase also includes the new bus station, reconfigured shopping centre, Brent Cross Main Square, High Street North and other northern pedestrian routes, as well as the Riverside Park, Sturgess Park Improvements and approximately 300 housing units. Commencement of this Sub-Phase will trigger the BXP's obligations to deliver the Living Bridge which will link into the buildings and public realm to be provided on the Plots forming part of this Sub-Phase.
- Phase 1B (South) – This includes the Market Square, the Clarefield Park Temporary Replacement Open Space, the replacement food store, the Waste Handling facility, the CHP and the new and expanded Claremont School, in addition to more than 1000 residential units.

- Phase 1C – This will include the remaining plot development on the south side.

Pre-Reserved Matters Conditions

Due to the size and complexity of the scheme the outline planning permission acknowledged that there were a number of issues that require resolution prior the submission of Reserved Matters applications and prior to the commencement of development to ensure that development is brought forward in an acceptable way having regard to the EIA process and the environmental, social and transport impacts. As a result planning conditions attached to the 2014 S73 planning consent require a number of transport strategies, reports and feasibility studies to be submitted to the Council prior to submission of the first RMAs for the Development. These conditions are known as Pre-RMA conditions, and relate to overall transport strategies affecting the whole development, as well as information required that relates to the whole of Phase 1 and information required for just sub-phase 1A North.

The relevant transport Pre-RMA conditions comprise the following:-

Condition 1.9	Construction Consolidation Centre Feasibility Study
Condition 1.20	Area Wide Walking and Cycling Study (AWWCS)
Condition 1.21	Framework Servicing and Delivery Strategy
Condition 1.22	Phase 1A North Servicing and Delivery Strategy
Condition 2.7	A5 Corridor Study
Condition 2.8	Pedestrian and Cycle Strategy for Phase 1A North
Condition 7.1	Estate Management Framework
Condition 11.1	Car Parking Management Strategy
Condition 11.2	Phase 1 Parking Standards and Strategy
Condition 37.2	Phase 1 Transport Report
Condition 1.17	Illustrative Reconciliation Plan

This report relates only to the A5 Corridor Study and so seeks the discharge of condition 2.7.

3. DESCRIPTION OF THE SITE, SURROUNDINGS AND PROPOSALS

3.1 Site Description and Surroundings

The 151 hectare application 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 1 of the M1 (Staples Corner) and includes the existing Brent Cross Shopping Centre and Bus Station to the north or the A406.

To the south of the North Circular Road the area contains the Brent South Shopping Park, existing Tesco store and Toys 'R' Us store, the Whitefield

estate (approximately 220 units), Whitefield Secondary School, Mapledown Special School and Claremont Primary School, Hendon Leisure Centre, Brent Cross London Underground Station to the east, Clarefield and Claremont Parks and Clitterhouse Playing Fields (Metropolitan Open Land), the Hendon Waste Transfer Station, Claremont Way Industrial Estate and Cricklewood Railway Station to the far south. The application site includes parts of Cricklewood Lane, including the open space in front of the B & Q store.

Parking in and around the site is currently provided by way of controlled on-street zones, charged on-street bays, charged public off-street car parks, free off-street car parks and extensive free on-street car parking particularly in residential areas south of the A406.

A range of bus services, operated on behalf of TfL, pass through or close to the BXC site. The area is well served by the bus route network, with frequent services to a variety of destinations in London. The majority of the bus services start from or pass through the bus station at BXSC. This bus station serves the shopping centre and also operates as a local bus hub. Other bus hubs in the vicinity are located at North Finchley and Golders Green.

The Midland Mainline railway corridor passes through the western edge of the BXC site. The BXC site is served at the southern end by the existing Cricklewood Railway Station. Hendon Station is approximately 3km to the north, outside of the BXC site boundary.

The Edgware branch of the Northern Line passes to the east of the BXC site and the Jubilee Line passes to the southwest through Willesden Green and West Hampstead. Brent Cross Underground Station is nearest the site and is located to the southeast of the A406/A41 junction. To the north, Hendon Central is approximately 750metres from BXSC.

3.2 Description of Proposals

This application seeks clearance of condition 2.7 attached to application F/04687/13 in relation to the submission of the A5 Corridor Study. Condition 2.7 states:

Prior to or coincident with the submission of the first Other Matters Approval in respect of Phase 1 the A5 Corridor Study (including any necessary Supplementary Transport Measures required to address the detailed impacts identified in the study together with an indicative programme for carrying out such works) shall be submitted to the LPA, in consultation with the London Boroughs of Brent and Camden and the Transport Strategy Group. All other relevant Reserved Matters Applications and Other Matters Applications shall thereafter be in accordance with the A5 Corridor Study approved in accordance with this Condition (and including for the avoidance of doubt the approval of detailed delivery programmes in accordance with Condition 5 of this Permission).

Reason: To ensure the transport impacts of the scheme upon the A5 are fully evaluated and mitigated as part of the detailed design and programming of Phase 1 and the other relevant Phases of the Development.

Condition 2.7 prevents the submission of the first Other Matters Applications until the A5CS has been submitted. The Condition also requires that all relevant reserved matter applications shall thereafter be in accordance with the A5CS. The permission describes the A5 Corridor Study as follows:

'the A5 Corridor Study to cover the A5 between A407 Cricklewood Lane and Staples Corner including adjacent local roads where appropriate to be carried out by the developers on a joint and several basis and to be approved in accordance with:

(a) Condition 2.7 of this Permission; and

(b) the parameters and principles set out in Annex 7 to Schedule 17, the Matrix and Transport Reports Schedule to the S106 Agreement,

The A5 corridor study and monitoring, including bus journey times, should be used to inform future changes to the highways that serve the site, including modifying any of the gateway junctions, in accordance with the S106 Agreement (including the Matrix and Transport Reports Schedule).'

Schedule 17 of the Section 106 Agreement describes the framework of controls in relation to transport matters, which includes the A5 Corridor Study. Paragraph 4.9 of Schedule 17 explains that the scope for the A5 Corridor Study is set out at Annex 7 (or as agreed otherwise with the LPA in accordance with Condition 2.7).

Annex 7 sets out at Table 1 a scope of the A5 Corridor Study covering a variety of elements including traffic modelling, review of pedestrian and cycle routes, traffic management and accessibility.

The scope also describes the approach to local traffic management measures in Brent. It states that:

'The existing BXC strategic transport model will be used to further test any wider area implications that might arise from future local traffic management measures that are proposed to be introduced in LB Brent to address any supplementary/unforeseen impacts from the BXC proposals. Any changes to the strategic model, would be minor and targeted to provide a better representation of the local zonal structure and network, whilst still retaining the forecast

demand flows from the current matrices. In this manner, the fundamental traffic assumptions inherent within BXCO5 will be retained.'

The scope concludes by stating that:

'As a consequence of these tests, additional/ supplementary mitigation measures identified as being required will be the subject of detailed design, costing and public consultation and programmed for implementation at the appropriate time according to development phasing and impact. The associated costs of detailed design, costing, public consultation and implementation will be at the Developers' expense.'

The Development Partners subsequently prepared a detailed scope in accordance with Annex 7. On 12 August 2014 the London Borough of Barnet confirmed agreement to the scope of the A5 Corridor Study.

The agreed scope explains that the study has 3 primary objectives:

'1. Ensure that any local traffic impacts are identified in the adjacent boroughs of Brent and Camden by ensuring that the traffic modelling for the design stage is sufficiently detailed in areas of interest, e.g. the Dollis Hill area and south of Cricklewood Lane. Assess any identified impacts using appropriate junction modelling tools and produce outline designs of any mitigation measures.

2. Develop an A5 VISSIM design model to assist with the following:

- The development of detailed designs for the new and improved junctions along the A5 Edgware Road,*
- The testing of any temporary traffic management measures during the construction period on highway operations.*

3. Define any new or improved facilities required in regard to multi-modal user requirements, i.e. walking and cycling and bus priority, and setting out the identified interventions in line with the indicative phasing and construction programme.'

Paragraph 6 of Schedule 3 of the S106 Agreement states that the BXP's will fund or carry out or fund via a S278 Agreement the reasonable and proper costs of implementing any Supplementary Transport Measures in respect of the relevant Phase or Sub-Phase of the Northern Development identified in

the approved A5 Corridor Study. There are similar provisions for the Southern Development.

The Section 106 Agreement clearly defines Supplementary Transport Measures and explains that for those items that are necessary as a result of both Northern and the Southern development, both the Northern and Southern developers shall only be liable for such a proportion of those Supplementary Transport Measures as is reasonably related to the respective developments. Furthermore, the definition states that any Supplementary Transport Measures need to be directly, fairly and reasonably related to the development within the meaning of Regulation 122 of the Community Infrastructure Levy Regulations 2010 and be reasonably required in order to mitigate the impacts of the development.

4. MATERIAL CONSIDERATIONS

4.1 Key Relevant Planning Policy

In this case, the Development Plan comprises the London Plan (Consolidated with Further Alterations since 2011) (March 2015) at the strategic level and, at the local level, Barnet's Local Plan (Core Strategy (2012)) and the Saved UDP Policies GCRICK and C1-C11, which apply to the application site and are supplemented by the Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework (2005).

The Council's Development Management Policies DPD (2012) states at paragraph 1.4.3 that it will not apply to planning applications for comprehensive development in the Brent Cross unless and until the Core Strategy is reviewed in accordance with Policy CS2 and Section 20:13 of the Core Strategy.

Detailed consideration of the application against key London Plan and London Borough of Barnet policies can be found in **Appendix 2**. It is suffice to state here that the application is considered to be in accordance with Policy. The application is for matters reserved following the grant of the outline planning permission under the 2014 permission and as such the policy considerations have previously been considered and have been found to have been met.

4.2 Relevant Planning History

Reference:

C/17559/08 – granted 28 October 2010

Location:

Cricklewood Regeneration Area, North West London.

Description:

'Comprehensive mixed use redevelopment of the Brent Cross Cricklewood Regeneration Area comprising residential uses (Use Class C2, C3 and student/special needs/sheltered housing), a full range of town centre uses including Use Classes A1 – A5, offices, industrial and other business uses within Use Classes B1 - B8, leisure uses, rail based freight facilities, waste handling facility and treatment technology, petrol filling station, hotel and conference facilities, 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 parking, works to the River Brent and Clitterhouse Stream and associated infrastructure, demolition and alterations of existing building structures, CHP, relocated electricity substation, free standing or building mounted wind turbines, alterations to existing railway 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 CHP, infrastructure and associated facilities together with any required temporary works or structures and associated utilities/services required by the Development (Outline Application).

The application was accompanied by an Environmental Statement.'

Reference:

F/04687/13 – granted 23/7/14

Location:

Cricklewood Regeneration Area, North West London.

Description:

Section 73 Application to develop land without complying with the conditions attached to Planning Permission Ref C17559/08 granted on 28 October 2010 for comprehensive development (see description above).

4.3 Consultations and Views Expressed

Statutory consultees and other interest groups were initially consulted on 27th November 2014 allowing a 3 week period to respond.

Following the receipt of amendments and clarifications to the submitted study; statutory consultees and other interest groups were re-consulted on 20th July 2014 for a two week consultation period.

Though local residents were not directly consulted and it is not the council's requirement to consult local residents regarding conditions submitted to be discharged. Residents have been become aware of the condition submitted and have provided comments. 6 Letters of objection from residents were received in response to this second consultation period.

A detailed summary of the comments received from statutory consultees and other bodies and officer comments in response can be found under Appendix 3 of this report.

The consultation process carried out for this application is considered to be appropriate for a development of this nature. The extent of consultation exceeded the requirements of national planning legislation and the Council's own adopted policy.

Consultation Responses from Statutory Consultees and Other Bodies

Highways England – No objection

Email from Stephen Hall, Asset Manager, Highways England dated 28th July 2015.

TfL – No objection

Letter dated 19th January 2015

Made various comments in relation to modelling, transport improvements, bus journey time assessments, VISSIM, bus priority measures, bus service delays, loading and kerbside parking, urban realm, cycle measures. They concluded at that time that the A5 Corridor study is not to TfL's satisfaction.

Letter dated 1st September 2015 (following consultation on updated information in July 2015) confirm that TfL are satisfied with the A5 Corridor Study.

LB Brent – Object to the application

Full summary of LB Brent comments and LB Barnet officers responses are provided in Appendix 3.

LB Camden – Object to the application

Full summary of LB Camden comments and LB Barnet officers responses are provided in Appendix 3.

London Cycling Campaign (LCC) – Object to the application

Full summary of LCC's comments and LB Barnet officers responses are provided in Appendix 3.

Campaigns Manager, LCC – Object to the application

Full summary of the comments made by the manager of LCC and LB Barnet officers responses are provided in Appendix 3.

5. PLANNING AND TRANSPORT ASSESSMENT

5.1 Purpose of the Study

The scope and purpose of the A5 Corridor Study was agreed following significant consultation between the Developers and officers of the London Borough of Barnet and Transport for London. The scope sets out the aims and objectives of the study which in summary are to:

- Ensure any local traffic impacts are identified in the adjacent boroughs of Brent and Camden, as well as any further impacts in the London Borough of Barnet by ensuring the traffic modelling for the design stage is sufficiently detailed in areas of interest.
- Assess any identified impacts using appropriate junction modelling tools and produce outline designs of any mitigation measures where appropriate.
- Develop an A5 microsimulation (VISSIM) design model, in conjunction with supporting local area models, using complementary individual junction modelling packages (TRANSYT, LinSig and PICADY) to assist with the following:
 - The development of detailed designs for the new and improved junctions.
 - The testing of any temporary traffic management measures during the construction period on highway operations.
- Define any new or improved facilities required in regard to multi-modal user requirements, e.g. walking and cycling and bus priority and setting out the identified interventions in line with the indicative phasing.
- Review of parking, loading and waiting restrictions along the A5 corridor, including any proposed changes to the existing provision and parking controls.
- Assess streetscape improvements, including enhancements to the public realm in relation to all modes.
- Undertake a road safety and accident analysis review.

5.2 Area covered by the study

The A5 Corridor Study has been defined to cover a core area of the A5 between A407 Cricklewood Lane and A406 Staples Corner, including local roads within Barnet, Brent and Camden within an area anticipated to be approximately 800m from the A5, Claremont Road and the A407 Cricklewood Lane.

During the study, the microsimulation model has been extended from the A5 Corridor to include the A406 corridor between Staples Corner and the A406/A41 junction.

The area of the microsimulation model is shown on the plan in **Appendix 4**.

5.3 Methodology Used

Traffic flows within the study area have been based on the London Transportation Studies model, which Transport for London use as their

standard transport forecasting tool. A new sub-regional model of north London has been developed by TfL and it was agreed that this would be used as part of the detailed design for the phased BXC transport improvements. Known as the BXC Detailed Design Model (BXCDDM), this model was also used for the A5 Corridor Study as it provided more detailed, thorough and up to date (based on 2012 data) forecasts of traffic movements on local roads, particularly in LB Brent where the traffic model used to support the outline approved scheme (the BXC Transport Model, or BXCTM) was less detailed, and based on data from around 2006.

These BXCDDM predicted traffic flows have been modelled utilising SATURN computer software, the same package as was used for the BXCTM. The SATURN software enables traffic to reroute across the highway network to find the quickest path from an origin to a destination. The model has been updated with a greater level of detail of local roads and junctions, to enable the impact of changes to traffic flows on the local highway networks in Brent and Camden to be more accurately assessed.

The BXCDDM includes an allowance for background traffic growth and also enables the impact of other committed developments and / or highway schemes to be assessed as the traffic is reassigned across a wide highway network as a result of any such changes that take place. Area wide traffic forecasts have been produced for 2021 (the forecast year for phase 1) and 2031 (end-state forecast year) AM, PM and Saturday peaks.

The BXCDDM traffic modelling undertaken has been reviewed and accepted by officers of Transport for London and the London Borough of Barnet.

Where the BXCDDM traffic forecasts identify junctions in at least two time periods (as there is a limit to the accuracy that can be obtained from a strategic traffic model) reaching capacity (where the flow to capacity ratio is greater than or equal to 90%) with the proposed development but would be within capacity (less than 90%) if the development was not constructed, more detailed junction modelling has been undertaken using the industry standard software of TRANSYT or LinSig for traffic signal controlled junctions and PICADY for priority junctions.

Consideration has been given to the most appropriate package of mitigation, or as termed in the S106 agreement; 'Supplementary Transport Measures'.

Scheme designs for any additional mitigation in the form of Supplementary Transport Measures that are found to be necessary have been generated, including plans at an appropriate scale.

The microsimulation (VISSIM) model of the A5 Corridor has been developed for 2021. This microsimulation model provided more detail regarding movement on the highway than the BXCDDM (SATURN) model and enables:

- the interaction between adjacent junctions to be assessed;

- journey times for different modes, including buses, to be reviewed;
- the testing of any temporary traffic management measures during the construction period; and
- any new or improved facilities required in regard to multi-modal user requirements, e.g. walking and cycling and bus priority, to be defined.

Comprehensive bus journey time surveys of the A5 Corridor Study area were undertaken and compared to the times from the base year microsimulation model in the AM, PM and Saturday peak periods. As 85% or more of the routes analysed were within 15% or 60 seconds of observed data, the model was accepted as appropriate for use.

5.4 Findings of the Study

The area wide modelling identified the following junctions where, in at least two time periods, capacity was being reached in 2021 and / or 2031 when the traffic from the proposed BXC development was included, but that these junctions would otherwise be within capacity if the development was not constructed:

- A407 Chichele Road / Anson Road
- A407 Cricklewood Lane / A41
- Walm Lane / A407 High Road.

Approximately 40 junctions have been identified as reaching capacity with and without the development. Over half of which are proposed to be improved as part of the Brent Cross scheme. Of the remaining junctions only the following were identified as having a degree of saturation increase with the development in excess of 5% of the no development scenario:-

- A5 / Perryfield Way / Station Road (West Hendon)
- A5 / Cool Oak Lane (West Hendon)
- Lydford Road / A4003 Willesden Road (in Brent)
- A41 / The Vale.

Analysis has also been undertaken to identify the capacity, with development, at the following key traffic signal controlled junctions within the microsimulation model study area:-

- Staples Corner (A406/A5)
- A5 / Humber Road / Geron Way
- A5 / Oxgate Gardens / A5 Link Road
- A5 / Dollis Hill Lane / Residential Development
- A5 / Ashford Road / Depot Approach
- A407 Chichele Road / A5 Cricklewood Broadway
- A407 Cricklewood Lane / Claremont Road / Lichfield Road.

The results indicate at Staples Corner in 2021 the AM peak is within capacity but that three movements in the PM and Saturday peaks are overcapacity. In 2031 overcapacity is forecast for four movements. To reduce these queues, there is potential to adjust the signal times at the junction.

The A407 Cricklewood Lane / Claremont Road / Lichfield Road junction is forecast to be overcapacity in 2021 and 2031. However, deployment of a bespoke traffic signal control system at the junction will assist in mitigating the impact of additional traffic. Based on data collected by TfL, the deployment of such a system provides an average 12% reduction in delay.

The A407 Chichele Road / A5 Cricklewood Broadway is reaching capacity in 2031, with the A5 northbound movement predicted to be close to saturation in the PM peak period.

5.5 Mitigation Proposed

Various improvements have been proposed as part of the study, and these comprise of a mix of measures that will be directly delivered by the Developers, for example, as additional elements to schemes already included in the BXC phased transport improvements; alternatively, contributions have been agreed for the relevant highway authorities to implement the proposed improvement schemes themselves.

The various mitigation schemes are discussed in more detail under the headings below.

5.5.1 Junction Mitigation

Based on the area wide traffic modelling and detailed junction assessments above the following mitigation has been proposed:

A407 Chichele Road / Anson Road (Phase 1 and end state): Linkage to adjacent A5 Urban Traffic signal Control group, enabling improved traffic signal co-ordination, which can be expected to help alleviate any congestion and improve the overall efficiency of the local road network.

A407 Cricklewood Lane / A41 (end state): The detailed modelling identified that mitigation was not required.

Walm Lane / A407 High Road (end state): Pedestrian countdown at traffic signals is proposed to help mitigate the predicted increase in traffic demand. This feature is increasingly being introduced at signalised junctions in London and provides greater resilience to manage daily fluctuations in traffic flow and for occasions when pedestrian crossing demand is increased. The countdown enables greater green time to be provided to traffic at this location.

Of the junctions identified as overcapacity with and without the development (and so to be assessed as part of the 'Supplementary Transport Measures'), and having an increase with the development in excess of 5% of the without development scenario, the following mitigation is proposed:-

- A5 / Perryfield Way / Station Road: Committed improvements as part of the West Hendon Regeneration proposals.
- A5 / Cool Oak Lane: Committed improvements as part of the West Hendon Regeneration proposals.
- Lydford Road / A4003 Willesden Road: Detailed capacity analysis of this junction highlights that the junction is predicted to operate with adequate practical reserve capacity and a maximum degree of saturation at 85%.
- A41 / The Vale: Junction arrangement expected to be amended as part of the cycle super highway (CS11).

The key traffic signal controlled junctions within the section of A5 corridor under assessment have been analysed. The following are gateway junctions where design proposals as part of Phase 1A (North) (unless otherwise indicated) have already been approved as part of the 2014 Section 73 Consent:

- Staples Corner (Phase 1 and end state): Significant alterations to the existing junction.
- A407 Chichele Road / A5 Cricklewood Broadway (Phase 1 and end state): Compulsory purchase of the plot of land on the south east corner of the junction enables the arms of the A407 to be aligned and for them to operate at the same time creating a more efficient junction.
- A407 Cricklewood Lane / Claremont Road / Lichfield Road (Phase 1 and end state): A flared approach on the A407 western arm and an additional southbound lane on Claremont Road creating more traffic capacity.
- A5 / Humber Road / Geron Way (Phase 1 and end state): Four stage set of signals with advanced cycle stop lines and a pedestrian controlled crossing on the southern arm of the A5.
- A5 / Oxgate Gardens / A5 Link Road (end state): Creation of a four arm signalised junction to provide a new access across the Midland Mainline railway to the development in Phase 5 with Oxgate Gardens being one-way westbound.

In addition the A5 / Dollis Hill Lane junction is being converted from a three arm to a four arm traffic signal controlled junction, due to residential development on the former Parcelforce site.

The schedule of mitigation associated with the A5 Corridor Study is summarised in the four following tables which are provided in **Appendix 5**:

Table 1: Mitigation required for the A5 corridor.

Table 2: Mitigation required for the A407.

Table 3: Mitigation required for other areas.

Table 4: Further enhancements to encourage modal shift but not required to mitigate the development.

Within Tables 1 to 3, proposals are to be delivered directly by the Developers as part of Section 278 Agreements or via a contribution for implementation of schemes by the appropriate highway authority to complete the remaining works. A contribution of totalling £550,000 has been agreed with the Brent Cross Development Partners (letter dated 2nd September 2015). Within this contribution, a fund of £300,000 is to allow for traffic management interventions to be provided in the adjacent boroughs of Brent and Camden should monitoring demonstrate there are any additional adverse impacts of the development over and above those arising out of the study. The decisions on how to spend this money will be considered by the Transport Advisory Group (which includes TfL, LB Brent and LB Camden as members). Monitoring will be undertaken via the Monitoring Strategy (Condition 37.8). The mitigation proposals to be delivered within Phase 1 are identified in column 3.

Within Table 4, proposals are identified which will further contribute to the overall aims of the BXC development through encouraging mode shift. However, these are not considered necessary in order to mitigate the development, but are future proposals for the boroughs and TfL to progress as and when suitable funding becomes available.

Trips to and from the proposed development are expected to generally use the strategic highway network, the M1, A406, A5 and A41. Infrastructure improvements on these highways and junctions have been designed to accommodate the additional trips attributable to the BXC development. Mitigation is not proposed on all sections of these strategic roads, where significant increases in traffic are forecast, as these roads are designed to cater for such traffic.

These additional trips and infrastructure improvements will inevitably have an impact on existing trips and lead to re-routing of trips that have neither an origin nor a destination at the BXC development.

With regards to local roads, use of the BXCDDM has enabled changes in traffic flows to be assessed. The most significant increases in flow are predicted to be on local roads in Barnet, Brent and Camden, as tabulated below:

Link	Section	Direction	AM Peak	PM Peak	Sat Peak
A5	Layfield Road-Station	Northbound	*	*	

	Road				
Highfield Avenue	A41–The Drive	Eastbound	*		*
Humber Road	A5-Coles Green Road	Westbound	*	*	*
Parsifal Road	A41–Fortune Green Road	N/Eastbound	*		
Chichele Road	Anson Road-Walm Lane	S/westbound	*	*	
A41	A406 NCR - A598 Finchley Road	Northbound		*	
Claremont Road	Somerton Road-Pennine Drive	Southbound		*	*
Cricklewood Lane	Farm Avenue – A41	Eastbound			*
Fordwych Road	Maygrove Road-Mill Lane	Northbound			*
Walm Lane	Lydford Road-A5	Eastbound			*

Analysis of the traffic on these local roads indicates the majority of the increases are not BXC development related trips, with changes in the performance of links and junctions leading to re-routing of existing trips which in turn is the main contributor to increased flows on these roads.

There are some links with increased traffic flow which is related to the BXC development, such as Claremont Road, where changes to the layout and the strategic junctions mean these routes, being in such close proximity to the development, inevitably attract development related trips. However, the infrastructure improvements to these routes are designed to account for this increased demand.

Overall, total flows on all individual links within the BXCDDM model of the areas that fall within Camden and Brent, increase with the approved BXC development. The total increase (based on passenger car units where a cyclist = 0.5, a car = 1 and a HGV/Bus = 3) in each peak period is summarised in the following table:

Time Period	Camden Total Link Differences	Brent Total Link Differences
	Peak hour PCUs	Peak hour PCUs
AM 2021	2,946	4,724
AM 2031	8,282	7,072
PM 2021	5,173	4,390
PM 2031	7,331	8,461
Sat 2021	7,601	6,347
Sat 2031	10,046	12,347

The results indicate that with the development, there is an increase in traffic in all peak periods across the highway network in the neighbouring boroughs. However, it is generally predicted that the increases on the non-strategic local roads is due to rerouting of non-development related traffic, rather than due directly to development related traffic. Despite this, if monitoring of traffic flows shows noticeable increases in traffic flows on local roads in Brent or Camden due to the development, as mentioned above an additional capped contribution of £300,000 towards future Supplementary Transport Measures has been secured.

5.5.2 Pedestrian and Cycle Improvements

The A5 Corridor Study recognises that congestion on the network is a problem. Therefore, where practicable, as part of the overall approach to the A5 corridor and the wider regeneration scheme, where highway interventions are proposed, the aim has been to both protect buses from congestion, and encourage walking and cycling through positive design measures.

The A5 Corridor Study provides a review of pedestrian and cyclist accessibility, cycle parking and routing.

The volume of cyclists using the A5 corridor on a weekday ranges from 48 towards the north of the corridor (observed 2-way flow near Humber Road) to 73 towards the south of the corridor (observed 2-way flow near Chichele Road). The AM peak hour is the busiest period for cyclists out of the peak hours surveyed. Cyclists represent up to 4% of the traffic composition during this period.

On a Saturday, minimal cycle demand during the peak hour was observed with a maximum 2-way flow of 18 cyclists on the central section. Cyclists represent approximately 1% of the traffic composition during this period.

The existing pedestrian and cycle links along and alongside the A5 have been reviewed for this study using the Pedestrian Environment Review System (PERS) and (Cycling Environment Review System (CERS) assessment tools.

A total of 12 cycle links, 4 junctions and 4 cycle parking areas were audited along the A5. The links were determined by the changes in the cycle environment (such as type of cycle facility provided or change in surrounding land uses) and were separated as follows:

- Link 1 (L1): Staples Corner to Geron Way
- Link 2 (L2): Geron Way to Opposite Comfort Delgro Building
- Link 3 (L3): Opposite Comfort Delgro Building to Depot Approach
- Link 4 (L4): Depot Approach to A407 Junction
- Link 5 (L5): A407 Junction to Rondu Road
- Link 6 (L6): Rondu Road to Mill Lane
- Link 7 (L7): Mill Lane to Rondu Road

- Link 8 (L8): Rondu Road to A407 Junction
- Link 9 (L9): A407 Junction to Longley Way
- Link 10 (L10): Longley Way to Humber Road
- Link 11a (L11a): Humber Road to Staples Corner (on road route)
- Link 11b (L11b): Humber Road to Staples Corner (off road route)
- Link 12a (12a): Across A5 / A406 Staples Corner Junction (off road)
- Link 12b (12b): Across A5 / A406 Staples Corner Junction (on road)

With the exception of cycle parking near Keyes Road, which scored as green (good), all cycling provision was rated as amber (average).

The improvements put forward as part of the A5 study to improve conditions for pedestrians and cyclists on the A5 and encourage more people to travel by both modes on the corridor are contained within **Appendix 6**. The suggested improvements are initial proposals that are subject to feasibility and detailed design at a later stage:

5.6 Parking, loading and waiting restrictions

The Controlled Parking Zones within Barnet which are in closest proximity to the A5 Corridor Study area are:

- CT: Close to Cricklewood Railway Station and Cricklewood Town Centre: 09:00-20:00 Mon – Sun.

The Uncontrolled and Controlled Parking Zones within Brent which are in closest proximity to the A5 Corridor Study area are:

- UC7: The Dollis Hill area located to the west of the A5, between Brent reservoir and Gladstone Park with approximately 1,950 spaces.
- GM: Cricklewood Town: A5 to east, Dollis Hill to the north, Gladstone Park to the west and Olive Road to the south: 10:00-21:00 Mon – Sat.
- MA: Mapesbury Road: A5 to the east and Chichele Road to the west: 10:00-21:00 Mon – Sat.

The Controlled Parking Zones within Camden which are in closest proximity to the A5 Corridor Study area are:

- CA-P: University College Sports Ground to the north, Fortune Green Road to the east, Minster Road to the south, Westbere Road to the west: 10:00-12:00 Mon – Fri.

The CPZ is located approximately 3 km from Brent Cross Shopping Centre and 2.4 km from the centre of the Regeneration Area to the south of the A406.

- CA-Q: Richborough Road to the north, Fordwych Road to the east, Minster Road to the south, A5 Cricklewood Broadway to the west: 08:30-18:30 Mon-Fri

The CPZ is located approximately 3.1 km from Brent Cross Shopping Centre and 2.5 km from the centre of the Regeneration Area to the south of the A406. Cricklewood Railway Station is located approximately 200 metres to the north of the CPZ.

Monitoring of parking will be undertaken, taking into account any concerns from residents. The funding of new or extended Controlled Parking Zones is available through the Consolidated Transport Fund (maximum £1.25m) and would need to be applied for either through the Transport Advisory Group or directly to the Transport Strategy Group (London Borough of Barnet and TfL). The Transport Strategy Group is required to take account of the Transport Advisory Group's recommendations. The requirement for Controlled Parking Zones in relation to construction worker parking activity within Brent has been raised and discussed at the Transport Advisory Group and the need for provision within the Dollis Hill area (UC7) outside the scheme boundary has been agreed between Brent and the developer (as this is outwith the Section 106 agreement related to the Brent Cross Cricklewood development) with an associated financial contribution of £180,000.

Existing parking demand and servicing was surveyed and taken into account in the modelling of the A5 corridor. Observations indicated unloading takes place when prohibited in the AM peak hour on the southbound carriageway at the A5/A407 junction, highlighting a lack of enforcement. Therefore although the analysis has not highlighted any requirement to amend parking, loading or waiting restrictions along the A5, it has identified that the enforcement of current restrictions could be improved. As the detailed design of improvements on the A5 progresses, TfL guidance relating to freight will be taken into account.

5.7 Road Safety

Between 1st March 2008 and 31st December 2013 (70 months) a total of 267 accidents have occurred in the study area.

An examination of the recorded accidents indicated that 236 of the incidents resulted in slight injury (88.4%), 26 of the incidents resulted in serious injury (9.7%) and 5 incidents resulted in a fatality (1.9%).

A comparison of the proportion of accident severity types observed along the A5 corridor with proportions for LB Barnet, outer London boroughs and Greater London (based on data from TfL's *Level of collision risk in Greater London (issue 13), March 2013*) indicates that the make-up of the severity of collisions along the A5 Corridor study area is similar.

However, the number of accidents per km along the A5 corridor (9.31) in 2010 was higher than the average for Barnet (8.02), outer London boroughs (6.77) and Greater London (8.91), although slightly below 'A roads' in the LB Brent (9.35).

Many of the proposals associated with the BXC scheme are likely to enhance levels of road safety along the corridor, potentially reducing accident rates. The proposed BXC design includes a number of junction improvements along the A5 corridor, including new signalised junctions, controlled pedestrian crossings, footway improvements and cycle facilities, improved surfacing and road markings all of which will contribute towards the safe operation of junctions and links.

The following junctions in the study area have recorded the largest number of incidents:

- Staples Corner: 60
- A5 Cricklewood Broadway / A407 Cricklewood Lane / Chichele Road: 40
- A5 Cricklewood Broadway / Temple Road: 16
- A5 Edgware Road / Geron Way (S): 14
- A5 Edgware Road / Oxgate Lane: 12
- A5 Cricklewood Broadway / Ashford Road/ Depot Approach: 12

Junction improvements at the gateway junctions of Staples Corner and the A5 Cricklewood Broadway / A407 Cricklewood Lane / Chichele Road junctions, which have the greatest numbers of accidents, have already been approved as part of the Section 73 Planning Consent. The further improvements proposed within the A5 Study should assist in reducing accidents at the other junctions along the corridor.

In terms of accidents involving heavy goods vehicles, a total of 40 collisions occurred within the study area. This constituted 15% of all collisions along the corridor. 35 of the 40 collisions resulted in slight injury (87.5%), 2 of the incidents resulted in serious injury (5%) and 3 incidents resulted in a fatality (7.5%).

In total, 15 collisions occurred that involved goods vehicles and vulnerable road users within the study area. 9 of the 15 collisions involved non-motorised users (5 involved pedestrians and 4 cyclists) with the remaining 6 involving motorcyclists.

Of the 15 collisions, two were fatal, two resulted in serious injury and 11 were classified as slight in severity. The collisions involving goods vehicles and vulnerable road users occurred at a number of different locations throughout the scheme, with some occurring at junctions and others on links between junctions. An examination of the collisions revealed there were no discernible patterns in terms of the conditions, manoeuvres or characteristics of these types of collisions which occurred. Therefore, no improvements are required.

5.8 Bus priority

The BXC Development has an objective to encourage mode shift away from car borne travel. A target of 17% all development users to travel by bus at the end of Phase 1 rises to 32% by Phase 5, before reducing to 27% once the new train station is operational in the end state. The aim of the A5 Corridor Study in the s106 includes improving conditions for bus users.

The following bus services and associated routes operate within the study area:

16 - Mora Road to Victoria Station
32 - Edgware Station to Kilburn Park Station
245 - Golders Green via Cricklewood Station to Glacier Way
266 - Brent Cross Shopping Centre to Hammersmith via Willesden Junction station
316 - Mora Road to White City Bus Station
332 - Bishops Bridge to Brent Park Tesco
N16 - Edgware Road station to Victoria Station
189 - Brent Cross Shopping Centre to John Prince's Street / Oxford Circus
226 - Golders Green station to Ealing Broadway
260 - Golders Green station to White City Bus Station
460 - North Finchley Bus Station to Pound Lane

There are 14 bus stops situated on the A5 Edgware Road between Staples Corner and the A407 Chichele Road/Cricklewood Lane junction. A further seven bus stops are located within the A5 Corridor Study area within proximity to the Chichele Road/Cricklewood Lane junction.

Bus lanes are located at a number of locations within the vicinity of the BXC development area with approximately 30% of the length of the A5 corridor between Staples Corner and Anson Road being specified as bus lane.

Analysis of base year traffic congestion for bus journey times along the A5 corridor has been undertaken using TfL (iBus) data. Wait times have also been reviewed.

The two key principles for the future year bus strategy consist of:

- Ensuring that sufficient capacity is in place to accommodate all expected bus passengers for each phase of development; and
- Make efficient use of the new transport infrastructure.

The proposed junction and bus infrastructure improvements at end state are highlighted in **Appendix 7**. For the A5 corridor, the junction improvements proposed, in conjunction with the existing bus lanes, results in less delay to buses when compared to all vehicles.

A comparison between the journey times of all traffic and that of just buses travelling on the A5 between the A5/A407 junction and Humber Road has been undertaken based on observed times in 2013 and microsimulation model times in 2021. The results indicate:

2013-2021	Direction	All modes	Buses
AM Peak	Northbound	17%	76 seconds (21%)
	Southbound	55%	94 seconds (25%)
PM Peak	Northbound	12%	52 seconds (12%)
	Southbound	15%	21 seconds (5%)
Saturday Peak	Northbound		-8 seconds (-2%)
	Southbound	9%	1%

Both in a northbound and southbound direction, in the AM peak, PM peak and Saturday peak periods (with the exception of northbound in the AM peak), delays to buses are less than for all traffic. This is due to the impact of bus priority measures. Therefore, the proposals envisaged are sufficient.

5.9 Monitoring

There is a requirement under Condition 37.8 of the Section 73 Consent for a separate Monitoring Strategy Report which must be submitted and approved prior to commencement of any part of the development. This will include monitoring on the A5 corridor.

The need to monitor the operation and transport related impacts of the development takes several forms. The information obtained from the various surveys and sources will be used to both control the impacts arising from the Development and to inform the later stages of the detailed design

The scope of the monitoring is to be agreed prior to commencement of each phase and reviewed annually. The minimum requirements include the following:

- Data for Travel Plans and Delivery Servicing Plans to be updated annually.
- Reporting on construction traffic to be undertaken every 6 months.
- Annual or pre-phase Bus journey time reliability surveys. Annually if based on iBus data or via a series of rolling surveys.
- Surveys for detailed design as and when required.
- Baseline information to be collected as part of Reserved Matter Transport Report where there are more than minor impacts on the networks.
- On going Automatic Traffic Count data, including on local roads, to produce trends and local growth factors, and monitor any local 'rat-running'.

5.10 Summary of the Findings

The analysis undertaken has identified the junctions within the study area where future capacity issues are likely to occur. These include three junctions where the development causes the capacity to exceed 90% and four junctions at capacity where the development causes an increase of saturation in excess of 5%.

Junction improvements are proposed at the previously approved gateway junctions (as per the Section 73 Consent), or via S278 works and a £550,000 fund agreed by the Brent Cross Development Partners in a letter dated 2nd September 2015. As part of this fund, £300,000 has been secured for supplementary measures to mitigate the impact of the development on local roads in the boroughs of Brent and Camden.

Existing pedestrian and cyclist use of the A5 corridor has been assessed. Current cycle usage is minimal and improvements including advanced stop lines, improved surfacing, cycle symbols markings and signage are proposed. The analysis has not highlighted any requirement to amend parking, loading or waiting restrictions along the A5 although the assessment has identified that the enforcement of current restrictions could be improved.

The make-up of the severity of collisions along the A5 Corridor is typical for London, although the number of accidents per km is slightly high. Of the 15 collisions that involved goods vehicles and vulnerable road users (4 of which were cyclists) in the 70 month period analysed, two were fatal and two resulted in serious injury. An examination of these collisions revealed there were no discernible patterns in terms of the conditions, manoeuvres or characteristics of these types of collisions which occurred. Therefore, no associated improvements are proposed.

Due to the impact of bus priority measures, in all three peak periods (with the exception of northbound in the AM peak) the predicted delays to buses in 2021 is less than for all traffic.

6. ENVIRONMENTAL IMPACT ASSESSMENT

The EIA procedure in the UK is directed by the Town & Country Planning (Environmental Impact Assessment) Regulations 2011 (the 'Regulations'), EU Directive 85/337/EEC (as amended), as well as the National Planning Practice Guidance (2014).

In accordance with Reg 3 (4) and Reg 8 (2) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, it is considered that the submission under Condition 2.7 reveals, with regard to the subject matter of the condition, that:

- i. there are no additional or different likely significant environmental effects than is considered in the environmental information already before the Council (the Environmental Statement (ES) (BXC02) submitted with the Section 73 application (F/04687/13) and any further and/or other information previously submitted; and
- ii. the environmental information already before the Council (the ES submitted with the Section 73 application and any further and/or other information previously submitted) remains adequate to assess the environmental effects of the development.”

7. EQUALITY AND DIVERSITY ISSUES

Section 149 of the Equality Act 2010, which came into force on 5th April 2011, imposes important duties on public authorities in the exercise of their functions, including a duty to have regard to the need to:

- “(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;*
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;*
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.”*

For the purposes of this obligation the term “protected characteristic” includes:

- age;
- disability;
- gender reassignment;
- pregnancy and maternity;
- race;
- religion or belief;
- sex; and
- sexual orientation.

Officers have in considering this application and preparing this report had regard to the requirements of this section and have concluded that a decision to grant approval for the discharge of this condition will comply with the Council’s statutory duty under this important legislation.

8. CONCLUSION

Officers have worked closely and collaboratively with the Developers and their advisors and have liaised appropriately with other key stakeholders to ensure that the impacts of the development on the A5 Corridor Study network have been robustly assessed and the enhanced mitigation package is appropriate.

The information submitted is considered to meet the requirements for the discharge of condition 2.7 of outline planning consent F/04687/13. It is

considered that the details submitted are acceptable and therefore APPROVAL is recommended in order to allow condition 2.7 to be discharged.

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- APPENDIX 1 – Scope of the A5 Corridor Study
- APPENDIX 2 – Policy Compliance
- APPENDIX 3 – Objections and Officer Responses
- APPENDIX 4 – Extent of the A5 Corridor Study VISSIM Model
- APPENDIX 5 – Schedule of mitigation required as part of A5 Corridor Study
- APPENDIX 6 – Plan of Pedestrian and Cycling Improvements
- APPENDIX 7 – Plan of Bus and Infrastructure Improvements

Appendix 1

Scope of Application documents for the A5 Corridor Study excluding Appendixes B and C



Brent Cross Cricklewood Regeneration

Scope of Application documents for:

A5 Corridor Study

October 2013

Doc. No: 47065005/TP/RPT/009



Prepared for



A5 Corridor Study

October 2013

Doc. No: 47065005/TP/RPT/009

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- Appendix A – Annex 7 Schedule 17 from the signed S106 Agreement
- Appendix B – Programme
- Appendix C – Current ‘living’ scope of the BXC DDM

1 Introduction

1.1 Context of the Study

There is a current planning consent in place for the Brent Cross Cricklewood Development (BXC). The regeneration proposals received outline planning consent from Barnet Council in October 2010. Attached to the permission are a number of planning conditions. These cover a wide range of topics and are to be discharged at defined points within the submission of reserved matters, detailed design process, construction and operation of the development. A condition of this consent was a requirement for an A5 Corridor Study to be submitted as a reserved matter. An initial scope of this study was included in the Section 106 agreement (see Appendix A).

There is a considerable amount of overlap between the individual conditions imposed on the permission. The A5 Corridor Study includes elements that will be input into work that will subsequently be undertaken to discharge other conditions, for instance the Area Wide Walking and Cycling Study. The purpose of this document is to further define the scope of the A5 Corridor Study and identify which elements of the original scope feeding into the discharge of other conditions.

Each element of the scope as defined in the Section 106 has been divided into key stages and defined and discussed in more detail. This version of the report aims to incorporate comments from Transport for London (TfL) and the London boroughs of Barnet, Brent and Camden.

For such a study, it is important to set out the roles and responsibilities of the local authorities along the A5 corridor, outlined below:

- London borough of Barnet – The section of the A5 running through the study area demarcates the Barnet/Brent borough boundary. An agreement between the boroughs is in place whereby Barnet are responsible for the management and maintenance of this section of the A5. Figure 2 shows borough boundaries. This section of the A5 is designated as strategic road network (SRN), where TfL are statutory consultees. Under the traffic management act, the London borough of Barnet has a responsibility to ensure its road network is managed effectively to minimise congestion and disruption to vehicles and pedestrians. In addition, the borough will review the impact of the development in their borough based on outputs from a strategic traffic model and assist with the development, review and approval of any mitigation packages deemed necessary from the traffic modelling assessment. Barnet are ultimately responsible for signing off the corridor study and clearing the condition in liaison with TfL through the Transport Strategy Group, and with all stakeholders via the Transport Advisory Group.
- London borough of Brent – will review the impact of the development in Brent based on outputs from a strategic traffic model and assist with the development, review and approval of any mitigation packages deemed necessary in Brent from the traffic modelling assessment.
- London borough of Camden – as above.
- TfL – TfL's road network (TLRN) in this area includes the A406, the A41, A5 slip roads on the approach to the intersection known as Staples Corner and the A5 between the A406 and Oxgate Lane, and therefore have a responsibility to ensure its road network is managed effectively to minimise congestion and disruption to vehicles and pedestrians. The remainder of the A5 in this area is designated as SRN (as described

above). TfL are also responsible for traffic signals on both the TLRN and SRN together with bus operations through the A5 corridor. TfL will appoint network assurance, model and signal audit engineers to review and approve each modelling stage associated with the proposed junction improvements on the TLRN and SRN.

1.2 Objectives of the study

There are three primary objectives of the A5 Corridor Study that the original scope captured. These are defined below:

1. Ensure that any local traffic impacts are identified in the adjacent boroughs of Brent and Camden by ensuring that the traffic modelling for the design stage is sufficiently detailed in areas of interest, e.g. the Dollis Hill area and south of Cricklewood Lane. Assess any identified impacts using appropriate junction modelling tools and produce outline designs of any mitigation measures.
2. Develop an A5 VISSIM design model to assist with the following:
 - i. The development of detailed designs for the new and improved junctions along the A5 Edgware Road,
 - ii. The testing of any temporary traffic management measures during the construction period on highway operations.
3. Define any new or improved facilities required in regard to multi-modal user requirements, i.e. walking and cycling and bus priority, and setting out the identified interventions in line with the indicative phasing and construction programme.

In order to address these three objectives the 'A5 Corridor Study' has been broken down into three individual components:

- London Borough of Brent and London Borough of Camden Area Studies
- A5 VISSIM Design Model
- A5 Multi Modal Assessments.

The structure of this scope is outlined below:

- Section 2 – Background: a description of the relevant planning condition (2.7) has been included together with background information about the BXC Detailed Design Model that is currently being developed, and is intended to be used to undertake the London Borough of Brent and London Borough of Camden Area Study.
- Section 3 – London Borough of Brent and London Borough of Camden Area Studies: provides a description of a two stage process that will identify in detail any areas of impact on local roads which have not already been identified as part of the work undertaken prior to 2010 within London boroughs of Brent and Camden and to develop and agree any necessary mitigation measures through detailed assessment that may include junction modelling.
- Section 4 – A5 VISSIM Design Model: define the extent of the VISSIM model along the A5 itself, the scenarios to be developed and tested, and how the models will be progressed.
- Section 5 – A5 Multi-modal assessment: feeding into a number of parallel and other assessments such as the area wide walking and cycling study, as well as undertaking

further analysis on bus priority, waiting and loading restrictions. Combining together all planned transport measures proposed along the corridor and linking them to the indicative programme.

Figure 1 provides an overview of the major elements of the A5 Corridor Study. The study will be used to inform the development of Phase Transport Reports, detailed further in section 2.5.

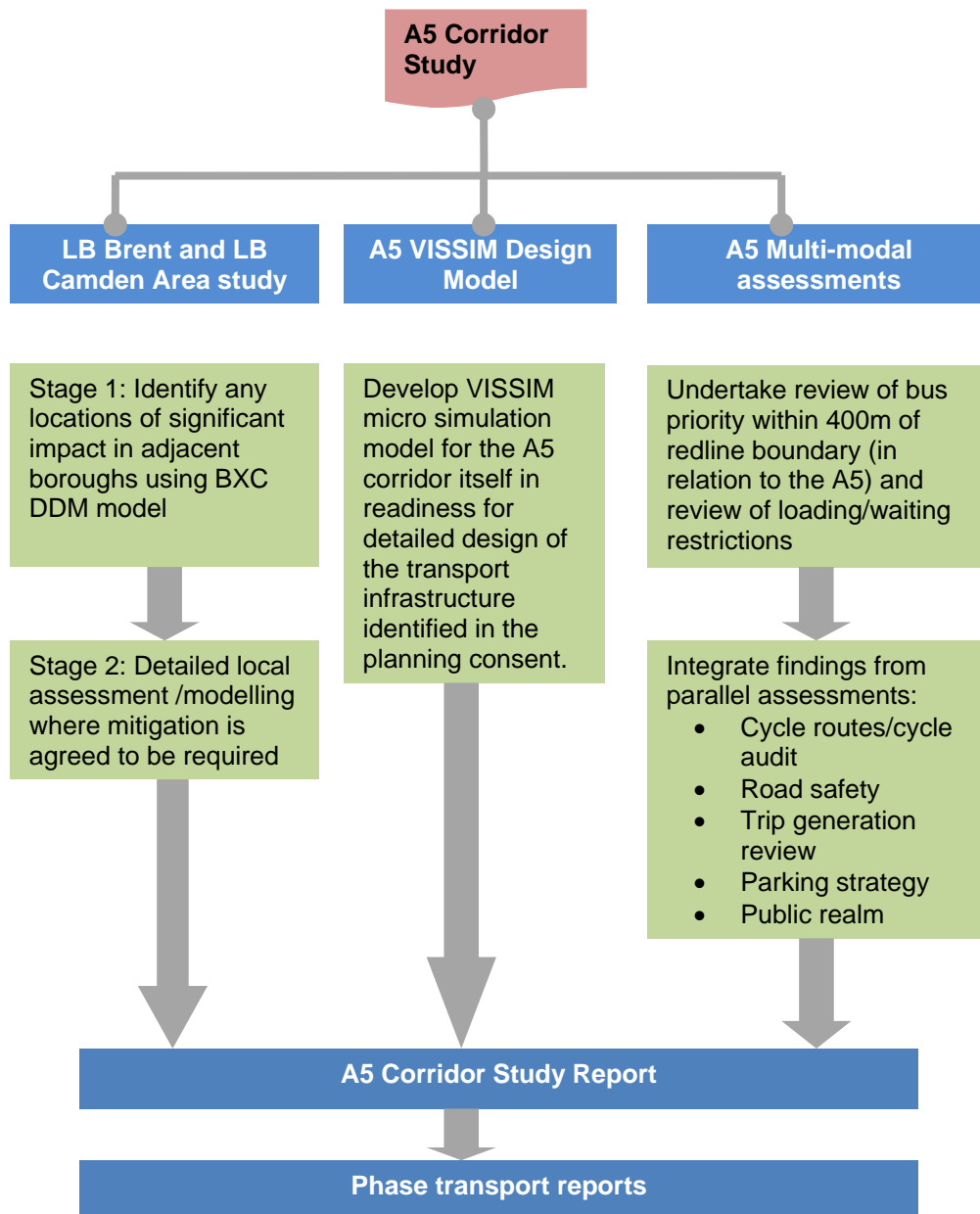


Figure 1 An overview of the key stages of the A5 Corridor Study

2 Background

2.1 Relevant planning conditions

Condition 2.7 of the outline planning permission states:

Prior to or coincident with the submission of the first Other Matters Approval in respect of Phase 1 the A5 Corridor Study (including any necessary Supplementary Transport Measures required to address the detailed impacts identified in the study together with an indicative programme for carrying out such works) shall be submitted to and approved by the LPA, in consultation with the London Boroughs of Brent and Camden and the Transport Strategy Group. All other relevant Reserved Matters Applications and Other Matters Applications shall thereafter be in accordance with the A5 Corridor Study approved in accordance with this Condition (and including for the avoidance of doubt the approval of detailed delivery programmes in accordance with Condition 5 of this Permission).

Reason: To ensure the transport impacts of the scheme upon the A5 are fully evaluated and mitigated as part of the detailed design and programming of Phase 1 and the other relevant Phases of the Development. The scope of the A5 Corridor Study was included within Annex 7 of schedule 17 of the signed S106 agreement (see Appendix A at the rear of this note) and is summarised below.

The A5 Corridor Study has been defined to cover a core area of the A5 between A407 Cricklewood Lane and A406 Staples Corner, including local roads within Barnet, Brent and Camden within an area anticipated to be approximately 800m from the A5, Claremont Road and the A407 Cricklewood Lane.

Table 1 lists the elements of the A5 study as detailed in Annex 7. It also illustrates where parallel work streams are being undertaken. Elements of the original A5 Corridor Study scope that are addressed in this report are also shown and highlighted in italics, and detailed further below.

Table 1 Elements of A5 scoping study as defined in annex 7 of Schedule 17 of S106

Element	Other Related Studies
<i>Traffic modelling – 2031* AM and PM peaks</i>	a) <i>A5 Corridor Study</i>
a) <i>Traffic modelling to inform detailed design</i>	b) Separate assessment being undertaken to update TA
b) Production of traffic forecasts	
Pedestrian environmental review/pedestrian routes	Area Wide Walking and Cycling Study
Pedestrian accessibility	Area Wide Walking and Cycling Study
<i>Traffic management – parking, loading and waiting review</i>	<i>A5 Corridor Study, Parking Strategy & Servicing and Delivery Strategy</i>
Cycle routes/cycle audit	Area Wide Walking and Cycling Study
<i>Traffic management – review of signals/linked signals/traffic management</i>	<i>A5 Corridor Study</i>
<i>Review of bus priority including all bus stops within 400m of the redline boundary</i>	<i>A5 Corridor Study</i>

Element	Other Related Studies
Public realm	Area Wide Walking and Cycling Study
Road safety/accident data review	S73 Transport Assessment
* End state assessment year altered to 2031 in line with the proposed BXC DDM methodology	

2.2 BXC Detailed Design Model

The overarching reason for this study is to identify and mitigate in more detail any local impacts of the development within the LB Brent and Camden and elsewhere in Barnet, that were assessed at a more strategic level of detail in the transport modelling for the initial outline planning application.

The authorities' interest and objective of the study is for the developers and highway authorities to agree a corridor based approach for this part of the A5 that can serve as a benchmark for subsequent phases of BXC development that includes measures proposed by the developers, any additional mitigation needed, and measures funded by the consolidated transport fund in co-ordination with public funded and third party measures/works that may emerge in this area during the life of the scheme.

Since the signing of the section 106 agreement in 2010, the Development Partners have agreed to develop a new BXC Detailed Design Model to ensure compliance with current TfL standards when informing the detailed design of the proposed highway improvements. The new transport model, known as the BXC DDM, comprises a core area, part of the NoLHAM model (TfL's area wide SATURN highway assignment model) and part of Railplan v6, TfL's public transport model. Future year models are being developed for years 2021 (to represent phase 1) and 2031 (to represent end state).

The scope for the development of the BXC DDM model is currently under development and forms an 'emerging document' as the detailed work progresses. A draft copy of the BXC DDM scope is provided in Appendix C. It is worth noting that this document will evolve as the project develops. The new BXC DDM model has been scoped to have a core area which includes the area identified in Annex 7 of Schedule 17, and so provides the opportunity to ensure that any detailed impacts within this area are identified and mitigated to ensure compliance with the section 106 requirements.

The BXC DDM provides context for detailed design models and design approval. It will be used iteratively not deterministically. The local authorities are expected to use their judgement and discretion on specific measures in a reasonable manner and are expected to propose measures they deem relevant or needed.

2.3 Other Relevant Transport Proposals

As part of the A5 studies, it will be necessary to identify and review any current proposals for transport improvements within the area of interest agreed with the authorities. It is proposed to liaise with the authorities to identify any proposals under the following headings to inform the development of the required models:

- Planned improvements (funded with programme date)
- Longer term proposals
- Major maintenance / renewals planned

-
- Major utility proposals
 - Other third party works

This information will be collected and data incorporated as appropriate. All background information will be reported within the A5 Corridor Study Report.

2.4 Implementation

The implementation of any proposals identified through the A5 Area Studies will be monitored by the Transport Advisory Group (TAG), and subject to the agreement of the Transport Strategy Group (TSG).

2.5 Phase Transport Reports

Following the submission and approval of the A5 Corridor Study Report and therefore the discharge of condition 2.7 all subsequent changes to the A5 Corridor which are brought forward under later phases of the development will be addressed in the appropriate phase transport report, which has to be prepared in respect of each phase or sub-phase as a further S106 condition.

3 London Boroughs of Brent and Camden Area Studies

3.1 Stage 1 – Identify areas of material impact

As described earlier, the BXC DDM scope is currently being developed such that the model will be able to provide adequately detailed information within Brent and Camden to satisfy the requirements outlined in Annex 7, i.e. significant detail is being coded into BXC DDM to enable changes in traffic movements within the Dollis Hill and south of Cricklewood Lane areas to be identified (see Figure 2). It is anticipated that future year traffic flow data (with and without development traffic for phase 1 and ‘end-state’ scenarios) will be available from BXC DDM in early 2014. Discussions with TfL and others are on-going about the development of the BXC DDM model.

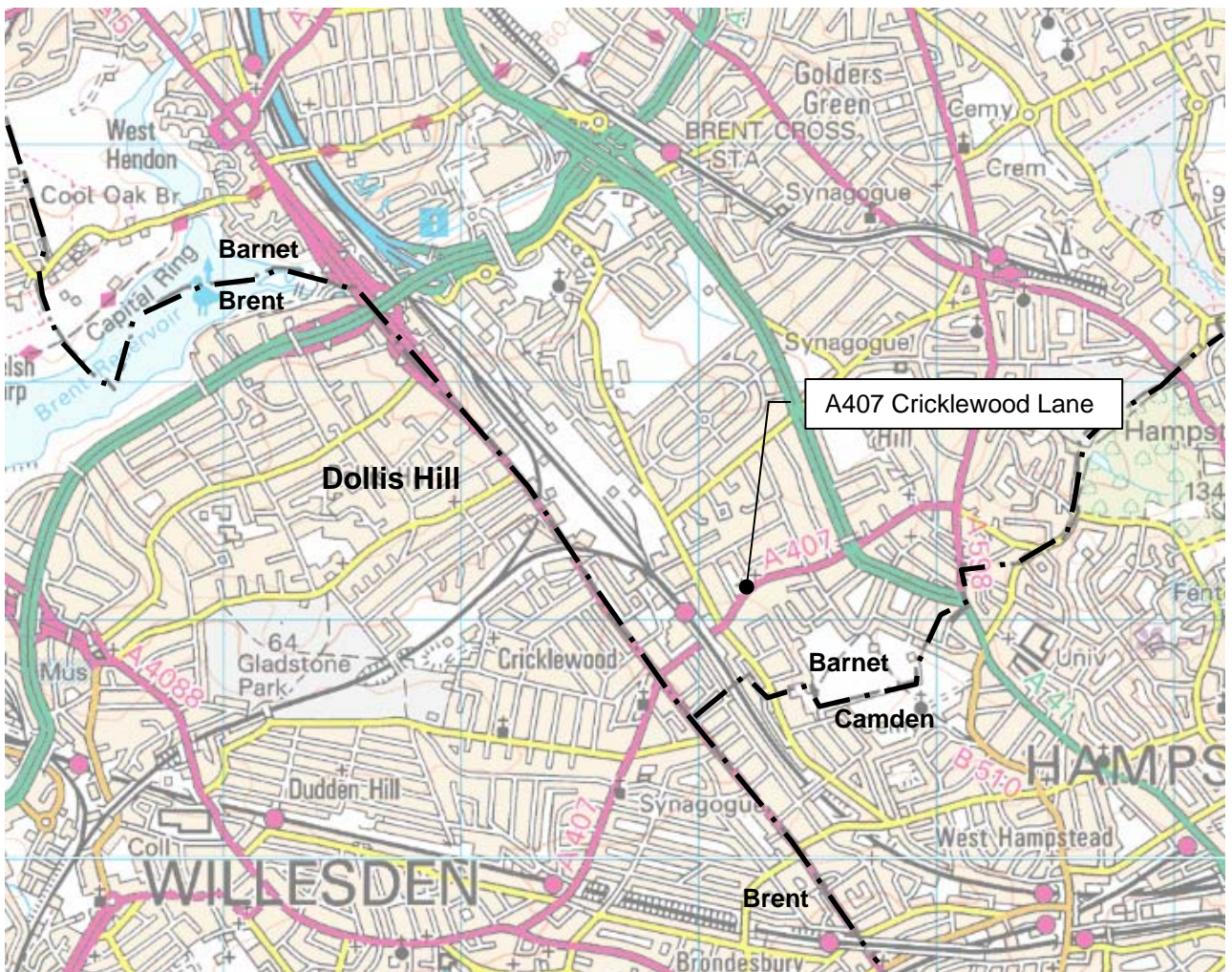


Figure 2 Area plan showing borough boundaries

As soon as data is available from BXC DDM this will be used to identify any material impacts on the local road network. The analysis will be undertaken to compare ‘V/C’ (flow to capacity ratios) from the BXC DDM Saturn modelling in the future year scenario with no development (Do Minimum) with the V/C for phase 1 and end state model (Do Something). Junctions where

'V/C' is more than or equal to 90% in the with development scenario and less than 90% in the Do Minimum will be subject to detailed capacity analysis using the appropriate junction modelling tool (i.e. TRANSYT/LinSig/PICADY/ARCADY).

Where BXC DDM identifies junctions where 'V/C' is greater than 90% in the Do Minimum (in the vicinity of the development), consideration will be given to the most appropriate package of mitigation, or as termed in the s106 agreement; 'supplementary transport measures'. Recommendations will be presented to the Transport Advisory Group where confirmation on how the transport fund should be used to progress intervention measures.

These junctions will be considered as having a '**material**' impact from the development on highway operations. The local models will be used to facilitate the preparation of outline designs of mitigation measures, which may entail revising proposed mitigation or recommending additional measures.

3.2 Stage 2 – Detailed local road assessments

Pending the outcome of the Stage 1 analysis, local static traffic models will be produced for weekday AM and PM peak hours as specified in the Section 106 agreement. Where possible, data transfusion between the BXC DDM model and more detailed local modelling will be undertaken to ensure reliable data is taken forward to the detailed design of the highway improvements. This will entail iterations between models where traffic flows and signal timing data are exchanged to refine model outputs more precisely. The process is defined more fully in the BXC DDM scoping report.

Detailed traffic modelling for the junctions identified for mitigation within Brent and Camden, will follow the process set out below:

- Model audit: undertake a review of any junction models that the local authorities may have already developed and/or model developed in the previous BXC assessments. Identify models fit for updating and where new models need to be developed.
- Surveys: develop a survey specification to enable the updating and validation of the traffic models, commission surveys and undertake analysis. The survey data from the June 2013 surveys (which was designed to principally aid the development of the BXC DDM) will provide some overlap with the requirements for the LB Brent and LB Camden Area Studies. Any additional surveys will be identified as necessary and programmed for October 2013.
- Undertake base model calibration and validation in line with the methodology for the BXC DDM for the local authorities approval prior to testing of future year scenarios
- Discuss and agree with the local authorities the phase 1 (2021) and 'end-state' (2031) development proposals and how they are to be modelled
- Code 'end-state' development proposals for future year modelling and obtain local authority approval. Undertake intervention testing and agree any appropriate supplementary mitigation measures with the authorities.
- Produce scheme designs for any additional supplementary mitigation measures that are found to be necessary, including plans at an appropriate scale, and undertake a completely independent Stage 1 Road Safety Audit compliant with TfL best practice, including the Designer's.

4 A5 VISSIM Design Model

The proposed extent of the A5 VISSIM Design Model is shown in Figure 3. The VISSIM model will be developed for weekday AM and PM peak periods and will be used to supplement appropriate junction models (TRANSYT and LinSig models for signalised junctions, PICADY for priority junctions and ARCADY for roundabouts) in the study area.

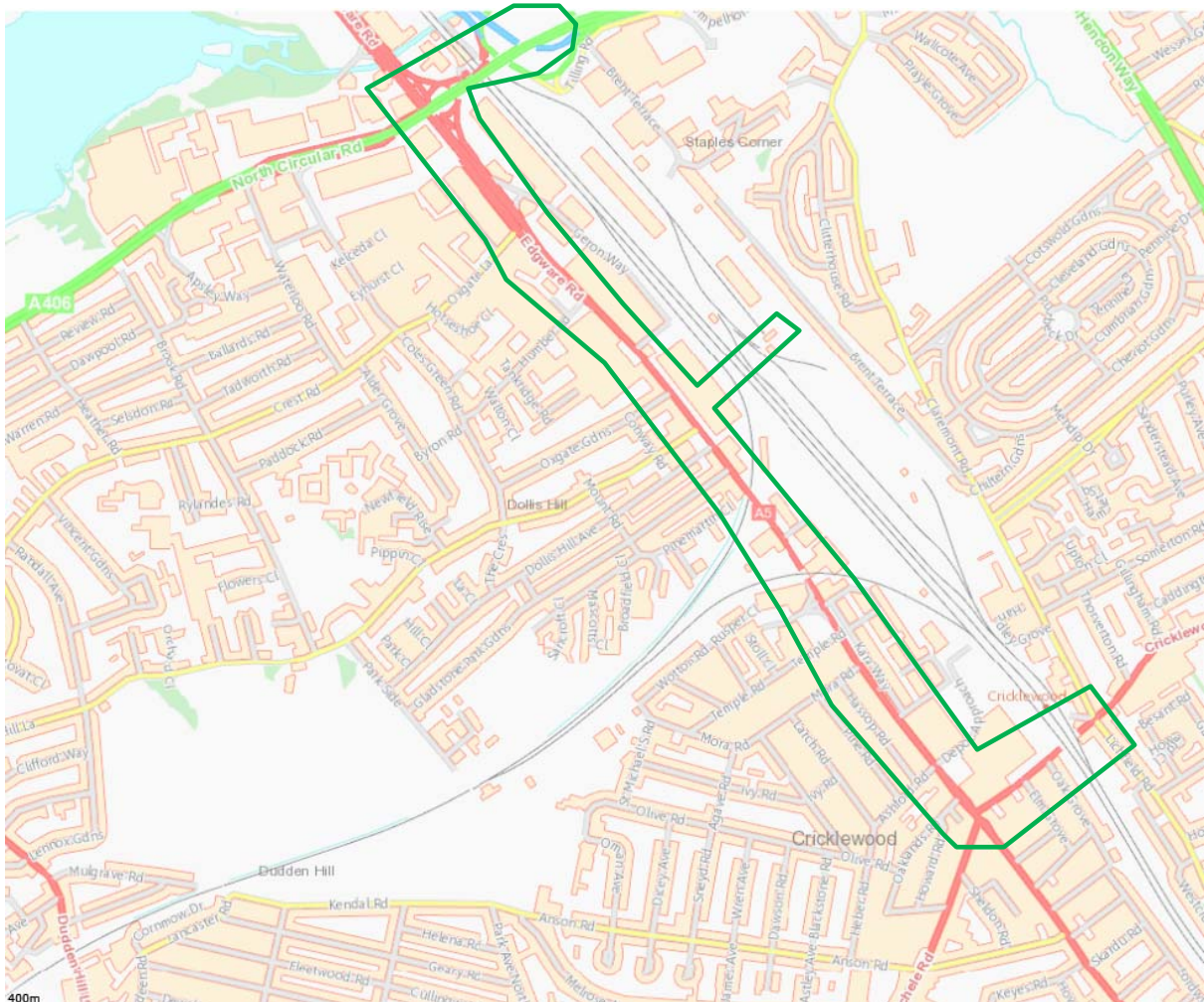


Figure 3 A5 VISSIM Design Model area

The primary objectives of the A5 VISSIM Design Model are:

- Provide a tool to assess journey times along the A5 corridor
- Advise the operational impacts of the proposed infrastructure improvements
- Advise the detailed design of the infrastructure improvements along the A5 corridor

At the time of writing this scoping report it is proposed that the development of appropriate junction models and VISSIM models will follow the outline process set out below, however it has been agreed that the nature and level of detail in the VISSIM model will be monitored and agreed through the model development process to ensure that the model and associated validation is appropriate for the proposed use of the model:

- VISSIM model audit: undertake a review of TfL’s A406 VISSIM model (see Figure 4) to ascertain whether elements of the network coding can be extracted and used for the development of the A5 VISSIM Design Model.
- Junction model audit: undertake a review of the junction models used in the previous assessments. Identify models fit for updating and where new models need to be developed
- Surveys: develop a survey specification in accordance with the data requirements defined in TfL’s modelling guidelines (this is being undertaken in collaboration with the BXC DDM scoping, with surveys being carried out in June 2013. Further specific surveys may be undertaken as part of the VISSIM modelling work as necessary)
- Undertake base model calibration and validation (following TfL’s MAP for stages 2 and 3) and seek TfL and LB Barnet approval prior to testing of future year scenarios
- Discuss with the authorities the ‘end-state’ development proposals and how they are to be modelled (TfL MAP stage 4)
- Code phase 1 and ‘end-state’ development proposals for future year modelling (following TfL’s MAP for stage 5) and seek the authorities approval, making full use of TRANSYT’s signal optimisation processes to inform VISSIM

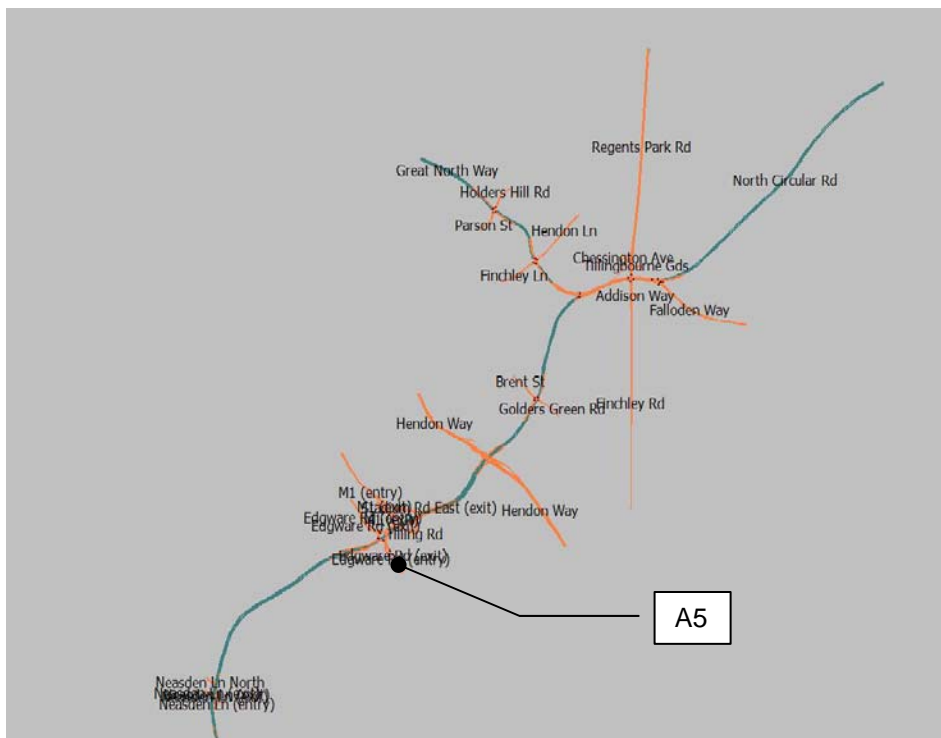


Figure 4 The extents of TfL’s A406 Section 3 VISSIM network

The suite of traffic models along the A5 will provide the following functions:

- Inform the Phase Transport Reports and the detailed design of junctions along this corridor.
- The VISSIM model will be available to test scenarios during key construction phases and assist in identifying and testing mitigation measures. For example, the VISSIM model will be used to assess the effectiveness of any traffic management measures such as linked signals and dynamically controlled bus priority measures proposed as part of the multi-modal assessment described in section 5.1. Any proposals for scenario testing will be documented in the A5 Corridor Study report as appropriate.

5 A5 Multi-Modal Assessment

This element of the study is comprised of a number of stages, and predominately draws together the findings from other parallel studies (see section 2.1) to advise the A5 related detailed designs as follows:

1. Pedestrian accessibility and routing
2. Cycling accessibility and routing
3. A review of bus priority, including a review of all bus stops within 400m of the redline boundary along the A5 corridor, accessibility, and the forecast impact on bus journey times
4. A review of parking, loading and waiting restrictions along the A5 corridor, including any proposed changes to the existing provision and parking controls
5. Streetscape improvements, including enhancements to the public realm in relation to all modes
6. Road safety and accident analysis
7. Integration of conclusions and recommendations from all previous sections, and providing a linkage to the indicative programme for delivery.

5.1 Bus priority

A review of current and proposed bus stop locations and bus priority measures will be undertaken within 400m of the red line boundary along the A5 corridor. The following stages have been identified:

- Attend a joint inspection meeting with TfL Buses and the local authorities to understand bus priority issues, initiatives, proposals planned and/or committed.
- Base year bus infrastructure review: create an inventory of bus infrastructure, to include bus stop locations, bus stop facilities, i.e. shelter, timetable information, countdown etc., current bus priority measures e.g. selective vehicle detections at traffic signals. There is likely to be overlap here with the PERS audit that is being undertaken for the area wide walking and cycling study. A coordinated approach will be adopted to avoid any duplication of effort.
- Base year congestion analysis – a) identify ‘pinch-points’ where buses are delayed by general traffic by on-site observations and, b) review dwell time data at key bus stops (to be agreed with TfL and local authorities) and boarding and alighting data (to be provided by TfL) to identify areas for possible enhancement,
- Future year bus measures: identify what measures are proposed from the original consent and ensure these measures are included in the future year modelling assessment. Make recommendations for additional measures if warranted, such as selective vehicle detection for buses.

5.2 Parking, loading and waiting restrictions

The review of loading and waiting restrictions will be undertaken in areas along the A5 corridor (to be agreed with the authorities). Key steps will include:

- Base year assessment: map out on-street parking areas, loading and waiting restrictions.
- Analyse parking and loading survey which will be focussed on 'hot-spots' along the A5 corridor. Surveys will include arrivals, departures and dwell times by vehicle type. This information will be used to develop the base year VISSIM model.
- Review development proposals and how they might impact on parking, loading and waiting restrictions. Identify locations where restrictions should be modified to facilitate traffic movement whilst balancing the requirements of residents, local businesses etc.

A review of parking (including controlled parking zones) is being undertaken separately in the Car Parking Management Strategy report (Condition 11), outlined further in section 5.3.

5.3 Pedestrian and Cycling

The Area Wide Walking and Cycling Study will include:

- PERS and CERS audit for the A5 corridor, including public realm considerations
- A joint inspection meeting with TfL and the LB Barnet
- A review of pedestrian and cycling accessibility along the A5 corridor
- Proposed improvements to improve pedestrian and cycling accessibility
- Review of the public realm with specific reference to pedestrian and cycling facilities

Appropriate areas from the above study will be incorporated into the A5 Corridor Report to provide an overview of the pedestrian and cycling facilities along the A5 corridor.

5.4 Road Safety

A review of road safety will be undertaken as part of the S73 Transport Assessment. The area pertinent to the A5 corridor will form part of the A5 Corridor Report as appropriate.

5.5 Programme

Appendix B of this scoping document provides the outline programme for the development of the A5 corridor studies.

With regards to the parallel studies which feed into the A5 multi-modal assessment, the current programme has each report due for final issue on the following dates:

- Area wide walking and cycling study – February 2014
- BXC Detailed Design Model – Spring 2014
- Phase Parking strategy – February/March 2014
- Servicing and delivery strategy – February 2014

Sufficient time will be programmed to enable a comprehensive integration of any conclusions and recommendations made from these studies. It should be noted as each work stream progresses recommendations will be evaluated as necessary rather than as each study is finalised.

Appendix A – Annex 7 Schedule 17 from the S106

A5 Corridor Study

General Scope & Area of Study

The A5 Corridor Study will cover a core area of the A5 between A407 Cricklewood Lane and A406 Staples Corner including adjacent local roads within Barnet, Brent and Camden within an area anticipated to be 800 metres, or larger/smaller if considered necessary as part of the scoping, from the A5, the MML link, the Claremont Road corridor and the A407 Cricklewood Lane to include a study of road safety, cycle provision, pedestrian environment, bus priority, traffic control, freight and delivery, servicing and on-street parking strategy and management.

Table 1: Detailed Scope of A5 Corridor Study

Corridor Element	Aim	Current Guidance and relevant studies (or substitute with update guidance)	Types of Measures (illustrative/ examples)
Traffic Modelling – 2026 AM and PM peaks	<p>(a) Traffic modelling to inform the Phase Transport Reports and the detailed design of the junctions along the A5 Corridor.</p> <p>(b) Production of traffic forecasts that enable fuller understanding of impacts and testing of local traffic management measures and/or supplementary mitigation in LB Brent</p>	TfL modelling guidance, existing modelling work undertaken for the TA	<p>(a) Development of a Vissim micro-simulation model as described below.</p> <p>(b) Refinement of TA strategic modelling work as described below, e.g. zonal disaggregation, review of trip generation and distribution from key sites e.g. WHF.</p>
Pedestrian Environmental Review / Pedestrian Routes	Create pedestrian network between the development and adjacent communities / key attractors	TRL's Pedestrian Environment Review System (PERS) as developed for TfL; TfL Streetscape Guidance	Links, footway design, pedestrian crossings, subways/bridges, routes/route choices, public spaces, interchanges, bus stops, signage and way finding

Pedestrian Accessibility	Make the above network fully accessible ³	Panel advice/ other relevant advice from the community. TfL guidance on providing for disabled people; Design Manual for Roads and Bridges	Legibility, level changes, car parking location/ design, taxi location and design, design/location of crossings and bus stops, design of interchanges (including step free access)
Traffic Management - Parking, loading and waiting review	Improve movement capacity and smooth traffic flows	Relevant TfL or Borough Guidance	Waiting/loading restrictions along corridors and parking controls in adjacent roads
Cycle Routes / cycle Audit	Create cycle network between the development and adjacent communities / key attractors	London Cycling Action Plan; Cycle Route Implementation Study Process (CRISP) studies; London Cycle Design Standards; LCN+ guidance	Cycle routes/ cycle lanes, all public highway/ footbridge designed for cyclists, Advanced Stop Lines/ Toucan crossings

Corridor Element	Aim	Current Guidance and relevant studies (or substitute with update guidance)	Types of Measures (illustrative/ examples)
Traffic Management - Review of signals/ linked signals/traffic management	Improve movement capacity and smooth traffic flows	TfL modelling Guidelines; TfL signal design standards	Signal equipment, re-timing/ staging, layout changes (kerb-re-alignment, crossings, lining, signing), lighting, linked signals.
Review of bus priority including all bus stops within 400 metres of the redline boundary	Improve movement capacity and smooth traffic flows. Improve conditions for bus users	London Buses advice on bus stops and bus priority	Selective Vehicle Detection, Bus SCOOT (or similar signal control), review waiting/ loading, location of crossings, Bus stops, lighting.
Public realm ⁴	Enhance the highway environment in the corridor	TfL Streetscape Guidance	Soft and hard landscaping, including trees; lighting, drainage and public realm
Road safety/ accident data review	Improve road safety as part of the traffic management proposals	TfL guidance on road safety schemes; Design Manual for Roads and Bridges	Relates to design of the above elements including minimising safety concerns during construction.

³ The study will inform the detailed design at the junctions and the wider connectivity at the junctions which will form part of the mitigation funded by the DPs.

⁴ The DPs will carry out the works identified in the Public Realm and Open Space Parameter Plan 003 and the associated landscaping to the new junctions. Any works identified beyond this will be funded if appropriate from the consolidated Transport fund, subject to a decision of the Transport Strategy Group.

Modelling for the A5 Corridor Study

A Vissim model will be developed to inform the A5 Corridor Study. It is proposed that a Vissim micro-simulation model is formed based on an area element of the wider A5 Corridor Study around the A5 between the section of this road between A5/A406 North Circular Road and A5/A407 Cricklewood Lane junctions, also extending to include A407/Claremont Road and A5/MML Bridge to be agreed as part of the scoping. The extent of the area to be covered by the Vissim model will be agreed with the Authorities before the time when the design work on the A5 corridor is to be undertaken.

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 analyses so that the impacts of these movements can also be assessed in the detailed junction assessments, and hence detailed designs.

This will also enable the operational impacts of adjacent developments on the corridor to be further assessed. The traffic demand would be taken from the BXC strategic SATURN model.

All major and minor junctions on this section of the A5 would be included in the simulation model. This would require full classified turning movement surveys to be undertaken at each of these junctions. The Vissim model will be able to assess the linking of traffic signals

The trip generation and distribution assumptions made for the ParcelForce site opposite Dollis Hill Lane will be reviewed for the appropriate form of landuse being proposed at the time the study is conducted.

The network will be taken from the SATURN model and enhanced with the introduction of local roads to get a suitable level of local detail. In this way the zonal detail would be increased so that local movements will be further represented. Matrix estimation will then be used to control the demand to the locally observed movement totals. The model would then require a local validation, which would need some further counts on adjacent links and/or junctions.

A journey time survey on the A5 would also be undertaken to further inform the calibration and validation processes.

Forecasting with the model will be done by forecasting the relative change in demand in the A5 corridor using the BXC SATURN model forecasts, including the use of the junction adjustments as included in the TA assessments. These would be applied in a relative fashion to the local model matrix, which would allow local forecasts to be run. After that the model could be used to test the various mitigation measures.

It is proposed that this work is undertaken for the AM and PM peak periods, for development scenarios to be agreed with LB Barnet and TfL, and in consultation with LBs of Brent and Camden.

Local Traffic Management Measures in Brent

The existing strategic BXC transport model will be used, where necessary, with minor modifications, to further assess any local traffic management measures proposed in LB Brent. The existing BXC strategic transport model will be used to further test any wider area implications that might arise from future local traffic management measures that are proposed to be introduced in LB Brent to address any supplementary/unforeseen impacts from the BXC proposals. Any changes to the strategic model, would be minor and targeted to provide a better representation of the local zonal structure and network, whilst still retaining the forecast demand flows from the current matrices. In this manner, the fundamental traffic assumptions inherent within the TA will be retained.

Specifically the points would include:

- The adjustments that are currently applied in the junction assessment process as reported in the TA ensure that a robust assessment of the junctions has been undertaken. However, to refine the loading of trips from east and west of the A5 it is proposed to further disaggregate the zones, and reassess the zone centroid connections, for those zones that bisect the A5, namely zones 9201, 9203 and 9204.
- To also disaggregate zone 9209 which bisects the A406 North Circular Road at Neasden, and to review its zone centroid connections, to further reflect its loading onto the network east and west of the A406.
- To review and, where appropriate, modify the northern and southern junctions and links within the strategic model network definition at the A5 and Neasden Lane/Dudden Hill Lane for the Dollis Hill Area as defined by the boundary of the A406/ A5/ Cricklewood Freight Line and Neasden Lane/ Dudden Hill Lane.

The extent of the area to be covered by this modeling will be agreed with the Authorities at the appropriate time. Modelling will be undertaken for the AM and PM peak hours.

These enhancements could be introduced in a manner that would also inform the development of the Vissim model as described above.

As a consequence of these tests, additional/ supplementary mitigation measures identified as being required will be the subject of detailed design, costing and public consultation and programmed for implementation at the appropriate time according to development phasing and impact. The associated costs of detailed design, costing, public consultation and implementation will be at the Development Partners' expense

APPENDIX 2

Analysis of Scheme Compliance with Regional and Local Planning Policy

Table 2.1: Analysis of the proposals compliance with London Plan (March 2015) Policies

Policy	Content Summary	Extent of compliance and comment
Policy 1.1 (Delivering the strategic vision and objectives for London)	Strategic vision and objectives for London including managing growth and change in order to realise sustainable development and ensuring all Londoners are able to enjoy a good and improving quality of life. Improving environments which are easy, safe and convenient for everyone to access.	Compliant: As a London Plan Opportunity Area, the approved BXC scheme seeks to make the most of brownfield land to meet wider growth requirements in terms of housing, retail and commercial activities in a location accessible by a range of transport modes. The provision of the proposed infrastructure will assist in achieving the wider sustainable aims of the London Plan and provide easy, safe and convenient access for all.
Policy 2.6 (Outer London: vision and strategy)	Work to realise the full potential of outer London and enhance the quality of life for present and future residents. Understand the significant difference in the nature and quality of neighbourhoods; improvement initiatives should address these sensitively and draw upon strategic support where necessary.	Compliant: The proposed development represents one of the most important opportunity areas in outer London. The BXC Opportunity Area represents a significantly underutilised area of accessible brownfield land in need of regeneration. More specifically, in relation to the current application, the infrastructure will be enhanced for visitors to the Brent Cross Shopping Centre and the Southern development. It will be an asset for the public and existing neighbourhoods.
Policy 2.8 (Outer London: Transport)	Enhance accessibility by improving links to and between town centres and other key locations by different modes and promoting and realising the key improvements. Work to improve public transport access, provide improved traffic management, road improvements and address and manage local congestion	Compliant: The study proposes a package of improvements designed to achieve better efficiency of traffic movements along the A5. This includes several junction improvements and other traffic management measures to help alleviate congestion and provide an appropriate level of mitigation.
Policy 2.13 (Opportunity Areas and Intensification Areas)	Support the strategic policy directions for the opportunity areas, and where relevant, in adopted opportunity area planning frameworks Support wider regeneration, including in particular improvements to environmental quality, and integrate development proposals to the surrounding areas especially for regeneration.	Compliant: Nearly all the new phase 1A North roads and junctions are being designed with enough capacity to accommodate the predicted traffic levels for the whole development at end-state. The new infrastructure is designed to support the wider Brent Cross regeneration. The A5 Corridor Study; Condition 2.7 is a pre-reserved matters condition of the s73 permission and the study identified that there would be additional impacts on local roads in Brent and Camden; to improve these conditions a capped contribution has been secured towards future Supplementary Transport Measures if monitoring of traffic flows indicates increases due to the development.

Policy	Content Summary	Extent of compliance and comment
Policy 2.14 (Areas for regeneration)	Boroughs should identify spatial areas for regeneration and spatial policies to bring together regeneration.	<p>Compliant: The BXC site is identified as a London Plan Opportunity Area (See Policy 1.1 above) in need of comprehensive regeneration and capable of accommodating significant housing, jobs and community infrastructure.</p> <p>The detailed layout and network for vehicles, cycles and pedestrians that provide connections to the Northern development and provides sufficient connections across and to the south of the A406 to facilitate the start of the Southern development.</p> <p>The A5 Corridor will provide key traffic improvements and improve traffic movements along the A5.</p>
Policy 2.15 (Town Centres)	Development proposal should promote access by public transport walking and cycling. Promote safety and security and contribute towards an enhanced public realm and links to green infrastructure.	<p>Compliant: The regeneration development improves public transport by providing replacement of the existing bus station with a fully integrated new high quality facility within the extended Brent Cross Shopping Centre, improvements to pedestrian and cycle facilities; provides a new pedestrian and cycle bridge, known as the Living Bridge which will provide direct access from the southern development to the shopping centre situated to the north. Additionally, provide key connected pedestrian and cycle routes via Sturgess Park, Claremont Park and Clitterhouse Playing Fields.</p>
Policy 6.1 (Strategic approach);	The Mayor will work with all relevant partners to encourage a high quality public realm where appropriate, a corridor-based approach should be taken to ensure the needs of street users and improvements to the public realm are co-ordinated.	<p>Compliant: The regeneration scheme will see the provision of a network of connecting different green spaces and will primarily allow access to/from the Living Bridge which connects the southern development via the market square to Clitterhouse Playing Fields and Claremont Park; and access to the Brent Cross shopping Centre. The A5 Corridor will form part of this network and improve the needs for street users.</p>
Policy 6.2 (Providing public transport capacity and safeguarding land for transport)	Development proposal should improve integration, quality, accessibility, frequency and environmental performance of the public transport system.	<p>Compliant: The study has reviewed the mitigation measures approved as part of the outline scheme. The existing bus lanes which are all being retained and are considered to provide an effective package of improvements; to support bus operations along the corridor. Accessible bus stop improvements will be introduced as part of the Section 106 Consolidated Transport Fund.</p>

Policy	Content Summary	Extent of compliance and comment
Policy 6.3 (Assessing effect of development of transport capacity)	Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level are fully assessed. Transport assessments will be required in accordance with TfL's Transport Assessment Best Practice Guidance for major planning applications.	Compliant: The A5 Corridor Study has assessed the impacts of the development in the study area using the latest BXCDDM. A micro-simulation model for 2021 has also been produced to look at detailed traffic capacity issues. The scope for the study was included in draft in the Section 106, and the latest version has been agreed and approved in close consultation with TfL
Policy 6.4 (Enhancing London's Transport connectivity)	Proposals illustrate opportunities related to locations which will benefit from increased public transport accessibility. Improve the public transport system to support future development and regeneration.	Compliant: To enhance and increase public transport accessibility, the new A5 link bridge over the Midland Mainline railway includes bus lanes in both directions. There will be a new connection for existing and modified bus services to connect with the southern development and the proposed new train station. This is expected to substantially improve the public transport accessibility in the local area
Policy 6.7 (Better streets and surface transport)	Development proposals should promote bus networks; allocating road space and providing high level priority on existing and proposed routes. Ensuring good access to and within areas served by networks, now and in future; and ensuring direct, secure, accessible and pleasant walking routes to stops.	Compliant: The proposed mitigation arising out of the study includes improvements to routes that are used to access bus stops. The A5 Corridor study complies with this policy.
Policy 6.9 (Cycling)	Proposals should identify and implement a network of cycle routes. Contribute positively to an integrated cycling network for London by providing infrastructure that is safe, comfortable, attractive, coherent, direct and adaptable and in line with the guidance set out in the London Cycle Design Standards (or subsequent revisions).	Compliant: The A5 corridor study has identified a network of cycle routes and various improvements to cycle facilities will be provided along the A5 corridor. It is considered the study complies with this policy.
Policy 6.10 (Walking)	Development proposals should ensure high quality pedestrian environments and emphasise the quality of the pedestrian and street space by referring to Transport for London's Pedestrian Design Guidance. Promote the 'Legible London' programme to improve pedestrian way finding. Encourage the use of shared space principles, such as simplified streetscape, de-cluttering and access for all.	Compliant: To improve pedestrian and way finding, signing throughout the A5 corridor will be provided in accordance with the guidelines set out in Legible London, and contained in the Way finding and Inclusive Access Strategy.

Policy	Content Summary	Extent of compliance and comment
Policy 6.12 (Road network capacity)	Proposals should improve the road network by improving or extending existing capacity or providing new links. Assess the extent of any additional traffic and any effects it may have on the locality. Proposals should also focus on how conditions for pedestrians, cyclists, public transport users and local residents can be improved.	Compliant: The study includes the road improvements approved as part of the outline Planning Permission, including the proposed A5 link road over the railway. Area wide modelling of traffic movements using the BXCDDM has been undertaken, and all key junctions modelled. A micro-simulation model of the corridor has also been developed. Traffic impacts are therefore considered to have been fully assessed. The study has also proposed a package of various improvements for non-car users.

**Table 2.2: Analysis of the proposals compliance with Barnet's Local Plan Policies
(September 2012)**

Policy	Content Summary	Extent of Compliance and Comment
Core Strategy		
CS NPPF (National Planning Policy Framework – presumption in favour of sustainable development)	Take a positive approach to proposals which reflect the presumption in favour of sustainable development and approve applications that accord with the Local Plan, unless material considerations indicate otherwise. Where there are no policies relevant to the proposal or the relevant policies are out of date permission should be granted, unless material considerations indicate otherwise.	Compliant: The study is considered to be in accordance with the NPPF and complies with Local Plan taken as a whole. It is therefore recommended for approval.
CS1 (Barnet's place shaping strategy – the three strands approach)	As part of its 'Three Strands Approach' the council will: <ul style="list-style-type: none"> - Concentrate and consolidate growth in well located areas that provide opportunities for development, creating a high quality environment that will have positive impacts. - Focus major growth in the most suitable locations and ensure that this delivers sustainable development, while continuing to conserve and enhance the distinctiveness of Barnet as a place to live, work and visit. - Ensure that development funds infrastructure through Section 106 Agreements and other 	Compliant: the proposal is considered to show the influence of this policy and demonstrates compliance with its key objectives. As an Opportunity Area in the Mayor's London Plan, the BXC scheme has been developed with the consideration that the site has significant capacity for new housing, commercial and other development linked to existing or potential improvements to public transport accessibility. The proposed development relates to matters reserved following the grant of planning permission in 2014. The majority of the infrastructure improvements associated with the scheme will be delivered during Phase 1 in preparation for the proposed development due to come forwards during the subsequent phases. The network created in sub-phase 1A North provides all necessary connections to facilitate the rest of the northern development and

Policy	Content Summary	Extent of Compliance and Comment
	<p>funding mechanisms.</p> <ul style="list-style-type: none"> - Protect and enhance Barnet's high quality suburbs. 	<p>in addition, some of the key roads south of the A406. Key elements of the road network for the Southern development are provided.</p>
<p>CS2 – Brent Cross - Cricklewood</p>	<p>The Council will seek comprehensive redevelopment of Brent Cross – Cricklewood in accordance with the London Plan, the saved UDP policies (Chapter 12) and the adopted Development Framework. The Policy makes provision for the following:</p> <ul style="list-style-type: none"> • It is considered likely that comprehensive regeneration will be achieved in accordance with the planning permission. If this is not achieved, the Council will consider whether in the circumstances the Local Plan needs to be reviewed. • Specific monitoring indicators for Brent Cross – Cricklewood are set out in Appendix B of the Core Strategy On the basis of these indicators it is expected that comprehensive re-development will commence in relation to Phase 1 at some time between 2015 and 2017. • If these milestones are not achieved (or are not likely to be capable of being delivered) we will consider the possible need for a review of the Core Strategy Policy on Brent Cross – Cricklewood • The key milestone for the regeneration of Brent Cross – Cricklewood is likely to be the Phase 1 Compulsory Purchase Order (CPO). If by the end of 2014 any CPO that is required to deliver Phase 1 and commence the development has not been made and submitted for confirmation we will instigate a review of the policy framework for Brent Cross – Cricklewood. 	<p>Compliant: The 2014 consent of the S73 application continues to ensure the comprehensive redevelopment of Brent Cross Cricklewood in accordance with this policy and the Saved UDP policies.</p> <p>The infrastructure will be enhanced for visitors to the Brent Cross Shopping Centre and the Southern development. It will be an asset for the public and existing neighbourhoods. The new infrastructure will support the wider Brent Cross regeneration.</p>
<p>CS9 (Providing safe, efficient and effective travel)</p>	<p>Developments should provide and allow for safe effective and efficient travel and include measures to make more efficient use of the local road network.</p> <p>Major proposals should incorporate</p>	<p>Part Compliant: The study includes a review of several of the key gateway junction improvements and the new A5 link road across the railway line. A package of proposals has arisen out of the study designed to improve conditions for non-car users.</p>

Policy	Content Summary	Extent of Compliance and Comment
	<p>Transport Assessments, Travel Plans, Delivery and Servicing Plans and mitigation measures and ensure that adequate capacity and high quality safe transport facilities are delivered in line with demand.</p> <p>The council will support more environmentally friendly transport networks, including the use of low emission vehicles (including electric cars), encouraging mixed use development and seeking to make cycling and walking more attractive for leisure, health and short trips.</p>	
CS12 (Making Barnet a safer place)	<p>The Council will:</p> <ul style="list-style-type: none"> - Encourage appropriate security and community safety measures in developments and the transport network. - Require developers to demonstrate that they have incorporated community safety and security design principles in new development. - Promote safer streets and public areas, including open spaces. 	<p>Compliant: a lighting strategy is proposed by the development partners. Although indicative details have been submitted with the current application full design details are still required and will be subject to the requirements of a planning condition. The lighting strategy will ensure the environment is secure.</p> <p>In addition, the Estate Management Framework Agreement advises that a team of SIA (Security Industry Association) accredited CCTV operators (closed circuit television) will operate an extensive system within Brent Cross shopping centre 24 hours of every day supporting the Duty Assistant team in providing a safe and secure environment.</p>
CS15 (Delivering the Core Strategy)	<p>The council will work with partners to deliver the vision, objectives and policies of the Core Strategy, including working with developers and using planning obligations (and other funding mechanism where appropriate) to support the delivery of infrastructure, facilities and services to meet needs generated by development and mitigate the impact of development.</p>	<p>Compliant: The Section 73 permission was subject to a S106 Agreement. The A5 Corridor Study condition 2.7 is a pre-reserved matters condition of the S73 permission. The requirements of the s106 are still applicable. Where required, the s106 will be varied in order to secure deliver of specific elements within the current application.</p>
<p>Adopted UDP (May 2006) Saved Policies (May 2009) as referred to in Core Strategy Policy CS2 – Chapter 12 of the UDP: Cricklewood, Brent Cross and West Hendon Regeneration Area</p>		
GCrick Cricklewood, Brent Cross and West Hendon Regeneration Area	<ul style="list-style-type: none"> - The Council seeks integrated regeneration in the Cricklewood, Brent Cross and West Hendon Regeneration Area. - All development to the highest environmental and design standards - Aim to develop a new town centre 	<p>Compliant: The A5 Corridor is consistent with this strategic aim</p>

Policy	Content Summary	Extent of Compliance and Comment
	over the plan period.	
C1 Comprehensive Development	<ul style="list-style-type: none"> - The Council seeks the comprehensive development of the regeneration area in accordance with the area framework and delivery strategy. - Development proposals will need to meet policies of the UDP and their more detailed elaboration in the development framework. 	Compliant: The regeneration scheme accords with this policy. The proposals are Phase 1A (N) proposals within the scope of the S73 permission, the first phase of development within the wider Brent Cross Cricklewood regeneration project.
C7 Transport Improvements	<p>Transport improvements - the following should be provided through planning conditions and/or Section 106 agreements:</p> <ul style="list-style-type: none"> i. Connections and improvements to the strategic road network. ii. Sufficient transport links to and through the development, to include at least one vehicular link across the North circular Road and one vehicular link crossing the railway to the Edgware Road. iii. A new integrated railway station and new integrated bus station at Cricklewood, linked by a rapid transport system to Brent Cross Bus Station and Hendon Central and/or Brent Cross Underground Stations on the Northern Line. iv. A new bus station at Brent Cross, to north of the North Circular Road, with associated improvements to the local bus infrastructure. v. An upgrade of the rail freight facilities. vi. Provision of an enhanced, rail-linked waste transfer station serving North London. vii. Priority measures for access to disabled persons, pedestrians, buses and cyclists throughout the Regeneration Area. 	Part Compliant: The study includes a review of several of the key gateway junction improvements and the new A5 link road across the railway line. A package of proposals has arisen out of the study designed to improve conditions for non-car users.
UDP Site Specific Proposals (2006)	<p>Parts of the BXC development site are subject to site-specific proposals as shown in the Proposals Map (2006) (as saved). The aspirations for these sites are set out below:</p> <ul style="list-style-type: none"> • Brent Cross New Town Centre (Site 31) – new town centre, comprising a mix of appropriate 	Compliant: the regeneration proposal is consistent with the Proposals Map.

Policy	Content Summary	Extent of Compliance and Comment
	<p>uses, improved public transport and pedestrian access, landscaping and diversion of the River Brent;</p> <ul style="list-style-type: none"> • Cricklewood Eastern Lands (Site 37) – mixed use including residential, office, leisure, local and neighbourhood shops, education, community uses and open space; • New Railway Station Cricklewood (Site 38) – railway station and public transport interchange; • New Waste Transfer Station (Site 39) – waste handling facility. 	

Cricklewood, Brent Cross, West Hendon Regeneration Area Development Framework SPD 2005.

The Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework was adopted by the council and the Mayor of London as Supplementary Planning Guidance in 2005. This Development Framework was produced in collaboration with the Mayor and the Greater London Authority, landowners and developers in order to guide and inform the design and delivery of the development with the aim of achieving high quality comprehensive redevelopment of the area around a new sustainable mixed use town centre spanning the North Circular Road.

The London Plan and the UDP saved policies combined with the Development Framework establishes a series of strategic principles for the comprehensive redevelopment of the area to create a new town centre, the overall vision for which is set out in UDP Policy GCrick.

Compliant: The A5 Corridor study is considered to be in accordance with the principles set out in the guidance contained in the adopted Development Framework (2005).

Key relevant local and strategic supplementary planning documents

Local Supplementary Planning Documents and Guidance:

- Infrastructure Delivery Plan (2011)
- Sustainable Design and Construction (2013)
- Planning Obligations (Section 106) (April 2013)

APPENDIX 3

CONSULTATION RESPONSES

First Consultation Responses for Consultation Period Ending 18/12/2014

Resident Response	Officer Comments
No objections or comments were received by residents during this initial consultation period	

Second Consultation Responses for Consultation Period Ending 03/08/2015

Resident Responses:	Officer Comments
<p><u>Resident 1 Response:</u></p> <p>To improve the traffic impacts in the area a priority bus route across the railway and running West to East through the middle of the development needs to be created. The road should be situated half way between the North Circular and Cricklewood Lane; this would create a more practical and circumferential route.</p> <p>The submitted documents states there is no space or capacity in the area for more road traffic and congestion is probably limiting traffic growth; the developers should think outside the box and consider other options to increase the comfortable movement and invest in long term needs.</p>	<p>Two Reserved Matters Applications and the A5 Corridor Study condition 2.7 of the Section 73 approved application (14/07402/CON) are before this Planning Committee for consideration; and this particular submission specially relates to the A5 Corridor Study; Condition 2.7. Whilst the objection letter refers to both the Infrastructure RMA and the A5 Corridor Study condition 2.7 planning references, officer comments can be found under Appendix 6 in the committee report for the Infrastructure RMA (15/03315/RMA).</p>

<p><u>Resident 2 Response:</u></p> <p>The Cricklewood part of the Edgware Road is already heavily congested and will be unable to cope with the massive increase in traffic generated by the proposed development. The results estimated does not give confidence that the A5 will be able to deal with the proposed changed in traffic.</p>	<p>The A5 Corridor Study recognises that congestion on the network is a problem. Where practicable, the aim has been to both protect buses from congestion, and encourage walking and cycling through positive design measures. The increase in traffic flow and change in journey time on the A5 corridor has been quantified and improvements are proposed at the traffic signal junctions on Edgware Road between Staples Corner and the A5/A407 junction to help mitigate the impact of the development</p>
<p><u>Resident 3 Response:</u></p> <p>The roads currently are already heavily congested and at certain times of the day the traffic is standstill causing dangerous levels of pollution. Any development designed will increase the pollution or attract higher number of visitors to Brent Cross; which will have a negative impact to the area.</p>	<p>Two Reserved Matters Applications and the A5 Corridor Study condition 2.7 of the Section 73 approved application (14/07402/CON) are before this Planning Committee for consideration; and this particular submission specially relates to the A5 Corridor Study; Condition 2.7. Whilst the objection letter refers to both the Infrastructure RMA and the A5 Corridor Study condition 2.7 planning references, officer comments can be found under Appendix 6 in the committee report for the Infrastructure RMA (15/03315/RMA).</p>
<p><u>Resident 4 Response:</u></p> <p>The Junctions at Claremont, Cricklewood Lane and Lichfield Road are currently very busy and difficult to navigate. When this junction gets busy it impacts the junction of Chichele Road, Cricklewood Broadway and Cricklewood Lane. Are there any proposals to improve these junctions?</p>	<p>These junctions are both proposed to be improved as part of phase 1A North. The schemes themselves have already received planning approval as they are 2 of the key gateway junctions to the BXC development, approved as part of the outline permission.</p>

Resident 5 Response:

There is no clarity whether the traffic impacts of the surrounding regeneration developments (West Hendon and A2 Dominion) have been taken into consideration.

Existing traffic saturations have not been taken into consideration. Only the calculated baseline traffic; presuming with all the surrounding developments has been predicted. A comparison of queue lengths and journey times is essential.

The visual report does not correlate with actual experiences of travelling on the A5; including significant delays to buses in the PM peak.

We are not certain where Kara road is where there is unused cycle provision.

Increases of 2-3% in saturation are considered insignificant, but such an increase on a road 95% saturated increases the risk of melt down by 100%. The congestion on the network will impact the buses, and these journey times need improving.

Traffic from committed developments i.e. those with full planning consent in the study area have been included within the modelling based on their predicted trip generation at the point of planning permission. The London Transport Studies model also includes background growth of the existing traffic (which takes into account potential development without planning permission) and the predicted traffic from the proposed development.

The traffic model has been validated by comparing the traffic flows and journey times calculated by the model with traffic flows and journey times recorded on street. This process was fully scrutinised by TfL and Barnet. Queue lengths actually provide a fairly unreliable way of assessing the performance of a network as they are constantly changing so the analysis looks at the ability of junctions to allow the demand traffic to pass through the junction, and this is the best indicator of congestion. Separate analysis has been undertaken to make sure that the queues are unlikely to block back to upstream junctions.

As part of the stage 3 base year validation process, the AM, PM and Saturday VISSIM models were validated in accordance with TfL VMAP validation criteria, which modelled journey times for 85% or more of the routes were within 15% or 60 seconds of observed data. The model successfully demonstrated this at VMAP stage. Bus journey times form part of the on-going monitoring.

This should read Kara Way. The developer is only required to provide mitigation of impacts of the development; this does not require them to solve existing traffic issues within Barnet or the adjacent boroughs.

These small predicted increases are regarded as insignificant because the forecasting methods are not accurate enough for these very small changes to be reliable. Where the predicted changes are so small it is just as likely that there will actually be a reduction in traffic flow at these junctions.

Junctions in the vicinity of the scheme where the flow to capacity ratio is greater or equal to 90% in the 'with development' scenario and less than 90% in the 'without

<p>The mitigations included in the outline approval seem to be renegotiable. The A5 Corridor study submitted states that there is some unresolved traffic jam which will have to be resolved at Barnet Councils expense. Can you clarify this?</p> <p>It is proposed the New Railway Station was a planning gain and would only be built when the developer have sufficient revenue to justify. It is not proposed to bring new station works forward, which will be funded by the Central Government and not the developer.</p> <p>What is the turnaround for each bus stop and how many buses need to stop at each location at one time? This information has not been provided and will this be available?</p> <p>There is no drop off proposed for Cricklewood station and why has this been excluded? The outline application stated that there would be step free access for Cricklewood Station; has this been withdrawn?</p> <p>Widths of pavements are a concern particularly if the bus stops are to cope with huge crowds of people</p>	<p>development' are identified as having a material impact and have then been reviewed in detail. Journey times of buses with and without the development have been assessed in the VISSIM micro simulation model.</p> <p>The Developer is only responsible for mitigating all impacts arising from the BXC Development, transport networks will operate in the same manner as that which would have occurred had the Development not been provided. The developer is contributing funding to improve capacity at junctions which exceed 90% due to the proposed development.</p> <p>Works regarding the railway station is not part of this A5 Corridor study planning application.</p> <p>A review of the bus services formed part of the Transport Assessment (BXC05) for the original consent and the S106 Agreement includes provision of a substantial bus subsidy for TfL to use to provide the additional bus services required to satisfy the forecast passenger demand on each existing and new routes. As stated beforehand, Bus journey times form part of the on-going monitoring.</p> <p>Works to Cricklewood Station are not part of this Phase 1a North RMA submission, and will be established in a future phase.</p> <p>There are bus stops immediately adjacent to Cricklewood Railway Station which serve the Scheduled Bus Services. These bus services were found by TfL to provide the necessary capacity and frequency to satisfy all forecast demand for passengers wishing to transfer to the rail mode at this station.</p>
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<p>Servicing and delivery has not been adequately solved in this application.</p> <p>Housing still being shown on the plans in front of B&Q where roadside servicing is indicated in the outline approval.</p> <p>The A5 Corridor study should have outlined how traffic would be monitored through the development programme; to confirm the level of modal shift that would occur and how it would be adjusted. These aspects have not been taken into consideration.</p>	<p>Servicing and delivery for the proposed development is taken into account via a separate Framework Servicing and Delivery Strategy report prepared in accordance to condition 1.21.</p> <p>This proposal does not form part of Phase 1A North nor part of this current applicant. It will be considered at a later date when this plot comes forward in a future phase.</p> <p>There is a requirement under Condition 37.8 for a separate Monitoring Strategy Report which must be submitted and approved prior to commencement of any part of the Development.</p>
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Other Interest Groups Consultation Responses

	Officer Comments
<p><u>Interest Group 1:</u></p> <p>Concerns have been raised that the documents included in the current application for the A5 Corridor Study is not the same study as what was approved by the Planning Committee in November 2009</p> <p>Residents have raised concerns that the 1996 Brent Cross Planning application was rejected by the High Court in 2002; and as a result the London Borough of Barnet has encouraged a private-sector Brent Cross Master plan and there has been no community involvement.</p> <p>Have the 'Eastern Lands' been added, and the incinerator site been moved slightly further away from the Railway Cottages?</p> <p>Earlier designs illustrated the two Brent Terrace Triangles as green open spaces. By the time of the 'Brent Cross Supplementary Planning Guidance" (SPG) was prepared, the two triangles had designed to be residential land. Was the SPG written in order to meet the requirements of the Master plan?</p> <p>Attempts were made by members of the public to introduce wider transport issues at the time of the SPG, but they were rejected by the authority.</p>	<p>The A5 Corridor study is a Pre RMA condition attached the Section 73 approval, and was prepare after this planning approval. This Study informs whether there are any forecast traffic impacts that are significant on the local roads. The developer has committed to fund any necessary supplementary measures to mitigate any such significant local traffic impacts.</p> <p>This concern is noted and is not relevant to this current Planning Application.</p> <p>This proposal does not form part of Phase 1A North nor part of this current applicant. It will be considered at a later date when this plot comes forward in a future phase.</p> <p>This concern is noted and is not relevant to this current Planning Application. Please note that the Brent Terrace Triangles Plots 53 & 54 has already been determined.</p> <p>This concern is noted and is not relevant to this current Planning Application.</p>

<p>Public consultation conducted in 2007 and onwards by developers in “caravans” was run solely by staff from a PR company with no planning knowledge.</p> <p>In the November 2009 planning committee it was stated that Brent Council had no objections to the Planning Application.</p> <p>Why was the A5 Corridor study only a 14 day consultation period?</p> <p>Could you supply an audit of the A5 Corridor Study from 2009 to date?</p>	<p>Please see above</p> <p>Brent Council did raise objections and these were recorded in the committee report presented at the 18 and 19 November 2009 Planning and Environment Committee.</p> <p>Consultation time periods comply with the statutory requirements. Please see the main report for further details.</p> <p>The A5 Corridor Study Report satisfies the requirements of the S106 Agreement and has been developed in consultation with the London Borough of Barnet and Transport for London and based on the agreed ‘Scope of Application documents for the A5 Corridor Study’ Revision 06, dated October 2013 (doc No. 47065005/TP/RPT/009). The study has gone through the following iterations in its formulation; to ensure that officers from the London Borough of Barnet and Transport for London are satisfied that the study meets the condition imposed:</p> <p>Revision 1: 10th October 2014 Revision 2: 5th November 2014 Revision 3: 2nd April 2015 Revision 4: 24th April 2015 Revision 5: 7th May 2015 Revision 6: 26th June 2015 Revision 7: 17th July 2015.</p>
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Statutory Bodies and Neighbouring Boroughs Consultation Responses

Highways England

Email from Stephen Hall, Asset Manager, Highways England dated 28th July 2015.

No objection to the proposals.

TfL

Letter dated 19th January 2015

Made various comments in relation to modelling, transport improvements, bus journey time assessments, VISSIM, bus priority measures, bus service delays, loading and kerbside parking, urban realm, cycle measures. They concluded at that time that the A5 Corridor study is not to TfL's satisfaction.

Letter dated 1st September 2015 (following consultation on updated information in July 2015)

Confirm that TfL are satisfied with the A5 Corridor Study and no objection to the application.

LB Brent

Letter of Objection from the London Borough of Brent dated 9th January 2015

Brent Council wishes to strongly object to this application seeking to discharge condition 2.7 (A5 Corridor Study) of S73 planning application ref: F/04687/13 dated 23/07/2014 for the following reasons:

The report does not provide confidence that the BXC development will not result in a strongly adverse impact on the local and strategic road networks. Mitigation measures proposed are limited and no evidence appears to be provided that they will be sufficient, in fact the modelling outputs provided appear to suggest that they will not be. The following points need to be addressed urgently:

- The high Degree of Saturation measure used to assess junctions. This needs to be lower.
- The lack of mitigation measures proposed for junctions within Brent that will be directly affected by the development. As a minimum some contribution to mitigation is expected.
- The apparent lack of mitigation proposed for the A5 itself, particularly given the evidence suggesting that the A407 Cricklewood Lane/Claremont Road/Lichfield Road junction will be operating far over capacity in the end state.
- Parking management needs to be discussed urgently with Brent Borough Council.
- More robust walking and cycling measures need to be provided if the modelling is to rely on these to mitigate traffic growth due to development.
- The increased bus journey times need to be addressed.
- The modelling outputs need to be provided in a format which is readily interpreted and which therefore provides confidence in the modelling process.
- The VISSIM modelling needs to be completed.

Letter of Objection from the London Borough of Brent dated 14th August 2015

Confirmed that following the objections raised by Brent in January 2015 and those raised by other organisations some changes have been made to the document. It is considered that the following issues have been resolved:

- The increased bus journey times have been addressed within the new VISSIM modelling and are no longer significant once background increases in congestion have been accounted for. The impact on Brent residents will therefore be minimal.
- The modelling outputs have been provided in a format which can be interpreted and completion of the VISSIM modelling provides some confidence in the modelling process. There is therefore less concern regarding potential impacts that may have been missed.
- The VISSIM modelling has now been completed to stage 4+ and signed off by Transport for London.

However, the main concerns of Brent have not been addressed. These are as follows:

- The lack of mitigation measures proposed for junctions within Brent that will be directly affected by the development. The A5CS proposes mitigation only for those junctions that operate at below 90% saturation pre-development and above 90% capacity post development. Within Brent the junctions that fulfil this criteria are Chichele Road/Anson Road and High Road/Walm Lane, and some mitigation for these has been proposed. However, this methodology results in some junctions which are already over 90% capacity receiving no mitigation, even if considerable increases in the degree of saturation are predicted. This is particularly concerning given the 7.5% increase in saturation at the junction of Lydford Road and Willesden Road, suggesting that this junction will be materially impacted to the detriment of local traffic flow with no prospect of mitigation. Brent Council continues to object to this methodology and the lack of proposed mitigation where impacts are apparent.

Officer Response: *The 90% measure was agreed by Transport for London and is within the agreed scoping documents for the study.*

A £300,000 fund towards future Supplementary Transport Measures within Brent and Camden has been agreed with the Brent Cross Development Partners (letter dated 2nd September 2015).

- The lack of mitigation proposed for the A5 itself, particularly given the evidence suggesting that the A407 Cricklewood Lane/Claremont Road/Lichfield Road junction will be operating far over capacity in the end state. Some works are proposed here, however the junction appears to still be very close to capacity in the end state scenario. We would require further measures at this location.

Officer Response: *The A407 Cricklewood Lane/Claremont Road/Lichfield Road junction is a gateway junction with a previously approved junction design. Forecast SATURN flows for 2031 indicate the following traffic flow increases from 2021:*

AM peak – from 2,428 to 2,737 (increase of 13%)

PM peak – from 2,456 to 2,466 (an increase of less than 1%)

Saturday peak – from 2,290 to 2,414 (increase of 5%)

The maximum degrees of saturation in 2031 are 113%, 124% and 111% in the AM, PM and Saturday peaks.

The deployment of SCOOT will reduce delay at this junction and further opportunities to optimise performance will be discussed with TfL during the detailed design of this junction.

Mitigation for the A5 is summarised in Tables 5.1 – 5.3 of this report and includes improvements at multiple junctions.

- There has been considerable discussion regarding the need to ensure Brent residents are not unduly impacted by overspill parking or construction worker parking. It has been pointed out that the monitoring regime suggested is not sufficient and that a CPZ in the Dollis Hill area will likely be required during construction, with the CPZ in place prior to works starting. Though we have had verbal agreement to address this, the offer in the document does not provide adequate certainty and we require a separate written undertaking to be provided if the study is not changed. Due to this lack of certainty, our objection to the document on this continues to stand.

Officer Response: *The funding of new or extended Controlled Parking Zones in Brent is available through the Consolidated Transport Fund and would need to be applied for either through the Transport Advisory Group or by the London Borough of Brent directly to the Transport Strategy Group (London Borough of Barnet and TfL). The Transport Strategy Group is required to take account of the Transport Advisory Group's recommendations. The requirement for Controlled Parking Zones within Brent has been raised and discussed at the Transport Advisory Group and the need for provision within the Dollis Hill area outside the scheme boundary has been agreed between Brent and the developer (as this is outwith the Section 106).*

- Walking and cycling measures are mostly contained within the AWWCS, however this forms an element of the A5CS. The comments and proposals made by Brent have not been taken forward and this needs to be addressed.

Officer Response: *The extent of walking and cycling provision to and from the development is a combination of measures detailed within the A5 Corridor Study, the Area Wide Walking and Cycling Strategy and the Phase 1A North Pedestrian and Cycle Strategy. Modal split target figures are set for the development at each phase with the Transport Advisory Group of which the London Borough of Brent are a member, reviewing any failure to meet such targets.*

With the exception of cycle parking near Keyes Road, which scored as green (good), all cycling provision was rated as amber (average).

The improvements put forward are with a view to increase the Pedestrian Environment Review System and the Cycling Environment Review System scores of the A5 links and to improve conditions for pedestrians and cyclists heading through the junctions. The suggested improvements are initial proposals that are subject to feasibility and detailed design at a later stage.

These improvements would offer an improved cycle environment over the current situation, and are considered to be appropriate when the requirements of other modes along this corridor are considered.

LB Camden

Email of Objection from the London Borough of Camden dated 6th January 2015

The London Borough of Camden object on the following grounds:

- The A5 corridor study does not address impacts in Camden and despite reference being made to Camden, this is not in context of the vehicle impacts but appears to be only be in context of pedestrians and cyclists.

Wording: Ensure that any local traffic impacts are identified in the adjacent boroughs of Brent and Camden, as well as any further impacts in the LB of Barnet by ensuring that the traffic modelling for the design stage is sufficiently detailed in areas of interest, e.g. the Dollis Hill area and south of Cricklewood Lane. The A5 corridor study as presented seems to miss the point of this statement as very little evidence has been presented that Camden can assess to understand the impact south of the borough boundary.

Officer Response: *The A5 Corridor Study does assess local traffic impacts including those on roads in Camden.*

Use of the SATURN model has enabled changes in traffic flow on local roads in Brent and Camden to be assessed. The difference in total flows in passenger car units, on all individual links in Camden and Brent, are summarised below, identifying a rise in traffic flows with the development in place:

Time Period	Camden Total Link Differences	Brent Total Link Differences
AM 2021	2946	4724
AM 2031	8282	7072
PM 2021	5173	4390
PM 2031	7331	8461
Sat 2021	7601	6347

Sat 2031	10046	12348
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The most significant changes in flow on the local roads in Camden in 2021 have been analysed and are summarised in the following tables:

Top Ten Increases in Traffic Flow on Roads in Camden (2021)

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
A41	Studholme Court	Croft Way	751	872	1172	300	34%
A41	Croft Way	Ingham Road	797	917	1217	300	33%
A41	Parsifal Road	Studholme Court	797	917	1217	300	33%
A5	Skardu Road	Anson Road	489	582	762	179	31%
A41	Ingham Road	Ingham Road	997	1246	1421	174	14%
A41	Ingham Road	Weech Road	952	1201	1375	174	14%
A41	Weech Road	Weech Road	998	1247	1421	174	14%
A41	Weech Road	Ardwick Road	1020	1204	1367	163	14%
A41	Ardwick Road	Ardwick Road	1066	1249	1412	163	13%
A41	Ardwick Road	Ardwick Road	1066	1249	1412	163	13%

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
A41	Parsifal Road	Studholme Court	1610	1519	1687	168	11%
A41	Studholme Court	Croft Way	1563	1475	1641	166	11%
A41	Croft Way	Ingham Road	1609	1521	1687	166	11%
A41	Burgess Hill	Finchley Road	1918	2009	2163	155	8%
A41	Platt's Lane	Burgess Hill	1918	2009	2163	154	8%
A5	Skardu Road	Anson Road	579	767	916	150	20%
A41	Weech Road	Ardwick Road	1655	1697	1822	125	7%
A41	Ardwick Road	Ardwick Road	1701	1743	1868	125	7%
A41	Ardwick Road	Ardwick Road	1701	1743	1868	125	7%
A41	Ingham Road	Weech Road	1656	1705	1828	123	7%

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
A5	Skardu Road	Anson Road	468	591	941	350	59%
A5	Anson Road	Skardu Road	478	515	840	325	63%
A5	Skardu Road	Manstone Road	404	409	668	259	63%

A5	Manstone Road	Skardu Road	523	642	870	228	35%
A4200	Polygon Road	Cranleigh Street	298	330	479	148	45%
Phoenix Road/A4200	Werrington Street	Polygon Road	67	155	278	123	79%
Garlinge Road	A5	Fordwych Road	135	132	253	121	91%
Phoenix Road	Werrington Street	Chalton Street	171	121	221	100	83%
A41	Alvanley Gardens	Lymington Road	1313	1503	1596	92	6%
B507 Abbey Road	Belsize Road	Boundary Road	344	320	410	90	28%

Top Ten Decreases in Traffic Flow on Roads in Camden (2021)

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
Fortune Green Rd	Parsifal Road	Burrard Road	610.36	669.05	437.3	-231.75	-35%
Fortune Green Rd	Burrard Road	Parsifal Road	534.32	646.23	477.88	-168.35	-26%
Fortune Green Rd	Lyncroft Gardens	Mill Lane	878.29	979.85	819.5	-160.35	-16%

Fortune Green Rd	Parsifal Road	Lyncroft Gardens	838.61	954.71	801.25	-153.46	-16%
Mill Lane	Fortune Green Road	Holmdale Road	594.38	656.85	510.01	-146.84	-22%
Mapesbury Rd	A5 Shoot-Up-Hill	Exeter Road	468.47	524.23	379.01	-145.22	-28%
Mill Lane	Holmdale Road	Westbere Road	586.86	644.06	504.03	-140.03	-22%
Burrard Rd	Fortune Green Road	Ingham Road	200.73	329.19	203.3	-125.89	-38%
Burrard Rd	Ingham Road	Finchley Road	200.73	329.19	203.3	-125.89	-38%
A5 Shoot-Up Hill	Minster Road	Walm Lane	438.4	524.62	401.51	-123.11	-23%

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
Dersingham Road	Cricklewood Lane	Caddington Road	260.39	216.76	69.26	-147.5	-68%
Ebbsfleet Road	Cricklewood Bdwy	Fordwych Road	150.59	219.63	73.68	-145.95	-66%
Fordwych Road	Ebbsfleet Road	Cricklewood Lane	274.76	406.42	262.1	-144.32	-36%
Mill Lane	Fortune Green Road	Holmdale Road	519.76	672.77	536.79	-135.98	-20%
Mill Lane	Holmdale	Westbere Road	426.16	583.01	450.56	-132.45	-23%

	Road						
Mill Lane	Westbere Road	Fordwych Road	288.7	438.83	321.53	-117.3	-27%
Fortune Green Road	Lyncroft Gardens	Mill Lane	721.08	903.87	803.27	-100.6	-11%
Mapesbury Road	A5 Shoot-Up-Hill	Exeter Road	274.84	354.85	257.19	-97.66	-28%
B525 Avenue Road	Avenue Close	St Edmunds Terrace	627.06	666.1	570.09	-96.01	-14%
B525 Avenue Road	Queens Grove	Avenue Close	613.27	653.12	557.2	-95.92	-15%

Road	From	To	2012 Actual Flow (pcu/hr)	2021 No Development (pcu/hr)	2021 With Development (pcu/hr)	Difference	% Difference
Fordwych Road	Ebbsfleet Road	Cricklewood Lane	220.51	410.88	200.48	-210.4	-51%
Whitestone Walk	N End Way	W Heath Road	620.49	651.22	472.63	-178.59	-27%
Cranleigh Street	Werrington Street	Eversholt Street	395.23	340.05	171.07	-168.98	-50%
Anson Road	Chichele Road	Sheldon Road	169.29	240.89	86.81	-154.08	-64%
A502 North End Way	Spaniards Road	Whitestone Walk	1379.3	1423.16	1276.56	-146.6	-10%

A502 North End Way	Whitestone Walk	Spaniards Road	1405.95	1398.9	1272.71	-126.19	-9%
Rondu Road	Cricklewood Bdwy	Fordwych Road	264.77	281.96	166.13	-115.83	-41%
Mill Lane	Fortune Green Road	Holmdale Road	495.93	628.13	520.48	-107.65	-17%
Cranleigh Street	Chalton Street	Werrington Street	507.68	590.1	483.8	-106.3	-18%
Harman Drive	Farm Avenue	Brondesbury Cricket	313.8	320.66	216.95	-103.71	-32%

An additional capped contribution of £300,000 towards future Supplementary Transport Measures in Camden and Brent has been agreed with the Brent Cross Development Partners (letter dated 2nd September 2015) and can be utilised if monitoring of traffic flows shows an increase in traffic due to the development. Allocation of this funding will be via the Transport Advisory Group, membership of which is open to both boroughs.

- The information submitted does not allow Camden the opportunity to assess the impact on the junctions, it simply talks about junctions with impacts above 90%, there is no consideration if junction impacts has increased significantly and might just below this figure at say 87% or 88%.

Officer Response: *The analysis has been undertaken based on the scope of the study, agreed with both Transport for London and the London Borough of Barnet. For improvements at junctions that do meet the set saturation requirements, funding is available via the supplementary transport measures allocation. The scope states:*

'The analysis will be undertaken to compare 'V/C' (flow to capacity ratios) from the BXC DDM Saturn modelling in the future year scenario with no development (Do Minimum) with the V/C for phase 1 and end state model (Do Something). Junctions where 'V/C' is more than or equal to 90% in the with development scenario and less than 90% in the Do Minimum will be subject to detailed capacity analysis using the appropriate junction modelling tool (i.e. TRANSYT/LinSig/PICADY/ARCADY).

Where BXC DDM identifies junctions where 'V/C' is greater than 90% in the Do Minimum (in the vicinity of the development), consideration will be given to the most appropriate package of mitigation, or as termed in the s106 agreement; 'supplementary transport measures'.

Recommendations will be presented to the Transport Advisory Group where confirmation on how the transport fund should be used to progress intervention measures.'

- Parking impacts stop at the borough boundary, given the size of Brent X and the potential draw from Camden, it is considered that impacts on parking would be felt in Camden, no evidence has been submitted to determine what the impacts could be. This statement is also noted in context of the PERS and CERS audits in that although some aspects are within Camden minimal assessment has been attached to the information on which Camden can comment. There is also a concern, specifically in relation to the CERS audit that this has just concentrated on the A5, no consideration has been given to parallel routes to the east, within Camden.

Officer Response: *The impact of parking within Camden has been assessed within the Car Parking Management Strategy. The Controlled Parking Zones (CPZ's) within Camden which are in closest proximity to the proposed regeneration are:*

- *CA-P: University College Sports Ground to the north, Fortune Green Road to the east, Minster Road to the south, Westbere Road to the west: 10:00-12:00 Mon – Fri.*

The CPZ is located approximately 3 km from Brent Cross Shopping Centre and 2.4 km from the centre of the Regeneration Area to the south of the A406.

- *CA-Q: Richborough Road to the north, Fordwych Road to the east, Minster Road to the south, A5 Cricklewood Broadway to the west: 08:30-18:30 Mon-Fri*

The CPZ is located approximately 3.1 km from Brent Cross Shopping Centre and 2.5 km from the centre of the Regeneration Area to the south of the A406. Cricklewood Railway Station is located approximately 200 metres to the north of the CPZ.

The decision to either change existing CPZ restrictions or to introduce new CPZs in areas with uncontrolled parking would be made by the relevant borough, based on the results of monitoring and taking into consideration complaints about overspill parking from residents. However,

the CPZs that are most at risk from overspill parking from areas to the south of the A406 are Brent Cross Station (BX), Golders Green (H) and Cricklewood (C1) and not those within Camden.

As part of the Area Wide Walking and Cycling Study, CERS audits extending into Camden on alternative routes to the A5 have been undertaken, with improvements for cyclists within Camden being identified and funded by the developer. These consist of provision of:

- *Directional signage*
- *Cycle awareness signage*
- *Carriageway symbol markings*
- *Refreshed road markings*
- *Improved carriageway surfacing*
- *Extended cycle lane*
- *Widen feeder lanes*

on routes to West Hampstead and Kilburn Town Centre / Kilburn High Road London Overground station.

- Overall, both these reports are extremely detailed and complex covering several key aspects. The advice in the submissions that the impacts will not be felt beyond the borough boundary despite the size and draw of the development continues to be questioned by Camden. It is our view that the impacts in Camden have not been considered in detail and continue to lack information on which comments can effectively be made.

Officer Response: *The highway modelling, car parking review and cycling linkage to the site have including parts of Camden. Based on the concerns of the London Borough of Camden, the links with the most significant changes in traffic flow in 2021 and 2031 have been assessed. If monitoring of traffic flows shows increase due to the development, an additional capped contribution of £300,000 towards future Supplementary Transport Measures has been agreed with the Brent Cross Development Partners (letter dated 2nd September 2015) for the adjacent boroughs. Monitoring of parking in Barnet, Brent and Camden will be undertaken as the development progresses, but it is not envisaged that demand will increase in Camden due to the proposals. Improvements for cyclist are also being funded by the development to improve sustainable linkage to the development site.*

Consultation Responses from Other Groups

London Cycling Campaign (LCC) in Brent, Barnet and Camden dated 18th December 2014

“We are principally concerned in this matter because the proposed changes to the junction of the A5 with the A406 North Circular Road at Staples Corner West will impact on many of our members and other cyclists in Brent, Barnet and Camden using the A5 as a cycle route between local suburbs, and between these suburbs and the West End, for which journeys the A5 is the most direct and practical route. The A5 has been designated as a cycle route, LCN+5, and therefore our views should be strongly weighed.

We consider that the A5 Corridor Study submitted here does a wholly inadequate job of examining and analysing the issues for cycling on the A5 corridor, in particular at Staples Corner, and that it should not be considered as an adequate document to discharge the conditions of the planning permission.”

Officer Response: *The A5 Corridor Study recognises that congestion on the network is a problem. Therefore, where practicable, as part of the overall approach to the A5 corridor and the wider regeneration scheme, where highway interventions are proposed, the aim has been to both protect buses from congestion, and encourage walking and cycling through positive design measures.*

The A5 Corridor Study provides a review of pedestrian and cyclist accessibility, cycle parking and routing.

The volume of cyclists using the A5 corridor on a weekday ranges from 48 towards the north of the corridor (observed 2-way flow near Humber Road) to 73 towards the south of the corridor (observed 2-way flow near Chichele Road). The AM peak hour is the busiest period for cyclists out of the peak hours surveyed. Cyclists represent up to 4% of the traffic composition.

On a Saturday, cycle demand during the peak hour was observed to low with a maximum 2-way flow of 18 cyclists on the central section. Cyclists represent approximately 1% of the traffic composition.

The existing pedestrian and cycle links along and alongside the A5 have been reviewed for this study using the PERS (pedestrian environment review system) and CERS (cycling environment review system) assessment tools.

A total of 12 cycle links, 4 junctions and 4 cycle parking areas were audited along the A5. The links were determined by the changes in the cycle environment (such as type of cycle facility provided or change in surrounding land uses) and were separated as follows:

- *Link 1 (L1): Staples Corner to Geron Way*
- *Link 2 (L2): Geron Way to Opposite Comfort Delgro Building*
- *Link 3 (L3): Opposite Comfort Delgro Building to Depot Approach*
- *Link 4 (L4): Depot Approach to A407 Junction*
- *Link 5 (L5): A407 Junction to Rondou Road*
- *Link 6 (L6): Rondou Road to Mill Lane*
- *Link 7 (L7): Mill Lane to Rondou Road*
- *Link 8 (L8): Rondou Road to A407 Junction*
- *Link 9 (L9): A407 Junction to Longley Way*
- *Link 10 (L10): Longley Way to Humber Road*
- *Link 11a (L11a): Humber Road to Staples Corner (on road route)*
- *Link 11b (L11b): Humber Road to Staples Corner (off road route)*
- *Link 12a (12a): Across A5 / A406 Staples Corner Junction (off road)*
- *Link 12b (12b): Across A5 / A406 Staples Corner Junction (on road)*

With the exception of cycle parking near Keyes Road, which scored as green (good), all cycling provision was rated as amber (average).

The plan in Appendix 6 of this report identifies the improvements put forward as part of the A5 study to improve conditions for pedestrians and cyclists on the A5 and encourage more people to travel by both modes on the corridor. The suggested improvements are initial proposals that are subject to feasibility and detailed design at a later stage.

“The authors of the study have not assessed cycling conditions on the A5 against modern London guidance. They should have used the new London Cycle Design Standards (issued in draft earlier this year) and they should have used the Cycling Level of Service Assessment contained in that document to assess the level of service provided to cyclists by the A5 as it stands and as it would stand under the proposed

developments. They should then have made recommendations as to measures that should be taken to bring the Level of Service score to an acceptable value.”

Officer Response: *The basis, scope and extent of the study were agreed prior to the issue of the new London Cycle Design Standards. Therefore, the proposals are based on the standards at the time of commencement. Where possible, changes in standards have been taken into account as the study has progressed. Transport for London has agreed with this approach.*

“The volume of traffic on the A5 corridor is such that to provide an acceptable cycling environment, segregated cycle tracks are required. The report fails in an elementary way in its analysis of cycling in failing to make this point. There is no way that the painted cycle symbols suggested for the A5 carriageways are an adequate treatment for cycling on such a busy road, and one that will contain even more HGVs when the new waste facility is built.”

Officer Response: *Segregated cycle provision will have significant implications on other road users on this transport corridor in terms of travel times / delay for other modes on the corridor, including buses. The cycling and walking networks proposed within the development provide improved permeability, safety and the quality of provision for both cyclists and pedestrians. Many of the proposals are aimed at increasing the safety of vulnerable users within the context of the assessment.*

“The report, critically, also fails to make recommendations for how a safe route could be created through the Staples Corner West junction; in fact it totally ignores the issues around this junction, and is thus, from our point of view, a complete failure and not up to a basic standard of competence to be expected for such a report.

Any argument that cycling conditions at Staples Corner junction need not be considered because alternative cycle routes will be provided through the development is unacceptable because:

1. The scenario that all or even most cyclists currently using the A5 will divert to these new routes is not a credible one, as the new routes will be less direct, and will be slow and inconvenient as involving convoluted ramps and paths shared with pedestrians;
2. As we do not know the phasing of the building of the new facilities within the development area, there is no guarantee that these routes will come into existence before works take place on the A5 corridor which will probably make it more dangerous for cycling than at present; and,

3. The new routes appear, even when fully built, not to provide a connection with the northbound carriageway of the A5 immediately north of Staples Corner, and therefore it appears cyclists travelling northbound on the A5 corridor will have no alternatives to using the A5 carriageways under these plans.

Since none of these points are addressed by the A5 Corridor Study, we consider it to be a very defective document with respect to cycling. We suggest that the relevant sections of report be rewritten taking these points into account, and that the application not be allowed to proceed until this has been done.”

Officer Response: *The proposed improvements for cyclists at M1/A406 and A5/A406 (Staples Corner) consist of:*

- *Provision of a toucan crossing across the A5 on the northern side of Staples Corner*
- *Provision of continuous off-road shared footway/cycleway facilities alongside both the eastbound and westbound A406 carriageways linking from the A5 toucan crossings and Bridge B6 (pedestrian and cycle bridge)*
- *Bridge B6 (pedestrian and cycle bridge) over the A406 linking with shared footway/cycleway facilities on either side*
- *Replacement pedestrian bridge provided to the west of Bridge B6 (west of the rail arches), the new ramp on the northern side of the bridge will be wider than the existing provision to benefit mobility impaired users*
- *General refurbishment of the remaining existing Staples Corner footbridges (lighting/painting etc.)*

Staples Corner is a gateway junction, the design of which has full planning permission. The proposed highway layout remains as shown in the current Planning Consent, but the detailed assessments carried out during the preparation of the A5 Corridor Study have shown that the lane markings need to be refined so that the road junction can better manage the pattern of traffic demand. The minor changes are as follows:

- *Lane configuration on the A5 southbound off-slip has been modified to better suit the level of demand heading to the A406 east and westbound*
- *Changing lane markings on the western arm of the A406 from ‘two to four lanes’ to ‘three to four lanes’ to facilitate greater lane/flare occupancy*
- *Change in lane markings to give greater priority to the dominant movement from the M1 to the A406 westbound*

The introduction of a dedicated north-south cycle facility would be a significant change to the existing design and therefore require a new planning application to be approved.

Email from Campaigns Manager, London Cycling Campaign dated December 2014 (Appendix G)

“We are concerned because the proposed changes to the junction of the A5 with the A406 North Circular Road at Staples Corner West will impact on many of our 12 500 members who live, cycle and work in this area, along with significant numbers of other cyclists in Brent and Barnet. Specifically those who use the A5 as a cycle route between local suburbs, and between these suburbs and the West End, for which journeys the A5 is the most direct and practical route. Given that the A5 has been designated as a cycle route, LCN+5, the comments and concerns put forward by Brent Cyclists should be strongly weighed.

As Brent Cyclists have outlined, we consider that the A5 Corridor Study submitted does an inadequate job of examining and analysing the issues for cycling on the A5 corridor, in particular at Staples Corner. It should not be considered as an adequate document to discharge the conditions of the planning permission.”

Officer Response: *The proposed improvements for cyclists at M1/A406 and A5/A406 (Staples Corner) consist of:*

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- *Lane configuration on the A5 southbound off-slip has been modified to better suit the level of demand heading to the A406 east and westbound*
- *Changing lane markings on the western arm of the A406 from ‘two to four lanes’ to ‘three to four lanes’ to facilitate greater lane/flare occupancy*
- *Change in lane markings to give greater priority to the dominant movement from the M1 to the A406 westbound*

The introduction of a dedicated north-south cycle facility would be a significant change to the existing design and therefore require a new planning application to be approved.

“We agree with Brent Cyclists in their assessment that the authors of the study have not assessed cycling conditions on the A5 against modern London guidance. They should have used the new *London Cycle Design Standards* (issued in draft earlier this year) and they should have used the *Cycling Level of Service Assessment* contained in that document to assess the level of service provided to cyclists by the A5 as it stands and as it would stand under the proposed developments. They should then have made recommendations as to measures that should be taken to bring the Level of Service score to an acceptable value.”

Officer Response: *The basis, scope and extent of the study were agreed prior to the issue of the new London Cycle Design Standards. Therefore, the proposals are based on the standards at the time of commencement. Where possible, changes in standards have been taken into account as the study has progressed.*

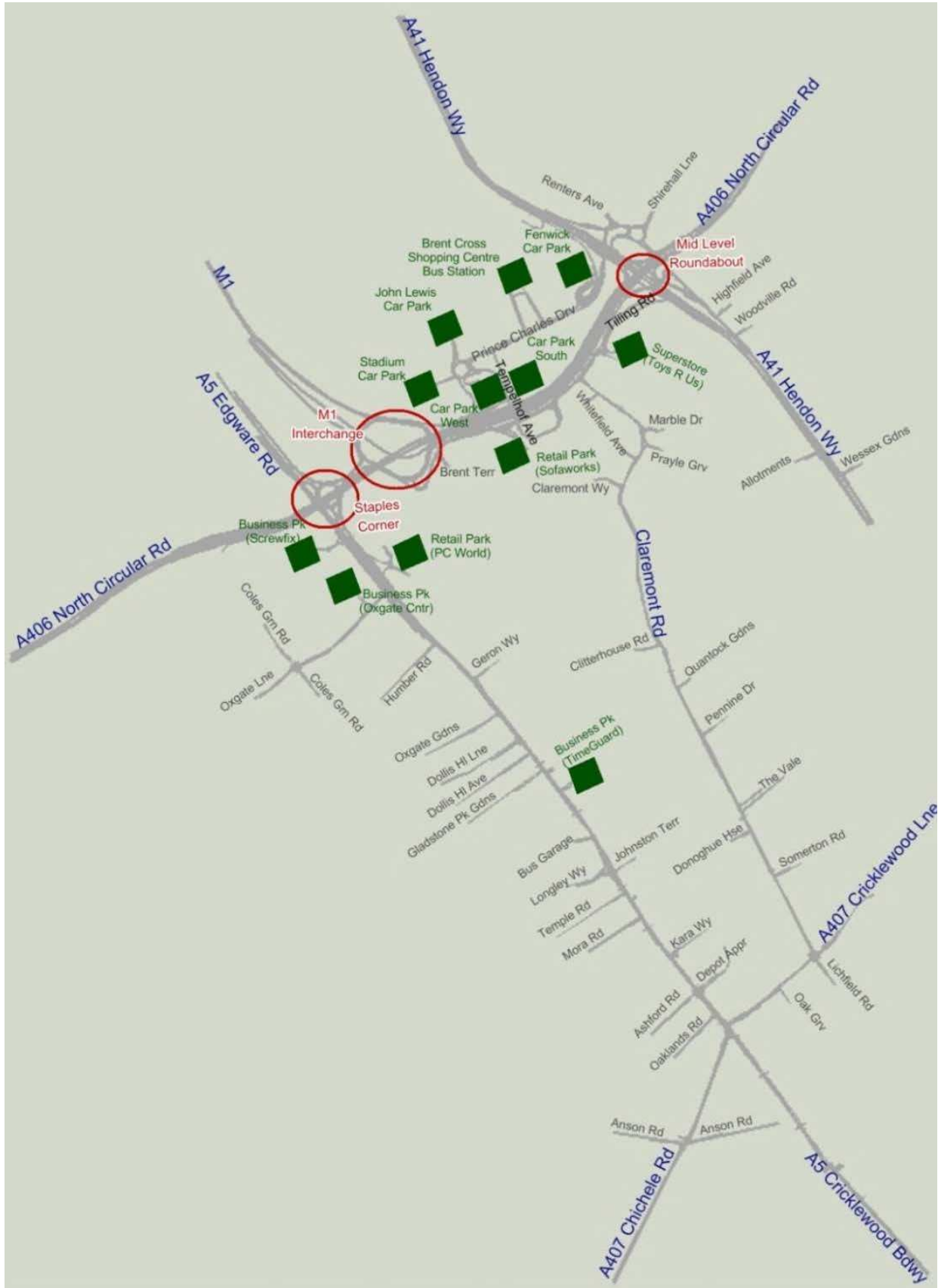
“The volume of traffic on the A5 corridor is such that to provide an acceptable cycling environment, segregated cycle tracks are required. The report is deficient in its analysis of cycling in failing to make this point. It also fails to make recommendations for how a safe route could be created through the Staples Corner West junction; in fact it totally ignores the issues around this junction, and is thus, as Brent Cyclists have suggested, not up to a basic standard of competence to be expected for such a report.”

Officer Response: *Segregated cycle provision will have significant implications on other road users on this transport corridor in terms of travel times / delay for other modes on the corridor, including buses. The cycling and walking networks proposed within the development provide improved permeability, safety and the quality of provision for both cyclists and pedestrians. Many of the proposals are aimed at increasing the safety of vulnerable users within the context of the assessment.*

“As Brent Cyclists have requested, we suggest that the relevant sections of report be rewritten taking these points into account, and that the application not be allowed to proceed until this has been done.”

APPENDIX 4

Plan showing the extent of the A5 Corridor Study Microsimulation Model



APPENDIX 5

The schedule of all mitigation required as a result of the A5 Corridor Study

Table 1 Schedule of all mitigation required as a result of the A5 corridor study for the A5 corridor*

A5 Corridor	Gateway Junction	Phase 1	Items to be included as identified by the multimodal study					
			Highway Capacity	Walking/Cyclists	Road Safety	Bus Priority	Parking and Loading	Public Realm
Staples Corner	Yes	Yes	Junction configuration	Directional signage using 'Legible London' signage Bridge lighting Upgrade footway surfacing Upgrade pelican crossing to toucan	Design in accord with Road Safety Audit	Stop SJ and SB Live bus arrivals	-	CCTV and improved lighting
A5/Humber Road/Geron Way	Yes	Yes	New junction waste handling facility	Advanced stop lines on all arms with lead-ins of adequate width Pedestrian refuge on A5 Signage/tactile paving	Improved lighting Anti-skid to be provided as required by design standards	-	-	Improve lighting
A5 between Staples Corner and Oxgate Lane (link)	No	Yes	-	Dropped Kerbs Tactile at Oxgate Lane Improved surfacing on roads and off-road facility Cycle signs and lines Shared cycle provision to be provided where practicable possibly within existing space constraints		-	-	Clear clutter
A5/Oxgate Gardens/A5 Link Road	Yes	No	New junction A5 link road	Pedestrian phases Advanced stop lines on all arms with lead-ins of adequate width Cycle signage Directional signage	Anti-skid to be provided as required by design standards	Consider use of SVD on the Bus Lanes over MML Bridge	-	

A5 / Ashford Road / Depot Approach	No	Yes	-	Controlled pedestrian crossing on Ashford Road Cycle signage / markings Include Advanced stop lines as appropriate.	Anti-skid to be provided as required by design standards.	-	-	Improve lighting
A5 / Temple Road	No	Yes	-	Advanced stop lines on all arms Cycle signing and markings Junction parking restrictions Road surfacing	Refuge island to prevent overtaking and protect pedestrians Anti-skid to be provided as required by design standards.	-	-	Remove obstructions
A5 / A407 Chichele Road	Yes	Yes	Reconfigure junction	-	Anti-skid to be provided as required by design standards	-	-	
A5 Corridor	No	Yes		Use of pedestrian countdown at traffic signals to be considered at detailed design	Anti-skid to be provided as appropriate	Maintenance of bus lane markings		Remove redundant or unnecessary street furniture to de-clutter the corridor

* All items to be designed in accordance with current design standards and to be subject to full road safety audit procedures. For measures that are not part of Phase 1 further details will be supplied as part of the appropriate Phase Transport Report.

Table 2 Schedule of all mitigation required as a result of the A5 corridor study for the A407*

A5 Corridor	Gateway Junction	Phase 1	Items to be included as identified by the multimodal study					
			Highway Capacity	Walking/Cyclists	Road Safety	Bus Priority	Parking and Loading	Public Realm
A407 between A5 and Claremont Road (Link)	No	Yes	-	Advanced stop lines at junctions Lighting in Tunnel Cycle Signage	Crossing points and desire line (informal and formal)	-	-	
A407/Claremont Road	Yes	Yes	Refigured junction	Advanced stop lines on all arms Cycle signage	Anti-skid to be provided as required by design standards	-	-	
Anson Road/A407 Chichele Road	No	Yes	Link with Cricklewood Broadway UTC Group	-	-	-	-	
A407/A41	No	No	Increase cycle times	-	-	-	-	
A407 Walm Lane/High Road	No	Yes	Re-time traffic signals to be compatible with pedestrian countdown	Install pedestrian countdown at traffic signals	Anti-skid to be provided as required by design standards.		-	
All the locations listed above				Use of pedestrian countdown at traffic signals to be considered at detailed design Legible London signage is included in the Wayfinding Strategy and is to be considered as part of detailed design	Anti-skid to be provided as appropriate			

* All items to be designed in accordance with current design standards and to be subject to full road safety audit procedures. For measures that are not part of Phase 1 further details will be supplied as part of the appropriate Phase Transport Report.

Table 3 Schedule of all mitigation required as a result of the A5 corridor study for other areas*

A5 Corridor	Gateway Junction	Phase 1	Items to be included as identified by the multimodal study					Public Realm
			Highway Capacity	Walking/Cyclists	Road Safety	Bus Priority	Parking and Loading	
Dollis Hill Area - UC7	No	Yes	-	-	-	-	Consideration of a CPZ will be the subject of a separate agreement with LB Brent.	
Links identified in the Monitoring Strategy (within the area of influence) in the London boroughs of Barnet, Brent and Camden	No	Yes	Traffic management interventions to be considered at the Transport Advisory Group should monitoring and/or modelling demonstrate significant adverse effects from the development.					

Table 4 Schedule of further enhancements identified by the authorities to encourage mode shift but not required to mitigate the Development*

Ref	Section/Junction	Short/medium/ long term	Measure
1	Overall corridor measures	Long	Undertake a feasibility study to test impact of 20 mph speed limit on the 'high street' section (see Figure 4.2) to encourage cycling, improved conditions for pedestrians without reducing peak per hour journey time reliability, particularly buses (within VISSIM model). The scheme could be treated as an experimental or pilot scheme.
2	Overall corridor measures	Medium/Long	Review committed junction works beyond phase 1 and decide if necessary
3	Staples corner	Short/medium/long	Provide entry treatments (such as raised tables) at minor road roads and access – considering needs of cyclists, visual and physical impaired road users. Apply 'Better Streets' grading of treatments
4	Eastern side of the A5	Medium and long	Safeguard land as plots come forward for development on the eastern side of the A5 to potentially increase pedestrian/cycle/road space.
5	A5/Longley Way	Short	Reconfigure kerb line to reduce size of junction bell mouth
6	A5 Geron Way (South)	Short	Tighten radius on the southern side of the junction
7	A407 Cricklewood Lane/Claremont Road Junction	Long Term	Where possible, look to acquire third party land at junction to facilitate the provision of bus priority on the southbound approach to the junction.
8	A5 Cricklewood Broadway/A407 Cricklewood Lane	Long Term	Incorporate bus priority measures on westbound approach to junction
9	A5/MML Link Road	Long Term	Incorporate bus priority measures on northbound and southbound approaches to junction. Access feasibility of formal pedestrian crossing on all arms of junction
10	A407 between A5 and Claremont Road (Link)	Short/medium/long	Undertake freight environment review system (FERS) audit
11	A5 Northbound from Ashford Road to Comfort Delgro	Medium term	Advisory on-road cycle lane Improve surfacing on both footway and carriageway
12	A5 northbound – Oxgate Gardens and Humber Road	Medium term	Provide off-road shared facility Provide northbound bus lane south of Humber Road

* All items to be designed in accordance with current design standards and to be subject to full road safety audit procedure

<p><u>MEETING</u></p> <p>PLANNING COMMITTEE</p>
<p><u>DATE AND TIME</u></p> <p>THURSDAY 10TH SEPTEMBER, 2015</p> <p>AT 6.30 PM</p>
<p><u>VENUE</u></p> <p>HENDON TOWN HALL, THE BURROUGHS, LONDON NW4 4BQ</p>

Dear Councillors,

Please find enclosed additional papers relating to the following items for the above mentioned meeting which were not available at the time of collation of the agenda.

Item No	Title of Report	Pages
5.1	ADDENDUM TO THE OFFICER'S REPORT(S)	1 - 10

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PLANNING COMMITTEE MEETING

Thursday 10th September 2015, 6.30PM

ADDENDUM TO REPORT OF THE ASSISTANT DIRECTOR OF DEVELOPMENT MANAGEMENT AND BUILDING CONTROL

AGENDA ITEM 6a

BXC A5 CORRIDOR STUDY 14/07402/CON PAGES 9-108

1) Unilateral Undertaking

Section 5.6 of the Committee Report for the A5 Corridor Study contains the following:

“The requirement for Controlled Parking Zones in relation to construction worker parking activity within Brent has been raised and discussed at the Transport Advisory Group and the need for provision within the Dollis Hill area (UC7) outside the scheme boundary has been agreed between Brent and the developer (as this is outwith the Section 106 agreement related to the Brent Cross Cricklewood development) with an associated

The Brent Cross Development Partners have provided a draft S106 Unilateral Undertaking committing them to pay the financial contribution of £180,000 towards the Dollis Hill area Controlled Parking Zone (UC7) (as referred to in Section 5.6 of the committee report) to LB Barnet. LB Barnet will in turn undertake to forward the contribution to LB Brent.

As a result the recommendation for application 14/07402/CON needs to be updated as follows:

RECOMMENDATION

~~This application is recommended for **APPROVAL**.~~

Resolution to approve subject to:

Part 1:

The completion of a satisfactory Unilateral Undertaking to secure the following:

- 1) A contribution of £180,000 towards funding of a CPZ to mitigate the impacts of development parking within the Dollis Hill Area.*

Part 2:

That upon completion of the Unilateral Undertaking specified in Part 1 of the recommendation above, the Assistant Director of Development Management and Building Control approve condition application reference 14/07402/CON under delegated powers.

2) Para 5.6 P22 -CLARIFICATION

“Monitoring of parking will be undertaken, taking into account any concerns from residents. The funding of new or extended Controlled Parking Zones In Brent and Camden is available through the Consolidated Transport Fund ‘Other Boroughs’ Fund’ (maximum £1.25m) and would need to be applied for either through the Transport Advisory Group or directly to the Transport Strategy Group (London Borough of Barnet and TfL). The Transport Strategy Group is required to take account of the Transport Advisory Group’s recommendations.

<NEW PARAGRAPH>

The requirement for Controlled Parking Zones in relation to construction worker parking activity within Brent has been raised and discussed at the Transport Advisory Group and the need for provision within the Dollis Hill area (UC7) outside the scheme boundary has been agreed between Brent and the developer (as this is outwith the Section 106 agreement related to the Brent Cross Cricklewood development) with an associated financial contribution of £180,000.”

3) Further Comments from LB Brent

Additional Comments received from LB Brent received 10-9-2015 following consideration of the Published committee Report and notification of the proposed Unilateral Undertaking and Barnet Officers’ comments.

Note on the response from Barnet regarding Brent Borough Council’s objection to the A5 Corridor Study (A5CS)

Brent objected to the A5CS on a number of grounds. These objections have been responded to by Barnet within a committee report this note provides comments on this response.

Lack of mitigation at junctions within Brent that operate over 90% capacity

Brent objected to the lack of mitigation provided on junctions within Brent that will see increased levels of saturation following development, particularly in the 2031 end state scenario. As these junctions are already operating above 90% capacity no mitigation is proposed by the A5CS.

Barnet has responded to this point with the following: “A £300,000 fund towards future Supplementary Transport Measures within Brent and Camden has been agreed with the Brent Cross development partners.”

It is noted that this fund is subject to monitoring showing that junctions are suffering significantly increased delays.

This offer is not considered adequate to enable a withdrawal of the objection. This is due to the following points:

- The objection was raised on the basis that no specific measures are proposed for junctions which the modelling indicates will be materially impacted by the development. The potential availability of a comparatively small fund following monitoring does not address this. These junctions are already proved to be negatively impacted by the development via the outputs of the modelling which has been carried specifically to highlight negative impacts on the highway. The A5CS scope indicates that it will contain measures necessary to mitigate negative impacts indicated by the modelling. Therefore the A5CS should contain specific measures to mitigate the impact on these junctions.

Officer Response:

Mitigation is discussed in section 5.5 of the report. Three locations were identified as having been impacted on by the development according to the area wide study criteria (less than 90% degree of saturation without the scheme (Do Minimum), greater than 90% with it), and mitigation, where appropriate, is proposed for these. Of the 40 junctions identified in the DDM as reaching capacity (degree of saturation of over 90%) with or without the development over half are being improved as part of the BXC scheme. Of the remainder, only 4 were identified as having an increase

in the degree of saturation between the no development and with development scenarios of more than 5%. Three of these were in Barnet, and one, Lydford Road / A4003 Willesden Road, in Brent. Detailed analysis of this junction using a standalone model found that the junction is predicted to operate within capacity. Where in the Do Minimum any junctions are forecast to operate above the 90% degree of saturation threshold then these junctions have been listed in the study and as agreed in the scope the proposal is for any potential mitigation to be discussed at TAG sessions at the appropriate time.

- £300,000 shared between two boroughs is not sufficient to address the impacts highlighted within the modelling. It is unlikely that this amount will be sufficient to mitigate impacts on junctions only within Brent.

Officer Response:

The impacts predicted by the modelling are mitigated against, as set out in the committee report, section 5.5 and summarised above. The study does not identify significant impacts attributable to the development within Brent. The modelling did predict traffic flow changes on various local roads in Brent (and Barnet and Camden), but these were generally of limited magnitude and within the capacity of the respective road. The attached tables provide a comparable analysis to that set out for LB Camden in Appendix 3 of the report, and show that overall the various increases tend to be balanced by decreases elsewhere; the exception being traffic flow changes as a result of the approved junction improvement schemes on the A5. Despite the findings of the modelling the developers have agreed to contribute an additional capped sum of £200,000 towards any additional mitigation measures on roads in Brent that may be identified as necessary once monitoring of traffic flow levels in the future is undertaken. It should be noted that Brent will also benefit from the approved junction improvement schemes along the A5, and the various measures arising out of the Study for the A5 and A407, valued at £250,000. The Section 106 also includes contributions already secured for transport mitigation measures in Brent, principally a share of the £1.25m 'Other Boroughs' fund within the Consolidated Transport Fund.

- There is a contradiction in the responses supplied by Barnet. The committee report states that £300,000 will be shared between Brent and Camden. However, an email received on 8th September indicates that £200,000 will be available only for Brent. This contradiction makes the situation regarding potential funding unclear.

Officer Response:

The committee report Appendix 3 clarifies the split of the £300,000, with £200,000 for LB Brent.

It is also noted that the response to Brent's objection regarding inadequate mitigation measures at the A407 Cricklewood Lane/Claremont Road/Lichfield Road junction does not address the concern, but purely indicates that this very high levels of saturation seen in the end state scenario are acceptable as this is considered to be a gateway junction. This is likely to cause increased delays to traffic within Brent.

Officer Response:

This is an approved gateway junction improvement scheme with some widening and additional capacity. It is predicted that the levels of saturation will be further mitigated against by the use of the latest traffic signal control technology (SCOOT).

Area Wide Walking and Cycling Study (AWWCS)

It is noted that the AWWCS has now been signed off. It is appreciated that a contribution of £300,000 towards a cycle facility in Brent has been included. We require further details of this funding as it was not apparent within the version of the AWWCS that was submitted for consultation.

It is not clear what time span this funding must be spent over. This is of concern as £300,000 does not constitute all the funding required (or requested) to deliver the facility, leaving a deficit of approximately £200,000 to complete the work. This money will need to be located elsewhere and this may be subject to time constraints.

Officer Response:

The AWWCS does not identify the funding levels but rather the measures required to connect the development to the existing network. Schedule 3 of the Section 106 agreement attached to the S73 Consent (F04687/13) includes relevant mechanisms for delivery of the measures.

Unilateral Undertaking for funding of a Controlled Parking Zone (CPZ) in the Dollis Hill area

Brent Council has now been provided with a draft Unilateral Undertaking to enable the funding of a CPZ to mitigate the impacts of development parking within the Dollis Hill Area outwith the S106 agreement. This is for £180,000.

Though it is appreciated that this has been provided and it does provide some surety that the funding will be available, we will require adequate time for assessment of the document by our solicitors before Brent can confirm that this requirement has been met.

We will be seeking assurance through legal services that the document is capable of delivering the required outcomes in terms of commitment from the development partners to provide the required funding.

Officer Response:

The recommendation for the report relating to the A5 Corridor Study has been updated to require the Unilateral Undertaking to be satisfactorily completed before the decision can be issued.

BXC PHASE 1A NORTH - INFRASTRUCTURE 15/03312/RMA – PAGES 109-264

1) Pre RMA Conditions

Paragraph 3 Page 112 of the Committee Papers:

“An update on the discharge of these conditions will be provided in the Addendum. Details in relation to the content of these pre RMA conditions are addressed later in this report under section 5.2.”

All Pre reserved matters conditions have now been determined aside from:

- Condition 2.7 A5 Corridor Study, under consideration at this committee.
- Condition 1.17 Illustrative Reconciliation Plan. The Illustrative Reconciliation Plan is required to ensure that the LPA has clarity on the layout of key structural components. Surety of any amended key structural components will only be possible post a recommendation being made on the remaining Reserved Matters Applications for Phase 1A (North).

Page 47 states that 'The existing 9 space taxi rank provision will be retained as per Condition 1 in Appendix 1'. This should refer to Condition 9.

2) Appendix 1: Conditions

Condition 1 refers to the 'Central Brent Riverside Park Plans' but should refer to Infrastructure Plans.

Condition 8 to be reworded to read:

'Prior to commencement of the development within Phase 1A (north) details of all retaining walls to be constructed in Phase 1A (north), which are currently shown indicatively, shall be submitted to and approved in writing by the local Planning Authority. Plans, Elevations, Sections and details of materials shall be submitted.'

An informative should be added to read:

'The determination of the Reserved Matters Application has considered the Reserved Matters Transport to be acceptable'.

In accordance with the statement in paragraph 3 Page 112 of the Committee Papers:

"An update on the discharge of these conditions will be provided in the Addendum. Details in relation to the content of these pre RMA conditions are addressed later in this report under section 5.2."

All Pre reserved matters conditions have now been determined aside from:

- Condition 2.7 A5 Corridor Study,

BXC PHASE 1A NORTH - CENTRAL BRENT RIVERSIDE PARK 15/03315/RMA

1) Appendix 1 Conditions

Condition 1

- 'Paving Detail 2- Reinforced Grass' plan ref. no. is incorrect, it should read 1065-03-407.

Condition 2

Prior to commencement of the River Brent Alteration and Diversion Works details of the lift between the Lower Ground Level and Lower Level Riverside Walkway, the location of which is indicated on plan 'SK-1708 Rev2' shall be submitted to and approved in writing by the Local Planning Authority. The submitted details shall include any associated hardstanding and access ramps within riverside park. The lift shall thereafter be implemented in accordance with the approved details.

2) Appendix 3 Pre RMA Conditions:

Underlined amendments to be recorded as per the table below.

Pre RMA Planning	Description	Registration Date
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Reference		Status	
15/00660/CON	Illustrative Reconciliation Plan to clear condition 1.17 for Phase 1a (North) of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	02.02.2015	Under Consideration <u>NOTE:</u> <u>The Illustrative Reconciliation Plan is required to ensure that the LPA has clarity on the layout of key structural components. Surety of any amended key structural components will only be possible post a recommendation being made on the remaining Reserved Matters Applications for Phase 1A (North).</u>
14/08105/CON	Area Wide Walking and Cycling Study to address condition 1.20 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area.	19.12.2014	<u>Determined</u>
14/08112/CON	Framework Servicing and Delivery Strategy to address condition 1.21 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area.	17.12.2014	<u>Determined</u>
14/08111/CON	Servicing and Delivery Strategy for Sub-Phase 1A North to address condition 1.22 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area.	17.12.2014	<u>Determined</u>

14/08110/CON	Pedestrian and Cycle Strategy for Phase 1A North to address condition 2.8 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	17.12.2014	<u>Determined</u>
15/00667/CON	Estate Management Framework to address condition 7.1 for Phase 1a (North) of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	02.02.2015	<u>Determined</u>
14/08109/CON	Car Parking Management Strategy to address condition 11.1 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	17.12.2014	<u>Determined</u>
14/08108/CON	Phase Car Parking Standards and the Phase Car Parking Strategy for Sub Phase 1A North to address condition 11.2 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	17.12.2014	<u>Determined</u>
14/07897/CON	Existing Landscape Mitigation Measures in relation to Phase 1a North to address condition 27.1 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	09.12.2014	<u>Determined</u>
14/07896/CON	Tree Protection Method Statement in relation to Phase 1a North to address condition 27.2 of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent	09.12.2014	<u>Determined</u>

	Cross Cricklewood Area		
15/00668/CON	Acoustic Design Report to address condition 29.1 for Phase 1a (North) of S73 Planning Application Ref: F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area	02.02.2015	<u>Determined</u>
15/00812/CON	Proposed Phase Transport Report for Phase 1 to address condition 37.2 of S73 Planning Application reference F/04687/13 approved 23/07/2014 for the Comprehensive Mixed Use redevelopment of the Brent Cross Cricklewood Area.	10.02.2015	<u>Determined</u>

BXC CONDITION 2.4 & 2.5 15 15/05040/CON – PAGES 341-354

1) Informatives

The following informatives should be added:

1. In accordance with Reg 3 (4) and Reg 8 (2) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, it is considered that:
 - i. the submission under Condition 2.4 and 2.5 reveals, with regard to the subject matter of the condition, that there are no additional or different likely significant environmental effects than is considered in the environmental information already before the Council (the Environmental Statement (ES) (BXC02) submitted with the Section 73 application (F/04687/13) and any further and/or other information previously submitted; and
 - ii. the environmental information already before the Council (the ES submitted with the Section 73 application, along and any further and/or other information previously submitted) remains adequate to assess the environmental effects of the development.
2. The plans accompanying this application are: Explanatory Report August 2015

APPLICATION: 15/03305/RMA

PAGES: PAGES 365 - 400

ADDRESS: PHASE 6A MILLBROOK PARK, (FORMER INGLIS BARRACKS), MILL HILL EAST, LONDON, NW7 1PX

Amend Condition 2:

The development hereby permitted shall be carried out in accordance with the following approved plans:

331095-16C, 331095-17C, Site Location Plan **331095.30**, 331095-20A, 331095-21A, 331095-24A, 331095-23A, 331095-27A and 331095-22A.

Design and Access Statement;

Planning Statement

Soft Landscape Specification and Landscape Scheme **REV D DFCC P0987 DOC-01;**

Planting Plan DFCC P0987 P01 Rev C

Arboricultural Impact Assessment, Survey, Protection Plans and Details by **DF Clark Bionomique Ltd;**

DF Clark Bionomique Ltd Addendum dated 30/09/2015

Sustainability/Energy Statement;

Phase 1 Environmental Assessment;

Highways Design Capacity Statement;

Drainage and Utilities Design Capacity Statement;

Construction Management Plan;

Extended Phase 1 Habitat Survey; and

Archaeological Written Scheme of Investigation.

Reason:

For the avoidance of doubt and in the interests of proper planning and so as to ensure that the development is carried out fully in accordance with the plans as assessed in accordance with policies DM01 of the Adopted Barnet Development Management Policies DPD (2012) and CS NPPF and CS1 of the Adopted Barnet Core Strategy DPD (2012).

P. 389 second paragraph

Add:

The applicant has amended the proposed planting schedule to incorporate native species in accordance with comments received from the Council's Landscape Officer.

APPLICATION: 15/03759/S73

PAGES:

ADDRESS: 17 DUKES AVENUE, LONDON, N3 2DE

Amend condition 1:

The development hereby permitted shall be carried out in accordance with the following approved plans: 1 of 2, 2 of 2, Planning Statement, Site Location Plan.

Reason: For the avoidance of doubt and in the interests of proper planning and so as to ensure that the development is carried out fully in accordance with the plans

as assessed in accordance with Policies CS NPPF and CS1 of the Local Plan Core Strategy DPD (adopted September 2012) and Policy DM01 of the Local Plan Development Management Policies DPD (adopted September 2012).

Consultation has been undertaken with the Metropolitan Police who advise that they do not object to the proposed change of use in terms of any implications for security in the area.

Application: 15/01725/FUL

Pages: 401-408

Address: Monkfrith School

Sport England have confirmed that they have no objection to the proposals.

Impact on ecology/biodiversity

Add paragraph:

As well as the Wildlife and Countryside Act 1981, bats are a European protected species under Annex II and IV of the Council Directive 92/43/EEC 1992.

The ecological report provided accounts for the presence of other possible protected species on site, including Great Crested Newts, as well as bats, and recommended further bat surveys which were subsequently undertaken.

The bat survey provided is considered to be compliant with Natural England's standing advice on Bats: surveys and mitigation for development projects. The standing advice suggests that survey reports and mitigation plans are required for development projects that could affect protected species, as part of getting planning permission or a mitigation license. In this case, the report states that there will be no impact on roosting bats and minimal impact on foraging bats. This further adds suggestions mitigation in terms of external lighting (This is further controlled by condition), restrictions on night time working (Again restricted by condition in any event), checking of exclusion material, provision of bat boxes which will be secured by condition.

Add condition:

Before development hereby approved commences, an ecological method statement, including details of how works will be supervised during removal of hedging and trees, and details of the timing of the construction programme.

Reason: To minimise the impact of the proposals on local biodiversity.