

LONDON BOROUGH OF BARNET

PLANNING & ENVIRONMENT COMMITTEE

HENDON AREA

8th September 2004

Agenda Item No. 8

Report of the Head of Planning

BACKGROUND PAPERS – GENERAL STATEMENT

The background papers to the reports contained in the agenda items which follow comprise the application and relevant planning history files, which may be identified by their reference numbers, and other documents where they are specified as a background paper in individual reports. These files and documents may be inspected at:

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PLANNING & ENVIRONMENT COMMITTEE
HENDON AREA

DATE: 8th September 2004

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Grahame Park Estate - bounded by Lanacre Avenue to the west, Grahame Park Way to the south and Field Mead to the north..

Redevelopment of site involving the demolition of 1314 existing residential units and construction of 2977 new residential units providing a total of 3440 units on the estate, provision of approximately 9074sqm replacement retail (Class A1), office (Class A2) food and drink (Class A3) and social and community (Class D1) uses and associated public and private open space, car parking and access arrangements. (OUTLINE)
Submission of Environmental Statement.

APPROVE SUBJECT TO CONDITIONS

LOCATION: Grahame Park Estate – bounded by Lanacre Avenue to the west, Grahame Park Way to the south and Field Mead to the north.

REFERENCE: W01731JS/04 **Received:** 13 May 2004
Accepted: 13 May 2004

WARD: Colindale **Expiry:** 12 August 2004
Final Revisions:

APPLICANT: Notting Hill Housing Group

PROPOSAL: Redevelopment of site involving the demolition of 1314 existing residential units and construction of 2977 new residential units providing a total of 3440 units on the estate, provision of approximately 9074sqm replacement retail (Class A1), office (Class A2) food and drink (Class A3) and social and community (Class D1) uses and associated public and private open space, car parking and access arrangements. (OUTLINE)
Submission of Environmental Statement.

Recommendation 1:

That the Borough Solicitor and Head of Planning be instructed to invite the applicant and any other person having a requisite interest to enter by way of an agreement into a planning obligation under Section 106 of the Town and Country Planning Act 1990 and any other legislation that the Borough Solicitor considers is necessary for the purposes of seeking to ensure the following advantages set out in Appendix 1:

Recommendation 2:

That upon completion of such agreement the Director of Environment or Head of Planning be instructed to approve planning application ref: W02606X/04 under delegated powers subject to the conditions set out in Appendix 2.

Introduction

The proposed scheme will provide a mix of residential, retail, social and community uses and open spaces thereby minimising the need to travel and will recycle previously developed land in line with national planning policy objectives contained in PPG1 and the Draft PPS1.

The proposals provide for a significantly improved living environment for current and future residents of Grahame Park Estate. Failing and unpopular social housing will be replaced with housing more suited to local needs. The re-provision is to be cross subsidised by the sale of market housing and does not involve public subsidy. The proposals also seek to address the problems associated over-concentrations of social rented housing and create a more mixed and balanced community in line with national policy in PPG3 and Circular 6/98 and the Government's Sustainable Communities Plan.

The London Plan identifies Colindale as an 'Area for Intensification' and as such supports higher density development in this location than would be appropriate for the rest of Barnet. The proposals make a significant contribution to meeting the London Plan target of creating an additional 2,000 homes within the Colindale area and the Borough-wide target (set out in

London Plan Policy 3A.2 and emerging UDP Policy GH1) of providing 17,780 additional dwellings between 1997 and 2016.

Urban Design

The master plan is based on a sound analysis of the surrounding area and is the result of extensive consultation. The Commission for Architecture and the Built Environment is very supportive of the scheme and welcomes the work that has gone into the preparation of the scheme: *"the master plan has returned connectivity and a hierarchy of routes to the area with the introduction of the main north south route and the east west links. Importantly the scheme has looked at the wider area and reached out beyond the estate boundary in order to improve its relationship with its surroundings"*.

The scheme is in compliance with policies in the Built Environment Chapter of the Revised Deposit UDP and London Plan, which encourage high quality accessible and legible environments, based on an understanding of local characteristics. The master plan improves integration with the surrounding area, providing clearly defined high quality public and private open space, active frontages and overlooked streets. The master plan has sensitively located landmark and taller buildings to ensure that they have limited impact on the existing townscape. The scheme also accords with national and London-wide policies on creating a safe and accessible environment. The scheme has been amended to ensure that the new development provides adequate daylight and outlook for adjoining occupiers and uses in line with policy.

Open Space

The overall area of public and private open space will increase from 16.74 ha to 17.9 ha. There will be an overall reduction in public open space including communal gardens and an increase in private garden space. This reflects the concern expressed by residents over unusable and degraded areas of open space. Grahame Park Open Space will decrease in size from 5.79ha to 5.5ha (including the Circus). However, the quality of the open space and play provision will be significantly improved and the re-profiling and re-orientation of buildings around the park will increase overlooking and safety. Furthermore, the layout of routes through the development means that Grahame Park Estate open space will be more accessible from the rest of the development and immediately surrounding area. A commitment is given to retain as many trees as possible in line with UDP policy. Removal of trees will be combined with replacement with a similar, or better, specimen. Given that this is an outline application, this is considered to be an acceptable approach.

Ecology

The proposed development is not predicted to have any significant adverse ecological effects. The habitat creation and enhancement measures, which the applicants propose to finalise following consultation with residents, will improve the habitat value of Grahame Park Open Space and compensate for the loss of amenity grassland. The result is a significant positive environmental and ecological effect.

Housing

The proposal comprises 34% affordable housing (by units) and 43% affordable housing if considered in terms of habitable rooms. The proposals therefore meet the requirements of the emerging Barnet UDP, which sets a target of 30-50% affordable housing in new schemes. The London Plan sets a target of 50% affordable housing for Barnet, but

emphasises that boroughs should apply targets sensitively when negotiating affordable housing in individual schemes to take account of individual site costs, economic viability, including the availability of public subsidy and other planning objectives. Grahame Park Estate redevelopment will provide significant benefits through the replacement of poor quality, degraded and stigmatised housing stock without public subsidy. Furthermore, the scheme will provide additional benefits such as qualitative improved community and retail facilities, improved open space and play facilities, employment opportunities in construction and other related regeneration benefits. There is, therefore a clear case for applying the London Plan target flexibly in this instance.

Community Facilities

The proposals with regard to health care meet the requirements of the Primary Care Trust. Although there will not be an increase in floorspace for other community facilities, the quality of provision will be improved and the layout will be re-designed to enable more efficient use of space to accommodate additional demand and the provision of contemporary services to the community. In addition, the Colindale Development Framework adopts a more holistic and comprehensive approach towards community facilities rather than an incremental site-by-site approach. Facilities serving the wider area of Colindale are therefore key objectives within the Framework to which the Choices for Grahame Park scheme makes a significant and important contribution. Financial contributions will be sought to ensure that the additional demand for school places arising from the development can be met.

Retail

The retail proposals accord with the main objectives of national retail policy contained in PPG6 and draft PPS6 by promoting retail as part of a mixed-use scheme, providing retail to serve the local community and reducing dependency on the car. The location of retail proposed is in accordance with the Colindale Framework, although outside of the Neighbourhood Centre identified in the emerging UDP. The small amount of increased retail floorspace would not have any significant effects on the vitality and viability of nearby established nearby town centres. Furthermore there is clearly a need for increased retail floorspace to serve the significant new population and a large new sustainable community.

Transport

The comprehensive redesign of the Estate will provide significant transport and movement improvements. More direct access for vehicles and buses will be provided, pedestrian routes will have improved lighting, signage and wayfinding will be simplified, all roads will have footpaths and more pedestrian crossing facilities will be provided. The proposed parking provision is higher than current levels and on-street parking can be controlled and regulated. The impact on highway network will be mitigated with a contribution towards local highway improvements. Contributions will also be secured towards bus services and interchange facilities.

2. RELEVANT PREVIOUS DECISIONS

2.1 Extant planning permissions are set out in the following table:

Applicant Details	Address	Description	Decision Date
Pinnacle Education Sports Trust	The Grahame Park Estate open space,	Formation of a 60m x 40m all weather playing surface enclosed by 4.5m high fencing	27/01/02
CfGP	Great Field, Grahame Park	Erection of single storey portable office	21/01/03
Community Focus	Tedder Studios Wiggins Mead	Single storey expansion for disabled access.	26/03/98

In addition, on the 17 March 2004, the Council resolved to grant detailed planning permission for the first 'demonstration phase', of the Masterplan, as follows:

'Demolition of existing blocks (Hawfinch & Harriot) and erection of part 3, part 4 storey block comprising 32 residential units (25 flats and 7 houses) with associated parking, amenity space and landscaping with new vehicular accesses off Great Strand and Everglade Strand'.

3. CORPORATE PRIORITIES AND POLICY CONSIDERATIONS

3.1 Barnet Housing Strategy

The strategy was published in January 2004 and highlights the following five Strategic Objectives:

- (a) Creating local quality environments (including: the regeneration of the Council's four priority estates: Grahame Park, Stone Grove, West Hendon and Dollis Valley in partnership with other organisations; promoting balanced, mixed and cohesive communities, and; tackling crime and anti-social behaviour);
- (b) Improving the quality of housing and delivering Decent Homes;
- (c) Increasing housing supply and balancing housing need (including: increasing the amount of affordable housing; increasing density through high quality design; delivering a range of intermediate housing options for key workers and others on low or moderate incomes, and; making best use of existing resources);
- (d) Providing quality services; and
- (e) Supporting vulnerable people (including: providing an appropriate mix of housing to meet the needs of older people; providing accommodation and support for independent living, and; offering choice).

3.2 Barnet's Community Plan

Local authorities have a duty under s.2 of the Local Government Act 2000 to prepare a community strategy for their area. Following extensive consultation with stakeholders, 'Barnet First Class', the community plan (strategy) for Barnet (2003-2006) was published in November 2003. Its vision for Barnet is a place:

- (a) Where people want to live and work;

- (b) Where first class services are offered to all residents;
- (c) Where successful communities are working & thriving, and as a result; and
- (d) Where quality of life continues demonstrably to improve.

Of the five priorities in the Plan, the four most relevant to the regeneration proposals are:

- (a) A secure and supportive community – with objectives to:
 - reduce street crime, burglary, vehicle crime and fear of crime and
 - ensure that barriers to opportunity for disabled people are tackled
- (b) A learning community – with objectives to:
 - raise standards of attainment for students in the 14-19 age range
 - enhance their life chances by expanding curriculum opportunities
- (c) An environmentally responsive community – with objectives to:
 - protect the green belt
 - enhance our green spaces
 - make our streets cleaner
 - increase recycling
 - improve the quality and standard of homes (with a target of increasing the percentage of properties meeting the Decent Homes standard from 61% to 79% between 2003/4 and 2007/8)
 - increase supply and address housing need
 - tackle homelessness
- (d) Fostering an enterprising community – with objectives to:
 - Regenerate priority housing estates (with a target of regeneration of Grahame Park, West Hendon, Stone Grove/Spur Road and Dollis Valley – all masterplans agreed by 2004, programme 50% completed by 2008.
 - Make best use of land and assets to foster enterprise and benefit local communities (with a target to develop and implement an Asset Management Plan by July 2003)
 - Reduce traffic congestion
 - Improve public transport
 - Ensure local communities obtain maximum benefit from major new developments (with a target of using a Development Benefits Toolkit to help place people in jobs, develop learning opportunities and improve local education and health services
 - Enable local regeneration opportunities (with a target of working with the LDA to identify suitable regeneration opportunities).

3.3 Barnet's Corporate Plan

The Council's Corporate Plan was up-dated and published in July 2004 and covers the period 2004/05-2007/8. The plan sets out the Council's commitment to delivering its five priorities, by when and by how much. These five priorities are:

- (a) A first class education service (including the objective of providing new schools through PFI and other schemes);
- (b) Tackling crime;
- (c) Supporting the vulnerable in our community;
- (d) A cleaner greener Barnet (including the objective of regenerating the priority estates of Grahame Park, Stone Grove & West Hendon); and
- (e) Repairing roads and pavements.

4. BACKGROUND INFORMATION

4.1 Description of Site and Surrounding Area

Grahame Park Estate (GPE) is a large housing estate within the Colindale ward, built by the GLC in the 1960s and 1970s and located to the west of the M1 motorway between Mill Hill, Colindale and Burnt Oak. The site is bounded by Lanacre Avenue to the west, Grahame Park Way to the south and east and Field Mead to the north. To the north and west of Grahame Park Estate are low-density, predominantly 2-3 storey residential estates, ranging from 1970s to schemes currently under construction. To the south of the estate are Middlesex University student halls of residence, with blocks ranging between 3 and 4 storeys and the former RAF East Camp, which is a substantially cleared site other than a disused Grade II Listed Watchtower building. Immediately to the east of GPE is the regional police headquarters. To the east of Grahame Park Estate are St James School and the RAF Hendon Museum. Land uses in the wider area include Colindale Hospital, the British Library Newspaper Library and various B1 (Business) uses adjacent to the railway line. Colindale Tube Station, served by the Northern Line is 500 metres from the southern edge of the estate along Grahame Park Way and Colindale Avenue.

Colindale currently suffers from a range of socio-economic problems and the environment is degraded in localised areas of the ward. However, there is a significant amount of development activity taking place in the immediate area. To the south-east of Grahame Park Estate, there is a predominantly residential-led proposal by St George to redevelop the former RAF East Camp for 2,800 flats along with office and commercial uses. To the west, development is currently underway at Adastral South to provide 322 dwellings. A planning application, not yet validated, has been submitted for redevelopment of the vacant Colindale Hospital site behind Colindale tube station.

Grahame Park Estate currently provides 1,777 units of mostly social rented accommodation with a small shopping centre and various community facilities. The estate currently suffers from a number of socio-economic and physical problems. A tenants participation survey in 1999 identified a number of issues including the poor physical environment and poor image, unsafe and difficult circulation routes owing to the Radburn style separation of vehicles and pedestrians, overcrowding and inappropriate occupancy for large families, a high turnover of stock, poorly placed and poorly integrated local facilities and poor levels of shopping choice.

4.2. Description of the Scheme

The planning application proposes the following:

- Demolition of 1,314 residential units, construction of 2,977 units to provide a maximum total of 3,440 units;
- Replace existing Class A1, A2 and A3 floorspace comprising 2,712 sq metres with units comprising 2,807 square metres of Class A1, A2 and A3 floor space;
- Replace existing Class D1 (social and community) floorspace (5,247 square metres) with Class D1 floorspace of 6,267 square metres;
- Replacement of existing usable public and private open space of 12.42 hectares with 17.9 hectares; and
- Provision of 3,209 residential car parking spaces and 145 non-residential car parking spaces.

Grahame Park is a failing and unpopular estate. The application scheme proposes to significantly improve the quality of the housing, community facilities, retail and open space and to re-design the estate to create an integrated neighbourhood, bring active uses to ground floor level encouraging natural surveillance and break down the existing barriers with the wider area. The scheme seeks a fundamental change in the environment of Grahame Park Estate and in the perception of the Estate so that it is a place where homeowners as well as those in rented accommodation wish to locate. The scheme involves moving Lanacre Avenue to the east to form a central 'boulevard' which links Grahame Park Way in the south with Field Mead and Grahame Park Way in the north and to make best use of this newly created gateway location. A series of open spaces are proposed along the central spine road, including an oval 'circus' which is linked to the re-profiled Grahame Park Estate Open Space. A series of East-West link roads intersect with the boulevard and connect the estate into the wider area, breaking down the existing barriers to the rest of Colindale. Higher density development is proposed along the main boulevard and around open spaces with lower density residential perimeter blocks in the north-west and south-east of the estate.

Grahame Park Estate Open Space is to be moved eastwards and the landscape features of the Park are to be re-modelled. Currently, adjacent buildings back onto the Park making it poorly overlooked and un-safe, discouraging active use of the space and encouraging a fear of crime. The scheme proposes a more active park edge with buildings fronting onto the park.

The existing retail units are isolated within the Estate, inaccessible and unattractive for the majority of existing residents and the wider Colindale community. The existing community facilities are within outdated buildings, not conducive to the provision of community services.

The new community and retail facilities are to be located within two centres. The larger centre, which is proposed at the junction of the southern boulevard and Grahame Park Way is to include a supermarket along with community facilities such as the re-provided library, housing office and community centre. The secondary centre is to be located centrally between the junction of the southern boulevard and the proposed circus and is to comprise the Primary Care Centre, Wingfield Nursery, other community facilities and neighbourhood retail units and the retained churches. A retail unit is also proposed at the junction of the northern boulevard and Fields Mead. This distribution of community and retail facilities is to be welcomed making them more accessible to residents of both Grahame Park and the wider Colindale area.

The Masterplan Statement sets out the approach to phasing, which is based on a number of factors:

- Making use of vacant sites and off-site housing on offer (eg Adastral) to provide an initial stock of housing for the first re-housed tenants and homeowners;
- The new build infill sites in the areas with a large number of retained houses following the same process running concurrently with the areas of high rise replacement and build;
- Commitment to one move only for residents;
- Commitment to mixed tenure across the site and the need for market housing to cross-subsidise affordable housing within each phase;

- Undertaking to maintain continuity of community services coupled with the undertaking to complete the Concourse housing replacements in early phases (where most of the non-residential uses are located).

The Masterplan Statement also states that phasing will be developed in more detail as the masterplan develops and other factors come into play, particularly in the areas of infrastructure, costings and 'buildability'.

The Phasing Plan on page 87 of the Masterplan Statement sets out a 6-phase build period. Phase 1a and 1b involve the construction of the blocks on the western and northern edges of Grahame Park Estate Open Space and subsequently the demolition and redevelopment of the area along Grahame Park Way and Lanacre Avenue in the south-west of the development. Grahame Park re-provision (the Circus and to the west of the existing park) is to take place as part of Phase 2a. The community facilities are to be re-provided at the junction of Grahame Park Way and the Southern Boulevard as part of Phase 1b and around the 'Circus' as part of phase 2a and 2b. The existing facilities are to be redeveloped as part of Phase 4b. The phasing therefore takes account of the need to ensure continuity in provision of community and retail facilities and aims to ensure the re-provision of Grahame Park Open Space as early on after loss through redevelopment as is practicable.

4.3 Background to the Application

4.3.1 Scheme Evolution

The applicant, Choices for Grahame Park (CfGP), is a partnership of Notting Hill Housing Group and Genesis Housing Group that has been selected by the Council as preferred developer and regeneration partner for the Grahame Park Estate in response to the Council's policy aim of securing the regeneration of the Estate.

The current scheme for Grahame Park Estate is the result of extensive consultation and numerous iterations of the Masterplan. In early 1999 the Council appointed the Tenants Participation Advisory Service to identify residents' and other stakeholders vision for the area, suggestions for development, agreed objectives for regeneration and achievable targets. Consultation included neighbourhood drop-in sessions, a series of workshops and a 'planning for real' event in March 1999. The following main issues were identified:

- Poor physical and social environment and stigmatised image
- Overcrowding, inappropriate occupancy for larger families and a high turnover of stock
- Poorly placed and poorly integrated leisure and play facilities
- A poor range of shops, with a number of vacant units within the Concourse

Levitt Bernstein were appointed to carry out a review of five options for regenerating the Estate ranging from refurbishment with minimal demolition and redevelopment to maximum tenure change and substantial demolition with market sales as funding means. Consultation was undertaken on this range of options including a 'Have Your Say' day and a questionnaire distributed to residents. On the basis of responses to consultation, a 6th option was developed, which forms the basis of the current scheme. In March 2002 Choices for Grahame Park were appointed as the Councils' preferred partner to take forward the Estate's regeneration with residents. In order to promote resident involvement and community development in the regeneration of Grahame Park an independent resident participation

consultancy was appointed (SOLON Community Network). SOLON has since provided impartial advice to residents on regeneration issues. A Neighbourhood Panel was set up to provide a mechanism for residents to formulate their requirements from the regeneration proposals and to negotiate with the Council and CfGP. Arising from a range of consultations and other meetings, a resident design group was set out to help develop the masterplan.

In September and October 2002, a Housing Needs Survey was conducted in order to inform the development of the masterplan by highlighting the key needs and problems experienced in the Estate. A series of neighbourhood meetings took place between May 2002 and May 2003 during which the CfGP team developed the masterplan proposals in consultation with local residents. In addition stakeholder seminars were held to involve statutory service providers and community groups. A Resident Test of Opinion was held in July 2003, giving residents the opportunity to comment on the overall regeneration programme including the masterplan proposals. Some 79 percent of residents (based on a 68 percent turnout) were in favour of the proposals. Meetings were also held with residents of Willow Gardens, Douglas Bader and Adastral North, which adjoin the Estate. Following this consultation a planning application was submitted in July 2003 (WO1731JQ3).

4.3.2 The Draft Colindale Development Framework

In response to the high level of development pressure in Colindale and the identification of the area as an 'Area for Intensification' in the London Plan, LB Barnet commissioned the preparation of a development framework for Colindale. The draft framework was prepared in consultation with key stakeholders including GLA, TfL, LDA, the Primary Care Trust and developers between August and October 2003 and, following a public exhibition and consultation exercise the Draft Stage 1 Framework was endorsed by the Cabinet in December 2003. The framework has been prepared as a strategic planning tool and as supplementary planning guidance to help manage change in Colindale and to assist in the assessment of planning applications in the area. In particular the document seeks to set a framework for considering the cumulative impact of the various developments and to set out potential solutions for dealing with these impacts. The draft Framework addresses the following range of issues:

- Spatial Structure
- Housing
- Access and Movement
- Community Facilities
- Urban design, public realm, linkages, open space and the environment
- Employment and training
- Delivery

The draft framework at Stage 1 identifies a series of objectives within these issues and sets a policy framework for addressing these objectives. A Stage 2 version of the framework will be reported to the Council's cabinet in the next few months, which provides a more detailed guidance on urban design, viability and deliverability framework for Colindale together with development options for other brownfield sites such as Colindale Hospital and Middlesex University site.

4.3.3 Phase 2 – Colindale Development Framework

A second phase was commissioned by the GLA and LDA to work up urban design and site-specific proposals for other sites within the framework study area. This is close to completion and will be reported to the Mayor of London and a future Council Cabinet meeting for approval and endorsement as SPG.

4.3.4 The Current Application

Since the original planning application was submitted (WO1731JQ3), the Council has negotiated a number of changes to the masterplan and supporting documentation in the light of planning policy and comments by local residents within and around the Estate. As one of these changes involved changing the application site boundary to ensure consistency with the CPO process, a new application was required, which was submitted in May 2004. The changes from the original scheme are outlined below:

- The principal change to the masterplan has been the re-profiling of building heights and re-orientation of buildings in certain locations. There was initially some concern over the heights of buildings in some areas, expressed by the public at consultation meetings and in response to formal consultation on the application. Further axonometric plans and shadowing analysis was submitted and a number of changes to building heights were made. These changes are analysed in full in the urban design analysis section.
- There has also been an increase in private residential units from 2,940 to 2,977. The affordable housing provision has increased from 915 to 1,000 and the housing for sale has decreased from 2,025 to 1,977. The revised scheme retains 3 more units than the previous scheme submitted in July 2003.
- An additional plan showing hard and soft landscaping, public and private open space and play areas has been submitted for approval.
- Initially, a parking provision of 0.75 spaces per dwelling (75%) was proposed. However during negotiations, the Council asked for a higher level of provision. A position has been reached providing an average of 0.93 spaces per dwelling and this is considered acceptable.
- The floor space allocated for the health centre has increased from 980 sqm to 2,000 sqm, following discussion with the PCT regarding their likely future funding arrangements, to create a Colindale-wide facility.

Given that the proposals do not fully comply with the adopted UDP, the revised planning application has been treated as a 'departure application' and has been advertised accordingly.

4.4 Consultation and Representations

Approximately 5,500 public consultation letters were hand-delivered to residents and businesses in the local area for both the original and current applications on 10 October 2003 and 13 May 2004 respectively. The statutory consultation period for each application was extended, during which time public exhibitions were held and the plans made available in the local housing offices and libraries. Both applications were advertised in the press and site notices posted.

4.4.1 Original Application (WO1731JQ3)

A total of 203 representations were received for the original application. Although some expressed support for the principle of the scheme, the following is a summary of concerns expressed:

- The impact of the number of additional people who would live in Colindale
- Insufficient road capacity for additional residents
- Inadequate car parking arrangements
- Bulk and height of 4-6 storey buildings to the west of Lanacre Avenue
- Overshadowing to the 2 storey buildings in Willow Gardens
- Destruction of current community
- Affordability of new housing
- Loss of private homes/Compulsory Purchase Order issues

Officers are satisfied that the relevant planning considerations have been assessed and addressed through the negotiation on the planning applications, in particular height and overshadowing issues, concerns over parking and impact on social infrastructure.

Furthermore, the scheme will bring substantial social and physical regeneration benefits, will re-provide a substantial amount of affordable housing at no public cost, and will improve the quality of community and retail provision. It is therefore considered that these benefits outweigh the remaining planning concerns listed above.

4.4.2 The Current Application (WO1731JS/04)

4.4.3 Statutory Consultees

Mayor of London

The Mayor of London is strongly supportive of the scheme. The Mayor concluded that "the proposal is a comprehensive, well devised, mixed use, high density development that should create a more balanced community and provide much needed regeneration of Grahame Park Estate. Although the application proposes a net gain in affordable habitable rooms but a reduction in actual number of affordable units, this is justified as the larger residential units meet the Council's housing needs". The planning report (PDU/0543/SLM/01) supports the increase in density and concludes that the master plan meets the aspirations of the London Plan in urban design terms. The report emphasises the regeneration benefits of the scheme and underlines that the quality, aspirations and wider regeneration benefits of the scheme should not be diluted by financial burden. The following is a summary of the issues addressed by the planning report.

Affordable Housing:

The report emphasises that despite the net loss of affordable units, the revised unit size mix is more appropriate to identified housing needs than the current mix. The proposal is therefore in the spirit of the London Plan policy. The report also states that on the basis of the proportion of total habitable rooms, the affordable housing proportion is 43%.

Density:

The report concludes that the proposed density is in line with London Plan policies, especially since higher density areas are adjacent to community and retail facilities and along transport corridors.

Urban Design:

The master plan reflects the design principles set out in the London Plan by improving integration with the surrounding area, clearly defined public and private open space active frontages and overlooked streets. The master plan has sensitively located landmark and taller buildings to ensure that they have limited impact on the existing townscape.

Biodiversity:

Although the proposal involves the reduction in size of Grahame Park Open Space and loss of mature trees this can be compensated for by ecological enhancement measures to be agreed at detailed design stage. It is recommended that an ecologist is involved in preparing a detailed scheme for Grahame Park Open Space.

Transport:

It is TfL's view that there is sufficient capacity on routes 204 and 303 to cater for the extra demand generated by the Choices scheme. However, the cumulative impacts of both the Grahame Park Estate scheme and the RAF East Camp will cause capacity problems on routes 204 and 303 to the east of Colindale station. There are currently no plans within TfL to introduce any services or measures that would alleviate this problem. However, if contributions were secured from additional sources then TfL would progress the introduction of appropriate measures to improve capacity. The report also states that the proposed revisions to the road layout will improve the routing of the 204 and 303 bus services and will reduce journey times. TfL state that mitigation measures will be expected to alleviate any significant impact on the TLRN network at Aerodrome Road/A41 Watford Way based on the cumulative impact of both developments.

Environment Agency

The Environment Agency has no objection in principle to the proposed development subject to conditions requiring the carrying out of surface water drainage works, source control measures and construction of site draining system in accordance with details submitted and approved in writing by the local planning authority.

Thames Water

Thames Water has no objection in principle but the ability of the local sewers to dispose of foul and surface water for this development will need to be determined. If investigations find that insufficient capacity is available, Thames Water will provide the necessary additional capacity as soon as practicable. Thames Water recommends that a condition be imposed requiring details of drainage to be submitted to and approved by the local authority prior to the commencement of construction. Thames Water also recommends a S106 Clause to ensure details of off site foul and surface water drainage are approved by the planning authority prior to commencement of construction.

As there are public sewers across the site, no building within 3 metres of the sewers will be allowed without Thames Water's approval. This will need to be addressed through reserved matters applications.

Commission for Architecture and the Built Environment

CABE welcome the considerable work that has been put into this project by all involved. In their view, the master plan is based on a sound analysis of the surrounding area, has returned connectivity and a hierarchy of routes to the area with the introduction of the main north south route and the east west links. Importantly the scheme has looked at the wider area and reached out beyond the estate boundary in order to improve its relationship with its surroundings.

We hope that the promise shown in the master plan and design guide is seen through to the detailed design stage and the finished product. In our view there should be a lead architect/designer in place to oversee the next stage of the process so as to ensure the principles that have been set out are followed, and that the flexibility the master plan allows is managed.

We hope this project maintains its clear vision and that this bold proposal will be delivered in accordance with the broad principles, which have been established. We would welcome the opportunity to comment on the detailed designs for the areas within when they come forward.

4.4.4 Other Consultees

Barnet NHS Primary Care Trust

The PCT has confirmed that the proposed 2,000-sqm health facility would be sufficient to meet the demands of the increased population for the wider Colindale area. In addition, they acknowledge that the provision of such a facility, which represents an increase from the existing facility of 980 sqm, is dependent upon the PCT securing the necessary funding to pay for this uplift.

4.4.5 Internal Consultations

LB Barnet Education (LEA) is supportive of the scheme, subject to appropriate provision towards education needs generated by the proposed development and increased child yield. The LEA has confirmed that there would be sufficient space to accommodate additional demand from Grahame Park Estate by expanding the following schools:

- Blessed Dominic (RC VA) (by 1FE)
- Courtlands (by 1FE)
- Sunnyfields (by 1FE)
- Parkfield (half FE)

4.4.6 Public Representations

The Freeholders and Leaseholders Group has organised a petition, which has received 170 signatures. Stated objections include:

- There is significant under-provision of car parking within the plans in my part of the estate (158 responses)
- The plans needlessly propose to demolish my home (20 responses)
- There will be too much traffic created by these over intense plans (plus additional developments in Colindale) and infrastructure such as schools, roads, public transport, recreational facilities are insufficient to cope. (157 responses)
- High buildings are not appropriate close to two and three storey houses (144 responses)

- There will be a loss of light and/or significant invasion of privacy from adjacent buildings (151 responses)
- There has been completely inadequate consultation in drawing up these and previous plans (160 responses)

A number of individual letters (16 in total) were also received from members of the public regarding the current application. Although several of these supported the principle of the development, the following criticisms of the revised scheme were made:

Table 1: Summary of Public Representations

Summary of Representation	Response
The two railway bridges over Aerodrome Road and the adjacent junction with the A41 are currently congested. Additional traffic will exacerbate these problems.	The increase in traffic associated with the Choices development on its own is small.
The proposed 5 and 6 storey blocks and 3-4 storey building returns adjacent to Willow Gardens would be intrusive and out of proportion. Block A8 is particularly tall and bulky.	The building returns have been reduced in height from 6 to 3-4 storeys so that the building 'steps down' towards Willow Gardens. The shadowing analysis concluded that the blocks would not have a significant impact on Willow Gardens. However, detailed designs will need to ensure that overlooking is not an issue. The scheme has been designed so that the majority of taller buildings are located adjacent to open space and major routes, with lower density development on the periphery of the site and adjacent to existing dwellings. However, as the estate is being redeveloped at higher density and given the need to cross-subsidise the affordable housing re-provision, it is inevitable that in some instances taller buildings will be located near to existing buildings. The scale of buildings along the Central Boulevard aims to provide some enclosure and frame the public open space.
Additional traffic will lead to further congestion on Aerodrome Road and Grahame Park Way.	The introduction of parking restrictions at the roundabout will increase the capacity of this junction.
The blocks to the north of Grahame Park Open Space would have an unacceptable impact on Parklea Close in terms of visual impact, overlooking and overshadowing.	The blocks to the north of Grahame Park Open Space have been reduced in height and stepped so that part of the building closer to Parklea Close are lower. The overshadowing analysis shows that Parklea Close will not be affected by overshadowing. Detailed designs will need to ensure that overlooking is not an issue
The proposed site for Flightways is too far from the proposed health centre and other facilities.	The user asked to be situated in this location and the PCT have agreed this location in relation to the health facility.

The cumulative impact of RAF East Camp and Grahame Park Estate redevelopment as well as other potential sites would have an unacceptable impact on the highway network and health and education facilities.	Contributions are to be sought from developers to meet additional demands for education and health provision and to mitigate impact on the highway network.
Lack of parking in the area already leads to parking on local roads such as Aerodrome Road, causing congestion and making Grahame Park Way roundabout hazardous. There is a concern that proposed development should not exacerbate the situation through inadequate parking.	Adequate parking is being provided by Choices and on-street parking will be regulated and controlled with the implementation of a Controlled Parking Zone. The proposed parking provision is significantly higher than on the existing estate.
Shops and community facilities should be grouped together in one location.	The Draft Colindale Development Framework identifies the need for a new centre along Grahame Park Way. Locating the supermarket and community facilities on Grahame Park Way contributes to achieving this. Furthermore, Grahame Park Way is a more viable location for a supermarket with greater opportunity to attract trade from outside the estate.

4.5 Appraisal

The appraisal is divided into the following areas:

- Material Planning Considerations
- Environmental Impact Assessment
- Principle of the development
- Physical Environment
- Social Environment
- Sustainability
- Transport and Movement

Within each section the proposals are assessed against the relevant policy context.

4.5.1 Material Planning Considerations

4.5.1.1 The Development Plan

Section 54A states that decisions should be made in accordance with the development plan unless material considerations indicate otherwise. The development plan for Barnet is the 1991 Adopted Barnet UDP. There have been significant changes in both national and regional policy since the adoption of the plan and it is now out-of-date. In particular, the plan precedes government policy on affordable housing and the emphasis in national policy on making efficient use of land and achieving higher densities. Consequently the majority of standards in the plan are not applicable to a high-density estate renewal project such as this. Planning Policy Guidance (PPG) Note 1, paragraph 48, makes clear that account can also be taken of emerging development plan policy when determining applications, with the weight

being attached to such policies depending upon the stage of plan review, increasing as successive stages are reached (Para. 19 of Annex B of draft PPS1 includes similar guidance). Accordingly, given the advanced stage of the UDP review, considerable weight can be attached to the emerging policies. The London Plan, although not currently part of the development plan for the purposes of Section 54A, is also an important material planning consideration.

Given the above, the appraisal of the application is based on the emerging UDP. However, due regard has been had to the adopted UDP in terms of both handling the planning application and assessing the proposals.

The Barnet Unitary Development Plan – Revised Deposit 2001

This was amended by Pre-Inquiry Changes in January 2003 and examined at Inquiry in March 2004. Appendix A sets out the policies relevant to this application.

4.5.1.2 National Planning Policy

The most relevant national policy documents are PPG1, draft PPS1, PPG3, Circular 6/98, PPG6, PPG9, PPG13 and PPG17. Emerging national policy is also a material consideration and so consideration is also given to consultation documents on PPS1 and proposed revisions to PPG3, PPG6 and Circular 6/98. Relevant national, regional (London Plan) and local planning policy are summarised at Appendix 3.

4.5.1.3 The London Plan

This was published in final form in February 2004 and sets the policy context for London up to 2016. The Plan sets out a number of specific policies for the Colindale area as an Area for Intensification as well as generic policies for regeneration and housing which are relevant to this planning application. Colindale is one of the three strategic growth areas within Barnet identified in the North London Sub Region of the London Plan where the area has potential for substantial new homes and new jobs. The London Plan expects a minimum of 2,000 new homes and 500 new jobs. Section 38 of the Planning and Compulsory Purchase Act 2004 provides for the London Plan to become a 'development plan' for the purposes of determining planning applications. This part of the Act is currently due to become operational in September 2004.

4.5.1.4 Supplementary Planning Guidance

Although there is no adopted SPG for the area a number of guidance documents have been produced. The Colindale Development Framework (Phase 1) has been approved by Council, though has not undergone a statutory consultation period or been adopted as SPG. The Council has also produced Guidance for Colindale, which is for guidance purposes only and Educational Needs Arising from New Development, which has been endorsed by Council but has not undergone formal consultation and adoption. The Mayor of London has also adopted Accessible London: Achieving an Inclusive Environment SPG and published draft guidance on affordable housing.

4.5.2 Environmental Impact Assessment

This application is of a scale and nature that means it must be assessed in accordance with the Town and Country Planning (Environmental Impact Assessment) England and Wales Regulations 1999. Where EIA is required for an application made in outline, the

requirements of the Regulations must be met in full at that stage, since reserved matters applications cannot be subject to EIA.

The applicant requested a 'scoping opinion' in June 2003 in a letter, which identified the likely significant effects of the development on the environment and therefore the issues to be assessed as part of the EIA process. The Planning and Environment Committee of 4 August 2003 resolved that the Environmental Statement should address the following:

- Traffic and Transport
- Landscape
- Pollution and Contamination (air, water and soil)
- Drainage
- Ecology
- Noise and Vibration (during building works)
- Energy Use
- Socio-economics (in particular housing and education)
- Planning and land use
- Cumulative effects of proposed developments in the vicinity
- And the inter-relationship between the above where appropriate

Since the submission of an ES with the original planning application (WO1731JQ/03), the local authority has negotiated a number of revisions to the scheme. These changes required a new application with a revised Environmental Statement, which was submitted in May 2004 (WO1731JS/04). In August 2004, following further consideration of the proposals, the Council requested further information under Regulation 19 of the EIA Regulations. As a result, further environmental information was submitted to the Council later in August and was advertised in accordance with the Regulations. This information comprises:

- Revised visual impact assessment of the proposed development
- Amendments to each section of the Environmental Impact Assessment taking on board the implications of the phasing of the development
- Amendments to the ES to incorporate the Arboricultural Assessment.
- Revised sunlight, daylight and overshadowing assessment examining the development as whole
- PL.12 application plan setting out the proposed phasing of the development
- Access statement in accordance with Policy 4B.5 of the adopted London Plan

Following these amendments it is considered that the Environmental Statement complies with the Regulations.

Any representations received on the content and scope of the Environmental Statement are also considered to be part of the 'environmental information' under the Regulations.

4.6 The Principle of the Development

The proposed scheme will provide a mix of residential, retail, social and community uses and open spaces thereby minimising the need to travel and will recycle previously developed land in line with national planning policy objectives contained in PPG1 and the Draft PPS1.

The proposals provide for a significantly improved living environment for current and future residents of Grahame Park Estate. Failing and unpopular social housing will be replaced with housing more suited to local needs. The re-provision is to be cross subsidised by the sale of market housing and does not involve public subsidy. The proposals also seek to address the problems associated over-concentrations of social rented housing and create a more mixed and balanced community in line with national policy in PPG3 and Circular 6/98 and the Government's Sustainable Communities Plan.

The London Plan identifies Colindale as an 'Area for Intensification' and as such supports higher density development in this location than would be appropriate for the rest of Barnet. The proposals make a significant contribution to meeting the London Plan target of creating an additional 2,000 homes within the Colindale area and the Borough-wide target (set out in London Plan Policy 3A.2 and emerging UDP Policy GH1) of providing 17,780 additional dwellings between 1997 and 2016.

Conclusions

The mix of land-uses and quantum of development comply with national and regional planning policy. Furthermore the scheme will bring substantial benefits in terms of improved housing and environment and related regeneration benefits associated with a more balanced population profile and contribute to the environmental, social and economic well being of the wider area.

4.7 Physical Environment

4.7.1 Urban Design and Visual Impact

Key Policy Background

PPG 1 sets out principles for good design and refers to guidance contained in By Design, a joint publication of the Department of the Environment and the Regions with the involvement of the Commission for Architecture and the Built Environment.

Circular 5/94 Planning Out Crime provides advice on how the planning system can encourage measures to reduce crime and covers issues such as sensitively designed landscaping and open space and the layout of roads and pedestrian routes.

Policy 4B.1 of the London Plan sets out principles for design of new development including for improving the public realm, providing a mix of uses, creating permeable and accessible environments and respecting local context.

The policies in the Built Environment Chapter of the Revised Barnet UDP encourage high quality design based on an understanding of local characteristics and emphasise the need to create accessible, legible environments (GBEnv2, Policies D1 and D2). Policies also emphasise the need for development proposals to respect the constraints of the site to accommodate development and to ensure that new development provides adequate daylight and outlook for adjoining occupiers and uses (Policies D3, D4 and D5).

The Draft Colindale Development Framework sets out principles for the design of new development in Colindale, including to create a distinctive image for new centres, to improve the legibility of the area, to promote direct frontages and natural surveillance along pedestrian

links, to create a finer grained more permeable environment and to create a range of good quality open spaces and a network of green corridors.

Application Material

The Masterplan Statement, which has been submitted in support of the application, as an illustrative document is considered a well-thought out thorough approach towards addressing towards addressing the urban design and quality of built environment issues facing the Grahame Park Estate redevelopment. It contains a Design Statement, which sets out the rationale behind the development of the masterplan and principles for the 'character areas' within the development, for building design and for treatment of Grahame Park Open Space and other hard and soft landscaped areas. Chapter 4.0 of the ES: Townscape and Visual Impact concentrates on the relationship between retained buildings and new built form and open spaces and the layout of the redeveloped estate as a whole. This chapter was revised following a request by the Council for further information to complete the ES (under Regulation 19 of the EIA Regulations) and now includes a visual assessment undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment published by the Landscape Institute and Institute of Environmental Management and Assessment. This identified sensitive receptors including:

- Users of all outdoor recreational facilities including public rights of way, whose attention or interest may be focussed on the landscape
- Communities where the development results in changes in the landscape setting or valued views enjoyed by the community
- Occupiers of residential properties with views affected by changes or development

The significance and magnitude of the visual impacts on these receptors was assessed using accurate computer modelling of the proposed development.

A Massing Studies Supplement and a Daylight, Sunlight and Overshadowing Study, which were submitted and were also included within the Chapter 4 (Planning and Land Use) of the ES following the Council's request for further information under Regulation 19.

Assessment

The Townscape Assessment concludes that the main effects are likely to be:

- Significant and dramatic contrast with the existing urban fabric that is to be replaced on site;
- Integration of the estate within the townscape of the surrounding area through massing of built form and physical and visual links;
- Replacement of architecture of little merit with contemporary design;
- Strong visual relationships between the character areas within the site;
- Increased pedestrian and cyclist permeability through the site;
- Beneficial impact of new public open spaces throughout the site;
- Little noticeable impact on the settings of conservation areas or on listed buildings or structures.

The visual assessment concludes that Grahame Park Estate is not visually prominent from surrounding areas. The most sensitive receptors are identified as being residents of properties within the site who have clear views of the proposed development (the effect on these properties is assessed in more detail in Chapter 4 of the ES). Although there will be

slight adverse impacts on views for those residents whose existing view of public open space is compromised by new development, the overall effect on views is considered to be positive and the replacement of the existing urban fabric with new build will be visually beneficial.

In order to test the conclusions of the ES with regard to townscape, the scheme has been assessed against guidance contained in By Design, which sets out a series of urban design objectives and performance criteria for assessing schemes against those objectives:

Objective 1: Character – A place with its own identity

- Development that responds to the existing layout of buildings, streets and spaces
- Development that responds to the scale, massing and pattern of heights in the area

Summary of Assessment

- Access and linkages with the existing open space are much improved. The proposed new development surrounding Grahame Park creates stronger boundaries and a clear relationship with surrounding buildings. There was initially a concern that buildings to the west of Grahame Park Estate Open Space would wrap around existing properties that currently front the park and will effect their views across the park. However, this concern has been addressed by stepping the buildings heights to allow views into the park. It will be necessary to ensure that a quality landscape scheme is prepared for the area to the rear of these buildings.
- Heights of new buildings within the estate are designed to correspond to the heights of retained buildings. Higher buildings are adjacent to public open space and main public corridors. Some amendments have been made to deal with localised visual amenity issues.
- The buildings on the boundary with the predominantly 2 stories high Willow Garden Estate are 6 stories high. More comprehensive shadow studies and further details were requested in order to assess overlooking and shadowing. The building returns closest to Willow Gardens have been reduced in height. This issue will be examined again at detailed design stage to ensure that distances between windows to habitable rooms are acceptable.

Objective 2: Continuity and Enclosure – A place where public and private spaces are clearly distinguished:

- Buildings that relate to a common building line and reinforce and define the street
- Primary access to the buildings from the street
- Different treatment of front and backs of buildings
- Clearly defined and enclosed private space
- Defined streets and public space

Summary of Assessment

- New buildings have been designed to create continuous building lines with existing properties. Where buildings are set back, detailed designs should ensure that they create attractive and usable spaces.
- The design is comprised mainly of perimeter blocks on a traditional grid street layout with active frontages overlooking the streets and secure rear private gardens.
- Public spaces are clearly defined by the taller buildings, which enclose them, corner blocks are designed to close corners visually.

- Detailed designs will need to ensure that entrances onto the street create active frontages.

Objective 3: Quality of the Public Realm – A place with attractive and successful outdoor areas

- A system of accessible and open green spaces
- Public space that relates to the buildings around it
- Active ground floors

Summary of Assessment

- The design proposes a series of open spaces along the central main spine. These are well linked within the development internally and with the surrounding area.
- Currently Graham Park lacks security and its boundaries are weak. The scheme improves security and accessibility and reshapes the park creating a better relationship with surrounding buildings.
- The widespread car parking at ground floor level is likely to detract from the quality of the public realm, particularly along the Central Boulevard and Grahame Park Open Space. Detailed designs should ensure that the impact of ground level parking is minimised.
- Grahame Park Way is proposed as a new centre in the Colindale Development Framework. A limited section of the Grahame Park Estate frontage to Grahame Park Way is to be redeveloped as part of the current proposals. A foodstore is proposed on part of this section, which is in line with the principles of the framework. Detailed designs will need to ensure that the building is accessed directly from Grahame Park Way.

Objective 4: Ease of Movement – A place that is easy to get to and move through

- A network of connected routes for pedestrians and cyclists
- A fine-grained network of direct routes rather than big blocks
- Wide footways will be provided on all routes
- Improved pedestrian signing will be provided
- Internal highway network will provide more direct access than the existing network
- Bus routing will be improved with the more direct road system

Summary of Assessment:

- The current Radburn Layout lacks safe and usable routes through the development, with residential areas isolated from their surroundings by car parks. Large spine blocks along Flight Approach and the Concourse act as significant barriers between Lanacre Avenue and Colindale Tube Station. The proposed scheme is a much more permeable design with a clear hierarchy and a finer grained network of direct routes through the site and linking the development with the surrounding area.

Objective 5: Legibility – A place that has a clear image and is easy to understand

- Enhance views and vistas and create new ones
- The design, location and function of buildings can reinforce the character and identity of the routes they serve

Summary of Assessment:

- The proposed development around Grahame Park blocks views of the park from existing adjoining properties. However, this has been minimised through height re-profiling to allow some views through to the Park.
- The strong hierarchy of streets improves legibility and the proposed landmark buildings will create focal points and assist orientation.

Objective 6: Adaptability – A place with variety and choice

- A place designed for a range of activities

Summary of Assessment

- The public open space within the development has the potential to provide multiple functions for a spectrum of users. Plan PL.11 shows the location of the various types of public open space and the broad extent of planting and hard surfacing. Further details of the treatment of this space are provided as illustrative material within the Masterplan Statement. Proposals are to be worked up in more detail in consultation with residents.

Objective 7: Diversity – A place with variety and choice

- The right mix of uses
- Diversity of layout

Summary of Assessment

- Active ground floors are proposed along the main spine of the estate
- The assessment suggested that a broader mix of uses around the proposed circus would help enforce its character as the hub of the estate. However, the viability of the proposal is based on the re-provision of existing community (with the exception of the health centre which is to increase in size from 940 to 2,000 sqm and retail provision which is to be increased by 335 sqm). The pre-provided facilities are to be located around the southern end of the boulevard and the central 'Circus'.
- The Masterplan Statement sets out illustrative details for the treatment of the various character areas to achieve variety across the development. These principles will be reflected in reserved matters applications.

Building Heights and Overshadowing/Daylight Sunlight Analysis

In response to Council officers concerns over building heights, overshadowing and visual amenity in some locations, a desktop overview of the Grahame Park masterplan was undertaken to identify areas of potential concern in relation to daylight, sunlight and overshadowing issues. The assessment sub-divided the masterplan into 25 individual areas and was based on guidance set out in the Building Research Establishment Handbook, Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. A number of areas of potential concern were identified. Further work was undertaken by the applicants and a Massing Studies Supplement was submitted for certain locations. This provides a shadow path analysis at the following key locations:

- Willow Gardens
- Blocks adjacent to the north of Grahame Park Open Space and adjacent to Douglas Bader
- Blocks to the west of Grahame Park Open Space and adjacent to North Adastral

Block adjacent to Anson and on Grahame Park Way

The masterplan was subsequently modified to address the above issues. The modifications were considered materially significant such that a new application was required, which was submitted in June 2004. Other areas will be dealt with at detailed design stage. The areas of concern and the response by the applicants are summarised below:

- The height of the building returns of blocks adjacent to Willow Gardens were reduced from 6 storeys to 4 storeys in response to comments by Council officers and the public regarding the impact on Willow Gardens.
- There was some concern that the 7-storey element behind numbers 34-37 Hemswell Drive may give rise to daylight and sunlight issues. The storey heights have been remodelled so that the buildings closest to Hemswell Drive are now 3-4 storeys.
- It was judged that the 6-storey element adjacent to Parklea Close, to the north of Grahame Park Estate open space might give rise to daylight and sunlight issues. The storey heights have been remodelled to reduce the heights of blocks closest to Parklea Close from 6 to 4 storeys.
- It was recommended that the front building line of the element of the proposal situated at the end of Acklington Drive be brought back to align with that of the adjoining property. The masterplan has been amended accordingly.
- The report concluded that side elevations of the 4 storey block to the south of Ashton on Grahame Park Way may give rise to some sunlight/daylight concerns. Part of the block has been reduced in height from 4 to 3 storeys and the building return has been removed in order to address this issue.
- There was some concern that the block to the north of 5, 6 and 7 Leander Court would represent a daylight issue. The block length has been shortened and linked with the adjacent terrace and the block end has been re-configured to address this issue.
- It was judged that the proposed 6 storey element to the south of Pixton and Paulham Terraces and to the north of Grahame Park Estate open space will have adverse daylight and sunlight impacts on the adjacent proposed 3 storey terrace. The heights have been re-modelled to address this so that the 6-storey element is less extensive and is no longer adjacent to the 3-storey terrace.
- The 6-storey element to the south of Blenheim was identified as a potential issue in respect of 7 Blenheim. However, this was considered a marginal issue, which could be dealt with at detailed design stage.
- The proposed 5-storey element of the most southern block of the Boulevard Crescent identifies possible sunlight/daylight implications for the proposed 3 and 4 storeys to the east. However, it is concluded that the impact will not be significant.
- The 4 storey element to the rear of Nos 3, 4 and 5 Valkyrie was of some concern in terms of daylight, sunlight and overshadowing. The nearest part of the block has now been reduced to 3 storeys to address this issue.
- The 4-storey element to the north of No. 5 Handley Passage would be a daylight issue. The orientation of the block has been changed to address this issue.
- The 3-storey element to the north of Raynham was identified as a concern in daylight terms. The part of the block, which is nearest to Raynham, has been reduced in height from 4 to 3 storeys to address this issue.
- The 4-storey element to the rear of nos. 3 and 4 Hawker was judged to be too tall and too close. The block has been re-arranged and the height of part has been reduced to 3 storeys to address this issue.

• The 4-storey element to the rear of No14 Hawker was identified as being of potential concern for and light and daylight. The block has been reconfigured to address this issue.

- The 4-storey element to adjacent to No1 Everett was identified as a potential sunlight daylight issue. However, this block has been reduced in height to 1-3 storeys and set back to align with No.1 Everett.
- The 3 and 4 storey elements to the rear of No's 1 and 2 Brock were also of potential concern. The blocks have been re-configured so that they are set further back and reduced in height.
- The 4-storey element immediately adjacent to No 7 Blenheim was identified as a potential sunlight and daylight problem. The block has been reconfigured so that it aligns with Blenheim and reduced to 3 storeys.

The changes to building heights highlighted above resulted in a net loss of units. The scheme is totally self-funding through cross-subsidy from the sale of private units, the viability of the scheme would be prejudiced by any loss of units. Building heights have therefore been increased in a number of locations in order to compensate for loss of units. These are:

- 5 buildings along the central spine and central circus have been increased from 8-10 storeys to 11 storeys
- Further land was included to the south of the site on the Lanacre frontage in order to accommodate the re-configured arrangement of houses and flats
- The height of the block to the south of Satchell Mead has been increased from 3 storeys to 6 storeys.

The proposed building heights are in line with the draft Colindale Framework, which identifies certain locations as being suitable for taller, landmark buildings. These locations include along the new spine road formed by Lanacre Avenue and around the Circus.

Tall Buildings Guidance: Joint CABE/English Heritage

CABE and English Heritage have produced guidance on tall buildings, which sets out the 3 dimensional visioning material required to assess a proposal for tall building and criteria for assessment. With regards to defining what would constitute a tall building, the Emerging UDP defines a High Building as "...one which significantly exceeds the height of surrounding buildings and structures" (Policy D7), whereas the CABE guidance defines tall buildings as "buildings which are substantially taller than their neighbours and/or which significantly change the skyline". The scheme has been designed to concentrate taller buildings in the centre around the central spine road and open spaces, with a gradation of heights down to 2-3 storeys on the periphery of the development adjacent to existing buildings. It is not considered therefore that any of the proposed buildings are substantially taller than their neighbours. As the existing estate has buildings of 8-9 storeys around the Concourse area, an additional 2 storeys would not significantly change the skyline. It is not considered that the proposal includes 'tall buildings' to be assessed against the CABE/English Heritage guidance, although it has been a useful reference point for general principles regarding quality and urban design advice.

Safety and Security

The scheme complies with guidance on designing out crime. The layout of the masterplan allows for open spaces and pedestrian routes to be overlooked; the mix of uses around the circus and southern square will create an environment, which is well-used and lively; and the redevelopment will provide a more balanced mix of tenures and more balanced population profile. It will be important that reserved matters applications take account of the need to promote safety and security in the detailed design of landscaping open space and the public realm. The consultation response from the Metropolitan Police states that there is no objection in principle to the scheme and acknowledges the extensive public consultation which has been undertaken. However, it also emphasises that the higher density of the scheme may give rise to community safety concerns, which are not apparent at outline stage. It is therefore important that detailed layouts and designs are prepared in consultation with the Metropolitan Police Crime Prevention Officer as part of reserved matters applications.

Conclusions

The conclusions of the review against By Design objectives were largely positive and largely accord with the conclusions of the ES. However, a number of problems were raised with the design and these were either addressed through amendments to the scheme, or can be addressed through reserved matters applications. Detailed designs will need to ensure that the UDP standard of 21 metres between windows to habitable rooms are met.

The scheme is in compliance with policies in the Built Environment Chapter of the Revised Deposit UDP and London Plan, which encourage high quality accessible and legible environments, based on an understanding of local characteristics. The scheme also accords with national and London-wide policies on creating a safe and accessible environment. The scheme has been amended to ensure that the new development provides adequate daylight and outlook for adjoining occupiers and uses in line with policy.

4.7.2 Open Space and Landscaping

Key Policy Context

National policy in PPG17 emphasises the need to improve the quality and accessibility of open space.

Policy 3D.7 of the London Plan makes clear that the Mayor will work with strategic partners to protect and promote London's network of open spaces. The Mayor has identified Colindale as a priority for open space and public realm improvement as part of the Mayor's London 100 Spaces Initiative, supported by the GLA's Architecture and Urbanism Unit headed by Lord Richard Rogers.

Policy D11 of the Revised Deposit Barnet UDP sets out principles for hard and soft landscaping within new developments. Policy D13 states that when assessing development proposals the Council seek to ensure that as many existing trees of value are retained on site as is practical and that an appropriate level of the new tree and shrub planting is provided. Graham Park is identified as a Local Park in the Open Space Hierarchy set out in Table 6 & identified on Map 6.2. The policies in the Leisure and Recreation Chapter state that development of areas of public open space, which is harmful to the open character of the area will not be permitted. Policies also emphasise that development should be in the

interests of the community and that the Council will seek to secure improvements to the accessibility and quality of public open space.

Policy H20 states that planning permission will only be granted for housing developments if they provide proportionate amounts of public recreational space and facilities or contribute to providing for children's play, sports grounds and general use where a deficiency in open space exists and to the standard of 2.43 hectares per 1,000 population. Policy H18 sets out minimum standards for provision of gardens or amenity space in relation to new development. The minimum standard for flats is 5sqm per habitable room. The policy also states that proposals in or near town centre sites may be exempt from this requirement if alternative amenities are provided.

Policy E2.1 states that the Council will continue to make Tree Preservation Orders (TPOs) to protect trees of public amenity value and will require the retention of trees and hedges in development proposals wherever possible.

The Draft Colindale Development Framework emphasises the need to provide a range of useable and accessible open space as a more flexible approach towards open space provision within the area containing significant regeneration and redevelopment schemes, rather than applying a quantitative standard per capita, as suggested by the emerging UDP.

Submitted Documentation

Plan P.11 shows the location of proposed open space, tree planting, hard landscaping and play areas. This plan is to be approved as part of the outline consent. Chapter 4.0 of the ES describes the character of the various areas of open space within the development. The Masterplan Statement contains landscape and ecology strategy, which sets out principles for the treatment of the various types of open space. An Arboricultural Assessment and policy statement on tree retention and removal has been submitted. There is an illustrative plan of Existing Trees to Retain/Remove on page 80 of the Masterplan Statement.

Proposals

The application proposes the reshaping and re-modelling of Grahame Park Estate open space and the provision of three principal new areas of open space linked by the central 'boulevard': the northern park, the circus and the southern park. The scheme includes various types of play areas. One Neighbourhood Area Equipped for Play is proposed within Grahame Park Estate open space. Two Local Equipped Areas for Play are proposed in the northern and southern parks and local areas of play are provided throughout the residential areas.

Assessment

The UDP standards require 53,605 sq m of private amenity space and approximately 20ha of public open space. The scheme incorporates 8.67 ha of public open space and 9.23ha of private and communal space. The proposal does not therefore meet UDP standards for public open space in quantitative terms, but exceeds the standards for private open space. However, these UDP standards are not compatible with the high-density development envisaged in the London Plan for Areas of Intensification such as Colindale. The assessment therefore focuses on the quality, usability and accessibility of the open space to be provided and this is considered an acceptable for such regeneration areas, rather than attempt to

apply broad borough-wide open space standards, which are not particularly relevant in such schemes.

Quality, Usability and Accessibility of Open Space

The overall area of public and private open space will increase from 16.74 ha to 17.9 ha. There will be an overall reduction in public open space including communal gardens and an increase in private garden space. This reflects the concern expressed by residents over unusable and degraded areas of open space. Grahame Park Open Space will decrease in size from 5.79ha to 5.5 (including the Circus). However, the quality of the open space and play provision will be significantly improved and the re-profiling and re-orientation of buildings around the park will increase overlooking and safety. Furthermore the layout of routes through the development means that Grahame Park Estate open space will be more accessible from the rest of the development and immediately surrounding area.

There are specific areas within the estate with confirmed Tree Preservation Orders. The Tree Strategy submitted within the ES states that tree removal and tree planting will be assessed when the detailed applications are submitted, though a commitment is given at this stage to retain Category A and B trees (the categorisation of trees follows guidelines laid down in BS 5837 'Trees in relation to construction'. Category A: Trees whose retention is most desirable; Category B: Trees whose retention is desirable and Category C: Trees which could be retained). Furthermore it states that removal of trees will be combined with replacement with a similar, or better, specimen. Given that this is an outline application, this is considered to be an acceptable approach. Reserved Matters applications will be expected to demonstrate that the proposed layout has maximised opportunities to retain Category A and B trees. Such trees should be relocated when they cannot be retained in situ. Category C trees should also be retained where possible and desirable.

Phase 1a, involves the construction of the blocks on the western and northern edges of Grahame Park Estate Open Space and subsequently the demolition and redevelopment of the area along Grahame Park Way and Lanacre Avenue in the south-west of the development. Grahame Park re-provision (the Circus and to the west of the existing park) is to take place as part of Phase 2a. There is therefore a significant loss of open space in the 1st phase of development. However, this loss should be assessed in the context of the overall improvement in the quality of open space once the scheme as a whole is implemented and the fact that the replacement, higher quality open space is provided at the earliest opportunity possible given the phasing constraints outlined in section 7.2 of this report.

Conclusions

The open space proposals therefore meet the requirements of UDP, London Plan and National Policy in terms of improving the quality and accessibility of public open space. A commitment is given to retain as many trees as possible in line with UDP policy.

4.7.3 Ecology

Key Policy Context

PPG9: Nature Conservation sets government policy on the relationship between land-use planning and nature conservation. The guidance emphasises the importance of locally designated sites and that the presence of a protected species is a material consideration

when a local planning authority is considering a development proposal. The guidance states that local authorities should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the protection of identified habitat.

Policy 3D.12 of the London Plan makes clear that the Mayor will work with partners to ensure a proactive approach to the protection, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy.

Emerging UDP Policy 014 makes clear that the Council will not permit development proposals on, near or adjacent to sites of nature conservation importance which would be directly or indirectly detrimental to their nature conservation value. It goes on to state that the Council will encourage the enhancement of such sites and where necessary will enter into legal agreements to secure this. The Grahame Park Estate open space is identified in Table 5.1 as a Site of Nature Conservation Interest (Local Importance).

Assessment

The ecological impacts of the development are assessed at Chapter 8 of the ES. The Ecological Scoping Report concluded that the only likely significant effect of the development would be the loss of grassland and trees in Grahame Park Open Space which is identified as a Site of Local Importance for Nature Conservation. This conclusion was endorsed by English Nature.

The open space comprises three habitats: amenity grassland, scattered trees and ponds. Approximately 1.4ha (24% of Grahame Park Estate Open Space) would be redeveloped (shown at page 16, Chapter 8, ES.). The area to be lost has been categorised within the ES as having very low intrinsic nature conservation value, though it does contribute to the overall value of the open space. Given the compensation measures proposed in Section 3 of the Ecology Chapter, the loss of this part of the park is not considered significant in nature conservation terms.

The findings of the EIA process have fed into the preparation of the masterplan in order to attempt to preserve and enhance the important elements Grahame Park Estate open space. The Council will require a management plan for Grahame Park Estate open space to be submitted prior to detailed applications. This plan should include measures to maximise the ecological value of the park as set out in Section 3 of the Ecology Chapter.

The scoping study identified the need to survey for great crested newts and common pipistrelle and noctule bats. Surveys undertaken found no evidence of newts in the ponds and no bat roosting sites within trees or buildings to be demolished, though it is recommended that buildings are surveyed prior to demolition. However, survey work determined that bats used vegetation corridors for navigation and foraging. The most importance routes include:

- The Valiant Path, which radiates north and south of the Park; and
- The corridor linking the Park, via the north-west side of Hendon College, to scrub along the railway.

- The master plan has sought to retain routes where possible. However, it will be necessary for the management plan and landscape design for Grahame Park Open Space to demonstrate how existing routes will be enhanced and new routes created.

Conclusions

The proposed development is not predicted to have any significant adverse ecological effects. The habitat creation and enhancement measures, which the applicants proposed to finalise following consultation with residents, will be required to improve the habitat value of the open space and compensate for the loss of amenity grassland. The result is a significant positive environmental and ecological effect.

4.7.4 Air Quality and Noise Assessment

Key Policy Context

PPG24 sets out guidance on the assessment of the implications of new development for noise and air quality levels. The guidance is based on the concept of Noise Exposure Categories (NECs), ranging from A-D, to help local planning authorities in their consideration of applications for residential development near transport-related noise sources. Category A represents the circumstances in which noise is unlikely to be a determining factor, while Category D relates to the situation in which development should normally be refused. Categories B and C deal with situations where noise mitigation measures may make development acceptable. The London Borough of Barnet Stage 3 Review and Assessment of Air Quality concluded that the air quality standards and objectives for NO₂ and PM₁₀ would be exceeded in areas of the borough. The Council therefore designated the whole of the borough an Air Quality Management Area in April 2001. The specific problematic areas are associated with major roads in the borough, in particular the M1 relation to the Colindale area. Consideration of air quality is capable of being a material planning consideration where development is being considered within an AQMA.

Assessment

Chapter 7.0 of the ES assesses the impact of the scheme during demolition and construction as well as once the development is completed.

Demolition and construction activities will have the greatest potential impacts, as some dwellings within close proximity to the work will remain in occupation. During construction predicted daytime noise levels should meet the criteria set out in PPG24 provided attenuation and good management controls are in place. Controls should also be in place to manage dust during construction.

The ES concludes that the increased level of traffic locally will not make significantly increase changes to existing noise and air quality levels. Some areas of the estate currently fall within Noise Exposure Category C of PPG24, meaning that additional insulation may be required. This should be addressed in detailed designs.

Conclusions

The completed Grahame Park Estate will have no greater impact from noise and air quality than exist at present on the Grahame Park site. The applicant will be required to submit and agree a construction methods statement setting out dust and noise controls prior to

commencing construction. It is suggested that a condition should be imposed to require the submission of construction methods statements, which outline such measures.

4.8 Social Environment

4.8.1 Housing

Key Policy Context

National policy on housing is contained in PPG3 and Circular 6/98 and the Government's Sustainable Communities Plan.

The London Plan supports maximising the potential of sites through increasing densities (policies 4B1 and 4B3). Table 4B1 of the Draft London Plan states that developments in urban parts of London within 10mins walk of a town centres should be built to a density of 165-275 units per ha (450-700 habitable rooms per hectare). The Plan sets a target of 50% affordable housing for Barnet, though Policy 3A.8 states that boroughs should apply these targets sensitively when negotiating with developers taking into account individual site costs, economic viability, including the availability of public subsidy and other planning objectives. Paragraph 3A.60 of the Plan states that boroughs should resist the loss of affordable housing without its replacement, unless the regeneration objectives outweigh the strategic need to increase the supply of affordable housing in London. Policy 3A.4 requires all new housing to be built to 'Lifetime Homes' standards and for 10% to be accessible to wheelchair users and encourage a range of housing choices in terms of housing sizes and types.

Policy H5 of the Revised Deposit Barnet UDP states that when considering proposals for residential development of ten or more units the Council will seek to enter into planning obligations with developers to ensure that a minimum of between 30-50% affordable housing is provided, though paragraph 8.3.19 states that in requesting such provision consideration will be given to the viability of the scheme.

Emerging UDP Policy H17 states that in new residential development, there should be a minimum distance of 21 metres between properties with facing windows to habitable rooms to avoid overlooking and 10.5 metres to a neighbouring garden. This distance should be increased by three metres for each additional storey over two storeys. If less distance is provided proposals must include innovative design solutions.

Emerging UDP housing policies also encourage high-density development, especially in accessible locations. Policy H21 states that densities for new residential development should not be lower than 150 habitable rooms per hectare and should be significantly higher in accessible town centre locations.

Emerging UDP Policy GH2 makes clear that the Council will seek to ensure that the mix of dwellings in terms of type and size accords with the needs of the borough's population.

Emerging UDP policy H13 seeks a minimum of 20% of new housing to be of Lifetime Homes standards. However, reasoned justification paragraph 8.3.42 states that if 10% of new housing is built to wheelchair standards then the Council will seek the provision of 10% housing to Lifetime Homes Standards. As the proposed development will incorporate 10% of housing built to wheelchair standards and owing to the financial constraints associated with

this development it is considered reasonable to require 10% of the housing to be designed to Lifetime Homes Standards. It is suggested that a condition be imposed to secure this.

The draft Colindale Development Framework emphasises the need to promote estate renewal and for development to include a mix of types and sizes of housing units. The Framework sets out an indicative mix for the various types of affordable housing across Colindale (Appendix A, pg3) and a target of 50% affordable housing across the area.

Current Housing Profile

Grahame Park Estate currently comprises 1,777 residential units (753 flats, 494 maisonettes and 530 houses). Of these units, 1,365 are social rented and 412 are privately owned. The housing survey undertaken in 2001 identified a number of problems including overcrowding and some instances of under-occupation and families living in unsuitable accommodation and accommodation in a poor state of repair.

Proposed Housing Profile

Of the existing dwellings, 463 will be retained in the redeveloped Grahame Park and 2,977 new homes will be constructed. The overall housing mix will comprise 1,977 private units for sale and 1,000 social rented and affordable units.

Table 2: Mix of Affordable Housing

Affordable	Unit Size	Unit No	Hab Rooms	% total affordable units
Flats	1 bed	222	444	22%
	2 bed	382	1,146	38%
	3 bed	63	315	6%
Maisonettes	3 bed	28	140	3%
Houses	3 bed	277	1,385	28%
	4 bed	28	168	3%
Sub Total		1,000	3,673	

Table 3: Mix of Market Housing

For Sale	Unit Size	Unit No	Hab Rooms
Flats	Studio	255	255
	1 bed	605	1,210
	2 bed	1,104	3,312
Houses	3 bed	13	65
Sub Total		1,977	4,842

Table 4: Overall Size Mix

Unit Size	Units No	Percent
Studio	255	8%
1 bed	827	28%
2 bed	1,486	50%
3 bed	381	13%
4 bed	28	0.9%
	2,977	

Assessment

Table 4.1 of the London Plan sets a density range of 200 – 450 habitable rooms per hectare for this type of site. The average density of the proposed redeveloped estate is 100 units per hectare or 300 habitable rooms per hectare, so is within the range recommended by the London Plan. The density of the existing estate is about 48 dph, so the density will approximately double.

Policy H5 of the Barnet UDP requires new schemes to comprise 30-50% affordable housing. The London Plan sets a target of 50% affordable housing for Barnet. The proposal comprises 34% affordable housing (by units) and therefore meets the requirements of the emerging Barnet UDP but does not meet the London Plan target. However, Policy 3A.8 of the London Plan states that boroughs should apply targets sensitively when negotiating affordable housing in individual schemes to take account of individual site costs, economic viability, including the availability of public subsidy and other planning objectives. Grahame Park Estate redevelopment will provide significant benefits through the replacement of poor quality, degraded and stigmatised housing stock without public subsidy. A critical factor also is that the scheme will achieve Government Decent Homes Standards without public subsidy or Housing Corporation Grant. There is a significant body of research undertaken by ODPM and organisations such as Joseph Rowntree Foundation, which highlights the problems of over concentrations of social rented housing and the benefits of providing a more mixed tenure profile through estate renewal. Furthermore, the scheme will provide additional benefits such as qualitative improved community and retail facilities, improved open space and play facilities, employment opportunities in construction and other related regeneration benefits. There is, therefore a clear case for applying the Barnet target flexibly in this instance. Furthermore, if considered in terms of habitable rooms, the proposals result in 43% affordable housing.

Policy 3A.4 of the London Plan and emerging UDP Policy GH2 require new development to offer a range of housing choice in terms of housing sizes and types. The proposal comprises a balanced housing mix ranging from studios to 4 bed units, taking into account needs identified in the housing needs survey of 2001. The proposed social housing mix for Grahame Park Estate broadly complies with the mix for social housing across Colindale, though there is an under-representation of 4 bedroom units and an over-representation of 1-bed units.

The redevelopment will result in a reduction in the total number of social rented units on the site from 1,365 units to 1,000 units. Although there is a general presumption against the loss of affordable housing in para 3A.60 of the London Plan, the development will result in considerable regeneration benefits and can therefore be regarded as an exception to this general presumption.

Conditions will be imposed to ensure that proposals comply with policies in the London Plan, which require all new housing to be built to 'Lifetime Homes' standards and for 10% to be accessible to wheelchair users.

4.8.2 Community Facilities

Key Policy Context

London Plan Policy 3A.17 states that planning applications should promote the objectives of the NHS Plan.

Policy CS2 of the Revised Deposit Barnet UDP states that the Council will seek to enter into planning obligations, where appropriate, in conjunction with new developments, to secure the provision of community and religious facilities. additional demand.

Submitted Documentation

Chapter 11 of the Environmental Statement sets out an audit of existing community facilities, and a demographic assessment which sets out the likely impacts on facilities as a result of increased population and changing population profile and sets out proposed floorspace of community facilities.

Table 5: Proposed Non Residential Land Uses

Unit	Floorspace
Library	710
Health Centre	980
Wingfield Nursery	670
Area Housing Office	325
Community Centre	1,100
Welfare Centre	1,160
Post Office	120
Log Cabin (children's nursery)	182
Citizens Advice Bureau	100
TOTAL	5,347

Assessment

It is estimated that the population of Grahame Park Estate will increase by around 3,000, which will create additional demand for community facilities. The proposed scheme re-provides the majority of existing community facilities on a 'like-for-like' basis in terms of floorspace, with little quantitative increase. However, the existing facilities are poorly designed and do not make efficient use of space. The new provision will be modern, efficient, more viable and capable of meeting the additional demand from increased population.

The ES refers to the Department of Health 'red book' which sets out floorspace standards for GP practices. However, one of the objectives of the NHS Plan is to provide a wider range of services within community health centres. These standards no longer apply and underestimate the amount of space required. The PCT has indicated that they wish to take advantage of the opportunity presented by the regeneration of Grahame Park to create a facility capable of accommodating increased demand from the Colindale area and which will provide a range of services in line with the NHS Plan. They are therefore seeking a facility of 2,000 sqm, which along with the proposed provision at RAF East Camp will serve Colindale as a whole.

Consequently the application proposes a facility of 2,000 sqm, with its creation funded jointly by the applicant and PCT. It is considered acceptable that if the PCT are unable to providing funding at the time required, then alternative sources of funding will be investigated, or the replacement facility of 980 sqm provided.

Conclusions

The proposals with regard to health care meet the requirements of the Primary Care Trust. Although there will not be an increase in floorspace for other community facilities, the quality of provision will be improved and the layout will be re-designed to enable more efficient use of space to accommodate additional demand and the provision of contemporary services to the community. In addition, the Colindale Development Framework adopts a more holistic and comprehensive approach towards community facilities rather than an incremental site-by-site approach. Facilities serving the wider area of Colindale are therefore key objectives within the Framework to which the Choices for Grahame Park scheme makes a significant and important contribution.

4.8.3 Retail

Key Policy Context

National guidance on retail is set out in PPG6 and draft PPS6.

London Plan Policies 3D.1 to 3D.3 and emerging UDP policies GTCR1, TCR1 and TCR19 emphasise the need to concentrate retail in existing centres. The Concourse in Grahame Park Estate is identified as a Local Neighbourhood Centre in Map 11.1 and Table 11.1).

The draft Colindale Development Framework (Phase 1) suggests the creation of new linear centre along Grahame Park Way between the tube station and the RAF Museum, with a concentration or new heart of a town centre at the junction of Lanacre Avenue/Grahame Park Way and the Middlesex University site.

Proposals and Assessment

Current retail provision in Grahame Park Estate totals 2,712 sq m. This is provided within small units at the concourse, which are very inward looking and merely serve the estate. The total retail floorspace will marginally increase to 2,807 as part of the redevelopment, including a 1,395-sqm supermarket and a number of smaller units. It is not considered therefore that any formal retail assessment is required as this falls below the Government's pr Mayor of London's referral criteria of 2,500 sqm.

Retail provision is to be located within two centres. The larger centre, which is proposed at the junction of the southern boulevard and Grahame Park Way is to include the supermarket and the secondary centre is to be located centrally between the junction of the southern boulevard. A retail unit is also proposed at the junction of the northern boulevard and Fields Mead. The location of retail is therefore in line with the Colindale Development Framework, which proposes a linear centre along Grahame Park Way. Furthermore, moving some of the retail provision to the south of the development at the interface with the proposed redevelopment at RAF East Camp will improve the viability of the units and potentially generate a better synergy of commercial and district town centre uses

The ES concludes that no retail impact assessment is required given the proposed modest increase in retail floorspace.

Conclusions

The retail proposals accord with the main objectives of national retail policy contained in PPG6 and draft PPS6 by promoting retail as part of a mixed-use scheme, providing retail to serve the local community and reducing dependency on the car. The location of retail proposed is in accordance with the Colindale Framework, although outside of the Neighbourhood Centre identified in the emerging UDP. The small amount of increased retail floorspace would not have any significant effects on the vitality and viability of nearby established nearby town centres. Furthermore there is clearly a need for increased retail floorspace to serve the significant new population and a large new sustainable community.

4.8.4 Education and Childcare

Key Policy Context

Policy 3A.21 of the London Plan states that boroughs should monitor the demand for pre-school, primary and secondary provision. Policy 5.3 states that highest importance should be given to affordable housing and transport improvements, with priority to learning, skills and health facilities.

Emerging UDP Policy CS8 states that if a proposed residential development is situated in an area where there is a shortage of school places, or will create a shortage of school places, the developers will be required to enter into a planning obligation with the council to meet the extra educational costs incurred by the community as a result of the development.

The draft Colindale Development Framework (Phase 1) emphasises the need to meet demand for additional school places, provide nursery places for all 3 and 4 year olds and provide accessible health care facilities that meet local needs. The document also endorses the approach to calculating demand for schools places set out in LB Barnet SPG: Educational Needs Arising from New Development as a first stage. However, for very large significant residential developments a higher-level strategic assessment of education provision is also required. It also states that there is limited capacity in local primary schools and no capacity in local secondary schools to meet significant additional demand.

Assessment

The ES states that there is estimated to be around 1,690 children in Grahame Park Estate today (323 preschool, 293 nursery age and 383 secondary age). Based on the formula set out in the Barnet SPG, which uses an approach developed by the London Research Centre and is widely used by boroughs in London, the redeveloped Grahame Park would accommodate 617 additional primary (3-11) and 180 additional secondary places.

There is presently under provision of nursery places within the borough. Although the net capacity figures show some capacity in primary schools, this will not necessarily be available at entry level and is likely to be taken up as pupils move through the school. Furthermore, many schools in the area are selective or religious schools, which would not necessarily be open to all children at Grahame Park Estate. There is therefore unlikely to be significant capacity in local primary schools. Secondary schools in the area have no capacity and are in fact oversubscribed.

Since the submission of the current application, LB Barnet has undertaken further work to update the approach to calculating demand for school places based on 2001 census data and has been adjusted to take account of over-occupancy of dwellings in the existing estate. This approach results in the following child yield:

Nursery 3 –4	64
Primary 5-10	194
Secondary 11-15	74
TOTAL	332

Conclusion

Contributions will be sought in relation to the additional school places arising from redevelopment of Grahame Park Estate in line with the Councils up-dated work on child yield from new development and revised costs of providing school places. Appendix 1 Draft Heads of Terms sets out the level and timing of contributions to be secured through the S106 for education provision.

4.8.5 Employment

Key Policy Context

The Draft London Plan requires the creation of 500 jobs within the Colindale Area for Intensification.

The proposals for Grahame Park Estate entail the re-provision of existing community facilities on a 'like-for-like' basis. The exception to this is the Primary Care Centre, which will be expanded to accommodate additional demands. The proposals will therefore only result in a marginal increase in permanent jobs. The proposal will also create construction jobs over the 10-12 year build programme.

Conclusion

Although the scheme does not contribute significantly to increasing permanent job opportunities, this should be balanced against the other regeneration benefits of the scheme and reflect the fact that this is primarily an existing residential estate undergoing a renewal and intensification programme as opposed to a cleared brownfield site. There is scope for the proposed Community Development Trust and/or wider regeneration partnerships to deliver appropriate training opportunities to maximise local employment.

4.9 Sustainability

The development meets a number of sustainability objectives in line with the Government's Sustainable Communities Plan, including making efficient use of brownfield land, promoting a mix of local services to reduce the need to travel where possible, improving the local environment and housing stock and promoting a balanced community. The Sustainability Statement, submitted in support of the application, sets out specific sustainability proposals and identifies the following priority issues for Grahame Park Estate:

- Community Involvement in Energy and Sustainability Planning
- Energy consumption in buildings
- Building design and construction

- 14.2.1.1 • Waste management
- Water consumption
- Transport
- Land use and urban form
- Biodiversity
- Health and well-being
- Enterprise and education

The document sets out a 'policy' in respect of each of these issues. However, many of the measures designed to meet these policies cannot be enforced through the planning system. It is therefore suggested that a condition is imposed requiring the development to meet Eco-Homes standard 'good'. The issues assessed as part of the Eco-Homes rating include: energy; water; pollution; materials; transport; ecology and land use; and health and well-being, therefore covering most of the priority issues listed above. Under Eco-Homes credits are awarded where specific performance levels are achieved in each category. The rest of the priority issues can be addressed through approval of the master plan and through the S106 Agreement. The assessment below sets out how the policy objectives might be achieved.

Community Involvement in Energy and Sustainability Planning – a commitment is given in the Sustainability Statement to involving community members in the decision-making process for sustainability issues.

Energy Consumption in Buildings – it is proposed in the Sustainability Statement that consideration will be given to developing a low carbon community heating system for the redevelopment. Credits are awarded under Eco-Homes for measures to reduce energy consumption.

Waste Management – a commitment is given in the Sustainability Statement to reduce waste sent for disposal during demolition and to minimise household waste generation. A construction management strategy will be submitted and approved by the local planning authority prior to construction. This should set out how the proportion of waste recovered for re-use will be maximised. It is recommended that a condition be imposed to ensure the provision of recycling facilities.

Building Design and Construction – the Sustainability Statement sets out an aspiration that all new housing will achieve an Eco-Homes rating of Very Good. Given the financial constraints of the development it is considered reasonable to require all new housing to meet a minimum standard of Good, with an aspiration to exceed this standard wherever possible. This will be secured through a planning condition.

Land-use and Urban Form – the stated objectives in the Sustainability Statement are to make best use of land available, minimise impact on green and open spaces and to develop built forms that provide comfortable outdoor spaces, minimise building heat loss and take advantage of ambient energy heat sources. The scheme makes efficient use of land and minimises impact on green spaces; this will be secured through approval of the masterplan. Subsequent reserved matters applications will ensure that building orientation maximises

passive solar gain wherever possible. Minimising heat loss from buildings will be addressed through the Eco-Homes assessment.

Biodiversity – the Sustainability Statement includes a commitment to protect and enhance the biodiversity value within the estate and the contact with and enjoyment of biodiversity by local residents. The detailed design of Grahame Park Open Space will include ecological enhancement measures in accordance with the mitigation measures set out in Chapter 8 of the ES.

Health and Well-Being – the proposed redevelopment will have significant physical and social regeneration benefits, will improve the quality of the housing stock and the quality of local services including health.

4.10 Transport and Movement

Transportation and highways issues are key factors in the assessment of this and other similar high-density regeneration schemes within the Colindale area and the borough generally. Significant issues need to be addressed for the Grahame Park proposals and the impact on the wider area to ensure proper movement and accessibility can be achieved and increased accessibility and sustainable movement patterns for the large population increase. In particular, infrastructure investment in adjoining highways (i.e. Grahame Park Way/Aerodrome Road, in junctions (A41 and A5), public transport (Colindale Tube Station and, interchange facilities and better bus services) and pedestrian/cycling facilities, are vital to ensure that the area can function effectively.

The comprehensive redesign of the Estate will provide significant transport and movement improvements:

- More direct access for vehicles and buses
- Pedestrian routes will have improved lighting, signage and wayfinding will be simplified
- All roads will have footpaths and more pedestrian crossing facilities will be provided
- Adequate parking will be provided and on-street parking can be controlled and regulated
- Physical condition of footpaths and parking areas will be improved

4.10.1 Key Policy Context

National policy guidance is provided in PPG13, which seeks to discourage the use of the private car.

London Plan Policy 3C1 Integrating Transport and Development emphasises the need to improve public transport capacity and accessibility where it is needed, particularly in areas designated for development and regeneration, including Areas for Intensification.

Policy M1 of the Revised Deposit Barnet UDP states that the Council will expect that major development proposals with the potential for significant trip generation proposals should be in locations, which are, or will be made accessible by a range of modes of transport.

Emerging UDP Policy M3 states that for significant trip generating development, the Council will require the occupier to develop implement and maintain a green travel plan.

Emerging UDP Policy M4 states that the Council will expect developers to enable and encourage access to new developments by pedestrians and cyclists.

Emerging UDP Policy M5 states that the Council will require new developments to provide or fund adequate facilities for the safety and convenience of cyclists and pedestrians both on and off-site.

Emerging UDP Policy M7 states that where appropriate the Council will expect development to contribute to achieving improvements to public transport services, including better links, interchange facilities and waiting areas.

Emerging UDP Policy M10 states that where it is considered necessary as the result of development, the Council may introduce measures to reduce the effects of traffic on the environment and the community. The Council will expect the cost of implementing such measures to be funded by the relevant development through the use of planning obligations attached to planning permissions.

Emerging UDP Policy Parking states that the Council will apply parking standards and policies to regulate parking in the borough in order to restrain the growth of car use and minimise the inconvenience and danger caused by indiscriminate parking. Appendix 7.1 of the emerging UDP sets out maximum parking standards.

In support of the UDP policies, a key objective of the draft Colindale Development Framework should be to improve access to the area and this will require the enhancement of public transport facilities and the provision of appropriate highway infrastructure.

4.10.2 Transport Demand Estimates

Introduction

The planning application for the Choices development was accompanied by a Transport Assessment (TA) undertaken by Transportation Planning (International) (TPI). This assessment described the regeneration proposals, the green transport initiatives, and assessed the transport impact of the Choices proposal on its own and in combination with the RAF East Camp proposals.

In line with the objectives of the Colindale Development Framework, there is a need to ensure a consistent and comprehensive approach to assessing the transport impact of both Choices and RAF East Camp development proposals. There needs to be a consistent approach to aspects such as trip rates and parking standards. The impact of the developments on the transport networks was assessed and measures to provide sufficient capacity and level of service identified by Choices.

This section discusses the conclusions of this assessment.

Trip Generation

The transport assessment has been undertaken using trip rates for all modes that are considered to be appropriate for the size and tenure of the dwellings proposed in the Choices development. These trip rates have been compared against comparable data from national and London wide databases and also compared against locally collected data.

These trip rates have been applied to the net change in the number and type of dwellings proposed in Grahame Park.

Affordable dwellings are shown to have higher bus trip rates and lower car trip rates than private tenures and this is reflected in the trip generation estimates. The Choices development proposes a large increase in the number of private dwellings and a reduction in the number of affordable dwellings. This leads to a relatively small increase in bus trips compared to the present day.

The transport assessment has examined the impact of the generated trips on the local transport networks and the main issues are summarised in the following sections. Further details of trip generation rates and analysis are set out in Appendix 4.

4.10.3 Parking

Currently the area is largely uncontrolled and there is extensive on-street parking predominantly along Aerodrome Road and parts of Grahame Park Way, indicating that parking demand exceeds off-street supply. On-street parking should be reduced and controlled, to enable improvements to be made for other road users, especially pedestrians and cyclists.

The existing parking at Grahame Park consists of garages, forecourt parking, car parks and parking in other areas such as on verges. A number of factors make it difficult to provide an accurate figure for the existing parking supply, but Choices have estimated the number to be about 1,100 for the current stock of 1,770 homes, a ratio of 0.62 spaces/dwelling.

Due to the proximity of Colindale station and uses such as the Police Training Centre (Peel Centre), there will be pressure on parking in the proposed new developments by non-residents vehicles.

Residential car parking provision and demand in Colindale needs to be balanced in order to create a sustainable and viable area. The parking standard should strike a balance between the trips generated by car against under provision of parking.

The current Borough maximum parking standards are shown in Table 9 and adopting these would require the provision of considerably more than 1 space per dwelling. The relevant maximum parking standards within the London Plan are 1.5 – 1 space per unit for terraced houses and less than 1 space per dwelling where developments are mostly flats.

Table 9: Borough Maximum Parking Standards for Residential Development

Number of bedrooms per dwelling	Number of car spaces per dwelling (maximum)
1	1
2 or 3	1.5
4 or more	2.0

Extensive negotiations have been undertaken to agree a suitable parking provision and layout. Initially, a parking provision of 0.75 spaces per dwelling (75%) was proposed. However during negotiations, the Council asked for a higher level of provision. A position has been reached providing 0.93 spaces per dwelling (3,209 spaces for 3,440 dwellings) and this is considered acceptable and conforms with UDP policy M14 and Appendix 7.1. It is a significantly better provision than on the existing estate.

The number of spaces proposed for each land use is outlined in Table 10 below.

Table 10: Parking Numbers for choices by Land Use

Land Use	Number of Spaces
Residential	3,209
Retail	52
Library	6
Nursery	12
Community Centre	22
Health Centre	22
Welfare Centre	23
Churches	20
Total	3,366

The residential spaces will be provided with a combination of secure off-street parking, basement parking and on-street parking. The number of spaces has been increased by providing more on street parking bays along the public highways within Grahame Park and on part of Grahame Park Way.

The on street parking, which will provide over 2,300 spaces, will be in purpose built bays adjacent to the highway providing parallel and 90 degree parking.

To ensure that these are available to local residents, the implementation of a Controlled Parking Zone (CPZ) within the estate will be necessary. The developers have agreed an appropriate contribution towards the cost of its implementation, and this is a condition for planning approval.

4.10.4 Highway Network

The internal highway network in the Grahame Park Estate is to be redesigned to compensate for the poor accessibility problems in the area. This represents a significant planning benefit in terms of the local highway network.

One of the major problems with the current internal road network is the lack of through routes for vehicles, making it difficult to travel directly through the estate from either north to south or east to west.

The Choices proposal will completely reorganise the internal highway network. The north-south alignment of Lanacre Avenue will be relocated to the east to form a new Boulevard, which will form a strong central axis to the masterplan. At the northern end of the Boulevard will be a central circus, an area of high quality open space with a vehicular route around its eastern side. From the central circus, the main north-south axis connects to Field Mead at the northern end of the site. The masterplan also incorporates new east-west connections with routes connecting from the Boulevard west to Great Strand and Corner Mead. These connections will greatly improve vehicle movement in the area, by removing the need to travel along Grahame Park Way, and removing traffic from the Aerodrome Road roundabout.

The realigned junction of Lanacre Avenue and Grahame Park Way will be signal controlled and provide pedestrian crossing facilities across Lanacre Avenue and Grahame Park Way.

The highway impact assessment showed that minor improvements at locations such as the Bunns Lane/Grahame Park Way junction, would be required to accommodate the Choices traffic. The introduction of parking controls on the Aerodrome Road/Grahame Park Way roundabout would improve the capacity of this junction. Choices have agreed to fund local road improvements with a Section 106 agreement. The highway impact assessment has found that the additional traffic from the Choices development may lead to small increases in vehicles elsewhere, such as at the A41/Aerodrome Road junction, but these are not sufficient to require improvements on their own. However, when the proposals at RAF East Camp are considered, the cumulative impact of the two developments would cause unacceptable increases in congestion and delay to traffic if the road network remains unaltered. Improvements are therefore proposed.

In order to improve the capacity of the local road network, a scheme has been developed that would widen the Aerodrome Road approach to the A41 Watford Way junction to provide two approach lanes. This involves moving the southern kerb line approximately 4m south, with the taper starting approximately 100m from the stop line. The new carriageway would become the westbound lane, while the existing carriageway would become the two eastbound lanes, with a separate right turn lane.

This proposed improvement would allow the junction to operate within capacity at peak times with both developments in place and represents a significant junction improvement and operating conditions compared to the existing situation. This would provide additional capacity, which would offer relief to other junctions within the area, such as the Edgware Road/Colindale Avenue junction, by diverting traffic away from these junctions to the improved A41/Aerodrome Road junction.

No significant improvement at the Edgware Road/Colindale Avenue junction is possible without taking land and property. A small improvement to the Aerodrome Road/ Grahame Park Way junction will provide sufficient capacity for both developments.

It is a condition of planning permission that significant S106 contributions to this improvement are provided from both developments.

4.10.5 Pedestrians

A number of measures are proposed to address the existing problem of barriers to movement within the estate and to create a greater sense of personal safety for pedestrians when walking on the internal roads.

To conform to UDP policy M4, Choices aim to enable and encourage pedestrian movements to, from and through the estate. It will serve to encourage residents and visitors to walk to public transport links, amenities and facilities both on the estate and in the surrounding area.

The proposals will also assist walking from the estate to local destinations such as the rail stations, RAF museums and retail centres by creating pedestrian desire routes.

Footways will be present on all roads within the site. Good quality lighting will be provided to improve the walking environment for pedestrians. Traffic management measures on internal roads, such as traffic islands and road narrowings, will also help to make pedestrians feel safe and less intimidated by traffic flows.

Pedestrian crossing points will be provided on all the major roads within the site and the new signal junction at the Boulevard/Grahame Park Way will incorporate pedestrian facilities. Pedestrian routes with signing will be established to aid Safer Routes to School initiatives. Signing to the station from the Grahame Park Estate will be improved to assist pedestrian movement.

External roads bordering the site, such as Grahame Park Way, will be provided with improved pedestrian crossing facilities on all the primary pedestrian routes. Choices also propose to provide a zebra crossing to replace the pedestrian underpass at the junction with Corner Mead.

Pedestrian movements will increase across the Bunns Lane Bridge and Choices have agreed to a contribution towards improvements at this location.

In the cumulative assessment, pedestrian movements under the railway bridges at the eastern end of Aerodrome Road will increase. This section of road has substandard pedestrian facilities and while the major increase in potential pedestrian movement will be from the proposed RAF East Camp scheme. A contribution to pedestrian facilities has been agreed with Choices, the applicant for Grahame Park Estate. All of these measures are secured through planning conditions at the detailed planning stage.

4.10.6 Cycling

To conform to UDP Policy M4, Choices will provide significant improvements to assist cycling in the area. The regenerated Grahame Park Estate will provide full permeability and improved facilities for cyclists.

At present cycle parking facilities are limited in the estate. The provision of secure cycling parking in locations such as commercial and community areas within the reconfigured estate will help encourage more residents to cycle. Secure cycle stands or shelters will be provided at non-residential buildings to encourage work and leisure trips to be made on bicycle.

The existing cycle parking facilities at Colindale station are limited to 6 or 7 Sheffield stands, which are awkwardly positioned on the footpaths outside the station. The regeneration of the Grahame Park Estate is likely to lead to increased demand for cycle parking at the station.

The improvements to the cycle parking facilities at the station and other commercial locations together with the secure parking at residential units should be secured by conditions at the detailed planning stage.

4.10.7 Public Transport

There is a need to comprehensively review all public transport provision and existing infrastructure to ensure that the impact of this proposal, combined with other 'pipeline' schemes such as RAF East Camp, can be dealt with holistically and that contribution can be made to significant infrastructure improvements in the Colindale area. This includes:

- Redevelopment and enhancement of Colindale Tube Station
- New bus provision
- Better links to Mill Hill Broadway

Buses

The redevelopment of Grahame Park and the amendments to the road network provide significant potential for the improved routing of buses through the area. Discussions have been undertaken with London Buses and a number of options have been considered.

The masterplan road network has been designed to ensure significant improvements are made to the local bus network. Currently, route 303 doubles back along the southern section of Lanacre Ave to serve Quakers Course. The proposed new spine road will allow this route to pass directly through Grahame Park, providing improved access for residents of Grahame Park.

High quality bus stops and shelters will be provided at locations on or around the Grahame Park Estate that will mean every resident will be no more than 200m from a bus service. The educational, commercial and community buildings on the estate will also benefit from proximity to the bus services.

These proposals should be secured by planning conditions at the detailed stage.

In addition to some extra bus passengers, some of the additional tube users from the northern section of the estate would use the 204 and 303 bus routes to get to Colindale station.

Recent improvements to the 204 service with increased frequency and the use of double deck vehicles mean that TfL are confident that there is sufficient bus capacity to accommodate the increase in trips generated by the Choices development.

However, the cumulative impact of both Choices and RAF East Camp needs to be addressed to ensure there are no capacity problems. Therefore, service frequency along 204 and 303 corridors would need to be increased.

There are no automatic plans within TfL at present to increase the frequency of these services and therefore TfL are seeking a contribution from developers to introduce this improvement.

To conform to UDP policy M7, Choices have agreed a S106 contribution towards bus service improvements.

Northern Line

In order to assess the worst-case scenario in terms of impact on the Northern Line, it is assumed that all the rail passengers will go to Colindale station. In reality however it is likely that rail patronage will be split between Colindale and Mill Hill Broadway stations.

Although there are a number of areas where capacity problems can exist within an underground station such as the platforms and escalators, the effective capacity is typically dictated by the capacity of the access gates within the ticket hall. There are four ticket gates at Colindale Station. The flow at each of these gates can be reversed to accommodate tidal flows. For the operation at Colindale it is assumed that during the AM peak three gates will accommodate entries and one will accommodate exits. In the PM peak hour when the flows are more even it is assumed that there will be two gates in each direction.

With the additional passenger flows generated by both developments together, the access gates will operate within capacity and accommodate passenger growth.

Choices have agreed to contribute towards interchange improvements at Colindale Station as part of the Section 106 agreement.

4.10.8 Green Travel Initiatives

UDP policy M3 requires developers to develop, implement and maintain a green travel plan to encourage the use of transport modes other than the car. The Council requires Choices to adopt a Travel Plan, which conforms to the scope of issues set out in the latest Government guidance. Travel Plan components should include:

- Setting objectives and targets
- Measures to promote and facilitate public transport use, cycling and walking
- Promotion of practices/facilities that reduce the need for travel
- Monitoring and review mechanisms
- A Travel Plan coordinator must be appointed as part of any Outline Planning permission.
- Provision of travel information
- Marketing

Choices have provided the Heads of Terms for the Travel Plan as part of the planning application, which describes the potential measures, which could be used, and these generally conform to national guidance.

The Travel Plan will need to be worked up in more detail and agreed with the Council and implemented as part of the section 106 Agreement. Its provision needs to be secured through a suitable planning condition.

4.10.9 Safer Routes to School

Increasing concerns over road safety problems and traffic congestion fuelled by the growth in the use of the private car for school journeys has led to a major initiative by central and local government to promote the use of alternative modes. The measures advocated in the Government's *'School Travel – Strategies and Plans'* and its *"School Travel Resource Pack"* are all relevant for the two primary schools and the secondary school in Grahame Park.

Most of these measures are concerned with the task of encouraging and facilitating the use of alternative modes to the private car. Special funding is available for example to provide:

- cycle storage;
- cyclist and pedestrian training;
- car share and bus information;
- educational materials;
- route maps;
- promotional material; and
- changes to school grounds

Despite the progress made with Safer Routes to School (SRtS) at the Orion (Grahame Park) and the Blessed Dominic Junior Schools and the St James's High School, a continued programme of school travel plan development and monitoring will be necessary as the Grahame Park changes occur. This would be undertaken jointly between Choices and the local authority.

In addition to the educational/promotional/awareness and on site measures to be addressed, careful and detailed consideration has been given to the physical environment around each school and in particular how this can be improved to make each school safer to reach. The Choices planning application provides an excellent opportunity to improve walking and cycling links to the schools and to manage the areas around the schools in a safer manner.

In the case of the Orion and Blessed Dominic schools, a larger entrance zone is to be created set back from the proposed Boulevard. Part of this area will be available for teachers' parking but there will be no provision for parents to drop off or collect their children. Signing and lining schemes will be introduced to discourage parking and dropping off/collection within the school zone along the Boulevard.

The High School should benefit from the increase in pedestrian and cycling routes to its west side and the generally throughout the Grahame Park area.

These proposals should be secured by means of a planning condition.

4.11 Section 106 Contributions

To alleviate the increased demand due to the development proposal, extensive negotiations have taken place with the developer regarding improvements to the transport networks in the area.

The timing and level of contributions to be secured is set out in Appendix1: Heads of Terms.

Appendix 3 – National Planning Policy Site Maps