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OXFORD CITY COUNCIL

MAIN REPORT: WEST BARTON 13/01383/OUT EAST AREA PLANNING COMMITTEE - TUESDAY 24 SEPTEMBER 2013

Agenda No Item

3. **Land West of Barton North of A40 and South of Boundary Brook: 13/01383/OUT**

The Head of City Development has submitted a report which details an outline application (seeking means of access) for the erection of:

- a maximum of 885 residential units (Class C3)
- a maximum of 2,500 sqm gross Class A1, A2, A3, A4 and A5 uses (with a maximum of 2,000 sqm gross foodstore Class A1)
- a maximum of 50 extra care housing units
- a maximum of 7,350 sqm GEA hotel (Class C1)
- a maximum of 3,000 sqm GEA Class D1, D2 floorspace (community hub and primary school)

In development blocks ranging from 2 to 5 storeys with associated cycle and car parking, landscaping, public realm works, interim works and associated highway works.

Officer recommendation: That the Committee resolves to GRANT planning permission subject to the satisfactory completion of an accompanying legal agreement and to delegate to the Head of City Development the issuing of the Notice of Permission upon its completion. Should however the Community Infrastructure Levy (CIL) charging schedule come into force prior to the completion of the legal agreement, then it shall exclude any items included on the list of infrastructure published in accordance with Regulation 123 of the CIL Regulations.
If the required legal agreement is not completed within a reasonable period, then the

Committee is recommended to delegate the issuing of a Notice of Refusal to the Head of City Development on the grounds that the development is not adequately mitigated.

Subject to the following conditions and legal agreement.

Conditions

1. Time limits for commencement.
2. Approved plans and documents
3. Reserved matters applications.
4. Scheme of enabling infrastructure works.
5. Phasing of development.
6. Materials
7. Amendment to Design Code.
8. Design Code Review
9. Restrict non - food sales at supermarket
10. Landscaping / public realm.
11. Landscaping implementation.
12. Tree pits.
13. Tree protection plan.
14. Landscape management plan.
15. Dimensions to sports pitches
16. Withdrawal of householder permitted development rights.
17. Lifetime homes standards.
18. Car parking standards.
19. Cycle parking standards.
20. Servicing and deliveries.
21. Access.
22. Highways: Travel Plans.
23. Public transport provision.
24. Construction Environmental Management Plan.
25. Sustainability and energy strategy through district heating system.
26. Site wide surface water drainage, to include SUDs.
27. Phased surface water drainage scheme.
28. Foul water drainage scheme.
29. Flooding.
30. Access to watercourse for maintenance.
31. Ground contamination and remediation.
32. Air quality: monitoring.
33. Piling.
34. Petrol / oil interceptors.
35. Noise and vibration: attenuation.
36. Mechanical plant.
37. Cooking smells.
38. Protection of Sidlings Copse
39. Grassland mitigation.
40. Training and employment strategy.
41. Procurement of contracts.
42. Repeat ecological surveys.
43. Habitat creation.
44. Archaeology.
45. Public art.
46. Linear park.
47. Adult and school pitches to be constructed and maintained to Sport England guidelines.

Legal Agreement.

A comprehensive legal agreement would accompany the planning application if granted permission. The main elements of the agreement are:

1. Minimum of 40% of all residential units to be affordable housing to rent, with a minimum of 35% affordable in each phase of development.
2. Management of public open spaces by Barton Oxford LLP, (or adoption by local authority).
3. Financial contribution of £7,390,000 to Oxfordshire County Council for the provision of buildings to accommodate 1.5 form entry primary school academy, (or to be delivered direct by applicant).
4. Joint use agreement for use of school buildings and shared use of playing fields as "community hub".
5. Transfer of 1.48ha. of land to Oxfordshire County Council on 125 year lease for provision of primary school.
6. Financial contributions of up to £519,750 plus £10,000 costs to Oxfordshire County Council for the provision of temporary primary school facilities within the catchment area of the development, plus £220,000 for transport facilities if located outside catchment area.
7. Financial contribution of £3,104,595 to Oxfordshire County Council towards secondary school and sixth form facilities to serve the development.
8. Financial contribution to Oxfordshire County Council of £146,390 towards Special Education Needs (SEN).
9. Provision of "early years" facilities either with the community hub, or as a financial contribution of £69,350 to Oxfordshire County Council.
10. Financial contribution of £88,500 to Oxfordshire County Council for improvements to Headington Library.
11. Provision of day care facilities either within the community hub, or as a financial contribution of £163,500 to Oxfordshire County Council.
12. Financial contribution to Oxfordshire County Council of £38,500 towards waste recycling facilities.
13. Transport improvements to A.40 access and A.40 corridor works to value of £1,867,758.
14. Financial contributions to Oxfordshire County Council for other highways works: noise reduction surfaces, £391,644; A.40 traffic calming, £34,187; improvements to existing Barton underpass, £110,000; access to Barton Village Road, £305,598; access to Harolde Close, £105,133.
15. Financial contribution to Oxfordshire County Council of £82,600 to promote Controlled Parking Zone across site.
16. Financial contribution to Oxfordshire County Council of £3,000 to promote traffic Regulation Order (TRO) for 50mph speed limit to A.40.
17. Financial contribution to Oxfordshire County council of £709,722 for junction improvements at Headley Way / Marston Road / Marsh Lane / Cherwell Drive.
18. Financial contribution to Oxfordshire County Council of £15,727 to amend road markings at Green Road roundabout.
19. Financial contribution to Oxfordshire County Council of up to £850,000 to subsidise new / extended bus services.
20. Financial contribution to Oxfordshire County Council of £30,000 towards bus shelters.
21. Financial contribution of £203,161 to City Council for indoor leisure facilities.
22. Provision of public rights of way (as foot / cycle route) along southern side of development site; along linear park to link to Play Barton; and as diversion of existing right of way east of electricity sub station.
23. Financial contribution of £10,000 to City Council towards link between linear park and Play Barton.
24. Administration and monitoring costs.
25. Management and maintenance responsibilities for synthetic pitch and school pitch.

All sums are index linked and returnable to applicant if not spend within specified time periods.

East Area Planning Committee 12th & 24th September 2013

Application Number: 13/01383/OUT

Decision Due by: 30th August 2013

Proposal: Outline application (seeking means of access) for the erection of: A maximum of 885 residential units (Class C3); a maximum of 2,500 sq m gross Class A1, A2, A3, A4 and A5 uses (with a maximum of 2,000 sq m gross food store Class A1); a maximum of 50 extra care housing units; a maximum of 7,350 sq m GEA hotel (Class C1); a maximum of 3,000 sq m GEA Class D1, D2 floorspace (community hub and primary school); in development blocks ranging from 2 to 5 storeys with associated cycle and car parking, landscaping, public realm works, interim works and associated highway works.

Site Address: Land west of Barton, north of A40 and south of Bayswater Brook, **Appendix 1.**

Ward: Barton And Sandhills

Agent: AECOM **Applicant:** Barton Oxford LLP

Recommendation:
Committee is recommended to resolve to grant planning permission subject to the satisfactory completion of an accompanying legal agreement and to delegate to the Head of City Development the issuing of the Notice of Permission upon its completion. Should however the Community Infrastructure Levy (CIL) charging schedule come into force prior to the completion of the legal agreement, then it shall exclude any items included on the list of infrastructure published in accordance with Regulation 123 of the CIL Regulations.

If the required legal agreement is not completed within a reasonable period, then the Committee is recommended to delegate the issuing of a Notice of Refusal to the Head of City Development on the grounds that the development is not adequately mitigated.

Contents.

Appendices

Reasons for Approval

1. The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity. Any material harm that the development would otherwise give rise to can be offset by the conditions imposed.

2. The proposed development is submitted in outline only but with substantial supporting information to demonstrate that the proposed development would possess a scale and appearance that is appropriate to the site and its setting without resulting in unacceptable harm to nearby residential areas or other interests of acknowledged importance, whilst providing much needed good quality affordable and market housing at a sustainable location. The proposals also provide for a new primary school with facilities shared with the local community, plus additional facilities for secondary education and a new commercial centre to complement existing facilities, all in accordance with the adopted policies of the Oxford Local Plan 2001 to 2016, the Oxford Core Strategy 2026, Oxford Sites and Housing Plan 2011 to 2026 and Barton Area Action Plan 2012.

3. Officers have taken into account the comments made by statutory bodies, interested parties and private individuals, and note also the contents of the three petitions submitted. All are fully acknowledged. However Officers have concluded for the reasons set out in this report that the objections do not amount, individually or collectively, to reasons for refusal of the outline planning application, and that the issues that have been raised can be adequately addressed by the imposition of a range of planning conditions which would fix, amongst other matters, a series of Parameter Plans and a detailed Design Code, and by the completion of an accompanying legal agreement.

Conditions

1. Time limits for commencement.
2. Approved plans and documents
3. Reserved matters applications.
4. Scheme of enabling infrastructure works.
5. Phasing of development.
6. Materials
7. Amendment to Design Code.
8. Design Code Review
9. Commercial centre to front primary street.
10. Restrict non - food sales at supermarket
11. Use of commercial units
12. Landscaping / public realm.
13. Landscaping implementation.
14. Tree pits.
15. Tree protection plan.
16. Landscape management plan.
17. Dimensions to sports pitches
18. Work to adult football pitch out of season

19. Access agreement for additional allotment land
20. Withdrawal of householder permitted development rights.
21. Lifetime homes standards.
22. Car parking standards.
23. Cycle parking standards.
24. Cycle route signage.
25. Cycle / pedestrian routes.
26. Servicing and deliveries.
27. Access.
28. Highways: Travel Plans.
29. Public transport provision.
30. Construction Environmental Management Plan.
31. Sustainability and energy strategy through district heating system.
32. Foul water drainage.
33. Site wide surface water drainage, to include SUDs.
34. Phased surface water drainage scheme.
35. Foul water drainage scheme.
36. Flooding.
37. Access to watercourse for maintenance.
38. Ground contamination and remediation.
39. Air quality: monitoring.
40. Piling.
41. Petrol / oil interceptors.
42. Noise and vibration: attenuation.
43. Mechanical plant.
44. Cooking smells.
45. Protection of Sidlings Copse
46. Grassland mitigation.
47. Training and employment strategy.
48. Procurement of contracts.
49. Repeat ecological surveys.
50. Habitat creation.
51. Archaeology.
52. Public art.
53. Linear park.

Legal Agreement.

A comprehensive legal agreement would accompany the planning application if granted permission. The main elements of the agreement are:

1. Minimum of 40% of all residential units to be affordable housing to rent, with a minimum of 35% affordable in each phase of development.
2. Management of public open spaces by Barton Oxford LLP, (or adoption by local authority).
3. Financial contribution of £7,390,000 to Oxfordshire County Council for the provision of buildings to accommodate 1.5 form entry primary school academy, (or to be delivered direct by applicant).
4. Joint use agreement for use of school buildings and shared use of playing fields as “community hub”.
5. Transfer of 1.48ha. of land to Oxfordshire County Council on 125 year lease for

provision of primary school.

6. Financial contributions of up to £618,344 plus £10,000 costs to Oxfordshire County Council for the provision of temporary primary school facilities within the catchment area of the development, plus £220,000 for transport facilities if located outside catchment area.
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8. Financial contribution to Oxfordshire County Council of £146,390 towards Special Education Needs (SEN).
9. Provision of "early years" facilities either with the community hub, or as a financial contribution of £69,350 to Oxfordshire County Council.
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21. Financial contribution of £203,161 to City Council for indoor leisure facilities.
22. Provision of public rights of way (as foot / cycle route) along southern side of development site; along linear park to link to Play Barton; and as diversion of existing right of way east of electricity sub station.
23. Financial contribution of £10,000 to City Council towards link between linear park and Play Barton.
24. Administration and monitoring costs: £111,494.

All sums are index linked and returnable to applicant if not spend within specified time periods.

Principal Planning Policies:

Oxford Local Plan 2001-2016
CP1 - Development Proposals

CP9 - Creating Successful New Places
CP5 - Mixed-Use Developments
CP6 - Efficient Use of Land & Density
CP8 - Design Development to Relate to its Context
CP10 - Siting Development to Meet Functional Needs
CP11 - Landscape Design
CP13 - Accessibility
CP14 - Public Art
CP17 - Recycled Materials
CP18 - Natural Resource Impact Analysis
CP20 - Lighting
CP21 - Noise
CP22 - Contaminated Land
CP23 - Air Quality Management Areas
TR1 - Transport Assessment
TR2 - Travel Plans
TR3 - Car Parking Standards
TR4 - Pedestrian & Cycle Facilities
TR5 - Pedestrian & Cycle Routes
TR7 - Bus Services & Bus Priority
TR13 - Controlled Parking Zones
TR14 - Servicing Arrangements
NE4 - Loss of Agricultural Land
NE6 - Oxford's Watercourses
NE11 - Land Drainage & River Engineering Works
NE12 - Groundwater Flow
NE13 - Water Quality
NE14 - Water and Sewerage Infrastructure
NE15 - Loss of Trees and Hedgerows
NE20 - Wildlife Corridors
NE21 - Species Protection
NE22 - Independent Assessment
NE23 - Habitat Creation in New Developments
HE2 - Archaeology
HE7 - Conservation Areas

Core Strategy
CS1 - Hierarchy of centres
CS3 - Regeneration areas
CS7 - Land at Barton
CS9 - Energy and natural resources
CS10 - Waste and recycling
CS11 - Flooding
CS12 - Biodiversity
CS13 - Supporting access to new development
CS14 - Supporting city-wide movement
CS15 - Primary healthcare
CS16 - Access to education
CS17 - Infrastructure and developer contributions
CS18 - Urban design, town character, historic environment

CS19 - Community safety
CS20 - Cultural and community development
CS21 - Green spaces, leisure and sport
CS22 - Level of housing growth
CS23 - Mix of housing
CS24 - Affordable housing
CS31 - Retail

Barton Area Action Plan
MP1 - Model Policy
BA1 - Transforming the ring-road
BA2 - Recreation ground
BA3 - Allotments
BA4 – Public Open Space
BA5 - Sustainable travel
BA6 - Vehicle access
BA7 - Pedestrian and cycle links
BA8 - Housing mix
BA9 - Affordable housing
BA10 - Local centre
BA11 - Community hub
BA12 - Energy efficiency
BA13 - Design
BA14 - Delivery
BA15 - Flooding
BA16 - Surface water drainage
BA17 - Water supply and waste water drainage
BA18 - Land remediation
BA19 - Sidlings Copse and College Pond SSSI
BA20 - Link local people - economic opportunities

Sites and Housing Plan
HP2 - Accessible and Adaptable Homes
HP12 - Indoor Space
HP13 - Outdoor Space
HP14 - Privacy and Daylight
HP15 - Residential cycle parking
HP16 - Residential car parking
HP3 - Affordable Homes from Large Housing Sites
HP11 - Low Carbon Homes
HP12 - Indoor Space

Other Planning Documents
- National Planning Policy Framework (NPPF)
- Planning Obligations Supplementary Planning Document (SPD).
- Affordable Housing SPD.
- Natural Resource Impact Analysis (NRIA) SPD.
- Parking Standards, Transport Assessments and Travel Plans SPD.
- Balance of dwellings SPD.
- Accessible Homes Technical Advice Note (TAN) No.1

- Draft Affordable Housing and Planning Obligations SPD

Public Consultation

Extensive consultation and engagement with the public and stakeholders was undertaken by the applicant prior to submission of the planning application, and the Council's normal consultation procedures undertaken upon its receipt. A full record of the various consultation exercises and responses received appears as **Appendix 2** to this report, plus a response from the applicant to its consultation exercises as **Appendix 3** and the views of the Berkshire, Oxfordshire, Buckinghamshire and Milton Keynes Design Panel Network (BOBMK) on the emerging Masterplan as of May 2012 as **Appendix 4**.

The comments submitted centred in the main on issues relating to:

- access arrangements;
- traffic generation;
- parking levels;
- the relationship to Northway and Marston;
- the appropriate mix and integration of housing types;
- the need for additional community facilities;
- the amount of open space;
- drainage and flooding issues;
- public transport; and
- education provision.

Officers Assessment:

Background to Proposals.

1. The planning application relates to a roughly triangular tract of land to the north of the A.40 ring road, west of the existing Barton residential area and south of the Bayswater Brook. It measures some 38 hectares (94 acres) in area with the land to the north of the brook falling within the administrative area of South Oxfordshire District Council. The application site is currently given over to agricultural usage in the main with fields separated by unmanaged hedgerows, trees and ditches, but also includes Barton Village Recreation Ground, allotments and Barton Nature Park. The site surrounds (but does not include) a Scottish and Southern Electric (SSE) sub station which faces onto the A.40. The land generally slopes from south to north with the highest ground located to the south - east corner. It is traversed by public footpaths.

2. The site was identified in the Core Strategy adopted in March 2011as a strategic development site, and forms an integral part of the Barton Area Action Plan (AAP) which followed the Core Strategy and was adopted in December 2012.

3. The main elements of the development as proposed may be summarised as follows:

- up to 885 residential units which may include up to 50 units of extra care housing;
- hotel of up to 7,350 sq m of gross floorspace or approximately 120 bedrooms, (numbers of residential units to be reduced accordingly if a hotel is included);
- up to 2,500 sq m gross retail floorspace, consisting of a supermarket of not more than 2,000 sq m gross and additional retail units totalling not more than 500 sq m;
- primary school / “community hub” building and external areas consisting of 3,000 sq m main building, multi games area, adult sports pitch, 2 junior sports pitches, 400 sq m equipped play area, 360 sq m community sports pavilion and associated car parking;
- linear park;
- further equipped play area (“LEAPS”);
- public squares;
- additional allotment provision;
- access roads;
- pedestrian and cycle routes;
- upgraded services, including media equipment, 2 pumping stations, substations and pressure regulators;
- drainage works including water attenuation and control;
- earth works;
- removal of existing buildings and structures;
- construction of new junction with A.40;
- new telecommunications infrastructure;
- landscaping and public realm works; and
- junction works at Barton Village Road / Fettiplace Road and Harolde Close.

4. The planning application is submitted in outline only with access fixed but details of appearance, landscaping, layout and scale to follow as part of the series of reserved matters applications to follow if outline permission is granted. However the form of the reserved matters applications would be conditioned by a series of “Parameter Plans” and a Design Code which would form part of the outline permission if granted and would provide a framework within which the detailed proposals would come forward. An illustrative Masterplan accompanies the outline planning application, anticipating in general terms how the whole site is intended to be laid out upon completion. A full Environmental Statement accompanies the planning application.

5. Officers consider the principal determining issues in the case to be:
    - planning policy;
    - built forms and layout;
    - residential development;
    - highways, access and parking;
    - local commercial centre;
    - education and community facilities;
    - recreational facilities;
    - landscape strategy and public open space;

- trees and landscaping;
- landscape setting and visual impact;
- biodiversity;
- archaeology;
- water resources, flooding and drainage;
- sustainability and energy;
- environmental statement.

Planning Policy.

6. Historically the application site has largely formed agricultural land within open countryside on the periphery of the city. In planning terms at the time when the 1986 Local Plan was informally adopted the permanent boundaries of the Interim Oxford Green Belt had not been formally defined and the land in question attained the status of *"Structural Open Space"* under policy CO6 of that Plan where built development would be resisted. In the first fully adopted Local Plan of November 1997 the land became *"Safeguarded Land"* under policy EN3 where development would not be permitted during the Plan period other than for agriculture, forestry, outdoor sport or other uses which preserved the open nature of the land. This designation carried through to the current 2005 Local Plan under policy NE3. Whilst policy NE3 remains in force generally as part of the adopted Local Plan, with the subsequent adoption of the Oxford Core Strategy in March 2011and Barton AAP in December 2012 the policy is deleted in respect of the Barton site. Policy CS2 of the Core Strategy refers to the change in status of the land.

7. The Oxford Core Strategy establishes the spatial planning framework for the development of Oxford up to 2026, and represents the principal and overarching planning document within Oxford's Local Development Framework (LDF) suite of planning documents. Within the Core Strategy Barton is identified as a regeneration area under policy CS3, and the current application site as a location for a predominantly residential development under policy CS7. The policy reads:

   "Land at Barton is allocated as a strategic location for a predominantly residential development. Planning permission will be granted for 800 – 1200 dwellings, and infrastructure and amenities to support the new community (including a new primary school). Development will be required to deliver access improvements that integrate it into the wider community and stimulate regeneration in Barton and Northway.

   Development proposals will be expected to retain the existing allotments and an area of public open space equivalent in area to what currently exists, and to incorporate additional publicly accessible open space and an appropriate buffer zone to Bayswater Brook and A.40."

8. The principle of development for the uses now sought is therefore well established with all of the policies within the Barton AAP having a bearing on the case, as well as those policies of the Local Plan and Core Strategy which are listed at the head of this report. In particular the Barton AAP establishes 5 objectives against which the success of the development would depend:

- delivering a strong and balanced community;
- bringing wider regeneration of neighbourhood estates;
- improving accessibility and integration;
- encouraging low - carbon lifestyles; and
- introducing design that is responsive and innovative.

9. Finally the National Planning Policy Framework (NPPF) published in March 2012 replaces a range of Planning Policy Statements, (PPSs), Planning Policy Guidance Notes (PPGs) and Circulars. Its overarching policy sets a presumption in favour of sustainable development to which there are 3 key roles: an economic one contributing to building a strong, responsive and competitive economy; social, supporting strong, vibrant and healthy communities; and environmental, contributing to protecting and enhancing the natural, built and historic environment. The planning application seeks to respond positively to these requirements.

10. The full list of local and national policies and policy documents relevant to the planning application are set out at the head of this report.

Built Forms and Layout.

11. Although the application is submitted in outline only, it is accompanied by an illustrative Masterplan which indicates how the development is envisaged to be laid out over a period of years. The development is intended to create a new community with its own particular character but which relates also to the wider city context. Essentially three distinct neighbourhoods are proposed, a higher density residential and commercial neighbourhood to the western third of the site; a medium density central core with green links to the countryside to the north; and a lower density area to the east focusing on family housing and including a primary school, recreational facilities and existing allotments. The three neighbourhoods are linked by a central primary street as an extension of Fettiplace Road in the east to a new at grade road junction with the A.40 to the west. The junction would give access to and from the A.40 for all traffic, but to Northway south of the A.40 for bus services, emergency vehicles, cyclists and pedestrians only. A linear park and footpath network extends along the northern edge of all three neighbourhoods, forming a buffer with the countryside beyond. A sketch of the illustrative Masterplan indicating the intended neighbourhoods is attached as **Appendix 5.**

12. The <u>western neighbourhood</u> is intended to be laid out at a relatively high density, generally within the range of 50 to 70 dwellings per hectare (DPH) where buildings would generally be on up to 3 and 4 storeys, with the potential for a fifth storey adjacent to the point of access from the A.40 to form a gateway to the wider development up to 18m in height. Located here would be:
    - a new commercial core consisting of a new medium sized supermarket of not more than 2,000 sq m, (similar in size to the existing Tesco supermarket on Cowley Road, Co op in Headington or new Sainsburys at Templar's Retail Park);
    - up to 500 sq m of other commercial floorspace which could be in the

form of shop units, cafes, offices or public house with residential accommodation located above and covered public car parking and servicing for the supermarket at ground and first floor;
- a raised central courtyard located above the car parking; and
- a hotel of up to 120 bedrooms within the same block as an alternative to residential accommodation. (If it were included the number of residential units would fall accordingly below the projected target of 885 units across the whole site).

13. The central core neighbourhood is envisaged to be at a lower, medium density of 40 to 50 DPH with buildings generally up to a maximum of 3.5 storeys, or up to 4.5 storeys for no more than 25% of the buildings where they front onto the primary street. This would allow architectural features and points of interest to be created along the primary east - west route which runs centrally through this part of the site. A clear linear street pattern is proposed throughout this neighbourhood which exploits the fingers of greenery which protrude into it from the open countryside to the north in the form of retained ditches and hedgerows. Where fronting onto the new primary street the residential units would be in the form of flats with balconies.

14. The eastern neighbourhood would be lower in density in the range of 30 to 40 DPH with buildings generally up to 2.5 storeys but with up to 3.5 storeys fronting onto the A.40 and up to 4.5 storeys again along the primary street for up to 25% of its length. It would also include the small enclave to the south - east of the site to the east of the existing allotments accessed from Harolde Close. A more informal layout of development is anticipated in this eastern neighbourhood which would reflect more closely the form of the existing Barton area with which it would interface. To the north of the primary road the new school and community hub would be located on one and two storeys and sit alongside a reorientated recreation ground where the playing field facilities would be shared between the primary school and wider local community.

15. The primary school / “community hub” building would occupy a site of 1.48 ha, with a school building of 3,000 sq m floorspace on one and two levels. A sketch of how it might be laid out adjacent to the public playing fields it would share is attached as **Appendix 6.** The development site would include:
    - a main hall of 180 sq m; 90 sq m of floorspace available during school hours for community activities; and a further 75 sq m occupied by toilets, kitchen and studio, all of which would be available evenings and weekends during term plus daytimes during weekends holiday periods for a variety of community uses;
    - an adult sports pitch and 2 junior pitches (one all weather) and multi use games area (MUGA) would also be available for community use at these same times;
    - a 360 sq m community sports pavilion is also provided to serve the sports facilities;
    - retention of existing allotments measuring 2.5 ha. improved and extended by the inclusion of a community garden to its southern side; and
    - linear park measuring 3.79 ha.

16. The package of public access to the community hub facilities would be secured by joint user agreement included within an accompanying S.106 agreement.

17. Two public “squares” are also indicated, one within the western neighbourhood either side of the primary street to the frontage of the commercial centre, and the second within the eastern neighbourhood, again along the primary street, adjacent to the primary school.

18. Set between the central and eastern neighbourhood is the existing Scottish and Southern Electricity (SSE) sub station which would remain, but with its 33,000 volt and 11,000 volt overhead power lines rerouted underground. The sub station itself would become less visible as a consequence of new landscaping and housing intended to back onto it. The existing public footpath which runs along its eastern edge would be realigned to run through the new street to its eastern side. Moreover where the development faces towards the A.40 either side of the sub station residential development would be set back 25m to 30m behind a service and access road and landscaped buffer zone.

19. Connectivity between the new development and Oxford within the A.40 / ring road is limited. Due to the high development costs in bringing forward the development, including realigning services along the A.40, then the only new crossing created is the new at grade junction to Northway. The development does not preclude the possibility of future access points however and there exists a commitment and funding to upgrade the existing underpass from Barton Road to Barton Village Road. Moreover a tension exists in any event between creating additional connectivity, and the functioning of the A.40 as a significant transport corridor eastwards towards the M.40 and London, and westwards towards West Oxfordshire and Cheltenham. The A.40 is no longer a trunk road but still carries high volumes of traffic along this corridor such that neither the Inspector into the Barton AAP nor the Highway Authority would support a 40 mph speed limit being imposed along this section of the A.40 which would have assisted integration. A 50mph limit is accepted however.

20. In order to deliver high quality in architecture and urban design, a series of Parameters Plans and a Design Code would form a framework to inform and manage detailed designs at the reserved matters stage. These would be in addition to planning conditions and the legal agreement. The Parameters Plans and Design Code would form part of the outline permission if granted, thereby requiring all subsequent reserved matters applications to conform strictly to them before they could be supported and granted planning permission.

21. Some 6 Parameter Plans are submitted:
    - Plan 1 identifies the land to which the application applies, including zones for ancillary highways works which may be required.
    - Plan 2 identifies the general disposition of land uses as broadly discussed above, in particular the residential areas, school and

recreational land, and the commercial area.

- Plan 3 indicates the open spaces and landscaped areas retained and proposed, including tree belts, “greenways”, recreational areas, play areas, existing and extended allotments and public squares.
- Plan 4 relates to movement and access and indicates the principal public vehicular and footpath routes and rights of way as existing, as proposed, and as proposed to be diverted. This includes the primary street, main secondary streets, points of access from Barton and A.40, and cycle links.
- Plan 5 describes the required residential density across the site as also referred to above, with the higher density areas generally to the west where a greater proportion of flatted accommodation would be located in and around the commercial centre created there, with densities reducing progressively to the east.
- Plan 6 relates to building and storey heights, also generally scaling down west to east with the taller buildings at the commercial core up to 18m in height reducing to 11.0m at the primary school and 9.5m for the residential development to the eastern neighbourhood. All these figures represent the maximum heights based on the height of ridgelines to roof structures (excluding chimneys etc), but in the expectation that development is unlikely to be built out to the maximum height across the whole of the application site.

22. The Design Code follows on from where the Parameters Plans leave off by providing detailed requirements as to how individual streets and buildings should be laid out on the ground and relate to one another. It sets minimum standards with the majority of its requirements being mandatory. Permeability and legibility to layouts and continuity and distinctiveness to the public realm, but not uniformity of building types, are critical requirements.

23. Notwithstanding the 3 neighbourhoods and Parameter Plans referred to above, the Design Code imposes detailed requirements across the whole development relating to the semi natural environment as well as across 4 distinct character areas described as “transects”:
    - Transect 1: Green Edge relates to areas of lower density development adjacent to areas of informal open space, and coincides generally to the eastern neighbourhood and to the northern edge of the central neighbourhood where it adjoins the linear park along the northern side of the application site.
    - Transect 2: Suburban consists of a medium density zone, coinciding roughly to the central neighbourhood, other than where development is proposed directly onto the primary street.
    - Transect 3: Higher Density Residential consists in the main of the zone of development along the primary street which seeks to create a strong residential frontage but with the future flexibility to permit commercial uses at ground floor level.
    - Transect 4: General Urban consisting generally of the higher density western neighbourhood, including the commercial area.

24. These transects translate into a hierarchy of street types. Thus along the

main primary street buildings are typically proposed to be set apart by 17m to 18m with a 6.1m carriageway, 2.4 m parking bays either side interspersed with tree planting, 2.2 m footways and short frontages of 1.0m to 1.5 private areas as defensible space to individual properties. The carriageway and footways would be set at a single level without kerbs and speeds limited to 20 mph, to emphasise that pedestrians and cyclists have equal priority with vehicular traffic. The street would however permit new and extended bus routes to operate within them. Buildings along this primary street would typically be on 3 and occasionally 4 floors.

25. Adjoining the primary street two secondary streets are identified which would be of sufficient proportions to permit terminating buses on new or extended routes to loop around them for return journeys. These streets are located around the commercial centre to the west and south of the new primary school where building to building distances are reduced to 14.5m with car parking bays to one side of the street only and footways of 2.2m with kerblines and short private areas to buildings of between 0.75 to1.5m. Buildings would typically be of two storeys for the residential accommodation, but up to 4 or 4.5 storeys for the commercial buildings where there is flatted accommodation above.

26. A third, tertiary level of street would encompass the remaining, and bulk of, the residential areas with 9.0m to 12.0m building to building distances in a cycle and pedestrian friendly mews type of environment designed for speeds of no more than 10 to 20mph. Kerblines would not be present and surfaces would be of porous paving, again with tree planting interspersed with an amount of car parking.

27. The Design Code goes on to define how public areas such as green areas, “pocket parks” and squares fronting the commercial area and primary school are to be laid out, as well as detailing how play areas, car and cycle parking, street furniture and landscaping are also to be set out.

28. Turning to the new buildings themselves, the development is intended:
    - to display traditional building forms with materials in the local vernacular, but with the potential, and intention, for reinterpreting traditional elements in a contemporary fashion;
    - to possess a clear rationale in the treatment of buildings, especially individual houses which in the main would feature pitched roofs;
    - to provide cycle and bin storage and utility boxes designed as an integral part of the whole;
    - that new buildings demonstrate Secured by Design compliance, and to achieve the latest requirements set out in the Code for Sustainable Homes, Buildings for Life Gold Standards and Lifetime Homes standards. Non domestic buildings should attain a minimum BREEAM Very Good and meet the minimum Natural Resource Impact Analysis (NRIA) criteria.

29. A mix of traditional materials is required by the Design Code with red or buff brickwork for the majority of houses, but with some render and natural /

reconstituted stone allowed. To the northern side of the primary street along a short, central section, 100% light / buff brickwork is proposed with the streets extending north towards the northern boundary of the application site possessing a mix of stonework and buff brickwork with a small amount of render permitted. For the gateway buildings anchored at the new access from the A.40, and for the commercial development and primary school, these are intended to contrast with the residential accommodation and be faced in either render or natural / reconstituted stone. On points of detail use of UPVC or GRP is not permitted. Photovoltaics, whilst supported, have to be flush with roof structures and not stand proud of them, ie as an integral part of the roof structure.

30. Overall the purpose of the Parameter Plans and Design Code is to provide the means to create a successful, sustainable and attractive environment in which people can live and work. They seek to ensure that detailed design and implementation is based on sound principles that will help secure this, examining in detail a range of functional requirements. Their effectiveness will determine how the development appears not just internally, but also externally as part of Oxford in its wider setting.

31. On specific points however there is insufficient detail on kerblines at crossover points; little reference to corner buildings; only 30% of proposed houses are required to have chimneys (when 100% may be more appropriate); further consideration may be needed in the detailed choice of materials; and no commitment is given to self build groups. These elements could usefully be included. The Design Code would also benefit from other minor adjustments, whilst there is a need for greater clarity in the use of terminology so that there is no confusion at the reserved matters stage as to what terms such as “informal”, “shallow” and “medium setbacks” are intended to mean for example, and which elements are truly mandatory and which just advisory. And although the Design Code focuses on the internal environment there is less discussion about managing the wider setting.

32. Whilst the Design Code is a thorough and detailed document in the main, equally it is complex to apply. That said, in its generality it is rational and supportable (with minor adjustment) as the principle tool to ensure the development achieves the quality sought for it in the Barton AAP. A condition is suggested requiring the submission of an amended code to encompass the above concerns and other adjustments prior to the issuing of the notice of permission if the planning application is supported by committee. Also, when tested as reserved matters applications are rolled out, further amendment or fine tuning of the Code may be required. A separate condition is suggested requiring the periodic review as the development is built out over a period of years.

Residential Development.

33. The Barton AAP establishes the aim of creating a balanced new community of between 800 and 1200 homes in a mix of different types, sizes and tenures to accommodate differing household needs. The AAP accepted however that

due to the abnormal costs in bringing forward the development, (which included the provision of a new primary school, a major new junction with the A.40 ring road and various on - site constraints), then 50% affordable accommodation in line with the Core Strategy would make the development commercially unviable. A minimum figure of 40% affordable accommodation was therefore established in the AAP. The mix of market and affordable accommodation in terms of the proportion of variously sized units is also established in the AAP and is broadly in line with that of the Balance of Dwellings SPD which applies elsewhere in the City.

34. The planning application complies with these requirements and indicates how they would be met for a development of 885 residential units in line with the illustrative Masterplan:

	AAP	Application					
		No. TOTAL	% TOTAL	Market TOTAL	Market as %Market TOTAL	Aff TOTAL	Aff as % Aff TOTAL
1 bed	5-10%	45	5%	27	5%	18	5%
2 bed	25-30%	265	30%	159	30%	106	30%
3 bed	40-55%	416	47%	239	45%	177	50%
4+ bed	15-20%	159	18%	106	20%	53	15%
Total		**885**	**100%**	**531**	**100%**	**354**	**100%**

35. The numbers of units represent the maximum proposed in the planning application and in the event that a hotel were to be included in the development, then the numbers would be adjusted accordingly, but with the proportions maintained. The AAP also required the affordable accommodation to be distributed across the whole development with a minimum of 35% of the units in any phase of development.

36. The legal agreement securing the affordable accommodation would therefore contain the following detailed requirements:
    - minimum of 40% affordable units, all for social rent;
    - minimum of 35% and maximum of 60% affordable units within any phase of development;
    - mix of units to be: 1 bed - 5% to 10%; 2 bed - 25% to 30%; 3 bed - 40% to 55%; and 4 bed+ - 15% to 20%.
    - phasing and distribution to be agreed;
    - maximum clustering of affordable units to be 15 houses and 20 flats;
    - no more than 60% of market properties to be occupied until 40% of affordable units have been transferred to City Council as affordable housing provider;
    - last 10% of market housing not to be occupied until 100% of affordable units transferred to City Council as affordable housing provider;
    - allocations policy to follow local lettings policy to prioritise relocation of existing tenants in adjacent neighbourhoods.

37. Any additional affordable units above the 40% figure could be in the form of intermediate, shared ownership or affordable rented accommodation.

38. In addition the Sites and Housing Plan requires that all new dwellings must meet Lifetime Homes standards with at least 5% being either wheelchair accessible or easily adaptable to wheelchair use. Half of that figure should be market housing. The Barton AAP is less prescriptively worded however, stating only that all new homes should be built to this standard as far as possible. In the submitted application 100% of the affordable housing is proposed to Lifetime Homes but only 15% of the market housing. 5% of all the units would be capable of full wheelchair use.

39. Whilst it is welcomed that all the affordable accommodation meets the required Lifetime Homes standard, it is disappointing that a greater proportion of the market housing is not indicated to do so. It is argued in the planning application that with the undulating nature of parts of the site, then additional space within the curtilage of dwellings would be required with detrimental impacts on overall numbers of units to be provided. Such an argument is not fully understood however as much would depend on the detailed layout of the development at reserved matters stage. Certainly officers would welcome the opportunity to increase the proportion of market properties given over to Lifetime Homes standards and a condition is recommended that all residential properties be constructed to that standard unless it can be fully justified why that should not be the case.

40. The planning application proposes that up to 50 of the residential units could be in the form of Extra Care accommodation

Highways, Access and Parking.

41. Context. The application site is located wholly north of the A.40 / Oxford ring road dual carriageway with the nearest junctions on that road being at grade at the Green Road roundabout to the east which gives access to the current Barton residential area plus Stanton St. John and other villages to the north and east within South Oxfordshire, and at the grade separated junction at Marsh Lane to the east which gives access to the A.40 itself plus Elsfield and Woodeaton and villages beyond to the north. The A.40 at this point is currently subject to a 70 mph speed limit. The eastern boundary of the application site is formed by Barton Village Road, which is a two-way residential street, subject to a 20mph speed limit. It runs around the western and southern edges of the existing Barton residential area, becoming North Way before meeting Bayswater Road near the Green Road roundabout. The alternative principal route through the Barton residential area to the west of Bayswater Road is via Fettiplace Road, which runs to the northern side of the area and would form the principle vehicular link to the new development from existing Barton. Its extension would form the new primary street through the proposed development.

42. Pedestrian and cycle access exists to Barton currently via the subway from Barton Road in Headington to a point north of the A.40 near the junction of Barton Village Road and North Way, near the eastern edge of the application

site. Subways also exist beneath the Green Road roundabout. All of the subways are of poor quality and unattractive. Although there are no segregated cycle routes within the existing Barton area a route via the North Way / Barton Village Road subway gives access to a cycle way / footpath along the south side of the A.40 and links via residential streets to cycle routes within the Headington area and beyond.

43. Within the application site a public footpath and bridleway runs south - north along the eastern side of the SSE sub station, leaving the site across the Bayswater Brook and proceeding northwards towards the Sidlings Copse and College Pond SSSI and Elsfield village. This forms an extension to the Stoke Place footpath which runs from Old Headington alongside Ruskin College land on the south side of the A.40, and which is now effectively severed by that road.

44. The existing Barton area is served by the high quality No.8 bus service operated jointly by the two bus companies which links to the city centre via Headington. The No. 8 is a 6 - 7 minute service, (10 minute on Sundays), operated in a circular fashion around Barton from Green Road via Bayswater Road, Wayneflete Road, Stowford Road, Underhill Circus Fettiplace Road, Barton Village Road and North Way.

45. Research accompanying the planning application has abstracted information from the Local Transport Plan and 2001 and 2011 Censuses relating to the Barton and Sandhills ward and the City and County as a whole. The research indicates that traffic on the A.40, Eastern By Pass and London Road has not changed significantly over the decade to 2011 though over the same period the population of Oxford and Oxfordshire has increased by 12% and 9% respectively and car ownership by 6.2%.

46. The number of private cars owned by residents of Barton and Sandhills ward increased by 21.1% however compared to 7% for the City as a whole though the average car ownership per household only increased by 3.2% from 0.94 vehicle per household to 0.97. For the City the average decreased marginally from 0.94 to 0.93 vehicles per household. Despite increased car ownership in Barton and Sandhills, the proportion of car driver trips to work fell over the decade by 1.8% from 45.1% to 44.3%, whilst trips by sustainable modes increased by 6.4% from 39.3% to 45.7%

47. Traffic Generation and Mitigation. To serve the new development a new at grade junction would be created from the A.40 at a point along Foxwell Drive opposite Meadon Hill in the Northway area. The junction would be restricted in the movements possible with left in and left out movements to and from the new development from the A.40 for all traffic, and right in from the A.40 westbound, also for all traffic. Movements across the A.40 between the development and Northway would be restricted to public bus services, emergency vehicles plus cyclists and pedestrians, enforced by camera detection. Within the ring road bus routing through Northway is likely to be eastwards towards Saxon Way and John Radcliffe Hospital, though routing could be taken to the west via Westlands Drive with minor road realignments perhaps required. There would be no bus movements along Meadon Hill. The

junction would be fitted with traffic signal controls and, (subject to confirmation by Traffic Regulation Order, TRO), a 50 mph speed limit imposed along the A.40. Initially this may be imposed by signage only, but with additional controls such as speed cameras introduced later if the restriction is not fully observed. A speed limit of 50 mph would better integrate the development with Oxford within the ring road, whilst a heavily engineered design solution for the junction should be avoided for the same reason. As much of the existing tree coverage and greenery would be maintained as possible and supplemented with new planting as appropriate.

48. Modelling accompanying the planning application predicts traffic generation for 2019 on completion of the development of an additional 435 car trips in the morning peak (8.00 - 9.00 am) and 730 in the evening peak (5.00 - 6.00 pm). Without mitigation, the modelling shows that the development would cause additional queuing in the morning peak on some routes, most noticeably at Marsh Lane (southbound) and at North Way. In the evening peak, the average queue length would increase in particular on Marston Road. The following mitigation measures are therefore proposed, with funding secured by legal agreement:
    - changes to the spiral lane markings on the Eastern By Pass entry to the Green Road roundabout and amendments to the timings of the signal controlled junction in order to improve utilisation of the lanes and overall capacity; and
    - converting the existing double mini-roundabout at Marston Road / Headley Way / Cherwell Drive / Marsh Lane to a pair of linked traffic signal controlled junctions in order to increase their combined capacity, in particular on the Marsh Lane and Marston Road entries.

49. The modelling shows that with this mitigation in place the status quo would be maintained and a marginal improvement in conditions achieved as there would be a net reduction in average journey times across the network of 26 seconds in the am peak and 4 seconds in the pm peak. Whilst the development is forecast to have different impacts on different roads, overall it would not therefore have a significant impact on the operation of the local highway network generally. Within Barton itself, there would inevitably be increases in traffic flows on some routes, most noticeably on North Way and Fettiplace Road. The modelling shows the increases will be higher in the evening peak than in the morning. However, these roads are relatively lightly trafficked at present and, even with the new development, the overall traffic flows would be lower than on many comparable roads elsewhere in the city.

50. The modelling also examined the potential for ‘rat-running’ through the development to avoid queuing traffic at the Green Road roundabout. It found little evidence that this would be significant, with a predicted ‘rat-running’ flow of only 47 trips in the am peak, (of which the vast majority would be heading to the Bayswater Road northbound), and only 17 in the pm peak. A speed limit of 20MPH plus street designs to the primary street controlled by the Design Code would serve to slow such journeys and discourage use for rat running.

51. Overall, given the size of the proposed development, the traffic impacts are

considered to be acceptable with the various mitigation measures in place which generally maintain the status quo whilst encouraging and promoting cycling, walking and public transport as far as possible as alternatives to the use of the private car. Constraints are imposed by only one wholly new crossing of the A.40 being possible at this stage, though the potential may exist for further crossing points in the future, whilst funding is made available to improve the attractiveness of the existing underpass to Barton from Barton Road in Headington.

52. Car Parking. The required car parking to serve new development is set out for residential development at policy HP16 of the Sites and Housing Plan and for non - residential uses at policy TR3 of the Local Plan. Both indicate that the standards should be regarded as maxima. For non - centrally located residential developments outside Controlled Parking Zones, the Sites and Housing Plan requires one allocated parking space per unit, but with unallocated space also provided which can be used flexibly. It is stressed in the documentation that the parking proposed for the development is indicative only however, and that the actual numbers of spaces for each phase will come forward with each reserved matters planning application.

53. Nevertheless the Transport Assessment suggests a total of some 1,653 car parking spaces to serve 885 residential units. This figure is in line with policy HP16 though below the maximum permissible of 1,910 spaces for the intended size and mix of units in the development.

54. However at 397 unallocated spaces the figures show an under-provision where the policy would require a minimum 450 spaces. It is important to provide adequate on-street parking in the development to provide flexibility, given that car ownership will vary with some households not being car owners whilst others may 'spill over' from their allocated provision. It is also suggested in the application that the 5 bedroom market units should be provided with 3 allocated spaces each. This is more than the maximum of 2 permitted in the policy and cannot be supported, and may lead to an impression of sprawling low density development, and which may not be the most efficient use of land. Out of the total provision 5% of homes, (distributed equally across dwelling types and tenures), would be required to include an on - plot space suitable for use by a wheelchair user. These would be the same residential units as the wheelchair adaptable homes. These parking spaces should be of a minimum dimension of 3.6m x 5.4m with side transfer space.

55. In view of the falling proportions of residents in the existing Barton and Sandhills ward who use the private car for their journey to work; the high quality bus services envisaged; and the need to restraint traffic generation in line with established policy, then it is considered that the total figure of 1,653 on and off street residential parking spaces (equivalent of 1.9 spaces per unit) is appropriate to serve the development. There is a caveat however that detailed designs should preclude the possibility of unauthorised fly parking at inappropriate locations across the development site such as on parkland or recreational areas.

56. Furthermore in order to prevent unauthorised commuter parking relating to major employment sites in Headington, a Controlled Parking Zone (CPZ) is proposed. A CPZ can only apply to adopted highways however and additional controls of the same or similar nature will need to be in place for any privately maintained thoroughfares. The extent of the CPZ is not defined at this stage but it is suggested that it be introduced progressively as each phase of development is built out and its access roads are formally adopted as public highway. There are firm proposals to advise incoming residents of the intention to prioritise their parking facilities by introducing the CPZ, and also to support and encourage the use of public transport facilities and other transport modes.

57. In terms of non - residential parking, some 90 car parking spaces are proposed in the off - street car park plus a further 30 in short stay spaces on street within the square to the frontage of the commercial centre. Those to the north side of the primary street at this point are intended to serve residential needs and those to the south short - term parking for shoppers etc. A further 30 spaces would serve the primary school and 54 for the hotel if that proceeds instead of residential accommodation. In view of its peripheral location to the city however this figure would need to be reassessed if it were intended to form part of a reserved matters application in due course.

58. These figures are within maximum standards in the Local Plan. Not all the detail of parking appears to be provided for the sports pavilion or allotments though a small amount is proposed for each. A condition to the outline planning permission would require full details of all parking proposed as part of each reserved matters application.

59. Cycling and Cycle Parking. In view of the high cycle usage in Oxford and the aspiration for a sustainable development it is essential that every opportunity is created for cycling and cycle parking. In this regard it is anticipated that streets within the development would be relatively lightly trafficked, generally with 20 MPH speed limits, making conditions very suitable for cycling. Signposting of cycle routes would also be provided and crossing facilities incorporated into the new A.40 junction to facilitate connection to existing cycle routes within the A.40 / ring road and along its southern side via the existing cycle track there. Two strategic cycle routes are also proposed along the northern and southern fringes of the development. The northern route would run parallel with the northern boundary through the linear park, and Barton Village Road through to the Play Barton recreation area to the east. The southern route would run parallel to the A.40 from the new A.40 junction via the different neighbourhood areas and extended allotments to the junction of Barton Village Road with North Way, close to the north side of the existing A.40 subway. The Oxfordshire County Council Rights of Way team have requested that these routes also become definitive rights of way, which is supported.

60. In terms of cycle parking the Transport Assessment confirms that all dwellings would be provided with secure cycle parking to comply with the standards set out in the Sites and Housing Plan of at least 2 spaces per 2 bedroom unit and at least 3 spaces for every 3 bed unit. A condition is required to ensure compliance

at reserved matters stage and to be alert to the design constraints to provide access to the street without having to wheel cycles through houses or flats.

61. For non residential development the provision for the retail uses is in line with adopted standards in the Local Plan at 26 spaces whilst the hotel if it proceeded would be required to provide bespoke cycle parking for 20% of non - resident staff, or 12 spaces in this case, plus a further space per resident staff. For the primary school provision would be made on the basis of 1 space per 15 pupils, plus 1 space per 5 staff with additional cycle parking for users of the sports pitches. These figures should be regarded as minimum requirements however. Where cycle parking is provided specifically for residents or staff of commercial or other premises for all day parking it should be in covered, secure conditions. Elsewhere the development would benefit from additional casual facilities at appropriate locations, provided on street for visitors and users of commercial and other premises. These can be provided at low cost.

62. Public Transport. The Masterplan accompanying the planning application indicates a layout for the development which would allow bus access into the development site both from the Barton end and from Northway via the new A40 junction. Two bus turning loops are included, one at the commercial centre to the western end of the site, and another near the primary school to the east. All residential properties are intended to be located within a five minute walk of a bus stop. As the Masterplan is illustrative only however a degree of flexibility in terms of bus route provision is required at reserved matters stage to allow for various routing arrangements, namely:
    - bus services entering the development site as an extension of the existing Barton route before returning the same way, as now;
    - bus services entering from Northway via the bus only route through the new A40 junction, turning within the site and returning the same way; and
    - bus services entering from Barton, continuing through the site via the primary street and exiting via the new bus-only route at the new A40 junction, or vice versa.

63. The Transport Assessment also addresses the issue of phasing in bus route provision, indicating that during the early phases of the development additional services may not be commercially viable. The accompanying S.106 agreement therefore provides for a public subsidy, declining in its provision as the development is built out and as services become fully commercially viable. An annual subsidy of up to £150,000 is therefore proposed for a 5 year period, with receipts from ticket sales offset against that sum the following year. A final payment of £100,000 for a 2 year period would be provided at the end of the 5 year period, again with an offset arrangement. As the existing Barton services are of high frequency and currently commercially viable, it is anticipated that with the full build out of the development new services would similarly become commercially viable.

64. Travel Plan. The planning application also proposes that Travel Plans be drawn up to encourage sustainable travel options, reducing reliance on the private car. They would seek to build on existing trends towards sustainable trips to work at the expense of car travel, as indicated in recent census data.

Each Plan would be secured by condition requiring details to be submitted and agreed by the City Council as Local Planning Authority in consultation with the Highway Authority. It is envisaged that a Travel Plan Coordinator be appointed prior to the first occupation of any residential property with responsibility for implementing a residential Travel Plan. For non - residential uses the responsibility would lie with those occupiers. In that regard Travel Plans would be required for the primary school, supermarket and hotel if that proceeded.

65. The objectives of the residential Travel Plan would be to:
    - ensure that residents are properly informed about the travel choices available to them;
    - promote sustainable travel;
    - reduce the need to travel by car;
    - reduce the number of single occupancy journeys by car; and
    - encourage healthy and active lifestyles.

66. The residential Travel Plan Coordinator would be responsible in the first instance for ensuring all new residents are aware of the Travel Plan. A "welcome pack" could include bus and train timetables and maps; details of car clubs; locations of electric charging points to be included in the development; Oxford cycle map; details of period bus fares etc. It is envisaged that the Coordinator would also set up a website with links to external travel information and commission a baseline travel survey after 100 properties had been occupied, or after one year whichever were the sooner. Annual surveys and monitoring reports would also be produced for the lifetime of the build out of the development and submitted no later than 2 months following their completion. A similar approach would be anticipated for Travel Plans drawn up for the primary school, supermarket and hotel, though with specific facilities such as secure cycle storage, provision of changing and showering facilities also required.

Local Commercial Centre

67. A new commercial centre is proposed to be located to the western end of the application site, south of but fronting onto the primary street and with active frontages to the primary street running through the development. A medium sized supermarket up to 2,000 sq m gross is proposed, together with a series of smaller units totalling 500 sq m gross. It is anticipated that 85% of the supermarket floorspace would be given over to convenience goods and 15% to comparison goods. The permission if granted would permit the smaller units to be occupied for a variety of alternative uses which could include retail shops, estate agents, café, post office, building society, takeaway, hairdresser, launderette, public house etc. It is anticipated that the block accommodating the retailing would possess flats above on another 3 floors arranged around a central raised and landscaped courtyard. A rear, covered car park would provide 90 car parking spaces, plus a further 30 short stay on street spaces to the street frontage. Located at this position to the western end of the development the new commercial centre would be along the anticipated bus route and would be intended to complement rather than

compete with the existing neighbourhood facilities at Underhill Circus to the east.

68. The Barton AAP had indicated that the new retail development must demonstrate need, compliance with the "sequential test", good accessibility by various modes of transport and that there would not be an adverse impact on the vitality and viability of existing centres. Equally it required that it not be visible from the A.40 or act as a destination shopping venue for passing traffic on the A.40. Whilst the new centre does not lie within an existing centre, it does relate to an allocation of a new local centre and can therefore be considered as a sequentially preferable site.

69. To accompany the planning application, a retail impact assessment was undertaken of the Primary Catchment Area (PCA) which comprises the wards of Barton and Sandhills, Churchill, Headington, Headington Hill and Northway, Quarry and Risinghurst, and Marston that together make up the catchment for the Headington District Centre. Within this catchment area the impact on the Headington District Centre was examined together with the local neighbourhood parades at Underhill Circus in Barton, Roundway in Risinghurst, Girdlestone Road in New Headington, Westlands Drive in Northway, Cherwell Drive in, Marston, and Old Marston Road in New Marston. Other larger retailing centres across the city and outside but on its fringes were also taken into account and allowance made for the attraction of a limited amount of trade from outside the area. An assumption was also made that the new supermarket would be completed and open in 2016, though it was recognised that this might be optimistic. Expenditure data was taken from the *Oxford Retail Needs Survey Update* (ORNSU) of 2008, with figures updated further to 2010 prices using information from the *Retail Expenditure Guide* by Pitney Bowen and Oxford Economics. The "design year" for testing the retail impact was 2018 when trading patterns are forecast to be settled, on or about the completion date for the development. The survey work was undertaken before the recent opening of the new Sainsburys supermarket at Templar's Retail Park, though it is not considered this is likely to have any great impact on the findings of the study given its location some distance from the Primary Catchment Area.

70. The conclusions of the impact study are included in detail as **Appendix 7** to this report. The principal findings in relation to the examined centres were that:
    - the impact would not be great enough to cause closure of any existing foodstores;
    - there would be no significant impact on the vitality or viability of any existing centre;
    - there would be more than sufficient expenditure capacity in Oxford as a whole to support the proposed retail development by the assumed design year of 2018; and
    - any marginal loss in sales at existing centres at 2018 would be made up by increased growth in total expenditure by 2021.

71. Overall the applicant's submitted impact assessment is comprehensive,

considering the overall capacity both within the City as a whole and within the Primary Catchment Area (PCA) for the application site. The analysis of expenditure capacity shows that there will be more than enough convenience goods expenditure as a whole for the proposed retail development.

72. Officers have concluded that the provision of the supermarket and supporting commercial facilities would therefore meet the requirements set for it in the Barton AAP and can be supported.

Education and Community Facilities.

73. Central to the development is the provision of a new primary school to the value of £7.39m located to the west of the recreation land for 1.5 form entry with the capacity for 2 form entry at a later date if required. The school would employ some 30 staff and occupy a site of 1.48 ha. or 2.2ha. in combination with shared community recreational facilities. The intention is that the community hub facilities would operate in parallel with the Barton Community Centre as an extension to that facility. It is anticipated that Barton Community Association would run the activities at both sites.

74. The school building would be located centrally to the extended Barton on the north side of the primary route at a focal point in views along that street from the west and from the south. **Appendix 6** referred to earlier is an illustrative sketch indicating a possible general layout for the school land and adjoining recreation facilities. The Development Specification sets out that the school building itself should be designed to have a minimum height of 6m. and a maximum height of 11m. The Design Code illustrates that the majority of the frontage onto the main street would be "*active frontage - two storey*". The proposal as suggested is broadly in line with this requirement, with the building addressing the corner either in a two storey structure or a single storey building but with a double height hall at that point.

75. The primary school / community hub building would consist of a total of 3,000 sq m of floorspace with a joint user arrangement making the 180 sq m school hall and 165 sq m of other floorspace including kitchen, adult toilets etc available for a range of community uses during school hours, at evenings, at weekends and out of term time as a "community hub" to provide a range of facilities including:
    - day care provision, or if not possible as an off - site contribution of £163,500 to Oxfordshire County Council; and
    - early years provision, or if not as an off - site contribution of £69,000 to the County Council.

76. A contribution of £88,500 is also made to improved facilities at Headington Library whilst policy CS15 of the Core Strategy requires development of this site to provide for or contribute towards appropriate primary healthcare facilities either on or off-site. The submitted documentation states that healthcare facilities are not required on site.

77. Overall the provision of a community hub within the school accommodation in this form would satisfy policies CS16 and CS20 of the Core Strategy in that it would

provide suitable provision for a primary school and for new community facilities to support new development and integration within the wider community..

78. The school building itself is most likely to be delivered by the education authority for occupation as an academy school, funded at the developer's expense at a cost of up to £7.39m. The legal agreement accompanying the planning permission would require the provision of the school at a point in the build programme no later than when the development had generated 90 children of primary school age. To accommodate that figure the legal agreement would require that the school be constructed and available before the occupation of the 400th residential unit, or such other time as agreed between the parties.

79. Prior to its provision however temporary school facilities of up 3 classes would be provided, either within the 2 mile catchment area of the development, such as at Bayard's Hill Primary School, or if outside the catchment area with a financial contribution of up to £228,000 towards transport to an alternative site. The temporary school would be available only to children resident within the new development.

80. No secondary school facilities would be provided within the development, but rather a financial contribution of £3.1m made to fund secondary and sixth form facilities off site to serve the development on the basis of 170 secondary school places being generated by the development and 27 sixth form places.

Recreational Facilities.

81. The City Council's Playing Pitch Strategy 2012 - 2026 recognized that the north - east area of the city possessed an undersupply of sports pitches. The Strategy also stressed the importance of securing joint use of school facilities at the Barton development to address additional demand. The current level of provision at Barton consists of:
    - 1 adult size grass football pitch
    - 1 grass practice pitch
    - 1 multi use games area (MUGA) laid as 2 hard surface basketball courts
    - 1 disused bowling green
    - Sports Pavilion measuring 294 sq m.

82. This level of provision would be replaced by the following:
    - 1 adult size grass football pitch: 100m x 64m
    - 1 junior / practice pitch provided as 3G synthetic turf pitch with floodlighting: 72 x 46m.
    - 1 MUGA: 39 x 26m
    - 1 grass pitch within school demise: 82 x 45m
    - Replacement sports pavilion measuring 360 sq m.

83. The new facilities would be in the same location as now so would continue to serve the existing Barton community as well as the proposed extension. A joint user agreement with the school would secure community use of the school facilities during weekday evenings, weekends and out of term. The

school hall measuring 180 sq m would also be available.

84. The adult pitch would be laid out so as to possess the potential to upgrade to Hellenic League standard if required, whilst the second, smaller, grass pitch would be within the demise of the primary school and would be for its use during school hours. However it would be available for wider community use at other times. The “junior” pitch would be provided with a synthetic surface with floodlighting, ensuring the facility was available for longer periods throughout the year. Again it would be utilised by the school. The existing MUGA is of poor quality and would be replaced by a new facility with an improved multi use surface and would again be available to both school and community, with the potential for it to be floodlit if required. Works to the existing recreation ground to reprovide the adult pitch etc would be undertaken out of season to minimise disruption to formal league fixtures.

85. For younger children two 400 sq m Locally Equipped Areas for Play (LEAPs) are proposed, one to the eastern side of the development within the linear park, and one within the recreational area. The LEAPS would be aimed at children typically aged 2 to 8 and each would possess a minimum of 9 pieces of play equipment with seating and low level fencing providing a sense of enclosure and to exclude dogs etc. None of the residential properties with the development would be more than 5 minutes walk (or 400m) from one of the LEAPs.

86. Lastly the existing cultivated allotments would remain with improvements provided in the form of fencing, mains power, car parking and accommodation for gardening equipment. To the south of the allotments an additional area is intended to be brought into use as a community garden or as additional allotment plots.

87. This level of recreational provision with joint user arrangements in place for the sports facilities is supported by officers.

Landscape Strategy and Public Open Space

88. The landscape strategy for the Barton development seeks to draw upon the existing landscape context with objectives to:
    - maintain existing key landscape features such as mature hedgerows as much as possible;
    - address and mitigate the impact of the development on the local landscape;
    - retain all public rights of way within the site and create new routes;
    - retain and enhance existing habitats;
    - provide appropriate strategic landscape planting;
    - enhance the open space network; and
    - provide additional play opportunities.

89. One of the key and unique landscape features of the development is the proposed linear park extending along the northern boundary of the application site along the line of the Bayswater Brook. It seeks to create an informal

recreational area with cycle and footpath routes extending to Barton Village Road with links through to the Play Barton recreational area to the east. The linear park would occupy some 3.89 ha. in total, or 10% of the development site, and provide both informal and formal recreational areas. The planting of trees, grassland and wildflowers and the creation of flood attenuation ponds along the linear park would also introduce new habitats along the line of the brook in line with policy BA4 of the Barton AAP.

90. Similarly the retention of 3 north - south aligned green corridors (or "greenways") retaining existing lines of trees, hedgerows and ditches penetrating into the heart of the development would provide physical links with the wider landscape setting and references to the previous use of the land for agricultural purposes. The western greenway for example would be some 283m in length and 20m in width, running from the linear park in the north to a point just north of the A.40 in the south, interrupted only by the primary street running east - west across the application site. The other greenways would not be as long and would be typically 15m in width. The ditches along these greenways would retain existing hydrological and ecological conditions and would not be used for attenuation purposes. As with the linear park the greenways would provide important habitats and feeding corridors for wildlife.

91. Elsewhere, and as indicated above, the existing allotments would be extended to the south, possibly to include a community garden, whilst a 1.9 ha recreation ground would be created with facilities shared with the adjacent primary school. In total 12.56 ha. or 33% of the total site area of the development area of 38.3 ha. is given over to open space in one form or another, as follows:

	Hectares	% of total site area
Total site area	38.03	
Recreation ground	1.9	5.00
Area containing School pitch	0.63	1.66
Allotments (including additional)	3.15	8.28
Community garden	1.17	3.08
Linear park	3.79	9.97
Greenways	1.85	4.86
Pocket Parks	0.07	0.18
Total open space	**12.56**	**33.03**

92. In terms of the amount of public open space in relation to the resident population, policy CS21 of the Core Strategy seeks to maintain an overall city wide average of 5.75 ha. per 1000 population. The end population of the development will depend on a number of factors including, for example, whether the full target of 885 residential units and potential population of 2,495 is achieved, and whether a hotel is included at the expense of some of the residential units. Broadly however it is anticipated that the provision of open space would be comparable to provision across the city as a whole and can be supported.

Trees and Landscaping.

93. Although landscaping would not form part of the outline planning permission if

granted, a detailed arboricultural report accompanies the current submission. The report includes a detailed survey of all the trees and hedgerows within the application site which amounts to 213 individual trees, 149 groups of trees and 20 hedgerows. Of the trees 8 are category A as defined by British Standard BS5837:2012, being of high quality and making a substantial contribution to public amenity; 152 category B of medium quality; and 153 of category C low quality. A further 39 individual trees and 10 groups of trees were classified U, ie with less than 10 years life expectancy, being either dead, dying or close to structural failure. **Appendix 8** to this report refers.

94. The report identifies 5 areas of importance in landscape terms:
    - Adjacent to the Bayswater Brook where mainly hedgerow specimens are present, plus over mature crack willows of low quality. Some good offsite screening is provided by specimens north of the brook.
    - Internal to the site including field boundaries. The hedgerows here are of variable quality. Two grey poplar woodland groups are located to the west of the site and have good long term potential.
    - Within the existing allotments and immediately to their east and west. The mainly ash specimens to the west provide a mature backdrop to the allotments, with good quality maple sycamore and wild cherry to the east.
    - Adjacent to Barton Village Road. The principal trees here are category A alder and hybrid black poplar, together with category B ash.
    - Adjacent to the A.40 corridor. North of the A.40 the tree coverage is mostly field maple with hawthorn to the east, providing good screening. To the south of the road the coverage is mostly of hawthorn hedgerow with mature grey poplar to the south - west close to Foxwell Drive and good quality woodland groups between Foxwell Drive and the A.40. The central reservation consists mostly of unmaintained hawthorn with occasional mature trees.

95. If the development were permitted and laid out strictly as indicated in the illustrative Masterplan, then the proposals would require the removal of a significant number of existing trees and other vegetation, the removal of sections of hedgerow and the replacement of fields with development, all necessarily changing the appearance and character of the landscape. Of the 213 existing individual trees identified in the tree report 24 would be lost as a direct result of the proposed development indicated in the Masterplan. Of these 6 are crack willow pollards that are in very poor structural condition and another 4 trees (2 ash, 1 crack willow and 1 hawthorn) are assessed to be low quality and value. This results in 14 remaining public amenity trees needing to be removed, (4 ash, 5 crack willow, 1 hawthorn, I hornbeam, 1 field maple and a sycamore). Of the 149 groups of existing trees, the proposals require 18 to be fully removed with another 3 groups substantially removed. The principal hedgerows within the site, to the northern edge along the line of the Bayswater Brook and the north - south aligned hedgerows intended to penetrate into the development itself, are intended for retention in the main. They will however require careful management if they are to continue to provide not only a visual presence but to retain a role in providing habitat and foraging for wildlife.

96. The Arboricultural Report also recommends that a number of trees not required by the development itself to be lost should nevertheless be removed within 2 years for arboricultural management reasons. These include 25 individual and 3 groups of crack willows. These are outgrown pollards in poor structural condition. The report advises that re-pollarding of these trees is not viable. 8 other trees and 3 groups of trees are also recommended for removal because of their poor condition.

97. In mitigation the report suggests that replacement structural landscaping would be required, providing opportunities to plant new trees in areas of open and green space such as the linear park and other green corridors; along roads and streets; and within garden areas. The submitted Design and Access Statement therefore suggests a palate of species to form the basis of a landscape strategy. These would be predominantly native species and would be appropriate to the development, being based on an examination of the existing landscape and visual context. The key objectives of the landscape strategy are indicated to be:
    - to maintain existing key landscape features such as mature trees and hedgerows as much as possible and incorporate them into the development;
    - to mitigate any effects on the local landscape;
    - to maintain all public rights of way within the site and create new routes;
    - to retain and enhance existing habitats as much as possible;
    - to provide appropriate strategic landscape planting to the site's boundaries;
    - to enhance the open space network ;and
    - to provide additional play opportunities.

98. These features would be captured at the reserved matters stage by conditions imposed on the outline permission. Certainly high quality and consistent standards of landscape management would be required across the whole site at that stage if the vision provided by the landscape strategy were to be delivered in the long term.

99. In summary, many of the tree losses are a direct result of the allocation of the site for development and losses cannot therefore be avoided given the nature and extent of the development as identified in the illustrative Masterplan. The Masterplan itself has evolved through pre-application negotiations and consultation, so that effects on trees are minimised with opportunities provided to plant new trees to mitigate the losses. Although the number of trees and hedgerows lost is not insignificant, they are relatively few in relation to the size and wider context of the development. In bringing forward detailed landscaping proposals however there remain matters which may require further attention.

100. Firstly the Barton Village Nature Area to the south - east corner of the development site has good public access with the trees around its boundaries providing a pleasing backdrop to adjacent housing. This part of the site has been quarried in the past so that it has an undulating ground profile where development is likely to require extensive ground modelling and widespread removal of trees. The trees and other vegetation that grow here are not only important for visual amenity but provide a range of habitats for wildlife. Care

should therefore be taken in the design and layout of the development at this point to ensure that effects are minimised as far as possible and mitigated by new planting.

101. Secondly removing, rather than re-pollarding, relatively large numbers of old crack willow pollards will have a significant effect on the appearance and character of the landscape. It also removes existing and potential habitats for wildlife which are associated with the dead and decaying wood in the boles of the trees. Officers would recommend that the management of these trees should be given more detailed consideration as part of the landscaping proposals accompanying the reserved matters applications to follow if outline planning permission is granted.

102. Lastly in relation to tree pits required for planting within residential streets, linking tree planting to surface water drainage systems should be explored. Planting pits can be used to intercept and store surface water runoff with the added benefit of improving the underground growth environment for street trees. It is disappointing that this possibility has not been considered in the submission.

Landscape Setting and Visual Impact.

103. The National Planning Policy Framework, seeks to ensure that those aspects of the historic environment that hold significance should be sustained. The guidance supporting these policies goes on to explain the importance of ensuring that there is an understanding of the significance which the historic environment holds and how it is valued to be able to assess the impacts. If impacts are predicted to be harmful then there needs to be a justification, measured in terms of public benefit to outweigh that harm, unless it can be mitigated or eliminated by design. The adopted Core Strategy and Barton Area Action Plan acknowledge that the benefits to the wider Oxford community outweigh any harm in allocating the current application site for development. The AAP does however incorporate advice and policies to ensure that the development respects the landscape, its historic and architectural characteristics, and context. The Core Strategy refers at paragraph 3.4.46:

"Whilst the comments about the area's rural character are noted, given the severe shortage of available land for development in Oxford, this is not considered to be of such intrinsic importance as to prevent any future development."

104. The historic core of Oxford sits on a gravel terrace above the surrounding floodplain. This elevates it in views from the surrounding countryside and in views across the city. The 19th and early 20th century suburbs by contrast are mostly obscured in views on lower lying land and screened by intervening vegetation. The ring of medieval villages around Oxford, mainly sited on higher ground and on spring lines, now absorbed within the city's administrative area, (and to varying degrees themselves now surrounded by suburban development), help to explain the settlement pattern of the area and their agricultural origins. These villages retain characteristics of their rural and agricultural roots and of their subsequent gentrification by 18th and 19th century businessmen from the

city, with the development of a number of villas and other large houses set in spacious grounds. Old Headington is one such village

105. The views of Oxfords historic core have high significance and the viewing places also have significance for the history of the view and how it has been recorded over time. During the 20th century viewers will have witnessed a variety of changes to Oxford's setting with the development of the 20th century suburbs, (in particular its rapid post war growth associated with the car industry), the loss of some 19th century suburbs, and the development of the city's hospital and medical research facilities. These changes, a part of Oxford's history and identity, have not directly impacted on the views of the historic core, but they have changed the wider setting.

106. There are 10 protected view cones of Oxford, which represent a selection of the many views from surrounding hills of the dreaming spires and domes and towers, recorded in words and pictures since the 17th century. One of these views is from Elsfield, a long view down onto Oxford city centre, looking over an agricultural landscape. The application site is to the east (left) of this view located beneath Headington Hill and below the development of the John Radcliffe Hospital, which sits on the skyline. To either side of the application site are the 20th century suburban developments of New Marston, Northway and Barton.

107. The application site itself retains evidence of an agricultural landscape with field boundaries and hedgerows that have been in place since at least Parliamentary enclosure at the beginning of the 19th century. These fields once ran up into Old Headington, but have since been truncated by the A40, which in this section of the ring road runs in an almost straight line, ignoring the landscape structure and contours. Subsequent roadside planting has helped to screen much of the road and its traffic. In views over the site from Elsfield and the footpath network that traverse the valley side, the green and wooded nature of the backdrop to Old Headington appears almost seamless. In views over the application site from Old Headington, there is visual connection with the rural landscape, including Elsfield and the isolated farmsteads which helps understanding of the village's rural origins and Oxford's rural hinterland. The A40 is more visible and intrusive in these views however.

108. As a conservation area Old Headington has high significance, as does Elsfield to the north within South Oxfordshire's administrative area. The relationship of the application site to Old Headington is that it forms part of the rural setting of the village, containing physical evidence of the historic field patterns and understanding of the village's agricultural origins. Views of the village nestled in amongst the wooded hillside are possible from the footpath network leading down from Elsfield and hold aesthetic value - the church, visible amongst the trees, and the Rookery (Ruskin College) visible above its walled garden and open fields. The current field pattern and hedgerows to the application site form the fore and middle ground to these views. Also in the view are the developments at Barton and Northway and the John Radcliffe Hospital, which means that the application site represents the only surviving element of the agricultural landscape immediately south of the Bayswater Brook. From within Old Headington village itself however this wider setting is generally not apparent and the character of the

village derives from the mix of cottages and houses that line the intimate network of lanes.

109. The planning application is accompanied by a series of technical documents examining the existing characteristics of the site and its role within this wider landscape setting. Using accepted professional and technical methodologies these studies also examine the nature of change proposed and what impacts those changes would have on the landscape character, views, heritage assets and their settings. The conclusions in those reports are broadly that the magnitude of change would be significant and the effect adverse. The degree of change is accepted, given that the site is allocated for development in adopted Core Strategy and Barton AAP and that the existing setting to the conservation area will change too.

110. How this change is perceived and understood will rely to a great degree on the quality and extent of the landscaping and how it is designed to integrate with the layout (rather than merely filling spaces between buildings). Of equal importance is the design and appearance of those buildings that will be visible in certain view points and how they sit within their new landscape and wider setting. From the north, Elsfield village and the surrounding footpath network, the new development will be seen within a wide landscape context. Closer to, from the footpaths surrounding the site the buildings will be larger components and will have to bear closer scrutiny. The landscaping, neither existing nor as proposed will conceal them entirely. Elsfield is a designated conservation area and Wick Farm a listed building. Whilst these are not within the city's administrative area it is worth noting that the studies accompanying the application assess the impact on these heritage assets. The impacts derive from the visibility of Oxford and its changing suburbs, as experienced in views from these locations.

111. Beyond the grant of any outline planning permission maintaining scrutiny and quality of delivery of development will be critical elements in the success of this new community. Vulnerable issues include:

- the proposed dwellings in the south east corner facing towards the A40 which are proposed to be up to 3.5 storeys, though it is suggested that the majority of the houses in this part of the development are likely to be 2 to 3 storeys. This part of the site is on higher ground and development here would be more visible in views into the Old Headington Conservation Area. If all built out to the maximum 3.5 storeys they would be likely to intrude on the green backdrop of Old Headington below the church impacting on it accordingly. At any reserved matters stage this potential impact needs to be carefully assessed to avoid or minimise adverse impacts.
- the commercial core of the development, at the lower north west end of the site is proposed to accommodate buildings up to 18 metres high with a chimney up to 26 metres high. Tall buildings in this proposed commercial core would result in a substantial change to the existing character and would threaten to add to the adverse impact of the John Radcliffe Hospital unless their mass is carefully articulated and detailed, with careful choice of building materials. This would not

conceal these structures but should help to ensure that the impact on the view and wider landscape character is mitigated.

- the view down Meaden Hill will overlook the new at grade junction across the A.40. This is also the part of the development site where the buildings will be the tallest. The view would change substantially from what currently exists, changing the landscape characteristic and limiting longer views of the green hills beyond the application site. Highway engineering requirements for the road junction would threaten to introduce highway 'clutter' of traffic signals and signs as well as road markings into the foreground. Whilst designing a safe access is paramount, care will need to be taken to ensure signage and lighting is kept to the minimum and new landscaping introduced to soften the impact. The new view needs to provide points of interest in streetscape and greenery, and a sense of visual and physical continuity between Northway and the new development.

112. In summary the proposed development involves a significant change to the landscape character of the site and change to the setting of heritage assets. The degree of change has already been assessed and accepted as a part the Barton AAP process and in allocating the site for development. Some aspects of these changes need to be carefully managed through the reserved matters stage by securing high quality design and use of materials, based on an understanding of the wider context in which the site sits. National policy and advice explains that public benefits to be derived from a development are a consideration and permission can be forthcoming if those benefits outweigh the harm. There is also the potential to minimise or mitigate those impacts through design and careful use of landscaping, but this is predicated on having a robust mechanism to ensure delivery of buildings and a landscape of suitable quality. The Design Code and Parameters Plans are important guiding documents, but the standards they set out should be viewed as minima which new development should seek to match or exceed.

Biodiversity

113. National planning policy and the City Council's own policies together provide a framework to make decisions on the impact of planning applications on biodiversity interests. The National Planning Policy Framework (NPPF) indicates that planning authorities should minimise impacts on biodiversity from new development and take the opportunity to incorporate biodiversity enhancement. There is also legislation and European directives to avoid harm to biodiversity interests and to have regard to the purpose of conservation of habitats. Moreover the Core Strategy at policy CS12 indicates that:

- Sites of Special Scientific Interest (SSSI) must be protected from any development that would have an adverse impact;
- no development should have a significant effect upon a Site of Local Interest for Nature Conservation (SLINC) other than in exceptional circumstances where the importance of the development outweighs the harm, and where it is possible to compensate for the damage caused by providing adequate replacement habitat; and

- species and habitats of importance for biodiversity are to be protected from harm, unless the harm can be properly mitigated.

114. Policy BA19 of the Barton AAP also requires that a plan for avoiding any harm to the Sidlings Copse and College Pond SSSI located 600m to the north of the development site be submitted.

115. The current proposals require the loss of grassland currently of County wide biodiversity value together with the removal of a significant number of trees and some hedgerows, whilst lighting, drainage and disturbance by domestic cats etc all have the potential to affect wildlife using the site. There also exists potential to impact on the Bayswater Brook Site of Local Interest for Nature Conservation (SLINC) through increased usage. In mitigation the proposals include the creation of a linear park with sustainable drainage features, grassland sown with wildflower species, and areas of scrub managed in a naturalistic way. This is supported by a commitment also to restoration and improvement works to an off - site floodplain meadow as compensation for the loss of meadows on site.

116. There are therefore 3 particular areas of concern addressed in the proposals:
- loss of lowland meadow grassland;
- potential impact on Sidlings Copse and College Pond SSSI; and
- wildlife habitats.

117. Loss of Lowland Grassland Meadow. The development involves the loss of 11.5ha. of lowland grassland, (referred to as MG4 grassland), described in this case as being of County level significance. The England Biodiversity Action Plan has a policy to not reduce lowland grassland any further, and in this case a scheme of compensation is proposed by improving land off - site to the same level of biodiversity importance as that lost. The selected location must enjoy similar hydrological and soil conditions; should form part of a network of similar type communities; and be managed appropriately with long term monitoring secured. As it may take a minimum of 15 years for compensation land to attain a similar level of biodiversity interest, then a site larger than that lost should be sought. In this case a site of 11.0ha. has been identified for compensation plus an adjoining parcel of land of 4.0ha. The land is owned by the Oxford Preservation Trust and falls within the Cherwell Valley west of the River Cherwell between the Marston Ferry Road and A.40. The land is already identified as of nature conservation interest. Negotiations have already taken place with the Trust which is supportive of a scheme of compensation. A “Grampian style” planning condition is therefore suggested if permission is granted, securing the required work and future management at the applicant’s expense.

118. Impact on Sidlings Copse and College Pond SSSI. The SSSI lies approximately 600m north of the application site and is owned and managed by Christ Church and Bucks, Berks and Oxon Wildlife Trust (BBOWT). It is a site of some 22ha. and designated due to its mosaic of habitats, including calcareous fen, broadleaved woodland scrub, reedbed, open water and acid and limestone grassland. The variety of habitats present support a wide range of over 400 plant species and fauna, including a diverse assemblage of invertebrates. Despite an expressed intention by the applicant to improve security at the site to prevent

inappropriate access, in response to public consultation both the college and BBOWT have expressed concerns that the site would become more vulnerable to damage as a possible consequence of dog fouling, trampling of plant species etc due to the presence of an enlarged residential population nearby. Currently the planting of thicket forming shrubs, new post and rail fencing, signage and regular checking and repair of boundaries as part of routine management of the site is proposed. Again a positive dialogue is under way with the college and BBOWT and it is suggested that a further Grampian style condition be imposed requiring a more detailed scheme of protective works and future management regime be brought forward and adopted.

119. Wildlife Habitats. The Environmental Statement accompanying the planning application uses guidance from Government and the Chartered Institute of Ecologists and Environmental Managers (CIEEM) to assess the significance of the wildlife present at the site which currently has interest for a variety of species. A badger sett is located on the land which is required to be relocated to allow the development to proceed. It is intended to close the existing sett and create a new one within the linear park. However a licence for closure and creation of a replacement sett can only be obtained from Natural England with a planning permission in place. The intention would therefore be to seek such a licence following the gaining of outline permission. In total the proposed development would include at least 6.99ha. of suitable foraging habitat on the site, compared to 5.4ha. known to be used by the current social group.

120. In relation to bats the survey work undertaken highlights the importance of the Bayswater Brook corridor and hedgerows orientated north - south across the site, especially towards the centre and western sectors. The survey revealed at least 9 species of bat foraging and / or commuting over the area, with the common pipistrelle the most frequently recorded. None of the survey work recorded patterns of activity indicating the presence of bat roosts on site, although the presence of transient roosts could not be ruled out. The proposed development enhances the Bayswater Brook corridor by the creation of the linear park and largely retains the hedgerows as the “greenways” within the development. Nevertheless in view of the phased nature of the development, further surveys would be undertaken periodically to ensure opportunities for roosts and for foraging are maintained. In this regard it is intended to provide bat boxes on mature trees at suitable locations along the Bayswater Brook corridor, consisting of at least 2 boxes designed specifically for hibernating bats, and 20 designed for summer use by a variety of bat species. Opportunities would also be taken to integrate bat boxes into new buildings where appropriate in line with established Core Strategy policy CS12. Details of street lighting columns, design of cowls and intensity of lighting should be considered so as to avoid spillage onto semi natural areas.

121. Surveys of bird life undertaken in 2007 recorded an assemblage of bird species typical of the habitat types present. Species recorded included bullfinch, starling, song thrush, linnet, reed bunding, marsh tit and yellowhammer. Incidental bird records collected in 2012 also included the presence of a kingfisher on one occasion, little owl on 3 occasions and a kestrel frequently hunting over the site. Overall birdlife is assessed as being of local biodiversity

significance. To accommodate future bird life following construction of the proposed development at least 40% of the hedgerow and woodland habitat would be retained. It is important however that grassed margins to the hedgerows are also included and maintained as suggested in the documentation for the benefit of all wildlife. Whilst new tree planting and landscaping would also provide new habitats for nesting, there would also be an increased threat from the domestic cats of new residents. The retention of dense shrub layers where they already occur and the creation of new dense shrubbery to provide suitable nesting habitat which is more difficult for domestic cats to penetrate is therefore suggested. Details would come forward at the reserved matters stage, but locations would include, for example, the western section of the linear park adjoining existing broad leaved woodland where public access would be more limited.

122. A further survey in 2012 recorded the presence of 300 terrestrial invertebrate species present, including a number of scarce species, particularly in the Bayswater Brook corridor and the lowland grassland area. However it is proposed to fully compensate for the loss of the lowland grassland elsewhere, as indicated above), whilst the creation of the linear parkland area along the brook would deliver a positive impact on biodiversity. Two of the invertebrate species found on site are acknowledged to be of national conservation importance. The careful management of the linear park should provide suitable habitat for them.

123. Also in 2012 a survey for reptiles recorded the presence of one species only, grass snake. One adult was recorded but also juveniles, indicating breeding activity in the area, associated with the Bayswater Brook corridor. Only a low breeding population of grass snake was therefore assessed as being present. As part of the landscaping for the development, habitats would be created designed specifically for reptiles, by the creation of uneven margins along treelines and hedgerows and wetland habitat

124. Overall officers are satisfied that with the full mitigation and compensation measures in place as a consequence of the creation of new MG4 lowland grassland off site, new linear park, hedgerow retention, and new tree and landscape planting that appropriate habitats would be created and maintained to ensure that the biodiversity of the locality can be maintained and enhanced.

Archaeology.

125. An archaeological desk based assessment was undertaken for the application site in 2009. This assessed the site as having moderate potential for Neolithic and Iron Age remains based on the previous recovery of a single Neolithic Axe from within the site and the proximity and character of known Iron Age activity. The assessment also noted the potential for Anglo - Saxon remains in the south - eastern part of the site, which is located 50m from a poorly recorded Early Anglo - Saxon burial and sunken building noted during the construction of the Ring Road. The site was also assessed to have a high potential for medieval and post-medieval agricultural features. An analysis of available aerial photographs tentatively identified two features as of possible archaeological interest (features of enclosure type). The denuded remnants of ridge and furrow earthworks were also plotted. A geophysical survey was subsequently undertaken in 2011. The

survey identified a number of parallel linear anomalies in the western and central parts of the site which were interpreted as areas of former ridge and furrow. A number of possible discrete archaeological features were also noted. Subsequently in September and October 2012 an archaeological evaluation was undertaken on the accessible parts of the site, comprising the excavation of 58 trial trenches. The current sports field, the Barton nature reserve area and small areas identified as having high biodiversity value were not evaluated at this stage because of the physical and environmental constraints.

126. The archaeological evaluation identified a dispersed pattern of ditches, although there were concentrations of these features in the northern, central and eastern parts of the site. Neither of the features tentatively identified in the 2009 aerial survey analysis were confirmed by the trenching. The earliest identified feature was a small ditch near the site's eastern edge, from which was recovered two shards of Roman pottery. No other Roman features were encountered, although a small assemblage of residual Roman pottery was recovered from later features and deposits, indicating some activity in the vicinity during this period.

127. Most of the encountered archaeological remains dated to the medieval period, from the 12th to the 15th centuries. They indicate the presence of an agricultural landscape of fields, paddocks and droveways, possibly associated with the site of the putative medieval settlement to the north of Bayswater Brook. Artefactual evidence was scarce, with most of the pottery recovered from the site coming from the northern central area, to the north of the electricity substation. The evaluation also demonstrated that the site had been reorganised in the early post-medieval period, when a system of ridge and furrow ploughing was established. The earthworks associated with this system survived until relatively recently as 19th-century land drains were noted in many of the furrows, indicating that the ridges were still visible at this time.

128. The site also displays a number of hedgerows which meet the criteria for ‘historical importance’ under the 1997 Hedgerow Regulations. These are the 1802 Parliamentary enclosure boundaries and the hedge line along the length of the Bayswater Brook which marks an historic parish boundary. The 1802 boundaries represent the last coherent block of Parliamentary Enclosure within an otherwise largely developed landscape. Parameter Plan No.3 indicates that the existing trees and hedgerows within the site would be substantially retained (including the hedgerow along the brook) and would contribute to much of the underlying structure to the development, thus preserving the general character and layout of the current field pattern.

129. The National Planning Policy Framework states the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset. Where appropriate local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly

accessible. An appropriately worded condition to be imposed on the outline permission if granted is suggested.

130. The scope of the archaeological investigation will depend on the details of the reserved matters applications and the extent and character of the proposed ground works. It is likely that trial trenching will be required in the area of Barton Nature Reserve followed by further mitigation if appropriate. In addition a number of areas where a concentration of medieval features were identified may require a strip and record excavation or watching brief. Finally any substantial reworking of the Bayswater Brook channel may require targeted recording because of the potential for environmental deposits.

Water Resources, Flooding and Drainage.

131. Policy BA17 of the Barton AAP requires that:
"An on - site and off - site water network supply and drainage strategy must be produced by the site developer to ensure that appropriate upgrades are in place ahead of occupation of the development. Planning conditions will link the start and phased development of the site to the availability of wastewater infrastructure capacity and the capacity of receiving watercourses. Development of any phase must not result in an adverse impact on water quality or any increased risk of sewer flooding as a result of the additional wastewater flows from the development."

132. This policy was brought forward in the context of existing sewers surcharging at certain times in the Borrowmead Road area of Northway, south of the A.40. There are 2 related elements to drainage infrastructure which flow from the condition: foul sewerage drainage and surface water drainage.

133. Foul Sewerage Drainage. In preparation of the planning application the applicants commissioned Thames Water to undertake a foul water impact study of the network in the vicinity of the development to identify what improvements to the network would be required to accommodate the additional foul water flows from the development so as not to increase the potential for sewer surcharging in the Northway area. In doing so Thames Water undertook an extended monitoring exercise of flows in the existing system.

134. The main sewerage network upstream of the application site is 300mm in diameter and serves the existing Barton area fed by 255mm diameter sewers to smaller streets. From Barton the sewer runs along the line of Bayswater Brook before turning south and passing beneath the A.40 where it increases in size from 300mm to 375mm in diameter. Thames Water's assessment of the hydraulic loading of the existing foul system indicated that the 300mm diameter sewer had limited capacity; was 2m deep; and was prone to surcharging elsewhere during storm events. It would not therefore be capable of accommodating the additional flow from the new development without improvement and upgrading. In this regard the peak flow from a development consisting of 885 residential units, primary school and commercial centre was calculated at 28.12 litres per second (l/s).

135. In order to accommodate this increased flow Thames Water examined the possibility of a new trunk sewer or pumped solution but concluded that no suitable connection point within a practical distance was available. Any new sewer would also have to cross the A.40 incurring considerable disruption and adding significantly to costs. As a consequence a “fill and drain” attenuation system was proposed involving the installation of additional storage capacity of 1900 cu m which would store foul water flows during storm events and then pump effluent back to the existing public sewer at later date when there were capacity in the system. The attenuation system would contain two storage areas along the line of the brook, with a section of the existing on - site sewer also being diverted.

136. Thames Water stressed that the details were indicative for this outline application stage however and would be required to be refined during detailed design. Nevertheless the Thames Water report concludes:

“Thames Water Utilities were commissioned to undertake a study to assess the impact of proposed development of around 1000 new homes at Barton on the foul water drainage sewer network from the site and through the surrounding area; and identify potential solutions that would not be detrimental to the local area or increase the incidence of localised flooding. As part of the study Thames Water carried out flow monitoring of the existing sewers in the area to feed into the modelling of the sewer network. The study has identified a single deliverable solution to accommodate the additional development foul water flows. The solution is to provide underground foul water storage that will retain sewage on site during periods of heavy rainfall when the existing network is at capacity and discharges at a controlled rate during dry periods when capacity is available in the network.”

137. On this basis officers have accepted that a foul system to accommodate the new development can be provided without causing additional capacity problems elsewhere. Subject to a condition requiring details of the attenuation system to be approved by the City Council as local planning authority in consultation with Thames Water the foul system proposed is accepted in principle.

138. Surface Water Drainage. The application site slopes from a high point of 92.8m AOD in the south - east corner to a low point of 62.15m AOD adjacent to the Bayswater Brook. Although a foul water sewer runs along the northern side of the side parallel to Bayswater Brook, there are no surface water sewers crossing the land. Nor does any part of the site fall within Flood Zone 3b,(ie functional floodplain where water has to flow or be stored in times of flood), though a small area measuring 3ha. (or 8% of the development site) falls within Flood Zone 3a where there is a high probability of flooding. No building works are proposed within this area. The site has not been affected by recent flood events in Oxford, and it is accepted that in flooding terms the development is located at a “sequentially preferable” site in terms of the technical guidance to the NPPF.

139. That technical guidance recommends allowance be made in drainage schemes for new development for a 30% increase in peak rainfall intensity up to the year 2115. The planning application seeks to achieve this requirement with a sustainable drainage strategy (SUDs) based on a typical lifetime for commercial development of 60 years, and for residential accommodation of 100m years, and which mimics natural catchment processes as much as possible given the constraints of the application site.

140. Ground conditions are such that groundwater levels are high across the site ranging from 0.04m to 9.51m below ground level which means that direct infiltration of surface water would not be possible as this could lead to a future flood risk. Instead the surface water strategy is based on a single catchment discharging into the Bayswater Brook, but at a controlled rate to avoid flooding. This is achieved by permeable surfacing being incorporated into all parking areas, private courtyards etc, conveying surface water via swales and cascaded attenuation facilities to the brook.

141. Essentially the system consists of two underground storage facilities located beneath the recreation ground, each with a volume of 1,770 cu m and situated outside the agreed fluvial 1 in 100 year flood level associated with the Bayswater Brook in order to avoid loss of attenuation storage during flood conditions. Two smaller attenuation features of 170 cu m and 175 cu m are also provided elsewhere. From these facilities water would be released at a controlled rate into balancing ponds along the line of the Bayswater Brook which would form landscaped features of the linear park. From here water would in turn be released into the Bayswater Brook at a controlled rate. The balancing ponds would be lined to prevent ingress of groundwater which would reduce their capacity.

142. Other features of the sustainable drainage strategy include green roofs to the retail and commercial buildings, plus school building if possible; filter strips and swales; geocellular storage; and rainwater harvesting. It is intended to include water butts to all residential properties for irrigation, and similarly to utilise water in storage facilities for irrigating the recreation ground.

143. Overall the strategy is designed to meet the 1 in 100 year plus 30% for climate change criteria, but would not utilise existing drainage ditches across the site as these already convey flows from off - site third party land into the Bayswater Brook. The proposed sustainable drainage strategy would also reduce flood risk to existing local residents, creating a minor positive effect.

144. The Environment Agency accepts the strategy proposed to address surface water drainage and raises no objection to the planning application subject to the development being carried out in accordance with the principles embodied in the Flood Risk Assessment (FRA) accompanying the planning application, in particular that:

- no building is permitted within the 1 in 100 year plus 30% for climate change flood extent;
- finished floor levels should be no lower than 450mm above the 100 year plus 30% for climate change level;

- surface water catchment control features should be located outside the 1in 100 year plus 30% for climate change extent;
- outfalls and storage arrangements to be tested at design stage;
- there should be limited and specified rates and volumes of surface water run off only, as indicated in the FRA;
- details to be submitted of how contamination risks are to be mitigated.

145. Conditions to the planning permission would capture these requirements, and officers are therefore able to support the surface water strategy accordingly.

Sustainability and Energy.

146. In the event of outline planning permission being granted, followed by a series for reserved matters permissions, then it is anticipated that the development would be constructed over a period of years commencing in 2014, with a likely completion date of 2019. During that period the Building Regulations will become increasingly challenging in terms of energy and other requirements. In the period between 2014 and 2016 the residential elements of the development will be required to meet Part L1A 2013 of the Building Regulations. At the time of writing the 2013 Regulations had not come into force but are likely to require achieving either an 8% or 25% aggregate reduction in regulated carbon emissions across developments compared to the 2010 standard, and to also include minimum Fabric Energy Efficiency Standards (FEES). The FEE standard represents the maximum allowable amount of energy used to heat and cool the dwelling per metre squared of the dwelling's area. The 2013 Regulations are in turn planned to be replaced in 2016 by Part L1A 2016 which will also require the achievement of "carbon compliance" to meet "zero carbon" standards.

147. For non domestic buildings, Part L2A 2010 of the Building Regulations apply, again to be replaced shortly by Part L2A 2013. The new Part L2A is expected to require either an 11% or 20% reduction in aggregate carbon emissions beyond 2013 compared to the 2010 requirement, with a Government aim of achieving zero carbon standards for all non domestic buildings from 2019. This approach is consistent with the NPPF which, inter alia, states that in order to support the move to a low carbon future, local planning authorities should:

> "*when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards."*

148. In addition to the Building Regulations and NPPF, at the local planning level policy CS9 of the Core Strategy requires the submission of a Natural Resource Impact Analysis (NRIA) which in turn requires a checklist of measures to be submitted and a minimum score achieved in each of 4 separate categories: energy efficiency, renewable energy, materials and water resources. In addition policy BA12 of the Barton AAP requires that the outline planning application demonstrates how the development would optimise energy efficiency by minimising the use of energy through design,

layout, orientation, landscaping and materials and by utilising renewable and /or low carbon technologies. A full NRIA for each phase of development would only be possible at the reserved matters stage however with the production of detailed designs.

149. In responding to the NRIA requirement to provide 20% renewable energy on site the supporting documentation to the planning application refers to a district heating system for the residential elements of the development having been considered but ruled out on the basis of the additional cost to be borne by individual householders, including those occupying the 40% affordable properties. Other solutions to meet the 20% requirement were also considered, including the use of solar thermal hot water heating systems and air source heat pumps. Neither alone would achieve the 20% on site renewable target however. The favoured solution for the residential development is therefore proposed to be a standalone one consisting of high efficiency condensing boilers together with photovoltaics (PV) to all roofs. The overall design and layout of the development as suggested in the illustrative Masterplan is conducive to such an approach. PVs would not only provide a significant amount of electricity with low running costs but would also be technically simple to install, and was a solution favoured at the development forum during the public consultation phase prior to submission of the planning application.

150. Whilst the applicant's position is noted, and the use of photovoltaics and condensing boilers welcomed, Officers would wish to maintain a dialogue to explore the potential still for the inclusion of a district heating system and not rule it out at this stage. A condition is suggested requiring that a district heating system should be brought forward to serve the development unless there are cogent and persuasive arguments justifying that it be set aside in favour of alternative approaches to the use of energy. Indeed for the commercial centre a combined heat and power (CHP) system is proposed with sufficient thermal storage to provide approximately 50% of the hot water heating load. The potential may exist to extend that CHP system to the residential flats within the same block of accommodation and / or the hotel if that were included. The primary school is indicated to be too far from the commercial centre to be served by that CHP system and a standalone biomass boiler system is proposed instead to achieve the 20% renewable requirement on site. Again Officers recommend that the energy requirements for the school should be met through the district heating system unless it can be fully justified that it is not appropriate.

151. As a footnote to the suggested approach to on - site renewables, the policy requirement of 20% provision of energy needs refers to the total energy associated with development proposals. The Energy Statement submitted with the planning application refers only to regulated energy use and therefore excludes the energy required for plug-in appliances for such uses as cooking, washing clothes and entertainment for example. When the full NRIAs are submitted alongside the reserved matters applications, it will be expected that total energy use will be the criterion adopted. As with a potential district heating system, any departure from such an approach would require the fullest

justification. In any event a full NRIA will be required to accompany the reserved matters application, and to include measures relating the full range of issues identified in the NRIA SPD. Attached as **Appendix 9** is the applicant's response at this stage as to how the range of NRIA requirements would be addressed.

Environmental Statement.

152. The planning application is supported by an Environmental Statement (ES), which considers the likely environmental effects of the development and proposes, where necessary, measures to mitigate any adverse effects that might arise. The ES is necessary because paragraph 10(b) of Schedule 2 of the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 2011 will normally require an Environmental Impact Assessment (EIA) to be undertaken for any mixed use urban development project in excess of 0.5 ha. The EIA is an important procedure for ensuring that the likely effects of a new development on the environment are understood and taken into account before development is allowed to go ahead. Where the ES reveals that a project will have an adverse impact on the environment, it does not follow that planning permission must be refused however. It is for the local planning authority as decision maker to determine each planning application on its merits within the context of the development plan, taking account of all material considerations, including environmental impacts.

153. As part of the EIA process the applicant prepared a "Scoping Report" that indicated the range of topics that it was intended to consider in the ES. This was sent to the Council as local planning authority with a formal request for the local planning authority's "Scoping Opinion" under Regulation 13 of the EIA Regulations. It's response (its "Scoping Opinion"), (which is informed by the comments of various statutory bodies who were consulted by the local planning authority), largely concurred with the scope of the applicant's intended assessment but highlighted the topics that, in the local planning authority's opinion, particular attention should be paid to.

154. The EIA Regulations indicate that where an EIA is required, information must be provided by the developer in an ES. The ES must contain the information specified by Regulation 2(1) and in Schedule 4 to the Regulations. The advice of the Secretary of State is that local planning authorities should satisfy themselves that submitted ESs contain the information specified in Schedule 4. In this context the ES has been critically reviewed by Officers using criteria that are intended to test whether an ES contains the requisite information required by the EIA Regulations. Of particular interest in relation to the ES in this case are requirements to protect the local environment as far as is practical during the construction period, as well as transport issues and matters relating to sustainability, drainage and the water environment, biodiversity, landscaping, public realm etc. Some of these matters are also considered in the preceding text.

155. Attached as **Appendix 10** is a summary of the environmental impacts of the development. It provides a description of the key impacts that have been predicted for each topic area; outlines the mitigation measures proposed;

identifies the significance of the residual impacts; and provides a short officer commentary. Impacts can be adverse, neutral or beneficial and their significance will depend upon their magnitude and the sensitivity of the receiving environment (or receptor) to change. The criteria that are used to categorise the significance of impacts vary according to the nature of the topic being assessed and on occasions they may include subjective judgements about the baseline situation and the magnitude and significance of predicted impacts.

Other Matters.

156. Employment Opportunities. The AAP indicates that that the City Council will use planning conditions to ensure that local people and businesses benefit from the opportunities that are generated by the new development. The planning application includes an assessment of the likely socio economic benefits resulting from the development. It forecasts that the proposed development would generate some 12 full time equivalent (FTE) construction jobs at the anticipated commencement of the development in 2014, rising to 109 FTE nearing completion in 2019. The Barton Oxford LLP has also agreed to explore potential links to education and community training through the development of an Employment and Skills Plan. This would specify the provision of training to improve vocational and employability skills and would involve the LLP itself, contractors and future occupiers to deliver new jobs and business opportunities. A condition is suggested accordingly. In addition, procurement of contracts for the new development will promote local businesses for each phase of the development. A further condition is suggested.

157. In terms of direct employment generated from the new development it is forecast that the anticipated end population of 2,495 would give rise to the creation of an estimated 208 FTE jobs. For example some 82 jobs are estimated to be created at the proposed supermarket and 30 at the primary school with others at the other commercial outlets and hotel if that proceeds. A large proportion of the new employment is anticipated to come from the new development itself or wider local area. The new employment created is considered to represent a significant beneficial effect of the development for the local area.

158. Construction. If permitted the development would be subject to Construction Environmental Management Plan (CEMP) which would address issues such as working hours, signage, site hoardings, piling methods, earthworks, routing arrangements, arrival and departure times for construction vehicles, control of dust and emissions, vibration, materials storage, waste management etc. It would need to fully comply with British Standard BS5228: *Noise and Vibration,* which would require, for example, equipment and vehicles to be shut down when not it use; semi static equipment to be located as far as possible away from noise sensitive areas; mains electricity to be used rather than generators wherever possible; and cutting or other noisy operations undertaken through off - site fabrication wherever possible. Piling where required should be by the less intrusive bored method such as the Flight Auger method.

159. During construction there would be various site clearance operations which would have the potential to create dust or other emissions. The impact of these operations would be minimised by, for example, vehicles carrying loose aggregates being covered; completed earthworks being covered and vegetated as soon as possible; windbreak netting or screening erected around material stores where appropriate; material stockpiles being dampened during dry weather conditions using water sprays; use of dust suppressed tools; and not permitting unauthorised burning of materials anywhere on site.

160. The CEMP will be required as a condition of planning permission, with principal contractors and plot developers also registering with the Considerate Contractors Scheme.

161. Lastly it is intended that construction traffic access to the site would enter via a temporary access junction directly off the eastbound carriageway of the A.40 close to the existing electricity sub station, with the routing of vehicles not permitted to pass through sensitive areas such as residential streets.

162. Air Quality. Oxford was declared an Air Quality Management Area in 2010, which includes the current application site. The main influence on local air quality at the application site is emissions from road traffic using the local road network, especially the A.40 adjacent to the site and the A.420 London Road which lies between 800m and 1400m to the south. The main pollutants of concern for road traffic sources in this case are nitrogen dioxide and carbon monoxide. The City Council currently monitor concentrations of nitrogen oxide at a number of key locations in and around the Green Road roundabout approximately 800m from the application site at its closest point. These are at Roundway, Green Road, and Lydia Close. Analysis of results indicates that measured roadside concentrations at these locations are close to or above the statutory objective level with an upward trend from 2008 to 2012 but decrease in 2012.

163. The Environmental Statement accompanying the planning application predicts annual mean levels of concentrations of nitrogen dioxide particulates at 79 relevant sensitive locations assuming the following transport measures are in place, as discussed earlier in this report:

- conversion of Marston Road mini roundabouts to traffic signal controlled junction;
- amended lane markings and signal timings at Green Road roundabout;
- new / extended bus services into the new development;
- reduction in speed limits on the A.40 to 50mph between Green Road and the Marsh Lane junction; and
- travel plan measures.

164. With these in place, on completion of the development the quantitative assessment indicates that concentrations of nitrogen dioxide and airborne particulates would decrease at all assessment points in and around the application site to a level well below the national air quality objective, creating

a permanent, direct, long term beneficial effect on local air quality. This is primarily due to the reduction in speeds on the A.40 from 70mph to 50mph between Green Road roundabout and the Marsh Lane junction, alongside the other transport and Travel Plan measures proposed.

165. It is suggested that a condition be imposed accordingly requiring the applicant to undertake a scheme of additional air quality monitoring upon completion of each phase of development.

166. Noise Attenuation. The noise climate relating to the application site is dominated by road traffic, especially from the A.40, although noise from the sub station can also be heard from close proximity. Noise monitoring was carried out at a number of locations across the site in November 2011. From this mapping software was used to zone the site according to environmental noise exposure categories (NEC), using those suggested in the former Planning Policy Guidance Note 24 (PPG 24) which specified noise levels for each category:

- NEC A - Noise need not be considered as a determining factor in granting planning permission, although the noise level at the high end of the category should not be regarded as a desirable level.
- NEC B - Noise should be taken into account when determining planning applications and where appropriate conditions imposed to ensure an adequate level of protection against noise;
- NEC C - Planning permission should not normally be granted. Where it is considered that permission should be given, (for example because there are no quieter sites available), conditions should be imposed to ensure a commensurate level of protection against noise.
- NEC D - Planning permission should normally be refused.

167. The findings indicated that during daytime conditions the majority of the site fell within categories A or B with only a strip of land along the A.40 and a small enclave adjacent to the sub station within category C. Under night time conditions category B extended to cover most of the site with no part of the development within category A and the strip along the A.40 and at the sub station within a marginally extended category C. At no time was any of the application site within category D.

168. These findings assume a maximum speed limit on the A.40 of 50mph, and are based on an open site. In reality however the majority of buildings would be screened by those closest to the A.40, reducing noise levels elsewhere accordingly, and no buildings would be constructed within a minimum of 25m of the A.40.

169. For buildings within category A no additional noise mitigation is considered to be necessary by the applicants. For dwellings falling within categories B and C it is suggested that various design solutions are considered such as orientation of properties, (especially those closest to the A.40), so that rear gardens are screened by the buildings themselves; arrangement of the internal layout such that the less noise sensitive rooms (bathrooms, kitchens etc) overlook the noise source; and sound insulation by double glazing etc is

fully incorporated. The internal noise levels would aim to meet the following targets:

- night time internal (bedrooms): 30 dB LAeq 8 hr.
- daytime internal (living rooms): 35 dB LAeq 16 hr.

170. This approach is supported by Environmental Development colleagues subject to the imposition of a condition which requires the submission of a detailed noise mitigation scheme to protect the development from noise emanating from the A.40 and from the sub station. This should be subject to verification on completion of each phase of development to ensure the measures are successful.

171. Contamination. Whilst the application site is predominantly agricultural there is also a large electricity sub station central to the site plus derelict farm buildings and most significantly an area of landfill at the existing recreation ground. The landfill here extends to up to 4m in places. The land in this area was raised from natural ground level in 1951 using inert, semi inert and biodegradable waste materials which was subsequently levelled, covered with topsoil and completed as the recreation ground in 1958.The Environmental Statement accompanying the planning application has identified that parts of the site are impacted by contamination, including elevated concentrations of metals. Localised hotspots of organic contaminants were also noted. Small areas of made ground also exist west of the sub station and to the south - east corner of the development site off Harolde Close.

172. Overall contamination was found in the groundwater and soil, and gas recorded. As the initial stages of a phased risk assessment have already been undertaken then a planning condition is required to secure its completion with details of remediation, subsequent verification and validation and long term monitoring supplied in due course. A further condition is recommended to impose long term controls through the removal of permitted development rights to control any development involving groundworks within the landfill areas.

173. Waste. Using Building Research Establishment (BRE) indicators, it is estimated that a development consisting of 885 residential units, commercial centre, recreation land, primary school and other works would generate a total of 15,305 tonnes of construction waste which would require management throughout the construction period. The largest elements would be packaging (25%) and timber / wood (19%). Waste would be located away from sensitive areas with colour coded skips to segregate different types of waste. Hazardous waste would be stored in secure bunded compounds in appropriate containers, as would any fuels, oils or chemicals. Best practice would be aimed for by adopting the following targets:

- at least 85% of non - hazardous construction waste to be diverted from landfill for re use or recycling;
- not more than 9 sq m construction waste per 100 sq m of residential use;
- not more than 6.2 sq m of construction waste per 100 sq m of commercial and retail uses;

- not more than 8.3 sq m of construction waste per 100 sq m of educational uses; and
- not more than 9.3 sq m of construction waste per 100 sq m of commercial office uses.

174. Public Art. A public art strategy is required of the development in line with established planning policy requirements for major developments. The strategy would form the framework from which individual projects would emerge which could, for example, be in the form of specific pieces at landmark locations; projects involving the local community and / or school; or linked elements such as a country park trail through the linear park. They would be intended to form an integral part of the townscape of the development, to integrate with the public realm and landscaping.

175. The strategy would be required by planning condition, developed by an artist appointed by the Barton LLP. Development and implementation of the public art strategy would be carried out in consultation with the City Council.

Conclusion.

176. The proposals represent a major urban extension to the built up area of the city, responding positively to the urgent need for additional housing and supporting facilities, and to the objectives set out in the Barton AAP. At the head of this report those objectives were listed and are returned to now, as follows.

177. Deliver a strong and balanced community. The proposals comply with the AAP policies on housing types, size and tenure to provide a good mix of housing for different needs, whilst the community hub will provide the required primary school facilities and flexible spaces for a range of community uses. In addition, with the creation of linked formal and informal public open spaces a network of public routes would exist, facilitating walking and cycling within the site (and beyond), encouraging healthy living. The retail provision proposed is of a scale in line with that of the AAP policies, being complementary to existing facilities rather than competing with them.

178. Bring wider regeneration of neighbouring estates. The proposals include improvements to cycle and pedestrian access between Barton and the rest of Oxford and make provision for bus services through the site and improved bus services to the wider community. The development would also include new community facilities available to the wider local populace. The scale of the development project and commitment to local jobs and training would offer local people new economic opportunities, providing it is allied to other projects and schemes.

179. Improve accessibility and integration. The Design Code sets a framework to ensure that the new neighbourhood is legible and walkable, offering comfortable and safe opportunities to walk and cycle. The proposals also include a new at grade vehicular access from the ring road and a new link for pedestrians, cyclists and emergency vehicles across the ring road to Northway, the John Radcliffe Hospital and city beyond. The existing underpass would be improved, with the

potential existing for future connections to the Headington area south of the A.40. The indicative Masterplan shows how the new housing along the primary street extending through to the junction with Fettiplace Road and facing onto Barton Village Road could be provided, integrating it with the existing Barton community. In this regard the Design Code demonstrates how the development can be designed to face outwards towards neighbouring areas to help with the sense of integration.

180. Encourage a low carbon lifestyles. The combination of providing attractive walking and cycling options and building properties to be energy efficient and use renewable energy brings with it the potential for new residents to lead a more low carbon lifestyle. In addition, new bus routes and relatively modest car parking levels and requirement for Travel Plans can help to encourage alternative modes of travel to the private car. The built environment can only ever play a part in changing lifestyles, but the measures included in the proposals go some way to assist with the objective.

181. Introduce design that is responsive and innovative. The indicative Masterplan shows the creation of 3 distinctive neighbourhoods within the site ranging from higher density mixed use at the commercial centre to the west, through medium density residential development in the centre of the site, to lower density residential development with the primary school / community hub at the Barton edge of the site. Overlaying this structure is a green network of spaces that also include sustainable drainage systems.

182. Overall therefore the proposed development has the potential to respond positively at the reserved matters stage to the challenges set for it in the Barton AAP. The intention would be to build out the development over a period of years commencing at the western end of the site. Although all the details of the development are not known at this outline stage, a clear framework is established by the Parameter Plans, Design Code, planning conditions and accompanying legal agreement for a series of successful reserved matters applications to follow in due course. These controls will ensure that the development is of an appropriate quality and provides facilities for a new and expanded community to grow and evolve.

183. It is regretted that greater connectivity across the A.40 could not be achieved as part of these proposals but the potential exists for future connections, with the new access to Northway accommodating new and extended bus services to facilitate integration with the wider Oxford community. Landscaping to mitigate trees lost to construction is provided for; issues relating to any potential for flooding and drainage addressed; and impacts on archaeology, biodiversity and other environmental considerations in hand. A minimum of 40% of all residential units would be affordable accommodation to rent and distributed across the site.

184. Committee is recommended to support the proposals accordingly.

Human Rights Act 1998

Officers have considered the Human Rights Act 1998 in reaching a recommendation to grant planning permission, subject to conditions and an accompanying legal agreement. Officers have considered the potential interference with the rights of the owners/occupiers of surrounding properties under Article 8 and/or Article 1 of the First Protocol of the Act and consider that it is proportionate.

Officers have also considered the interference with the human rights of the applicant under Article 8 and/or Article 1 of the First Protocol caused by imposing conditions. Officers consider that the conditions are necessary to protect the rights and freedoms of others and to control the use of property in accordance with the general interest. The interference is therefore justifiable and proportionate.

Section 17 of the Crime and Disorder Act 1998

Officers have considered, with due regard, the likely effect of the proposal on the need to reduce crime and disorder as part of the determination of this application, in accordance with section 17 of the Crime and Disorder Act 1998. In reaching a recommendation to grant planning permission with an accompanying legal agreement, officers consider that the proposal will not undermine crime prevention or the promotion of community safety.

Background Papers: Application 13/01383/OUT

Contact Officer: Murray Hancock
Extension: 2153
Date: 30th August 2013

APPENDIX 1

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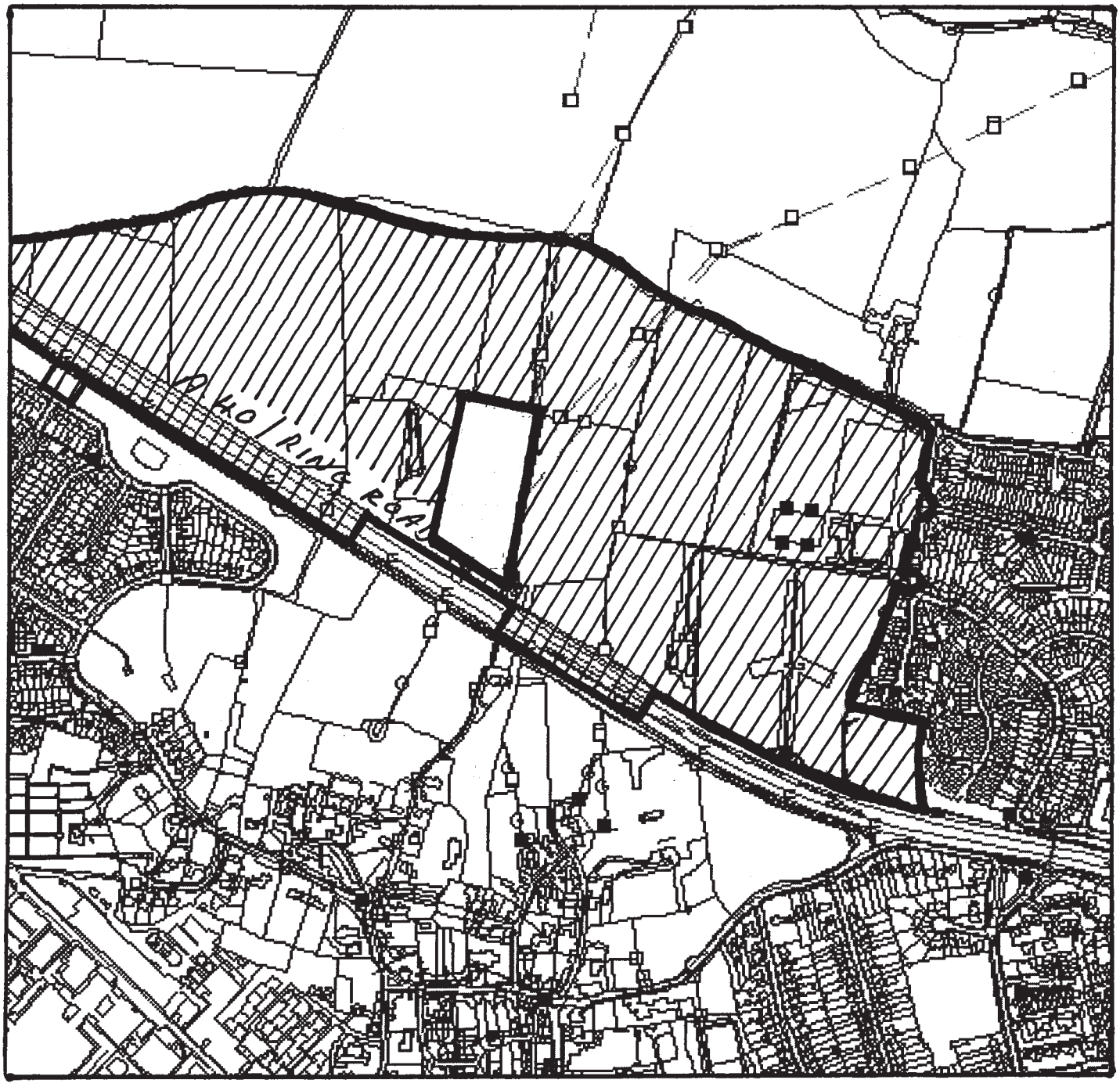
OXFORD CITY COUNCIL

Appendix 1

13/01383/OUT - Land West Of Barton



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Appendix 2:

Public Consultation: Summary of Comments Received.

Consultation Undertaken by Applicant.

During the course of 2012 and prior to the submission of the planning application the applicant undertook a comprehensive programme of public consultation and community involvement. Over the course of the year this consisted of press releases, the establishment of a website and public engagement in the form of public exhibitions and drop in sessions at Barton and Northway, and a mail out to 3,000 people in those areas. At the same time a programme of stakeholder events was also under way involving regular project team meetings, workshops, member briefings and a symposium. On 4th May 2012 the Berkshire, Oxfordshire, Buckinghamshire and Milton Keynes Design Panel Network (BPBMK) considered the emerging Masterplan at that stage.

The outcome of the consultation process was fully reported with the planning application documents and summarised as **Appendix 3** is the applicants' response to the points raised. The comments of the BOBMK group are attached as **Appendix 4.**

OCC Consultation on Receipt of Planning Application.

Statutory and Other Organisations.

Oxfordshire County Council - School Provision: 1.5 form primary school entry extended to 2 form entry agreed; amendments to projected layout of primary school suggested; community space within primary school agreed; financial contribution to secondary education to be secured by S.106 agreement.

County Council - Transport and Highways: Access from A.40 at Northway agreed for buses and emergency vehicles only plus cyclists and pedestrians; in principle layout of junction acceptable subject to detailing; bus link may not be deliverable if Town Green application successful; with mitigation additional traffic movements can be accommodated; key mitigation measures are traffic signal control at Marsh lane / Cherwell Drive / Marston Road / Headley Way junction, enhancements at Green Road roundabout including road markings and enhancement to bus services; agreement in principle to 50 MPH speed limit to A.40; alterations to other highways required; Controlled Parking Zone (CPZ) supported; detailed amendments to Design Code required (eg relating to bus stops, bus shelters, lighting at bus shelters, traffic calming; surface water drainage; tree species; location of bin storage, size of garages, levels of parking provision, location f car parking etc).

County Council - Rights of Way: Support footbridge across Bayswater Brook to footpath leading to Elsfield; would welcome wider package of measures and improvements to footpath along Bayswater Brook.

County Council - Non Highways Drainage: Overall approach acceptable.

County Council: Waste: Use of recycled aggregates and management of waste adequately addressed; condition suggested for management of excavated waste.

Environment Agency: No objection to application as submitted; suggests various conditions relating to development being in accordance with the Flood Risk Assessment (FRA) submitted; details of surface water drainage to be submitted; details of contamination and its remediation and subsequent verification to be submitted; 8m buffer zone to Boundary Brook required.

Thames Water: Details of on and off site drainage works to be submitted and approved in consultation with Thames Water.

English Heritage: A number of views from Old Headington Conservation Area and Stoke Place bridleway are of significance in conservation terms; development visible from Stoke Place in particular; rural setting compromised and some harm caused; however this would be limited with mitigation from existing tree coverage; rural land within conservation area would remain intact; massing and layout of development would minimise visual impact on views out of conservation area as far as possible; impact on conservation area therefore minor negative; public benefits justify harm.

Natural England: Not likely to have adverse effect on Sidleys Copse and College Pond Site of Special Scientific Interest (SSSI) subject to mitigation including open space and greenways; support compensation for loss of lowland meadow grassland but concerned that replacement area should be larger than that lost; no objection in terms of protected species, but local planning authority should assess adequacy of surveys submitted; planning authority should also assess other possible impacts.;

Thames Valley Police Crime Prevention Officer: Do not object; development to be in accordance with *Secured by Design* principles; all properties should have zone of defensible space; landscaping and lighting details to be brought forward together; advise against bollard lighting; uplighters to be avoided; some concern regarding location of play areas; no details of youth provision; need to avoid conflicts between uses within commercial centre; welcome upgrading of existing underpass; need to control future features to main street such as roller shutters etc; suggest restrictions on height of landscaping features to front and side of plots; street furniture should be robust and deter antisocial activity; cycle parking to be secure; would wish to make recommendations on traffic speeds; 20 MPH speed limit throughout estate and during construction; provision to be made for safety camera a system; link to Northway needs to include technology to ensure bus /emergency use only.

Sport England: Applicant needs to demonstrate facilities would be equivalent or better in quality and quantity, and subject to equivalent or better management; information not provided as drawings illustrative only and not possible to assess if facilities better in quality and quantity; location adjacent to primary school and dual use both welcomed; unable to support due to lack of information; therefore object to proposals.

Scottish and Southern Energy (SSE): Clear policy required for diversion of 11,000 volt and 33,000 volt power lines underground to meet requirements of development; no objection to application subject to condition requiring contractual undertaking in respect of rerouting.

Old Marston Parish Council: Object; concerned at amount of traffic generated through Old Marston village and Marsh Lane.

Third Parties.

Oxfordshire Green Party: Various objections to the Barton AAP but these were not taken on board by Inspector - loss of nature park; level of affordable housing at 40%; inadequate public open space; concerned about density and garden space; too close to A.40 resulting in air pollution and noise; loss of greenery to central reservation of A.40 and at Foxwell Drive. Application cannot be objected to these grounds therefore but other concerns nevertheless: question the need for a hotel; concerned at density and height of buildings – heights should be reduced; not convinced there would be a 76% - 24% split of houses to flats; no indication of what would happen if Town Green application for Foxwell Drive were successful; concerned about food crops in extended allotments being grown so close to A.40; details of form and extent of foul drainage needed; photovoltaics and solar thermal provision should be extended.

Berks, Bucks and Oxon Wildlife Trusts (BBOWT: Insufficient mitigation proposed to ensure no damage to Sidlings Copse and College Pond Site of Special Scientific Interest (SSSI) due to potential increased recreational pressures, in particular from uncontrolled dogs and antisocial behaviour; possible insufficient off - site compensation for loss of lowland meadow; not clear who would maintain fencing at SSSI; mitigation should be undertaken to improve potential habitats for water voles.

Northway Residents Association: Object to size of development, damage to environment and intrusion of access into Northway; will harm; landscapes and habitats; increase pressures on drainage and other services; loss of greenery; additional noise and pollution; possible damage to parked cars; through traffic not acceptable; potential for flooding.

Friends of Old Headington: Support level of affordable housing; welcome creation of new semi rural neighbourhood; linear park imaginative; need to minimise reflection from photovoltaic panels; may not meet Core Strategy requirements on open space; pocket parks may be too small; welcome primary school but concerned that existing secondary facilities and doctors' surgeries would be sufficient; lack of public house is a missed opportunity; not clear what mixed use means in terms of commercial centre; spine road may become a rat run – traffic calming required; safety risks to spine road; landscaping to central reservation of A.40 should be retained; some properties too close to A.40; how would 50 MPH speed limit on A.40 be enforced; may be harm to Northway from traffic via new access; routing of buses from new access through Northway not clear – needs to be clear and prevent other traffic; concerned about potential for flooding; height of buildings at gateway entrance not acceptable and will be visible from Old Headington; views in and out of Old Headington need to be respected.

County Councillor Roz Smith: Concerned about impact on traffic at green Road roundabout; potential pressure on secondary school provision; integration with Marston, Risinghurst and existing Barton areas.

County Councillor Anne Purse: Will worsen conditions at Green Road roundabout; better solution than adjusted line markings at roundabout required; pollution from queuing traffic; will result in diversion of traffic through surrounding villages.

West Oxfordshire District Council: Welcomes substantial new housing development; need to consider impact on A.40 and junctions to absorb additional traffic - any development which slowed or restricted traffic movements would be a concern; City council should seek advice of Local Enterprise Partnership (LEP) on economic implications of development and attractiveness for inward investment; highway modelling should extend beyond 2019 and consider cumulative impacts; assumptions about car ownership are optimistic; query what measures would be taken if traffic modelling proves to be incorrect; question whether there is a case for measures to ease traffic congestion at Wolvercote roundabout; would have concerns about any future at grade crossings of A.40; concerned that development should not extend westwards and conflict with environmental constraints.

Gerald Eve on Behalf of Christ Church: Any enhanced access to countryside needs to be fully managed and agreed so that use of land as farmland is not compromised; Christ Church interested in exploring potential opportunities to work with Council to bring forward land to serve and support Barton in long term; appropriate measures to protect SSSI need to be agreed (secured by S.106 agreement), and in place to prevent unauthorised access and issues of dog fouling, litter, trampling of habitats; disturbance to livestock etc; linear park will not necessarily be preferred route for short walks; concerned at adequacy of proposed new junction in terms of safety and delays; traffic implications on surrounding villages not assessed - traffic to Woodeaton would increase, leading to rat running through Elsfield.

Individual Comments.

Main points raised:-

- difficult / inappropriate access;
- increased traffic generation;
- increased flood risk;
- impact on ecology and biodiversity;
- concerns relating to public transport infrastructure;
- there should be no access to the development through the existing Barton estate;
- would welcome the reintroduction of a post office;
- taxis and private hire vehicles should be excluded from use of new junction;
- bus services may be required from A.40;
- Foxwell Drive unsuitable for buses and heavy vehicles;
- too little information with application;
- significant investment in public transport and cycling facilities required;
- Green Road roundabout already overloaded;
- no details of how car club would operate;
- more local facilities required in development;
- increased air pollution;
- cycling times inaccurate;
- better bus links with other residential areas required;
- half hourly bus frequency not sufficient;
- no detail of population breakdown;
- no additional capacity on A.40 or feeder roads;
- majority of journeys would be by car;
- insufficient outdoor and community space;

- impact on Old Headington Conservation Area not assessed;
- transport and travel framework inadequate;
- no dedicated youth facilities provided;
- would increase rat running through Old Headington;
- public house should be provided;
- pedestrian routes not adequately addressed;
- increased noise generation;
- secondary school pupil should be directed to Cherwell not Cheney School;
- emerging design of primary school inappropriate;
- control of lighting required;
- plans themselves look exciting;

In addition three separate petitions have been received from residents in the Northway and Marston areas, two via Councillor Haines. A petition of 582 signatures is concerned regarding the additional traffic in the Marston area and "rat running" through Old Marston Village, whilst a second of 935 signatures relates to concerns about flooding and sewage issues in Marston and Old Marston. The third petition of 66 signatures suggests that the proposals are in breach of various regulations, and also raises issues concerning the suitability of the road network in Northway to safely accommodate the additional traffic.

NB: Comments received which relate to matters outwith the planning process such as references to land ownership, covenants, potential Town Green status etc have not been included in the above summary.

APPENDIX 3

5 Outcomes of the consultation process

5.1 This section provides a summary of the consultation responses acquired during both the summer and autumn public and stakeholder engagement events outlined above. This section also highlights the ways in which the Proposed Development was revised to take account of these responses and issues raised.

5.2 Detailed responses from each of the consultation events are contained in the Appendices to this Statement.

Summer 2012 Consultation Events

5.3 The following table provides a summary of the key issues raised by members of the public and other stakeholder groups during the summer 2012 consultation events, and outlines how the design of the Proposed Development was revised in response to these.

Summer 2012 Consultation Outcomes	
Issue	**Proposed Development Response**
Principle of development Concerns regarding the number of new homes proposed – some residents queried whether these are really needed?	The principle for development and the need for homes in this location has been established through a range of planning policy documents since its designation as safeguarded land in Policy NE.3 of the Oxford Local Plan 2011 – 2016. The Proposed Development has been revised to provide flexibility to future developers to provide lower density development in certain areas of the site.
Design and Layout	
Concern regarding the higher density residential development proposed in some areas of the masterplan, and suggestions that this should be located nearer to the foodstore and along Middle Street.	The illustrative masterplan that has been submitted in support of the application has been through an iterative process of design reviews to take on board stakeholder comments, as well as technical issues. This process is described in the accompanying Design and Access Statement. The illustrative masterplan was revised following the Summer 2012 consultation to remove higher density apartments from the northern edge to focus on the site entrance, commercial centre and along Middle Street to assist in providing enclosure and encourage more activity in particular areas of the development.
Concern that the individual neighbourhoods within the site are not sufficiently mixed in terms of housing typology.	The illustrative masterplan has been refined to provide three distinctive neighbourhoods, each of which will provide a mix of housing types and tenures. The illustrative masterplan reflects the site constraints and opportunities and as such higher density areas, with a greater proportion of apartments are proposed to the western portion of the site, with a greater proportion of family house typologies located towards existing Barton to reflect existing family housing led development patterns in Barton.
Concern regarding the location of the foodstore, hotel and primary school within the development site, and ensuring that these are well-connected to residents within the site and those from surrounding neighbourhoods. In particular there were concerns that if the foodstore	A range of options were considered through the iterative design process around the location of community hub and commercial uses, including whether these facilities are co-located or separated. This was informed by extensive dialogue with stakeholders and members of the public. As a result the foodstore and commercial uses have been located further into the site, while the primary school forms part of a wider community hub in closer proximity to Barton to assist in providing greater integration. The range of options considered is set out within the accompanying Design and Access Statement.

was located directly adjacent to the A40 it would mainly serve external communities.	
Concern regarding the proximity of housing to the A40 and the impact this would have on local residents.	The amount of housing fronting the A40 has been reduced compared to original principles set out within the draft Area Action Plan, which proposed an extensive frontage along much of the road. The focus now is around the junction with the A40 to provide visibility to site. Although the originally proposed speed reduction to 40mph was ruled out during the AAP examination, it is still considered appropriate to include residential units fronting the road in this location. The Design and Access Statement and Design Code provide further information and principles on proposed mitigation measures to ensure that residents living in this location are not unduly affected by nuisance associated with the road at 50mph.
There was a suggestion that extra care homes could be located adjacent to the primary school.	The Planning Parameters enable extra care housing units to be brought forward within any part of the site where residential is permitted.
Suggestion that the community facilities should be spread throughout the site, rather than creating a single 'centre'.	Considerable analysis and engagement has taken place to ensure that a robust approach to community facilities is taken within the scheme, taking into account the needs of new and existing residents, and the presence of the Barton Neighbourhood Centre which presents a substantial existing facility. A single community hub comprising primary school, pavilion, community space and sports pitches is considered to be the most effective way to provide community facilities from a design and regeneration perspective. A full rationale and justification is set out within the Design and Access Statement. Other community facilities and assets include the proposed linear park that runs alongside the whole site and further community open space alongside the allotments which will be improved.
Concern that there may not be adequate car parking facilities which would result in high levels of on-street parking.	The illustrative masterplan has been carefully considered to ensure that full parking requirements (as outlined in the Transport Assessment and Travel Plan) can be accommodated. This demonstrates that a significant amount of provision can be made for on-plot parking as a priority with additional limited numbers of spaces on-street.
Housing	
Concerns that the new homes will not be available for existing local residents and they will end up as 'buy to let' private rented accommodation.	While the Barton Oxford LLP cannot control the amount of private property sales through "buy-to-let", the proposals make provision for at least 40% of all units to be for social rented affordable housing. The Barton Oxford LLP is committed to working with Oxford City Council to ensure that local people are given the opportunity to find a place to live within the new development.
Need to ensure that the development provides an appropriate mix of homes. In particular, there was support for providing homes for first-time buyers.	The Barton Oxford LLP are fully supportive of provision for first time buyers.
Concerns that the social housing will not be adequately integrated with the	The Proposed Development will be phased to ensure social housing is distributed throughout the

non-social housing in the new development.	scheme. This provision is controlled through the adopted Barton AAP policy BA9.
Community Facilities	
Concern regarding the impact the development may have upon the success and capacity of existing community facilities elsewhere e.g. Cheney Secondary School.	The proposed development will make either provisions on site (such as a primary school and community hub) or a financial contribution to ensure that any impact of the development on community facilities is mitigated. This will be undertaken through the Section 106 agreement.
Suggestion that the development should provide facilities which are not already available in Barton e.g. a Post Office, bank and dentist surgery. Could a smaller retail parade be located close to the primary school? Any retail should complement, not compete with, the existing Barton centre.	The Proposed Development includes provision of a foodstore for the new and existing community. The store size has been determined in order not to compete with the existing shops at Underhill Circus. The location has been refined to take into consideration the views of local residents, stakeholders and commercial operators. The application parameters include provision for additional smaller units to be brought forward adjacent to the store. It is considered that retail provision should be clustered in one location to ensure linked trips and support the commercial viability of the scheme. A full rationale for this approach, and options considered is set out in the Design and Access Statement.
Concern that the Barton neighbourhood centre will deteriorate further if investment is not made there, alongside this development.	The approach to community facilities within the scheme has sought to be complementary to the existing Barton Neighbourhood Centre. The role of the new community space and investment needed to support and enhance existing provision in the existing Barton Neighbourhood Centre is currently being determined as part of the Section 106 negotiations.
Some residents objected to the provision of a hotel, and believed that the site should be used predominantly for residential use.	The application Parameters provide the opportunity for a hotel to be made which will complement residential uses. This will provide an opportunity for further jobs within the development, as well as much needed hotel accommodation in this part of Oxford that will benefit residents as well as hospital users through increased overnight provision.
A request that community facilities be provided at the primary school e.g. rehearsal/performance space.	Flexible community space will be provided within the community hub / primary school that could be used for rehearsal/performance space
Suggestion that the school and community playing pitches be combined to open up more space for housing.	The playing pitch provision has been refined to re-provide existing space, together with the requirements of the primary school in a position that will benefit both existing and future residents. This will be of an increased quality compared to the existing provision (including a 3G pitch) and will be subject to agreements to allow community and school use of pitches / MUGA in order that the new facilities are well utilised.
Open Space and Allotments	
Concern regarding the management of the communal open spaces.	A management company / or community development trust is being explored to oversee the long term management of the communal open spaces. This will further defined within the Section 106 agreement.
Concerns regarding the use of the open space to the south of the existing allotments. Suggestion that this area could be used as a communal or school teaching	The potential for a new community space has been explored and is proposed within the scheme. The Design and Access Statement sets out further principles for the detailed design of this area. The existing allotments will be extended.

garden.	
Concern that there is insufficient formal public open space e.g. for provision of farmer's market.	The Proposed Development provides a significant amount and variety of open space including two public squares. Further principles are set out in the Design and Access Statement and the Design Code.
Environment and Flood Risk	
Objections raised regarding the proposed loss of the nature park to provide additional housing. Some participants questioned whether the land to the south of the allotments could be used for housing, rather than the nature park.	The proposals envisage development in the nature park area in accordance with the AAP. However the ability to retain trees of value in the area is an accepted principle also contained within the Barton AAP.
Some residents raised concern with the positioning of the development in an area of flood risk.	The Environment Agency has confirmed the Flood Risk Zone for the site. The Flood Risk Assessment submitted as part of this application sets out the approach to ensuring the development responds to the flood risk as agreed with the Environment Agency following revised modelling during 2012.
Concern that the issue of surface water run-off and disposal of foul water has not been adequately addressed.	The proposed mitigation addresses on site impacts and has been developed through discussions with Thames Water. Detail is contained within the Surface Water Management and SUDS Strategy submitted as part of this application.
Concerns regarding the removal of existing vegetation along the A40, which would alter the character of this route.	The Masterplan has developed to reduce the need to remove vegetation along the central reservation, apart from at the new principal junction on the A40. New planting that will assist in screening new homes will be incorporated on the southern side of the new development running parallel with the A40.
Suggestion that district heating could be utilised in the more densely developed parts of the site.	The application includes provision for an energy centre as part of the commercial centre.
Access and Connectivity	
Concern that the A40 crossings will not provide adequate access to the site which may result in the site being isolated from the rest of Oxford. Can a bridge or underpass be installed? Concern that the development will not be adequately integrated with existing Barton.	The Masterplan and Design Code has been amended and developed to ensure that phases of development will be able to come forward without prohibiting the possibility of a future at grade crossing across the A40. Both bridge and underpass options were subject to extensive technical and financial testing but have not been incorporated due to technical and financial implications and impact on housing numbers.
Concern that the volume of traffic passing through Barton and along the A40 will create congestion, particularly if the speed limit on the A40 is reduced and additional	The transport assessment provides that the impact of the proposed development, following mitigation measures, will not be significant in terms of impact on journey times on the A40, congestion and traffic travelling through Barton.

crossing points are installed.	
Concerns raised by residents of Northway regarding the proposed bus and emergency service vehicle access in terms of propensity for noise and impact on children's safety.	Following the consultation the Masterplan was reviewed and amended to ensure minimum impact on the green space to the south of the A40 along Foxwell Drive. This theme was developed further during the Autumn consultation event in Northway. The A40 junction has been amended to show a new junction arrangement. The connection into Northway has been amended and reduced in size for bus/emergency vehicles.
A number of participants highlighted the need for enhanced public transport connections and bus routes to Barton and Oxford, in particular providing linkages to the John Radcliffe Hospital.	The Barton Oxford LLP has continued to engage with the bus operating companies. There is potential for a shuttle bus to the John Radcliffe Hospital and enhancements to local routes to provide access to the John Radcliffe Hospital and Oxford City Centre.
Concern that there are insufficient links to the surrounding countryside.	The design of the site and proposed Linear Park has been orientated to provide views and physical links to the surrounding countryside. Further principles are set out in the Design and Access Statement.

Autumn 2012 Consultation Events

5.4 The following table provides a summary of the key responses and issues raised by members of the public and other stakeholder groups during the autumn 2012 consultation events, and outlines how the design of the Proposed Development has responded to these where necessary.

Autumn 2012 Consultation Outcomes	
Issue	**Proposed Development Response**
Principle of development	
Large proportion of Barton and Northway residents support the general principle of development.	
Need to consider wider regeneration benefits to Northway and Barton, including re-housing residents whose current social housing does not meet their needs. (BOB MK Panel).	There is ongoing engagement with Oxford City Council in relation to the new development and existing residents. Regeneration benefits are also being developed within a Regeneration Strategy that will be developed with the community to seek to build on and complement the physical, economic and social initiatives that are set out in the Barton and Northway area Regeneration plans.

Design and Layout	
Masterplan is good and an improvement on previous versions. Long-term management of dwellings and green spaces need to be better thought out to achieve aspiration of becoming '21st Century Garden Suburb'. (BOB MK Panel)	Housing layout at western entrance to scheme reconfigured. Apartments have been rationalized to better reflect housing mix. The Barton Oxford LLP are currently working with consultants to ensure that the management and ownership of the dwellings and the landscape are considered at this stage in the planning process. As part of this advice the Barton Oxford LLP visited communities including Derwenthorpe, York and Lightmoor, Telford to investigate and test further the elements of a management and maintenance strategy that can be developed for the site in order to help foster a strong sense of community. Costs to residents, particularly given the affordable housing element of the scheme, are of course a key consideration. The LLP recognise the importance of getting the long term management right and are committed to delivering a long term sustainable management proposal.
Two centre approach accepted by the panel. (BOB MK Panel)	The Barton Oxford LLP is pleased to note that the panel accepts the need for two centres and recognises the role of Middle Street in promoting 'linked trips'.
Mid section of Middle Street should have higher ground floor heights to provide future flexibility should commercial uses wish to locate there. (BOB MK Panel)	Middle Street has been reconfigured to ensure this is possible. Parameter Plan setting out building heights revised to ensure floor to ceiling heights at ground floor level are appropriate, The heights also allow feature buildings (up to a maximum of 4.5 storeys along up to 25% of Middle Street) to assist in definition and interest along the principal street.
Remove hedgerows between blocks in Neighbourhood 2, north of Middle Street, to allow for increased planting in back gardens and remove issue of who will maintain hedges. (BOB MK Panel) Residential blocks too small, particularly in the area between the sub-station and allotments. (BOB MK Panel)	General amendments to block sizes reconfigured following testing, strengthening key/landmark buildings. Housing layout at western entrance to scheme has been reconfigured to respond. The apartments now rationalized to better reflect the proposed housing mix.
Parking ratio of 1:1 spaces per dwelling is too low. Parking in front of houses will dominate front gardens – buildings should be set back at least 5m from street. (BOB MK Panel)	The parking ratio for the scheme is 1.69 spaces per dwelling.
Need to set out mechanism for management, policing, updating and control of the design code e.g. performance codes and a Regulatory Plan. Need clear brief for each street type. (BOB MK Panel)	This has been addressed through the provisions of the Design Code and the need for reserved matters applications to provide a Design Statement to demonstrate compliance with the code.
Public right of way alignment needs strengthening. (BOB MK Panel)	Illustrative masterplan amended to strengthen link as proposed to be diverted.

Housing	
Lack of one bedroom and studio flats within the development.	The proposed development accords with the adopted AAP unit mix that seeks to ensure the appropriate mix for a balanced community at Barton.
Need to consider location of affordable housing to avoid clusters that detract from objective of tenure-blind development. (BOB MK Panel)	Clusters of affordable housing are provided within phases as prescribed by the Barton AAP. Maximum clustering arrangement for houses and flats is 15 houses and 20 flats.
Community Facilities	
Need to ensure that there is indoor space that can be used by local community groups e.g. within the primary school.	A Community Hub which includes a primary school is proposed. This will include spaces that can be utilised by a wide range of community groups. The spaces will vary include rooms that can be accessed during the school day and spaces such as the school hall that can be used through agreement with the school outside school hours. The approach to community facilities as part of a wider "community hub" has been fully considered in dialogue with members of the local community and other stakeholders including city and county officers. Full rationale is set out in the Design and Access Statement. The Community Hub sports pitch/pavilion arrangement has been updated in latest masterplan in response to this consultation.
Need to give further thought to how to prevent foodstore from overtrading, especially as this phase of the development is planned first. (BOB MK Panel)	The impact of the foodstore on the surrounding economy is set out in the Retail Assessment that supports the planning application.
Open Space and Allotments	
Emphasis on need to ensure that open spaces and facilities are properly managed.	The management of open spaces will be addressed as part of a wider estates management strategy for the development. This will be agreed prior to the development taking place.
Concern about the loss of the Nature Park.	The proposals envisage development in this area in accordance with the AAP. However the ability to retain trees of value in the area is an accepted principle also contained within the Barton AAP. A new open space adjoining the existing Nature Park will be provided to the south of the Existing allotments that is well connected to the existing and new community.
Consider integration of allotments within the community rather than fenced off – would require natural surveillance to be maximised, or improve appearance and design of fence. (BOB MK Panel)	The integration of the allotments will be enhanced by proposals being developed with the allotment association. Alternatives to the current fencing, a new hazel coppice, new tree planting, car parking and improvements to the on-site building have also been agreed with the allotment association members.

Environment and Flood Risk	
Concerns remain regarding loss of nature park.	The proposals envisage development in this area in accordance with the AAP. However the ability to retain trees of value in the area is an accepted principle also contained within the Barton AAP. A new open space adjoining the existing Nature Park will be provided to the south of the Existing allotments that is well connected to the existing and new community.
Need to give more thought to how CHP facility would be managed and provide heat to development. (BOB MK Panel)t	CHP is being considered and could form part of the retail / residential area near to the new junction with the A40. CHP is not viable across the whole development.
Access and Connectivity	
Concerns persist regarding access to buses and emergency vehicles from Northway.	The bus/emergency vehicle access has been narrowed to into Northway enabling the maximum amount of green space to be preserved.
Concern regarding increased traffic which will be created on Harolde Close as a result of nature reserve development.	This parcel of land will provide for a small number of homes that will not have a significant impact on the existing network. The construction of this parcel will be controlled through the Construction Environment Management Plan to be agreed with the City and County councils.
Further examine scope for 'at grade' crossings to link development with areas to south of A40, especially from south east corner of the substation. (BOB MK Panel)	The Masterplan and Design Code has been amended and developed to ensure that phases of development will be able to come forward without prohibiting the possibility of a future at grade crossing across the A40.
Narrow visual width of streets and include 'incidents' to help slow reduce speeds. Need to vary street width between main and side roads. (BOB MK Panel)	The Design Code provides clear guidance on the detailed design of streets including hierarchy, to ensure that traffic does not dominate the development and the environment is safe for pedestrians and cyclists.

APPENDIX 4

Barton Masterplan, Oxford
2nd November 2012

Panel Members

Garry Hall – Joint Chief Executive, Transform Places
Rebecca Hart – Urban Designer, Wycombe District Council
Malcolm Moor – Director, Malcolm Moor Urban Design
Jennifer Owen – Secretary, BOB MK Coordinator
Jon Rowland – Director, Jon Rowland Urban Design
Penelope Tollitt – Head of Policy and Design, Kensington and Chelsea Council (Chair)

Introduction

Thank you for asking the BOB MK Design Panel to review the masterplan for Barton. The panel believe that, on the whole, the masterplan has been improved and are pleased to see that progress has been made since the BOB MK workshop on the 4th May. There are however, areas that can be strengthened further and thought about in more detail at this stage.

Below is a report summarising the comments and suggestions that the panel would like to make

The A40

The Panel was disappointed in the approach to the A40, and the limited opportunities for surface 'at grade' crossings to integrate the new development into the existing suburbs of Oxford. It is understood that this is a constraint placed upon the development by the AAP, following examination in public. However, the Panel urge all those involved in the project to remember the timescales over which this development will take place, and to take any opportunities that may arise in future years to review this relationship.

Without easy access – especially for pedestrians and cyclists – across the A40, the new development will remain isolated – just as Barton is now. It will make it harder for new residents to access facilities south of the A40, such as jobs at the John

Radcliffe, or schools, and likewise existing residents will not easily benefit from the proposed facilities on the new development. It will also place a higher reliance on the private car and public transport, and is in every way an undesirable outcome. In balancing the competing issues of crossings vs congestion vs speed vs safety, the Panel have a strong view that much greater weight should be placed on the needs of existing and new residents to the north and south of the A40.

The masterplan should therefore be prepared on the basis that 'at some time in the future' a surface crossing will be provided at the south east corner of the sub-station, as well as in place of the existing underpass that currently provides pedestrian access to Barton. We very much hope that surface solutions can be found before substantial expenditure has been made on improving the existing or providing new underpasses, which is very much a sub-optimal solution.

Masterplan

The masterplan 'does the job'. It is – correctly in the Panel's view – a landscape based masterplan. It builds in the existing hedgerows, it makes good use of the stream along the northern boundary and locates public space there, and it integrates with the street network of Barton to the east, and across the A40 to Northway to the south west. It also builds in new tree planting. It has clearly responded to the earlier comments, and the general layout of the streets and layouts of the blocks. The one weak area is how the masterplan responds to the 'future crossing' of the A40 at the south east corner of the sub-station.

21st Century Garden Suburb and Long Term Stewardship

The Panel agree with the idea of a garden suburb but feel that there is still some way to go until it can truly be branded and considered as such. A garden suburb is so much more than a landscape based masterplan – the long term management of the estate is crucial, and needs to be planned for at this early stage.

The philosophy of a 21st Century Garden Suburb needs to be clearly defined and understood in order for Barton to become an exemplar scheme. It is understood that the aim is to create a 'cohesive neighbourhood but with variety of density and style', however it is not clear how this will be maintained throughout the years.

The long term management and ownership of the dwellings and the defining character of the green landscape have not been thought through in enough detail for the area to be considered a 'garden suburb'. Bourneville, for example, feels safe for families and has a strong sense of community due to the original forward thinking

about management and maintenance. There is a concern that if the County Council do not take on the responsibility of maintaining the trees and greenery then it will be too expensive for the residents to uphold and will therefore not be upheld. Oxfordshire County Council do have a good record of maintaining local parks e.g. Bury Knowle Park, however it must be noted that managing a park is very different to managing hedgerows in between housing plots and green squares in residential areas.

Although long term ownership of bits of the site by Grosvenor (the commercial centre) and the City (affordable housing, possibly streets and some elements of the public realm and green space), there is no indication of how this would be translated into an overall management strategy, nor to new forms of leasehold or similar tenure, nor is it clear how the proposed energy centre (CHP) would provide heat to the development, who would be responsible, how this might impact on provision to both affordable and market housing.

Costs of on-going management also need to considered at this stage – it is not enough to say that the on-going costs would be met through a service charge on each property, as that is unlikely to be affordable to most residents.

One way of creating a 21st century development would be to provide managed work spaces i.e. facilities for home working, installation of fibre-optic connections and meeting places for networking. People's working patterns have changed so the dwellings need to reflect this with a flexibility to cater for a live/work lifestyle. There is a concern that the volume house builders will have the ultimate control over the design of the houses and will thus simply roll out the standard housing types.

The panel would like the branding of the garden suburb to be considered and would like to know what aspects of the scheme will make it exemplar. There is an underlying feeling that, perhaps, the development needs to set out and reflect garden suburb principles that respond to today's lifestyles, rather than being another estate. The Council's aspiration as partner is to create an exemplar. In order to achieve this, a management strategy must be established at this stage and that the opportunity for long-term interest by developers in the suburb should be explored. The panel would like to see more information on a sustainability strategy and how the involvement of the developers and partners (Oxford City Council and Grosvenor) will be incorporated as part of the sustainability agenda.

Benefits to Northway and Barton

The Panel was disappointed that the project seemed to be conceived as a new development, and not an opportunity to make significant improvements to Barton and Northway. There are unlikely to be any other opportunities to get inward investment into these neighbouring areas once this development has taken place.

The aim of the masterplan is understood to be to allow the new facilities to be 'owned' as much by Northway and Barton as by the new development (see two centres below). To create a truly cohesive neighbourhood there needs to be improvements in the surrounding, existing neighbourhoods of Northway and Barton in terms of landscaping, redevelopment opportunities, and the local economy as well simply interlinking the roads. If people are to drive through Barton in order to get to the new community there has to be some regenerative benefits for Barton that Oxford City Council must consider.

Given that one of the aims of the new development is to provide 40% affordable housing, there are many opportunities to re-house residents from the neighbouring areas, especially where their current housing no longer meets their needs. This then presents the possibility of redeveloping some of the existing social housing. The panel was disappointed that this was not even mentioned, whereas it should be one of the overall aims of the project. A strategy setting out phased improvements to the surrounding areas on this basis should form a core part of the project, and not be a forgotten afterthought. This also links back to the 'garden city' aspiration above - the new development risks being only a new housing estate, and not maximising the potential for change in the area as a whole.

The Panel noted that because the City Council are involved as landowner, there is scope for a more proactive approach in relation to any potential impact of the new development on existing neighbourhood centres, than that enabled only by the planning system.

Two Centres rather than One

The Panel – after robust discussion – accepted the philosophy that the new development should locate the new commercial and community facilities so that they benefit existing residents as much as those on the new development. Nonetheless there remained concerns that the two centres may disperse community activity too far. If Northway and Barton do not make use of these new facilities, the new community of 800 houses is unlikely to support both, or rather, they are unlikely both to be vibrant as the schools and shops are too far apart to naturally

complement one another e.g. parents and school children are unlikely to go from school and straight into a coffee or local convenience shop.

However, the masterplan has ensured that those that want to make 'linked trips' will be more likely to do so, with the direct and clear connection of Middle Street between the two centres. This mid section of Middle Street should have higher ground floor heights to provide future flexibility should commercial uses wish to locate there, which will help create continuity of street activity between the two centres.

Street Order

The relationship of the new streets in the development with the A40 is difficult. In order to change driver's attitudes towards the change in speed limit from the proposed 50mph on the A40 to 20mph within a short transition space, the entrance design is crucial and the streets must have 'incidents' along them e.g. horizontal shifts in alignment, material changes and trees or other three-dimensional features which introduce 'side friction' along the carriageway to make it clear to drivers that the order of the streets has changed. While the physical width of streets needs to allow for larger vehicles, the visual width can be narrowed to help slow vehicle speeds.

There is particular concern near the supermarket, and the risk of the shop 'over-trading' by being used by those passing on the A40 as an out of town supermarket, when it is only of the size of a neighbourhood supermarket. The volume of traffic this would generate would quickly degrade the area. The Panel was concerned that role of the supermarket was slightly confused. On the one hand it was to be a neighbourhood supermarket, not promoted by signage on the A40, and its location near the A40 was as much a function of the overall masterplan design and a desire to be near to Northway rather than for functional reasons. On the other hand, this is the phase of the development that is planned to be first, and that before the new development is occupied, the supermarket will depend on trade from those passing on the A40 – risking the potential of overtrading. The Panel suggest that further thought is given to how to reduce these risks.

The massing also shows the supermarket block being higher than the block immediately on the A40 junction, drawing attention to the supermarket block itself. Perhaps this needs to be reviewed.

On the current plans all of the streets are measured at 6.1 metres wide, which seems wide except for Middle Street, which is the main 'spine' of the development, likely to carry the most traffic, and also, importantly, the bus route. Street width

needs to be varied between the main and side roads so that the order is clearly indicated.

In Neighbourhood 2, north of Middle Street, the Panel questioned if it was desirable to have new hedgerows between the blocks, resulting in the need for two 'single sided' roads for each block. This arrangement also broke the enclosure on the north side of Middle Street. Instead, the blocks could be made slightly wider, with scope for large planting in the back gardens. This would also remove the issue of who would maintain the hedges in the longer term.

Plots

A number of the plots are arranged awkwardly on the current plan and it has been noted that the blocks are almost certainly too small, particularly in the area between the sub-station and the allotments. The layout creates a particular challenge on the corners to accommodate a quality street enclosure, parking, bins etc. The proposed planting may be too large for the rear gardens. This is particularly the case in the housing to the east of the transformer station.

The Panel feel that a more detailed plan/model, perhaps at a scale of 1:50, of an individual plot as well as some of the critical areas i.e. Commercial Areas, Middle Street etc. would help to bring the scheme to life. It is currently difficult to understand how the gardens, parking and bins etc. will be arranged.

Parking

The proposed parking ratio of 1:1spaces per dwelling is too low as it is likely that in order for residents to afford a mortgage most of the properties will be shared by a couple with up to two cars. The proposed parking spaces in front of the houses will dominate the front gardens, precluding their use for anything else, and will undermine interaction with the streets by creating a physical barrier between the dwellings and the roads which is not the desired outcome. If the car is to be positioned in front of the dwellings then the buildings would need to be set-back at least 5 metres from the street.

Avoidance of large rear parking courts is welcome but imaginative arrangements of parking, including suggested parking squares, are needed to avoid car dominated streets, especially where there is concentration of higher density housing.

House Design and Tenures

There is a concern that there may be an over-reliance on the volume house builder. This in turn may mean that quality may become subservient to cost, regardless of whether the dwellings are to be tenure blind. Given the location of the development, with no dominant strong character from which to draw its cues, there is the opportunity to be more adventurous, with, for example, self-build playing a greater role. There could also be a place for co-ownership.

The location of affordable housing was described as clusters. The Panel felt that this needed to be clarified, in order to avoid large lumps (mini estates) that detract from the objective of tenure-blind development

The question of space standards was raised in relation to different tenures, and there was concern about the size of market housing.

'Lifetime Homes', co -housing other forms of tenure could be incorporated into the housing mix.

Allotments

A suggestion has been made that the allotments should be integrated within the community rather than fenced off as is currently proposed. In order to achieve this, it is important to ensure there are active frontages overlooking the allotments, in order to maximise natural surveillance. Opportunities to improve the allotments – appearance, number of plots, services, management – to enable them to cope with additional demand and visibility should also be explored. If a fence of some sort is felt to be necessary, it could be aesthetically much more pleasing than the current structure.

Design Codes

The emerging design codes are generally good but the mechanisms to ensure they are put into practise need to be secured. For example, each dwelling boundary and amenity space need to be knitted together in order to maximise the utility of the area. This could be achieved by the Council placing covenants to protect front gardens by ensuring that they are not used for parking as this would create a physical barrier between the dwelling and the pavements. The management of this needs to be considered, and a mechanism for the management, policing, updating and control of the design code should be clearly set out. Developers were advised to look at

performance codes and a Regulatory Plan similar to the German Plan to keep things simple.

It will be important to have a clear brief / design code for each street type in the form of a street design guide to ensure that this most important piece of public realm meets the design aspirations of the Garden Suburb. The issue of parcellation needs to be resolved. Developers should be responsible for development on both sides of a street. The emphasis in the codes should be on performance (rather than form) with the priority being design quality of the public realm should be prioritised. The panel welcome the inclusion of feature houses throughout which will need to be indicated in codes/regulatory plan.

Conclusion

The scheme is generally promising and the physical aspects of the plan are becoming clearer, many of the management and quality aspects have yet to be addressed. These would need to be included in any application to make sense of the masterplan. Although time may not allow, we would suggest it might be appropriate to review the scheme once more before the planning application is submitted in February 2013.

APPENDIX 5:

ILLUSTRATIVE MASTERPLAN AND NEIGHBOURHOOD AREAS.

Appearance

Illustrative master plan

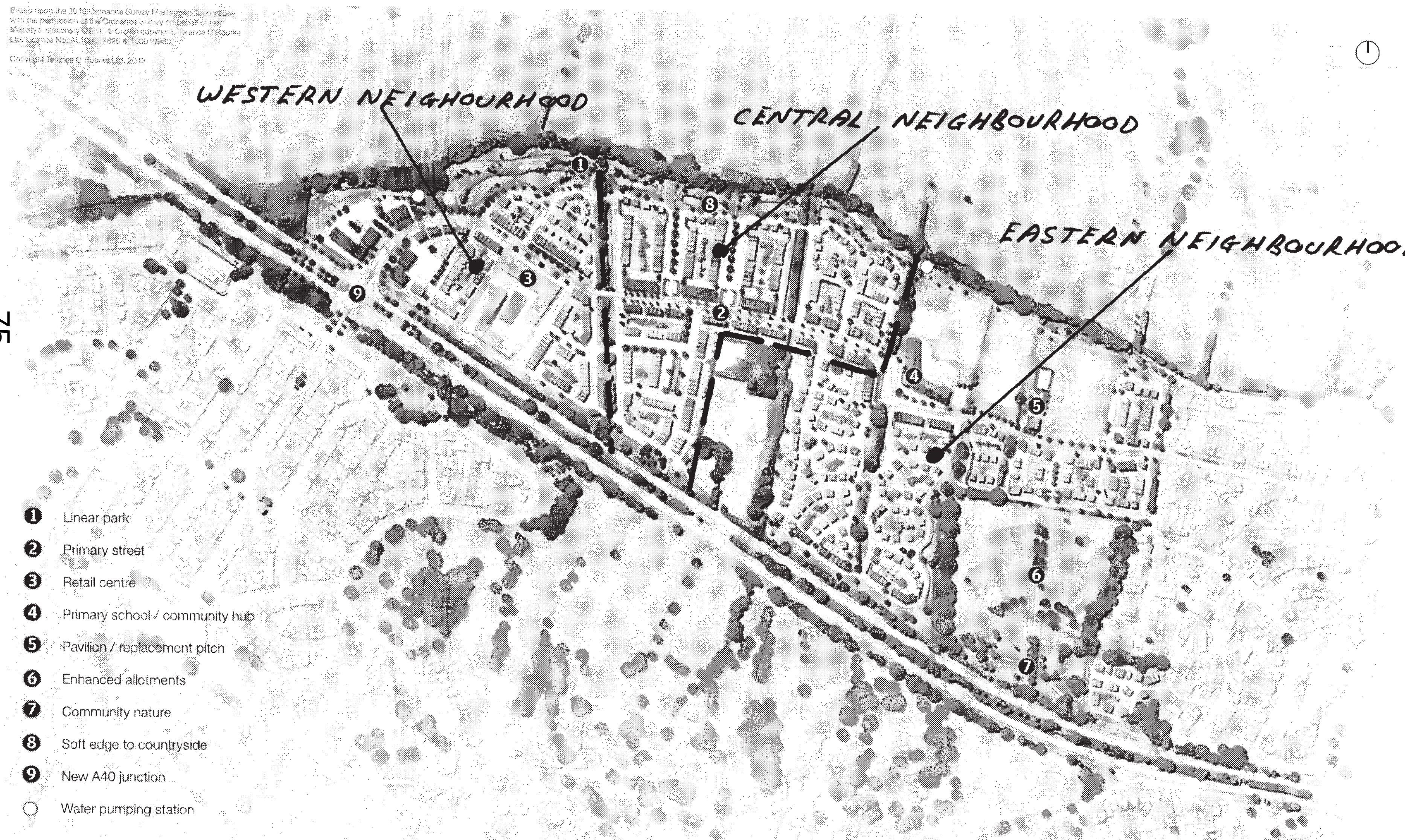

Figure 6.6: Illustrative master plan

APPENDIX 5

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APPENDIX 6:

POSSIBLE LAYOUT FOR PRIMARY SCHOOL AND RECREATION GROUND.

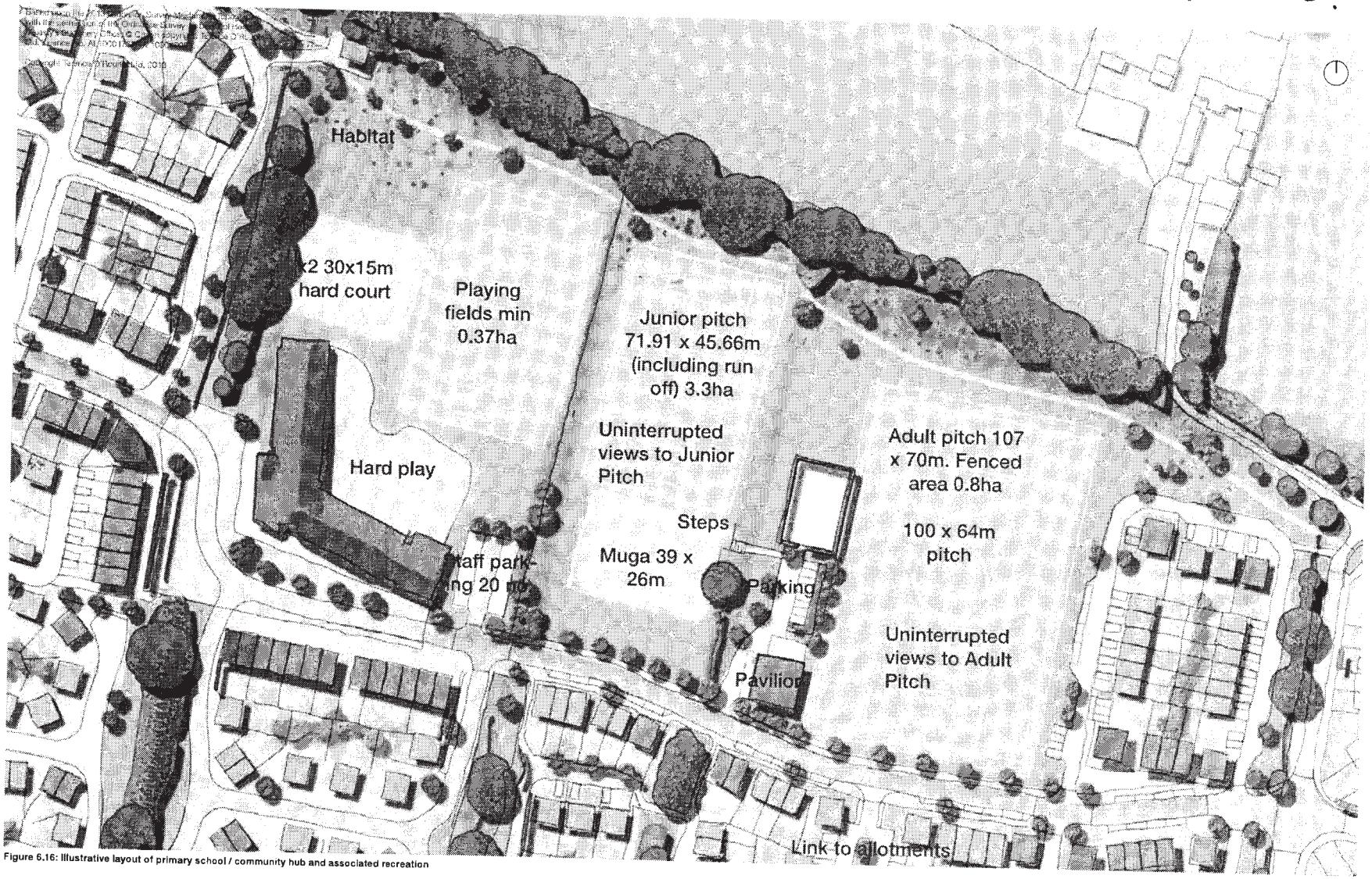

Figure 6.16: Illustrative layout of primary school / community hub and associated recreation

APPENDIX 6

RETAIL IMPACT ASSESSMENT

Table 8
Convenience Goods Retail Impact Assessment 2018

Growth in Expenditure in Oxford (post commitments) 2011 to 2018 apportioned between existing stores/centres in the city (£m):	**23.80**	from Table 3

1 **Store/Centre**	2 **Conv Goods Net Sales Area** (sq m net)	3 **Conv Goods Sales Density 2011** (£ per sq m net)	4 **Conv Goods Sales 2011 before impact** (£m)	5 **Conv Goods Sales 2018 before impact** (£m)	6 **Trade Draw to Barton Local Centre** (%)	7 **Trade Draw to Barton Local Centre** (£m)	8 **Conv Goods Sales post impact** (£m)	9 **Impact** (%)	10 **Difference between 2018 post-impact & 2011 sales** (%)
Headington District Centre in the PCA:									
Co-op	751	9,687	7.27	8.02	3.5	0.50	7.52	6.2%	3.4%
Waitrose	1,070	12,079	12.92	14.25	5.0	0.71	13.54	5.0%	4.8%
Iceland	271	7,059	1.91	2.11	0.5	0.07	2.04	3.4%	6.5%
Total Headington District Centre			**22.11**	**24.39**	**9.0**	**1.29**	**23.10**	**5.3%**	**4.5%**
Local Centres in the PCA:									
Underhill Circus	188	6,000	1.13	1.24	0.4	0.06	1.19	4.6%	5.2%
The Roundway	96	4,000	0.38	0.42	-	-	0.42	0.0%	10.3%
Girdlestone Rd, New Headington	80	4,000	0.32	0.35	-	-	0.35	0.0%	10.3%
Westlands Drive	182	4,500	0.82	0.90	0.2	0.03	0.87	3.2%	6.8%
Old Marston Road	635	8,500	5.40	5.95	1.3	0.19	5.77	3.1%	6.8%
Marston (Cherwell Drive)	234	7,000	1.64	1.81	0.4	0.06	1.75	3.2%	6.8%
Summertown District Centre:									
M&S, Summertown	1,014	11,192	11.35	12.52	1.5	0.21	12.30	1.7%	8.4%
Co-op, Summertown	437	9,687	4.23	4.67	0.5	0.07	4.60	1.5%	8.6%
Tesco Express	316	13,960	4.41	4.86	1.0	0.14	4.72	2.9%	7.0%
Sainsburys Local	230	12,288	2.83	3.12	1.0	0.14	2.97	4.6%	5.2%
Total Summertown District Centre			**22.82**	**25.17**	**4.00**	**0.57**	**24.59**	**2.3%**	**7.8%**
Templars Square, Cowley:									
Co-op	744	9,687	7.21	7.95	0.5	0.07	7.88	0.9%	9.3%
Iceland	453	7,059	3.20	3.53	0.1	0.01	3.51	0.4%	9.8%
Total Templars Square, Cowley			**10.40**	**11.47**	**0.6**	**0.09**	**11.39**	**0.7%**	**9.5%**
Cowley Road:									
Tesco Metro	1,297	13,960	18.11	19.97	2.5	0.36	19.61	1.8%	8.3%
Co-op	130	9,687	1.26	1.39	0.1	0.01	1.37	1.0%	9.1%
Sainsburys Local	272	13,415	3.65	4.02	0.2	0.03	4.00	0.7%	9.5%
Total Cowley Road			**23.01**	**25.38**	**2.8**	**0.40**	**24.98**	**1.6%**	**8.5%**
Oxford City Centre:									
M&S, Queen Street	1,487	11,192	16.64	18.35	1.5	0.21	18.14	1.2%	9.0%
Sainsburys, Westgate	1,042	13,415	13.98	15.42	2.7	0.39	15.03	2.5%	7.5%
Sainsburys Local, Magdalen Street	407	13,415	5.46	6.02	-	-	6.02	0.0%	10.3%
Total Oxford City Centre			**36.08**	**39.79**	**4.2**	**0.60**	**39.19**	**1.5%**	**8.6%**
Other Stores in Oxford:									
Tesco superstore, Oxford Retail Park	2,916	13,960	40.71	44.89	17.5	2.50	42.39	5.6%	4.1%
M&S, Oxford Retail Park	772	11,192	8.64	9.53	4.0	0.57	8.96	6.0%	3.7%
Sainsburys superstore, Heyford Hill	3,463	13,415	46.46	51.23	12.5	1.79	49.45	3.5%	6.4%
Aldi, Botley Road	656	7,314	4.80	5.29	-	-	5.29	0.0%	10.3%
Co-op, Walton Street	201	9,687	1.95	2.15	-	-	2.15	0.0%	10.3%
Co-op, Iffley Road	159	9,687	1.54	1.70	-	-	1.70	0.0%	10.3%
Co-op, Rose Hill	173	9,687	1.68	1.85	-	-	1.85	0.0%	10.3%
Co-op, Atkyns Road	159	9,687	1.54	1.70	-	-	1.70	0.0%	10.3%
Total Oxford Stores			**231.42**	**255.22**	**56.9**	**8.13**	**247.09**	**3.2%**	**6.8%**
Kidlington:									
Sainsburys superstore, Oxford Road	3,532	13,415	47.38	52.25	17.5	2.50	49.75	4.8%	5.0%
Kidlington Town Centre:									
Tesco Metro	1,029	13,960	14.36	15.84	1.8	0.26	15.58	1.6%	8.5%
Co-op	599	9,687	5.80	6.40	1.0	0.14	6.26	2.2%	7.8%
Iceland	232	7,059	1.64	1.81	0.2	0.03	1.78	1.6%	8.5%
Total Kidlington Town Centre			**21.81**	**24.05**	**3.0**	**0.43**	**23.62**	**1.8%**	**8.3%**
Wheatley:									
Co-op	191	9,687	1.85	2.04	0.1	0.01	2.03	0.7%	9.5%
Asda	2,666	14,606	38.94	42.94	12.5	1.79	41.16	4.2%	5.7%
Other Stores/Centres outside Oxford					10.0	1.43			
TOTALS					**100.0**	**14.28**			

Sources:
VOA Rating List & IGD for floorspace, with estimation of net to gross ratios for some stores by Jonathan Baldock. Convenience goods space allocations estimated by Jonathan Baldock.
Sales densities estimated from data published by Verdict Research Limited.
Trade draws to new Barton Local Centre estimated by Jonathan Baldock.

Notes:
Old Marston Road includes the permitted Tesco Express at 2 Old Marston Road.
Sales densities are as at 2009/10; and it is assumed that these will be maintained until 2021. If sales densities rise, pre-impact sales would rise and impacts would be less than indicated.
Assumes that there will be direct bus, pedestrian and cycle access from areas south of the Northern Relief Road to the new Barton Local Centre via a new junction on the Northern Relief Road; but there would be no direct car access from these areas to the new Barton Local Centre.
Assumes that the new Barton Local Centre will be located off the Northern Relief Road, close to the new junction.
Assumes that sales in the stores in Kidlington and Wheatley will grow over the period 2011 to 2018 at the same rate as in the Oxford stores.

Table 1 - An overview of tree quality within the surveyed area

	Category A	Category B	Category C	Category U	
Individual Trees	6	94	74	39	**213**
Groups of Trees	2	58	79	10	**149**
TOTAL	**8**	**152**	**153**	**49**	**362**

In line with the BS5837:2012 retention categories, there are

- 6 individual trees and 2 groups of trees which merit an A category and are of high quality, with the opportunity to provide a significant future contribution (40+ years) to the site.
- 94 individual trees and 58 groups of trees which merit a B category and are considered to be of moderate quality with a minimum of 20 years useful life expectancy remaining.
- 74 individual trees and 79 groups of C category trees (including hedgerows), which are either of low quality or are young specimens.
- 39 individual trees and 10 groups of trees which are U category and have less than 10 years life expectancy remaining and are either dead, dying or close to structural failure.

It should be noted that the BS5837:2012 Cascade Chart for Tree Retention (at **Appendix 3**) only gives recommendations in relation to remaining years. A tree may be considered to have a longer remaining life, but still be considered to be of a lower category given its maturity, condition or overall impact.

APPENDIX 9

6. NATURAL RESOURCES IMPACT ANALYSIS QUESTIONS

Below is a list of questions which form the framework of the NRIA SPD.

Primary Questions	Detailed Questions	Comment
Energy efficiency		
How will the design and layout ensure that energy is used efficiently in the scheme?	Has an energy strategy been prepared?	Yes, an energy strategy has been prepared and is submitted in support of this application.
	How is the development designed to maximise beneficial solar gain? (through orientation, spatial layout and systems design)	It is anticipated that buildings will be orientated to benefit from solar gain where possible. However, it will not be possible for every building as other constraints, such as the SSE site, must be taken into account.
	How will the design of the building make efficient use of energy? (linked buildings, buffer zones, thermal mass etc)	Energy efficiency measures including materials used have been considered within the Proposed Development. For further details, please see the Energy Statement submitted in support of this application.
How will the construction of the buildings ensure efficient use of energy and reduce overall energy use?	What insulation standard will the development be built to?	Energy efficiency measures including materials used have been considered within the Proposed Development. For further details, please see the Energy Statement submitted in support of this application.
	How is the development designed to minimise unwanted air infiltration?	
	What glazing standard will the development be built to?	
How will the mechanical and electrical systems of the buildings ensure efficient use of energy and reduce overall energy use?	What efficiency standard will boilers be specified to?	Full details on mechanical and electrical specification will be provided at the detailed design stage. All homes and commercial spaces will provide real time metering and BEMS for non-domestic, energy guide and workshops to inform occupiers of their functions.
	Will the development be linked to a combined heat and power plant or to a district heating system?	
	How has the development been designed to maximise controlled natural ventilation?	

Primary Questions	Detailed Questions	Comment
	Will any mechanical ventilation to be incorporated be of high efficiency?	
	How has the development been designed to maximise natural daylight?	
	How will the development incorporate high-efficiency lighting?	
	How will the development incorporate high-efficiency appliances (where installed)?	
	How will the heating, lighting and ventilation systems be controlled?	
Renewable energy		
How will the design incorporate the use of energy from renewable sources on-site?	Will the development incorporate the use of biomass as a fuel?	The Energy Strategy prepared for the Proposed Development determined that for the residential dwellings a conventional high efficiency gas condensing boiler and solar photovoltaic (PV) based solution was the preferred approach for a standalone solution, for the following reasons: ■ The 20% renewable target can be met based on the use of PV panels alone. ■ A standalone high efficiency gas boiler for space and domestic hot water heating is a familiar, easily operable and easily maintainable solution for prospective homeowners. ■ On the basis of current energy prices and feed in tariff (FIT) payments, a high efficiency gas condensing boiler and PV panel solution will yield the lowest energy bills to the customer. The capital cost of the solution is lower than the Solar Thermal Hot Water (STHW)/PV or STHW/ Air A=Source Heat Pump solutions, particularly as the house builders will be able to buy PV in bulk to further reduce capital costs. For the non-residential aspect of the
	Will the development incorporate the use of heat pumps?	
	Will the development incorporate active solar water-heating systems	
	Will the development incorporate solar electricity generation?	
	Will the development incorporate wind-energy electricity generation?	
	Will the development incorporate a micro-hydro scheme?	

Primary Questions	Detailed Questions	Comment
		proposed development, it is proposed that the commercial areas in Phase 1 of the development may be served by a central CHP led heating system with high efficiency natural gas fired boilers for backup operated under a private landlord system. Based on the proposed development mix in this area, it is expected that an appropriately sized CHP system with sufficient thermal storage could provide up to around 50% of the annual space and domestic hot water heating load from CHP. Paragraph 43 of Oxford's NRIA SPD confirms that CHP is an allowable technology for meeting the 20% renewables requirement; and on that basis such a solution would allow Oxford's 20% regulated renewable energy requirement to be easily met. The system may also be extended to serve the apartment buildings at the south west corner of the site. Rather than being operated via an ESCO, it is envisaged that the system would be owned, operated and maintained by the management organisation for the site. It is proposed that the primary school (located at the north-east side of the development and so too far from the Phase 1 commercial areas to be served by the central CHP led heating system in that area) may be heated by a standalone biomass boiler with high efficiency natural gas boilers for backup. As a qualifying renewable energy technology, the biomass boilers would allow the 20% regulated renewable energy requirement to be readily met.
Choice of materials and embodied energy		
How will the materials specified minimise embodied energy, energy in use and environmental impact?	How will the materials be specified to ensure a low level of embodied energy?	Materials will be specified to achieve the Fabric Energy Efficiency Standards (FEES) under Building Regulations part L1A.
	How will the materials be specified to prioritise those with minimal environmental impact?	The Proposed Development will utilise a mix of materials from renewable and non-renewable sources. All natural materials fully certified - e.g. FSC/PEFC.
	Will the materials be sourced locally?	Local materials will be preferred where available and suitable for proposed use.
	How will the materials	Materials and systems will be specified at

Primary Questions	Detailed Questions	Comment
	and systems be specified to ensure a good quality internal environment?	the detailed design stage.
	How will the timber be specified to ensure it is from the most sustainable sources?	All timber will be FSC certified.
	Will contractors and suppliers be chosen with regard to their environmental management record?	The environmental management record of individual contractors and plots developers will form part of the selection criteria.
Recycled materials		
How will the buildings be re-used and/or demolition waste be responsibly dealt with?	How will the development make efficient use of all material resources on site (for example existing buildings, services, infrastructure and topsoil)?	No demolition required on site, materials such as soil we be reused on site where possible. However, please note that a new pavilion will be provided on site and the existing pavilion will be relocated off site.
	Has a strategy for the minimisation and handling of waste been prepared?	Yes, a Waste Management Strategy has been prepared in support of this outline planning application.
	How will waste be minimised and the materials and construction methods used in the development make best use of recycling?	A Waste Management Strategy has been prepared that outlines measures to ensure that the system of waste minimisation, reuse and recycling is effective.
	How will the development make maximum use of recycled materials?	Recycled materials will be used where possible. How they are used can only be identified at the detailed design stage.
	How will the development make maximum use of construction and demolition waste arisings?	
	How is the development designed to incorporate materials / elements that will be simple to	

Primary Questions	Detailed Questions	Comment
	reuse/recycle at the end of the building's life?	
How will domestic/commercial waste generated in the development be dealt with?	How will provision be made for the storage/collection of waste generated in the development?	Storage will be provided in accordance with Code for Sustainable Homes requirements.
	How will the development provide opportunities and facilities for home/community composting?	Residential units with gardens shall have an area reserved for the potential location of a home composting container. The allotment may also provide an opportunity for either individual or community composting.
Water resources		
How will water resources be conserved and recycled?	How will the development incorporate the use of water-saving devices?	The Proposed Development will include water efficient devices to ensure that the water efficiency requirement of Code for Sustainable Homes Level 4 (105 litres per person per day) will be met. Opportunities to implement water conservation measures across the development to conserve water resources will be assessed at the detailed design stage and may include measures such as water metering, low flush toilets and the provision of rain water harvesting in the form of water butts.
	How will the landscaping be designed to minimise water consumption?	Native planting will be used to minimise water consumption.
	How will the development incorporate the harvesting and re-use of rainwater?	The potential for harvesting and reuse of rain water will be identified at the detailed design stage.
	How will the development incorporate the collection, treatment and recycling of grey water?	The potential for harvesting and reuse of rain water will be identified at the detailed design stage.

APPENDIX 10

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
Traffic & Transport Construction	*Construction traffic and severance:* The assessment of severance relates to the change in daily flow traffic experienced on a link, with changes in traffic flow greater than 30%. Routing construction traffic primarily along the A40 means it will result in less than 5% increase in traffic flows. **Predicted impact:** Negligible	HGV delivery routes and times would be secured with a Construction Environment Management Plan that will be agreed with the relevant authorities and secured by a planning condition.	The residual effect on severance as a result of construction traffic is **negligible**.	The proposed mitigation measures deal adequately with the issue at the construction stage. During construction, transport and traffic impacts are likely to be short-term (and last only as long as the construction itself). Ensuring that HGV routes are and timings are properly planned will ensure that direct issues related to construction traffic are minimised and the proposed temporary speed limit is likely to cause short term minor and negative impacts after mitigation. The result of which will be during certain times, drivers may experience slightly longer queues that normally experienced on the A40.
	Driver Delay: Temporary speed limit reduction (50mph) introduced to assist construction vehicles to access/ egress the site safely. **Predicted impact:** Minor/ short term/ temporary/ negative	No specific mitigation proposed. Any particularly disruptive construction activities in the highway will be programmed to avoid busy periods. The effects of the works are unavoidable.	The residual impact of the effect on driver delay is therefore **short term, temporary minor and negative**.	
	Pedestrian delay: Construction traffic routes to the proposed development are generally on roads with limited pedestrian provision however during the	Needs of pedestrians will be carefully considered during construction in order that any pedestrian route closures are adequately sign-posted and	Given the mitigation measures proposed, it is likely that the effect of construction traffic on pedestrian delay will be **negligible**.	

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IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	construction phase it may be necessary to close or divert public rights of way or footpaths. **Predicted impact:** Where pedestrian footpaths/ rights of way are closed/ diverted effect on pedestrian delay likely be short-term, minor, temporary and negative. *Pedestrian Amenity:* Construction traffic routes are predominantly along roads with limited pedestrian provision. Main effects on pedestrian amenity due to construction activities include: Temporary closure/ diversion of public footpaths/ public rights of way across the site. Temporary closure/ width restrictions on footways during off-site highway schemes Mud/ debris on footways within the proposed development. **Predicted Impact:** Minor short term temporary	alternative provision is made available. Proposed pedestrian/ cycle crossing at the A40 development access will enable pedestrians and cyclists originating in the proposed development to access areas south of the A40 more safely. During construction, any effects on pedestrian amenity will be mitigated by ensuring a continued provision of pedestrian facilities where possible. Where pedestrian routes are closed or diverted, clear signage will be provided to show pedestrians the alternative route. When pedestrians are required to cross the road to continue	Where mitigation is provided it is considered that the construction of the proposed development will have a **minor negative effect.** Effects on pedestrian amenity will be **short term** and **temporary.**	

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IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	negative *Accidents and safety* Change in traffic levels as a result of construction traffic will be less than 5%. **Predicted Impact:** Negligible A temporary construction access is proposed to be constructed onto the A40. **Predicted Impact:** Minor negative short-term/ temporary	their journey drop kerbs will be provided Traffic management and temporary speed limit reduction proposed in the vicinity of the temporary construction access to the proposed development	Given the mitigation proposed, the residual impact is considered **negligible**.	
Operational:	*Severance:* The assessment undertaken identifies several streets where the severance increases from negligible to minor. These streets are in Northway between Bayswater Road and Burchester Road and Waynflete Road south. **Predicted Impact:** Negligible *Driver Delay:* The assessment shows the likely impact on driver delay without mitigation against a	Barton AAP seeks to reduce severance between the Barton and Northway areas of Oxford, by reducing the severance effects of the A40. Proposals include the introduction of a new pedestrian crossing across the A40; upgrading the existing underpass; and a Traffic Regulation order to reduce the speed limit to 50mph. Construction of improvement schemes at the Headington	Given the mitigation measures proposed, the likely residual impact is considered **negligible**. Given the mitigation proposed there is a likely **positive minor impact** of the proposed development	During the operational phase of the development, the mitigation measures that have been designed into the scheme, such as a reduction in the speed limit along the A40 and the collaborative work that has gone into the Design and Access Statement has ensured that the internal layout of the scheme will work efficiently. Given the likely delays under the do nothing scenario at 2019, the scheme itself and mitigation measures are likely to result in small positive

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	baseline scenario for 2019. **Predicted impact:** AM peak – Minor PM peak – Negligible *Pedestrian Delay:* The existing built area close to the site is characterised with urban streets and flanking footways. There are currently no controlled crossings within the Barton residential area albeit vehicle speeds are low. There is a crossing point on the A40 at a pedestrian subway between North Way and Barton Road. *Pedestrian Amenity:* No residential streets experience peak traffic-flows in excess of 10 vehicles per minute. The criterion for minor impact on residential streets is where traffic flows on a link exceed 10 vehicles per minute. *Accidents and Safety:* The proposed development will increase the total number of vehicles using the existing and proposed	roundabout and B4150/ B4495 junction to mitigate the effect of proposed development traffic. Development proposals include construction of a new pedestrian link between Barton and Northway and a new pedestrian crossing across the A40. There are also improvements proposed to the underpass The provision of new pedestrian links through the site will improve pedestrian accessibility in the area. . The reduction in speed limit along the A40 will reduce the risk of accidents. The A40 junction will be designed to accord with current guidance	in the AM peak hour and a **negligible positive impact** in the PM peak hour With the implementation of the mitigation measures the likely significance of the impact is minor positive; however coupled with the potential negligible negative impact of the increase in traffic flows in Barton, overall the impact on pedestrian delays is **negligible**. Overall with the addition of new pedestrian routes throughout the site, and in particular the new pedestrian crossing across the A40, will have a **minor positive effect** on pedestrian amenity Given the implementation of the mitigation schemes, the likely residual impact on accidents and safety is **minor positive**.	impacts on driver delays, whereas overall impact on pedestrian delays has been assessed to be negligible The proposals closely align with the policy which seeks reduced traffic speeds on the ring-road and development along the frontage of the site to be set behind a buffer.

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	residential streets in the vicinity of the development; however it is also predicted that overall speeds within the development will be lower and so this will reduce the risk of accidents.	and include skid resistant surfacing. The roads through the proposed development will be subject to a 20mph speed limit. The provision of a new pedestrian crossing at the new site access junction will allow pedestrians and cyclists to cross more safely.		
Ecology Operational	*Sydlings Copse (SSSI)* Habitat degradation due to recreational pressure **Predicted Impact:** Unlikely Minor Negative Medium to Long Term (given mitigation built into the scheme)	Provision for recreation on-site (6.99ha informal open space, greenways, accounting for over 10% of the site. And installation of fencing, signage and planting measures to discourage physical access to the SSSI from existing PRoW	**Unlikely** that adverse effects on Sidlings Copse SSSI as a result of the development.	The proposals include a detailed assessment of biodiversity impacts and provisions to compensate or avoid or mitigate harm *Bats* Of the receptors of potential biodiversity impact, bats have the highest level of protection and are affected by the development, a level of impact (before mitigation) that triggers the need for assessment under the Habitat Regulations. With a residual impact of site level only, on balance the population extent will not be significantly affected, after mitigation and provided the green north-south corridors provide appropriate habitats and can be managed as such. A condition should be attached to any consent to ensure this happens.
Construction	*Bayswater Brook SLINC (including Water Vole)* Habitat degradation due to pollution effects Predicted Impact: Near Certain negligible	Pollution prevention measures and exclusion fencing to be formalised in the Construction Environmental Management Plan.	**Near certain** that there will be **no adverse effects** resulting from the proposed development on Bayswater Brook during the construction phase	
Operational	Habitat degradation due to recreational pressures. In the absence of mitigation it is considered unlikely that there will be an adverse impact on the Brook resulting from increased recreational pressure	Design of recreational space to discourage direct access onto the watercourse by recreational users; Pathway to provide access to alternative areas, and be set back from proportion of the SLINC; and	Overall it is considered in the **short term** there will be **no adverse impacts** on Bayswater Brook SLINC. In the longer term, the enhancement and extension of habitat suitable for water voles means that there is a	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
		Habitat to be actively managed during the operational phase to benefit biodiversity.	**likely significant positive effect**.	The EIA acknowledges that there will be a need for Bat surveys prior to the granting of reserved matters for each phase of the development as bat survey data needs to be regularly updated. *Sydlings Copse and College Pool SSSI* . The EIA indicates that the residual impact is negligible. Natural England is a statutory consultee and will provide a view on the significance of the residual impact. *Flood-plain Grassland MG4* The Grassland is of European conservation concern, and the England Biodiversity Action Plan for lowland grassland has a policy to not reduce lowland natural grassland any further. The EIA judged the significance of the MG4 Grassland to be of County level. Because the proposal is to fully compensate for the grassland and is covered anyway by Oxford City Council's policy CS12, I have not considered the validity of this assessment of significance further.
Construction	*Hedgerows* Habitat loss and degradation	Retention of most valuable hedgerow habitat on-site; Habitat to be actively managed during the operational phase to benefit biodiversity	It is **probable** that there will **effects of negligible significance** as a result of the mitigation measures proposed.	
Construction 89 89	*Grassland* Loss of 11.5ha of lowland flood meadow (MG4 & MG5) is near certain to result in a significant adverse effect at the county scale (moderate).	Compensation entailing restoration of flood meadow habitat off-site	It is **probable** that there will **effects of negligible significance** as a result of the mitigation measures proposed.	
Construction	*Badger* There is potential for habitat loss (foraging and sett construction) habitat fragmentation and direct effect (potential killing, injury and disturbance) during the construction phase.	The badger sett will be relocated under licence from Natural England if required. The alternative sett will be situated within suitable foraging habitat range and connected to the wider landscape.	Through implementation of appropriate mitigation, it is considered **unlikely** that there will be a **residual adverse effect upon badgers.** In the unlikely event that a residual effect occurs it would be significant at the Site level at most.	
Construction	*Bats* To facilitate construction, habitat utilised by bats will	During construction, where tree removal and/ or selective pruning is required, a ground	It is considered overall, in terms of operational and construction phases there	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	be removed including mature trees, hedgerows and other semi-natural habitat types such as grassland and tall ruderal vegetation. The masterplan retains key habitats where the greatest bat activity was recorded. These areas will be protected during the construction phase.	level inspection will be repeated to confirm the potential for bat roosts. Due to the phased nature of the development is recommended to ensure the most appropriate approach at the time of construction. The surveys will occur in association with the relevant phase of the works.	will be a **residual minor adverse effect on bats**.	It will take up to 15 years for MG4 compensation to take full effect (to allow new ecosystems to establish). This means that the offset has to be more than like for like to take account of this time lag. The proposals for compensation allow for this, but there should be some controls in place to secure delivery of the full compensation measures proposed.
Operational	There are likely potential effects on habitat degradation as a result of lighting in the operational phase. There are potential effects on bats of habitat creation and management of the habitats retained on-site. During the operational phase no further direct habitat loss is anticipated.	Key lighting design principles will be implemented in order to mitigate potential impacts on bats at the reserved matters stage including using timers and lighting sensors where appropriate, using narrow spectrum bulbs to reduce the range of species affected by lighting and including directional lighting to avoid spill into areas which do not specifically need it.		Considering the tight timetable for development, it is desirable to provide the applicant with the flexibility to provide compensation outside the City or the County. I accept this because the habitat is rare and is part of a national resource so safeguarding the national resource is an acceptable aim of any compensation.
Construction	*Birds* The construction phase requires remove of habitat suitable for nesting birds such as hedgerow, trees, scrub and ruderal vegetation; where clearance is required it will be undertaken outside the	Longer term mitigation through creation of replacement habitat which will become established during the operational phase.	The highest quality areas of habitat available to nesting birds on site will be retained and protected in their entirety, or in their majority. There will be an overall reduction in suitable habitat for nesting birds and the potential for degradation of	*Bayswater Brook SLINC* The proposed development would not have a significant impact beyond a site level, and that impact is fully mitigated. In fact the development, if the proposals for the linear park managed for biodiversity are

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
Operational	breeding bird season. No further direct habitat loss is anticipated during the operational phase and the retained and newly created habitat will be managed to benefit biodiversity. Some residents may keep cats which could increase the likelihood of bird predation.	Retention of a dense shrub layer where this already occurs and creation of areas of dense shrubbery is proposed to provide suitable bird habitat. The precise area will be determined at the reserved matters stage.	retained habitat during the operation phase through the additional pressure primarily associated with cat predation. Overall it is considered that there will be a **minor permanent adverse effect** at the **site scale.**	implemented, is likely to have its value significantly increased, particularly for Water Voles, the main reason for the SLINC designation. *Hedgerows* After mitigation the EIA assessed that the impact is only at a site level. I accept this, on the basis that the mitigation is implemented as
Construction	*Invertebrates* The construction phase will result in the loss of at least 40% of the hedgerow. All the woodland habitat currently present on site will be retained and protected during the construction phase. The habitats form part of the mosaic supporting the current assemblage of invertebrate species. A maximum of 23.5ha of grassland and 3.2km of hedgerow will be removed. With the absence of mitigation the loss of grassland and hedgerow is near certain to lead to minor adverse effects at the district scale.	Overall to facilitate development on site there will be a reduction in the area of semi-natural habitat which is near certain to have an adverse effect on the invertebrate community present. Due to the spatial constraints on-site, the loss of grassland habitat is subject to off-site compensation. The method for compensation set out in respect to grassland will also benefit the invertebrate community local to the compensation areas.	At the site level, the retention and long-term management of a proportion of the main habitats of value to the invertebrate community means that it is unlikely that there will be a residual minor adverse effect at the district scale. **Residual positive effects** are **likely** to result from the compensation grassland and it is likely that the invertebrate community present in the vicinity of the compensation site will benefit from these measures at the local scale.	stated which will retain much of the biodiversity functionality of the more important hedges. However, there is some conflict in the submitted documents (Ecological and Arboricultural reports) about the implementation of the mitigation with reference to the retention of Crack Willow pollards and the provision of adequate grassland strips along the North-South- vital for retaining the biodiversity importance of the hedges. This discrepancy needs to be resolved. *Birds* The EIA states that the birds using the site are of Local biodiversity significance. Part of the reasoning in the EIA is that
Operational	During the operational			

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	phase, retained and newly created habitats in communal areas will be managed to benefit biodiversity. The proposed development will include 6.99ha informal open space. It is likely that in the longer term, positive minor permanent beneficial effects at the local scale.			the site is used by species on the NERC Act list, under wildlife protection legislation and on other lists of birds of conservation concern considered as valid by the UK Government, and therefore should be considered as Species of biodiversity importance for Policy CS12. The EIA argues that the best areas for birds will be retained and 40% of the hedgerow habitat retained with associated edge habitat and therefore with mitigation the impact will be only significant at a site level, though the impact of domestic cats introduces some uncertainty. I accept this analysis. However this reduction of significance of impact is contingent on full implementation of the mitigations and management of habitat. The EIA does add a rider to its assessment- the impact of domestic cats on bird population in the operational phase of the development is unpredictable. The Council may wish to be cautious over the impact of domestic cats and
Construction	*Otter* It is likely that there would be minor adverse impact at the site scale during the construction of new attenuation features in the habitat south of Bayswater Brook. Standard pollution prevention processes will be adopted throughout all construction activities and enforced through a CEMP. Therefore habitat degradation as a result of pollution is unlikely to occur.	The immediate corridor of the Bayswater Brook will be largely unaffected during the construction works, with the majority of mature trees and shrub cover retained. As no otter resting places have been identified, there is no know requirement for mitigation (under licence from Natural England).	Although, the Proposed Development will alter the character of habitat present to the south of the Bayswater Brook, in the longer term the channel will remain a suitable habitat resource for otter. Overall, it is considered probable that there will be a **negligible effect** upon this species as a result of the Proposed Development.	
Operational	Proposed development includes creation of recreation areas and paths in close proximity to Bayswater Brook. Due to	To mitigate potential habitat disturbance during the operational phase: - The habitat corridor adjacent to Bayswater		

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	recreation pressure in the operational phase there is potential for a decrease in suitable habitat.	Brook will contain areas of dense planting along the existing tree line to discourage direct access to the water course by recreation al users and provide cover for otter; - Recreational pathways will be set back from the Brook, being over 10m away where possible to avoid informal access to the channel and damage to the bankside vegetation; and - There will be no artificial lighting or light-spill onto the Brook or its associated semi-natural habitat.		consider the residual impact on birds to be overall significant at a local (District) level. *Invertebrates* The EIA assessed the current value of the invertebrates found on the site as at a Local (District) level. The invertebrates using MG4 grassland are the reason for this Local significance; However it is proposed to fully mitigate the loss of the grassland. The remaining invertebrate value of the site is only of Site importance according to the EIA, and with the creation of the linear park and its management for biodiversity, the site may deliver a positive impact on biodiversity of Local (Direct) significance. There are two invertebrate species found on site that are acknowledged of national conservation concern, and careful management of the linear park should provide habitat suitable for them, so the development accords with Policy CS12 in relation to invertebrates. *Badgers*
Construction	*Reptiles* Vegetation clearance will be necessary to facilitate construction, this includes habitat suitable for reptiles where a low, breeding population of grass snake has been recorded. In the absence of mitigation there is the risk of killing and, or injury of grass snake during clearance activities. Grass snake are relatively	To minimise the risk of killing and, or injuring grass snake mitigation will be designed into phase specific EMMS to cover vegetation clearance activities where this includes habitat suitable for reptiles. The following actions will be completed: - Vegetation clearance	Mitigation proposed during the construction phase reduces the risk of killing and, or injuring reptiles. It is therefore considered **probable** that there will be **no adverse effect** in this respect. There will be a temporary adverse effect at the Site scale, during the construction phase resulting from temporary habitat loss.	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	widespread in Oxfordshire, however the loss of animals along the Bayswater Brook corridor has potential to fragment the local population. For this reason, in the absence of mitigation it is considered probable, that this would lead to an adverse effect at the Local scale (minor). During the construction phase, the corridor of suitable habitat available to reptiles along the Bayswater Brook will be narrowed. The loss of habitat, before replacement suitable habitat is created as part of the overall masterplan, will temporarily restrict the extent of habitat available and reduce connectivity of habitat along the Brook corridor. It is considered near certain that this will lead to a temporary, adverse effect at the Site scale (minor). The masterplan includes the creation of suitable reptile habitat within the Bayswater Brook corridor which will	from habitat suitable for reptiles will be undertaken under an ecological watching brief, during the seasonal period when reptiles are active (i.e. April-September inclusive); - Immediately prior to clearance the ecologist will complete a fingertip search to detect snakes present in the works area. If detected, individuals will be moved to suitable habitat in the Bayswater Brook corridor which will remain unaffected by proposed works; and - Clearance will then be completed to approximately 200mm above ground level using hand tools, or a mounted flail with clearance undertaken towards retained habitat enabling any reptiles previously undetected to escape towards suitable habitat.	However, in the longer term the masterplan includes creation of replacement habitat which will be managed to provide suitable conditions for reptiles and it is therefore considered probable that residual effects upon this receptor will be **negligible.**	For Badgers, I consider that the biodiversity impact is of Site importance only. This is mainly because it is considered the badgers will lose some foraging area but the Social Group will survive by compensating with other areas off site, and using the naturalistic park areas and natural corridors of the development. *Otters and reptiles* I accept assessments for the significance of residual impacts on the Otters and reptiles, both at below Local level. *Barton Village Nature Area* I accept that the biodiversity value of Barton village Nature Area is only of Site level or below. This part of the site is discussed in the BAAP and the desirability of developing the site explained. Given the low ecological value the area holds the proposed changes will not have an adverse impact (although in landscape terms this may require careful delivery to avoid other impacts)
Operational				

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	replace habitat removed during creation of the attenuation features in this area. Habitat will include wetland features (in the form of newly created attenuation), and grassland including areas of longer marginal vegetation located to ensure a continuous linear resource along the Bayswater Brook. In the longer term, as newly created habitat becomes established, it is probable that there will we be a negligible residual effect upon the reptile population present.	In the longer term, retained and newly created habitat will be managed to provide suitable conditions for grass snake on Site. This will include measures designed specifically to benefit reptiles such as creation of uneven margins along treelines and hedgerows and newly created wetland habitat to ensure longer vegetation is present to provide shelter for reptiles, whilst shorter areas provide suitable basking habitat.		
Noise	*Potential Construction Noise Effects (existing dwellings)* Due to the size of the site, the majority of the works (as indicated by the average noise levels), are likely to result in negligible effects. A number of dwellings are located very close to the site (Dwellings in Barton Village Road and Hengrove Close) are located where some effects may be considered "high" in the "worst-case"	Require (through a condition) a Construction Environmental Management Plan (CEMP). Normal industry wide working hours for construction works will be followed and any work outside these times will be agreed in advance with OCC. Standard times are: Mon-Fri 0730 – 1800 Sat 0730 – 1300 No works Sunday, Bank or Public Holidays	Following the mitigation measures proposed, the magnitude of noise effects on occupants of the surrounding residential properties is **likely to be a direct, temporary, short-term and of negligible to moderate negative significance.**	On the assumption that further information and assessment will be carried out and submitted (as stated in Para 7.3.1 of the Noise Assessment) I have no adverse comments to make on the work undertaken so far: • All key guidance documents for both noise and light have been identified for the assessment process. • The environment noise monitoring is sufficient

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IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	scenario. The worst-case noise levels should be treated with caution as they are considered to be an indication of what could happen, for a limited period in the absence of mitigation. There is likely to be a direct, temporary short-term effect on the surrounding residential properties of negligible to major negative significance without the implementation of mitigation. *Potential Construction Vibration effects (existing dwellings)* The main sources of ground bourne vibrations are likely to be: - The use of tracked excavators during site clearance work; - The use of vibratory compactors during site clearance works; and - The use of bored	The selection of the quietest practicable plant and techniques. Experience from other sites has shown that by implementing the above measures, typical noise levels from construction works can be reduced by approximately 5 to 10 dB. The mitigation measures given above for noise will also help keep vibration levels to a minimum. In particular, Best Practicable Means should be adopted. The selection of least vibration inducing plant and techniques to be employed.	Following mitigation, the magnitude of vibration effects on occupants of the surrounding residential properties, and the buildings themselves, is **likely** to be a **direct, temporary, short-term and of negligible significance**.	but I will require further details on monitoring location points. • I am content to consider construction noise/vibration and mitigation once the CEMP is submitted. • I would like to see the baseline noise data used to inform the design of the site so as to protect buildings and open spaces, both private and communal. This is a preferred approach, rather than designing building envelopes to accommodate site layout. • I am content to consider construction lighting once the CEMP is submitted. • I have no concerns to raise with regard to street lighting. These lighting schemes are unlikely to cause statutory nuisance. Other issues such as impact on biodiversity and road safety are for other agencies to comment upon.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	piling rigs during foundation works. The magnitude of effects is predicted to be negligible to low. Therefore there is likely to be a direct, temporary, short-term, effect on occupants of the surrounding residential properties of negligible to minor negative significance prior to the implementation of mitigation measures.			• Should other lighting scheme be proposed, such as commercial car-parking/security lighting or sports pitch flood lighting, Environmental Development should be consulted as these have the potential for causing significant intrusion or statutory nuisance.
	Potential noise effects from existing and future road traffic on proposed dwellings The majority of the site falls within NEC A. There is a small strip of the site within NEC C. The remainder of the site (around 40%) is in NEC B. The effect on any dwellings located in areas classified as NEC A would be **negligible**. Therefore, there is likely to be a **direct, permanent, long-term effect on the dwellings of negligible significance**	For those dwellings in NEC A, no mitigation is required. For those in NEC B, include the following: Locate gardens away from A40 Orientate habitable rooms away from A40 Fit acoustically treated passive ventilation units to dwellings within NEC B Consider mechanical ventilation for dwellings within NEC C	In terms of the majority of dwellings, located away from the A40, beyond at least the outermost dwellings, the magnitude of effect is anticipated to be **negligible.** Therefore, there **is likely** to be a **direct, permanent, long-term effect of negligible significance.** In terms of a minority of dwellings, where the adopted internal targets may be exceeded with windows open, the magnitude of effect is anticipated to be low.	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	prior to the implementation of mitigation measures. The effect on any dwellings located in areas classified as NEC B would be low. Therefore, there is likely to be a **direct, permanent, long-term effect on the dwellings of minor significance** prior to the implementation of mitigation measures. The effect on any dwellings located in areas classified as NEC C would be medium. Therefore, there is likely to be **a direct, permanent, long-term effect on the dwellings of moderate significance** prior to the implementation of mitigation measures. *Road Traffic noise at future school* The whole of the site falls within the acceptable limits of noise for new schools albeit, the likely noise is at the upper limits of what is considered acceptable. Based on the assessment of	Intervening buildings as a result of the proposed development will act as screening of noise for the school. With these buildings in place it is anticipated that the effect of road traffic will be negligible. As such no further mitigation is proposed.	**Therefore, there is likely to be a direct, permanent, long-term effect of minor negative significance.** With intervening buildings acting as screening, there is likely to be a direct, permanent, long-term effect on the school of negligible significance.	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	the school area as a whole, there is likely to be a direct, permanent, long-term effect of negligible significance. The effect on the internal areas of the school is likely to be of low significance.			
	Potential noise from the substation on proposed dwellings In the daytime the noise from the substation is masked by the A40 but at night the substation does affect the noise on site as the noise from the substation remains constant. Those properties closest to the substation site are in the NEC C noise class. Any impact on these properties is likely to be direct, permanent, long-term effect of moderate significance. Some dwellings would also fall within the NEC B. Any impact on these properties would be of low significance.	A screen will be erected but given the low frequency nature of the noise from the substation this is likely to be of limited effectiveness. The screen is primarily for visual effectiveness. Once windows are opened in properties it is unlikely that the noise criteria would be met therefore mechanical ventilation units should be considered in properties in the NEC C area.	Assuming the use of suitable means of ventilation, and where the noise levels within gardens is no more than 55 dB, the magnitude of effect is anticipated to be low negative. Therefore, there is likely to be a direct, permanent, long-term effect of minor negative significance. Where noise levels within gardens exceed 55 dB, the magnitude of effect is anticipated to be medium negative. Therefore, there is likely to be a direct, permanent, long-term effect of moderate negative significance.	
	Potential noise effects from future road traffic on existing	In terms of the majority of dwellings there is no mitigation proposed as there	Given the indirect mitigation	

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	dwellings The majority of changes on the road/ links have a negligible impact. There will be a slight increase in background noise between now and 2019. Overall the magnitude of change, without any mitigation, is negligible to high adverse. There is likely to be a direct, permanent, long-term effect of negligible to major significance (depending on the road/ link). Those existing dwellings dominated by noise from the sections of the A40 subject to a reduction in speed are likely to experience a direct, permanent, long-term positive effect of low significance. *Potential noise effects from future building services plant on existing and future dwellings* Possible that school, retail, employment and community elements of the proposed development will require	is unlikely to be any effects of more than negligible significance. Limited mitigation measures area available for the remaining properties and those mitigation measures available have been presented in the TA in order to decrease queues in the vicinity of the Barton Village Road where predicted noise impacts are highest. There are no significant issues anticipated. Providing the quietest plant is installed at the furthest point from the neighbouring dwellings and/ or where ambient noise levels are highest, and with	as a result of the queue reductions, the overall effects range from negligible to minor significance. There is likely to be a direct, permanent, long-term effect on the nearest dwellings of negligible significance.	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	building services plant, such as ventilation for refrigeration purposes. Estimates of noise from this plant have been made to support the development as precise details not known at the moment. It is likely that effects on the nearest dwellings will be of negligible significance.	silencers, enclosures or screens used. These will be controlled via planning conditions where necessary.		
Socio-Economic **Construction**	*Employment Effect* The majority of permanent employment space and jobs created on-site will be generated from the retail floorspace. It is considered likely that the development will create 12FTE construction jobs in 2014 with 109FTE construction jobs at 2019. There is a possibility that the retention of local construction jobs could be minimal as there is history that major construction development projects could be sourced nationally.	The Barton Oxford LLP will explore potential links to education and community training through the development of an Employment and Skills Plan to specify the provision for training opportunities for new jobs and business opportunities created by the development. Procurement of contracts related to the development will seek to promote local businesses through the inclusion of at least one firm based in the County of Oxfordshire (subject to meeting general minimum criteria) in the list of tenderers for each phase of the development.	It is not considered that any residual socio economic effects will result from the construction employment phase. However, the extent to which local employment initiatives are implemented could determine the level of wider, indirect economic benefits.	Measures to ensure that local opportunities within the job-market are maximised and that local businesses and people can benefit from the scheme in the construction phase. The mitigation measures suggested are positive and encouraging and could support the retention of local workers.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
Operational	*Direct Employment* It is estimated that 208FTE jobs could be generated from the proposed development. Employment / FTE jobs Cultural/ Community Building: 4 Food superstore: 82 Hotel: 60 Primary School: 30 Retail (High St): 20 Extra Car Housing: 12 Total: 208 *Indirect Employment* Indirect employment is determined by a number of factors: • *Leakage:* The proportion of jobs that may be taken by people living outside of the assessment area; • *Displacement:* This reflects the potential reduction in activity elsewhere in the area; • *Deadweight:* The proportion of employment that may have occurred in the area without the Proposed Development; and	There is potential for a local skills and employment programme for the construction stage of the development to ensure local access to jobs and training. This could be provided alongside existing programmes being delivered by the Barton Community Association and/or the Barton Job Club.	Depending on the level of success with integrating these initiatives, this has the potential to have a moderate beneficial effect.	During the operational phase, it is likely that regeneration benefits associated with the scheme will benefit the existing community as well as the new one. The direct employment associated with the operational phase of the development could all be sourced locally, and depending on the level of success with the integration of the mitigation initiatives, there could be positive beneficial effect.

<table>
<tr><th>IMPACT TOPIC</th><th>DESCRIPTION OF PREDICTED IMPACTS</th><th>MITIGATION PROPOSED</th><th>SIGNIFICANCE OF RESIDUAL IMPACT</th><th>OFFICERS COMMENTS</th></tr>
<tr>
<td></td>
<td>• Multiplier Effects: These are the further economic activity (indirect and induced jobs) generated as a result of the additional direct income and supply chain activity.

<table>
<tr><th></th><th>Operational (2019)</th></tr>
<tr><td>Total Jobs</td><td>208</td></tr>
<tr><td>Minus 10% leakage</td><td>187</td></tr>
<tr><td>Minus 0% displacement</td><td>187</td></tr>
<tr><td>Minus 0% deadweight</td><td>187</td></tr>
<tr><td>Total Direct Jobs</td><td>187</td></tr>
<tr><td>+ 10% Local Multiplier</td><td>206</td></tr>
<tr><td>Total Local Jobs (Net)</td><td>206</td></tr>
</table>

At the scheme's operational phase (2019) it is anticipated that the development will generate 206FTE jobs. This is considered a positive beneficial effect of moderate significance. A large proportion of the employees are expected to come from within the application site or the inner impact area.</td>
<td>The increase in population is</td>
<td>No residual effects as a</td>
<td></td>
</tr>
</table>

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	Population generated through the scheme The proposed development includes up to 885 residential units of which 60% will be market and 40% affordable housing. The following estimates of population are set out for the beginning and end of the scheme Year / Units / Population 2014 / 100 / 283 2019 / 885 / 2485 *Education Services* The new development will increase demand for local schools by attracting families to live in the new market and affordable properties. The following tables show the estimated number of pupils as a result of the proposed development. Construction: Age / Pupils / Form entries 0-3 / 10 / - 4-10 / 29 / 0.1	central to the nature of the Proposed Development. As a result, this is deemed neither positive nor negative in terms of assessing significance of effects. It is the effects of this change on the wider population that is to be assessed. The development of a primary school (1.5FE –potential for 2FE) is proposed on-site. Depending on the phased delivery of this, additional demand in the interim should be sufficiently absorbed within the planned school expansion of the Bayards Hill primary school. There is also potential for the planned school to incorporate an early-years (ages 0-3) facility, which would also sufficiently mitigate demand on-site. There are no proposals at the Application Site to provide	result of population growth. Depending on the size of school built there is potential that the on-site primary school could export surplus primary school capacity outside of the Application Site. This is considered as a major beneficial effect, providing additional capacity to cope with the significant impending increase in school demand across the city, as identified in the Oxfordshire Pupil Places Plan (2012/13 - 2016/17). With demand arising for secondary school and sixth form provision, the Oxfordshire Pupil Places	The addition of a new 1.5-2FE school mitigates the additional need generated by the likely growth in children associated with the new population.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	11-15 | 18 | 0.1 16-17 | 3 | Operation: Age | Pupils | Form entries 0-3 | 59 | - 4-10 | 272 | 1.3 11-15 | 162 | 1.1 16-17 | 23 |	any secondary school provision and this will therefore require a financial contribution to provision off site.	Plan suggests that there is sufficient capacity within the two local secondary schools to accommodate this growth in the short-term. The longer-term however, may see an expansion of existing school capacity as opposed to new school development. With regard to secondary and sixth form place demands, it is therefore considered that the effect of the scheme would be negligible.	
	Health Effects There are no statutory limits on the number of patients per GP. For modelling purposes a standard of 2,000 patients per GP has been developed for use by Oxfordshire County Council. At 2019, the estimated population increase as a result of the development could generate demand for at least one additional GP. This is considered to be a moderate negative impact.	There are currently no proposals at the Application Site to provide any healthcare provision. However, there is potential for healthcare outreach services to be provided as part of flexible community floorspace within the Community Hub. Discussions are also on-going to investigate the potential to improve the satellite surgery of the Bury Knowle facility (in the Barton neighbourhood centre) to accommodate the need for an	Based on the proposed mitigation there is no residual effect with regard to Health impacts.	Given the mitigation proposed and using the figures provided, the health effects (need for additional GP, dentists etc.) of the development can be accommodated in the wider community and on-site at the Community Hub.

<table>
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<tr><td>/406</td><td>Community Facilities
Modelling suggests that increased demand as a result of the development (and population growth associated with the development) will be an increase of 36m2 at the start of the development (2014) and 321 at the operational phase of the development.

The table below shows the breakdown at the different phases of development:

Construction:
<table><tr><th>Community/ Cultural Facilities (m^2)</th><th>Construction (2014)</th></tr><tr><td>Community Space</td><td>17</td></tr><tr><td>Library space</td><td>6</td></tr><tr><td>Arts/ Cultural space</td><td>13</td></tr><tr><td>Total</td><td>36</td></tr></table>
Operational:</td><td>additional GP.

These options have the potential to mitigate the impact.

At least 340 m^2 of flexible community-use space is proposed at the Application Site, as part of the primary school. Including dedicated community space of 100 m^2 and use of the school hall (180m^2).

The pavilion will also be expanded (60 m^2) proposed to be provided as part of the new pavilion, delivered as part of the Community Hub.

Results of the Barton Hub Building Service Audit (2011) suggest that there is currently approximately 140 m^2 of spare community space located within the Barton Neighbourhood Centre. This centre is situated in close proximity to the Application Site, with new residents able to access this space.

Depending on the phasing of delivery, demand at both</td><td>Because of existing local capacity and proposed new community space, the Proposed Development will provide new residents with additional, quality community space than what is required to meet demand. This is therefore considered as having a moderate beneficial impact.

Furthermore, having additional designated community space on-site will also contribute to the sustainability and overall place-making qualities of the scheme.</td><td>New community space provided as part of the development will ensure that the development meets its own needs and addresses some of the deficiencies in the surrounding area.</td></tr>
</table>

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	<table><tr><td>Community/ Cultural Facilities (m^2)</td><td>Construction (2014)</td></tr><tr><td>Community Space</td><td>152</td></tr><tr><td>Library space</td><td>57</td></tr><tr><td>Arts/ Cultural space</td><td>112</td></tr><tr><td>Total</td><td>321</td></tr></table> *Cumulative effects* A cumulative effects assessment was undertaken for each of the above topics. This looked at the effects of the development in the context of what other developments are happening within Oxford – particularly the strategic developments at Northern Gateway and the West End. Locally, cumulative increases in population could be around 4,500 additional residents. This includes new residents at at Westlands Drive and the Northway Centre.	2014 and 2019 should be more than sufficiently mitigated, with additional capacity also available. This is therefore considered as having a moderate positive impact. Mitigation measures have been built into the design of the scheme. Further mitigation includes (on the topic of health) the need to accommodate an additional GP at the Barton Neighbourhood centre.	The cumulative assessment concluded that there would be no significant effects.	
Landscape & Visual Quality	Although the proposed development is large scale, lies adjacent to the open countryside and is near to the conservation area of Old	Measures to minimise the landscape and visual effects have been developed during the design process and incorporated into the final	The following significant residual impacts are considered unavoidable: Construction:	The views of Oxfords historic core have high significance and the viewing places also have significance for the history of the view and how it has been

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	Headington, significant landscape and visual effects are restricted to a very localised area. This is chiefly as a result of local topography, with high ground to the north, south and east enclosing the area. To the west, potential views over lower-lying agricultural land, are restricted by trees and hedgerows. The character of the landscape of the site will inevitably be physically altered by the proposals. Some trees and hedgerows will need to be removed to enable development, including access. However most of the site trees and hedgerows, including most identified as important under the hedgerow regulations, will be retained and integrated into the landscape and open space structure. However, the main change to the site character will be the replacement of rural fields with development and this will result in the only landscape effect of	design. These include suggested mitigation measures set out in the EIA scoping report. The predicted adverse effects beyond the immediate local area are mainly as a result of the scale and nature of the development. In views from Old Headington, it was identified that an area of up to 4.5 storey residential development had the potential to encroach into views to a greater degree than the remaining development. Although this would not result in a step change in the assessment results, the benefits of reducing the visual effect in views from a sensitive area were recognised and the area was reduced to up to 3.5 storey. No additional and practicable additional available measures that could reduce the adverse effects of the proposed development whilst maintaining the required amount of development have been identified.	All medium term impacts - Change in character and landscape resources of the site area. - Change to Landscape Character Area 2B Cherwell Pastoral Floodplains - Change to Townscape Character Area 3B Old Headington Historic Village Core Operational: All long-term impacts - Change in character and landscape resources of the site area. - Change to Landscape Character Area 2B Cherwell Pastoral Floodplains - Change to Townscape Character Area 3B Old Headington Historic Village Core	recorded over time. During the C20th viewers will have witnessed a variety of changes to Oxford's setting with the development of the suburbs (in particular its rapid post war growth associated with the car industry), the loss of some C19th suburbs and the development of the city's hospital and medical research facilities. These changes, a part of Oxford's history and identity, have not directly impacted on the views of the historic core, but they have changed the wider setting. Old Headington is a designated conservation area (and also Elsfield, but within another local authority boundary) and therefore has high significance. The relationship of the application site to Old Headington is that it forms part of the rural setting of the village to the north – containing physical evidence of the historic field patterns and understanding of the village's agricultural origins. Views of the village, nestled in amongst the wooded hillside, with a few key buildings - the church,

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	substantial significance. The indirect effects on the character of the surrounding landscape and townscape, are mostly not significant; the only significant effects being effects of moderate significance on Character Area 2b (Cherwell Pastoral Floodplains) and Character Area 3B, Old Headington Historic Village Core. In views from the countryside to the north of the site, chiefly experienced by walkers on public rights of way, the inclusion of existing vegetation will help the proposals assimilate with the semi-wooded urban edge of Oxford. The wooded setting of Old Headington will still be appreciated from the network of public footpaths, although there will be unavoidable obstruction of views from those sections of footpath close to and passing through, the site. Important views to Oxford City core from the Elsfield			visible amongst the trees and the Rookery (Ruskin College) visible above its walled garden and open fields are possible from the footpath network leading down from Elsfield, hold aesthetic value. The current field pattern and hedgerows to the application site form the fore and middle ground to these views. Also in the view are the developments at Barton and Northway and the JR above, which means that the application site represents the only surviving element of the agricultural landscape immediately south of the Bayswater brook. From within the village this wider setting is generally not apparent and the character of the village is unaffected by the development proposals. The application is accompanied by a series of technical documents that examine the existing characteristics of the site and its role within the wider landscape. Using accepted professional and technical methodologies these studies also examine the nature of

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	ridge will not be interrupted by the proposals, although the proposals will be visible to the east side of the views. The retained trees and hedgerows within the site combined with the effects of vegetation beyond the site and the effects of topography currently restrict views of the site from the south including views from Old Headington conservation area. Additional planting will help to further restrict these views. The proposals will be visible in some views, but the main characteristics of views to the north, which the conservation area appraisal identifies as the fields south of the A40 and the Elsfield Ridge, will be retained and the significance of effects on the five representative views from Old Headington is assessed as moderate for a number of views. Views from a localised area of Northway centring on Meaden Hill will be affected by the proposed new			change proposed and what impacts those changes will have on the landscape character, views, heritage assets and their settings. The conclusions in those reports are broadly that the magnitude of change will be significant and the effect adverse. The Parameter Plans accompanying the application seek to provide a framework to inform detailed design and provide a mechanism for helping to ensure that adverse impacts can be minimised or mitigated. These parameter plans are supported by a design code to advise on detailed aspects of the design and layout. The documents and plans and the supporting illustrative masterplan show that it is proposed to retain evidence of the historic field pattern by retention of field boundaries, integrating them into the proposed layout. These will provide a memory of the historic field pattern. Given that the site is allocated for development and that the

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	access from the A40 and development at the gateway. Views of the countryside beyond will be restricted in some viewpoints from Northway, but in most views much of the countryside will remain visible beyond the development. Views from Barton will be affected as development replaces the recreation area, with this large change resulting in a substantial significance of effect on views from the immediate adjacent street; but this effect will be restricted to a very localised area and the sensitive nature of the development will enhance the urban quality of this edge of Barton. The proposals will result in some significant landscape and visual effects, including unavoidable changes to the character of the site, but the overall picture is of significant effects limited to a relatively restricted area of surrounding countryside and			existing character will change retaining hedgerows allows some sense of continuity with the past (as well as helping to deliver on other objectives – ecology, landscape, and archaeology). There is reliance in the proposals on the role and contribution existing and proposed landscaping will provide in screening, softening and framing views of the development. Given the density and height of some parts of the proposal this development will be visible, no matter how much additional landscaping is provided.

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	townscape. The effects of substantial significance assessed, are for receptors either within the site, or adjacent to it and arise from the inevitable change arising from development replacing fields. The landscape strategy, including a sensitive layout that retains much of the site vegetation and careful consideration given to building heights, form, density, character and massing mean that the majority of effects are either moderate, slight and negligible.			
Air Quality	An assessment of the effects of construction traffic on local air quality at sensitive receptors was undertaken. The results showed that impacts are considered to be temporary, short-term, local in effect and of slight adverse to negligible, prior to mitigation. A quantitative assessment of the potential effects during the operation phase was undertaken using	*Construction Mitigation* A number of mitigation methods will be implemented to limit effects to human and ecological receptors, as appropriate including: a) vehicles carrying loose aggregate and workings will be sheeted at all times; b) implementation of design controls for construction equipment and vehicles and use of appropriately designed vehicles for materials handling; c) completed earthworks will	The Proposed Development should consider air quality to be of priority in the planning process and implement the mitigation measures modelled by the DS scenario. The mitigation measures modelled in this assessment did produce significant improvements on air quality. Therefore, once implemented, it is likely that there will be no significant air quality effects as a result	Construction works need to follow Prior Consent procedures adopted by Oxford City Council, in relation to adopting measures to minimise the impacts of construction, particularly from nuisance aspects in relation to air pollution and noise. Oxford declared a single city-wide AQMA in 2010, thus the whole area is encompassed within the AQMA. Local hotspots have been previously identified in relation to

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	advanced dispersion modelling to predict the changes in NO2 and PM10 concentrations that would occur due to traffic generated by the Proposed Development. The results show that the Proposed Development without mitigation would cause large to negligible increases in NO2 and PM10 concentrations at the assessment receptors. However, under the DS scenario with mitigation the predicted NO2 and PM10 concentrations for the opening year would show large to negligible decreases at all modelled receptors. Therefore, the effects of the operation phase with mitigation are considered to be substantial beneficial to negligible effect for NO2 and annual mean PM10 concentrations, and neutral for daily mean PM10 concentrations according to the EPUK criteria. Therefore, there is likely to be a direct, permanent long-term effect on local air	be covered or vegetated as soon as is practicable; d) regular inspection and, if necessary, cleaning of local highways and site boundaries to check for dust deposits (and removal if necessary); e) minimise surface areas of stockpiles (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up; f) where appropriate, windbreak netting/screening will be positioned around material stockpiles and vehicle loading/unloading areas, as well as exposed excavation and material handling operations, to provide a physical barrier between the Application Site and the surroundings; g) where practicable, stockpiles of soils and materials will be located as far as possible from sensitive properties and ecological receptors (i.e. vegetation), taking account of prevailing wind directions	of the construction or operational phases of the Proposed Development.	exposures in the near vicinity to Green Road roundabout. The transport and air quality assessment will need to carefully consider not only the impact of additional traffic at Green Road roundabout, but also whether there may be additional localised traffic congestion with subsequent air and noise pollution hotspots, resulting from the development. It is considered that the traffic assessment should consider the combined impacts of air pollution and noise, in order to reflect the local perception of disturbances from the additional traffic associated with the development. The air quality assessment will need to consider the significance of the impacts of air pollution from the development. It is recommended that reference is made to the criteria used within the EP (UK) Development Control: Planning For Air Quality (2010 Update), notably the criteria expressed in Box 1, p21. The scope of the assessment should include an

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	quality of substantial beneficial to negligible significance.	and seasonal variations in the prevailing wind; h) during dry or windy weather, material stockpiles and exposed surfaces will be dampened down using a water spray to minimise the potential for wind pick-up; i) use of dust-suppressed tools for all operations; j) ensuring that all construction plant and equipment is maintained in good working order and not left running when not in use; k) Restrict on-site movements to well within site and not near the perimeter, if possible; and l) no unauthorised burning of any material anywhere on site. A framework Construction Environmental Management Plan (CEMP) will be in place outlining mitigation measures recommend. It is recommended that dust monitoring is undertaken during the construction period. The results of this		estimate of the number of properties that may be adversely affected, as well as preparing to consider the effect of mitigation measures (Table 7) where the scheme is shown to have significant effects. Mitigation measures should include measures to promote low emission transport measures, particularly public transport provision, and measures to provide alternatives to the use of private motor vehicles. There is an ambition within Oxford to demonstrate that new developments are contributing to a Low Carbon economy and low carbon transport solutions, thus it is expected that the assessment takes this into account, by demonstrating the impact of measures to reduce emissions from the development. An integrated approach should be taken in assessing the impact of transport from this development that combines the transport assessment within or alongside the Environmental

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		monitoring should be made available to the local authority throughout the construction phase period. In the instance of elevated levels observed at sensitive locations, additional mitigation measures can be applied. *Operational Mitigation* Based on the assessment results and the yielded ambient air NO2 and PM10 concentrations attributable to traffic associated with the Proposed Development, there is the need for the implementation of mitigation measures detailed within the Travel Plan. All receptors in the DS scenario, which includes the proposed mitigation strategies, show significant decreases in pollution levels with the predicted effects ranging from negligible to substantial beneficial. This is likely to be attributed to the decrease in AADT flows and decreased congestion on roads affected by the proposed mitigation measures.		Impact Assessment, in a way that highlights to what extent measures to promote sustainable transport are being implemented (or not) as the case may be. This assessment should consider impacts on air quality and carbon emissions, on the basis of:- 1) Local assessment with no development (taking account of predicted traffic growth) 2) Local assessment with development (taking account of predicted traffic growth) –no measures to promote sustainable travel 3) Local assessment with development (taking account of predicted traffic growth) –with measures to promote sustainable travel, highlighting to what extent measures to promote sustainable transport are predicted to contribute to reducing emissions of carbon and air pollution.

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Ground Conditions **Construction**	*Exposure to Contamination and Geotechnical Hazards on Construction Staff* During earthworks and excavations, construction workers may be exposed to contaminants. Certain contaminants have been found in the made ground at concentrations that could pose a risk to construction workers health. There are short term negative effects of a moderate to major significance.	Workers will be required to wear personal protective equipment. Appropriate hygiene and welfare facilities will be provided as per relevant regulations. Appropriate health and safety risk assessment to be conducted.	There will be a residual risk of negligible significance.	The ground conditions chapter in the Environmental Statement sets out the assessment methodology and baseline conditions based on previous site investigation information. The report confirms that parts of the site are impacted by contamination. Contaminant linkages have been identified using the source-pathway-receptor model and likely significance and mitigation have been outlined. It is understood that additional sampling is being undertaken and that a supplementary technical addendum will be submitted at a later stage.
	Potable Water Supply The nearest public water mains are located along the A40 and Barton Village Road. It is suspected that there are private water mains on site associated with the allotments and sports centre however their exact locations are unknown at this stage. Where present private water mains could be affected by contaminants during the	Relevant guidance adhered to. Water supply pipes in accordance with guidance and Thames Water.	There will be a residual risk of negligible significance.	The site forms distinct parts from a ground conditions perspective. Whilst predominantly agricultural, there is also an electricity sub-station, derelict farm buildings and most significantly, an area of landraising/landfill in the recreation grounds area. This area of landfill extends to up to 4 metres in depth in some places. Contamination has been identified in the groundwater, soil and gas has

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	construction process. There are short term negative effects of a minor significance. *Effect on Third Parties and Properties* Works that disturb or entail removal of Made Ground will potentially release contaminants to the atmosphere, or will encourage migration of contaminants through groundwater by creating preferential pathways. There is likely to be a direct permanent impact on third party properties of minor negative significance. *Effect on Groundwater in the Secondary (A) Aquifers from existing sources of contamination* Given that the landfill is predominantly of soft cover, it is not anticipated that there will be a significant increase in infiltration of	Proposed mitigation measures include working to an Appropriate Construction Environmental Management Plan, good working practice and general good housekeeping to ensure that contaminants do not spread through preferential pathways. Removal of the surface of the landfill should be delayed until as late as possible during the enabling/earthworks and, if possible, undertaken during seasonally drier periods of the year. Other proposed mitigation	There will be a residual risk of negligible significance. There will be a residual risk of negligible significance.	been recorded. The information submitted indicates that mitigation measures are likely to be able to reduce significant risks to acceptable levels. However, additional sampling and detailed remediation strategies have not yet been submitted and agreed. The Environmental Statement information can be seen as the initial stages of a phased risk assessment process as set out in the Environment Agency's document "CLR 11: Model Procedures for the Management of Land Contamination". However, a planning condition to secure the completion of the phased risk assessment process is required. The condition should secure the submission of a detailed scheme for remediation and long term monitoring. It should also secure the final verification and validation processes. It will also be necessary to impose additional long-term controls - such as through the removal of permitted

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	surface water into the landfill as a result of removing hardstanding. However, given the removal of the soil cover on the landfill during construction and opening up of excavations, there is the potential for temporary direct water ingress into the landfill which could increase contaminant migration from perched groundwater into the Secondary (A) Aquifers. There is likely to be a direct, temporary short term effect of moderate negative significance.	measures include working to an Appropriate Construction Environmental Management Plan, good working practice and general good housekeeping, control and management of water infiltration, consideration of clean piling techniques and the use of a clean soil cover layer obtained from site won materials suitable for the proposed end use.		development rights - to control any development involving groundworks (such as extensions/conservatories/pond excavation etc.) on the landfill areas.
	Effect on surface water in adjacent drainage channels and Bayswater Brook from existing sources of contamination The site is bisected by three drains (north to south aligned) which flow northwards to discharge into Bayswater Brook. The Bayswater Brook flows east to west and forms the northern boundary of the site. The ordnance survey	Removal of the surface of the landfill should be delayed until as late as possible during the enabling/earthworks and, if possible, undertaken during seasonally drier periods of the year. Other proposed mitigation measures include working to an Appropriate Construction Environmental Management Plan, good working practice and general good	There will be a residual risk of negligible significance.	

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	map indicates the presence of 'sinks' associated with the watercourse next to the substation. Due to the earthworks and movement of soil there is also the potential for overland surface flow from stockpiled contaminated material that could leach or wash into the drainage channel or the Bayswater Brook. This could introduce existing contamination into the surface water affecting the water quality. There is likely to be a direct temporary short term effect of moderate negative significance.	housekeeping.		
Operation	*Effect of Contamination and Geotechnical Hazards on Future Site Occupants and Properties* The proposal for the site includes development of residential areas on the landfill. There is potential of exposure from the contamination to these residential receptors and to	An appropriate remediation/ mitigation strategy including localised source removal, clean engineered cover and gas protection will be undertaken and adhered to.	There will be a residual risk of negligible significance.	

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	those in other localised areas of contamination on the site (e.g. the derelict farm building area) from activities such as gardening, growing of home-grown produce for consumption or other general garden use such as playing or eating outdoors. There is also the potential for occupants to excavate into the landfill material from the construction of ponds, home extensions or conservatories. The pathways that could be present comprise indoor and outdoor dermal contact, inhalation of dusts or gases, ingestion of soil, vegetables or soil attached to vegetables and ingestion of dusts. The residential properties will be constructed on landfill material up to 4m in thickness and therefore there is the potential for a geotechnical structural risk from settlement or subsidence of the material. In addition there is potential for effects on the structural			

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	integrity of the building materials due to chemical attack of being constructed in the landfill material. The sensitivity of future Site occupants is high and the magnitude of change, prior to mitigation, is major. Therefore, there is likely to be a major negative significance effect on future Site occupants and properties prior to the implementation of mitigation measures. *Effect on Potable Water Supply* The potable water supply on Site could be affected by the contamination in the landfill area. In the remaining areas of the site there is likely to be a negligible effect, with the exception of a localised area of contamination identified within the derelict farm building area. Water supply may be affected by future vehicle fuel and oil spills entering	Water supply pipes will be laid in accordance with the relevant guidance and Thames Water.	There will be a residual risk of negligible significance.	

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	the service trenches. However, any spills are likely to be small and very rare. The sensitivity of potable water supply is high and the magnitude of change, prior to mitigation, is low to medium. Therefore, there is likely to be a **moderate negative** effect on potable water supply prior to the implementation of mitigation measures.			
	Effect of Contamination on Third Party Properties and occupants Following remediation and the excavation or engineered cover of the identified areas of contamination at the Site during construction, it is considered unlikely that unacceptable risks to third party properties and occupants will remain. The sensitivity of third party properties and occupants is high and the magnitude of change, prior to mitigation,	Due to the negligible significance of effects on third party occupants or properties, no mitigation is required.	The sensitivity of third party properties and occupants is high and the magnitude of change, prior to mitigation, is negligible. Therefore, there is likely to be a **negligible** effect on third party occupants and properties prior to the implementation of mitigation measures.	

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	is **negligible**. Therefore, there is likely to be a negligible effect on third party occupants and properties prior to the implementation of mitigation measures.			
	Effect on Groundwater in the Secondary (A) Aquifers from existing contamination Mitigation measures carried out during the construction phase will address identified sources of contamination that may potentially affect the Secondary (A) Aquifers, The sensitivity of groundwater in the Secondary (A) Aquifers is high and the magnitude of change, prior to mitigation, is low. Therefore, there is likely to be a **negligible** effect on groundwater in the Secondary (A) Aquifers.	Due to the negligible significance of effects on groundwater in the Secondary (A) Aquifers, no mitigation is required.	The sensitivity of groundwater in the Secondary (A) Aquifers is high and the magnitude of change, prior to mitigation, is low. Therefore, there is likely to be a **negligible** effect on groundwater in the Secondary (A) Aquifers.	
	Effect on surface water in adjacent drainage channels and Bayswater Brook from existing contamination	Due to the negligible significance of effects on surface water, no mitigation is required.	The sensitivity of surface water is high and the magnitude of change, prior to mitigation, is negligible. Therefore, there is likely to	

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	The mitigation measures carried out during the construction phase will address identified sources of contamination that may potentially affect the surface waters, particularly in the northern landfill area through control and management of water infiltration into the landfill and from overland flow by the use of silt traps. In addition, a greater proportion of the landfill will be covered with hardstanding, thereby, reducing infiltration of rainwater and the potential downward migration of contamination through the landfill and effecting surface water as baseflow. The sensitivity of surface water is high and the magnitude of change, prior to mitigation, is low. Therefore, there is likely to be a **negligible** effect on surface water.		be a **negligible** effect on surface water during operation of the development.	
	Cumulative Effects	No additional mitigation proposed.	Providing all necessary remediation / mitigation	

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	The implementation of the mitigation measures set out above will ensure that soil and water pollution during construction and operation is minimised to an acceptable level. The proposed Development of the Application Site would remove (where necessary) and remediate (where required) sources of contamination, so any elevated levels in the soil and groundwater would be reduced.		measures are implemented, it is considered that the Proposed Development will have a negligible effect on the adjacent environment with regard to contamination and ground conditions, where existing ground contamination is removed/remediated.	
Water **Construction**	*Potential risk of contamination to surface and groundwater* Potential of contamination of surface water run-off from construction activities, which could subsequently enter the surrounding surface water features and potentially affect the under-lying Secondary (A) aquifer. Activities that could give rise to potential for run-off to be contaminated with pollutants include:	A Construction Environmental Management Plan (CEMP) will contain measures to manage and control all ground works, including management of wastewater and the storage of fuels and chemicals. The CEMP will detail the procedures and methods that are to be followed by the construction workforce in order to minimise the potential effects of construction on the site on groundwater and surface	The sensitivity of surface and groundwater is high and the magnitude of change, following mitigation, is negligible. Therefore, there is likely to be a **negligible** effect on groundwater following the implementation of mitigation measures.	Water quality is within the remit of the EA and as they will be part of the consultation group which will agree the CEMP. Any issues which arise should therefore be addressed through the development of the CEMP. The ES makes a commitment to following the Environment Agencies PPGs and providing this guidance is followed, at this stage, it is unlikely that the construction phase will have any significant impacts on water quality.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	- Operation of vehicles; - General site preparation/ construction activities and the storage of associated fuels and chemicals; and - The siting and operation of site construction compound and the construction of proposed site roads. The sensitivity of surface and groundwater is high and the magnitude of change, prior to mitigation, is medium. Therefore, there is likely to be a direct, temporary, short-term effect on groundwater of **moderate to major negative significance** prior to the implementation of mitigation measures. *Potential effects due to increased surface water runoff* Construction activities such as top soil stripping, the clearance of vegetation and	water features. The CEMP will be developed and agreed with Oxford City Council, the Environment Agency and other regulators/consultees, as required, prior to the commencement of the construction activities. Contractors working on the site will be then be required to comply with the CEMP. All construction activities to be undertaken in accordance with the EA PPGs. Construction of surface water drainage infrastructure in early phase of development. As part of the site wide drainage strategy, a series of attenuation ponds will be constructed within the early phase of development during the primary infrastructure works.	The sensitivity of the downstream residential receptors is considered to be medium and the magnitude of change, following mitigation, is negligible. Therefore, there	Increase run-off during the construction phase is likely to be mitigated through the use of the attenuation ponds which are put forward as part of the site-wide drainage strategy. This seems to be an

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	vehicles movements are likely to result in soil compaction and ultimately less water being attenuated on site by vegetation and within the unsaturated soil matrix. The volume and rate of surface water runoff may increase posing a localised flood risk on site. In addition, increasing the volume and rate of surface water runoff from the site could potentially increase the downstream flood risk to sensitive residential receptors, if not appropriately mitigated. The sensitivity of the downstream residential receptors is considered to be high and the magnitude of change, prior to mitigation, is low. Therefore, there is likely to be an indirect, temporary, short-term effect on flood risk of **minor to moderate negative** significance prior to the implementation of mitigation measures.	Surface runoff from the various points of construction within the Site will be managed by the appropriate use of temporary bunding and the channelling of runoff to the attenuation ponds. All discharges will be controlled and released off-site at Greenfield runoff rates. Surface runoff should be disposed of appropriately, either tankered off-site or discharged to foul sewer or Bayswater Brook following agreement with the appropriate regulatory authority prior to discharge.	is likely to be a **negligible effect** on downstream residential receptors following the implementation of mitigation measures.	appropriate mitigation measure for the management of increased surface water during the construction phase.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	Effects of shallow groundwater during construction Shallow groundwater was encountered beneath the site and as such it is considered possible that the flooding and subsequent dewatering of excavations may be required during the construction of foundations, service trenches etc. Dewatering activities have the potential to impact on surface water through the discharge of potentially contaminated groundwater, if not appropriately mitigated. The sensitivity of the surface water receptors is considered to be high and the magnitude of change, prior to mitigation, is medium to high. Therefore, there is likely to be an indirect, temporary, short-term effect on surface water of **moderate to major negative significance** prior to the implementation of	As detailed within Chapter 11 of the ES, further testing of the perched groundwater within the landfill will be undertaken to confirm contaminant concentrations and previous conclusions made by PBA. In addition, dewatered water within this area should be discharged to foul sewer under an appropriate license or tankered off site. Consideration to be given to CIRIA 515: Groundwater Control – Design and Practice. Dewatered water to be discharged with appropriate consents.	The sensitivity of surface water is considered to be high and the magnitude of change, following mitigation, is negligible. Therefore, there is likely to be a **negligible effect** on surface water receptors following the implementation of mitigation measures.	The main effect of shallow groundwater during the construction phase appears to be that contaminated groundwater mixes with the surface water and causes contamination. The ES provides mitigation measures and suggests that consideration will be given to the CIRIA guidance. This could be stronger and a commitment that the guidance be followed could be made. The ES provides sufficient mitigation measures at this outline stage for the principle of development to proceed. More precise details of measures to ensure that contamination of surface water from contaminated groundwater will need to be provided at the reserved matters stage.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
Operational	mitigation measures. *Potential contamination of surface and groundwater* Potential sources of surface and groundwater pollution during the operation of the proposed development are anticipated to be minimal and limited to the following: - Oil residues and sediments from vehicles using internal/ access roads and car parking areas within the site; - Wastewater from occupation of the residential and commercial premises; - Potentially hazardous substances associated with the continued use of the allotments. The sensitivity of the receiving surface water and groundwater is considered to be high and the magnitude of change, prior	The proposed surface water drainage strategy for the development is to mimic natural catchment processes as closely as possible to incrementally reduce pollution, flow rates and volumes. The proposed surface water drainage strategy is based upon a single catchment discharging into the Bayswater Brook. Within the drainage catchment there will be a number of small sub-catchments that will drain primarily areas of highway, hard standing and car parking areas. A variety of source control techniques will be utilised up stream of the balancing ponds and geo-cellular storage to minimise the risk of polluted surface water runoff entering Bayswater brook. Such measures will include, where appropriate, suitable pollution control measures such as trapped gullies, catch pit manholes and class 1	The sensitivity of surface and groundwater is considered to be high and the magnitude of change, following mitigation, is negligible. Therefore, there is likely to be a **negligible effect** on surface and groundwater water following the implementation of mitigation measures.	The mitigation strategy put forward at this stage seems suitable for successfully reducing the likelihood of potential contamination of surface and groundwater during the operational phase. The limited range of sources and the proposed surface water drainage strategy provide sufficient safeguards at this outline stage. Details to compliment the more precise nature of the reserved matters application are expected at the following planning stage including which source control techniques will be employed upstream of the balancing ponds.

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	to mitigation, is low. Therefore, there is likely to be a direct, permanent, long-term effect on surface water of **minor to moderate negative significance** prior to the implementation of mitigation measures.	petrol interceptors to help manage sediment control and water quality.		
	Potential effects on hydrology and associated flood risk of local watercourses due to increased surface water runoff including potential effects on fluvial flood flows and storage The proposed surface water drainage strategy for the development is to mimic natural catchment processes as closely as possible to incrementally reduce pollution, flow rates and volumes. However, the change of land use to accommodate a mixed residential, commercial and community use development and the associated increase in impermeable areas will result in an increase in the volume and rate of surface	The Proposed Development platform shall be set above the 1 in 100 year flood level, incorporating the impacts of climate change, with a minimum freeboard of 300mm to enable the entire development to be situated within the Flood Zone 1 therefore the future risk will be insignificant. The surface water strategy has been designed so that during low flow/design storm conditions surface water will drain into the proposed adoptable surface water sewer network via the proposed SuDS source control techniques and where appropriate private drainage networks. The outline sewer arrangements have been	The sensitivity of the downstream residential receptors is considered to be high and the magnitude of change, following mitigation, is low. Therefore, there is likely to be a direct, permanent, long-term effect on downstream receptors of **minor positive** significance following the implementation of mitigation measures.	The proposed surface water strategy and mitigation measures included within it will need to ensure that there is no increase in flood risk elsewhere as a result of the development. From the information provided, this appears to be sufficient, however the precise details of the scheme will be submitted at the reserved matters stage and it is important that the surface water strategy is designed to fit the development that is proposed at that stage. What has been provided is sufficient for the principle of development to be accepted. A continued discussion with Thames Water is suggested to ensure that the surface water strategy is the right one for the proposed development.

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	water runoff. The sensitivity of the downstream receptors is high and the magnitude of change, prior to mitigation, is medium. Therefore, there is likely to be a direct, permanent, long-term effect on downstream receptors of **moderate to major negative** significance prior to the implementation of mitigation measures.	sized to ensure that no surcharging occurs for the 1 in 2 year design storm rainfall event and no flooding for the 1 in 30 year event in accordance with Sewers for Adoption 7th Edition. In an exceedance event, such as the 1 in 100 year plus 30% allowance for climate change rainfall event, flows from the development parcels will be directed away from properties via overland flow routes towards the proposed exceedance SUDS features. These SUDS features include swales with berms within the Green Infrastructure and filter drains. These devices will help manage exceedance flows as close to source as possible whilst also providing a degree of attenuation prior to discharging into the catchment storage controls.		
	Potential effects of shallow groundwater on site Available monitoring data has recorded groundwater levels across the site ranging from 0.04m and	To ensure that possible groundwater flooding does not affect proposed structures or the storage capacity of surface water attenuation features further groundwater level monitoring will be	The sensitivity of end users to possible groundwater flooding is high and the magnitude of change, following mitigation, is negligible. Therefore, there is likely to be a **negligible**	With such shallow groundwater on-site it is important that appropriate mitigation is employed to ensure that groundwater flooding does not affect proposed structures or the storage capacity of surface

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	9.51m. Whilst basement structures are not proposed as part of the proposed development given the shallow level at which groundwater has been encountered it is considered possible that seasonal variations in groundwater levels across the site could result in on-site flooding if not appropriately managed. Furthermore shallow groundwater levels could affect storage capacity of on-site surface water run-off attenuation features if not adequately considered. The sensitivity of end users to possible groundwater flooding is high and the magnitude of change, prior to mitigation, is medium. Therefore, there is likely to be a direct, temporary, short-term effect on end users of **moderate to major negative** significance prior to the implementation of mitigation measures. *Effects on groundwater/ Bayswater Brook from*	undertaken to determine seasonal variability in groundwater levels. Based on the findings of this monitoring data, where necessary, appropriate mitigation measures will be development at the detailed design stage to ensure that the potential for groundwater flooding is adequately managed and proposed structures / attenuation features will not be affected. Where applicable, the SuDS, in particular permeable paving, attenuation facilities, cut-off drains and swales in areas susceptible to high ground water will be lined or raised above the recorded ground water table to prevent ground water ingress entering the surface water drainage arrangement which would otherwise impact on surface water storage capacity and exacerbate flood risk. The presence of the linear park will enable rainwater to	**effect** on end users following the implementation of mitigation measures. The sensitivity of the groundwater resource is	water attenuation features. It is expected that details of this will be provided at the reserved matters stage once the results of the monitoring data has been put forward. Once the situation is known the appropriate mitigation measures can be employed. Until this information is available the likely effects post-mitigation cannot really be assessed as no mitigation has been proposed. Suggestions of potential mitigation measures are appropriate and have been considered. The surface water strategy has been designed in order to

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	reduced recharge rates associated with the increased impermeable area on site The site is partially underlain by a Secondary (A) Aquifer associated with the Alluvium, River Terrace and Head deposits. Given the cohesive nature of soils across some of the site surface water runoff generally flows via overland flow towards Bayswater brook. It is considered that the groundwater associated with the Alluvium, River Terrace and Head deposits on site are likely to be in connectivity with Bayswater Brook. The change in land use from greenfield to a mixed use development will result in an increase in hard-standing across the site. The linear park and associated playing fields within the northern section of the site and garden areas will ensure significant areas of soft landscaping are provided across the site. It	infiltrate directly back in to the ground in these locations, a large proportion of which correlates with Alluvium deposits that are associated with the Secondary (A) aquifer. The surface water strategy for the site utilises SuDS and will seek to mimic the existing conditions on site as far as possible and will comprise a combination of the swales and filter drains that will connect to attenuation ponds. Where ground conditions permit, an element of infiltration will be possible further adding to groundwater recharge across the site. Surface water runoff from the site will be discharged back to Bayswater Brook at greenfield runoff rates from a series of cascaded attenuation ponds ensuring that flows within Bayswater Brook are maintain at a similar rate. It is therefore considered unlikely that groundwater recharge will be significantly	considered to be high and the magnitude of change, following mitigation, is low to negligible. Therefore, there is likely to be a direct, permanent, long term **minor to negligible** effect on the groundwater resource following the implementation of mitigation measures.	mimic that of a greenfield site as far as possible, although some concessions are made that this will not be completely possible. The surface water strategy is described in as much detail as is available which is proportionate to the detail needed at the outline planning stage. Mitigation measures are proposed including attenuation ponds which should be integrated into the design of the development. Given the mitigation proposed at this stage, it is unlikely that there will be significant effects however more and precise details will need to be provided as part of the finalised surface water strategy at the reserved matters stage.

IMPACT TOPIC	DESCRIPTION OF PREDICTED IMPACTS	MITIGATION PROPOSED	SIGNIFICANCE OF RESIDUAL IMPACT	OFFICERS COMMENTS
	is considered possible that the proposed development could impact on groundwater recharge across the site which could indirectly affect the flow within Bayswater Brook although this is likely to be limited. The sensitivity of groundwater is high and the magnitude of change, prior to mitigation, is low. Therefore, there is likely to be a direct, temporary, short-term effect on groundwater of **minor to moderate negative significance** prior to the implementation of mitigation measures.	affected by the proposed development.		
	Potential increases in foul water discharges during operation Due to the scale of the Proposed Development, the foul sewage output from the Site will increase significantly from that of current levels. A foul water impact study completed by Thames Water identifies	The Thames Water Foul Water Impact Study identifies that a deliverable solution to ensure that foul waters associated with the Proposed Development do not accentuate flooding in the Northway area will be to store foul water onsite. The proposed foul water sewer networks will convey to the onsite public 375mm	The sensitivity of the foul drainage sewerage network to increases in foul drainage from the Site is medium and the magnitude of change, following mitigation, is negligible. Therefore, there is likely to be a **negligible effect** on the foul drainage and sewerage network.	The Thames Water Foul Water Impact Study identifies that a deliverable solution to ensure that foul waters associated with the development do not accentuate flooding in the Northway area. As the detailed drainage system for the site has not been finalised, an approximation of what is to be

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	that foul water sewer flooding during storm events may be possible in the Northway area if appropriate mitigation measures are not incorporated in to the Proposed Development. The sensitivity of the foul sewer network is medium and the magnitude of change, prior to mitigation, is medium. Therefore, there is likely to be a direct, permanent, long term **moderate negative** effect on the foul sewer network prior to the implementation of mitigation measures.	diameter public foul sewer via gravity. If there is insufficient capacity within the public network flows will be diverted into onsite foul storage. Once capacity is available flows will be lifted back into the public sewer via two on site foul water pumping stations, The detailed foul drainage system for the Site has not been finalised to date, however, following discussions with Thames Water it has been determined that approximately 620m3 of foul water storage volume will be required on site to mitigate potential impacts, further details are included in the FRA.		provided has been suggested. Clearly further discussions and investigations area required to determine the finalised solution at the reserved matters stage and through the FRA to be submitted as part of the reserved matters application.
	The increased demand for potable water supplies during operation The Proposed Development will increase the potable water demand on the Thames Water network compared to the existing situation. Thames Water has	Thames Water has confirmed that their existing potable water network system has sufficient spare capacity to serve the development subject to carrying out some relatively minor off-site reinforcement works. No further mitigation measures are anticipated however, the proposed	The sensitivity of the water supply infrastructure is high and the magnitude of change is negligible. Therefore, there is likely to be a direct, permanent, long-term effect on the water supply infrastructure of **negligible significance** as there is no change following the implementation of mitigation measures.	Given that Thames Water has confirmed sufficient capacity in their existing potable network system, albeit subject to some relatively minor off-site reinforcement works. These works will need to be undertaken prior to the development being occupied and should be conditioned as such if necessary.

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	prepared a Water Resources Management Plan which identifies how they intend to maintain the balance between supply and demand for water over the next 25 years. In calculating the water demand estimates the Water Resources Management Plan takes in to consideration the potential growth in housing in the supply area over the 25 year period. Thames Water has confirmed that their existing potable water network system has sufficient spare capacity to serve the development subject to carrying out some relatively minor off-site reinforcement works. The sensitivity of the water supply infrastructure is high and the magnitude of change, prior to mitigation, is negligible. Therefore, there is likely to be a direct, permanent, long-term effect on the mains water supply infrastructure of **negligible**	development will seek to minimise potable water consumption. Opportunities to implement water conservation measures across the development to conserve water resources will be assessed at the detailed design stage and may include measures such as water metering, low flush toilets and the provision of rain water harvesting in the form of water butts.		

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	significance prior to the implementation of mitigation measures.			
Archaeology	*Disturbance to buried archaeological remains* Prehistoric assets have been recorded both from the Site and within wider vicinity in the form of a Neolithic axe from within the Site boundary. The magnitude of change, prior to mitigation, is anticipated to be **high**. Therefore there is likely to be a direct, permanent, long term effect on archaeological deposits of **moderate** negative significance prior to the implementation of mitigation measures. There are no archaeological assets of the Post-Roman/Anglo-Saxon period recorded within the Site. There are recorded assets within close proximity to the Site; these, however, are at higher elevations than the Proposed Development area. As such the importance of	A programme of trial trenching evaluation work carried out across the Site identified a pattern of, generally shallow, dispersed ditches seemingly for drainage purposes on the lower lying ground bordering Bayswater Brook. A tentative Roman date is suggested, from the recovery of two pottery sherds, for a small ditch near the eastern edge of the Site; however the pottery may be residual and the feature could form part of a later ditch system. The trial trenching evaluation combined with the programme of geophysical investigation has produced enough information to adequately understand those archaeological features identified within the Site and to show that this represented a medieval agricultural landscape. In light of this evidence is not anticipated that any further programme of evaluation trenching will be required.	Archaeological recording will ensure that any archaeology that does survive is either 'preserved in-situ' or more likely 'preserved by record' and will add further to our knowledge of the history and development of this area of Oxford. This will, in part, reduce the overall magnitude of change. However, as a result of the potential loss of archaeological remains *in-situ*, the effect for all time periods is considered to be negative though the importance of the asset will remain the same.	An archaeological desk based assessment was undertaken for this site by John Moore Heritage Services in 2009. This assessed the site as having moderate potential for Neolithic and Iron Age remains based on the previous recovery of a single Neolithic Axe from within the site and the proximity and character of known Iron Age activity. The assessment also noted the potential for Anglo-Saxon remains in the south-eastern part of the site, which is located 50m from a poorly recorded Early Anglo-Saxon burial and sunken featured building noted during the construction of the Ring Road (although the development site is located noticeably down slope from this find spot). The site was also assessed to have a high potential for medieval and post-medieval agricultural features. An analysis of available aerial photographs tentatively identified two features as of possible archaeological interest (features of enclosure type).

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	archaeological deposits as described above is **low**. The magnitude of change, prior to mitigation, is anticipated to be **high** given the potential change to isolated artefacts and potentially isolated features which might be subject to truncation or removal. Therefore there is likely to be a direct, permanent, long-term effect on archaeological deposits of **moderate negative** significance prior to the implementation of mitigation measures. No specific post-medieval activity is recorded within the Site or wider study area; however it is likely that agricultural activity would have continued here into this period. As such the importance of agricultural deposits is described as **low**. The magnitude of change, prior to mitigation, is anticipated to be **medium** given the potential change to isolated artefacts and potentially isolated features	It is possible that a limited targeted watching brief, within the development foot print and restricted to the area of any below ground effect on potential archaeology, will be required. This will be to ensure that any unknown archaeological deposits in the non-evaluated areas are dealt with appropriately, as required by the NPPF. Based on consultation with the Oxford City Council's Archaeologist, this can be implemented as part of a specific planning condition, targeted to specific areas as described above.		The denuded remnants of ridge and furrow earthworks were also plotted. A geophysical survey (encompassing Magnetic Susceptibility and detailed Magnetic Survey) was undertaken by Stratascan in 2011. The survey identified a number of parallel linear anomalies in the western and central parts of the site which were interpreted as areas of former ridge and furrow. A number of possible discrete archaeological features were also noted. Subsequently in September and October 2012 Cotswold Archaeology carried out an archaeological evaluation on the accessible parts of the site, comprising the excavation of fifty-eight trial trenches. The current sports field, the Barton nature reserve area and small areas identified as having high biodiversity value were not evaluated at this stage because of the physical and environmental constraints. The archaeological evaluation identified a dispersed pattern of ditches, although there were

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	which might be subject to truncation or removal. Therefor there is likely to be a direct permanent, long-term effect on archaeological deposits of **minor negative** significance prior to the implementation of mitigation measures. *Disturbance to built heritage remains* During construction, potential effects on above ground heritage assets will comprise negative temporary effects on the settings of assets (all off Site) within the sphere of visual influence. All of the receptors that are documented will be impacted upon in a localised manner at the area scale. The period of the effect in all cases will be temporary. In all cases the impact on the built heritage will be a change to the setting and limited visibility. In all the built heritage assets that were	No Mitigation proposed	Construction activities are unlikely to have direct or indirect effects on built heritage remains.	concentrations of these features in the northern, central and eastern parts of the site. Neither of the features tentatively identified in the 2009 aerial survey analysis were confirmed by the trenching. The earliest identified feature was a small ditch near the site's eastern edge, from which was recovered two sherds of Roman pottery. No other Roman features were encountered, although a small assemblage of residual Roman pottery was recovered from later features and deposits, indicating some activity in the vicinity during this period. Most of the encountered archaeological remains dated to the medieval period, from the 12th to the 15th centuries. They indicate the presence of an agricultural landscape of fields, paddocks and droveways, possibly associated with the site of the putative medieval settlement on the slope to the north of Bayswater Brook. Artefactual evidence was scarce, with most of the pottery recovered from the site coming from the northern

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	considered, the construction activities relating to the proposed development are unlikely to have direct or indirect effects on any of them.			central area, to the north of the substation. The evaluation also demonstrated that the site had been reorganised in the early post-medieval period, when a system of ridge and furrow ploughing was established. The earthworks associated with this system survived until relatively recently as 19th-century land drains were noted in many of the furrows, indicating that the ridges were still visible at this time. The results of the evaluation process have been summarised in the submitted Environmental Statement Vol 2 Section 13 (Barton LLP 2013). **Historic Hedgerows** The site contains a number of hedgerows which meet the criteria for 'historical importance' under the 1997 Hedgerow Regulations. These are the 1802 Parliamentary enclosure boundaries and the hedge line along the length of the Bayswater Brook which marks an historic parish boundary (EIA Barton LLP 2013, 13:26-29).The 1802 boundaries represent the last coherent block of Parliamentary Enclosure within an otherwise

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				largely developed landscape. The Parameter Plan - Open Space and Landscape (Drawing No. 173603/PP/Plan 3 Rev B) indicates that the existing tress and hedgerows within the site will be substantially retained (including the hedgerow along the brook) and will contribute to much of the underlying structure to the development, thus preserving the general character and layout of the current field pattern. **Advice:** In this case, bearing in mind the scale and character of the proposed development, I would request that, in line with the advice in the National Planning Policy Framework, any consent granted for this development should be subject to condition. The scope of the archaeological investigation will depend on the details of the reserved matters application/s and the extent and character of the proposed ground works. It is likely that trial trenching will be required in the area of

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				Barton Nature Reserve followed by further mitigation if appropriate, also a number of areas where a concentration of medieval features were identified during the Cotswold Archaeology evaluation may require a strip and record excavation or watching brief. Finally any substantial reworking of the Bayswater Brook channel may require targeted recording because of the potential for environmental deposits. The work should be undertaken by a professionally qualified archaeologist working to a brief issued by ourselves.
Cultural Heritage	*Setting of Built Heritage Remains* Proposed Development would result in a change in the general appreciation and experience of the Site which provides a historically open backdrop to a series of Listed Buildings. The majority of Listed Buildings and would impacted on by a change in	The Proposed Development is considered, through design, to ensure the contribution of the Site to other heritage assets is reduced as far as possible by design, for example, through the use of screening and appropriate planting of hedgerows or tree cover. However since any direct lines of sight from heritage assets into the Site are either significantly or totally	The residual impact of development on all receptors is minor apart from: - Church of St. Andrew, St. Andrews Road; and - Wick Farmhouse, Well House c. 30 m to north, Becklley and Stowood. The impact on these two	As identified in the application the magnitude of change, from fields to built environment will be significant and it will change the setting of the Old Headington conservation area. How this change is perceived and understood will rely to a great degree on the quality and extent of the landscaping and how it is designed to integrate with the layout (rather than merely filling spaces between buildings). Of equal

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	view. Old Headington Conservation Area would be impacted on by a change in the character of agricultural area, a change in setting. The assessment considered that there would be no significant change in views to the Old Headington Conservation Area. The Elsfield Conservation Area would be impacted upon through a change in views and setting. The importance of all receptors was considered medium, apart from two which were considered of high importance. The two receptors of high importance are as follows: - Church of St. Andrew, St. Andrews Road; and - Wick Farmhouse, Well House c. 30 m to north, Becklley and Stowood. All impacts are assessed to be minor with the exception of the two high receptors, on	obscured by either existing development, topography or hedgerows and tree cover no further mitigation measures are considered appropriate or proportionate to meaningfully reduce the effect of change.	receptors is of minor to moderate negative significance.	importance is the design and appearance of those buildings that will be visible in certain view points and how they sit within their new landscape and wider setting. From the north, Elsfield village and the surrounding footpath network, the new development will be seen within a wide landscape context. Closer to, from the footpaths surrounding the site the buildings will be larger components and will have to bear closer scrutiny. The landscaping, neither existing nor as proposed will conceal them entirely. Elsfield is a designated conservation area and Wick Farm a listed building. Whilst these are not within the city's administrative area it is worth noting that the studies accompanying the application assess the impact on these heritage assets. The impacts derive from the visibility of Oxford and its changing suburbs, as experienced in views from these heritage assets – an experience that has existed for as long as the places have. The proposal represents another phase of change in the

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	which the effects of the development will be moderate			growth of Oxford and it is imperative that people's understanding of Oxford and its history, and how they experience it in the views from the surrounding hills and other vantage points is not diminished. Beyond the grant of any outline planning permission maintaining scrutiny and quality of delivery of development will be a critical element in the success of this new community of Oxford.. There are some elements of the scheme where the visibility of buildings or highway works will have a more significant impact on the existing landscape characteristics of Headington Hill and the wider setting of Oxford: Careful design and consideration of the impacts at any detailed application stage will help ensure that any harmful effects are minimised.
Lighting **Construction**	*Effects of Light spill, glare and sky glow from construction lighting on residential receptors* Without mitigation this is assessed to have a	Suggested mitigation/ enhancement measures include the following: Specified working hours, uses of lighting, location of temporary floodlights and	The residual impact is assessed to be a minor temporary direct impact in the short term of minor significance.	On the assumption that further information and assessment will be carried out and submitted (as stated in Para 7.3.1 of the Noise Assessment) I have no adverse comments to make on the work undertaken

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	moderate temporary direct impact of minor significance in the short term.	construction compound(s); CEMP to indicate proposed location of the construction compound(s) and storage areas; Lighting to be switched off when not required; Glare to be minimised by ensuring light fittings are mounted close to the horizontal and directed into the centre of the assessment site; Temporary lighting fixtures to provide full-cut off or directionally shielded; Light spill to be minimised; Contribution to sky glow to be minimised through the use of modern lights with appropriate tilt angles and full cut-off shields to avoid upward light loss; As above; and Construction areas adjacent to railway line to be orientated to ensure train drivers are not distracted by temporary		so far: • All key guidance documents for both noise and light have been identified for the assessment process. • The environment noise monitoring is sufficient but I will require further details on monitoring location points. • I am content to consider construction noise/vibration and mitigation once the CEMP is submitted. • I would like to see the baseline noise data used to inform the design of the site so as to protect buildings and open spaces, both private and communal. This is a preferred approach, rather than designing building envelopes to accommodate site layout. • I am content to consider construction lighting once the CEMP is submitted. • I have no concerns to raise with regard to

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		lighting; Construction area fences located near existing roadways or walkways to be well lit to assist in defining the limits of the construction area for motorists and pedestrians; and Temporary lighting must be in accordance with current guidance stipulated in the ILP guidance notes.	The residual impact is assessed to be a minor temporary direct impact in the short term of minor significance.	street lighting. These lighting schemes are unlikely to cause statutory nuisance. Other issues such as impact on biodiversity and road safety are for other agencies to comment upon. • Should other lighting scheme be proposed, such as commercial car-parking/security lighting or sports pitch flood lighting, Environmental Development should be consulted as these have the potential for causing significant intrusion or statutory nuisance.
Operational	*Effects of Light Spill, glare, and sky glow from operational lighting on future sensitive receptors* Without mitigation this is assessed to have a moderate to minor permanent direct impact of minor significance in the long term.	Use of additional design measures where required; Maintenance including ensuring that the main beam angle of all lights is retained to a minimum; Careful selection of luminaries and their location in relation to the assessment site boundary to minimise light spill; and Where practicable, consideration of the layout of the properties such that bedrooms and living rooms face away from significant sources of light.	The residual impact is assessed to be a minor permanent direct impact in the long term of minor significance.	

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	Effects of Glare and Light Spill on Road Users Utilising the Surrounding Road Network Without mitigation this is assessed to have a moderate to minor permanent direct impact of minor significance in the long term.	As above; and Lighting design in accordance with Road Lighting Standards (*BS EN 54149-1:2003* and *BS EN 13201-2:2003*)	The residual impact is assessed to be a minor permanent direct impact in the long term of minor significance.	
	Effect of light intrusion on nearby residents from road traffic Without mitigation this is assessed to have a moderate to minor permanent direct impact of minor significance in the long term.	Consideration of screening for nearby properties; Consideration at detailed design stage for aligning new properties so that sensitive rooms are not subjected to light intrusion from cars turning out of junctions.	The residual impact is assessed to be a minor permanent direct impact in the long term of minor significance.	
Cumulative Effects	The cumulative effects assessment looks at the overall impacts the proposed Barton Development 'in-combination' with other committed schemes. At the time of the submission of the outline planning application a five schemes, identified in the local area were included in the			

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	cumulative effects assessment. These are as follows: - Northway Centre, Maltfield Road, (47 residential units and community centre) - Westlands Drive, Northway (21 flats) - Old Road Campus (48,000m2 D1 research floorspace) - Oxford Brookes University, Gypsy Lane Campus - Northern Gateway (55,000m2 B-Class jobs, 200 houses and other uses) - West End, City Centre (700 homes, 37,000m2 retail floorspace, office and other uses)			
Ecology/ Nature Conservation	Given that Barton site is only site within close proximity of Sidlings Copse and College Pond SSSI, there are unlikely to be any cumulative effects of other sites with regard to this receptor.	No additional mitigation proposed.	No change in impact prediction on this receptor.	No additional comments
	Barton is considered to	Of the schemes considered, the majority involve no net	Impact on bats considered and sufficient mitigation at	No additional comments.

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	have a cumulative impact in terms of its impact on semi-natural habitat when considered in particular with the Northern Gateway and the West End. Other cumulative effects could result from a reduction in smaller parcels of semi-natural habitat currently present in Oxford which could lead to fragmentation of the habitat network available to mobile species such as bats.	loss of semi-natural habitat types although there will be a change in how the habitat will be provided at some sites.	each development so as not to warrant additional mitigation. No change in impact prediction on this receptor.	
Noise & Vibration	There are three circumstances that may result in cumulative effects: - Where road traffic from more than one development is predicted to affect the same road(s) and thus the same receptors - Where noise from more than one item of plant affects the same receptors, - Where construction works from more than one	Road traffic assessment already included cumulative assessment through background transport growth. Therefore no further mitigation proposed. Unlikely to have cumulative effects as other receptors too far away to have an impact.	No change in impact on transport noise as already assessed. No change in residual impact.	No additional comments. No additional comments.

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	development, or from different parcels with the development affect the same receptors.			
Socio-economics	Reviewed as part of the socio-economic impact assessment – see earlier.			
Landscape and Visual Effects	Most of the committed developments identified as part of the assessment are either located at too great a distance and/ or are of a scale that would not result in any in-combination landscape or visual effects.	No mitigation proposed as unlikely to have cumulative effects.	No change in residual impact.	No additional comments.
Air Quality	Typically during construction, activities undertaken on-site have the potential to generate emissions of dust and fine particles (PM10) to air. The greatest effects are likely to occur within 350 metres of the point of generation. Where two or more development sites are located in close proximity, or the construction periods overlap, cumulative dust and suspended particle effects may occur in the	Appropriate mitigation measures likely to be implemented at Westlands Drive and Northway Centre developments to meet current best practices and planning requirements which will help prevent/ minimise emissions of dust and suspended particles to avoid potential cumulative effects.	No change in residual impact.	No additional comments.

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	local area. The only committed developments identified that this could apply to, are the Westlands Drive and Northway Centre developments where the construction periods could potentially overlap.			
Ground Conditions and Contamination	Given the distance of all committed developments identified as part of this assessment it is considered unlikely that there will be any in-combination cumulative effects associated with ground conditions and contamination.	No additional mitigation proposed.	No change in residual impact.	No additional comments.
Water resources	Only the proposed Northway Centre development is considered to potentially result in in-combination cumulative effects as it is situated downstream of the Proposed Development within close proximity to Peasmoor Brook.	The mitigation techniques outlined in the Water Resources chapter of the ES will serve to reduce this potential effect within the study area to a minimum.	No change in residual impact.	No additional comments.
Archaeology	In-combination effects on built heritage assets			

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	associated with the Westlands Drive and Northway Centre, Maltfield Road developments are expected to be limited to the visual intrusion of construction plant and could potentially have an indirect impact in terms of setting upon the Old Headington Conservation Area. In addition, the setting of any other heritage assets in close proximity to the development may also be affected, and will represent a minor negative in-combination effect. The effects will be temporary in nature and of short to medium term in length.	Given the short-term nature of the construction impacts, no additional mitigation is proposed.	No change in residual impact.	No additional comments.
	Given the nature and/or distance of the other sites, no in-combination effects, either below ground archaeological deposits or built heritage, are anticipated during construction or operation.	No additional mitigation proposed.	No change in residual impact.	No additional comments.
Lighting	During construction it is unlikely that there will be any in-combination	No additional mitigation	No change in residual	

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	cumulative effects as a result the introduction of temporary artificial lighting (associated with construction of the Proposed Development) It is anticipated that any lighting installed on this site will be temporary and short-term in nature. There will be cumulative contributions to sky glow in the local area associated with all the committed developments in the area together with the Proposed Development.	proposed This can be minimised with the implementation of best practise lighting designs that minimise the levels of upward light loss and reflected light.	impact. No change in residual impact.	No additional comments.