Prepared for

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CAMDEN GOODS YARD

EIA SCOPING OPINION REQUEST REPORT

RAMBOLL ENVIRON

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1. INTRODUCTION

1.1 Background

Ramboll Environ Ltd (Ramboll Environ) has been commissioned by Safeway Stored Limited and BDW Trading Limited (hereinafter referred to as the 'Applicant') to prepare an Environmental Impact Assessment (EIA) Scoping Opinion Request for the proposed redevelopment of a site comprising the Morrisons Supermarket and Petrol Filling Station, Camden, NW1 8AA (hereinafter referred to as the 'application site'). The application site is located within the administrative boundary of the London Borough of Camden (LBC) as shown in Figure 1.1.

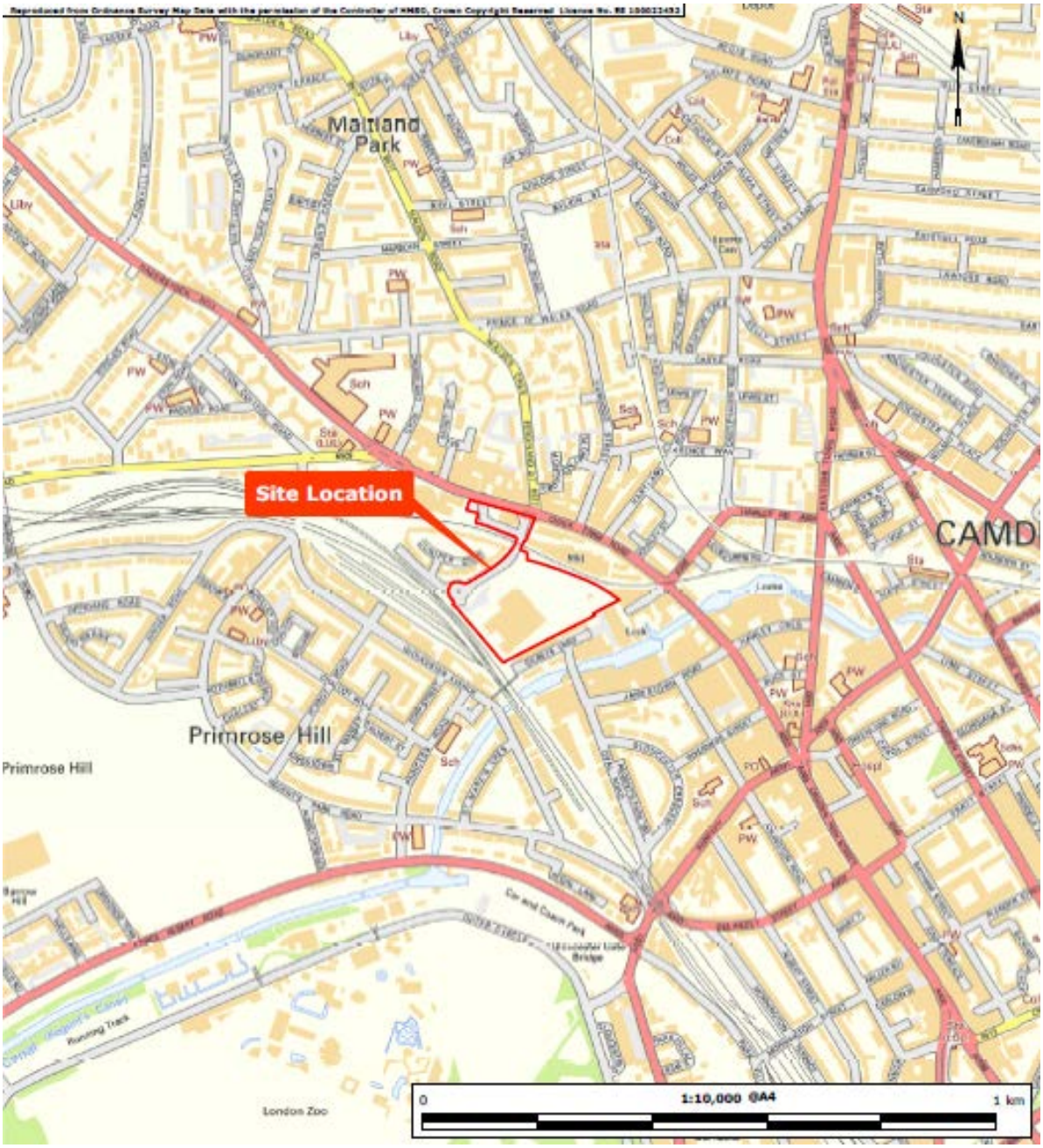

Figure 1.1: Application Site Location Plan

The application site comprises the following two parcels of land divided by a railway line:

- the Morrisons Supermarket Parcel (the 'MS parcel'); and
- the Morrisons Petrol Filling Station Parcel (the 'PFS parcel').

The redevelopment proposals for the application site would comprise a residential led mixed-use development, including a supermarket, petrol filling station, business and retail uses (hereinafter referred to as the 'proposed development').

Due to the scale and nature of redevelopment proposals, outlined in Section 4 of this Report, it is considered that the proposals fall within Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended in 2015) (hereinafter referred to collectively as the 'EIA Regulations').

EIA Screening is the term in the EIA Regulations used to describe the process in which the need for EIA is considered. In this case, as the proposed development is considered to fall under Schedule 2 (10(b) Infrastructure projects – Urban Development Projects) of the EIA Regulations, and given the size and nature of the proposed development, the need for formal screening is not considered necessary, instead proceeding straight to the EIA scoping stage.

An EIA will accordingly be undertaken. The findings of the EIA will be reported in an Environmental Statement (ES), which will accompany a Full Planning Application ('the application') for the proposed development. This process is more fully described in Section 2 of this Report.

Ramboll Environ has been commissioned by the Applicant to undertake the EIA and to prepare an ES to accompany the application.

1.2 Purpose of EIA Scoping Report

In accordance with the provisions of Regulation 13 of the EIA Regulations, this EIA Scoping Report is submitted to the LBC together with a request for an EIA Scoping Opinion.

The purpose of the EIA Scoping Report is to consult on the scope and approach to be adopted within the EIA of the proposed development; and to facilitate wider consultation with stakeholders likely to have an interest in the proposed development. The Report:

- summarises some of the key considerations of the EIA process in Section 2 and the approach that will be adopted for the EIA of the proposed development;
- outlines the key planning history and considerations in Section 3;
- describes the key characteristics of the application site in Section 4;
- describes the emerging development proposals for the application site in Section 5;
- highlights the potential significant environmental impacts and likely effects anticipated for the application site at this stage in Section 6;
- explains in Section 6, the proposed scope and assessment methodology that will be adopted to predict the magnitude of potential impacts and the scale of likely effects and to assess the significance in each case within the EIA; and
- outlines the environmental issues in Section 7 that are considered unlikely to give rise to significant environmental effects for the application site.

During the EIA Scoping process, the LBC will provide an agreed framework within which the EIA will be undertaken and that will form the scope of the ES. When adopting an EIA Scoping Opinion, the LBC will take into account the views of statutory consultees and other interested parties. This will help ensure that the EIA considers those potential issues deemed of relevance and significance to stakeholders and avoid potential information requests after submission of the Application and the accompanying ES.

1.3 Consultation Strategy

The proposed consultees to the EIA Scoping Opinion Request process are listed in Table 1.1. This is not an exhaustive list and the LBC is requested to identify and consult with the most appropriate consultees to inform their EIA Scoping Opinion.

Those consulted are kindly requested to highlight the existence of any information in their possession, or of which they have knowledge, which may be of assistance in progressing the EIA.

Table 1.1: Consultees

Statutory Consultees	Non-Statutory Consultees
LBC	Thames Water
Environment Agency (EA)	National Grid and other service providers
Natural England (NE)	Metropolitan Police Force and other emergency services.
Historic England (HE)	London Wildlife Trust
Transport for London (TfL)	Canal and River Trust (previously British Waterways)
Greater London Authority (GLA)	Local Ward Councillors
	Relevant adjacent Local Planning Authorities
	Local amenity societies and community groups including
	Relevant Conservation Area Advisory Committees

In addition, as part of the pre-application design and planning process, the Applicant will be engaged in a programme of consultation with local stakeholders.

This programme is likely to include the following:

- Meetings with officers from the LBC Planning and other relevant departments;
- Meetings with officers from the GLA, TfL, Historic England and other statutory consultees;
- Correspondence and meetings with political representatives and local ward members, as well as local groups and organisations;
- Public exhibitions for the application site prior to submission of the Application to be held over a number of days, to ensure local residents have an opportunity to view and comment on the proposals; and
- A single point of contact for correspondence and enquires.

In addition, each technical chapter of the ES will include a summary of statutory and non-statutory consultations undertaken as part of the EIA. This would provide details of any environmental issues raised, agreed methodologies for technical assessments and an audit trail of how the EIA process has responded to such consultation responses.

2. EIA PROCESS

2.1 Need for Environmental Impact Assessment

EIA is a formal process by which the effects of certain types of development projects on the environment are identified, assessed and reported upon in order for the effects to be taken into account by the relevant competent authority when considering whether to grant planning permission.

The process enables the systematic examination of each of these effects and facilitates the refinement of the emerging development proposals by the project team to minimise adverse effects on the environment and to maximise beneficial outcomes. Collectively, in generating a significant amount of information on the likely environmental effects of a development proposal, the EIA enables informed decision-making on the merits of a proposed development by the relevant planning authority.

The circumstances under which the EIA is carried out and the basic process to be followed, are set out in the EIA Regulations (referred to earlier) and guidance issued by Government. The EIA Regulations specify what information is to be provided to the relevant planning authority. A key document is the ES, which is the Applicant's own assessment of the likely significant environmental effects of the proposed development. The specific information to be provided in the ES is also defined in the EIA Regulations.

The EIA Regulations set out in general terms the content of an ES and allow an Applicant to obtain a EIA 'Scoping' Opinion from the relevant planning authority regarding the issues to be considered within the EIA for a specific development proposal; what information should be contained in the ES; and what effects are likely to be more significant than others. EIA best practice encourages applicants to consult other organisations likely to have an interest in a proposed development.

2.1.1 Format and Content of Environmental Impact Assessment

The specified information to be included in the ES of the proposed development will comprise:

- A description of the application site, its surrounding context and associated environmental sensitivities – baseline conditions;
- An outline of the environmental factors that have informed the development proposals and the main alternatives studied during the proposed development's preparation, clearly explaining the criteria for selection;
- A description of the proposed development containing information on:
  - the physical characteristics and land use requirements of the proposed development during the demolition and construction works and the completed development,
  - the main characteristics of any production processes where appropriate,
  - the expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development;
- A description of the aspects of the environment likely to be significantly affected by the proposed development, including:
  - humans,
  - fauna and flora,
  - soil,
  - water,

  - air,
  - climate,
  - material assets, including the townscape, heritage, landscape and archaeological assets,
  - the interrelationship between the above factors;
- A description of the likely significant effects of the proposed development on the environment, which should indicate the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, beneficial and adverse effects of the proposed development resulting from:
  - the existence of the development,
  - the use of natural resources,
  - the emission of pollutants, the creation of nuisances and waste;

The description must also include forecasting methods used to assess the effects on the environment;

- A description of mitigation measures to prevent, reduce and where possible offset any significant adverse effects on the environment;
- A non-technical summary of the information provided above; and
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered in compiling the required information.

The ES will comprise four volumes:

- Volume 1: Non-Technical Summary (NTS);
- Volume 2: Main ES Report;
- Volume 2A: Townscape and Visual Impact Assessment (TVA);
- Volume 3A: Transport Assessment (TA); and
- Volume 3B: Technical Appendices (including Archaeological Desk Based Assessment (DBA); Arboriculture Impact Assessment (AIA); Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment; Preliminary Risk Assessment (PRA) and Flood Risk Assessment (FRA)).

ES Volume 2 would comprise five introductory non-technical chapters, followed by technical assessment chapters and two concluding chapters. The introductory chapters would cover:

- background information and a description of the application site;
- the EIA process and impact assessment method followed;
- the design evolution and alternatives process;
- the proposed development that has been subject to EIA; and
- the demolition and construction measures associated with the proposed development that have been subject to EIA.

The concluding chapters would cover:

- cumulative effects; and
- summary of residual effects.

The proposed scope of the technical assessment chapters are discussed in Section 6 of this report.

The technical assessments chapters would report on the EIA of the development proposals as described in the introductory chapters of Volume 2, as well as in documents that will accompany the application as explained in Section 3.

2.2 Baseline Conditions

The EIA will predict the likely scale of change in environmental conditions as a result of the proposed development. The assessment of the scale and significance of a predicted change will be undertaken against a reference condition, known as the baseline. In most cases, the baseline represents the environmental condition of the application site and the surrounding area at the time of the assessment, although it may also include a projected environmental condition at some point in the future.

The baseline for the EIA will be taken as the 'current' application site and its immediate surrounds.

A Phase 1 Habitat Survey has already been undertaken at the application site to inform the emerging development proposals as well as a pre-development AIA (See Appendix 1 and 2). This survey is considered to characterise the 'current' ecological baseline conditions at the application site. Furthermore a PRA and Archaeological DBA (see Appendix 3 and 4) have been completed.

Additional assessments and surveys undertaken during the course of the EIA process will utilise information already available, as well as new information provided in response to this EIA Scoping Opinion Request. Collectively the information will establish a baseline against which changes introduced by the proposed development will be assessed.

Consideration will also be given, as appropriate, (and subject to programmed implementation) within the EIA to future site conditions:

- if the proposed development was not to proceed (the 'Do Nothing' scenario);
- at the time the proposed development is completed (Future Baseline); as well as
- with other planned development in the vicinity of the application site (Cumulative effects).

2.3 Predictive Methods and Assessment Criteria

The EIA employs a range of tools and approaches aimed at predicting the likely nature and extent of environmental effects. Some technical assessments rely on mathematical models which provide a quantitative estimate of the size of an environmental change or impact, such as the levels of noise or air pollutants likely to arise from net additional traffic, or from heating plant. Other technical assessments rely on map-based techniques to plot the extent of land use change or habitat loss or use illustrative methods, to communicate how a proposed development might appear in a particular viewpoint.

The predictions in the EIA will indicate the nature and magnitude of a proposed development's potential impacts and likely effects, to enable informed planning decisions about the likely environmental outcomes of the proposed development; however, these predictions may be subject to a degree of uncertainty. As such, the tools employed and the assumptions made in each case will be developed accordingly and set out clearly.

Predicted environmental effects are described by reference to their anticipated significance. Significance is not an absolute concept, but is usually framed with reference to thresholds or criteria. A range of quantitative and qualitative thresholds and values tend to be used, supported by narrative descriptors. The aim is to ensure the terms and assumptions used in assessing significance are transparent.

The methods and approaches proposed for predicting and assessing impacts as a result of the proposed development are set out in Section 6 of this Report.

2.4 Alternatives

The EIA Regulations require that the ES provides an outline of the main alternatives to the proposed development considered by the Applicant and the reasons for the selection of the preferred proposal. In this assessment, the alternatives considered in the course of the design process, such as site location and various land uses, layouts and designs, assessed as part of the design evolution, will be presented.

A description of the design process, of the alternatives considered and the rationale for the selection of the preferred design will be included in the ES.

2.5 Assessment Methodology

The EIA will be undertaken in line with best practice guidance, which includes the following publications:

- England and Wales: Online Planning Practice Guidance[1]
- Department of Transport: Design Manual for Roads and Bridges Volume 11: Environmental Assessment, 2008[2];
- Institute of Environmental Assessment: Guidelines for Environmental Assessment of Road Traffic, 1994[3];
- Institute of Environmental Management and Assessment: Guidelines for Environmental Impact Assessment, 2004[4];
- Department for Communities and Local Government (DCLG), 2006. Amended Circular on Environmental Impact Assessment (consultation paper)[5];
- DCLG, 2006. Environmental Impact Assessment: A guide to good practice and procedures (consultation paper)[6];
- DCLG, 2014. Guidance for Environmental Impact Assessment. On-line Resource[7]; and
- Institute of Environmental Management and Assessment Special Report into the State Environmental Impact Assessment Practice in the UK, 2011[8].

As a general rule, the EIA will assess the outcome or residual environmental effects that are likely to arise as a consequence of a potential impact/change to environmental receptors following the application/consideration of design interventions, standard controls and mitigation measures. The significance of environmental effects in the absence of mitigation will therefore not be reported on in the ES, unless otherwise stipulated within specific ES Chapters.

The assessment of residual environmental effects of the proposed development on the baseline conditions of the application site will be undertaken for the demolition and construction stage and for the completed development stage, using specific methods of prediction including established guidelines and techniques.

Methods of prediction to be applied within this EIA will be either quantitative or qualitative or in certain instances, both. Quantitative methods predict measurable changes as a result of the

[1] http://planningguidance.planningportal.gov.uk/blog/guidance/environmental-impact-assessment
[2] Department for Transport, 2008. Design Manual for Roads and Bridges Volume 11: Environmental Assessment.
[3] Institute for Environmental Assessment, 1994. Guidelines for Environmental Assessment of Road Traffic [Now the Institute of Environmental Management and Assessment (IEMA]
[4] Institute of Environmental Management and Assessment (IEMA), 2004, Guidelines for Environmental Impact Assessment. IEMA.
[5] Department for Communities and Local Government, 2006. Amended Circular on Environmental Impact Assessment: A consultation paper. DCLG.
[6] Department for Communities and Local Government, 2006. Environmental Impact Assessment: A guide to good practice and procedures – a consultation paper. DCLG.
[7] Department for Communities and Local Government, 2014. Guidance for Environmental Impact Assessment. DCLG.
[8] Institute of Environmental Management and Assessment, 2011. The State of Environmental Impact Assessment Practice in the UK.

proposed development and rely on accurately measuring baseline conditions of the application site to make accurate predictions with the completed proposed development.

Qualitative assessment techniques rely on expert judgment and are exercised within a structured framework to ensure consistency of conclusions drawn. Clear distinctions will be made between matters of fact, judgement and opinions with all sources identified. Assumptions, degrees of confidence and areas of uncertainty will be clearly stated.

In assessing the significance of any residual effect, regard will be had to:

- the sensitivity of the environmental receptor to the change or impact, based on a scale of high, medium and low; and
- the magnitude of the potential impact, based on a scale of high, medium, small and unknown which is informed by the mitigation measures integral to the design; demolition and construction; and completed development proposals.

In order to provide a consistent approach to the presentation of the significance of effects, the following terminology will be used throughout the ES:

- Adverse: detrimental or negative effect to an environmental resource or receptor;
- Neutral: an effect that on balance, is neither beneficial nor adverse to an environmental resource or receptor; and
- Beneficial: advantageous or positive effect to an environmental resource or receptor.

Predicted residual effects will then be classified according to the following scale, where recognised issue specific impact assessment guidelines do not exist:

- Negligible: effects which are beneath levels of perception, and within normal bounds of variation;
- Minor: slight, very short or highly localised effects;
- Moderate: limited effects (by magnitude, duration, reversibility, value and sensitivity of receptor) which may be considered significant; and
- Major: considerable effect (by magnitude, duration, reversibility, value and sensitivity of receptor, which may be more than of a local significance or lead to a breach of a recognised environmental threshold, policy, legislation or standard).

The scale of the residual effects will be informed by the following;

- Likelihood of the effect occurring, based on a scale of certain, likely or unlikely;
- Duration of the effect, based on a scale of long, medium and short term; and
- Reversibility of the effect, being either reversible or irreversible.

Where there are any deviations to the terminology set out above (e.g. due to published industry guidance or professional judgement), this would be clearly identified and explained within the relevant ES Chapter.

Residual effects will be defined as either ‘significant’ or ‘not significant’ by reference to published guidance or where this does not exist, by application of professional judgement. Significant effects would be considered material to the planning decision making process.

As part of the design and EIA process, measures will be developed and discussed with relevant consultees to avoid, reduce, remediate potential adverse effects, or provide enhancements, where appropriate.

2.6 Basis of EIA

As noted earlier, the EIA will be undertaken based on the proposed development as described in the introductory chapters of ES Volume 2.

The proposed development will principally be defined by means of the following:

- Demolition and Construction methods and control measures;
- Detailed planning application drawings;
- Detailed 3D model; and
- Detailed area schedule and residential unit mix.

The following supporting documents will accompany the Application and will be considered during the EIA:

- TA, which will be appended to the ES, in ES Volume 3A
- FRA, which will be appended to the ES in ES Volume 3B;
- PEA and Preliminary Bat Roost Assessment, which will be appended to the ES in ES Volume 3B;
- Pre-development AIA, which will be appended to the ES in ES Volume 3B;
- Archaeological DBA, which will be appended to the ES in ES Volume 3B; and
- Heritage Statement, which will be appended to the ES in Volume 3B.

Section 5 indicates that the proposed development would be delivered in a phased manner. This is because the existing supermarket would be temporarily relocated from the MS parcel to the the PFS parcel whilst the permanent supermarket on the MS parcel is constructed. The temporary supermarket use at the PFS would be short term (approximately 2.5 years) in nature and would therefore be assessed as part of the demolition and construction stage.

3. PLANNING CONTEXT

3.1 Planning History

The existing Morrisons Supermarket was constructed under a planning permission granted in 1994 (Ref. 9400778). This decision followed a successful planning appeal against a non-determination, which was granted in 1993 (Ref. 9300246), and a parallel planning application granted by the LBC in the same year (Ref.9300040).

Permissions granted in 2002 (Ref: PEX0001067), 2009 (Ref: 2009/0802/P) and 2010 (Ref: 2010/3652/P) approved *inter alia* alterations and extensions to the approved Morrisons Supermarket which have all been implemented.

Planning permission granted in 2005 (ref: 2005/4882/P) approved the 'pod' exit from the Stables Market which can now be found within the Morrisons Supermarket car park.

3.2 Application

As noted earlier a Full Planning Application will be submitted. The following documents will accompany the application (to be confirmed with the LBC):

- Existing and Proposed Drawings;
- Design and Access Statement (including Crime Impact Assessment, Lifetime Homes and Wheelchair Housing Statement, Lighting Assessment and Public Open Space Plan);
- Application Form;
- Community Infrastructure Levy Form;
- Planning Statement including Health Impact Assessment;
- Environmental Impact Assessment (including the following chapters; socio-economics, townscape and visual, built heritage, transport and accessibility, air quality, noise and vibration, daylight, sunlight and overshadowing and wind microclimate) and associated technical appendices including the Preliminary Ecological Assessment, Archaeological DBA, Heritage Statement, pre-development AIA, PRA and FRA;
- Structural Report including Basement Impact Assessment;
- Landscaping Scheme;
- Sustainability Statement;
- Transport Assessment (including Travel Plan, Construction Traffic Management Plan, Parking Arrangement Plans, Servicing Management Plan and Waste Storage and Collection Plan;
- Pre-Application Consultation Statement;
- Regeneration Statement/Economic Impact Assessment;
- Affordable Housing Statement; and
- Draft Planning Obligations (Section 106).

3.3 Planning Policy

The proposed development will be guided by a number of policy directives and guidance discussed in the sections below. It is important to note that although these policy directives and guidance will inform the scope of technical assessments within the EIA, the proposed development's compliance to and performance against these policy directives and guidance (together with associated planning standards/targets) will be appraised within the Planning Statement for the Application.

3.3.1 National Policy

National Planning Policy Framework, 2012

The National Planning Policy Framework (NPPF) was published and became immediately effective on 27 March 2012. The document sets out the Government's economic, environmental and social planning policies for England.

At the heart of the NPPF is a presumption in favour of sustainable development. It set sets out 13 key objectives that will deliver sustainable development. Those objectives of most relevance to the proposed redevelopment of the application site are:

- Objective 1: Building a strong, competitive economy;
- Objective 2: Ensuring the vitality of town centres;
- Objective 4: Promoting sustainable transport;
- Objective 6: Delivering a wide choice of high quality homes;
- Objective 7: Requiring good design;
- Objective 8: Promoting healthy communities;
- Objective 10: Meeting the challenge of climate change, flooding and coastal change;
- Objective 11: Conserving and enhancing the natural environment; and
- Objective 12: Conserving and enhancing the historic environment.

Planning Practice Guidance

The Planning Practice Guidance (PPG) was published online and became immediately effective on 6 March 2014. The guidance is an online resource, with the aim of making planning guidance more accessible, and to ensure that the guidance is kept up to date. The PPG has 42 separate guidance categories covering a range of issues including:

- Climate Change;
- Conserving and enhancing the historic environment;
- Design;
- Environmental Impact Assessment;
- Flood Risk and Coastal Change;
- Land affected by contamination;
- Natural Environment;
- Noise;
- Open space, sports and recreation facilities, public rights of way and local green space;
- Renewable and low carbon energy;
- Travel plan, transport assessments and statements in decision-taking;
- Tree Preservation Orders and trees in conservation areas; and
- Water supply, wastewater and water quality.

3.3.2 Regional Policy

The London Plan Spatial Development Strategy for London Consolidated with Alterations Since 2011, March 2016

The London Plan sets out an integrated social, economic and environmental framework for future development of London over a 20-25 year period. It provides the strategic, London-wide policy context that local authorities' development plans have to be in general conformity with and the policy framework for the Mayor's own decision making on strategic planning applications.

Policies within the London Plan are set within an overarching sustainable development directive. Preferred standards are set for key sustainability themes within all new development both within the London Plan and in supporting Supplementary Planning Guidance (SPG). These themes include amongst others the following:

- Re-use of land and buildings;
- Conserve energy, materials, water and other resources;
- Ensure designs make the most of natural systems both within, in and around the building;
- Reduce the impacts of noise, pollution, flooding and micro-climate effects;
- Ensure developments are comfortable and secure for users;
- Conserve and enhance the natural environment, particularly in relation to biodiversity; and
- Promote sustainable waste behaviours in new and existing development, including support for local integrated recycling schemes, CHP schemes and other treatment options.

Several London Plan strategic policies are of relevance to the proposed development, in particular the need to create an inclusive built environment; the promotion of high quality design; the provision of mixed use in highly accessible locations; and the provision of open space.

The GLA Supplementary Planning Guidance (SPG) documents of relevance to the proposed development includes the following:

- Housing SPG, 2016;
- Shaping Neighbourhoods: Character and Context, 2014;
- London Planning Statement, 2014;
- Shaping Neighbourhoods: Play and Informal Recreation SPG, 2012;
- Sustainable Design and Construction SPG, 2014;
- Accessible London - Achieving an Inclusive Environment SPG, 2014;
- London's Foundations, 2012;
- Town Centres SPG, 2014;
- Play and Informal Recreation SPG, 2012;
- Social Infrastructure SPG, 2015;
- Character and Context SPG, 2014;
- All London Green Grid, 2012;
- London View Management Framework SPG, 2012;
- Mayor's Air Quality Strategy SPG, 2010; and
- The Control of Dust and Emissions during Construction and Demolition, 2014.

In addition, the GLA London Housing Design Guide is of relevance to the proposed development. This guide seeks to:

- clarify, consolidate and set new minimum space standards in a number of key policy areas; and
- promote better neighbourhoods, high environmental standards, better accessibility and better design (including guidance on natural light and ceiling heights).

3.3.3 Local Policy

The following local policy documents and policies are of relevance to the proposed development:

Camden Core Strategy 2010-2025, 2010

The Core Strategy, with the Mayor's London Plan, then forms the statutory 'development plan' for Camden and provides the basis for planning decisions in the Borough. The Core Strategy is the principal document in the Local Development Framework and provides the vision, objectives and spatial policies to guide development in the borough up to 2025.

The Core Strategy along with other LBC Local Development Framework documents (including the Development Policies, Site Allocations, North London Waste Plan, Area Action Plans and Supplementary Planning Documents), replaced the Unitary Development Plan (2006).

Camden Local Plan: Proposed Submission, 2016

The draft Camden Local Plan is currently with the Secretary of State for Communities and Local Government for independent examination and will replace the Council's current Core Strategy and Development Policies planning documents as listed above.

The Local Plan will cover the period from 2016-2031 and will ensure that LBC's policies are up-to-date and reflect the changes to the Borough which have been made since the Core Strategy was developed.

Whilst this document is still in draft, consideration will still be given to these emerging policies throughout the ES.

Camden Planning Guidance

Camden Planning Guidance (CPG) documents of relevance to the proposed development are as follows:

- CPG 1 Design;
- CPG 2 Housing;
- CPG 3 Sustainability;
- CPG 4 Basements and Lightwells;
- CPG 5 Town centres, retail and employment;
- CPG 6 Amenity;
- CPG 7 Transport; and
- CPG 8 Planning Obligations.

Camden Site Allocations, 2013

LBC's adopted Site Allocations Development Plan document identifies sites in Camden Town including Hawley Wharf for development. It does not identify the application site, which is a 'windfall' development opportunity.

4. APPLICATION SITE

4.1 Site Location

As noted earlier, the application site is located on Chalk Farm Road and Juniper Crescent and comprises two parcels of land:

- the MS parcel; and
- the PFS parcel.

The two parcels are divided by a railway line as shown in Figure 4.1.

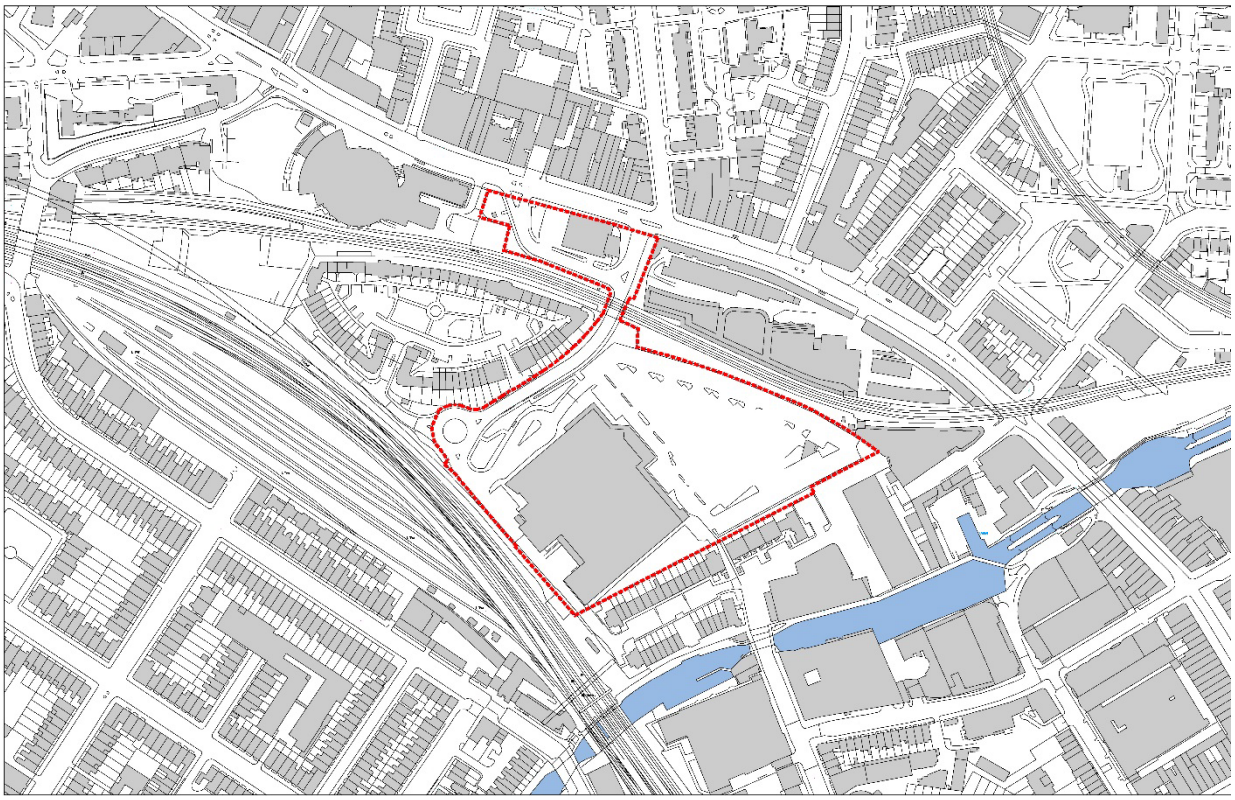

Figure 4.1: Application Site Redline Boundary

The MS parcel is bound by:

- Juniper Crescent to the north;
- Railway lines to the north-east beyond which are commercial uses, including Camden Market;
- Existing three and four storey residential uses fronting onto Gilbey's Yard to the south-east;
- Railway lines to the south-west;
- Juniper Crescent to the north-west beyond which are existing three and four storey residential uses.

The PFS parcel is bound by:

- Chalk Farm Road to the north;
- Commercial uses, including Horse Stables Market to the south-east;
- Railway lines to the south; and
- Five storey commercial uses with associated car parking to the west.

The application site's surrounding context is of a mixed nature with residential use predominant to the north, north-east, and southwest; commercial premises along Chalk Farm Road and Camden High Street; the famous Camden Market to the south by the Lock and in the former Horse Hospital; and the Stable buildings to the east.

The area between the railway lines and Primrose Hill is characterised by gridded streets of Victorian stucco terraces. The open spaces of Primrose Hill and Regent's Park are beyond to the west and south-west.

To the south is small scale, 20th century apartment blocks on Gilbey's Yard, including the Lockhouse at 35 Oval Road (approximately seven storeys in height) and larger former industrial and warehouse buildings on both sides of the Regent's Canal. The southern part of Oval Road is more residential in nature, with three and four storey Victorian terraces predominating in the area around Mornington Terrace.

To the south-east, simple brick, three storey buildings face Camden High Street, many of which are now over-painted and decorated. Chalk Farm Road is the main thoroughfare leading north-west from Camden High Street, with the Market complex off its western side and a number of streets leading off its eastern side which are residential in character, some with two to three storey terraces dating to various periods and, on Ferdinand Street, larger, apartment blocks (approximately eight storey). Castlehaven Open Space is located within this area, to the south-east; it is the most significant area of public green space locally.

The Camden Town London Underground Station is located approximately 500 m to the east, whilst Chalk Farm London Underground Station is located approximately 400 m to the west. Both of these stations are served by the Northern line. Kentish Town West Rail Station is located approximately 600 m to the north.

4.1.1 Site Description

The application site is irregular in plan and occupies approximately 3.26ha. The MS parcel is located in the southern extent of the application site, occupying approximately 70 % of the total application site area. The two parcels are joined by the road under the railway lines whereby re-surfacing may be required. The parcel is occupied by the following:

- A double-height Morrisons Supermarket located in the north of the parcel which includes a café, pharmacy, dry cleaners, customer toilets, bakery, butchers, fish counter, delicatessen and back-of-house areas including a warehouse, staff welfare facilities, canteen and various offices. The supermarket also includes a number of plant rooms;
- A secure concrete surfaced service yard located along the south-western elevation of the supermarket; this is accessed via an asphalt surfaced service road from the north-west;
- An area of waste storage, located in the south of the service yard including two front-loading skips, two 1,000 litre intermediate bulk containers (IBCs) of waste cooking oil, numerous wooden pallets and numerous bales of cardboard;
- A bus stop and vehicle waiting/turning area located in the west of the parcel, adjacent to the north-western elevation of the supermarket;
- An asphalt surfaced access road (Juniper Crescent) and roundabout located along the length of the north-western boundary of the parcel; and
- An asphalt surfaced car park with 425 car parking spaces. Vehicular access to the car park is via Juniper Crescent along the north-western boundary of the parcel.

The topography of the MS parcel ranges from approximately 28 m above ordinance datum (AOD) to 34 m AOD across the parcel, generally sloping upwards from west to east.

The PFS parcel is located in the north of the application site and is occupied by the following:

- A single storey kiosk building located in the east of the parcel, which includes a shop floor and back of house areas comprising an office, an electrical switch gear room, storage facilities and staff welfare facilities;

- A canopy covered concrete slab forecourt located at the centre of the parcel, which includes four fuel islands and eight fuel pumps;
- Four underground storage tanks (UST) located beneath the western extent of the forecourt and an associated UST fill point located in the eastern extent of the parcel;
- An electric compressed air pump (for inflating vehicle tyres) located in the eastern extent of the parcel, on a block paved plinth, adjacent to the northern elevation of the kiosk; and
- An access road along the southern boundary of the parcel, providing access to and from Chalk Farm Road.

The topography of the PFS parcel is generally level, sloping gently to the east, at approximately 28 m AOD.

4.1.2 Environmental Considerations

This section outlines the existing environmental context on and surrounding the application site and is informed by desk-based research and site visits.

Socio-Economic

The existing uses at the application site accommodates approximately 240 employees (85 full-time and 155 part-time).

The application site is located in Camden Town within the Primrose Hill ward and in close proximity to Haverstock ward. Camden Town is classified in the London Plan Town Centre designations as a major town centre and as having medium growth potential. It is also identified as a town centre and a location of growth in the Local Plan Submission Document (2016), given that it is a highly accessible location (Policy G1f).

The existing Camden Core Strategy Policy CS7 notes that 20,000-30,000 m^2 of retail could be provided at Camden Town and Euston. It is noted that delivery of new housing will contribute to making Camden Town a 'successful and safe place' (Site Allocations Plan 2013, section 6).

Policy G1 of the Local Plan Submission Document identifies that "*development will take place throughout the borough with the most significant growth expected to be delivered through*" those areas including highly accessible locations such as Camden Town. Such development must be "*consistent with the area priorities and principles set out*" in the Submission Document. This includes delivery of self-contained housing and affordable housing; supporting business and job provision by providing premises; securing the infrastructure and services needed to meet the growing number of residents, workers and visitors; and ensuring growth is delivered in a way that protects amenity. Developments of high density and mixed use are supported including in town centres. Camden Town is identified for a significant amount of additional shopping floorspace (Policy TC1).

Ground Contamination

According to the British Geological Survey (BGS) mapping, the application site is directly underlain by solid geology of the London Clay Formation (clay, silt and sand). The application site is further underlain by solid geology of the Lambeth Group and the Chalk Group at depth. No superficial deposits are recorded on the application site; however, given the application site's history, it is considered likely that the application site is underlain by made ground.

The London Clay Formation is classified by the EA as an Unproductive Stratum; this classification is assigned to rock units with low permeability that have negligible significance for water supply or river base flow. The London Clay confines and protects underlying aquifers. The Lambeth Group is classified by the EA as a Secondary A Aquifer comprising permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. The Chalk Formation is classified as a Principal Aquifer as

it contains layers of rock that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

Potentially contaminative historic uses of the application site have included Camden Goods Yard and associated goods shed/railway sidings, stores, warehouses and tanks which may have included the use and storage of fuels and oils.

Water Resources and Flood Risk

The nearest surface water feature is the Regent's Canal located approximately 50 m south of the southern boundary of the proposed development.

The nearest Environment Agency (EA) main river is the River Thames which is located 3.5km to the south-east of the development. The River Brent is located approximately 6km to the north-west of the application site.

According to the EA, the application site is located in Flood Zone 1 (low probability). This zone comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1% in any year).

Ecology

No Sites of Special Scientific Interest (SSSIs) are located within a 2 km radius of the application site; however the survey area does fall within a SSSI Impact Risk Zone for Hampstead Heath Woods which is located 2.93 km to the north-west.

Three LNRs are located within the 2 km search area. The nearest is Belsize Wood which is located 1.36 km north-west of the application site.

Six non-statutory sites are located within 1 km of the application site, the nearest being the Regent's Canal (part of the London's Canals Site of Metropolitan Importance for Nature Conservation (SMINC) which was located 50 m south-east of the survey area.

A Phase 1 Habitat Survey of the application site undertaken in April 2016 (see Appendix 1) categorised the existing habitats on-site as comprising of:

- Amenity grassland;
- Boundaries;
- Buildings;
- Hardstanding;
- Introduced shrub; and,
- Scattered trees.

The habitats on the application site are considered to be of low or negligible value for wildlife.

An Arboricultural Survey identified 20 Category A (highest retention value), 28 Category B, and 44 Category C trees on-site. The most significant trees recorded within the survey comprise a number of London Plane (*Platanus x acerifolia*) trees located along the southern boundary, as well as within the centre and in the north-west corner of the application site. All these specimens are considered to be of a high, Category A, retention value.

Archaeology

The application site partially contains the Canalside Industry Archaeological Priority Area within the eastern corner. This is an Archaeological Priority Area due to its 19th and 20th century industrial heritage as well as below ground. In terms of non-designated heritage assets, the application site lies on the site of the former 19th century London and North Western Railway

Camden Goods Station, which included a vaulted basement and separate contemporary Horse Stables and tunnels.

Built Heritage

The PFS parcel of the application site is located within the Regent's Canal Conservation Area. In addition, the application site is located in close proximity to a range of designated and non-designated heritage assets. These include:

- Conservation Areas (CAs): Regent's Canal, Primrose Hill, Harmood Street and Camden Town;
- Grade II* listed buildings: Horse Hospital with ramps and boundary wall, The Roundhouse and Camden Incline Winding Engine House; and
- Grade II listed buildings: Stanley Sidings, stables to the east of the bonded warehouse, The Interchange Building, Roving Bridge over the Grand Union Canal, Hampstead Road Bridge over the Grand Union Canal, Regent's Canal Information Centre, Hampstead Road Lock and Nos. 38-46 Jamestown Road and Nos. 24-28 (even) Oval Road.

Townscape Character and Views

Part of the application site is located within the Viewing Corridor for the Protected Vista from Assessment Point A.2, Parliament Hill: the summit – looking toward the Palace of Westminster, designated in the London View Management Framework Supplementary Planning Guidance (LVMF SPG).

The application site is not located within any other regionally or locally designated views. However, due to the location of the application site, its elevated topography and the scale of the proposals, there is likely to be visibility of the proposed development within a wide area which includes a range of townscape character areas and a number of conservation areas and other heritage assets.

The key townscape character areas which are likely to be affected by the proposed development to different degrees are:

- Camden Lock and Market, close to the south-east of the application site;
- Chalk Farm Road, the main thoroughfare running east of the application site;
- Residential areas north-east of Chalk Farm Road, where the roads are orientated directly towards the application site and from parks, such as Castlehaven Open Space and Talacre Gardens;
- Residential areas to the north-west, around Haverstock Hill and Eton College Road, where the ground is elevated and on roads directed towards the application site;
- Primrose Hill residential area to the west, which has a formal and gridded character lined with terraces, some streets of which are directed towards the application site;
- Oval Road, south of the application site, which is a linear street directed towards the application site; it has a mixed residential character in the south and a larger scale, mixed use character towards the north;
- Primrose Hill, around the summit where long range views are available across London;
- Regent's Park, where views are likely to be very limited to a small area in the north-east; and
- Regent's Canal, from certain bridges and points on the towpath.

Transport

The application site is served by an access road extending south from Chalk Farm Road. Both parcels of land are served by this road. The access road connects to Chalk Farm Road via separate signal-controlled access and egress arrangements at either end of the PFS, with the access located at the eastern end and egress to the west.

The application site is in a highly sustainable location in terms of access by non-car modes. The average PTAL rating across the application site is 5 (Very Good), with the rating at specific points ranging between 2 and 6. There are two London Underground Stations (Camden Town and Chalk Farm) and a London Overground Station (Kentish Town West) located within 600 m of the application site.

Noise

Noise surveys undertaken at the application site indicate that background noise levels are dominated by transportation noise sources, in particular from passing trains and road traffic movements along Chalk Farm Road.

Air Quality

The application site is located within an Air Quality Management Area (AQMA) declared under the Environment Act 1995, which incorporates the whole of the LBC. The AQMA has been designated due to the high traffic flows within the Borough, which give rise to concentrations of pollutants nitrogen dioxide (NO_2) and fine particulates (PM_{10}) that exceed the current National Air Quality Standard objectives.

The application site falls outside the designated London Congestion Charging Zone but within the London Low Emission Zone (LEZ).

5. PROPOSED DEVELOPMENT

The development proposals, which are currently being refined through the on-going pre-application design and planning process, are envisaged to comprise the demolition of all buildings on-site. The proposed development would likely be bought forward in three phases and would likely comprise the following:

- Phase 1 - PFS Parcel (Interim use in place for up to approximately two years):
  - One Block, approximately 5-7 storeys;
  - Temporary Morrisons supermarket (including back of house);
  - Approximately 70 temporary car parking spaces for the supermarket's use;
  - Hotel or commercial floorspace on the upper floors; and
  - Access from Chalk Farm Road by means of a reconfigured signal junction arrangement and new junction on the internal access road (form of junction to be confirmed during the detailed design). A service bay would be located at the western edge of the access leading from Chalk Farm Road.
- Phase 2 - MS Parcel:
  - Six Blocks, approximately 4-17 storeys;
  - Morrisons Supermarket (including back of house);
  - Residential units;
  - Retail floorspace;
  - Leisure and/or business floorspace;
  - Approximately 360 car parking spaces;
  - Landscaping and Access Arrangements;
  - Access from Chalk Farm Road via existing internal access road by means of a reconfigured roundabout arrangement (layout to be confirmed during the detailed design). A separate service access for the supermarket would be provided further north along the internal access road; and
  - Access from Oval Road via Gilbey's Yard by means of foot and bicycle.
- Phase 3: PFS Parcel:
  - One Block, approximately 5-7 storeys;
  - Convenience store and 10 pumps for the filling station;
  - Hotel or business floorspace on the upper floors;
  - Approximately four car parking spaces;
  - Landscaping and Access Arrangements; and
  - Access as per arrangement for temporary store, albeit with the service bay moved into the PFS parcel and a separate egress provided onto Chalk Farm Road for servicing vehicles.

Associated public realm and open space provision, greening, landscaping and access arrangements would be provided within the application site.

In total, the completed proposed development would deliver the following approximate gross external area (GEA) of floorspace across the entire application site:

- 600 - 750 (C3) residential units;
- 8,500 m^2 supermarket including back of house plant rooms;
- 450 m^3 retail (A1-A3);
- 650 m^2 leisure (D1);

- 8,000 m^2 business (B1); and
- 450 m^2 convenience store and 900 m^2 filling station.

A plan showing the indicative layout of the proposed blocks across the application site is presented in Figure 5.1.

Figure 5.1: Indicative Proposed Development Block Layout

A partial basement (ranging from one to two storeys in depth) would be constructed across a section of the MS parcel, to provide car parking spaces.

The emerging landscape proposals for the proposed development would aim to deliver considerable public realm, biodiversity and amenity enhancement.

Children's and young person's play space would be provided on-site as appropriate.

The Applicant would seek to achieve a number of sustainable design initiatives. It is envisaged that these will be in line with Government and, in particular, the Mayor of London's 'Energy Hierarchy' and sustainability targets, as well as requirements set out by the LBC. The proposed development would therefore aim to:

- minimise overall energy demand and consumption through practicable energy efficient design;
- minimise carbon dioxide emissions arising from the operation of the proposed development as far as practicably possible through the use of efficient plant, fittings and fixtures; and
- reduce carbon dioxide emissions arising from the operation of the proposed development as a result of on-site low carbon technology

6. POTENTIAL ENVIRONMENTAL IMPACTS AND LIKELY EFFECTS

This section summarises the potential environmental impacts and likely effects that are at this stage anticipated to arise in connection with the proposed development and will therefore be addressed in the EIA. It sets out the approach to be adopted in each instance, the scope of technical assessments to be undertaken and the assessment methods proposed in each case.

6.1 Development Programme, Demolition and Construction Activity and Effects Management

Demolition and construction activity impacts are temporary and intermittent. Nevertheless, they can cause significant effects on environmental resources and amenity, in the absence of appropriate management and mitigation. As discussed earlier, the application site is mostly cleared, and therefore potential impacts are likely to be limited to excavation and construction activities.

As mentioned earlier, ES Volume 2 will contain an introductory, non-technical chapter that will describe the proposed development's redevelopment programme and the key activities that will be undertaken during demolition and construction works for the application site. It will identify, in general terms, the potential significant short-term, local environmental impacts and likely effects associated with the activities and will outline the measures that would be adopted as part of the development proposals to manage and mitigate such impacts and effects. As such the chapter would provide a framework Construction Environmental Management Plan (CEMP) for the proposed development.

Measures that will be explored by the Applicant would include the:

- re-use and recycling of demolition materials and excavated waste materials;
- appropriate selection of construction materials;
- appropriate on-site management and siting of activities in relation to sensitive receptors;
- monitoring of noise and air emissions; and
- provision of a liaison officer.

In doing so, reference would be made to relevant codes of construction practices.

It is important to note that this Chapter will not assess the significance of likely effects during the demolition and construction works, as this will be dealt with in subsequent individual technical assessment chapters of the ES, where relevant.

Each of the technical assessments within the EIA will consider the potential impacts of demolition and construction works associated with the proposed development; consider the mitigation measures that would be integral to the development proposals; and consider where necessary, additional measures required to mitigate likely significant effects.

6.1.1 Methodology and Scope

Assessment of demolition and construction impacts relies on an understanding of demolition and construction methods, techniques, equipment and phasing that is rarely available at the planning application stage. For this reason, 'realistic scenarios will be adopted, with assumptions clearly identified in this Chapter of the ES. This will be based on demolition and construction methodologies for the application site which can be used as a benchmark that would not be exceeded. Outputs will be identified that can be the subject of controls. It should be noted that in using this approach, actual construction methods may be more benign.

Using assessments carried out in relation to specific impacts, this Chapter will set out how demolition and construction impacts and effects would be avoided, reduced or controlled through

a CEMP at the application site. The Chapter would provide an outline of the CEMP to define the policies, procedures and management framework for the implementation of specific management controls. As such, the CEMP would address amongst others:

- public safety;
- amenity and site security;
- operating hours;
- noise and vibration controls;
- air and dust management;
- storm-water and sediment control; and
- waste and material re-use.

The CEMP would be a key form of mitigation and as stated above, is anticipated to be secured by means of a suitably worded planning condition for the Application.

6.2 Climate Change

The potential impacts of a new development to affect climate change would largely be determined by the demolition and construction works of the proposed development, as well as the way the new buildings and residential units are used during operation, the latter of which is particularly difficult to accurately quantify at the planning stage; however, development and planning can play an important role within the wider determinants of climate change mitigation including sustainable design initiatives.

The Applicant would seek to achieve a number of sustainable design initiatives in line with policy requirements and in particular, the Mayor of London's 'Energy Hierarchy' and sustainability targets, as well as requirements set out by the LBC.

The proposed development's energy strategy would therefore aim to:

- minimise overall energy demand and consumption through practicable energy efficient design;
- minimise carbon dioxide emissions arising from the operation of the proposed development as far as practicably possible through the use of efficient plant, fittings and fixtures; and
- reduce carbon dioxide emissions arising from the operation of the proposed development as a result of on-site low carbon technology.

A number of technical assessments within the EIA will also consider the proposed development's indirect or secondary impacts on climate change, namely, the:

- Flood Risk Assessment; and
- Air Quality Assessment.

Furthermore the Applicant would commit to the following best practice measures during the demolition and construction stage to minimise potential climate change impacts:

- Re-use and recycling of demolition, excavation and waste materials (where possible);
- Appropriate selection of construction materials;
- Air and dust management; and
- Storm-water and sediment control.

The above measures would be set out within the CEMP and would be secured by means of a suitably worded planning condition.

Accordingly it is considered that climate change will be comprehensively considered within the ES as a whole, such that a discrete Climate Change technical assessment will not be presented within ES Volume 2.

6.3 Socio-Economics

The socio-economics technical assessment will be presented within Volume 2 and will explore the effects of the proposed development on society and the local economy during demolition and construction, as well as once the proposed development is completed and operational. The assessment will include consideration of potential economic effects relating to jobs and economic productivity (Gross Value Added (GVA)), as well as potential labour market benefits associated with the new residents on-site and fiscal benefits to the LBC. Potential effects relating to existing community infrastructure as a result of demand arising from the new residents will also be considered.

6.3.1 Site Information and Potential Impacts

The application site is in Camden Town which is prioritised for growth within both Camden Core Strategy, the Local Plan Submission Document and the London Plan. Additional housing in Camden Town is also supported given that this will help to address crime and safety issues.

The Camden Core Strategy supports delivery of 20,000-30,000 m^2 additional retail space in Camden Town and Euston while Policy TC1 of the Local Plan Submission Document also notes the retail growth potential of Camden Town. Therefore the application site is ideally located and supported in both existing and forthcoming policy for housing and commercial development.

There are approximately 85 FTE and 155 part-time jobs currently supported on the application site. The Lower Super Output Area (LSOA) Camden 018B in which the application site is located has a daytime workplace population (people in employment in the area i.e. proxy for number of jobs) of 1,435 people.

There are 1,860 residents in the LSOA (Census 2011). Of this number, 73 % are of working age, 19 % are children and 8 % are over 65 years old. A small proportion (2 %) of working age residents were claiming Job Seekers Allowance in September 2016.

Camden as a whole had a population of 220,338 at the time of the 2011 Census. This increased by 10 % to 241,100 by 2015 (ONS Population Estimates). Of Camden's population, 73 % are of working age, 16 % are children and 11 % are over 65 years of age. The Borough has an employment rate of 68 % and an unemployment rate of 5 %. In total 28 % of working age residents are economically inactive.

There are nine schools within the primary school Planning Area in which the application site is based. Primrose Hill Primary School is the closest to the application site at 225 m away with Hewley Infants School and Holy Trinity and St Silas Church of England Primary School also nearby. There are 10 secondary schools in LBC with Haverstock School 470 m from the application site being the closest.

There are 15 GP surgeries within 1 mile (1.6 km) of the application site. The closest is Primrose Hill Surgery at 480 m away. There are several hospitals nearby including Royal Free Hospital, St Pancras Hospital and University College London Hospital.

Crime in Camden Town with Primrose Hill ward between October 2015 and September 2016 included over 1,000 anti-social behaviour offences, 970 violent or sexual offences and 680 thefts (Police.uk)

The proposed development is anticipated to generate the following impacts and effects:

- Temporary and permanent loss of on-site employment during demolition and construction;
- Creation of direct and indirect employment during demolition and construction;

- Generation of economic productivity (GVA) and associated multipliers (indirect and induced GVA) during demolition and construction through supporting jobs;
- Provision of market and affordable housing which will make a contribution towards local housing targets;
- Creation of permanent direct, indirect and induced employment once operational;
- Generation of economic productivity (GVA) and associated multipliers (indirect and induced GVA) once operational through supporting jobs;
- Additional resident expenditure in the local area;
- Enhancements to the local labour force profile through additional residents skills;
- Uplift to Council Tax;
- Uplift to Business Rates (LB Camden will be able to keep 100 % of uplift from 2020);
- Demand for primary and secondary education;
- Demand for health services;
- Requirement for open space, play space and recreational facilities; and
- Helping to address crime and safety issues.

6.3.2 Approach and Methodology

The following key factors will be considered within the socio-economics assessment:

- the economy;
- housing provision;
- educational facilities (primary and secondary level);
- healthcare facilities;
- open spaces;
- playspaces;
- recreation opportunities; and
- crime.

The approach and methodology to each of these is considered in further detail below.

Baseline

Local economic characteristics will be reviewed which include economic activity, unemployment, occupation, average salaries and number of jobs. This analysis will draw on data sources including Census 2011, Annual Population Survey, Annual Survey of Hours and Earnings, Business Register and Employment Survey, and Index of Multiple Deprivation (IMD).

The existing provision of homes in the local area, as well as targets for additional market and affordable homes will be reviewed drawing on Census 2011, the LBC Core Strategy, Local Plan Submission Document and IMD. The recent delivery of affordable homes will also be considered, drawing on the LBC's evidence and EGi data (online source produced by Estates Gazette) on new developments.

The baseline information for education provision will be gathered by using documentation available from the LBC (including 2016 Annual School Places Planning Report Primary – Secondary) and the Department for Education.

The health characteristics of the local population will be assessed using Census 2011 data, Public Health England's Health Profile for the area, IMD, NHS information on local doctors' surgeries/dentists, opticians/hospitals/pharmacies, and the Active People Survey (2012-2014).

Open and recreational spaces within the local area will be identified which will draw on the LBC Open Space, Sport and Recreation study for evidence regarding existing provision and any gaps in supply.

Crime statistics for the local area will be sourced from Policy.uk.

Effects

Economic effects will be modelled using Turley's in-house economic impact model. This model draws on national data sets, formal Government guidance including HCA Employment Density Guide (2015) and HCA Additionality Guide (2014) and details of the proposed development. The economic effects would be considered for the demolition and construction and completed development stages as follows:

Demolition and Construction Stage

Provision of FTE (Full Time Equivalent) jobs will be calculated through consideration of estimated demolition and construction costs as a starting point and referencing Business Population Estimates (2014). The construction period will be taken into account to quantify gross FTE jobs. GVA per FTE worker will be calculated using Experian local market forecasts or information from GLA Economics where this is available. This will be applied to the net FTE demolition and construction jobs estimated to be generated by the proposed development.

Consideration will be given to jobs and productivity lost or displaced through closure of the existing store and replacement with the temporary store.

Consideration of allowances for leakage, displacement and multipliers will be made in line with recognised guidance.

Completed Development Stage

Economic operational effects will include those relating to on-site employment, expenditure from the new residential population and resultant jobs supported, New Homes Bonus, Council tax payments, Business Rates and additional labour force over the lifetime of the proposed development. Economic effect estimates will be presented as net figures, discounting for leakage and displacement, as well as accounting for multipliers to present indirect and induced effects. Effects will be presented on a per annum basis where relevant. They will also take the baseline position (the current economic contributions of the application site) into account so as to present the net additional position as a result of the proposed development.

Effects on local educational and healthcare facilities will be assessed by considering current capacity against the demand generated from the new residential population.

Local open, play space and recreational spaces will be reviewed and assessed against how the demands generated by the proposed development would be met. Play space will be assessed against the GLA and LBC targets based on maximum child population yield.

Crime will be considered in the context of existing crime statistics and in relation to the Camden Core Strategy which notes that provision of housing in Camden Town will help to alleviate crime and improve safety. This assessment will be qualitative and based on professional judgement.

Study Area

Given the nature of the assessment in this chapter, there will be three scales of impact area namely the neighbourhood area, local area and regional area.

The neighbourhood impact area varies according to the potential effects as follows:

- For effects on the local economy, open and recreational spaces and healthcare facilities, the neighbourhood impact area covers the Primrose Hill and Haverstock wards. Additionally,

health rates of the local population will be compared to the local and wider impact area, as well as against the national average.

- For effects on educational facilities, in accordance with the Department for Education guidance on catchment areas, all primary and secondary education provision in neighbourhood impact area is included with a focus of a 2 miles radius for primary provision and 3 miles radius for secondary from the application site. Primary school Planning Area 3 in which the application site is located, will also be considered.

The local impact area will cover the LBC, whilst the regional impact area will cover London as a whole. This is especially relevant to economic impacts.

Additional mitigation measures, including any potential planning obligations, should any significant adverse effects be identified, will be provided.

Consideration will also be given to cumulative impacts and effects and reported separately in the cumulative assessment chapter of ES Volume 2.

6.4 Townscape and Visual

A Townscape and Visual technical assessment will be presented in ES Volume 2A. This assessment will consider the potential for the proposed development to affect the townscape character of the application site and the townscape study area; the settings of designated, and non-designated heritage assets within the study areas (e.g. listed buildings, unlisted buildings of merit and CAs); and visual amenity. Impacts will be assessed in accordance with standard guidelines and relevant planning policy and will focus on consideration of a selected number of views which will be agreed with LBC Officers.

6.4.1 Site Information and Potential Impacts

The existing buildings on-site would be demolished and would be replaced by an entirely new development. The resulting change in height and massing, together with the provision of new high quality buildings, would have the potential to alter the existing townscape character and quality of the application site and the surrounding townscape study area. This will be considered through an assessment of townscape character areas and a selected representative list of viewpoints as shown in Appendix 5.

The townscape character areas likely to be significantly affected are identified in section 4 of this report and will be considered in more detail in the final assessment.

The assessment of visual effects will consider how much of the proposed development appears in which views and from which townscape areas; what form it takes in those views; and how it relates to the existing context, in both local and more distant areas.

Test views will be analysed during the design development to inform the design process. Initial tests show that most visibility will be from elevated areas, open spaces and streets directed towards the application site. The proposals are being formulated to make a positive contribution to the townscape and skyline in all views and from all townscape character areas. Potential harmful impacts on settings of heritage assets are being considered and mitigated as far as is possible during the design process.

As noted, a large number of heritage assets contribute to townscape character and views in the close and distant area around the application site. Potential impacts on their heritage significance will form part of the assessment. Reference will be made to the built heritage chapter of the ES in relation to those aspects of the impacts and likely effects.

6.4.2 Approach and Methodology

The key guidance for assessing the likely significant effects on townscape, the settings of heritage assets and visual impacts of a development is as follows:

- Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA) (2013) produced jointly by the Landscape Institute and the Institute of Environmental Management and Assessment;
- London View Management Framework Supplementary Planning Guidance (LVMF SPG) (2012);
- Seeing the History in the View (2011), produced by Historic England; and
- The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (March 2015), also produced by Historic England.

The baseline assessment will consider the existing character and sensitivity of the townscape around the application site and the existing character, sensitivity and composition of each view.

Each view will be surveyed and verified by an independent visualisation firm and accurate wirelines or renders of the proposed development inserted into the views.

Demolition and Construction Stage

Demolition and construction impacts are temporary and considered not to be significant because the effects are not permanent and they are necessary in order to achieve the effects of the permanent completed development. Demolition and construction impacts will therefore be assessed based on professional judgement without representation in the verified views.

The proposed development will be phased and will include a temporary structure on the PFS parcel. The likely visual and townscape effects of the temporary structure will be considered within the assessment but will not be represented in the views as the height and the massing of the temporary structure would be consistent with that of the completed development.

Completed Development Stage

The townscape and visual impact assessment will be made by considering the effects of the proposed development in these views. Cross reference to the heritage chapter will be made where relevant.

A third version of each view will be include accurate wireline representations of consented schemes which would be visible, in order to enable a cumulative impact assessment on views and townscape character. A summary of the cumulative effects will be provided in the cumulative assessment chapter of ES Volume 2.

6.5 Built Heritage

A built heritage assessment will be presented in ES Volume 2 and will be supported by a proportionate Heritage Statement. The assessment will consider the potential for the proposed development, as a whole, to affect the particular significance of the relevant heritage assets, within the Built Heritage Study Area. The assessment is required for the purposes of the National Planning Policy Framework 2012 and the relevant statutory duties set out in the Planning (Listed Buildings and Conservation Areas) Act 1990.

The Townscape and Visual Impact assessment will be considered and will be cross-referenced as appropriate.

6.5.1 Site Information and Potential Impacts

Review of the baseline situation has identified that there are no statutory listed built heritage assets within the application site. The proposed demolition of the buildings within the application site and the construction of new built form and landscaping proposals has the potential to indirectly effect the particular significance of a range of built heritage assets (designated and non-designated) in the vicinity of the application site within the defined Built Heritage Study Area, as a result of change to their setting and also shared local and or longer distance views to and from these built heritage assets.

The built heritage assets that could potentially be affected by the proposed development are set out in Table 6.1.

Table 6.1: Potential Effects on Heritage Assets (Indirect)		
Statutorily Listed Buildings within 500 m of MS Parcel		
1	Horse Hospital with ramps and boundary wall at north of site	II*
2	Stanley Sidings, Stables to east of Bonded Warehouse	II
3	Hampstead Road Bridge over Grand Union Canal	II
4	Regent's Canal Information Centre	II
5	Hampstead Road Lock on the Grand Union Canal	II
6	Roving Bridge over Grand Union Canal west of Hampstead Road Lock	II
7	The Interchange Canal Towpath Bridge over Private Canal Entrance	II
8	The Interchange on north side of Grand Union Canal including the Horse Tunnel and Stairs, Vaults and Canal Basin	II
9	Camden Incline Winding Engine House	II*
10	The Roundhouse	II*
11	Drinking Fountain set in wall next to The Roundhouse	II
12	Cattle Trough opposite debouchment of Belmont Street, south east of The Roundhouse	II
13	Chalk Farm Underground Station	II
14	Kent House	II
15	Church of the Holy Trinity with St Barnabas	II
16	1, Hawley Road	II
17	Numbers 57-63 and attached Garden Railings, Wall, Pillar and Gate	II
18	55, Kentish Town Road	II
19	The Elephant House including Former Coopers' Building, Boundary Walls and Gate piers	II
20	Arlington House (Former Camden Town Rowton House)	II
21	38-46, Jamestown Road, 24, 26 and 28 Oval Road	II
22	Piano Factory Building	II
23	36 to 41, Gloucester Crescent	II
24	30 to 35, Gloucester Crescent	II
25	24 to 29, Gloucester Crescent	II
26	Numbers 40, 42 and 44 and attached railings	II
27	Two lamp posts opposite numbers 43 and 40	II
28	Number 37 to 43 and attached railings	II
29	23, Gloucester Crescent	II
30	3 to 22, Gloucester Crescent	II
31	1 and 2, Gloucester Crescent	II
32	52-59, Gloucester Crescent	II
33	60 and 61, Gloucester Crescent	II

Table 6.1: Potential Effects on Heritage Assets (Indirect)		
Statutorily Listed Buildings within 500 m of MS Parcel		
34	62 and 63, Gloucester Crescent	II
35	64 and 65, Gloucester Crescent	II
36	66 and 67, Gloucester Crescent	II
37	68, 69 and 70, Gloucester Crescent	II
38	Numbers 2-10 and attached railings	II
39	Numbers 1-22 and attached railings	II
40	15 to 31, Gloucester Avenue	II
41	1-15, Prince Albert Road	II
42	Cecil Sharp House	II
43	10, Regents Park Road	II
44	Grafton Bridge over the Grand Union Canal	II
45	Vernon House	II
46	Church of St Mark	II
47	2 and 3, St Marks Square	II
48	4, St Marks Square, 36, Regents Park Road	II
49	Primrose Hill Infants School	II
50	Playground walls, railings and gates to Primrose Hill Infants School	II
51	The Engineer Public House and attached wall	II
52	Primrose Hill Studios	II
53	Numbers 24-46 and attached railings	II
54	Numbers 1-11 and attached railings	II
55	Numbers 12, 13 and 14 and attached railings	II
56	Numbers 15-19 and attached railings	II
57	Numbers 20-28 and attached railings	II
58	Numbers 29-33 and 33A and attached railings	II
Statutorily Listed Buildings within 1 km of MS Parcel		
1	Primrose Hill Tunnels (Eastern Portals)	II*
2	Church of St Silas the Martyr	II*
3	Church of St Michael	II*
4	All Saints Greek Orthodox Church	I
5	Numbers 2-16, 22-34, 36A and 36B and attached railings	II*
6	Numbers 1-8, 10-14 and 17-19 and attached railings	II*
7	Number 15 and attached boundary walls and piers	II*
8	Gloucester Lodge (Number 12) Gloucester House (Number 14) and attached boundary wall	I
9	Numbers 2 to 11 and attached railings	I
10	Number 1-3 and 6-9 and attached railings	II*

Table 6.1: Potential Effects on Heritage Assets (Indirect)		
Statutorily Listed Buildings within 500 m of MS Parcel		
11	The Danish Church	II*
12	Numbers 4 (The Pastors House) and 5 (St Katherine's Hall) and attached screen walls	II*
13	Cumberland Footbridge over Grand Union Canal to Outer Circle, Regents Park	II*
14	Chimps Breeding Colony The Gorilla House	I
15	Snowdon Aviary London Zoo	II*
16	Elephant and Rhinoceros Pavilion London Zoo	II*
17	Penguin Pool	I
Conservation Areas within 500 m of MS Parcel		
1	Regent's Canal Conservation Area	-
2	Primrose Hill Conservation Area	-
3	Harmood Street Conservation Area	-
4	Camden Town Conservation Area	-
Locally Listed Buildings within 500 m of MS Parcel		
1	2-8 (even) Ferdinand Street	-
2	36-37 Chalk Farm Road	-
3	1a Harmood Street	-
4	1-55 Hartland Road (odd-west side)	-
5	Holy Trinity and St Silas Primary School, Hartland Road	-
6	39-49 (odd) and 54-76 (even) Hadley Street and 14 & 16 Lewis Street and street surfacing	-
7	Tapping the Admiral PH, 77 Castle Road	-
8	41 Clarence Way (corner Castlehaven Road)	-
9	Hawley Infant School, Buck Street	-
10	The Buck's Head, 202 Camden High Street	-
11	The Elephant's Head, 224 Camden High Street	-
12	The Oxford Arms, 265 Camden High Street	-
13	31 Jamestown Road	-
14	57 A/B/C/D Jamestown Road	-
15	61-85 Jamestown Road	-
16	14-18 Oval Road	-
17	12 Oval Road	-
18	2, 10 & 11 Regal Lane	-
19	1 & 2 Bridge Approach	-
20	23-49 Adelaide Road	-
21	2 Haverstock Hill and 45-47 Crogsland Road	-
22	1-11 Crogsland Road	-
23	4-8 (even) and 7-11 (odd) Belmont Street	-

Table 6.1: Potential Effects on Heritage Assets (Indirect)		
Statutorily Listed Buildings within 500 m of MS Parcel		
24	Former Chappell's Piano Factory, 10a Belmont Street	-
25	10-14 (even) Belmont Street	-

6.5.2 Approach and Methodology

There is currently no prescribed or preferred method of preparing an EIA built heritage assessment. There are a number of potential methodologies in guideline documents (rather than policy or prescribed guidance), which have been accepted in a number of contexts. The methodology proposed will utilise established national policy, guidance and advice documents to frame the assessment process. Crucially, it will acknowledge how the understanding and appreciation of the heritage values of the asset and its constituent elements can be affected both directly and indirectly through change to setting, and not only physically and visually but also as part of a broader experience.

Guidance on the assessment of built heritage effects is largely provided within the NPPF, PPG and supported by other national guidance and advice, including those provided by Historic England. The assessment will therefore be undertaken with reference to the relevant statutory duties of the Planning (Listed Buildings & Conservation Areas) Act 1990, the National Planning Policy Framework (2012), the National Planning Practice Guidance (2014), the Development Plan, relevant best practice/guidance and material considerations.

Demolition and Construction Stage

The methodology utilised for assessing the demolition and construction effects will be consistent with that utilised for the operational stage effects.

The proposed development will be phased and will include a temporary structure on the PFS parcel. The likely temporary effects on built heritage assets of the temporary structure will be considered within the assessment of demolition and construction effects, as it does not form part of the completed proposed development.

Demolition and construction works are a necessary first step in the redevelopment of the application site and one that is associated with urban environments, where there is an awareness of development taking place. Demolition and construction impacts are not considered to be significant, in EIA terms, as they are indirect, temporary in nature and short-medium term in duration.

Completed Development Stage

The methodology that will be followed can be summarised as follows:

- Identify the relevant built heritage baseline situation / conditions within the Built Heritage Study Area though a desktop survey and site visit;
- Refine the built heritage assets and Built Heritage Study Area (i.e. identify those resources that would not be affected by the proposed development, and so be excluded further from the EIA process);
- Undertake detailed consideration of the identified heritage assets and apply judgement in respect of the importance and sensitivity of the assets based on defined significance criteria. The Heritage Statement will provide the necessary proportionate assessments of significance of the identified built heritage assets, and any contribution of setting to that significance, in line with the requirements of paragraph 128 of the NPPF. This baseline will inform the professional judgement and conclusions reached in the ES with regard to heritage effects;

- The effect of the proposed development on each of the identified heritage assets will be considered and a judgement formed as to the duration, extent and scale of the effect. This will include assessment of effects at both the demolition and construction, and operational phases of the proposed development. In doing so, consideration would be given to the mitigation measures that have been taken on board in the design and construction or operational lifetime of the proposed development. The significance of any residual effects, i.e. those that might remain after mitigation would then be considered. Appropriate cross-referencing will be made between the Archaeological Desk Based Assessment and the Townscape and Visual Impact Assessment provided as Volume 3A of the ES.
- Consider cumulative effects and a further judgement made on the effect on the built heritage assets in conjunction with those other schemes agreed.

The Built Heritage Study Area includes all designated heritage assets (including World Heritage Sites, scheduled monuments, listed buildings, registered parks and gardens and conservation areas) and non-designated heritage assets (including locally listed buildings) within a 500 m radius of the centre of the application site. Beyond this 500 m radius from the centre of the application site, and then up to 1 km from the centre of the application site, grade I and II* listed buildings and also registered parks and gardens are identified. This Built Heritage Study Area has been established through best practice guidance, professional experience and an assessment of the potential effects of the proposed development.

Identification of built heritage assets to establish the baseline situation will include review of existing national and local historic environment records and other resources, and also Historic England's best practice guidance and advice.

Following the identification of each built heritage asset, a judgement will be made of the heritage importance of the asset based upon an assessment of its particular significance. This will be proportionate to both the importance of the asset and the nature and extent of the development proposals, taking into account the relative location and role of the application site in their setting and significance. In addition, and as a further layer of analysis, the relative sensitivity of each of the heritage assets to further change will be defined. This will provide an NPPF-compliant assessment of effects which will inform the assessments carried out for EIA purposes.

A number of tables contained within Historic England's guidance document Seeing the History in the View: A Method for Assessing Heritage Significance within Views dating from 2011[9] have been used as a helpful starting point to determine a relevant criteria for the assessment of the importance and sensitivity of the heritage assets, and magnitude of impact of the proposed development on each, and then to measure of the overall significance of heritage effects.

The assessment will also utilise more recent advice published by Historic England alongside, including Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision Taking in the Historic Environment[10] and Good Practice Advice in Planning Note 3: The Setting of Heritage Assets[11]. These guidelines assist in understanding and appreciating and then articulating how change can affect heritage significance and setting. Together this will provide an appropriate framework and approach, as informed by professional judgement, to utilise for determining the significance of the residual effects of the proposed development.

A summary of the cumulative effects will be provided in the cumulative assessment chapter of ES Volume 2.

[9] Historic England, 2011. Seeing the History in the View: A Method for Assessing Heritage Significance within Views.
[10] Historic England, 2015. Historic Environment Good Practice Advice in Planning: 2 – Managing Significance in Decision-Taking in the Historic Environment.
[11] Historic England, 2015. Historic Environment Good Practice Advice in Planning: 3 – The Setting of Heritage Assets.

6.6 Transport and Accessibility

A transport and accessibility technical assessment will be presented in ES Volume 2. The assessment will consider the implications of the proposed development on the capacity of the local road network, public transport, cycle and pedestrian facilities; as well as the potential impacts on pedestrians. A Transport Assessment is also being produced and will be appended to ES Volume 3A.

6.6.1 Site Information and Potential Impacts

Two London Underground Stations are located within 500 m walking distance of the application site, namely Camden Town to the east and Chalk Farm to the west. Both stations are located on the Northern Line, which extends between High Barnet/Edgware and Morden, via Central London. Weekday services run approximately every three minute each way.

Kentish Town West Railway Station is located within 600 m. This station includes London Overground services between Stratford and Richmond, serving other destinations including Clapham Junction.

There are bus stops located within the application site itself, along with a waiting area and turning circle. These stops serve the following routes:

- Route Number 27, which extends between the application site and Chiswick Business Park; and
- Route Number 393, which extends between the application site and Clapton Pond.

Additional bus stops are located within 640 m on Chalk Farm Road to both the east and west, providing access to additional routes (24, 31, 168, 748 and night buses).

Transport for London's 'Local Cycling Guides' identify local roads including Chalk Farm Road, Oval Road and Ferdinand Street as being 'recommended for cycling'. These guides also identify a traffic-free cycle route via the canal towpath as it extends to the south of the application site.

The following potential transportation and access related impacts could arise as a result of the proposed development at the application site:

- Temporary disruption to pedestrians, cyclists and road vehicle users and to the servicing and access facilities of nearby properties during the demolition and construction works;
- Temporary generation of heavy goods vehicles (HGVs) during the demolition and construction works;
- Changes to traffic flows and the capacities of the local highway network upon completion and operation of the proposed development;
- Changes to pedestrian and cycle facilities, including safety issues;
- Changes to public transport capacity and accessibility;
- Changes parking supply and demand;
- Changes to long-term access and servicing arrangements and nearby properties; and
- Changes to pedestrian amenity (including fear and intimidation; severance; delay).

6.6.2 Approach and Methodology

The IEMA document 'Guidelines for the Environmental Assessment of Road Traffic' (1993) will be used to assess transport environmental impacts of the proposed development. In addition, due regard will also be given to Volume 11 of the Design Manual for Roads and Bridges.

The transport and accessibility assessment will utilise peak traffic flow information presented in the Transport Assessment to assess the environmental impacts of the proposed development. Peak hour flows will be used to derive daily flows using standard conversion factors, such that the percentage impacts can be assesses across a range of time periods.

Existing peak hour traffic flow data has been recorded on the roads in the vicinity of the application site in May 2016 and will be used to establish the magnitude of the environmental transport impacts of the proposed development. In accordance with IEMA guidelines, the transport study area for the ES will be informed by the following two rules, as set out in 'Guidelines for the Environmental Assessment of Road Traffic':

- Rule 1: include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles [HGVs] will increase by more than 30%; and
- Rule 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Calculations of potential traffic increases are in progress, however based on observed flows it is anticipated that the study area will not extend beyond the reconfigured signal junction at Chalk Farm Road.

The following traffic flow scenarios will be considered:

Demolition and Construction Stage (Phase 1 plus Phase 2 Construction Traffic):

- Existing baseline – 2016 Weekday Peak Hour/Daily and Saturday Inter-Peak Hour/Daily traffic flows;
- Future baseline – 2022 Weekday Peak Hour/Daily and Saturday Inter-Peak Hour/Daily traffic flows; and
- Future baseline + proposed development demolition and construction traffic.

Completed Development Stage (Completed Phase 3 Development):

- Existing baseline – 2016 Weekday Peak Hour/Daily and Saturday Inter-Peak Hour/Daily traffic flows;
- Future baseline – 2022 Weekday Peak Hour/Daily and Saturday Inter-Peak Hour/Daily traffic flows;
- Future baseline + proposed development;
- Future baseline + proposed development + cumulative developments.

The change in traffic conditions resulting from the proposed development will be used to assess the following potential environmental impacts:

- Highway Network and Junction Capacity;
- Public Transport Capacity;
- Severance;
- Driver Delay;
- Driver Stress;
- Pedestrian Delay;
- Pedestrian Amenity;
- Fear and Intimidation (in pedestrians, arising from vehicular traffic);
- Accidents and Safety; and
- Hazardous Loads.

The above impacts relating to increases in traffic flows, will be assessed against the 2022 future baseline, and the significance of effects will be quantified based on the following broad principles, as set out in the IEMA guidelines:

- 30% increase in traffic = low impact

- 60% increase in traffic = medium impact
- 90% increase in traffic = high impact

There is no formal guidance for assessing the environmental impacts of developments on the public transport network. Nevertheless, the EIA will utilise predicted traffic increases in the Transport Assessment to provide commentary on the potential impacts on existing bus services, such as impacts on service frequencies. It will also identify potential increases in bus and underground passenger trips arising from the development and consider how these might affect existing service capacity, using information contained in the Transport Assessment.

Consideration will also be given to cumulative impacts and effects and reported separately in the cumulative assessment chapter of ES Volume 2.

6.7 Air Quality

An air quality technical assessment will be presented in ES Volume 2. The air quality assessment will consider the implications of current and future ambient air quality at the application site for the proposed residential use, as well as the implications of emissions from the proposed development on local air quality. Potential new sources of air pollution arising from the proposed development during the demolition and construction stage, and once completed (i.e. traffic flows and any heating plant) will therefore be considered.

6.7.1 Site Information and Potential Impacts

As mentioned in Section 4, the whole of the LBC has been declared an AQMA for both exceedances in NO_2 and PM_{10} levels. The closest monitoring site to the application site is located along the A503 Camden Road. Validated data from this site indicate that the air quality objective for NO_2 has been exceeded for a number of years. Annual mean concentrations also suggest that the short term (1-hour mean) objective for NO_2 could also be exceeded. As agreed in consultation with LBC, this data can be used for validation purposes and no site specific monitoring will therefore be undertaken.

The key potential impacts that will be assessed within the Air Quality chapter are as follows:

- Demolition and construction emissions on local air quality;
- Operational traffic and CHP emissions at existing and proposed receptors located adjacent to the modelled road network; and
- The introduction of new residential exposure adjacent to the modelled network.

In addition, an Air Quality Neutral Assessment that will be undertaken as required by The London Plan.

6.7.2 Approach and Methodology

Relevant data will be gathered to determine the baseline conditions in the study area. This will include the following:

- Current background air quality concentrations (NO_2 and PM_{10}) from local monitoring data and/or Defra background maps[12];
- Current baseline Annual Average Daily Traffic (AADT) flow data, including speeds (kph) and percentage Heavy Duty Vehicles (HDVs). Future baseline traffic data (without development traffic) will also be provided and will correspond with the year when the proposed development is fully open;
- Local monitoring data, which will be used to verify the model output based on the baseline traffic flow data; and
- Meteorological data for Heathrow.

[12] https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2013

Demolition and Construction Stage

A qualitative assessment of the potential impact on local air quality from demolition and construction activities will be undertaken which will include construction traffic movements. The latest guidance on the assessment of the impacts of construction on air quality issued by the Mayor of London[13] will be used to assess the magnitude and significance of these impacts during construction.

The risk of dust arising in sufficient quantities to cause annoyance and/or health impacts will be determined using four risk categories: negligible, low, medium and high risk. A development is allocated to a risk category based on two factors:

- the scale and nature of the works, which determines the potential dust emission magnitude as small, medium or large; and
- the sensitivity of the area to dust impacts, which is defined as low, medium or high sensitivity. These risk categories are defined in detail within the latest guidance issued by the Mayor of London.

These two factors will be combined to determine the risk of dust impacts. The risk category assigned to the development can be different for each of the four potential activities (demolition, earthworks, construction and trackout).

Completed Development Stage

This part of the assessment will utilise the latest version of the ADMS-Roads modelling software[14] and consider the current and future baseline air quality in the area, as well as the potential impacts of increased traffic levels as a result of the completed proposed development.

Overall, the assessment will include the air quality impacts under four scenarios as identified within the transport and accessibility scope above. These are as follows:

- Existing Baseline;
- Future Baseline;
- Future Baseline + proposed development; and
- Future Baseline + proposed development + cumulative development.

Cumulative effects will be reported separately in the cumulative assessment chapter of the ES Volume 2.

Modelled concentrations in the current baseline year will be compared against local monitoring data in order to verify the model output.

Defra and the Devolved Administrations have provided an updated Emission Factors Toolkit (Version 7.0) which incorporates updated NOx emissions factors and vehicle fleet information[15]. These emission factors have been integrated into the latest ADMS-Roads modelling software. However, in order to undertake a worst case assessment emission factors for the baseline year (2014 or 2015) will be used as this will correspond with the latest year of validated monitoring undertaken by the LBC.

The impact of traffic and CHP emissions on the proposed development will be determined by comparison against the relevant UK air quality objectives. Changes in air quality impacts at existing receptors as a result of the proposed CHP and changes to traffic flows will be assigned

[13] Greater London Authority, 2014. The Control of Dust and Emissions during Construction and Demolition, Supplementary Planning Guidance.
[14] Model Version: 4.0.1.0, Interface Version: 4.0.0 (03/11/2015)
[15] http://laqm.defra.gov.uk/documents/EFT2016_v7.0.xlsb.zip

impact descriptors based on the most recent Environmental Protection UK and the Institute of Air Quality Management (IAQM) air quality planning guidance[16].

The air quality neutral assessment will follow the methodology outlined in the GLA Sustainable Design and Construction Supplementary Planning Guidance (SPG)[17] and the Air Quality Neutral Planning Support Update[18]. Within these documents, benchmarks have been provided in relation to building emissions, together with a methodology for calculating the building related emissions for a particular development. The building related emissions will then be compared to the Building Emissions Benchmarks (BEBs) to determine whether the benchmarks are being exceeded.

6.8 Noise and Vibration

A noise and vibration technical assessment will be presented in ES Volume 2. This chapter will assess the effects of the ambient noise and vibration on the proposed development from all sources. The assessment will give consideration to the noise and vibration associated with the demolition and construction stage and the completed development stage.

6.8.1 Site Information and Potential Impacts

The application site is located in an existing industrial area that is currently occupied in part by a Morrisons Supermarket and part by a Morrisons Petrol Filling Station, and sits in between multiple active train lines serving London stations. Additional noise sources consist of road traffic along Chalk Farm Road; however, noise levels may be masked by the number of train services that actively run on the railway lines throughout the daytime period.

In relation to vibration, London Underground services (Northern line), run below ground level and run directly below the northern section of the application site.

The proposed development has the potential to create sources of ambient noise and vibration during the course of the demolition and construction activities and to a lesser extent upon completion and operation of the proposed development. With regard to the latter, building servicing, the operation of building plant and the operation of any potential retail and office uses would have the potential to generate noise.

Potential significant noise and vibration impacts and likely effects can be summarised as follows:

- Demolition and construction plant noise and/or vibration effects to buildings and building occupants within the study area;
- Demolition and construction traffic noise and vibration effects to existing and future residents within the study area;
- Ambient noise effects on future residents of the proposed development;
- Noise effects on local residents as a result of traffic generated by the proposed development;
- Vibration effects upon the proposed development from existing sources; and
- Effects of building services plant associated with the operation of the proposed development upon both proposed and existing noise sensitive receptors and the routine control of noise from such plant on existing and future residents in the area.

6.8.2 Approach and Methodology

The following assessment methodology was agreed by email with Maya Rhodes from the Environmental Health Department at LBC on 28th September 2016. Noise and vibration surveys were undertaken in the locations identified in Figure 6.1.

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16 EPUK & IAQM. May 2015. Land-Use Planning & Development Control: Planning for Air Quality. Guidance from Environmental Protection UK and the Institute of Air Quality Management for the consideration of air quality within the land-use planning and development control processes.

17 Greater London Authority, 2014. Sustainable Design and Construction Supplementary Planning Guidance.

18 Air Quality Neutral Planning Support Update: GLA 80371, April 2014

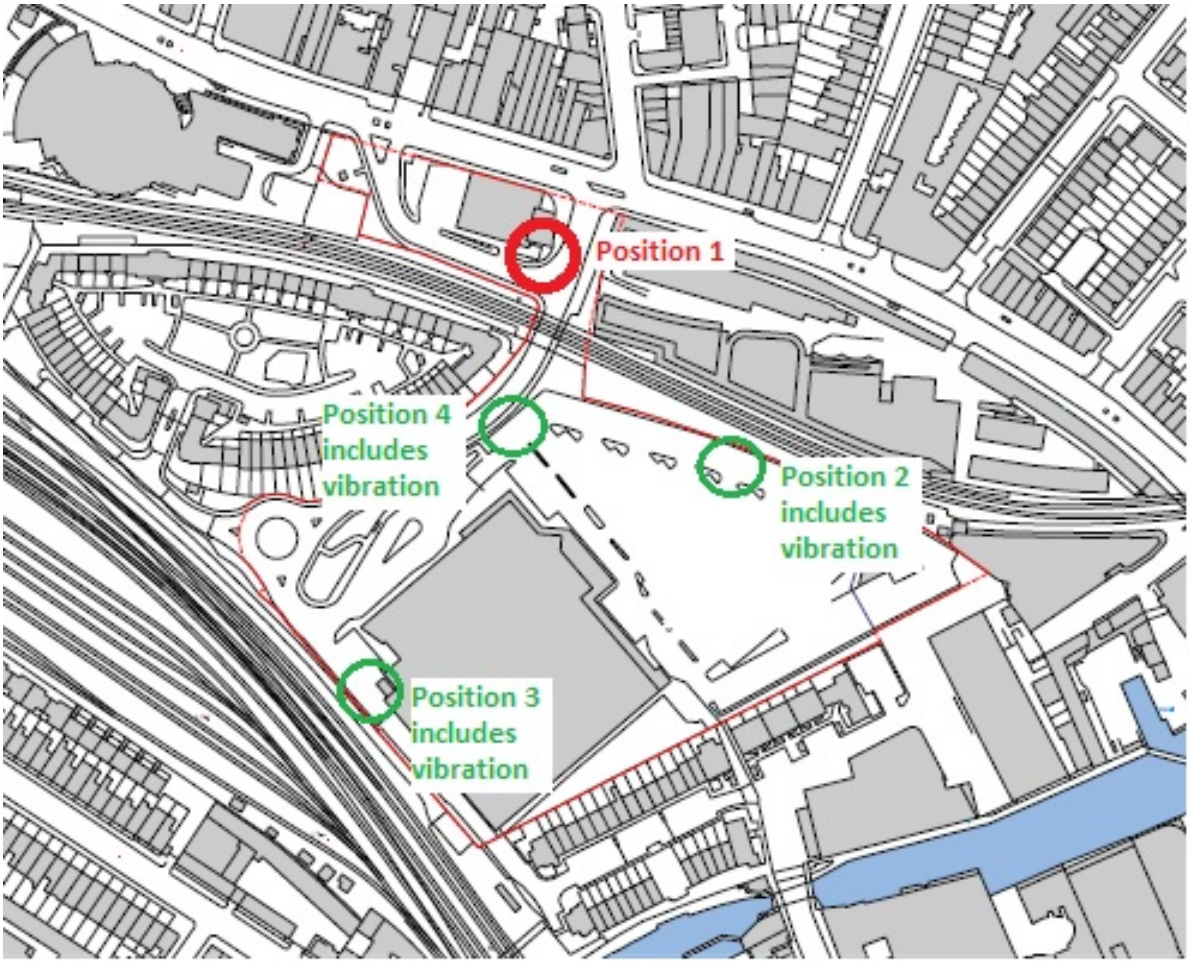

Figure 6.1: Noise and Vibration Monitoring Locations

Baseline

During the noise survey, observations and measurements were undertaken from 6 to 11 July 2016, in accordance with British Standard (BS) 7445-1:2003 to give an indication of the noise climate across the application site. Background noise levels were noted to generally be dominated by transportation noise sources with train passes noted as the most significant. Although railway noise is the dominant noise source affecting the application site's noise climate, significant noise contributions are experienced from road traffic movements around the application site.

The surveys included fully observed and 24 hour unmanned surveys of the railway, and surrounding roads. Measurements, traffic count data, aircraft noise contours and railway timetables will be used along with topographical information for the application site within noise mapping software (CadnaA), to build a model of the existing noise climate across the application site and surroundings.

Demolition and Construction Stage

The assessment of demolition and construction noise and vibration on surrounding sensitive receptors will be considered in accordance with the following standards, guidance and methodologies:

- BS 5228-2 'Noise and Vibration Control on Construction and Open Sites';
- BS7385 'Evaluation and Measurement for Vibration in Buildings'; and
- BS6472:1 'Guide to evaluation of human exposure to vibration in buildings Part 1:Vibration sources other than blasting;

Completed Development Stage

The assessment of noise and vibration on and of the proposed development will be considered in accordance with the following standards, guidance and methodologies:

- Calculation of Railway Noise (CRN) compliant assessment of the railway lines. Using measured surveys of individual train passes in conjunction with timetable information;
- Vibration assessment in accordance with BS 6472-1:2008;
- Calculation of Road Traffic Noise (CRTN) compliant assessments of the impact of background road traffic noise and increased road traffic noise as a result of the development;
- Construction noise and vibration assessment in accordance with BS 5228-1:2009;
- Noise break-in assessment, external amenity space (balconies & gardens) assessment, in accordance with the guidance provided within ISO BS8233:2014 and WHO 'Guidance for Community Noise':1999.

The assessment will consider the four scenarios as identified within the transport and accessibility scope above. These are as follows:

- Existing Baseline;
- Future Baseline;
- Future Baseline + proposed development; and
- Future Baseline + proposed development + cumulative development.

Cumulative effects will be reported separately in the cumulative assessment chapter of the ES Volume 2.

For each of the identified impacts, an assessment of the scale of the potential change will be given based on the proportional increase or decrease in the given factor compared to the baseline. This increase will be considered in terms of cars, heavy goods vehicles and pedestrian movements.

In order to determine the significance of likely effects, the magnitude of the impact and sensitivity of the receiving environment will be considered together. On that basis, the significance of identified effects will be determined. Mitigation measures will be proposed as necessary and the significance of any residual effects will be identified.

Consideration will also be given to cumulative impacts and effects and reported separately in the cumulative assessment chapter of ES Volume 2

6.9 Daylight, Sunlight, Overshadowing and Solar Glare

A daylight, sunlight and overshadowing technical assessment will be presented in ES Volume 2. The assessment will consider the potential impact of the proposed development on daylight, sunlight and overshadowing at existing, neighbouring residential properties, proposed residential units within the proposed development itself, as well as existing and proposed open space and public amenity areas.

6.9.1 Site Information and Potential Impacts

Daylight and Sunlight

In terms of the daylight and sunlight analysis the scope will focus on the adjoining residential properties where the occupants have a reasonable expectation of daylight and sunlight as per the BRE Guidelines.

Residential receptors within Juniper Crescent and Gilbey's Yard have been identified as sensitive in relation to daylight and sunlight and will therefore be included within the assessments.

Overshadowing

Areas of amenity space are considered most sensitive to overshadowing effects resulting from the proposed development. However, due to the southerly rotation of the sun, only those areas located to the north of the proposed development require consideration in relation to overshadowing.

The play area/gardens on Juniper Crescent to the north of the application site have been identified as sensitive receptors in relation to the proposed development.

Solar Glare

The BRE guidelines provide that '*glare or solar dazzle can occur when sunlight is reflected from a façade or area of metal cladding*'. This is considered an issue in relation to road users and train drivers whereby instances of reflection can obscure the view of traffic/rail signals and thus have the potential to cause an accident.

At this stage, the details of the façade treatment are not yet finalised however, considering the number of train tracks passing in the close proximity of the development, it is likely that a train glare assessment will be required. The common practice for this type of study would be investigating the location and orientation of mounted train signals to identify sensitive viewpoints to be assessed along each track.

In addition, road and pedestrian junctions are also particularly sensitive in relation to solar glare, as instances of reflection may obscure the view of traffic signals or temporarily blind drivers and thus result in accidents. However, in relation to the proposed development, the surrounding road junctions are not considered sensitive and therefore are not likely to be assessed.

6.9.2 Approach and Methodology

The assessments will be carried out in accordance with the BRE Guidelines 2011 and the British Standard (2008) 8206 part 2. The analysis will be calculated from a 3D computer model based upon specialist software.

Demolition and Construction Stage

Owing to the evolving and changing nature of demolition and construction activities, the assessment of potential effects during demolition and construction of the proposed development on daylight, sunlight and overshadowing to surrounding properties will not be modelled. Instead, a qualitative assessment will be undertaken using professional judgement, with the worst case scenario represented by the completed development.

During Phase 1, a temporary Morrisons store will be located on the PFS parcel. However, due to the size, nature and use of the temporary Morrisons store, as well as the distance from the sensitive receptors identified, the temporary store will not be assessed for daylight, sunlight, overshadowing or solar glare until the completed development stage.

Completed Development Stage

Daylight and Sunlight

In line with the BRE Guidelines, both the Vertical Sky Component (VSC) and No Sky Line (NSL) assessments will be undertaken for the Baseline, Proposed Development and Cumulative Scenarios for all of the sensitive receptors identified above.

The sunlight amenity to the surrounding receptors will be considered by reference to the Annual Probable Sunlight Hours method of assessment. Due to the southerly rotation of the sun, this assessment will consider those windows which face the application site and are located within 90 degrees of due south. The significance of effects will be determined using professional judgement and by reference to Appendix I of the BRE Guidelines. Appendix I provides that there is no set rule of thumb in relation to assigning effect significance; however, many factors should be

considered including the physical and planning context of the proposed development. GIA have undertaken research into typical levels of daylight with the LBC in order to draw comparison with those following the implementation of the proposed development. This research may be drawn upon when determining effect significance and the evidence appended to the ES Chapter.

Overshadowing

The overshadowing analysis on surrounding areas of amenity space will be undertaken by reference to the Transient Overshadowing (TOS) methods of assessment.

For the TOS assessment, the path of shadow will be mapped for each of the Scenarios on the following dates as suggested by the BRE:

- 21st March (Spring Equinox)
- 21st June (Summer Solstice)
- 21st December (Winter Solstice)

The BRE Guidelines do not provide any specific criteria for TOS other than to establish the time of year and day when shadow will be cast on the surrounding areas of amenity space. Professional judgement will be used to establish whether a potential effect would be either beneficial or adverse and the degree of the significance of the effect.

Solar Glare

The assessment of solar glare identifies the time of the day and year that solar reflections will be visible from the assessed viewpoints, as well as their relationship to a driver's line of sight. The assessment does not however, measure the intensity of the reflection but merely the occurrence and duration.

The significance of effects will be determined using professional judgement taking into consideration the duration of solar reflections, location of these in relation to a driver's line of sight and the probability of these occurring.

Consideration will also be given to cumulative impacts and effects and reported separately in the cumulative assessment chapter of ES Volume 2.

6.10 Wind Microclimate

A wind microclimate technical assessment will be presented in ES Volume 2 and will include consideration on the pedestrian level wind microclimate against the proposed development's intended use.

6.10.1 Site Information and Potential Impacts

Given the size and geometry of the proposed development, in addition to the application site's location in relation to surrounding buildings and nearby areas of public realm, it is important to avoid undesirable wind speeds being generated at ground level. Undesirable wind speeds could make spaces within and around the proposed development uncomfortable or unsafe for pedestrian use. The wind microclimate assessment will therefore quantify the potential changes to the local wind environment (both on-site and within the immediately surrounding area) in terms of sensitive pedestrian areas such as entrances, thoroughfares amenity and public open space and quantify these in relation to their 'usability' for a range of pedestrian activities defined by the well-known and established Lawson Comfort Criteria.

6.10.2 Approach and Methodology

Demolition and Construction Stage

As the proposed development is constructed, the wind conditions on-site will alter on a regular basis. Additionally, the worst case scenario in terms of wind conditions is assumed to be when the proposed development is completed. Therefore the demolition and construction stage will

not considered specifically, rather expected wind conditions will be commented on using professional judgement.

Completed Development Stage

It is proposed a wind tunnel testing exercise is undertaken, to which scale models (likely 1:300 or 1:400) will be built for the following scenarios:

- Existing Baseline - The buildings currently occupying the application site and the existing surrounding buildings/area;
- Existing Baseline + proposed development - The Phase 3 completed proposed development within the context of the existing surrounding buildings/area;
- Existing Baseline + proposed development - The Phase 3 completed proposed development in the presence of cumulative schemes/future surrounding buildings.

Mean and peak wind speeds will be measured around the base of the buildings forming the proposed development and other surrounding buildings, paths, roads, and areas of open spaces, for all wind directions. A representative number of balconies will also be instrumented at varying heights around the proposed development. These results will be combined with long-term meteorological climate data for the London area.

The results of this analysis will then be benchmarked against the well-established Lawson Comfort Criteria to determine the suitability of the different areas both within and surrounding the application site for sitting, standing, entering a building, leisure, walking, business walking or crossing the road. The suitability of the conditions both within the application site and surrounding the application site will be presented and discussed within the ES. Should mitigation measures be required to ensure that wind conditions are suitable for their intended use, the areas requiring mitigation will be identified and mitigation measures will be proposed. The potential for strong winds to occur will also be quantified.

Through the determination of the suitability for use of the areas surrounding the application site, a direct comparison can then be made with the baseline / existing off-site conditions where applicable, and the effect to these surrounding areas assessed, with the significance of effects identified. However, it should be noted that the focus of discussions will be comparison of the measured conditions to the desired use of the application site. The results of these assessments will be presented within the ES Chapter and accompanying Technical Appendix.

Where applicable, accessible roof terraces will be tested within the wind tunnel to determine the suitability of these areas for future residents of the proposed development. Although the assessment of these spaces and measured balcony locations will be completed for all seasons, the focus will be on the wind microclimate during the summer when these areas are more likely to be frequently used.

The focus of ground level locations such as thoroughfares and entrances would be for the windiest season, as these locations are expected to be usable at all times throughout the year.

Consideration will also be given to cumulative impacts and effects and reported separately in the cumulative assessment chapter of ES Volume 2 in relation to configuration 3 as above.

6.11 Cumulative Effects

The EIA Regulations require that, in assessing the effects of a particular development proposal, consideration is also given to the cumulative effects which might arise from the proposal in conjunction with other development proposals in the vicinity. The following two types of Cumulative Effects will be considered within ES Volume 2:

- Intra-Project effects of different types of impact from the proposed development on particular receptors at the application site. Potential impact interactions include the combined effects of

noise, dust and visual impacts during from demolition and construction of the proposed development on a particular sensitive receptor; and

- Inter-Project effects which are combined effects generated from the proposal with other planned developments. These other developments may generate their own individually insignificant effects but when considered together could amount to a significant cumulative effect, for example, combined townscape and visual impacts from two or more (proposed) developments.

Cumulative impacts will typically be assessed using professional judgment and this approach is outlined below. It is a relatively straightforward process to identify combined effects, or 'impact interactions'; however, the assessment of other planned developments in combination with the proposed development is more complex.

6.11.1 Intra-Project Impact Interactions

Impact Interactions from the proposed development itself on particular receptors at the application site, will be considered during the demolition and construction works and also once the proposed development is completed. It is possible however, that depending on the predicted individual 'completed developments' impacts, only the demolition and construction work impact interactions will actually be considered as often they generate the greatest likelihood of impact interactions occurring and hence significant effects. Indeed, demolition and construction impacts are usually more adverse (albeit on a temporary basis) than impacts created from a completed development.

Dependent on the relevant sensitive receptors, the assessment will focus either on key individual receptors or on groups considered to be most sensitive to potential impact interactions. The criteria for identifying those receptors which are considered to be potentially sensitive would include existing land uses, proximity to the demolition and construction works and the application site, and likely duration of exposure to impacts. It should be noted that only significant residual effects will be considered within this assessment. The results will be presented within the ES in a discrete Cumulative Assessment chapter in a matrix table.

With regards the potential for cumulative effects to occur, it is anticipated that standard mitigation measures as detailed in a site-specific CEMP (such as dust suppression measures, use of quiet plant, restrictions on working hours) can be applied to prevent temporary unacceptable effects from 'impact interactions' occurring on-site.

6.11.2 Inter-Project Cumulative Interactions

Impact interactions arising from the proposed development in combination with other development schemes will be considered during the demolition and construction works and also once the proposed development is complete.

To ensure that Inter-Project (in-combination) cumulative impacts and effects are assessed as comprehensively and realistically as possible, the EIA would only consider other 'committed schemes'. These committed schemes are:

- consented and subject to a high degree of certainty of being delivered (a resolution to grant planning consent as a minimum, but ideally with a signed legal agreements) or at early stage of construction;
- located within 1 km of the redline boundary of the application site; spatially linked to the application site by means of the local road network; or visible in views to and from the application site; and
- 10,000 m^2 GEA in floor area or would give rise to >150 residential units.

Where a committed scheme benefits from multiple consents, the worst case scheme would be assessed. Where the committed development is subject to a new application that has not yet

been determined, qualitative consideration would be given to the implications of the new application if at an advanced stage of planning determination.

For the proposed development, the following preliminary list of committed schemes have been identified for consideration, which are shown in the Table 6.1 and Figure 6.2:

Table 6.2: Cumulative Development Schemes

No.	Address	Reference	Description	Storey Heights	Status
1	Land At Hawley Wharf Land Bounded by Chalk Farm Road, Castlehaven Road, Hawley Road, Kentish Town Road and Regents Canal, NW1	2015/4562/P (2016/3940/P and 2012/4628/P)	S73 application to vary condition 65 (development in accordance with approved plans) granted under reference 2012/4628/P dated 23/01/13 for 'Redevelopment of site to create a mixed use development comprising 8 new buildings between 3 and 9 storeys in height to provide, employment, housing, retail market, cinema, produce market, including change of use of 1 Hawley Road to educational, together with associated engineering works to create basements, plant and ancillary works, highways, public realm improvements, car and cycle parking and landscaping, tree removals, and associated works, following the demolition of all buildings across the site including single storey shopfront extensions at 1-6 Chalk Farm Road (excluding 1 Hawley Road and remaining structures at 1-6 Chalk Farm Road)' - namely to change material on elevation of market building from timber to terracotta	3-9	Approved, under construction
2	Camden Lock Market Site, Chalk Farm Road, NW1 8NH	2015/4774/P	Demolition of existing timber Pavilion building, Middle Yard buildings and canopy structures and internal floors in East Yard. Construction of new Middle Yard building comprising basement and part three, part five storeys; single storey Pavilion building; new third storey on north-east of market hall building, bridge over the canal basin; deck area over Dead Dog Basin; and double pitched roof structure over East Yard. Change of use of existing East Vaults for flexible market uses (Classes A) and exhibition/events use (Classes D1 and D2); use of Middle Yard basement as exhibition/events venue (Classes D1 and D2); and	Up to 5	Approved July 2016

Table 6.2: Cumulative Development Schemes					
No.	**Address**	**Reference**	**Description**	**Storey Heights**	**Status**
			use of the rest of the site for market uses (Classes A and B1). Ancillary works and alterations to existing structures and surfaces and other public realm improvements		
3	100,100a and 100b Chalk Farm Road, NW1 8EH	2013/5403/P	Redevelopment of site to create a mixed-use development comprising 57 market flats (13x1beds, 28x2beds and 16x3beds), 6 affordable flats (3x3 bed social rented, 3x1 bed intermediate), new office, retail and restaurant units with associated works to highways and landscaping; following demolition of existing buildings and car park	Up to 8	Approved March 2015
4	44-44a Gloucester Avenue, NW1 8JD	2016/2201/P (2016/1564/P 2015/1243/P)	Variation to the wording of Condition 19 (temporary/permanent works, method statement and risk assessment) of planning permission 2015/1243/P (redevelopment of site to create 40 residential units and employment floor area (Class B1a), car parking and landscaping within the courtyard) dated 30/11/2015 to allow part discharge and for development to commence	Up to 6	Approved August 2016
5	5-17 Haverstock Hill, NW3 2BP	2016/3975/P	Demolition of existing building and erection of a part-six, part-seven storey development comprising 77 residential units (8 x studio, 18 x 1-Bed, 32 x 2-Bed and 19 x 3-Bed units) (Use Class C3) and retail (Use Class A1-A5) use at ground floor with associated cycle parking, amenity space, refuse and recycling store and associated works.	6-7	Awaiting determinatio n

Furthermore, approximately 70 planning applications registered since 2008 have been identified at the Stables Market, comprising *inter alia* small-scale alterations to existing buildings, instillation of signage and servicing. It is proposed that these applications are not considered as part of the cumulative assessment.

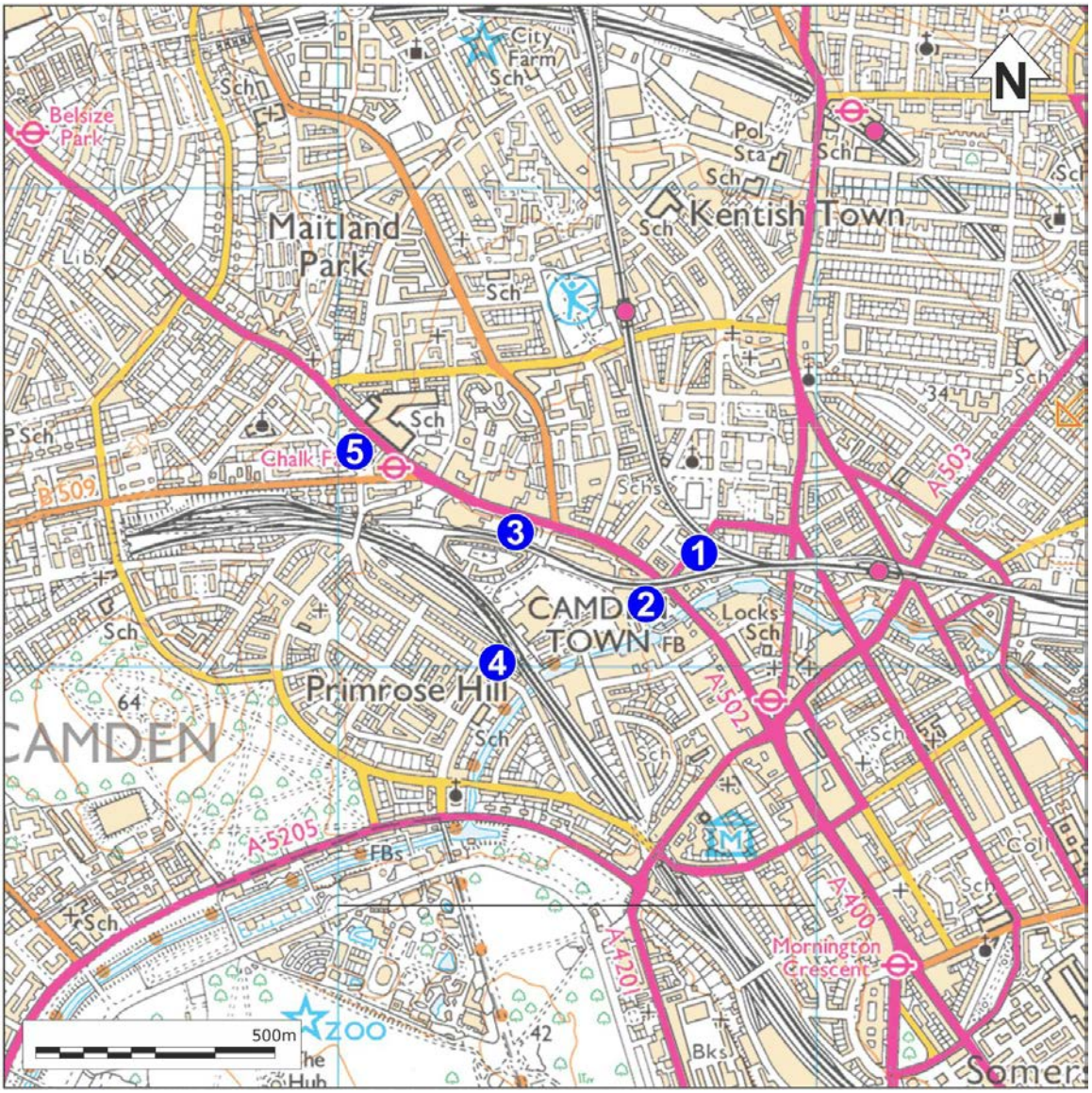

Figure 6.2: Committed Scheme Location Plan

Information on the schemes would be drawn from the LBC's planning application register at the time of writing. Where detailed information on schemes are not available to enable quantitative assessment, qualitative assessments would be undertaken.

Cumulative effects will be addressed in a discrete Cumulative Assessment chapter in ES Volume 2 and where appropriate, in individual technical issue chapters and volumes.

7. NON-SIGNIFICANT ISSUES

During the EIA Scoping Process, consideration has been given to ensuring that the EIA is proportionate and therefore only focuses on the likely significant effects of the proposed development. Accordingly, the Scoping Process has identified a number of potential environmental issues that are unlikely to generate significant effects on the environment and therefore, are proposed to be scoped out of the ES. These issues are discussed in this section.

7.1 Archaeology

As noted In Section 4, the application site partially contains the Canalside Industry Archaeological Priority Area within the eastern corner. This is an Archaeological Priority Area due to its 19th and 20th century industrial heritage above, as well as below ground. Archaeological deposits pre-dating the 19th century are thought unlikely to be present at the application site due to the extent of the past post-depositional impacts (impacts on archaeological deposits after their deposition, such as modern development and land-use).

Any past agricultural activity is likely to have had a low, but widespread, adverse impact on below ground archaeological deposits. The initial phase of land forming and construction to create the historical Railway Goods Depot and all relating structures above and below ground during the 19th century will have had a widespread adverse impact on earlier horizons due to the earth-moving and excavation of vaults, tunnels and services. Evidence suggests that the application site had been cleared to at least the surface of the underlying clay prior to the railway construction, thus removing any evidence for the pre-19th century landscape or activity which might have been present. Subsequently, the level of the railway had to be raised up to 4.5 m above natural ground level, due to the height of Primrose Hill. This required vast amounts of fill, blue London Clay, which was possibly obtained from the Primrose Hill Tunnel.

The widespread extent of truncation on the application site was revealed during past archaeological investigation and observation of a geotechnical investigation. The subsequent phases of demolition and construction of the current Morrisons Supermarket and Petrol Filling Station will have had a major widespread adverse impact on below ground archaeological deposits. The archaeological importance of the study site is invested entirely in any surviving sub-surface structures relating to the former goods station and associated horse stables and tunnels. An archaeological desk based assessment has been prepared summarising this evidence and is provided within Appendix 3.

The proposed development has the potential to have a purely localised archaeological impacts on heavily truncated or incomplete industrial archaeological remains through the cutting of basements, footings and services. Accordingly, it is considered that the proposed development would not give rise to significant environmental effects in relation to Archaeology.

It is proposed that any further archaeological mitigation measures could follow planning consent secured by condition. Further archaeological mitigation is expected to include evaluation and recording works.

Therefore a formal archaeology impacts assessment is proposed to be scoped out of the EIA.

7.2 Ecology

The application site is comprised of a Morrisons Supermarket and Petrol Filling Station with associated hardstanding, access road, loading bay, parking areas and forecourt. Scattered trees are present throughout the application site, and introduced shrub beds are located within the supermarket car park whilst areas of amenity grassland are present around the peripheries of the application site.

The Regents Canal is located 50 m to the south-east at its nearest point and Regent's Park is located approximately 500 m to the south.

There will be either no impact or a number of minor non-significant impacts relating to the demolition and construction and operational phases of the proposed development. These are summarised below under the headings Designated Sites, Habitats and Protected Species.

Designated Sites

No European statutory sites have been identified within 5 km of the application site although three UK statutory sites are located within 2 km and six non-statutory sites within 1 km of the application site. The application site is not located within 10 km of a statutory site designated for bats. Due to the large distances and lack of connectivity between the designated sites and the application site, as well as the relatively small scale of the proposed works, no impact upon these nature conservation sites is anticipated.

Habitats

The majority of habitats on the application site are not considered to be a notable consideration. With respect to individual scattered trees, these are considered young trees and can easily be replaced if removed. There will be some tree removal and vegetation clearance on the application site which will result in some habitat loss as well as the potential for trees on site to be structurally damaged if any works are carried out in close proximity, or if any materials or equipment are stored near them. Therefore appropriate mitigation measures will be included within a CEMP to be agreed with the LBC in advance of construction.

Protected Species

The majority of protected species are not considered to be a notable consideration as habitats on- site are not suitable to support these species. However, with respect to foraging bats, the trees and shrubs on the application site offer some suitable foraging opportunities for bats, albeit limited in extent.

There is potential for any new lighting at the application site to impact foraging and commuting bats, particularly along the adjacent railway corridors. Therefore, the proposed development would aim to limit the impact of light pollution on bats through the careful use of lighting in critical areas only and at a low level with minimum spillage. Any lighting along the application site boundaries would be kept to a minimum and directed away from the boundary features to ensure there is no increase in light levels. With these measures in place there will be no significant effect.

The trees and shrubs on-site offer suitable nesting opportunities for birds. Furthermore, blackbird, carrion crow and pigeon were recorded on-site during the survey, although no evidence of nesting was identified. Therefore, if any vegetation is to be disturbed or cleared during the bird nesting season then there is potential for impact upon nesting birds. Vegetation clearance during the nesting bird season will be avoided wherever possible otherwise suitable mitigation measures would be put in place and agreed in advance with LBC.

Demolition and construction control measures relating to hedgehogs and badgers would also be implemented as they may pass through the application site. Therefore, any excavations that need to be left overnight would be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape. Any open pipework with an outside diameter of greater than 120 mm would be covered at the end of each work day to prevent animals entering/becoming trapped.

A method statement for the safe removal of buddleia and cotoneaster (invasive species) is also recommended and would be included within a CEMP as necessary. With these measures in place there will be no significant environmental effects.

Although it is considered unlikely that the proposed development would result in any significant adverse ecology effects, a number of assessments have considered the proposed development's indirect or secondary impacts on ecology (and are provided in Appendix 2), namely, the:

- Preliminary Ecological Appraisal;
- Preliminary Roost Assessment; and
- Arboricultural Impact Assessment.

The Applicant would follow all recommendations within these reports and those stated above. With these measures in place, the proposed development is unlikely to give rise to significant adverse environmental effects in relation to Ecology.

Therefore a formal Ecology Assessment is therefore proposed to be scoped out of the ES.

7.3 Water Resources and Flood Risk

The application site currently consists of buildings and hardstanding and is therefore largely impermeable. The application site also falls within Flood Zone 1 and the EA flood maps show the application site is not located in an area at risk of fluvial or tidal flooding.

7.3.1 Site Information and Potential Impacts

The nearest groundwater source protection zone is located approximately 1 km to the west at Primrose Hill Park. The nearest superficial deposits aquifer (permeable unconsolidated (loose) deposits e.g. sands and gravels) is located approximately 2 km south-east of the proposed development. Therefore the application site is not located in an area sensitive to groundwater concerns.

The application site is more than 3.5 km from the nearest main watercourse (River Thames) and the existing housing immediately south of the development at Gilbey's Yard acts as a buffer between the application site and the Regents Canal. Therefore effects from the application site onto the above watercourses are considered to be negligible given there is no hydrological connectivity.

The Fleet and Tyburn Rivers have historically been culverted and are now managed by Thames Water. Both Rivers are distant from the application site and pose no flood risk to the proposed development.

Construction of the proposed development would not increase any surface water runoff flows. However to comply with the London Plan, a minimum 50% reduction of the existing surface water peak flow rate will be proposed within the FRA. Any increase in the foul flow discharged to the Thames Water combined sewer network will be compensated by a greater reduction in the peak rate of surface water discharged to the same sewers. Accordingly the impact on the combined sewer network would be negligible.

There is likely to be an increase in demand from the existing potable water supply due to the increase in residents and commercial and retail units. However in respect of water consumption, the proposed development would adopt standard water saving devices and features as part of its design in order to reduce the demand on site.

It should be noted that it is ultimately the responsibility of Thames Water to ensure the supply of adequate water for domestic purposes in accordance with the Water Industry Act 2003. In addition, Thames Water updates their water main network within a five yearly development plan in line with the local authority's Local Development Framework. Therefore any effects of increased water demand from the proposed development will be managed accordingly by Thames Water and therefore need not be considered further within the ES.

Accordingly, no significant adverse environmental effects are likely to arise in relation to Water Resources and Flood Risk. A formal Water Resources assessment is therefore proposed to be scoped out of the ES.

However, in accordance with the National Planning Policy Framework (NPPF), a FRA is required to accompany planning applications for developments within Flood Zone 3 and Flood Zone 2, and also where a site exceeds 1 ha within Flood Zone 1. The proposed development is located in Flood Zone 1 but larger than 1 ha. Therefore a FRA is required to demonstrate that all potential flood risks to the proposed development have been considered and to describe risk management measures that will provide an appropriate level of protection throughout the lifetime of the proposed development including for the effects of climate change.

The report will include the following:

- Review of available Strategic Flood Risk Assessments including locating the latest flood maps from the EA and the Lead Local Flood Authority (LLFA);
- Investigation of contemporary and historical flood risk information;
- Review of Topographical Data;
- Identification of sources and probability of flood risk;
- Review of finished floor levels, surface water run-off generated and storage/attenuation volume required and;
- An investigation of and proposals into the use of sustainable drainage systems (SuDS) to enhance biodiversity in this area and review of appropriate SuDS.

7.4 Ground Conditions

Potentially contaminative historical uses at the application site include (prior to the supermarket and petrol filling station): Camden Goods Yard (railway related), smithy and trailer park. Potential historic contaminative land uses in the wider area have included: railway land, a potato market and wharves.

The industrial and commercial history of the Morrisons Supermarket and Petrol Filling Station may have caused the ground to have been contaminated. The current petrol filling station is also considered a potential contamination source due to the potential for leaks or spills of fuels to have occurred during its tenure.

The local geological conditions of the London Clay would be expected to restrict the movement of any contamination and therefore this reduces potential impacts to sensitive receptors such as groundwater or third party land.

In respect of the MS parcel, a Phase II site investigation was undertaken in 2010. This identified elevated concentrations of PAH, E.coli and asbestos within the Made Ground and elevated concentrations of TPH were recorded within the groundwater. However, the contamination found was considered to be a low risk. This information would help to inform the design or the proposed development.

Another preliminary Phase II site investigation on the MS parcel was undertaken in 2016 and is presented in Appendix 3. No significant soil contamination was encountered during the 2016 preliminary ground investigation although asbestos containing material was identified, as well as marginal or isolated occurrences of contamination impacts to groundwater. The report concludes that best practice construction mitigation measures would manage these contaminants along with ground gas protection measures in new buildings due to an elevated concentration of carbon dioxide detected in the soil. A CEMP and a remediation strategy (if required) will be prepared and agreed with the LBC to determine the measures and practices needed to mitigate potential risks.

The PFS parcel contains six underground fuel tanks and eight fuel pumps. No faults or leaks associated with the tanks or pipelines, have been reported.

Receptors relating to groundwater and surface water are not sensitive in the locality of the application site owing to the low permeability of the London Clay formation.

Potential impacts could include ground contamination from historic land uses or the current petrol filling station although the supermarket is not considered a significant contamination risk due to the limited findings from the initial Phase II site investigations.

Contaminants in the soil could include fuel, and typical industrial contaminants such as heavy metals, polycyclic aromatic hydrocarbons and asbestos. Perched groundwater may be present above the London Clay (in any Made Ground) or within more permeable horizons within the clay. This too could be impacted by contaminants similar to the soil.

The design of the proposed development will be such that the likelihood of future site users being exposed to contaminated ground is low. This is because:

- gas protection measures would be integrated within the building design;
- the ground will be capped with buildings and hardstanding;
- areas of landscaping would be managed by providing a clean layer of soil, creating a barrier to the underlying ground; and
- the petrol filling station will be decommissioned in accordance with best practice and new tanks will be in accordance with regulatory requirements.

The effects of any contamination on the proposed development would be assessed through standard investigations and risk assessment practices (i.e. a proposed development specific environmental site investigation, and a human health and controlled water risk assessment) as part of the detailed design process. Based on current information wholesale remediation is unlikely to be required; however, as is standard, if remediation is needed a remediation strategy would be prepared and agreed with the LBC and the EA.

The entire process of investigation, risk assessment and remediation would be agreed with the LBC in advance of demolition and construction.

On this basis, it is considered that the proposed development is unlikely to give rise to significant adverse environmental effects in relation to Ground Conditions. A formal Ground Conditions Assessment is therefore proposed to be scoped out of the ES.

7.5 Light Pollution

Light pollution is typically considered an issue where light is emitted from artificial sources, such as highly glazed commercial offices, into residential accommodation where this would cause a nuisance to occupants.

Light levels drop with distance from the source and from our experience of glazed offices beyond a distance of 20 m the light pollution effects become negligible and therefore need not be considered. None of the residential properties are located within proximity to the proposed commercial space and therefore it is unlikely the proposed development will result in adverse effects. In addition, any future external lighting would be designed in accordance with ILP[19] recommendations. As such, it was not considered necessary to include a quantitative assessment of light pollution in regards to the Development Scenarios and it is not considered further in this Chapter.

Accordingly, it is considered that the proposed development would not give rise to significant environmental effects in relation to Light Spillage. A formal Light Spill Assessment is therefore proposed to be scoped out of the ES.

[19] Institute of Lighting Professionals (ILP)

7.6 Waste

The application site is currently occupied by an operational supermarket and associated petrol filling station. Accordingly there are currently waste streams arising from the application site.

During a typical demolition and construction stage, the greatest potential for waste arisings would be from the demolition of existing buildings, ground works and the excavation of basement areas.

Waste management would be undertaken in accordance with a detailed Construction Site Waste Management Plan (SWMP) to be incorporated within the CEMP. This will ensure the sustainable management of construction waste, minimisation of waste arisings and maximisation of waste re-use and recycling.

The Applicant's contractors would be encouraged to maximise opportunities for waste recycling and re-use both on and off-site where practically possible. In the event that residual materials require off-site disposal, the Applicant's contractors would ensure the appropriate categorisation of waste in accordance with current regulatory requirements.

Once completed operational waste would primarily comprise household, supermarket and commercial waste streams, with smaller quantities of retail and leisure waste streams. All waste facilities within the proposed development would be designed to accord with LBC Standards and would provide for waste recycling facilities. In addition, the proposed development's operational wastes would be managed by on-site facilities management teams, in accordance with operational waste management plans for the key occupants of the proposed development.

Awareness would also be created amongst new residents by means of a Waste Management Pack to provide information on waste separation, recycling, local waste facilities, etc.

The above measures would be outlined within a Waste and Servicing Strategy that will accompany the Application. The aim of this document will be to consider the key issues associated with sustainable management of waste at the proposed development (throughout the stages of construction and subsequent operation) with particular reference to:

- identifying opportunities to maximise the reduction, reuse, recycling and recovery of waste and thereby minimising disposal, in line with national and local policy;
- identifying opportunities for waste segregation and transfer of waste to appropriate processing facilities; and
- producing a flexible waste strategy that can adapt to future recycling markets, new directives and legislation.

The implementation of this Strategy during both the demolition and construction stage and the completed development (operational) stage of the proposed development would be secured by means of an appropriately worded planning condition. Based on the proposed development's land uses and waste streams, plus the proactive commitment to waste reduction, it is considered that waste generation would not be a significant issue in itself, requiring assessment within the EIA. It is not anticipated that there would be any environmental effects from the future waste generation streams by the proposed land uses, save for the environmental effects of the collection of waste and secondary effects of emissions and traffic noise associated with waste vehicles. The movements of waste vehicles would be factored into the proposed development's trip generation figures and assessed in Transport and Accessibility, Air Quality and Noise and Vibration chapters of the ES.

Accordingly, it is considered that the proposed development would not give rise to significant environmental effects in relation to waste. A formal Waste Assessment is therefore proposed to be scoped out of the ES.

7.7 Telecommunication Interference

New, tall buildings and structures have the potential to impact on radio, television and other broadcast services as a result of shadowing and reflection effects caused. Table 7.1 provides an appraisal of the services that could potentially be affected by the proposed development.

Table 7.1: Telecommunication and Broadcast Services Appraisal

Service	Key Outcomes
Analogue Terrestrial Television	Due to the completed Digital Television Switchover, it is now not possible for the proposed development to impact analogue terrestrial television reception, as analogue television transmissions have been switched off throughout the London region.
Digital Terrestrial Television (DTT)	DTT is more commonly known as 'Freeview'. The area is served by DTT services from the Crystal Palace transmitter (NGR TQ 33940 71220) to the south east of the application site. In addition digital terrestrial TV services are also transmitted from Kensal Town repeater station located to the north-west of the application site (NGR TQ 245820). In relation to Crystal Palace, the signal shadows from the proposed development would be created to the north-west. In relation to Kensal Town, the signal shadows from the proposed development would be created to the south-east. Not all of the buildings in the shadowed area would currently be using digital terrestrial TV with large commercial establishments and new residential accommodation less likely to depend on terrestrial TV reception and more likely to have cable or satellite TV services. Furthermore not all households in the area would depend on digital terrestrial TV as their primary source of TV (as is demonstrated by OFCOM figures). Increase uptake of cable, satellite and ADSL TV services are likely to further reduce the number of households affected by shadows to digital terrestrial TV caused by the proposed development once it is completed. The Applicant would undertake pre-construction TV reception surveys ('Before Survey') and post-construction TV reception surveys ('After Survey') to quantifying the area of potential impact. To overcome adverse effects, where identified, standard mitigation measures would be employed, including: • improving the receiving antenna; • installing a mast-head amplifier; • relocating or redirecting the receiving antenna; or • making use of relay transmitters.
Digital Satellite Television	Digital satellite television services are provided by geo-stationary earth orbiting satellites positioned above the equator. For the optimum reception of all satellite services, all receiving dishes must be positioned on the highest part of the rooftop as possible to ensure views to the sky's south-east horizon are free from other local skyline building clutter. Should there be any roof mounted satellite signal receive dishes on the adjacent locations where line-of-sight views to the serving satellites may be obscured by the proposed development, relocating dishes to areas on the roof top where views to those satellites remain clear, would ensure the good reception of satellite television signals.
Cable Television	A number of 'TV over cable' operators exist in London. TV services are provided to a property via cables and decoded using a set top box or an integrated television set. Virgin Media, Sky and BT all provide such services. The availability of cable TV depends on provider's cable

Table 7.1: Telecommunication and Broadcast Services Appraisal	
Service	**Key Outcomes**
	infrastructure. London has comprehensive coverage from most providers. As cabled TV services operate via wired broadband, fibre and ADSL, interference effects cannot occur due to the nature of content delivery (through a cable, underground) and there is no possibility of effects from the proposed development on these services.
VHF (FM) Radio	The reception of VHF (FM) broadcast radio services are unlikely to be affected by the proposed development due to the nature of the radio broadcast network, the methods used for the encoding and decoding of signals and the likely current good coverage provided by the local VHF (FM) radio transmitters.
DAB Radio	The reception of DAB radio would not be affected by the proposed development as coverage is currently excellent throughout London and the network is designed to operate well in densely cluttered urban environments.
Mobile Phone Communications	The area will be served well by 2G, 3G and 4G mobile phone networks. The proposed development would not have any impact upon the operation of mobile telephones. The cellular nature of a mobile telephone network enables each handset to 'pick' the best cell site to ensure the correct operation of the handset. At this location, mobile telephone coverage will be optimal and robust due to the nature of the commercial requirements in buildings within the wider area.
Fixed Microwave Links and other point-to-point Radio Communications Channels	Radio and microwave links can be adversely affected by obstructions on and near to their transmission path such as construction cranes, buildings and trees. In general, the directional nature of radio links means that interference can be avoided by defining clearance zones beyond which any degradation will be insignificant, or by moving the link to avoid the obstruction. Should any existing links be impacted upon as a result of the proposed development, standard mitigation options are likely to comprise the following: • use of other radio scanner sites; • use of a radio relay site; • construction of a new base station site; • use of private circuits or satellite services; and • redefining the exclusion zones by the use of aerial engineering. The identification of the appropriate measures would be determined by a detailed review of the existing radio communications infrastructure at each base station, confirmation of the data for the services operated by the link's owner from the identified radio sites; and review of the theoretical analysis of the proposed development layout on the existing radio communication systems, to identify the exclusion zone for any affected radio infrastructure. However it is noted that such standard mitigation measures can be readily implemented to ensure the continuing operation of links such that the proposed development is not considered likely to generate any significant residual effects on these services.
New Telecommunication Services within the proposed development	All new telecommunications services into the proposed development would take into account the expected growth in internet traffic and would provide bandwidth for heavy simultaneous use. The 'e-infrastructure' would be designed well and easily upgradeable for a modern building.

Table 7.1: Telecommunication and Broadcast Services Appraisal	
Service	**Key Outcomes**
	Any signal distribution systems would be designed to be future proof and the nature of such networks would ensure that no unwanted or uncontrolled electromagnetic emissions would occur. Any radio transmitters used within the proposed development (for example, Wi-Fi or maintenance needs) would be CE certified, meaning that the products have undergone stringent radio emission testing for use within the UK.

As set out in Table 7.1, potential impacts on telecommunication services may be limited to fixed microwave links and other point-to-point Radio Communications Channels only (should such links be present in the vicinity of the application site). However these can be readily mitigated by means of standard measures as listed in Table 7.1.

Whilst desk based studies can provide an initial indication of the extent of shadows and reflections, pre-construction TV reception surveys ('Before Survey') and post-construction TV reception surveys ('After Survey') are regarded the most appropriate means of quantifying the area of potential impact. These surveys are expected to be secured by means of appropriately worded planning conditions or a S106 obligation.

Accordingly, it is considered that the proposed development would not give rise to significant environmental effects in relation to telecommunication interference. A formal Telecommunication Interference Assessment is therefore proposed to be scoped out of the ES.