Sustainability Statement
The Bird in Hand

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Executive summary

Overview

The proposed project consists of the demolition of parts of the rear of the existing building, the retention of the existing front and side facades and erection of a five-storey building to provide a fully residential (C3) scheme of 10 dwellings (1 replacement house and 9 new apartments) with a total GIA of approximately 1,008m^2. This comprises of 814m^2 of new built space and 194m^2 of refurbished space. Associated refuse and bicycle stores, amenity spaces and landscaping are also included within the proposed development. Moreover, the development will enhance the ecological value of the site through measures such as the introduction of bird and bat boxes where feasible.

This Sustainability Statement will be provided as evidence to the London Borough of Camden to demonstrate the development's holistic approach to sustainable design and construction. It summarises the contribution that the design will make to create a more sustainable development, drawing on information provided by specialist consultants and design reports, and identifying key features intrinsic to achieving low carbon developments.

Key sustainability features within the development will include:

- The development will reduce total carbon emissions by 36.0% and 68.5% over Building Regulations using SAP 2012 and draft SAP 10.0 carbon dioxide emission factors, respectively;
- A water consumption target of 110 litres/person/day through the implementation of water efficiency measures;
- The inclusion of sustainable transport options such as secure cycle storage;
- A sustainable materials procurement policy and an efficient waste strategy on site;
- The implementation of health and wellbeing measures through design and operational procedures, including daylight, optimum indoor air quality and thermal comfort; and
- Protection of ecology on site during construction and biodiversity enhancement measures, such as the introduction of bird and bat boxes where feasible.

Key Sustainability Measures

In summary, the key measures incorporated to meet planning requirements and to achieve a low carbon development address the following key areas of sustainable design and construction:

- Energy and CO_2
- Adaptation to climate change
- Flood risk mitigation and SuDS
- Waste
- Water efficiency
- Transport and connectivity
- Materials
- Health and wellbeing
- Land use and ecology

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Introduction

Sustainability Introduction

The design team has significant experience in delivering schemes that are considered highly sustainable, either through application of formal green building rating systems, such as BREEAM and Home Quality Mark, as well as applying benchmarks from standards such as Passivhaus Design and adopting precedents from industry exemplary sustainable developments.

The scheme will reflect the holistic nature of sustainable development in the London Borough of Camden. The development will provide much needed high-quality residential space and will use local labour to boost employment. Health and wellbeing will be incorporated in the design by maximising daylighting, utilising healthy materials and contributing to the alleviation of fuel poverty in the region. The ecological value of the site will be maintained and protected. The development will enhance the ecological value of the site through measures such as the introduction of bird and bat boxes where feasible.

Description of Development

The proposed development is to be located at 12 West End Lane, NW6 4NX, in the London Borough of Camden. The site currently has an existing building. 12 West End Lane has previously been used as a public house, before closing in 2003 where it has remained unoccupied. The development is semi-detached, with a residential dwelling attached on the east side of the development. The existing north elevation can be seen in Figure 1.

The proposed project consists of the demolition of parts of the rear of the existing building, the retention of the existing front and side facades and erection of a five-storey building to provide a fully residential (C3) scheme of 10 dwellings (1 replacement house and 9 new apartments) with a total GIA of approximately 1,008m^2. This comprises of 814m^2 of new built space and 194m^2 of refurbished space. Associated refuse and bicycle stores, amenity spaces and landscaping are also included within the proposed development. Figure 2 and Figure 3 illustrate the proposed north elevation and the ground floor plan, respectively.

The aspiration for the scheme is to significantly improve the existing site and its immediate environment by providing an efficient and inclusive development, which meets the policy recommendations of the London Borough of Camden.

Figure 1: Existing north elevation of The Bird in Hand.

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Figure 2: Proposed north elevation of The Bird in Hand.

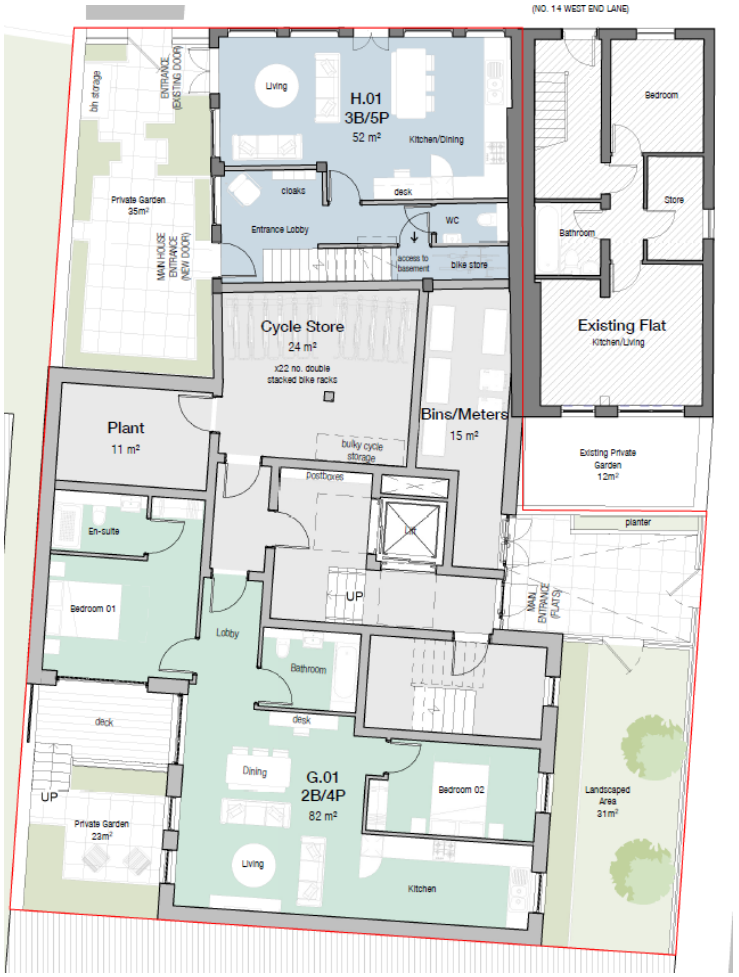

Figure 3: Proposed ground floor plan of The Bird in Hand.

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Policy Context

National Context: The 2008 Climate Change Act

The UK Government is committed to reducing the UK's carbon emissions by 100% over 1990 levels through the Climate Change Act 2008. Achieving truly sustainable design and construction and forwarding the green agenda within the construction industry across the UK is inherent to meeting these emission targets. This development aims to do both of these.

To help monitor carbon reductions and to plot progress being made for future plans and investments in the UK's low-carbon economy, intermediary targets have been established to ensure that the UK remains on course for meeting the 100% reduction by 2050.

Concurrent with reducing CO_2 emissions by 100% by 2050 is the European Climate Change Policy targets. It sets the objective of ensuring 20% of energy consumption is generated from renewable sources by 2020 whilst also reducing Europe's carbon footprint by 20%. Ensuring a fabric first approach with consideration to renewable energy production fits both the climate change act and the European Commission's 2020 targets for reducing greenhouse gas (GHG) emissions.

National Context: National Planning Policy Framework 2021

The National Planning Policy Framework (NPPF) published in 2021 sets out the UK Government's planning policies for England. Planning law requires that applications for planning permission must be determined in accordance with the local development plan unless material considerations indicate otherwise. The National Planning Policy Framework must be taken into account in preparing the development plan and is a material consideration in planning decisions. Planning policies and decisions must also reflect relevant international obligations and statutory requirements.

Regional Context: The London Plan 2021

The London Plan (March 2021) is the overall strategic plan (Spatial development Strategy) for London and replaces the previous (2016) iteration. This document, therefore, plays a key role in the planning process in all the 32 London Boroughs and the City of London.

The London Plan aims to shape the planning process and sets out an integrated economic, environmental, transport and social framework for the 32 London Boroughs, the City of London and the Mayoral Development Corporations (MDCs) over the next 20-25 years (2019-2041), including the following key aspects of the Mayor of London's other strategies:

- Transport;
- Economic Development;
- Housing;
- Culture;
- Social issues (such as children and young people, health inequalities and food); and
- A range of environmental issues (such as climate change, air quality, noise and waste).

Within the London Plan there are a number of key targets for 'major developments', not applicable to this scheme:

- Policy SI 2: Development should be net zero-carbon and should include a detailed energy strategy to demonstrate how the zero-carbon target will be met within the framework of the energy hierarchy; and,
- A minimum on-site reduction of at least 35% over Target Emission Rate identified in Building Regulations 2013 is required.

The London Plan (2021) also sets out the following targets for major developments. This has been followed as guidance for 'best practice':

- Efficient use of natural resources (including water);
- Minimising pollution (including noise, air and urban runoff);
- Minimising the generation of waste and maximising reuse or recycling;
- Avoiding impacts from natural hazards (including flooding);
- Ensuring developments are comfortable and secure for users;
- Securing sustainable procurement of materials, using local supplies where feasible; and
- Promoting and protecting biodiversity and green infrastructure.

Of particular relevance to this report are the following policies required by the Plan:

- Policy D6 - Housing Quality and Standards
- Policy G4 - Open Space
- Policy G5 - Urban Greening
- Policy G6 - Biodiversity and Access to Nature
- Policy SI1 - Improving Air Quality
- Policy SI2 - Minimising Greenhouse Gas Emissions
- Policy SI3 - Energy Infrastructure
- Policy SI4 - Managing Heat Risk
- Policy SI5 - Water Infrastructure
- Policy SI12 - Flood Risk Management
- Policy SI13 - Sustainable Drainage
- Policy T1 - Strategic Approach to Transport
- Policy T3 - Transport Capacity, Connectivity and Safeguarding
- Policy T5 - Cycling
- Policy T6 - Car Parking

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Local Context: The London Borough of Camden's Local Plan 2016 - 2031
The Camden Local Plan, adopted in 2017, sets out the Council's planning policies and replaces the Core Strategy and Development Policies planning documents. It ensures that Camden continues to have robust, effective and up-to-date planning policies that respond to changing circumstances and the borough's unique characteristics.

At a minimum, the following policy requirements will be demonstrated in this Sustainability Statement:

Policy C1: Health and wellbeing
- Developments will require to positively contribute to creating high quality, active, safe and accessible places.
- Proposals for major development schemes will need to include a Health Impact Assessment (HIA).

Policy C5: Safety and security
- Developments will require to demonstrate that design principles that contribute to community safety and security are incorporated.
- All buildings and places are expected to meet the highest practicable standards of accessible and inclusive design so they can be used safely, easily and with dignity by all.

Policy A1: Managing the impact of development
Developments need to ensure that they protect the quality of life of occupiers and neighbours. The following factors will be taken into consideration:
- Sunlight, daylight and overshadowing;
- Artificial lighting levels;
- Transport impacts, including the use of Transport Assessments, Travel Plans and Delivery and Servicing Management Plans; impacts of the construction phase, including the use of Construction Management Plans;
- Noise and vibration level;
- Odour, fumes and dust;
- Microclimate;
- Contaminated land; and
- Impact upon water and wastewater infrastructure.

Policy A3: Biodiversity
- Developments will be assessed against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements.
- Improvements to green corridors must be secured, particularly where a development scheme is adjacent to an existing corridor.
- Demolition and construction phase of development, including the movement of works vehicles, are to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species.
- The loss of trees and vegetation of significant amenity, historic, cultural or ecological value will be resisted, including proposals which may threaten the continued wellbeing of such trees and vegetation.
- Trees and vegetation which are to be retained are required to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and be positively integrated as part of the site layout.
- Replacement trees or vegetation are expected to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development.
- Developments are expected to incorporate additional trees and vegetation, wherever possible

Policy A4: Noise and vibration
Development should have regard to Camden's Noise and Vibration Thresholds (Appendix 3). Planning permission will not be granted for:
- development likely to generate unacceptable noise and vibration impacts; or
- development sensitive to noise in locations which experience high levels of noise, unless appropriate attenuation measures can be provided and will not harm the continued operation of existing uses.

Policy D1: Design
- Developments will need to be of high quality and sustainable in design and construction, incorporating best practice in resource management and climate change mitigation and adaptation.
- Developments should comprise of details and material that are of high quality and complement the local character.

Continued Overleaf

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- Development should be inclusive and accessible for all as well as promotes health.
- Developments should respond to natural features and preserve gardens and other open space.
- High quality landscape design should be incorporated and opportunities for greening must be maximised through planting of trees and other soft landscaping.

Policy CC1: Climate change mitigation

- All developments are required to reduce carbon dioxide emissions through following the steps in the energy hierarchy.
- All major developments are required to demonstrate how the London Plan targets for carbon dioxide have been met.
- The location of the development and mix of land uses should minimise the need to travel by car and help to support decentralised energy networks.

Policy CC2: Adapting to climate change

- Existing green spaces should be protected, and new appropriate green infrastructure must be promoted.
- Surface water run-off should not increase and, wherever possible be reduced through increasing permeable surfaces and use of Sustainable Drainage Systems.
- Biodiverse roofs, combination of green and blue roofs and green walls, where appropriate, must be incorporated.
- Measures to reduce the impact of urban and dwelling overheating must be considered, including the application of the cooling hierarchy.
- Development schemes should demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation.
- New build residential development will be encouraged to use the Home Quality Mark and Passivhaus design standards.
- Conversions and extensions of more than 500m^2 residential floorspace or more than 5 dwellings are encouraged to achieve 'Excellent' in BREEAM domestic refurbishment.

Policy CC3: Water and Flooding

- Water efficiency measures must be incorporated.
- Harm to the water environment must be avoided and water quality must be improved.
- The impact of development in areas at risk of flooding must be considered and appropriate flood resilient measures must be incorporated.
- Sustainable Drainage Systems (SuDS) must be utilised in line with the drainage hierarchy to achieve a greenfield run-off rate, where feasible.

Policy CC4: Air Quality

- It should be ensured that the impact of development on air quality is mitigated and that exposure of poor air quality is reduced in the borough.
- Air Quality Assessments are required where development is likely to expose residents to high levels of air pollution.

Policy CC5: Waste

Developments must ensure the inclusion of facilities for storage and collection of waste and recycling.

Policy T1: Prioritising walking, cycling and public transport

Development should provide for accessible, secure cycle parking facilities exceeding the minimum requirements outlined within the London Plan and design requirements outlined within the SPD.

Policy T2: Parking and car-free development

- All new developments are required to be car-free.
- On-street and on-site parking permits will not be issued in connection with new developments.

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Energy and CO_2

Energy Strategy

The energy strategy for the scheme is detailed in the Energy Assessment report issued by Eight Associates in April 2022. As shown in Table 1, the whole development will reduce carbon emissions by 14.7% and 21.3% from the fabric energy efficiency measures described in the 'Be Lean' section using SAP 2012 and draft SAP 10.0 carbon dioxide emission factors, respectively. Total carbon emissions will be reduced by 36.0% and 68.5% over Building Regulations using SAP 2012 and draft SAP 10.0 carbon dioxide emission factors, respectively, with the further inclusion of a proposed air source heat pump and photovoltaic panels. Therefore, the scheme meets and exceeds the target of overall 35% carbon reduction over Part L building Regulations as set out in the London Plan Policy SI2 and Camden's Policy CC1: Climate change mitigation.

The Energy Hierarchy

The proposed scheme has followed the energy hierarchy, illustrated in Figure 4 below.

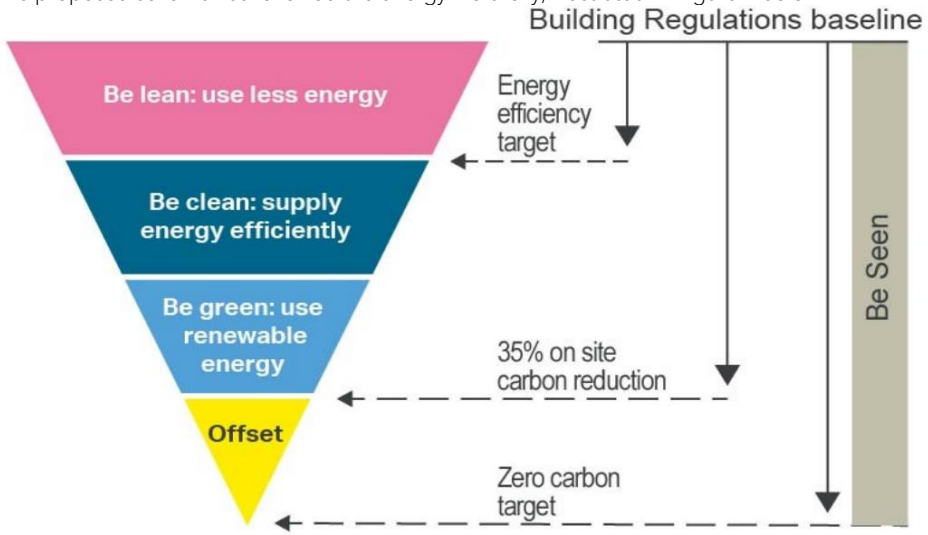

Figure 4: This methodology, widely used in accordance with the Sustainable Design and Construction Supplementary Planning Guidance (SPG) 2014, has been adopted for the scheme using a 'Lean', 'Clean', and Green' approach.

Table 1: GLA Energy Hierarchy for the whole development.

GLA's Energy Hierarchy: Regulated carbon emissions – **Whole scheme**
Calculated using **SAP 2012** carbon dioxide emission factors

	Baseline:	Be lean:	Be clean:	Be green:
CO_2 emissions (tCO_2/yr)	18.58	15.85	-	11.89
CO_2 emissions saving (tCO_2/yr)	-	2.73	-	3.96
Saving from each stage (%)	-	14.7	-	21.3
Total CO_2 emissions saving (tCO_2/yr)		6.69		

36.0% total carbon emissions savings over 2013 Building Regulations Part L achieved.

GLA's Energy Hierarchy: Regulated carbon emissions - **Whole scheme**
Calculated using draft **SAP10.0** carbon dioxide emission factors

	Baseline:	Be lean:	Be clean:	Be green:
CO_2 emissions (tCO_2/yr)	16.96	13.77	-	5.34
CO_2 emissions saving (tCO_2/yr)	-	3.19	-	8.44
Saving from each stage (%)	-	18.8	-	49.7
Total CO_2 emissions saving (tCO_2/yr)		11.63		

68.5% total carbon emissions savings over 2013 Building Regulations Part L achieved.

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GLA's Energy Hierarchy – Regulated Carbon Emissions

As demonstrated in Figure 5, the proposed will reduce carbon emissions by 14.7% from the fabric energy efficiency measures described in the 'Be Lean' section and will reduce total carbon emissions by 68.5% over Building Regulations, using draft SAP 10.0 carbon factors.

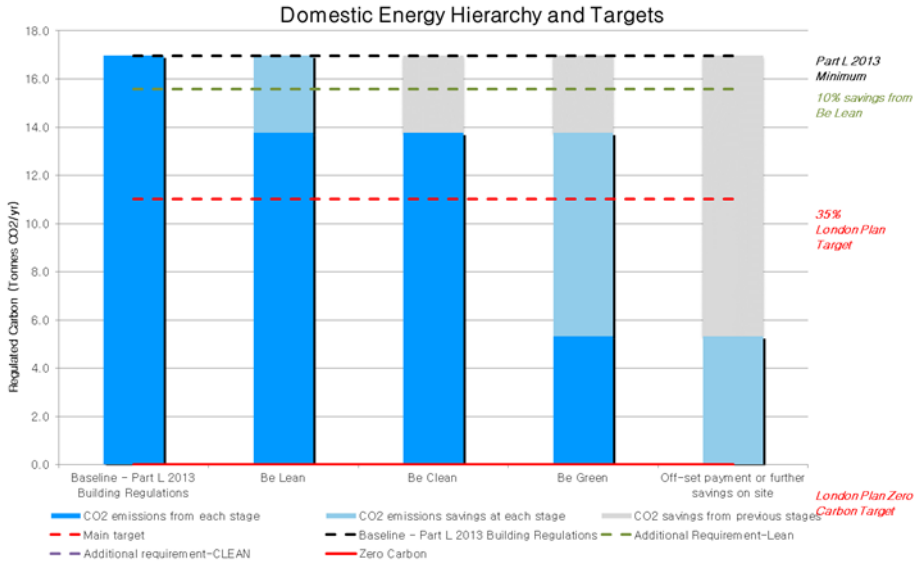

Figure 5: The performance of the scheme in relation to Building Regulations and the Energy Hierarchy. Carbon dioxide emission factors for draft SAP 10.0 have been used for the calculations.

Energy Efficiency Strategies

Energy efficiency measures that will be applied to The Bird in Hand include:

- High insulation standards to reduce transfer of heat through the building fabric.
- Use of an air source heat pump system with a COP of 2.80 to provide heating and hot water for the whole development.
- An immersion electric heater will provide the remaining 20% of the hot water demand.
- 20 PV panels with a peak output of 7.0 kWp per panel will be located on approximately 120m^2 of available roof area including circulation area with approximately 40 m^2 of PV panels (2 m^2/panel for 20 panels).
- Envelope air tightness to reduce unnecessary air infiltration.
- Daylighting and well-planned floor layouts to reduce the need for artificial lighting; and
- High efficacy lighting of 75 lumens per watt has been specified for the scheme.

Thermal Comfort and Overheating Risk

To minimise energy loss, the building fabric performance will be designed to achieve a balance between retaining heat during winter and allowing the building to dissipate heat during the summer months. Further measures to reduce overheating and the need for cooling include:

- Energy efficient lighting and appliances have been recommended to reduce internal heat gains.
- The building fabric will be insulated over and above the standards set out by Building Regulations and reduced solar gains from a high efficiency glazing solar factor will help to keep heat out of the building.
- Internal shading devices to further limit solar gains in the south facing kitchen will be installed.
- Reduced air permeability rate and maximised insulation levels.
- Mechanical ventilation with heat recovery and summer bypass to provide fresh air and purging of heat.
- Passive ventilation measures will include openable windows.

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Adaption to Climate Change

Climate Change Mitigation

The proposed development will utilise an air source heat pump, PV panels and mechanical ventilation with heat recovery. Passive design measures, including openable windows and night-time cooling, will be integrated into the design of the development. Mechanical ventilation using fans will remove heat from the building during summer months.

Flood Risk and Sustainable Drainage

The Bird in Hand is located within Flood Zone 1 of the Environment Agency's Flood Map for Planning, as shown in Figure 6. This is defined as an area with little or no risk to flooding where the annual probability of river, tidal and coastal flooding (with defences where they exist) is <0.1% i.e. less than 1 in 1,000 years.

Since the site is located in Flood Zone 1 and is less than one hectare, a Flood Risk Assessment is not required according to Policy CC3: Water and Flooding. However, as the site lies within a critical drainage area (CDA) it is required from Camden Local Council that a Flood Risk Assessment is submitted with the planning application for the site.

Flood Map

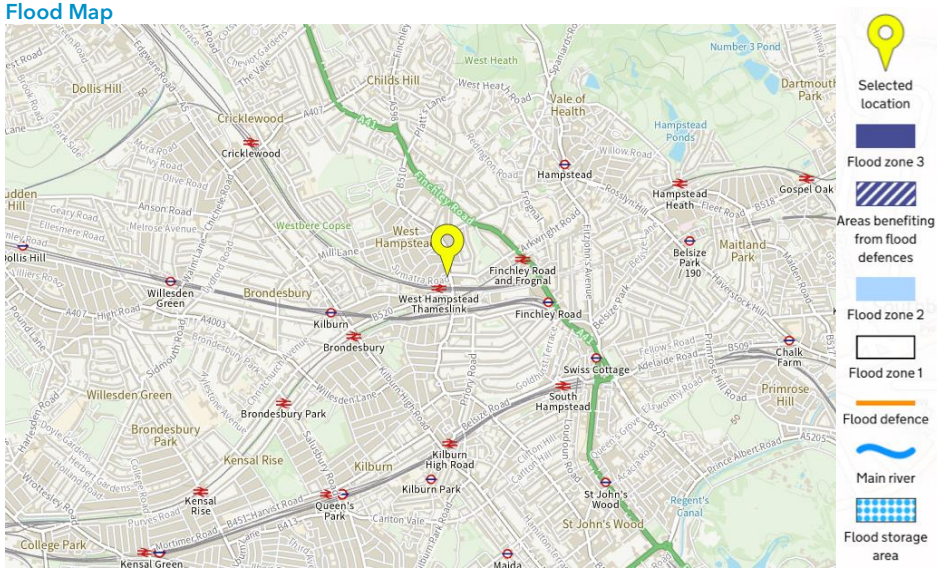

Figure 6: Flood map showing the approximate location of the development within Flood Zone 1.

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Waste

Construction Waste Management

Resource efficiency will be promoted through effective and appropriate management of demolition and construction site waste.

In line with the waste hierarchy, during the construction phase, the approach will be the following:

- Use reclaimed materials;
- Use materials with higher levels of recycled content; and,
- Use new materials.

For any demolition, the following approach will be adopted:

- Prioritise the on-site reuse of demolition materials;
- Adopt on site recycling and, where required, use off site recycling; and,
- The least preferred option – disposal to landfill.

A site waste management plan will be developed which adopts best practice benchmarks for resource efficiency, details procedures and commitments to minimise non-hazardous and hazardous waste at the design stage and monitors/measures waste production on site. The plan will apply to the location of the building.

The site waste management plan will also include procedures and commitments to sort and divert waste from landfill through the following:

- Re-use on site;
- Salvage/ reclaim for re-use off-site;
- Return to supplier via a 'take-back' scheme;
- Recovery and recycling using an approved waste management contractor; and
- Compost.

Operational Waste

The communal refuse store provides safe and convenient access to the residents and is located on the ground floor. It is sized as 15m^2 in area to accommodate general refuse, mixed recycling and food waste disposal in accordance with Policy CC5: Waste. Waste storage for the dwelling house will be situated in a dedicated area in the 35m^2 private garden and will also accommodate general refuse, mixed recycling and food waste disposal in accordance with Policy CC5: Waste.

Camden Council provides a weekly collection service for recycling which is sorted post-collection and fortnightly collection for domestic refuse waste. In addition, the neighbourhood provides a collection for food waste which is collected weekly.

All households in the neighbourhood have access to convenient and comprehensive recycling facilities at a number of community centres and on-street recycling points on high streets and around transport hubs. The Regis Road Recycling and Reuse Centre accepts a wide range of items not covered by the regular collection service.

A collection service for bulky domestic waste is also available in the area, which can be booked for a collection fee as required.

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Construction Management

Construction Environmental Management

Environmental impacts of the construction works will be mitigated as far as possible. This will include the incorporation of the following:

- Contractor following environmental management system processes (under ISO14001), including the development of a construction environmental management plan (CEMP) specific to the sites;
- Training and site induction of all site operatives;
- Monitoring of energy, water and transport to and from site during construction;
- Management of waste on site;
- Following best practice pollution guidance from the Environment Agency;
- Ensuring all site timber is responsibly sourced in line with the UK Government's Timber Procurement Policy;
- Minimising vehicle emissions through the use of catalytic converters and the regular maintenance of vehicle engines;
- Damping down of brick walls etc. during any building demolition;
- Regularly inspecting and wet suppressing materials/soil stockpiles where necessary (including wind shielding or completely enclosing, storing away from site boundaries, and restricted height of stockpiles);
- Appropriate orientating of material stockpiles;
- Providing wheel washing and wet suppressing during the loading of wagons vehicles;
- Covering vehicles carrying dry soil and other wastes;
- Shielding of dust-generating construction activities;
- Providing suitable site hoarding;
- Restricting vehicle speeds on haul roads and other unsurfaced areas of the site; and,
- Inspecting unsurfaced haulage routes, and wet suppressing should this be necessary (in times of prolonged dry periods).

Considerate Constructors

The scheme will adopt the principles of the Considerate Constructors Scheme (CCS). The CCS scheme aims to recognise and encourage construction sites that are managed in an environmentally and socially considerate, responsible and accountable manner.

Water Efficiency

Water Conservation

The development proposal recognises the need to create a scheme that is efficient and adaptable to future climatic scenarios.

The design team is committed to achieve a significant reduction in internal water use for the development over typical performance, equating to a water consumption target of 110 litres per person per day under the optional national technical standard.

Water consumption will be reduced through the use of water efficient components for all specified domestic water-consuming components (including low-flow showerheads and taps, dual flush toilets and low water consuming washing machines and dishwashers), water meters for each dwelling, water recycling systems where appropriate and flow control devices that regulate the supply of water to each facility according to demand.

A permanent automated water leak detection system that alerts the building occupants to a major water leak on the mains water supply within the building and between the building and the utilities water meter will be installed.

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Transport and Connectivity

Public Transport
The development has a PTAL rating of 6a which represents excellent connectivity as the network of public transport routes accessible from the site is very extensive. There are five different bus stops located within 500m of the site serving 10 different bus routes. The closest bus stop, Kilburn High Road Station, can be reached in 2 minutes by foot and is served by bus routes 16, 32, 316, 332, 98 and 206. Kilburn High Road Rail Station is within 750m and is served by London Overground to London Euston and Watford Junction.

Cycling and Car Provision
Cycle parking will be provided in accordance with the London Plan, Camden Local Plan Policies T1 and T2 secure and covered cycle spaces are proposed as indicated on the ground floor plan.

No dedicated parking will be provided for residents in line with the London Plan recommendations and Policy T2, although 'pay and display' parking spaces are available along West End Lane, including in front of the proposed development.

Accessibility and Security
Creating a secure but fully accessible development is a key part of the proposed development. To ensure this is achieved, the design team will adopt, where feasible, the key principles of "Secured by Design" within all elements of the scheme. An Architectural Liaison Officer (ALO) or a Crime Prevention Design Advisor (CPDA) will be consulted at an early stage to provide a set of bespoke security recommendations for the development. The recommendations of the CPDA will be implemented within the development's design and layout.

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Materials

Materials and Waste Introduction

Sustainable material sourcing and waste management will be considered throughout the life of the building to ensure the scheme's environmental footprint is minimised as far as possible. The scheme will also ensure low embodied carbon is employed throughout the procurement, transport and construction of building materials, together with end of life emissions.

Materials Selection and Sourcing

The design team has confirmed that efforts will be made to reuse materials where feasible and that where required, new materials will be responsibly sourced. New construction materials will be selected, where feasible, with a low environmental impact. In addition, the project will aim for new materials to come from a recycled or reused source, including a high-recycled content in steel. Minimum standards apply to new timber, which must be sourced in accordance with the UK Government's Timber Procurement Policy.

In addition, all timber will be FSC/ PEFC certified, all concrete will be BES 6001 certified and any other material will be ISO 14001 certified for both key processes and supply chain/ extraction processes where feasible to do so.

The Green Guide for Specification is a reference tool, providing guidance on the relative environmental impacts for a range of different building elemental specifications, based on Life Cycle Assessment and the Environmental Profile Methodology. The design team will reference the Green Guide to Specification to help specify materials with a low environmental impact, where feasible. The design will incorporate at least 5 build-up elements that will be A-C rated on the Green Guide.

Insulation specifications will eliminate hydrochlorofluorocarbons (HCFCs) and ozone depleting materials, wherever possible. All insulation specified will have a Global Warming Potential (GWP) of less than 5 and be responsibly sourced to have a low embodied impact.

Embodied Carbon Analysis

The development will utilise a number of opportunities to cut embodied carbon, as follows:

- A materials efficiency strategy will be followed throughout the design, procurement and construction stages of the development, to ensure the scheme produces less waste on site. For example, adjustment of some sizes will be made to minimise offcuts of materials, and some bespoke materials will be developed off-site;
- Materials will be procured from the local area where possible, to reduce carbon through transportation;
- Materials and products with a higher recycled content will be preferentially procured where feasible, as these have a low embodied carbon; and,
- Consideration has been made to use timber as a low embodied carbon alternative to steel and concrete where possible.

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Health and Wellbeing

Occupant Wellbeing
The development has been designed to ensure the wellbeing of occupants in terms of levels of fresh air, thermal comfort and reduction of overheating, access to natural light, good lighting levels internally and externally, acoustic performance and access to safe drinking water.

The building services strategy has been carefully considered in order to balance the need for energy-smart, low carbon technologies with the need for adequate and controllable ventilation, heating and cooling.

Internal Air Quality
The design team will specify only low volatile organic compounds (VOC) finishing products, including sealants and paints. All composite wood products will contain no added urea formaldehyde.

External Air Quality
An Air Quality Assessment report was produced by Eight Associates in April 2022. The development site is located in an Air Quality Management Area (AQMA), which has been declared due to continued exceedances of National Air Quality Objectives (NAQOs) for NO2 and PM10.

Construction Impacts
The unmitigated risk to local sensitive receptors from emissions of dust and pollution from construction is deemed to be low. With the mitigation measures in place, the residual effects arising from the construction phase of the proposed development would be deemed 'not significant'.

Air Quality Neutral (AQN)
The scheme has been assessed for both the impacts of transport and building operation against the AQN guidance and they were found to meet the requirements for AQN.

Daylight
The design has been developed to allow the use of daylight within the dwelling to be maximised as far as practical, in accordance with Policy A1: Managing the impact of development.

Inclusive Design
The guidance in the Approved Document M (March 2016) will be incorporated to achieve an inclusive built environment that enables users to maximise their individual abilities and enjoy a safe and independent participation. All units have been designed to demonstrate compliance to Part M4(1): Visitable dwellings.

Sustainability Statement
The Bird in Hand

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Land Use and Ecology

Protection of Biodiversity

The design team is committed to protecting biodiversity on site and will implement the following measures:

- Confirm that all relevant UK and EU legislation relating to protection and enhancement of ecology has been complied with during the design and construction process;
- Implement working methods in line with best practice to manage dust and water runoff; and,
- During the construction phase a Biodiversity Champion will be appointed to monitor and limit environmentally detrimental activities. They will also train the workforce on the project to raise their awareness of environmental impacts during construction.

Ecological Enhancements

The design team is also committed to enhance biodiversity on site in line with Policies G6 and A3: Biodiversity

The proposed development will aim to incur no negative change in ecological value and a suitably qualified ecologist will provide early design stage advice on:

- How to improve the ecological value of the site, including advising on the implementation of bird and bat boxes where feasible on site;
- Confirm that all relevant UK and EU legislation relating to protection and enhancement of ecology has been complied with during the design and construction process; and,
- Produce a landscape and habitat management plan to cover at least the first five years after project completion, if applicable.

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Conclusions

Conclusions

This Sustainability Statement has responded to the London Borough of Camden local planning policy requirements.

In summary the scheme will adopt the following sustainable features:

- The whole development will reduce total carbon emissions by 36.0% and 68.5% over Building Regulations using SAP 2012 and draft SAP 10 carbon dioxide emission factors, respectively.
- Reduce energy consumption by targeting improved U-values and airtightness. Low energy lighting will be specified.
- Implement a site waste management plan and stringent resource efficiency benchmarks.
- Follow best practice policies in terms of air, water and ground pollution and appoint a contractor who will register for the Considerate Constructors Scheme.
- Achieve a water consumption target of 110 litres/person/day through the implementation of low water-consuming fittings.
- Utilise sustainable transport, including access to public transport and inclusion of cycle storage facilities.
- Minimise embodied carbon through efficient design, procurement of materials from a local source, or with a high-recycled content.
- Be of high build quality, surpassing the minimum Building Regulations.
- Ensure all materials are responsibly sourced and of low environmental impact where feasible.
- Consider health and wellbeing through design and operational procedures, including daylight, optimum indoor air quality and thermal comfort.
- Protect and enhance the ecological value of the site by introducing bird and bat boxes where feasible.