Camden Lock Village – Area E
Stanley Sidings Limited

Sustainability Statement
Rev. B
30th March 2015

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Audit Sheet

Rev.	Description	Prepared and checked by	Reviewed by	Date
A	Draft for Comment	S. Carlsson	R. Harper	24.03.2015
B	For Planning Submission	S. Carlsson	T. Agoro	30.03.2015

Contents

1.0 Executive Summary

The Application

The Sustainability Statement has been prepared on behalf of Stanley Sidings Limited hereafter referred to as the Applicant, in support of a full planning application for the residential mixed use development Area E (39-45 Kentish Town Road), hereafter referred to as the Proposed Development. This Proposal has been designed to annex the approved 2013 Camden Lock Village (CLV) masterplan.

This Sustainability Statement responds specifically to the London Plan Supplementary Planning Guidance on Sustainable Design and Construction (2014) and the policies of the London Borough of Camden (LBC).

Environmental Assessment

The commercial elements of the Proposed Development are targeting a BREEAM 'Excellent' rating, in line with LBC planning policy requirements. Please refer to Appendix A for a pre-assessment summary, demonstrating that a score of 70.07% is anticipated. LBC policy sets minimum requirements for Energy, Water and Materials categories. 60% of energy, 60% of water and 40% of materials credits are to be achieved.

The dwellings of the Proposed Development are targeting a Code for Sustainable Homes (CfSH) 'Level 4' score, in line with LBC planning policy requirements. Please refer to Appendix B for a pre-assessment summary, demonstrating that a score of 71.36% is anticipated. LBC sets minimum requirements stating that 50% of the credits in Energy, Water and Materials must be achieved.

Energy & CO_2 Emission Reduction Strategy

The Proposed Development would reduce energy consumption and CO_2 emissions through passive design and energy efficiency measures such as best practice levels of insulation and low fabric air permeability. Through these measures, the Proposed Development is anticipated to achieve a 10.3% reduction in regulated CO_2 emissions beyond the requirements of the Building Regulations Part L (2013) 'baseline'.

In order to achieve further reductions in CO_2 emissions, a 10kWp PV array would be provided. This is anticipated to yield 4,500kWh of electricity per annum, equivalent to a reduction in regulated CO_2 emissions of 3.2% beyond the Building Regulations Part L (2013) 'baseline'.

It is demonstrated that it would be suitable for the Proposed Development to connect to the District Energy Network (DEN) at the adjoining consented planning permission site. It is anticipated that this would result in a reduction in CO_2 emissions of 11.6% beyond the building Regulations Part L (2013) 'baseline'. Provision would be made for future connection to an off-site network should this be technically and economically feasible.

Overall, the measures set out above would reduce regulated CO_2 emissions from the Proposed Development by **25.3%** beyond the requirements of the Building Regulations Part L (2013) 'baseline'.

Water

The Proposed Development would be fitted with water efficient fixtures and fittings. As a minimum, Tenants would be encouraged to fit-out their spaces appropriately to meet the requirements of the Building Regulations Part G (2013), with the aspiration being to achieve a reduction beyond this level to achieve the associated BREEAM credits.

The Proposed Development would be supplied with a number of measures to reduce surface water runoff linking into the drainage strategy and infrastructure of the adjoining Camden Lock Village development such as attenuation and soft landscaping.

Materials

Building elements would be selected in accordance with the BRE Green Guide to Specification, with the aim of selecting elements in the range A+ to D to minimise environmental impact.

Insulation would be specified to minimise Global Warming Potential (GWP) to five or less.

All timber used at the Proposed Development would be FSC certified and where possible materials would be locally sourced.

Waste

The contractor would be required to produce and adhere to a Site Waste Management Plan (SWMP) which clearly sets out requirements to maximise diversion of demolition and construction waste from landfill.

An operational waste strategy has been prepared for the Proposed Development. Commercial uses (i.e. office) would be provided with access to segregated waste stores to prevent mixing of waste streams. Sufficient bin storage would be provided to enable sorting of recyclable wastes.

Transport

The Proposed Development has been assessed to have a Public Transport Accessibility Level (PTAL) of 6b, equivalent to 'Excellent'.

Secure cycle storage would be provided at the Proposed Development for residents and employees to maximise the potential for sustainable transport.

Biodiversity

It is expected that the construction of the Proposed Development would lead to no net loss of ecology from the Site. It is intended that the Proposed Development will include bird and bat boxes to provide breeding opportunities.

Pollution

The Proposed Development would connect to the adjoining District Energy Network. The Combined Heat and Power (CHP) engine supplying the DEN with heat would be designed to meet the emissions criteria outlined in the Sustainable Design and Construction SPG.

Additionally, luminaires will be provided with suitable output and polar curve in order to direct lighting appropriately to minimise light pollution and loss of light to the sky.

The main contractor will operate to minimise the risk of pollution from the Proposed Development and will be required to register with the Considerate Constructors Scheme.

2.0 Introduction

2.1 The Application

This statement has been prepared on behalf of Stanley Sidings Limited hereafter referred to as the Applicant, in support of a full planning application for the residential mixed use development Area E 39-45 Kentish Town Road, hereafter referred to as the Proposed Development. This Proposal has been designed to annex the approved 2013 Camden Lock Village (CLV) masterplan.

Development Description

Erection of mixed use building comprising flexible employment/gym (B1a/B1c/D2) on the ground floor and basement and housing (C3) together with associated engineering works to create a basement, plant, ancillary works, public realm improvements and landscaping.

Area E is a stand-alone planning application and has been designed as an annex to Building D which is situated within the adjoining Camden Lock Village masterplan.

Area E is bounded by the Regent's Canal towpath, Kentish Town Road and Area D of the consented planning permission site. The adjoining consented building on Area D has informed both the design and services strategy of the Proposed Development.

Site Context

The Proposed Development will be located within the London Borough of Camden (LBC). The location of Area E is shown by the heavy red line boundary indicated in Figure 2.1, hereafter referred to as the Site.

Aim

The aim of this statement is to detail a robust approach to sustainability to enable the Proposed Development to meet the 'priorities 'and target the 'best practice' outlined in the Greater London Authority (GLA) Sustainable Design and Construction SPG (2014), as well as the relevant policies within the Development Plan, consisting of the London Plan and local policies adopted by LBC. For ease of reference, the statement responses to the Sustainable Design and Construction SPG (2014) have also been referenced to LBC policies.

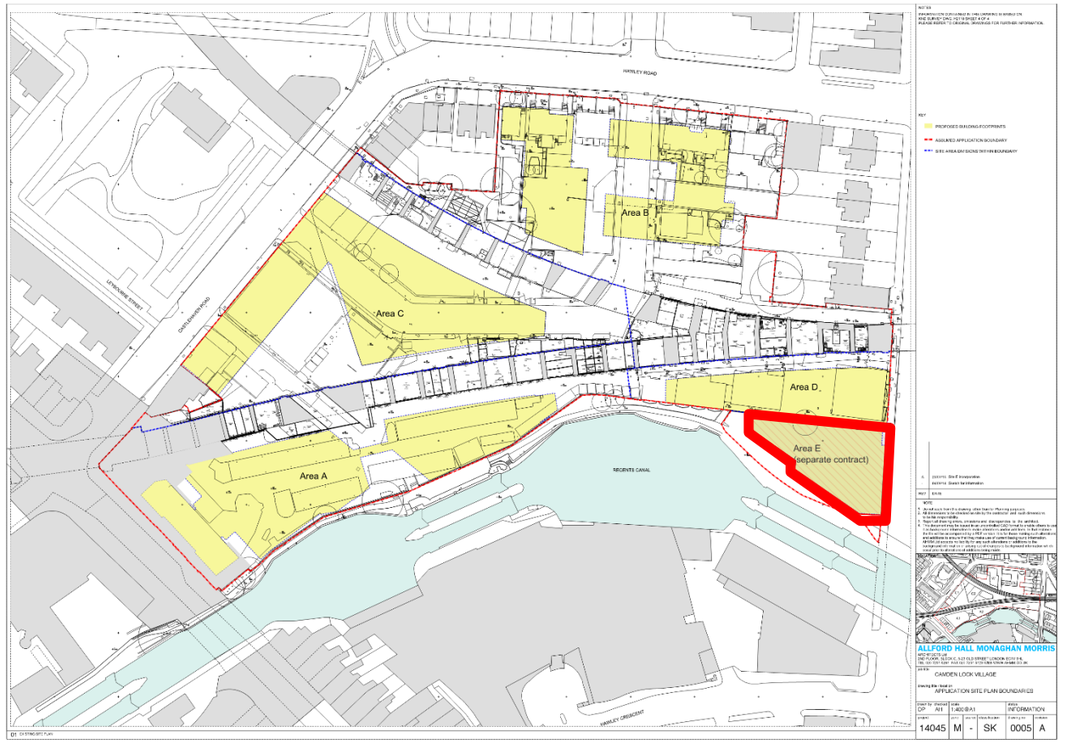

Figure 2.1: Site Plan.

2.2 Policies and Drivers

Building Regulations Part L 2013

The assessment of the Proposed Development against policy targets has been carried out using Part L 2013.

Criterion one of the Building Regulations Part L 2013 requires that the building as designed is not anticipated to generate CO_2 emissions in excess of that set by a Target Emission Rate (TER) calculated in accordance with the approved Standard Assessment Procedure (SAP) v9.92 2012 for dwellings and the National Calculation Methodology (NCM) 2013 for non-dwellings.

On aggregate, Part L 2013 requires the following CO_2 emissions reductions:

- 6% beyond the requirements of Part L 2010 for dwellings
- 9% beyond the requirements of Part L 2010 for non-domestic buildings

Criterion two places upper limits on the efficiency of controlled fittings and services. For new buildings assessed under Part L, an upper limit to an external wall U-value of 0.35W/m^2.K is applied.

Criterion Three requires that zones in commercial buildings are not subject to excessive solar gains and in dwellings that the risk of overheating in the summer months is minimised. This is demonstrated using the procedure given in the National Calculation Methodology (NCM) 2013 and SAP 2012 respectively.

Current Policy Framework

The policies considered when preparing this strategy are contained in the London Plan (FALP, 2015) and the Local Development Framework (LDF) documents of LBC.

The Proposed Development constitutes a 'major development' (>1,000m^2 of commercial floor space) and is therefore subject to the policies of the GLA, contained within the London Plan and is referable to the GLA.

The policies of LBC are contained within the Local Plan (LP) documents.

The applicable policy documents of LBC are:

- Camden Core Strategy (2010)
- Camden Development Policies (2010)
- Supplementary Planning Documents including:
    - Camden Planning Guidance: Sustainability (2013)
    - Camden Planning Guidance: Transport (2013)
    - Camden Planning Guidance: Planning Obligations (2011)
    - Camden Planning Guidance: Design (2013)
    - Camden Site Allocations, Local Development Document (2013)
    - The Camden Plan (2012)
- North London Waste Plan (Draft: 2015)

These policies and applicable Building Regulations are detailed in Appendix A.

The most pertinent targets from the policies are:

- Domestic and non-domestic buildings to achieve overall CO_2 emissions reduction of 35% beyond the Building Regulations Part L 2013
- 20% of CO_2 reduction to be met via on site renewables
- 10% of total value of materials used to be derived from recycled and reused sources, this increases to 15-20% in major developments
- 10% of project costs to be spent on the refurbishment of existing buildings to reduce their carbon emissions
- Development proposals should minimise the effects of climate change and evaluate options for decentralised energy
- Green infrastructure such as green roofs and walls to be incorporated where feasible
- Development should minimise parking provision, be properly integrated with the transport network and be supported by adequate walking, cycling and public transport links
- Development should minimise potential for surface water flooding and utilise Sustainable Urban Drainage Systems (SUDs) unless there are practical reason for not doing so
- Suitable waste and recycling facilities are required in all new developments
- Development to achieve BREEAM 'Excellent' as a minimum

3.0 Sustainability Statement

The following statement is written in reference to the applicable 'priorities' and 'best practice' as outlined in the Mayor or London's Supplementary Planning Guidance on Sustainable Design and Construction (2014), as required by Policy 5.3 of the London Plan (March, 2015). LBC policy references are also included.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	London Plan	LBC	
3.1 Resource Management				
Land				
Optimising the Use of Land Through both their Local Plans and planning decisions, boroughs should aim for 100% of development to be delivered on previously developed land.	-	1.1, 3.3	-	*Optimising the Use of Land* The Proposed Development would be on previously developed land. The Site is brownfield land consisting of overgrown scrub. Structures forming a boundary between the site and the towpath would be demolished and cleared.
Optimising the Use of Land Developers should optimise the scale and density of their development, considering the local context, to make efficient use of London's limited land.	-	3.4, 4.3, 7.6	-	*Optimising the Use of Land* The Site's density would be increased through the introduction of the Proposed Development. The Proposed Development would consist of use types flexible between B1 Office/D2 gym and C3 Residential.
Basements and Lightwells When planning a basement development, developers should consider the geological and hydrological conditions of the Site and surrounding area, proportionate to the local conditions, the size of the basement and lightwell and the sensitivity of adjoining buildings and uses, including green infrastructure.	-	5.12, 5.13, 7.13, 7.19	-	*Basements and Lightwells* The structural engineers have considered all applicable geological and hydrological conditions in accordance with relevant design guidance and standards.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
Basements and Lightwells When planning and constructing a basement development, developers should consider the amenity of neighbours.	-	5.3, 5.18, 6.3, 7.14, 7.15	-	*Basements and Lightwells* Any basement lightwells would be designed not to impact on the amenity of neighbours, as outlined in the Construction Management Plan. A BIA has been submitted as part of the application.
Local Food Growing To protect existing established food growing spaces.	-	2.18, 3.2, 5.3, 5.10, 5.11, 7.18, 7.22.	-	*Local Food Growing* The Site does not contain any existing established spaces for growing food.
-	*Local Food Growing* To provide space for individual or communal food growing, where possible and appropriate.	2.18, 3.2, 5.3, 5.10, 5.11, 5.21, 7.18, 7.22.	-	*Local Food Growing* There would be areas of terraces for the upper level apartments that could be suitable for planting a variety of species, should this be desired.
-	*Local Food Growing* To take advantage of existing spaces to grow food, including adapting temporary spaces for food growing.	2.18, 3.2, 5.3, 5.10, 5.11, 5.21, 7.18, 7.22.		
Site Layout and Building Design				
-	*Site Layout & Building Design* Any existing buildings that can be practically refurbished, retrofitted, altered, or extended should be retained and reused.	5.3, 5.4	DP24	*Site Layout & Building Design* There are no existing buildings on-site. The new buildings would be of high quality design.
-	*Site Layout & Building Design* A mix of uses, where suitable should be included to provide a range of services commensurate to the public transport accessibility.	4.3, 6.1	CS11, DP16, DP17	*Site Layout & Building Design* The Proposed Development would contain a combination of flexible office (B1)/gym (D2) and residential (C3) uses.
Site Layout & Building Design The design of the Site and building layout, footprint, scale and height of buildings as well as the location of land uses should consider:	-	2.18, 5.2, 5.3, 5.4, 5.6, 5.7, 5.9, 5.10, 5.11, 5.12, 5.13, 5.16, 5.18, 5.21, 6.1, 6.7, 6.9, 6.10, 6.11. 6.13, 7.1, 7.6, 7.14, 7.15, 7.18, 7.19, 7.21, 7.22	CS11, CS13, CS15, DP16, DP17, DP18, DP22, DP24, DP25, DP31	*Site Layout & Building Design* The Proposed Development would make use of previously developed land.
Existing Features ▪ The possible retention and reuse of existing buildings and structures; ▪ The retention of existing green infrastructure, including trees and				*Existing Features* Existing structures would be demolished to provide improved access and frontage onto the canal towpath. Waste from this minimal demolition would be targeted to be used as aggregates for the new building at the Proposed Development.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
other ecological features, and potential for its improvement and extension; and ▪ Access routes to public transport and other facilities that minimise the use of private transport.				There is minimal existing green infrastructure located on the Site. Some existing trees on site will be removed but replaced elsewhere with appropriate trees or group of trees. The Proposed Development would include new and improved access routes to public transport and the canal towpath.
New Design of Development ▪ The existing landform; ▪ The potential to take advantage of natural systems such as wind, sun and shading; ▪ The principles set out London Plan policies 7.1 and 7.6; ▪ The potential for adaption and reuse in the future; ▪ Potential for incorporating green infrastructure, including enhancing biodiversity; ▪ Potential for incorporating open space, recreation space and child play space; ▪ Energy demands and the ability to take advantage of natural systems and low and zero carbon energy sources; ▪ Site wide infrastructure; ▪ Access to low carbon transport modes; ▪ The promotion of low carbon transport modes, including walking and cycling; ▪ Potential to address any local air quality, noise disturbance, flooding and land contamination issues; and ▪ The potential effect on the micro-climate.				*New Design of Development* The Proposed Development would incorporate suitable glazing ratio which would allow for adequate daylight ingress to limit the need for space heating in winter and would also utilise appropriate solar control measures to minimise the risk of overheating in summer months. Regarding LP Policy 7.1, it is considered that the Proposed Development would: • Enable people to live healthy and active lifestyles due to the provision of suitable cycle parking to encourage commuting by bike which is a low-carbon mode; • Enable office staff and visitors to feel safe, thanks to liaising with the local Architectural Liaison Officer and designing to target the requirements of 'Secured by Design'; and • Allow office staff and visitors of all ages and stages of life to enjoy the surroundings by ensuring suitable access provisions. Regarding LP Policy 7.6, it is considered that the Proposed Development would be designed and built to the highest architectural standards and would be of a proportion, composition, scale and orientation that enhances, activates and defines public realm. The Proposed Development would comprise details and materials that complement the local character of Camden Lock and the surrounding Regent's Canal Conservation Area, and would incorporate best practice in terms of resource management and climate change adaptation. The following measures would be targeted at the Proposed Development: • Secured by Design principles would be incorporated where appropriate, and • The Proposed Development would contribute to the adaptation and mitigation of the effects of climate change, be designed to maximise natural daylighting and sunlight access, and to minimise overshadowing and adverse wind conditions.
Energy and Carbon Dioxide Emissions				
Energy and CO_2 Emissions The overall carbon dioxide emissions from a development should be minimised through the implementation of the energy hierarchy set out in London Plan Policy 5.2.	-	5.2, 5.3	CS13, SPD Sustainability	*Energy and CO_2 Emissions* The Proposed Development has been assessed in accordance with the requirements of LP Policy 5.2, and the guidance within the GLA document on preparing energy strategies (2014). The target CO_2 emissions reduction applicable to the Proposed Development is 35% beyond the requirements of the Building Regulations Part L 2013 through a combination of passive design, energy efficiency measures

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
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				and the use of a DEN connected to a Combined Heat and power (CHP) engine, and on-site renewables such as PV. Please refer to the Energy Strategy submitted in support of the application for further details. A CO_2 emissions reduction of 25.3% beyond the requirements of the Building Regulations Part L 2013 would be achieved through a combination of passive design, energy efficiency measures, CHP and provision of on-site PV panels.
Energy and CO_2 Emissions Developments should be designed to meet the regulated carbon dioxide standards, in line with London Plan Policy 5.2.	-	5.2	CS13, SPD Sustainability	
-	*Energy and CO_2 Emissions* Developments should contribute to ensuring resilient energy infrastructure and a reliable energy supply, including from local low and zero carbon sources.	5.1, 5.5, 5.6, 5.7, 5.8, 5.17	CS13, SPD Sustainability	*Energy and CO_2 Emissions* The Proposed Development will connect to the Decentralised Energy Network (DEN) served by a dedicated energy centre with Combined Heat and Power (CHP) situated within the adjoining approved Camden Lock Village masterplan which will shortly be under construction. The Proposed Development would be provided with a Photovoltaic (PV) array which is anticipated to generate approximately 4,500kWh per annum, reducing CO_2 emissions by 3.2% beyond the requirements of Part L 2013. It is considered that these measures work in tandem to provide a resilient energy infrastructure.
-	*Energy and CO_2 Emissions* Developers are encouraged to include innovative low and zero carbon technologies to minimise carbon dioxide emissions within developments and keep up to date with rapidly improving technologies.	5.2, 5.17	CS13, SPD Sustainability	*Energy and CO_2 Emissions* The approved Camden Lock Village masterplan energy centre would be provided with a means of connection to a future DEN should such a connection be both technically and economically feasible.
Energy Demand Assessment Development applications are to be accompanied by an energy demand assessment	-	5.2	CS13, SPD Sustainability	*Energy Demand Assessment* An energy demand assessment has been carried out for the Proposed Development. Please refer to the Energy Strategy submitted in support of the application for further details. The table sets out the targeted performance of the fabric at the Proposed Development.

Parameters	Office	Dwellings
Roof U-value ($W/.m^2.K$)	0.25	0.13
Floor U-Value ($W/.m^2.K$)	0.25	0.18
External Wall U-Value ($W/.m^2.K$)	0.35	0.16
Window U-Value ($W/.m^2.K$)	1.6	1.4
Pedestrian Doors ($W/.m^2.K$)	2.2	1.4
Fabric Air Permeability ($m^3/(m^2.h)$ at 50Pa)	5	3

<table>
<tr><th colspan="2">GLA Sustainable Design & Construction SPG</th><th colspan="2">Policy References</th><th rowspan="2">Proposed Development Response</th></tr>
<tr><th>Priority</th><th>Best Practice</th><th>London Plan</th><th>LBC</th></tr>
<tr><td></td><td></td><td></td><td></td><td>The Proposed Development is designed to minimise the requirement for mechanical ventilation, heating and cooling.

The cooling requirement for the Proposed Development has been minimised and accounts for approximately 4% of the overall Site regulated energy requirements.

Heating requirements at the Proposed Development are minimised through provision of best practice levels of insulation and limiting of fabric air permeability. For example, in the dwellings a fabric air permeability of 3m^3/(m^2.h) at 50Pa is targeted, a 70% improvement beyond the requirements of the Building Regulations Part L1A 2013.

Office space would achieve compliance with the Building Regulations Part L2A requirement to limit the effects of heat gains in summer months. This would also limit the need for cooling. Tenants would be encouraged to install high-efficiency lighting with low heat emissions. This would have the joint benefits of reducing energy requirement for space lighting, and space cooling</td></tr>
<tr><td>Use Less Energy

The design of developments should prioritise passive measures.</td><td>Use Less Energy

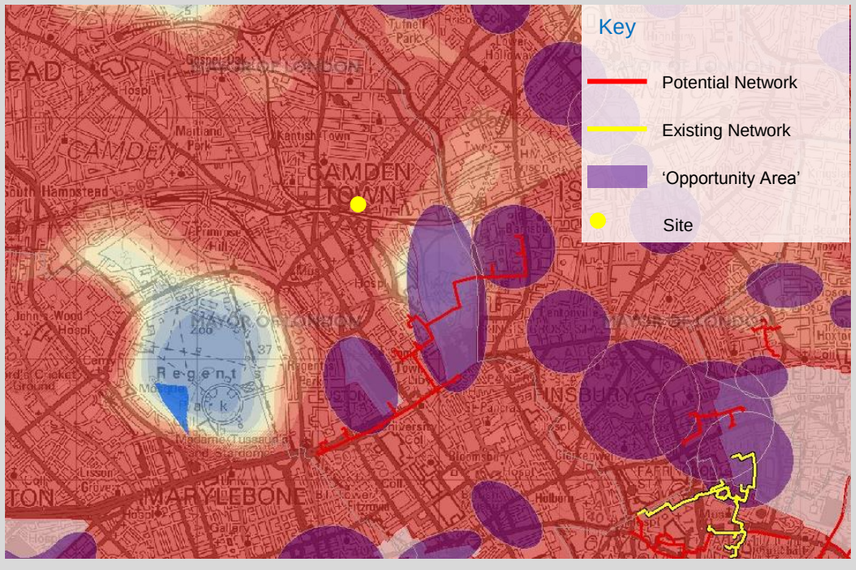
Developers should aim to achieve Part L 2013 Building Regulations requirements through design and energy efficiency alone, as far as is practical.</td><td>5.2, 5.3, 5.9</td><td>CS13, DP22, SPD Sustainability</td><td>Use Less Energy

The first step to reduce energy demand and CO_2 emissions has been to incorporate passive design and energy efficiency measures.

Passive design measures are summarised in the previous response. Energy efficiency measures are summarised in the following table.
<table>
<tr><th rowspan="2">Parameter</th><th colspan="2">Target</th></tr>
<tr><th>Dwellings</th><th>Non-Dwellings</th></tr>
<tr><td>Space Heating</td><td colspan="2" rowspan="2">Connection to DEN fuelled by CHP and high-efficiency condensing gas boilers (>90% efficiency) with Heat Interface Units (HIU) per dwelling coupled to hot water systems and Fan Coil Units for heating.</td></tr>
<tr><td>Hot Water</td></tr>
<tr><td>Cooling</td><td colspan="2">Fan coil units from a centralised cooling circuit as part of a DEN</td></tr>
<tr><td>Lighting</td><td colspan="2">High-efficiency lighting with efficacy of >45 lamp lumens per circuit Watt. Daylight and presence detection in common areas / roof terraces.</td></tr>
<tr><td>Ventilation</td><td>High-efficiency MVHR with SFP of 0.43W/l/s and HR of 91%.</td><td>High efficiency ventilation with specific fan power of 1.8W/l/s and HR of 75%</td></tr>
<tr><td>Metering & Controls</td><td colspan="2">Zonal, programmable thermostatic controls for heating and cooling. Separate programmable control for hot water.

Interlocks to safeguard efficient operation.

Electricity meter and heat meter linked to energy display device.</td></tr>
<tr><td>Pipework & Ductwork Insulation</td><td>To be provided in accordance with the requirements of the Building Regulations.</td><td>To be provided in accordance with the requirements of the Building Regulations.</td></tr>
<tr><td>Variable Speed Pumping</td><td>To be provided.</td><td>To be provided.</td></tr>
</table></td></tr>
</table>

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
				O&M Manuals | Systems overview and detailed descriptions in plain and clear English with advice on alternative languages, large type text or braille. | To be provided in accordance with the requirements of the Building Regulations. By combination of passive design and energy efficiency measures, it is demonstrated that the Proposed Development is anticipated to exceed the requirements of the Building Regulations Part L 2013 and achieve a reduction in CO_2 emissions of 10.3% (before DEN/CHP and PV). Please refer to the Energy Strategy submitted in support of the application for further details
Energy Efficient Supply Developers should assess the potential for their development to: ▪ Connect to an existing district heating or cooling network; ▪ Expand an existing district heating or cooling network, and connect to it; or ▪ Establish a Site wide network, and enable the connection of existing buildings in the vicinity of the development.	-	5.5, 5.6	CS13, SPD Sustainability	*Energy Efficient Supply* By reference to the London Heat Map (http://www.londonheatmap.org.uk/Mapping) it is demonstrated in the Energy Strategy that the Site is not within an 'Opportunity Area' for a DEN, however the Site is within an area of moderate to high heat density. There are currently no existing or potential networks within the vicinity of the Site other than the network on the adjoining site of Camden Lock Village.  The Proposed Development would connect to the adjoining Camden Lock Village development, with a 152kWe CHP engine providing 100% of the Proposed Development's space heating and hot water demand. It is anticipated that a regulated CO_2 emissions savings of 7 tonnes per annum could be achieved. This is equivalent to an 11.6% reduction in CO_2 emissions beyond the Building Regulations Part L (2013) 'baseline'.
Renewable Energy	-	5.7	CS13, SPD Sustainability	*Renewable Energy*

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
Major developments should incorporate renewable energy technologies to minimise overall carbon dioxide emissions, where feasible.				The Proposed Development would be provided with a Photovoltaic (PV) array which is anticipated to generate approximately 4,500kWh per annum, reducing CO_2 emissions by 3.2% beyond the requirements of Part L 2013.
Carbon Dioxide Offsetting				
Carbon Offsetting Where developments do not achieve the Mayor's carbon dioxide reduction targets set out in London Plan Policy 5.2, the developer should make a contribution to the local borough's carbon dioxide off-setting fund.	-	5.2, 5.4	CS13	*Carbon Offsetting* It is anticipated that the Proposed Development would reduce CO_2 emissions by 25.3% beyond the requirements of the Building Regulations Part L 2013. The Applicant acknowledges that the anticipated reduction represents a shortfall from the policy target of a 35% reduction, and would undertake negotiations with Camden Borough Council to agree a suitable offset payment.
Retrofitting				
Retrofitting Where works to existing developments are proposed developers should retrofit carbon dioxide and water saving measures.	-	5.4, 5.15	DP24, SPD Sustainability	*Retrofitting* The Proposed Development does not contain any refurbishment works / works to existing developments therefore retrofitting is not applicable in this instance.
Monitoring Energy Use				
-	*Monitoring Energy Use* Developers are encouraged to incorporate monitoring equipment and systems where appropriate to enable occupiers to monitor and reduce their energy use.	5.2, 5.3	CS13	*Monitoring Energy Use* Systems in the office spaces would be connected to a Building Management System (BMS) that would record energy use. As part of the 'Code for Sustainable Homes' approach to achieve a 'Level 4' rating, the Proposed Development would include 'energy display devices' which would allow residents to monitor and record energy use within their homes.
Supporting a Resilient Energy Supply				
-	*Monitoring Energy Use* Developers are encouraged to incorporate equipment that would enable their schemes to participate in demand side response opportunities.	5.2, 5.3	CS13	*Monitoring Energy Use* During the detailed design stages, consideration would be given to the installation of 'smart meters' which could enable demand side response opportunities in the future.
Water Efficiency				
Water Efficiency Developers should maximise the opportunities for water saving measures and appliances in all developments, including the reuse and using alternative sources of water.	-	5.3, 5.13, 5.15	CS13, DP22, DP23	*Water Efficiency* The Proposed Development would be provided with water efficient fixtures, fittings and appliances as outlined in the following responses.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
Water Efficiency Developers should design residential schemes to meet a water consumption rate of 105 litres per person per day.	-	5.3, 5.15	CS13, DP22, DP23	*Water Efficiency* As per the requirements of the 'Code for Sustainable Homes' to achieve a 'Level 4' rating, dwellings at the Proposed Development would be furnished with water efficient fixtures, fittings and appliances to achieve a water consumption rate of no greater than 105 litres per person per day. As an example, it is anticipated that dual-flush low-volume WCs would be installed throughout.
Water Efficiency New non-residential developments, including refurbishments, should aim to achieve the maximum number of water credits in a BREEAM assessment or the 'best practice' level of the AECB (Association of Environment Conscious Building) water standards.	-	5.3, 5.15	CS13, DP22, DP23	*Water Efficiency* Water efficient fixtures and fittings would be installed in the office areas, including the landlord areas. As a minimum, tenants would be encouraged to fit-out their spaces appropriately to meet the requirements of the Building Regulations Part G (2013), with the aspiration to achieve a reduction beyond this level of BREEAM credits.
Water Efficiency Where a building is to be retained, water efficiency measures should be retrofitted.	-	5.3, 5.4, 5.15	CS13, DP23	*Water Efficiency* The Proposed Development does not contain any refurbishment works / works to existing developments therefore retrofitting is not applicable in this instance.
Water Efficiency All developments should be designed to incorporate rainwater harvesting.	-	5.3, 5.13, 5.15	CS13, DP22, DP23	*Water Efficiency* It is anticipated that rainwater and surface water runoff at the Proposed Development would be collected and attenuated prior to being released. During detailed design stages, consideration would be given as to whether rainwater could be utilised for irrigation of the landscaping on the terraces. Landscaping would be designed to include plants that are resistant to drought conditions and do not require irrigation during dry spells.
-	*Water Efficiency* All residential units, including individual flats / apartments and commercial units, and where practical, individual leases in large commercial properties should be metered.	5.15	DP22, DP23	*Water Efficiency* All uses at the Proposed Development would be provided with water meters. During detailed design, consideration would be given to the provision of digital meters with connectivity to a central building management / billing system, rather than standard analogue meters.
Materials and Waste				
Design Phase	-	5.3, 5.20, 7.6, 7.14	DP22, SPD Sustainability	*Design Phase* 100% of the timber used at the Proposed Development would be FSC certified.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	

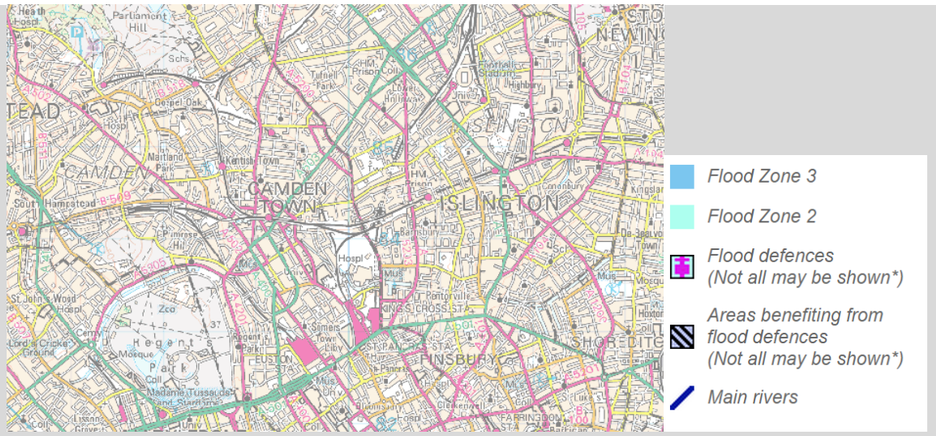
The design of development should prioritise materials that:
▪ Have a low embodied energy, including those that can be re-used intact or recycled;
  ▪ At least three of the key elements of the building envelope (external walls, windows roof, upper floor slabs, internal walls, floor finishes / coverings) are to achieve a rating of A+ to D in the BRE's The Green Guide of specification;
▪ Can be sustainably sourced;
  ▪ At least 50% of timber and timber products should be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of forestry Certification (PEFC) source;
▪ Are durable to cater for their level of use and exposure; and
▪ Would not release toxins into the internal and external environment, including those that deplete stratospheric ozone.
				It is intended that insulation materials would have an Ozone Depletion Potential (ODP) of zero, and a Global Warming Potential (GWP) of less than five in accordance with BREEAM requirements.
				
				Wherever feasible, selected materials would be in the range of A+ to D as confirmed by the BRE Green Guide to Specification.
				
				Where specified by the developer (e.g. low VOC paint), finishes and other materials would not contain or emit toxic substances.
				
				It is intended that demolition materials will be used during the construction of the development where feasible.

-	*Design Phase* The design of developments should maximise the potential to use pre-fabrication elements.	5.3, 7.6	-	*Design Phase* During detailed design stages, consideration would be given to the use of pre-fabricated materials. Where practical and suitable, it is intended that these could be used to improve construction time and reduce on-site waste.
Construction Phase Developers should maximise the use of existing resources and materials and minimise waste generated during the demolition and construction process through the implementation of the waste hierarchy.	-	5.3, 5.20	-	*Construction Phase* The main contractor would be required to produce a Site Waste Management Plan prior to commencement of any demolition or construction works on-site. One of the aims of the document would be to investigate how recycling of construction, demolition and excavation material can be maximised, and to highlight means to divert specific waste streams from landfill.
Occupation Phase Developers should provide sufficient internal space for the storage of	-	5.3, 5.17	CS18	*Occupation Phase* All spaces at the Proposed Development would be provided with suitable internal and communal waste storage facilities for the segregation of recyclable materials, designed to meet the requirements of

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
recyclable and compostable materials and waste in their schemes.				BS5096 (Waste Management in Buildings), LBC and the 'Code for Sustainable Homes' requirements to achieve a 'Level 4' rating and BREEAM 'Excellent'. Please refer to ground floor and basement level plans, indicating the refuse storage facilities.
Occupation Phase The design of development should meet borough requirements for the size and location of recycling, composting and refuse storage, and its removal.	-	5.3, 5.17	CS18	
Nature Conservation and Biodiversity				
Nature & Biodiversity There is no net loss in the quality and quantity of biodiversity.	-	5.3, 7.19	CS15	*Nature & Biodiversity* The Site currently is a vacant plot that has become overgrown. It is anticipated that there would be no net loss of ecology on-site through the provision of landscaping, terraces and green and brown roofs. It is intended that bird and bat boxes will be incorporated into the design.
Nature & Biodiversity Developers make a contribution to biodiversity on their development Site.	-	5.3, 7.19	CS15	
3.2 Climate Change Adaptation				
Tackling Increased Temperature and Drought				
Overheating Developers should include measures, in the design of their schemes, in line with the cooling hierarchy set out in London Plan Policy 5.9 to prevent overheating over the scheme's lifetime.	-	5.3, 5.9	-	*Overheating* The Proposed Development has been designed in accordance with the cooling hierarchy as set out in LP Policy 5.9. It is demonstrated that cooling has been minimised to account for only 4% of the total energy requirement of the Proposed Development. This has been achieved through a combination of measures including: Using the Part L2A 2013 approved calculation methodology, it is demonstrated that office space at the Proposed Development would be compliant with criterion three of the Building Regulations Part L, limiting the effects of heat gains in summer. As such, users are safeguarded against excessive temperatures within their workspace. Also, using Part L1A 2013 approved SAP calculation methodology, it is demonstrated that dwellings at the Proposed Development would be compliant with criterion three of the Building Regulations Part L, limiting the effects of heat gains in summer. As such, residents are safeguarded against excessive temperatures within their dwellings. Measures being targeted to achieve this include: • Energy efficient lighting (such as LED or compact fluorescent) with low heat output; • Insulated heating and hot water pipework and minimisation of dead-legs to avoid standing heat loss and • Selection of energy efficient white goods with low heat output.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
				External heat gains would be minimised by providing: • Suitable glazing ratio; • Suitable g-value to limit solar heat gains; • High levels of insulation and low fabric air permeability which would retain cool air within the dwellings in summer months; and • Roof-level planting which would reduce heat transmission through the roof structure. Living roofs also act to reduce the heat island effect, as these surfaces do not absorb the heat of the sun which causes ambient air temperatures to rise. Furthermore, via transpiration through vegetation, a degree of evaporative cooling is achieved, further ameliorating ambient air temperatures. Please refer to the Energy Strategy submitted in support of the application for further details.
-	*Heat and Drought Resistant Planting* The design of developments should prioritise landscape planting that is drought resistant and has a low water demand for supplementary watering.	5.3, 5.15	-	*Heat and Drought Resistant Planting* During detailed design stages, consideration would be given to the planting strategy to select heat and drought resistant species.
-	*Resilient Foundations* Developers should consider any long term potential for extreme weather events to affect a building's foundations and to ensure they are robust.	5.3, 7.6	-	*Resilient Foundations* The structural engineers have considered all applicable geological and hydrological conditions in accordance with relevant design guidance and standards.
Increasing Green Cover				
Urban Greening Developers should integrate green infrastructure into development schemes, including by creating links with wider green infrastructure network.	-	2.18, 5.3, 5.10, 5.11	CS15, DP22, DP25, DP31	*Urban Greening* The Proposed Development intends to improve the number of species per hectare. It is anticipated that there would be no net loss of ecology on-site through the provision of landscaping, terraces and green or brown roofs. There is limited green infrastructure in the vicinity of the Site. Any mature trees would be protected, as far as possible. The Proposed Development would consider the landscaping of the site in association with the adjoining approved Camden Lock Village masterplan.
Urban Greening Major developments in the Central London Activity Area (CAZ) should be designed to contribute to the Mayor's target to increase green cover by 5% in this zone by 2030.	-	5.10	CS15	*Urban Greening* The Site is not within the CAZ therefore this is not applicable in this instance.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
Trees				
Trees Developments should contribute to the Mayor's target to increase tree cover across London by 5% by 2025.	-	-	-	*Trees* One tree on the towpath to be removed will be replaced elsewhere with an appropriate tree or group of trees.
Trees Any loss of a tree/s resulting from development should be replaced with an appropriate tree or group of trees for the location, with the aim of providing the same canopy cover as that provided by the original tree/s.	-	-	-	*Trees* One tree on the towpath to be removed will be replaced elsewhere with an appropriate tree or group of trees.
Flooding				
Surface Water / Sustainable Drainage Developers should maximise all opportunities to achieve greenfield runoff rates in their developments.	-	5.12, 5.13	CS13, DP23	*Surface Water / Sustainable Drainage* The potential to incorporate rainwater harvesting will be investigated. Neither the volume nor rate of surface water runoff would increase beyond pre-development conditions. The Proposed Development would utilise the drainage strategy and infrastructure that is to be provided on the adjoining site of Camden Lock Village.
Surface Water / Sustainable Drainage When designing their schemes developers should follow the drainage hierarchy set out in London Plan Policy 5.13.	-	5.13	CS13, DP23	
Surface Water / Sustainable Drainage Developers should design Sustainable Drainage Systems (SuDS) into their schemes that incorporate attenuation for surface water runoff as well as habitat, water quality and amenity benefits.	-	5.3, 5.13, 5.14	CS13, DP23	
Flood Resilience Development in areas at risk from any form of flooding should include flood resistance and resilience measures in line with industry best practice.	-	5.3, 5.12, 5,13	CS13, DP22, DP23	*Flood Resilience* By reference to the Environment Agency Flood Risk Map, it is understood that the Site is not within a zone of significant flood risk as outlined in the image below:

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
				
Flood Risk Management Developments incorporate the recommendation of the TE2100 plan for the future tidal flood risk management in the Thames estuary.	-	5.3, 5.12	CS13	*Flood Risk Management* The flood risk calculations undertaken for the Site and design of attenuation storage systems include for the potential increase in flood risk as a result of climate change. Please refer to the Flood Risk Assessment for further details.
Flood Risk Management Where development is permitted in a flood risk zone, appropriate residual risk management measures are to be incorporated into the design to ensure resilience and the safety of occupiers.	-	5.3, 5.12	-	
Other Flooding All sources of flooding need to be considered when designing and constructing developments.	-	5.3, 5.12, 5.13	CS13, DP22, DP23	*Other Flooding* The drainage strategy for the Proposed Development has been prepared in consideration of flooding from all applicable sources.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
3.3 Pollution Management				
Land Contamination				
Land Contamination Developers should set out how existing land contamination would be addressed prior to the commencement of their development.	-	3.2, 5.3, 5.21	-	*Land Contamination* The Site is not understood to be contaminated. A desktop assessment has been submitted with the application.
Land Contamination Potentially polluting uses are to incorporate suitable mitigation measures.	-	3.2, 5.3, 5.21	-	*Land Contamination* The Proposed Development is not proposing to include uses that would lead to land contamination.
Air Quality				
Air Quality Developers are to design their schemes so that they are at least 'air quality neutral'.	-	7.14		*Air Quality* Systems at the Proposed Development would be selected to minimise emissions of Nitrous Oxide (NOx) and other pollutants which can lead to adverse air quality impacts.
Air Quality Developments should be designed to minimise the generation of air pollution.	-	5.3, 7.14		
Air Quality Developments should be designed to minimise and mitigate against increased exposure to poor air quality.	-	3.2, 5.3, 7.14		*Air Quality* The Dwellings at the Proposed Development would be furnished with Mechanical Ventilation with Heat Recovery (MVHR) and the fabric of dwellings would be constructed to be very air tight, targeting a permeability of less than $3m^2/(m^2.h)$ at 50Pa. As such, air pollution would not be permitted to enter the dwellings through the fabric, and ventilation controlled by the MVHR would be filtered to remove airborne pollutants. Similarly, non-residential uses would be provided with mechanical ventilation with suitable filtration to manage indoor air quality.
Air Quality Developers should select plant that meets the standards for emissions from combined heat and power and biomass plants set out in Appendix 7.	-	7.14	-	*Air Quality* The Proposed Development would connect to the District Energy Network of the adjoining approved Camden Lock Village masterplan and therefore would not directly impact on air quality through the provision of a CHP engine or biomass boiler.
Air Quality Developers and contractors should follow the guidance set out in the emerging The Control of Dust and	-	5.3, 7.14		*Air Quality* It is intended that contractors would comply with The Control of Dust and Emissions during Construction and Demolition SPG.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
Emissions during Construction and Demolition SPG when constructing their development.				Contractors would be required to identify potential sources of dust and other air pollution and appropriate dust control measures would be implemented. It is also intended that the main contractor shall register under the Considerate Constructors Scheme and achieve a best practice score.
Noise				
Noise Areas identified as having positive sound features or as being tranquil should be protected from noise.	-	3.2, 7.15		*Noise* The Proposed Development does not include areas identified as having positive sound features or as being tranquil.
Noise Noise should be reduced at source, and then designed out of a scheme to reduce the need for mitigation measures.	-	3.2, 5.3, 7.6, 7.15		*Noise* It is intended that external and internal wall and floor specifications would ensure comfortable noise levels, particular for office staff. Sound insulation would be provided to limit impact sound and airbourne beyond the requirements of the Building Regulations Part E. Noise attenuation measures would be incorporated on-site where required, to ensure that any noise generated by equipment or services would not generate a source of noise pollution or negatively impact the surrounding area. The Site is located in an area with a high level of background noise. High efficiency mechanical ventilation would be used to provide air to the spaces where natural ventilation is not possible. This would aid noise attenuation as occupants would not be reliant on opening windows to maintain good indoor air quality and control internal temperatures.
Light Pollution				
Light Pollution Developments and lighting schemes should be designed to minimise light pollution.	-	5.2, 5.3, 6.7		*Light Pollution* All external light provided as part of the Proposed Development would be energy efficient. It is anticipated that suitable controls such as daylight detection and time-switches would be provided to minimise inappropriate use. Additionally, the office spaces would be primarily occupied during daytime hours, therefore there would be minimal lighting pollution during evening and night time hours from these spaces. Luminaires would be selected with suitable light output ratio and polar curve to ensure light is distributed appropriately. This would minimise light lost to the sky. The PV panels provided at the Proposed Development are anticipated to generate 4,500kWh of electricity per annum. This would be used to power landlord electricity uses such as external lighting.
Water Pollution				
Surface Water Runoff In their aim to achieve a greenfield runoff rate developers should incorporate sustainable urban drainage systems (SUDS) into their schemes	-	5.3, 5.13, 5.14	CS13, DP23	*Surface Water Runoff* It is intended that SUDS measures would be adopted at the Proposed Development in the form of green planting at roof level and possible rainwater harvesting for landscape irrigation. Neither the volume nor rate of surface water runoff would increase beyond pre-development conditions.

GLA Sustainable Design & Construction SPG		Policy References		Proposed Development Response
Priority	Best Practice	**London Plan**	**LBC**	
which also provide benefits for water quality.				Attenuation would be provided to achieve a 50% reduction in peak surface water runoff for the 1 year 30 minute event.
-	*Surface Water Runoff* Encourage good environmental practice to help reduce the risk from business activities on the London water environment.	5.3, 5.13, 5.14	CS13, DP23	*Surface Water Runoff* It is intended that office tenants would be advised of good environmental practice to reduce risk on the London water environment.
-	*Surface Water Runoff* Encourage those working on demolition and construction-Sites to prevent pollution by incorporating prevention measures and following best practice.	5.3, 5.14	CS13, DP23	*Surface Water Runoff* It is intended that the main contractor would be required to operate in an environmentally conscious manner to prevent pollution. It is also intended that the main contractor shall register under the Considerate Constructors Scheme and achieve a best practice score.
Wastewater Treatment				
Wastewater Treatment Commercial developments discharging trade effluent should connect to the public foul sewer or combined sewer network where it is reasonable to do so subject to a trade effluent consent from the relevant sewerage undertaker.	-	5.3, 5.14	CS13, DP23	*Wastewater Treatment* All spaces at the Site would be provided with suitable connections to the public foul sewer or combined sewer network, as appropriate.
Wastewater Treatment Developments should be properly connected and post construction checks should be made by developers to ensure that misconnections do not occur.	-	5.3, 5.14		

4.0 Conclusions

This Sustainability Statement demonstrates that high standards of environmental sustainability would be achieved for the Proposed Development. This is demonstrated by the commitment to energy efficiency, water efficiency, waste management and cyclist facilities.

The features of the Proposed Development include:

1. The office space at the Proposed Devleopment seeks to target a BREEAM New Construction assessment rating with the aspiration for 'Excellent'.
2. The Proposed Development is designed to achieve a regulated CO_2 emission reduction of 25.3% beyond the requirements of Part L 2013. This would be achieved through passive design and energy efficiency measures, alongside connection to a DEN and a 10kW_p PV array.
3. Water efficient fixtures and fittings would be installed in order to reduce water consumption at the Proposed Development. As a minimum, Tenants would be encouraged to fit out their spaces appropriately to meet the requirements of the Building Regulations Part G (2013).
4. Sustainable Urban Drainage Systems (SUDS) would be provided, such as brown or green roofs, in order to reduce rainwater surface run-off.
5. Sustainably sourced, recycled or re-used building materials would be specified where possible.
6. A Site Waste Management Plant would be produced to monitor, sort and recycle construction waste on-site.
7. Recyclable waste storage would be provided for commerical spaces in order to manage operational waste.
8. Secure cycle storage spaces would be installed to encourage the use of bicycles amongst office staff.
9. Contractors would sign up to the Considerate Constructors Scheme (CCS) and target a best practice score.

5.0 Appendix A – BREEAM Pre-Assessment Summary

5.1 Target Rating

The BREEAM is a recognised environmental assessment methodology adopted managed by the 'Building Research Establishment' (BRE).

LBC policy requires a BREEAM assessment to be conducted for non-residential proposals with a floorspace of 500m^2 or greater. From 2013 onwards, LBC targets a BREEAM 'excellent' rating with minimum requirements for Energy, Water and Materials categories. 60% of energy, 60% of water and 40% of materials credits are to be achieved.

The current estimated score for this BREEAM 2011 pre-assessment is 70.07%, equivalent to an 'Excellent' rating with a 0.07% margin. Potential credits have been targeted to increase the margin to 2.23%.

Figure 5.1 outlines the current pre-assessment score and the potential score if all potential credits were also achieved.

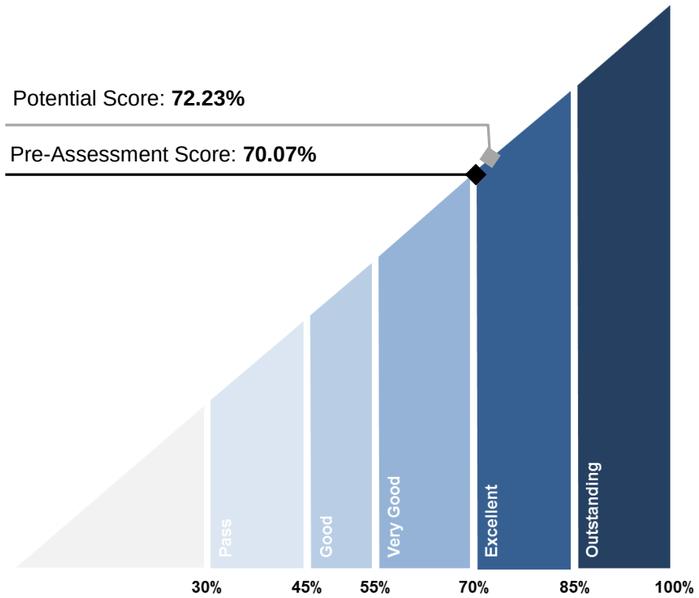


Figure 5.1: BREEAM Scale and Pre-Assessment Score.

5.2 Target Credits

Table 5.1 provides a summary of the credits being targeted.

Category	Issue	Credits (innovation) Available	Targeted	Potential
Management	Man 01: Sustainable Procurement **(M)**	8	7	
	Man 02: Responsible Construction Practices **(M)**	2	2	
	Man 03: Construction Site Impacts	5	4	
	Man 04: Stakeholder Participation **(M)**	4	2	+2
	Man 05: Life Cycle Cost and Service Life Planning	3	-	
Health & Wellbeing	Hea 01: Visual Comfort **(M)**	3	2	+1
	Hea 02: Indoor Air Quality	4	-	
	Hea 03: Thermal Comfort	2	2	
	Hea 04: Water Quality **(M)**	1	1	
	Hea 05: Acoustic Performance	2	2	
	Hea 06: Safety and Security	2	2	
Energy	Ene 01: Reduction of CO_2 Emissions **(M)**	15	6	
	Ene 02: Energy Monitoring **(M)**	2	2	
	Ene 03: External Lighting	1	1	
	Ene 04: Low and Zero Carbon Technologies **(M)**	5	3	
	Ene 06: Energy Efficient Transportation Systems	-	-	
	Ene 08: Energy Efficient Equipment	2	2	
Transport	Tra 01: Public Transport Accessibility	3	3	
	Tra 02: Proximity to Amenities	1	1	
	Tra 03: Cyclist Facilities	2	2	
	Tra 04: Maximum Car Parking Capacity	2	2	
	Tra 05: Travel Plan	1	1	
Water	Wat 01: Water Consumption **(M)**	5	2	
	Wat 02: Water Monitoring **(M)**	1	1	
	Wat 03: Water Leak Detection and Prevention	2	2	
	Wat 04: Water Efficient Equipment	1	1	
Materials	Mat 01: Life Cycle Impacts	5	3	
	Mat 02: Hard Landscaping and Boundary Protection	1	1	
	Mat 03: Responsible Sourcing of Materials **(M)**	3	1	
	Mat 04: Insulation	2	2	
	Mat 05: Designing for Robustness	1	1	
Waste	Wst 01: Construction Waste Management **(M)**	4	4	
	Wst 02: Recycled Aggregates	1	1	
	Wst 03: Operational Waste **(M)**	1	1	
	Wst 04: Speculative Ceiling and Floor Finishes	1	1	
Land Use and Ecology	LE 01: Site Selection	2	1	
	LE 02: Ecological Value of Site and Protraction of Ecological Features	1	1	
	LE 03: Mitigation Ecological Impact	2	2	
	LE 04: Enhancing Site Ecology	3	2	
	LE 05: Long Term Impact on Biodiversity	2	1	
Pollution	Pol 01: Impact of Refrigerants	3	-	
	Pol 02: NO_x Emissions	3	3	
	Pol 03: Surface Water Run-off	5	3	
	Pol 04: Reduction of Night-time Light Pollution	1	1	
	Pol 05: Noise Attenuation	1	1	
	Weighted Score: **Rating:**		70.07% **'Excellent'**	72.23% **'Excellent'**

Table 5.1: BREEAM Pre-Assessment Summary

6.0 Appendix B – Code for Sustainable Homes Pre-Assessment Summary

The Code for Sustainable Homes (CfSH) is a recognised environmental assessment methodology adopted managed by the 'Building Research Establishment' (BRE).

Both GLA and LBC (DP22) are targeting a minimum of 'Level 4' CfSH rating, with aspiration to target Level 6 zero carbon from 2016 onwards. Additionally LBC sets minimum requirements stating that 50% of the credits in Energy, Water and Materials must be achieved.

The current estimated score achieves a 'Level 4' rating with a margin of 3.36 points. Potential credits have been highlighted and if targeted this would increase the margin to 6.19 points.

Figure 6.1 outlines the current pre-assessment score.

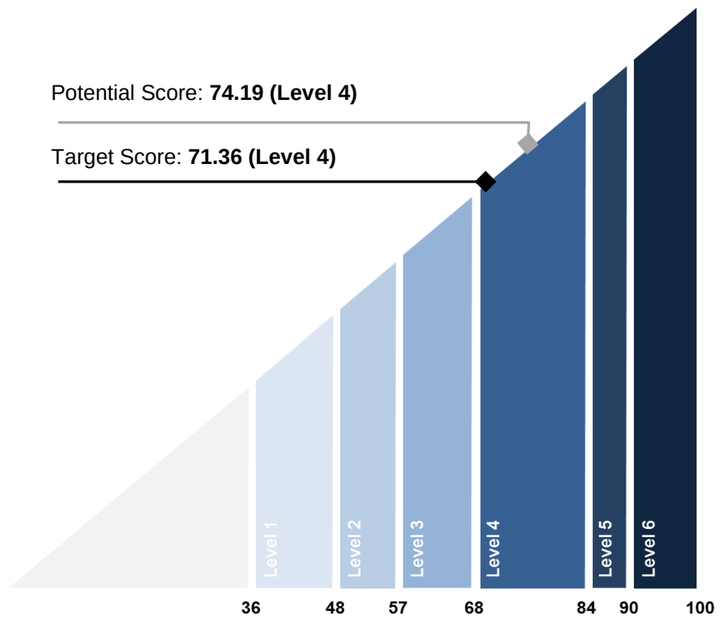


Figure 6.1: CfSH Scale and Pre-Assessment Score.

6.1 Target Credits

Table 6.1 provides a summary of the credits being targeted.

Category	Issue	Credits Available	Credits Targeted	Potential
Energy and CO2 Emissions	Ene 1: Dwelling Emission Rate (M)	10	3	
	Ene 2: Fabric Energy Efficiency (M)	9	7	
	Ene 3: Display Energy Devices	2	2	
	Ene 4: Drying Space	1	1	
	Ene 5: Energy Labelled White Goods	2	2	
	Ene 6: External Lighting	2	2	
	Ene 7: Low and Zero Carbon Technologies	2	2	
	Ene 8: Cycle Storage	2	1	
	Ene 9: Home Office	1	0	
Water	Wat 1: Indoor Water Use (M)	5	3	
	Wat 2: External Water Use	1	-	+1
Materials	Mat 1: Environmental Impact of Materials (M)	15	10	
	Mat 2: Responsible Sourcing of Materials (Building Elements)	6	3	
	Mat 3: Responsible Sourcing of Materials (Finishing Elements)	3	2	
Surface Water Run-off	Sur 1: Management of Surface Water Runoff (M)	2	2	
	Sur 2: Flood Risk	2	2	
Waste	Was 1: Storage of Non-Recyclable Waste and Recyclable Waste (M)	4	4	
	Was 2: Construction Site Waste Management	3	3	
	Was 3: Composting	1	1	
Pollution	Pol 1: Global Warming Potential (GWP) of Insulants	1	1	
	Pol 2: NOx Emissions	3	3	
Health & Wellbeing	Hea 1: Daylighting	3	-	
	Hea 2: Sound Insulation	4	3	
	Hea 3: Private Space	1	1	
	Hea 4: Lifetime Homes (M)	4	4	
Management	Man 1: Home User Guide	3	3	
	Man 2: Considerate Constructors Scheme	2	2	
	Man 3: Construction Site Impacts	2	2	
	Man 4: Security	2	2	
Ecology	Eco 1: Ecological Value of the Site	1	1	
	Eco 2: Ecological Enhancement	1	1	
	Eco 3: Protection of Ecological Features	1	1	
	Eco 4: Change in Ecological Value of the Site	4	2	+1
	Eco 5: Building Footprint	2	2	
	Weighted Score: **CfSH Pre-Assessment Rating:**		71.36 **'Level 4'**	74.19 **'Level 4'**

Table 6.1: CfSH Pre-Assessment Summary

7.0 Appendix C: Policy Context

7.1 The Building Regulations

Approved Document Part L

Part L of the Building Regulations is the mechanism by which government is driving reductions in the regulated CO_2 emissions from new buildings.

The Proposed Development has been assessed against Part L 2013 in line with the requirements of the London Plan 2011.

Current Requirements: Part L 2013

Part L has five key criteria which must be satisfied as follows:

a Criterion 1 - Achieving the Target Emission Rate (TER)

b Criterion 2 - Limits on design flexibility

c Criterion 3 - Limiting the effects of solar gains in summer

d Criterion 4 - Building performance consistent with the Dwelling Emission Rate (DER)

e Criterion 5 - Provision for energy efficient operation of the dwelling

Criteria one, two and three are addressed within this strategy.

Criterion one requires that the building as designed is not predicted to generate CO_2 emissions in excess of that set by the Target Emission Rate (TER) calculated in accordance with the approved Standard Assessment Procedure (SAP) 2012. Part L (2013) requires the following reductions:

a A 6% aggregate reduction in CO_2 emissions beyond the requirements of Part L 2010 for dwellings; and

b A 9% aggregate reduction in CO_2 emissions beyond the requirements of Part L 2010 for non-domestic buildings.

Criterion two places upper limits on the efficiency of controlled fittings and services. For new buildings assessed under Part L2A, an upper limit to an external wall U-value of 0.35W/m^2.K is applied.

Criterion Three requires that zones in commercial buildings are not subject to excessive solar gains. This is demonstrated using the procedure given in the National Calculation Methodology (NCM) 2013.

7.2 Regional Planning Policy

The regional policies of the GLA are contained within the London Plan (FALP, 2015) and the Sustainable Design and Construction SPG (2014). The London Plan policies have been outlined in the table in section 5 and therefore a detailed overview of the London Plan in this section is not required.

The London Plan (2015)

Whilst this statement does not explicitly refer to the updated London Plan released in March (2015), key alterations are summarised here:

- A new policy is in place relating to electricity and gas supply.
- Policy guidance changes relating to increased provision of waste capacity
- Funding to create cycle friendly ‘mini Hollands’ for up to four outer London borough town centres.
- Further guidance is given highlighting the importance of demand side energy management and minimum standards for cycle parking.

7.3 Local Planning Policy

The local policies of the London Borough of Camden (LBC) are contained within the Local Plan (LP) documents.

Those applicable to the Proposed Development are:

- Camden Core Strategy (2010)
- Camden Development Policies (2010)
- North London Waste Plan (Draft: 2015)
- Supplementary Planning Documents:
  - Camden Planning Guidance: Sustainability (2013)
  - Camden Planning Guidance: Transport (2013)
  - Camden Planning Guidance: Planning Obligations (2011)
  - Camden Planning Guidance: Design (2013)
  - Camden Site Allocations, Local Development Document (2013)
  - The Camden Plan (2012)

Camden Council is currently reviewing its main planning policies to produce a new Local Plan which would replace the Camden Core Strategy and Development Policies. Whilst these policies have not been included in the above report, key changes to policies which may impact the Proposed Development are summarised below:

- Continue to have a negotiating target of 50% affordable homes, prioritising large affordable homes
- Retain existing 60%-40% guideline split between ‘social-affordable rented homes (for lower incomes) and ‘intermediate’ housing for (middle incomes).
- Basements or other underground development would only be permitted where it is demonstrated that the proposal would not cause harm to the neighbouring properties, structural ground, or water conditions of the area and the character and amenity of the area.
- New build housing would be expected to meet Code Level 6 by 2016 or future replacement standards.
- Non-domestic developments of 500m^2 of floorspace or above would be expected to achieve a BREEAM ‘excellent’ rating from 2013 onwards.

Camden Core Strategy

The Camden Core Strategy was adopted in November 2010. The Core Strategy defines how Camden would change up to 2025. The Core Strategy is a key element of the Local Development Plan and sets out the elements of the Council's planning visions and plans for the boroughs future. This strategy contributes to Camden's Community Strategy.

- CS11 – Promoting Sustainable and Efficient Travel
    - Improve strategic transport infrastructure to support growth e.g. improvements to Camden's London Underground and Overground stations
    - Promote sustainable travel by improving public spaces and pedestrian links across the borough, improve facilities for cyclists including cycle parking and work with Transport for London to improve bus network.
    - Encourage car clubs, minimise provision for private parking in new developments, promote the use of low emission vehicles and the provision of electric charging points.
    - Growth and development has regard to Camden's road hierarchy and does not cause harm to the management of the road network.
- CS13 – Tackling Climate Change through promoting higher environmental standards
    - All development to take measures to minimise the effects of, and adapt to, climate change and encourage all development to meet the highest feasible environment standards
    - Promote local energy generation and networks – assess the feasibility to connect to a decentralised energy network or include Combined Heat and Power (CHP)
    - Make Camden a water efficient borough and minimise the potential for surface water flooding, e.g. by ensuring development incorporates efficient water and foul water infrastructure.
    - Take a lead in tackling climate change
- CS15 – Protecting and improving our parks and open spaces and encouraging biodiversity
    - Protect open spaces
    - Protect and improve sites of nature conservation and biodiversity in particular habitats and biodiversity identified in the *Camden and London Biodiversity Plans*
- CS18 – Dealing with our waste and encouraging recycling
    - Reduce the amount of waste produced in the borough and increase recycling and the re-use of materials to meet our targets of 40% of household waste recycled by 2010, 45% by 2015 and 50% by 2020

Camden Development Policies

Further policies applicable to the development are stated within in Camden Development policies document, which was adopted in 2010. Camden Development policies are an additional part of the Local Development Plan and sets out the elements of the Council' planning visions and plan for the borough's future.

- DP16 – Transport Implications of Development
    - Development is to be properly integrated with the transport network and is supported by adequate walking, cycling and public transport links
    - Development proposals to make appropriate connections to highways and street spaces in accordance with Camden's road hierarchy, and to public transport networks.
    - Additional transport capacity offsite where existing capacity cannot meet demands from the proposed development and indicate steps that would be taken to mitigate impacts of the development, such as a transport assessment and travel plans
- DP17 – Walking, cycling and Public Transport
    - Council would promote walking, cycling and public transport use.
    - Development should make suitable provision for pedestrians, cyclists and public transport, e.g. designated footways or cycleways
    - Council would resist development that would be dependent on travel by private motor vehicles.
- DP18 – Parking Standards and Limiting the Availability of Car Parking
    - Development to provide the minimum necessary car parking provision
    - Council expect development to be car free in Camden Town
    - Development should comply with the Council's parking standards and where car parking provision is required, development should not exceed the maximum standard for the area in which it is located.
- DP22 – Promoting Sustainable Design and Construction

- Require development to incorporate sustainable design and construction methods
- Similar Approach as stated CS13 from the *Camden Core Strategy*
- Require the development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures e.g. summer shading and reducing water consumption
- Non-domestic developments of 500sqm of floorspace or above to achieve BREEM "Excellent"
- Council expects all developments to incorporate brown roofs, green roofs and green walls unless it is demonstrated it is not possible or appropriate

- DP23 – Water
  - Require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding
  - Incorporate water efficient features and equipment and capturing, retaining and re-using surface water and grey water on-site
  - Provision of attractive and efficient water features
  - Developments over 10 units or 1000sqm should include grey water recycling

- DP24 – Securing High Quality Design
  - Alterations and extensions to existing buildings to be of the highest standard of design and should consider the character and setting, quality of materials used, existing natural features, hard and soft landscaping, accessibility, appropriate amenity space and the character and proportions of the existing building, where alterations and extensions are proposed

- DP25 – Conserving Camden's Heritage
  - Maintain the character of Camden's conservation areas
  - Preserve or enhance the borough's listed buildings
  - Protects remains of archaeological importance by ensuring acceptable measure are taken to preserve them and their setting, including physical preservation, where appropriate
  - Protect other heritage assets including Parks and Garden of Special Historic Interest and London Squares

- DP31 – Provision of, and improvements to, open space and outdoor sport and recreation facilities
  - To ensure the quantity and quality of open space and outdoor sport and recreation facilities in Camden are increased and deficiencies and under provision are not made worse, the Council would only grant planning permission for development that is likely to lead to an increased use of public space where an appropriate contribution to the supply of open space is made
  - Priority would be given to the provision of publicly accessible open space.

Camden Supplementary Planning Documents SPD

Camden Planning Guidance: Sustainability (2013)

The SPD provides information on ways to achieve carbon reductions and more sustainable developments. The SPD contains tables and checklists which should be completed and submitted with planning applications alongside relevant supporting evidence. There is guidance to help protect and enhance biodiversity and natural habitats. The SPD gives requirements and guidelines to support the policies: CS13 from Core Strategy and DP22 and DP23 from Development Policies. Key targets include:

- Developments of >500sqm require an energy statement to be submitted;
- Developments involving a change of use or a conversion of >500 sqm of any floorspace would be expected to achieve 60% of the un-weighted credits in the Energy category in the BREEAM assessment.
- 20% of CO_2 reduction to be met via on site renewables as per policy CS13
- 10% of the total value of materials used to be derived from recycle and reused sources as per policy CS13, or if major development the target is 15-20%
- 10% of projects costs should be spent on the refurbishment of existing buildings to reduce their carbon emissions
- Assess the feasibility to connect to an existing or upcoming (within 3 years) decentralised energy network within 1km of the development
- Design development to enable its connection to a decentralised energy network in the future
- Where there is no connection and or no agreement to connect your development within 3 years to a decentralised energy network, on site CHP would be expected where heating demand makes it feasible
- If there is more than one occupier, use of building a community heating network would be expected
- If no connection or agreement to connect to a decentralised energy network occurs within 3 years and the scheme does not include CHP, a financial contribution would be expected to enable future expansion and connection to energy network.

Camden Planning Guidance: Transport (2013)

The SPD provides information on all types of detailed transport issues that should be considered. This guidance supports the policies CS11 and CS16 as stated in Core Strategy; and DP16, DP17, DP18, DP19, DP20, DP21 and DP32 of Development Policies. This document provides guidance on assessments such as:

- Transport Assessments in accordance with Appendix 1 of the Camden Development Policies
- Travel Plans

Camden Planning Guidance: Planning Obligations (2011)

The purpose of this guidance is to provide an indication of what may be required when the Council considers that a development proposal needs a planning obligation to be secured through a legal agreement. The use of planning obligations is specifically required through policy CS19 – Delivery and monitoring the Core Strategy, although a whole range of individual Development policies may be used to justify an obligation, particularly those relating to affordable housing, sustainability and transport.

Camden Planning Guidance: Design (2013)

This SPD has been prepared to provide guidance for conserving Camden's rich heritage as well as to promote the development of high quality buildings and spaces which would be appreciated by future generations. This document provides information on detailed design issues including heritage, landscape design and waste recyclables storage. This guidance supports LDF policies, including *CS18 - Dealing with our waste and encouraging recycling.*

Camden Site Allocations, Local Development Document (2013)

The SPD states key objectives set by the Council and offers guidance for the development of land and buildings on significant sites.

The Camden Plan (2012)

The SPD show the five-year vision for the borough and sets out what the Council would like the borough to become by 2017.

North London Waste Plan (2015)

The North London Waste Plan (NLWP) would set out the planning framework for waste management in the North London Boroughs for the next 15 years. A 3 month consultation period took place in 2013 and the draft plan is currently being developed and due to be released in early 2015. The plan is due to be adopted in February 2017.