Sustainability Statement

for Camden Council

26-27 Kirby Street, Camden, London, EC1N 8TE

SHGL is a member of The Building Consultancy Group

Sustainable Homes and Gardens Ltd
Registered Office: 44 Canal Street, Bootle, Merseyside, L20 8QU
t 01519330328 e info@shgl.co.uk
Registered in England No. 6649700 VAT Registration No. 100 1263 94

Client: Peter Tuson
Euro Mounts and Findings,
Antwerp House,
26-27 Kirby Street,
EC1N 8TE

Site: Antwerp
26-27 Kirby Street,
Camden,
London,
EC1N 8TE

Proposals:

An existing office building over three storey's with a basement, which is to be extended to add three new storey's above refurbished office space. The proposed storey's are to be three new residential apartments.

Report Details:

Prepared by	Checked by	Date	Version
Carina Clarke BSc (hons)	Peter Kinsella BSc (hons)	06.10.2015	Rev2

This document has been prepared solely as a Sustainability Statement for *Peter Tuson* Sustainable Homes and Gardens Ltd (SHGL) accepts no responsibility or liability for any use that is made of this document other than by the Client for the purposes for which it was originally commissioned and prepared.

Contents:

1 Introduction

This sustainability report has been prepared in support of the planning application for the construction of three new flats above refurbished office space.

The report responds to the Local Planning Authority's Core Strategy which sets out the requirement to comply with The London Plan Supplementary Planning Guidance on Sustainable Design and Construction (2014). The report will provide details of the standards to which the proposed site will need to meet, while also providing an approach the proposed site can adopt to meet the sustainability standards of the London Plan.

2 Policies

Camden District Council Core Strategy requires that a ~Sustainability Statement is required for planning submission of new sites. Below highlights the planning polices for the Sustainability Statement.

National Planning Policy

Consolidated London Plan 2015 which refers to Policy 5.3 Sustainable Design and Construction 2014

The Consolidated London Plan is now required to be considered with all planning applications.

Policy 5.3 Sustainable Design and Construction
Strategic
A - The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.

Planning Decisions
B - Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction and operation, and ensure that they are considered at the beginning of the design process.

C - Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principles:
a minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems)
b avoiding internal overheating and contributing to the urban heat island effect
c efficient use of natural resources (including water), including making the most of natural systems both within and around buildings
d minimising pollution (including noise, air and urban runoff)
e minimising the generation of waste and maximising reuse or recycling
f avoiding impacts from natural hazards (including flooding)
g ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions
h securing sustainable procurement of materials, using local supplies where feasible, and
i promoting and protecting biodiversity and green infrastructure.

LDF Preparation
D - Within LDFs boroughs should consider the need to develop more detailed policies and proposals based on the sustainable design principles outlined above and those which are outlined in the Mayor's supplementary planning guidance that are specific to their local circumstances".

The Consolidated London Plan (March 2015) has been used for the basis of this report, while also using the following local authority policies:-

Camden Council Local Authority Policies

Policy DP22 Sustainable Design and Construction

Reducing the effects of and adapting to climate change

"The Council will require all development to take measures to minimise the effects of, and adapt to, climate change and encourage all development to meet the highest feasible environmental standards that are financially viable during construction and occupation by:
a) ensuring patterns of land use that minimise the need to travel by car and help support local energy networks;
b) promoting the efficient use of land and buildings;
c) minimising carbon emissions from the redevelopment, construction and occupation of buildings by implementing, in order, all of the elements of the following energy hierarchy: - ensuring developments use less energy, - making use of energy from efficient sources, such as the King's Cross, Gower Street, Bloomsbury and proposed Euston Road decentralised energy networks; - generating renewable energy on-site; and

d) ensuring buildings and spaces are designed to cope with, and minimise the effects of, climate change. The Council will have regard to the cost of installing measures to tackle climate change as well as the cumulative future costs of delaying reductions in carbon dioxide emissions

Ensuring developments use less energy

13.8 A building's use, design, choice of materials and other measures can minimise its energy needs during both construction and occupation. The Council will encourage all developments to meet the highest feasible environmental standards taking into account the mix of uses, the possibility of re-using buildings and materials and the size and location of the development. In addition to design and materials, a building's internal heating and cooling design, lighting and source of energy can further reduce energy use. Policy DP22 - Promoting sustainable design and construction in Camden Development Policies provides further guidance on what measures can be implemented to achieve an environmentally sustainable building. The Building Research Establishment's Environmental Assessment Method (BREEAM) and the Code for Sustainable Homes provide helpful assessment tools for general sustainability. Further details on these assessment tools can be found in Development Policy DP22 and our Camden Planning Guidance supplementary document.

The aim of this report is to enable the proposed dwelling/s to meet the standards set out by the local planning authority Policy DP22 and the Consolidated London Plan 2015, Sustainable Design and Construction. By having a solid approach to sustainability from early on at Riba stages 2 and 3 of the development, sustainable design features can be infused within the proposed development.

Having more buildings being built to a higher sustainable level, will create more of a demand for a higher standard of environmental buildings and encourage more building in the future to be built to higher environmental standards.

3 Existing and Proposed Development

The site is at the corner of St Cross Street and Kirby Street and is within the Hatton Garden Conservation area.

The existing site currently consists of a three storey (with basement) mid terrace commercial building known as Antwerp House. There is retail on the ground floor, and offices on the floors above.

The proposals are for the construction of three additional storey's over the existing commercial space to create further office space and three new apartments.

Access and egress for the proposed dwellings will be provided off Kirkby Street which leads from St Cross Street.

From the front entrance the proposed building faces in a north-easterly direction.

Given the scale and nature of the site (in particular the adjacent buildings situated in the terrace), this constrains the development proposals in terms of the layout, positioning and orientation of the proposed dwelling. Subsequently, these constraints will impact on the feasibility of certain sustainability and energy efficient measures technologies (as discussed in Section 4 of this report).

4 Sustainability Statement

The following sustainability statement is based on the policies and best practise standards set out in The London Plan Sustainable Design and Construction (2014), as required by Policy 5.3 of the Consolidated London Plan (2015) and DP22 of the Local Authority Policy.

Priority	Best Practise	London Plan	Local Policy	Proposed Development details
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		**Land** The proposed development will be on previously developed land reducing the impact of building on new land.
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 proposed development will be on previously developed land consisting of three storey (with basement) mid terrace commercial building known as Antwerp House. There is retail on the ground floor, and offices on the floors above. Therefore optimising the use of land having a reduce building footprint and have a high ratio of net internal floor area to net ground floor area.
Basement and Lightwells When planning a basement development, developers should consider the geological and hydrological conditions of the Site and surrounding		5.12, 5.13, 7.13, 7.19		**Basement and Lightwells** Basements have been proposed for the building to accomate commercial space. A 'Basement Impact Assessment' will be carried out to take account of the effects on geological and hydrological conditions.

area, proportionate to the local conditions, the size of the basement and lightwell and the sensitivity of adjoining buildings and uses, including green infrastructure.			
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** A 'Basement Impact Assessment' will be carried out to take account of the effects on geological and hydrological conditions, and construction and demolition processes will fall in accordance with procedures for reducing construction site impacts for air pollution (dust), surface water pollution, and noise. The site is expected to be in accordance with the Considerate Constructors Scheme standards and therefore, any noise, vibration, dust, air and light pollution as a result of works to these new spaces would be adequately mitigated.
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 proposed 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. **Local Food Growing** - To take advantage of	2.18, 3.2, 5.3, 5.10, 5.11, 5.21, 7.18, 7.22.	Local Food Growing The Proposed Development is on previously developed land and has very little or no opportunity to provide space for individual or communal food growing.

	existing spaces to grow food, including adapting temporary spaces for food growing.			
Site Layout / Building Design				
	Site Layout and 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 and Building Design -** The site consists of existing commercial space where the refurbished elements and new buildings will be of high quality design beyond building regulations requirements.
	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 and Building Design -** The proposed development will contain a combination of commercial space and dwellings. Considering the Site has a Public Transport Accessibility Level of 8 e.g. 'Excellent' it is not considered necessary to provide further amenities as users are able to access a wide range of amenities via public transport.

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,	CS11, CS13, CS15, DP16, DP17, DP18, DP22, DP24, DP25, DP31	**Site Layout & Building Design** The proposed development would make use of the existing buildings and be refurbished to a high standard.
Existing Features - The possible retention and reuse of existing buildings and structures; - The retention of existing green infrastructure, including trees and other ecological features, and potential for its improvement anextension; and - Access routes to public transport and other facilities that minimise the use of private transport.	6.9, 6.10, 6.11. 6.13, 7.1, 7.6, 7.14, 7.15, 7.18, 7.19, 7.21, 7.22		**Existing Features** The existing site contains a number of significant structures that would be maintained and repaired. There is no existing green infrastructure located on site. There will be some demolition on site and therefore some waste that arises from demolition. The demolition waste will consist of concrete floor slabs, and bricks from the facades. These materials will be crushed, cleaned and recycled and where possible the materials will be reused. However due to the nature of the site, this would be unlikely. The proposed development would not provide off street parking, however there will be space provided for cycle storage in the basement to provide space for four bicycles. Transport access in the local areas is also very good for the future occupies. Therefore with the cycle storage and nearby transport nodes this will help to reduce private transport and reduce CO2 emissions.

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

New Design of Development
It is considered that the proposed development will be designed to the highest architectural standards and will be of a proportion, composition, scale and orientation that enhances, activates and defines public realm.

The proposed development will comprise details and materials that complement the local character of the Hatton Garden Conservation area.

New Design of Development cont:-
It will incorporate best practice in terms of resource management and climate change adaptation. The following measures will be targeted at the Proposed Development:

- Secured by Design principles will be incorporated, and
- The Site will contribute to the adaptation and mitigation of the effects of climate change and is designed to maximise natural daylighting and sunlight access, and to minimise overshadowing.

land contamination issues; and - The potential effect on the microclimate.			
Energy			
Energy and CO2 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 CO2 Emissions** The proposed development has been assessed in accordance with the requirements of LP Policy 5.2, and the Part L 2013 guidance. The proposed development will target compliance with the Building Regulations with the current building regulations, which is 6% improvement over Part L 2010. The local council has no requirement to go beyond the current building regulations. Only where developments are over 10 units there is a requirement for an energy statement. There is no energy efficiency requirement over building regulations, however the design will aim to improve over Part L 2013.
Energy and CO2 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	The requirements of the Building Regulations Part L 2013 will be achieved through a combination of fabric energy efficiency, passive design, high efficient and potentially heat recovery systems.

	Energy and CO2 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 CO2 Emissions** A preliminary appraisal of the proposed development has been carried out to look in to the opportunity to install low or zero carbon technologies, this takes into account solar, heat pumps, wind, biomass, CHP and district heating. See more details in the renewable section below.
	Energy and CO2 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	Tenants will generally be responsible for their own fit-out which shall be subject to minimum efficiency requirements in order to minimise the amount of CO2 emissions and in accordance defined by the tenant handbook.
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 will be carried out for the proposed development. It is proposed that the energy demand will be reduced through improved fabric insulation with lower u-values for the external envelope and windows, air tightness levels will be designed to be lower than average and therefore a mechanical ventilation system with heat recovery should be installed to reduced the risk of condensation. Having improved insulation will mean the annual primary energy demand will be lower reduced.

Use Less Energy The design of developments should prioritise passive measures.	**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.	5.2, 5.3, 5.9	CS13, DP22, SPD Sustainability	**Use Less Energy** Passive design measures help to maximise the use of natural sources of heating, cooling and ventilation. To incorporate passive design measures the building will be design to have the following features to aid in reducing energy demand: - Cross ventilation - Solar gains in winter - Cooling in summer - Air tight building These will be accomplished through: - Improved fabric u-values to meet or exceed Part L 2013 fabric efficiency - Air test design air permeability of 5 m3/hm2 (@50Pa) - Cross ventilation to reduce cooling in the summer
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** The London Heat Map shows the availability of connection to a district heating network. (http://www.londonheatmap.org.uk/Mapping) Camden does have district heating in the Gospel Oak area which redirects heat form the Royal Free Hospital. However this area is too far from the site to be consider for a connection to district heating. The development should be designed to be potentially connected to a local district heating system or CHP in the future. AS this area is growing in district heating and the heat map shows that the site is in an area of district heating and the cost of this will be taken into account in the project design.

Renewable Energy Major developments should incorporate renewable energy technologies to minimise overall carbon dioxide emissions, where feasible.	5.7	CS13, SPD Sustainability	**Renewable Energy** There is the potential for a low or zero carbon technology, where solar PV could be installed. However due to the location and surrounding building, the following technologies are not feasible: Wind - insufficient space Ground source heat pump - insufficient space Air source heat pump - problematic with vicinity to neighbouring properties. Biomass - insufficient space Tenants will advised on the potential for renewable energy installation and be responsible for any installation.
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** For this development retrofitting will be used to help reduce CO2 emissions and increase water efficiency. The areas of the building which are being retained will be insulated improving on the current existing elements. Measures will include, indoor water fittings with low flow rates for taps, showers, reduced size baths, and dual flush toilets. External areas will incorporate water butts for watering garden area and reducing the need for a watering hose. Where areas of the building are below a certain level of efficiency the of the existing building will be refurbished to reduce their CO2 emissions. Where areas are not feasible to be improved consequential Improvements maybe more technically and economically feasible.
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** Where feasible, 'energy display devices' will be installed to record and monitor energy usage in the dwelling/s. The purpose of the energy display device is to educate occupants on how much energy they are using. The device will show in real time how much energy is being used. An energy display device which can allow tenant sot input tariff costs will show accurate costs of the energy usage and therefore will have more of an impact on the tenants to reduce their energy usages.

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** 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 will be provided with water efficient fixtures, fittings and appliances as outlined below.
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 will be installed in all commercial spaces, including the landlord areas. As a minimum, tenants will be encouraged to fit-out their spaces appropriately to meet the requirements of the Building Regulations Part G, 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** Existing water fixtures and fittings will be upgraded in order to minimise water consumption.

Water Efficiency All developments should be designed to incorporate rainwater harvesting.		5.3, 5.13, 5.15	CS13, DP22, DP23	**Water Efficiency** We have done a preliminary appraisable for rainwater harvesting, and the location, layout of the development does not lend itself to rainwater harvesting. To achieve the 105L/person/day this can be done without rainwater harvesting.
	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 will be provided with water meters. During detailed design, consideration will 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 The design of development should prioritise materials that: - Have a low embodied energy, including those that can be re-used intact or		5.3, 5.20, 7.6, 7.14	DP22, SPD Sustainability	**Materials and Waste** Where the development is refurbished and new the elements for the walls, floor, roof, windows and upper floor will be upgraded to a Green Guide rating of A+ to D as confirmed by the BRE Green Guide to Specification. Where timber is installed it will be 100% legally sourced and FSC

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 - Will not release toxins into the internal and external environment, including those that deplete stratospheric ozone			certified. It is intended that insulation materials will have an Ozone Depletion Potential (ODP) of zero, and a Global Warming Potential (GWP) of less than five. Where specified by the developer (e.g. low VOC paint), finishes and other materials will not contain or emit toxic substances.
	Design Phase The design of developments should maximise the potential to use prefabrication elements.	5.3, 7.6	**Design Phase** At the design stages, modular systems fabricated off site will be considered in the construction of the development to improve construction time and reduce onsite waste. Using prefabricated building elements will save costs by reducing the length of time of construction.

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** A Site Waste Management Plan (SWMP) will be utilised throughout construction and incorporate non hazardous waste, demolition and excavation waste if applicable. The use of the SWMP will help educate contractors on how to reduce waste and divert waste from landfill. There will be some demolition waste on site which will be crushed, cleaned and recycled. The BRE Smartwaste tool can be used as an easy tool by contractors.
Occupation Phase Developers should provide sufficient internal space for the storage of recyclable and compostable materials and waste in their schemes.		5.3, 5.17	CS18	**Occupation Phase** The aim of this is to provide adequate internal and external storage space for non-recyclable waste and recyclable household waste. All dwelling/s at the end of construction will be fitted with internal and communal waste storage facilities for the segregation of recyclable materials, in compliance with BS5096.
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	**Occupation Phase** Please refer to the floor plans for areas of external waste storage.

Nature Conservation and Biodiversity

There is no net loss in the quality and quantity of biodiversity. Developers make a contribution to biodiversity on their		5.3, 7.19	CS15	**Nature Conservation and Biodiversity** Where feasible, improvements in the ecological value of the Site will be targeted.

development Site.				
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	CS15	**Tackling Increased Temperature and Drought** The Proposed Development has been designed in accordance with the cooling hierarchy as set out in LP Policy 5.9.
	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** At the design stage, consideration will be carried out in the landscape plans to use plant species which are heat and drought resistant. Advice from an ecologist should ideally be sought before any plant species are selected.
	Resilient Foundations Developers should consider any long term	5.3, 7.6		**Heat and Drought Resistant Planting** The structural engineers have considered all applicable geological and hydrological conditions in accordance with relevant design guidance and standards.

	potential for extreme weather events to affect a building's foundations and to ensure they are robust.			
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 development will look to encompass ecological features such as potentially a green roof, native plant species and protect any existing ecological features of significance in the construction zone.
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 considered to be a major development.
Trees				

Developments should contribute to the Mayor's target to increase tree cover across London by 5% by 2025.			**Trees** There are not existing trees on site
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** There are not existing trees on site
Flooding			
Surface Water / Sustainable Drainage Developers should maximise all opportunities to achieve greenfield runoff rates in their developments. Surface Water / Sustainable Drainage When designing their schemes developers should follow the drainage hierarchy set out in London Plan Policy 5.13.	5.12, 5.13	CS13, DP23	**Flooding** The proposed development is built on to existing pre developed land and will not increase surface water run-off.

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	**Surface Water / Sustainable Drainage** The proposed development is built on to existing pre developed land and will not increase surface water run-off.
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** The Environment Agency Flood Risk Map shows that the proposed site is in Flood risk zone 1 and therefore not a risk of flooding.
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 proposed site is in Flood risk zone 1 and therefore not a risk of fluvial / tidal flooding.
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		**Flood Risk Management** The proposed site is in Flood risk zone 1 and therefore not a risk of fluvial / tidal flooding.

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 proposed site is in Flood risk zone 1 and therefore not a risk of flooding.
Land Contamination Developers should set out how existing land contamination will be addressed prior to the commencement of their development.		3.2, 5.3, 5.21		**Land Contamination** The site is not known to be contaminated
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

Developers are to design their schemes so that they are at least 'air quality neutral'	7.14	**Air Quality** The dwellings/s will use a heating system which will have low NOx emissions therefore adding less NOx to green house gas emissions.
Air Quality Developments should be designed to minimise the generation of air pollution.	5.3, 7.14	**Air Quality** The dwellings will also be built to a high standard of energy efficiency and therefore reduce CO2 emissions.
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** Where there is mechanical ventilation exhaust flues will be positioned away from intake flues for fresh air. Ventilation pathways will need to be designed to reduce the build up of air pollutants in the dwelling/s, through cross ventilation, and either naturally ventilated or mechanical ventilation. Where there is mechanical ventilation, exhaust flues will be positioned away from intake flues for fresh air. Mechanical ventilation will be used for this development to maximise air quality. Ideally for mechanically ventilated buildings the location of the building's air intakes and exhausts, in relation to each other and external sources of pollution, is designed in accordance with BS EN 13779:20071 Annex A2. In naturally ventilated buildings/spaces: openable windows/ventilators are over 10m from sources of external pollution.

Air Quality Developers and contractors should follow the guidance set out in the emerging The Control of Dust and Emissions during Construction and Demolition SPG when constructing their development.	5.3, 7.14	**Air Quality** To recognise and encourage construction-sites which are managed in an environmentally and socially considerate, responsible and accountable manner. For the proposed development, the contractor will comply with 'The Control of Dust and Emissions during Construction Demolition SPG'. Control measures will need to be implemented by the contractor on site to prevent air and dust pollution. An example of this could be using dust sheets on materials and skips, damping down in waste areas. The main contractor will be required to register with the considerate constructors scheme to achieve a minimum score of 25 points.
Noise Areas identified as having positive sound features or as being tranquil should be protected from noise.	3.2, 7.15	**Noise** The proposed site is surrounded by mainly retail businesses and is not known to have any 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** The Site is located in an area with a high level of background noise. High efficiency mechanical ventilation will be used to provide air to the spaces in where natural ventilation is not possible. This will aid noise attenuation as occupants will not be reliant on opening windows to maintain good indoor air quality and control internal temperatures.

		For the occupiers of the dwelling/s, the specification of the partition walls, floors and external walls will be designed to go beyond Document E of the building regulations, to provide comfort for the occupiers and reduce noise from the surrounding road off St Cross St and Kirkby St. Noise attenuation measures will be incorporated on-site where required, to ensure that any noise generated by equipment or services will not generate a source of noise pollution or negatively impact the surrounding area.
Light Pollution		
Developments and lighting schemes should be designed to minimise light pollution.	5.2, 5.3, 6.7	**Light Pollution** External lights will be designed to be used only in appropriate areas, and that upward lighting is minimised, this will help to reduce light pollution and effect to neighbours. Where there is external lighting, it will have to be designed to the following standards. First to be energy efficient going beyond Part L of the building regulations, with the aim to achieve no less than 60 lumens per circuit watt. Second all external lights will be automatically controlled for the prevention of operation during daylight hours and presence detection in areas of intermitted pedestrian traffic. The ILP Guidance for the reduction of obtrusive light, 2001 will be used to design the lighting strategy. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes. Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements

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 which also provide benefits for water quality.		5.3, 5.13, 5.14	CS13, DP23	**Surface Water Runoff** The design team will incorporate the drainage hierarchy set out in London Plan Policy 5.3.
	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 commercial tenants will 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 will 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

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. benefits for water quality.	5.3, 5.14	CS13, DP23	**Wastewater Treatment** All spaces at the proposed development will be provided with suitable connections to the public foul Wastewater Treatment sewer or combined sewer network, where appropriate.
Water Treatment cont:- 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		

5 Conclusion

There are proposals for the construction of a three new residential flats above refurbished office space on land off the corner of St Cross Street and Kirkby Street.

Under the Camden Council Core Strategy, the proposed dwelling/s will need to comply with the guidance set out by the Policy DP22 Sustainable Design and Construction which refers to The Consolidated London Plan (2015) and of this Policy 5.3 Sustainable Design and Construction (2014).

The above sustainability statement sets out what the requirements are of the planning policies and what can be achieved for the proposed development.

The main features of the site to meet the building environmental standards are:

- The energy efficiency measures of the building is to comply with Part L 2013, with some areas going beyond the requirements. The fabric elements of the building are to be designed to be highly insulated, with low u-values, good air tightness and to incorporate heat recovery systems, such as the shower heat recovery for waste water, and mechanical ventilation with heat recovery.
- Water efficiency is a big driver of sustainability and indoor fittings which will have water efficiency will be installed. These will help to go beyond Part G minimum standard of 125L/person/day, with the aim to achieving 105L/person/day through fittings with low flow rates.
- Materials to be used in the proposed development are to consist of having a high Green Guide rating, using the BRE Green Guide for reference. All timber used on site is to be sustainably sourced. Where possible recycled aggregates will be used.
- The contractor to be used for this development will need to monitor, record construction site impacts (energy, water and transport), having policies in place for reducing air and surface water pollution and be registered with the Considerate Constructors Scheme.
- The contractor will need to have a site waste management plan in place from the beginning of construction and use this throughout the construction period. Any demolition waste will be recycled.
- The location lends itself to good transport links and cycle storage will be provided.