135-149 Shaftesbury Avenue
London
WC2H 8AH

Sustainability Statement

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1. Executive Summary

In support of the planning application for the proposed development at 135-149 Shaftesbury Avenue, and to comply with the London Plan and Camden Council's requirements on environmental sustainability a Sustainability Statement has been produced.

The Sustainability Statement contained herein describes the numerous planning policies specified both by the regional requirements of the London Plan and local development requirements stipulated by Camden Council.

This document provides a brief summary of how the proposals comply with the relevant policies, and refer to other documents submitted in support of the planning application.

2. Introduction

In support of the planning application, a Sustainability Statement that examines the national, regional, and local planning requirements in terms of social, economic, and environmental sustainability for the proposed development at 135-149 Shaftesbury Avenue, The Odeon Shaftesbury Hotel, has been compiled on request of the Applicant.

The proposed development will be a mixed use non-domestic site with a 94 room hotel, a four screen basement cinema and a spa, a restaurant on ground floor and a roof top bar.

The Sustainability Statement contained herein describes how the proposed development will meet the following planning requirements.

London Plan

The London Plan's Chapter 5 'London's Response to Climate Change' describes a number of policies to be implemented by all projects in the Greater London Area. All the policies have been listed below, and where these policies have specific requirements for planning decisions, a detailed description of how each of these have been addressed in Section 3 of this Sustainability Statement.

5.1 Climate Change Mitigation (not applicable to planning decisions)
5.2 Minimising Carbon Dioxide Emissions
5.3 Sustainable Design and Construction
5.4 Retrofitting (not applicable to planning decisions)
5.5 Decentralised Energy Networks (not applicable to planning decisions)
5.6 Decentralised Energy in Development Proposals
5.7 Renewable Energy
5.8 Innovative Energy Technologies (not applicable to planning decisions)
5.9 Overheating and Cooling
5.10 Urban Greening
5.11 Green Roofs and Development Site Environs
5.12 Flood Risk Management
5.13 Sustainable Drainage
5.14 Water quality and wastewater infrastructure
5.15 Water use and supplies
5.16 Waste self-sufficiency (not applicable to planning decisions)
5.17 Waste Capacity
5.18 Construction, Excavation, and Demolition Waste (not applicable to planning decisions)
5.19 Hazardous Waste (not applicable to planning decisions)
5.20 Aggregates (not applicable to planning decisions)
5.21 Contaminated Land (not applicable to planning decisions)
5.22 Hazardous Substances and Installations(not applicable to planning decisions)

Camden Local Plan

Camden Council's Local Plan London Plan's Chapter 8 'Sustainability and Climate Change' describes a number of policies to be implemented by all proposed developments within the London Borough of Camden. All the policies have been listed below, and where these policies have specific requirements for planning decisions, a detailed description of how each of these have been addressed in Section 3 of this Sustainability Statement.

CC1 Climate Change Mitigation
CC2 Adaptation to Climate Change
CC3 Water and Flooding
CC4 Air Quality
CC5 Waste

3. London Plan Policies

3.1. Policy 5.2 Minimising Carbon Dioxide Emissions

Policy Details

Planning Decisions

A Development proposals should make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy:

1 Be lean: use less energy

2 Be clean: supply energy efficiently

3 Be green: use renewable energy

B The Mayor will work with boroughs and developers to ensure that major developments meet the following targets for carbon dioxide emissions reduction in buildings. These targets are expressed as minimum improvements over the Target Emission Rate (TER) outlined in the national Building Regulations leading to zero carbon residential buildings from 2016 and zero carbon non-domestic buildings from 2019.

Non-domestic buildings:

Year	Improvement on 2010 Building Regulations
2010 – 2013	25 percent
2013 – 2016	40 percent
2016 – 2019	As per building regulations requirements
2019-2031	ZeroCarbon

C Major development proposals should include a detailed energy assessment to demonstrate how the targets for carbon dioxide emissions reduction outlined above are to be met within the framework of the energy hierarchy.

D As a minimum, energy assessments should include the following details:

a calculation of the energy demand and carbon dioxide emissions covered by Building Regulations and, separately, the energy demand and carbon dioxide emissions from any other part of the development, including plant or equipment, that are not covered by the Building Regulations (see paragraph 5.22) at each stage of the energy hierarchy

b proposals to reduce carbon dioxide emissions through the energy efficient design of the site, buildings and services

c proposals to further reduce carbon dioxide emissions through the use of decentralised energy where feasible, such as district heating and cooling and combined heat and power (CHP)

d proposals to further reduce carbon dioxide emissions through the use of on-site renewable energy technologies.

E The carbon dioxide reduction targets should be met on-site. Where it is clearly demonstrated that the specific targets cannot be fully achieved on-site, any shortfall may be provided off-site or through a cash in lieu contribution to the relevant borough to be ring fenced to secure delivery of carbon dioxide savings elsewhere

Feasibility

Although the London Plan policy stipulates carbon reduction targets against 2010 building regulation levels, current planning guidance issued by the Mayor of London clearly stipulates that proposed developments are expected to demonstrate an improvement of 35% on 2013 Building Regulations.

Following the Mayors guidance and using the Be Lean, Be Clean, Be Green energy hierarchy, the proposed development has been modelled to demonstrate that the development is targeting a carbon emission reduction of 19.44% against a Part L 2013 compliant building.

For further detail demonstrating how the proposed development attempts to comply with this specific policy please refer to the ***Energy Statement*** document submitted in support of this planning application.

3.2. Policy 5.3 Sustainable Design and Construction

Policy Details

Planning decisions

A 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.

B 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.

Feasibility

In order to maximise carbon reductions, the design team has followed the "Be Lean, Be Clean, Be Green" energy hierarchy to demonstrate that the development will achieve the 35% improvement in 2013 Part L Building Regulations, to comply with the London Plan and Camden's sustainability requirements and provide offset payments for all outstanding emissions (if any).

This study has recommended that the Proposed Development be supplied with a highly efficient air source heat pump system to provide the space heating, cooling, and domestic hot water for the development.

The ASHP system proposed for the development will consist of highly efficient units for simultaneous and independent production of heating and cooling. The Climaveneta Integra units being proposed are a new generation of ASHPs which are capable of recovering any heat that would normally be dissipated to atmosphere, and redirects this heat to preheat the domestic hot water for the development. This design will be essentially providing a majority of the heating required for the domestic hot water as free heat recovery. In addition, rainwater and greywater will be harvested, treated, and reused to flush toilets in order to reduce the demand for potable water.

The technologies described above in combination with low flow/flush fixtures, efficient lighting, high performance glazing, free cooling techniques, green materials, and other sustainable techniques will ensure the development meets the requirements stipulated by Camden Council and required for BREEAM Excellent.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement***, ***BREEAM Pre-Assessment Report***, and ***Flood Risk Assessment*** submitted in support of this planning application.

3.3. Policy 5.6 Decentralised Energy in Development Proposals

Policy Details

Planning decisions

A Development proposals should evaluate the feasibility of Combined Heat and Power (CHP) systems, and where a new CHP system is appropriate also examine opportunities to extend the system beyond the site boundary to adjacent sites.

B Major development proposals should select energy systems in accordance with the following hierarchy:

1 Connection to existing heating or cooling networks;

2 Site wide CHP network;

3 Communal heating and cooling;

C Potential opportunities to meet the first priority in this hierarchy are outlined in the London Heat Map tool. Where future network opportunities are identified, proposals should be designed to connect to these networks.

Feasibility

After study of London Heat Map as shown in the Energy Statement the site location sits outside the reach of any existing/proposed district heating networks. This map also demonstrates that the site sits outside the reach of any 'Heat Mapping Decentralised Energy Potential' zone therefore, connecting to an existing DE network is not a feasible solution for this development. This Energy Statement

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement*** document submitted in support of this planning application.

3.4. Policy 5.7 Renewable Energy

Policy Details

Planning decisions

A Within the framework of the energy hierarchy (see Policy 5.2), major development proposals should provide a reduction in expected carbon dioxide emissions through the use of on-site renewable energy generation, where feasible.

Feasibility

After consideration and comparison of the technical viability, indicative costs, and contribution towards the carbon emissions reduction for the following systems

1. Wind Turbines;
2. Ground Sourced Heating;
3. Air Sourced Heat Pumps;
4. Solar Photovoltaic (PV) panels; and
5. Solar Water Heating Systems,

Air source heat pumps have been proposed as a source of on-site renewable energy for the Proposed Development.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement*** document submitted in support of this planning application.

3.5. Policy 5.9 Overheating and Cooling

Policy Details

Planning decisions

A Major development proposals should reduce potential overheating and reliance on air conditioning systems and demonstrate this in accordance with the following cooling hierarchy:

1 minimise internal heat generation through energy efficient design

2 reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation and green roofs and walls

3 manage the heat within the building through exposed internal thermal mass and high ceilings

4 passive ventilation

5 mechanical ventilation

6 active cooling systems (ensuring they are the lowest carbon options).

B Major development proposals should demonstrate how the design, materials, construction and operation of the development would minimise overheating and also meet its cooling needs. New development in London should also be designed to avoid the need for energy intensive air conditioning systems as much as possible. Further details and guidance regarding overheating and cooling are outlined in the London Climate Change Adaptation Strategy.

Feasibility

The proposed development has gone through a number of design iterations to minimise the potential of summer heat gains, this included energy efficient design, fabric optimisation, and mechanical ventilation where required.

Through the design development the amount of glazing on the facade of the building has been significantly reduced from the original proposals. The lower floors of the development which will have an internally fully glazed elevation to hotel rooms will benefit shadowing created by the existing fabric to reduce the solar gains entering the building during the summer. The upper floors have reduced the size of glazing to the hotel room floors to a maximum of 50% of external wall area. Internal shades will be provided for all hotel rooms to reduce solar heat gains further.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement*** document submitted in support of this planning application.

3.6. Policy 5.10 Urban Greening

Policy Details

Planning decisions

A Development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm. Elements that can contribute to this include tree planting, green roofs and walls, and soft landscaping. Major development proposals within the Central Activities Zone should demonstrate how green infrastructure has been incorporated.

Feasibility

The building footprint extends to the full perimeter of the site and up to the public footways. At present, there are no opportunities to create green areas at ground level.

3.7. Policy 5.11 Green Roofs and Development Site Environs

Policy Details

Planning decisions

A Major development proposals should be designed to include roof, wall and site planting, especially green roofs and walls where feasible, to deliver as many of the following objectives as possible:

a adaptation to climate change (ie aiding cooling)

b sustainable urban drainage

c mitigation of climate change (ie aiding energy efficiency)

d enhancement of biodiversity

e accessible roof space

f improvements to appearance and resilience of the building

g growing food.

Feasibility

Due to the sensitive nature of the building and its listed architecture, modifications and the extension must be appropriate to this context. Opportunities for green areas at upper levels are limited by the footprint, which is sized to be the smallest possible addition to the existing listed building as to make the scheme viable. Green walls or areas at the upper levels are therefore not practical as part of the new-build extension.

3.8. Policy 5.12 Flood Risk Management

Policy Details

Planning decisions

A Development proposals must comply with the flood risk assessment and management requirements set out in the NPPF and the associated technical Guidance on flood risk[1] over the lifetime of the development and have regard to measures proposed in Thames Estuary 2100 (TE2100 – see paragraph 5.55) and Catchment Flood Management Plans.

B Developments which are required to pass the Exceptions Test set out in the NPPF and the Technical Guidance will need to address flood resilient design and emergency planning by demonstrating that:

- a the development will remain safe and operational under flood conditions
- b a strategy of either safe evacuation and/or safely remaining in the building is followed under flood conditions
- c key services including electricity, water etc will continue to be provided under flood conditions
- d buildings are designed for quick recovery following a flood.

C Development adjacent to flood defences will be required to protect the integrity of existing flood defences and wherever possible should aim to be set back from the banks of watercourses and those defences to allow their management, maintenance and upgrading to be undertaken in a sustainable and cost effective way.

Feasibility

The London Borough of Camden Flood Risk Management Strategy shows the site as not being in a critical drainage area. The Environment Agency's (EA) indicative floodplain map shows that the site is located in Flood Zone 1 and is not at risk of flooding from watercourses. A site specific flood risk assessment is therefore not required as the site area is less than 1ha.

London Borough of Camden SFRA identifies that the site is in a location vulnerable to groundwater flooding. However, cavity drainage and tanking of the proposed basement will mitigate this.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** document submitted in support of this planning application.

3.9. Policy 5.13 Sustainable Drainage

Policy Details

Planning decisions

A Development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the following drainage hierarchy:

1. store rainwater for later use
2. use infiltration techniques, such as porous surfaces in non-clay areas
3. attenuate rainwater in ponds or open water features for gradual release
4. attenuate rainwater by storing in tanks or sealed water features for gradualrelease
5. discharge rainwater direct to a watercourse
6. discharge rainwater to a surface water sewer/drain
7. discharge rainwater to the combined sewer.

Drainage should be designed and implemented in ways that deliver other policy objectives of this Plan, including water use efficiency and quality, biodiversity, amenity and recreation.

Feasibility

Infiltration techniques have been considered for surface water discharge. However, building regulations state that soakaways are to be a minimum of 5m from any building. As the site area consists entirely of the building footprint this will not be possible. Furthermore, British Geological Survey (BGS) records shows that the site is underlain by London Clay Formation. This suggests that ground conditions are not suitable for infiltration techniques.

Surface water attenuation has also been considered for the proposed development. However, as development proposals involve a basement extension, there is no feasible means of providing attenuation whilst maintaining a gravity connection to the public sewer. A pumped connection has been considered. However, given the associated flood risk in the event of a pump malfunction, and considering development proposals involve alterations to the existing building, with no increase in proposed hard standing area/ surface water run-off, it is proposed that rainwater continue to drain directly to the public sewer via existing connections.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** document submitted in support of this planning application.

3.10. Policy 5.14 Water quality and wastewater infrastructure

Policy Details

Planning decisions

A Development proposals must ensure that adequate wastewater infrastructure capacity is available in tandem with development.
Proposals that would benefit water quality, the delivery of the policies in this Plan and of the Thames River Basin Management Plan should be supported while those with adverse impacts should be refused.

B Development proposals to upgrade London's sewage (including sludge) treatment capacity should be supported provided they utilise best available techniques and energy capture.

C The development of the Thames Tideway Sewer Tunnels to address London's combined sewer overflows should be supported in principle.

Feasibility

Guidance from Table 5 of Building Regulations – Part H, has been used alongside existing and proposed site layout plans that indicate the quantity and types of proposed foul water appliances, to calculate the current and anticipated total peak foul water flow rate to the public sewers. This was found to be approximately 7.27 l/sec for the existing site, with an increase to approximately 13.07l/sec for the proposed development.

Foul water is proposed to discharge to the Thames Water sewers using the existing connections for the ground levels and above of the new building. The basement levels will require pumping to discharge foul water flows from this area. Foul water pumps will include 24hr storage, a duty standby pump arrangement and alarms for the event of a system failure.

Thames Water's consent (S106) is to be obtained for all new connections (direct and indirect) to the public foul water sewer. A Thames Water pre-development enquiry will also be carried out to confirm capacity in the public sewer given the anticipated increase in foul water discharge.

Surface water will continue to discharge to the public sewers as existing with no adverse impacts to water quality.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** document submitted in support of this planning application.

3.11. Policy 5.15 Water Use And Supplies

Policy Details

Planning decisions

A Development should minimise the use of mains water by:

a incorporating water saving measures and equipment

b designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day

B New development for sustainable water supply infrastructure, which has been selected within water companies' Water Resource Management Plans, will be supported

Feasibility

To minimise mains water usage a combined rain and greywater harvesting system shall be installed to serve the development. The system will serve a greywater main to all hotel room toilets within the room risers and will be used to flush toilets and therefore reduce potable water use. The toilets for the BOH areas, restaurant, and cinemas will also be served with this greywater main for WC flushing.

Water meters with a pulsed output (to allow linkage to a BMS) will be installed on all mains supplies. The meter output will be linked to a leak detection system or BMS alarm system to indicated major system leaks.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Building Services Report*** submitted in support of this planning application.

3.12. Policy 5.17 Waste Capacity

Policy Details

Planning decisions

A Proposals for waste management should be evaluated against the following criteria:

a locational suitability (see LDF preparation paragraphs F and G below)

b proximity to the source of waste

c the nature of activity proposed and its scale

d minimising waste and achieving high reuse and recycling performance

e achieving a positive carbon outcome of waste treatment methods and technologies (including the transportation of waste, recyclables and waste derived products) resulting in greenhouse gas savings. Facilities generating energy from waste will need to meet, or demonstrate that steps are in place to meet, a minimum CO2eq performance of 400 grams of CO2eq per kilowatt hour (kwh) of electricity produced. Achieving this performance will ensure that energy generated from waste activities is no more polluting in carbon terms that the energy source it replaces (see paragraph 5.85 below).

f the environmental impact on surrounding areas, particularly noise emissions, odour, air quality and visual impact and impact on water resources

g the full transport and environmental impact of all collection, transfer and disposal movements and, in particular, the scope to maximise the use of rail and water transport using the Blue Ribbon Network.

The following will be supported:

h developments that include a range of complementary waste facilities on a single site

i developments for manufacturing related to recycled waste

j developments that contribute towards renewable energy generation, in particular the use of technologies that produce a renewable gas

k developments for producing renewable energy from organic/ biomasswaste.

B Wherever possible, opportunities should be taken to provide combined heat and power and combined cooling heat and power.

C Developments adjacent to waste management sites should be designed to minimise the potential for disturbance and conflicts of use.

D Suitable waste and recycling storage facilities are required in all new developments.

Feasibility

The proposed development would incorporate a number of measures to minimise the generation of waste and to encourage operators of the facility to recycle. On the basement -2 level of the proposals, a dedicated waste and recycling store would be provided.

This waste and recycling store room would be utilised by each separate user of the mixed use building, with dedicated provision made for each operator. The design of the waste and recycling facilities aligns with the London Borough of Camden's requirements.

During construction of the proposed development, construction equipment and vehicles used to transport materials and people will be efficient and well-maintained to minimise emissions. During the construction phase, the principal contractor will be encouraged to develop and implement a Site Waste Management Plan (SWMP) which will detail who will be responsible for resource management, what types of waste will be generated, how the waste will be managed (e.g. reduced, reused or recycled), which contractors will be used and how the quantity of waste generated by the project will be measured.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Operational Management Plan*** document submitted in support of this planning application.

4. Camden Local Plan Policy

4.1. Policy CC1 Climate Change Mitigation

Policy Details

The Council will require all development to minimise the effects of climate change and encourage all developments to meet the highest feasible environmental standards that are financially viable during construction and occupation.

We will:

a promote zero carbon development and require all development to reduce carbon dioxide emissions through following the steps in the energy hierarchy;

b require all major development to demonstrate how London Plan targets for carbon dioxide emissions have been met;

c ensure that the location of development and mix of land uses minimise the need to travel by car and help to support decentralised energy networks;

d support and encourage sensitive energy efficiency improvements to existing buildings;

e require all proposals that involve substantial demolition to demonstrate that it is not possible to retain and improve the existing building; and

f expect all developments to optimise resource efficiency.

For decentralised energy networks, we will promote decentralised energy by:

g working with local organisations and developers to implement decentralised energy networks in the parts of Camden most likely to support them;

h protecting existing decentralised energy networks (e.g. at Gower Street, Bloomsbury, King's Cross, Gospel Oak and Somers Town) and safeguarding potential network routes; and

i requiring all major developments to assess the feasibility of connecting to an existing decentralised energy network, or where this is not possible establishing a new network.

To ensure that the Council can monitor the effectiveness of renewable and low carbon technologies, major developments will be required to install appropriate monitoring equipment.

Feasibility

In order to maximise carbon reductions, the design team has followed the "Be Lean, Be Clean, Be Green" energy hierarchy to demonstrate that the development will achieve the 35% improvement in 2013 Part L Building Regulations, to comply with the London Plan and Camden's sustainability requirements and provide offset payments for all outstanding emissions (if any).

This study has recommended that the Proposed Development be supplied with a highly efficient air source heat pump system to provide the space heating, cooling, and domestic hot water for the development.

The technologies described above in combination with low flow/flush fixtures, efficient lighting, high performance glazing, free cooling techniques, green materials, and other sustainable techniques will ensure the development meets the requirements stipulated by Camden Council and required for BREEAM Excellent.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement*** and ***BREEAM Pre-Assessment Report*** submitted in support of this planning application.

4.2. Policy CC2 Adaptation to Climate Change

Policy Details

The Council will require development to be resilient to climate change.

All development should adopt appropriate climate change adaptation measures such as:

a the protection of existing green spaces and promoting new appropriate green infrastructure;

b not increasing, and wherever possible reducing, surface water runoff through increasing permeable surfaces and use of Sustainable Drainage Systems;

c incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate; and

d measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy.

Any development involving 5 or more residential units or 500 sqm or more of any additional floorspace is required to demonstrate the above in a Sustainability Statement.

Sustainable design and construction measures

The Council will promote and measure sustainable design and construction by:

e ensuring development schemes demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation;

f encourage new build residential development to use the Home Quality Mark and Passivhaus design standards;

g encouraging conversions and extensions of 500 sqm of residential floorspace or above or five or more dwellings to achieve "excellent" in BREEAM domestic refurbishment; and expecting non-domestic developments of 500 sqm of floor space or above to achieve "excellent" in BREEAM assessments and encouraging zero carbon in new development from 2019.

Feasibility

Green Infrastructure

As stated under sections 3.6 and 3.7, the building footprint extends to the full perimeter of the site and up to the public footways. At present, there are no opportunities to create green infrastructure at ground level.

Due to the sensitive nature of the building and its listed architecture, modifications and the extension must be appropriate to this context. Opportunities for green areas at upper levels are limited by the footprint, which is sized to be the smallest possible addition to the existing listed building as to make the scheme viable. Green walls or biodiverse areas at the upper levels are therefore not practical as part of the new-build extension.

However, none of the adjacent green space, trees or planting will be removed as part of the proposed refurbishment. Because the building footprint is not increasing, there is are no increases in run off expected from the development.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Design and Access Statement*** document submitted in support of this planning application.

Surface Water Reduction and SUDS

Infiltration techniques have been considered for surface water discharge. However, building regulations state that soakaways are to be a minimum of 5m from any building. As the site area consists entirely of the building footprint this will not be possible. Furthermore, British Geological Survey (BGS) records shows that the site is underlain by London Clay Formation. This suggests that ground conditions are not suitable for infiltration techniques.

Surface water attenuation has also been considered for the proposed development. However, as development proposals involve a basement extension, there is no feasible means of providing attenuation whilst maintaining a gravity connection to the public sewer. A pumped connection has been considered. However, given the associated flood risk in the event of a pump malfunction, and considering development proposals involve alterations to the existing building, with no increase in proposed hard standing area/ surface water run-off, it is proposed that rainwater continue to drain directly to the public sewer via existing connections.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** submitted in support of this planning application.

Overheating and Cooling Hierarchy

The proposed development has gone through a number of design iterations to minimise the potential of summer heat gains, this included energy efficient design, fabric optimisation, and mechanical ventilation where required.

Through the design development the amount of glazing on the facade of the building has been significantly reduced from the original proposals. The lower floors of the development which will have an internally fully glazed elevation to hotel rooms will benefit shadowing created by the existing fabric to reduce the solar gains entering the building during the summer. The upper floors have reduced the size of glazing to the hotel room floors to a maximum of 50% of external wall area. Internal shades will be provided for all hotel rooms to reduce solar heat gains further.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Energy Statement*** document submitted in support of this planning application.

Green & Blue Roofs, Green Walls

Due to the sensitive nature of the building and its listed architecture, modifications and the extension must be appropriate to this context. Opportunities for green areas at upper levels are limited by the footprint, which is sized to be the smallest possible addition to the existing listed building as to make the scheme viable. Green walls or areas at the upper levels are therefore not practical as part of the new-build extension.

Adaptation measures for the development

Due to the sensitive nature of the building and its listed architecture, modifications to the existing façade are modest. Replacement windows to existing and new openings within the original brick façade will deliver daylight to all occupied spaces, and improvements to the thermal envelope. Along with improved levels of insulation and air-tightness generally, these measures will help to transform the existing envelope and allow it to adapt better to a changing climate.

The extension must be appropriate to the historical context and therefore a very translucent materiality has been agreed with the design and conservation officer at LBC. The thermal envelope will be primarily a high performance glazing. An internal mesh, external frit or similar will be employed to create a 'veil' or curtain-like effect, which will have the benefit of reducing solar gain internally.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Design and Access Statement*** document submitted in support of this planning application.

BREEAM

The proposed development has demonstrated it is targeting a BREEAM level of Excellent in compliance with this Camden specific policy. Camden Council also makes specific mention of sustainability in their planning documents (DP22), and encourages all major developments to achieve a minimum level of excellent with 60% of the Energy category, 60% of the Water category, and 40% of Waste category credits achieved and these minimum requirements have also been met.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***BREEAM Pre-Assessment Report*** submitted in support of this planning application.

4.3. Policy CC3 Water and Flooding

Policy Details

The Council will seek to ensure that development does not increase flood risk and reduces the risk of flooding where possible.

We will require development to:

a incorporate water efficiency measures;

b avoid harm to the water environment and improve water quality;

c consider the impact of development in areas at risk of flooding (including drainage);

d incorporate flood resilient measures in areas prone to flooding;

e utilise Sustainable Drainage Systems (SuDS) in line with the drainage hierarchy to achieve a greenfield run-off rate where feasible; and

f not locate vulnerable development in flood-prone areas.

Where an assessment of flood risk is required, developments should consider surface water flooding in detail and groundwater flooding where applicable.

The Council will protect the borough's existing drinking water and foul water infrastructure, including the reservoirs at Barrow Hill, Hampstead Heath, Highgate and Kidderpore.

Feasibility

Water Efficiency

To minimise mains water usage a combined rain and greywater harvesting system shall be installed to serve the development. The system will serve a greywater main to all hotel room toilets within the room risers and will be used to flush toilets and therefore reduce potable water use. The toilets for the BOH areas, restaurant, and cinemas will also be served with this greywater main for WC flushing.

Water meters with a pulsed output (to allow linkage to a BMS) will be installed on all mains supplies. The meter output will be linked to a leak detection system or BMS alarm system to indicated major system leaks.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Building Services Report*** submitted in support of this planning application.

Flooding Risk

The London Borough of Camden Flood Risk Management Strategy shows the site as not being in a critical drainage area. The Environment Agency's (EA) indicative floodplain map shows that the site is located in Flood Zone 1 and is not at risk of flooding from watercourses. A site specific flood risk assessment is therefore not required as the site area is less than 1ha.

London Borough of Camden SFRA identifies that the site is in a location vulnerable to groundwater flooding. However, cavity drainage and tanking of the proposed basement will mitigate this

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** submitted in support of this planning application.

SUDS

Infiltration techniques have been considered for surface water discharge. However, building regulations state that soakaways are to be a minimum of 5m from any building. As the site area consists entirely of the building footprint this will not be possible. Furthermore, British Geological Survey (BGS) records shows that the site is underlain by London Clay Formation. This suggests that ground conditions are not suitable for infiltration techniques.

Surface water attenuation has also been considered for the proposed development. However, as development proposals involve a basement extension, there is no feasible means of providing attenuation whilst maintaining a gravity connection to the public sewer. A pumped connection has been considered. However, given the associated flood risk in the event of a pump malfunction, and considering development proposals involve alterations to the existing building, with no increase in proposed hard standing area/ surface water run-off, it is proposed that rainwater continue to drain directly to the public sewer via existing connections.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Flood Risk Assessment and Sustainable Urban Drainage Strategy*** submitted in support of this planning application.

4.4. Policy CC4 Air Quality

Policy Details

The Council will ensure that the impact of development on air quality is mitigated and ensure that exposure to poor air quality is reduced in the borough.

The Council will take into account the impact of air quality when assessing development proposals, through the consideration of both the exposure of occupants to air pollution and the effect of the development on air quality. Consideration must be taken to the actions identified in the Council's Air Quality Action Plan.

Air Quality Assessments (AQAs) are required where development is likely to expose residents to high levels of air pollution. Where the AQA shows that a development would cause harm to air quality, the Council will not grant planning permission unless measures are adopted to mitigate the impact. Similarly, developments that introduce sensitive receptors (i.e. housing, schools) in locations of poor air quality will not be acceptable unless designed to mitigate the impact.

Development that involves significant demolition, construction or earthworks will also be required to assess the risk of dust and emissions impacts in an AQA and include appropriate mitigation measures to be secured in a Construction Management Plan.

Feasibility

The proposed development is located in the LBC Air Quality Management Area declared for potential exceedances of both nitrogen dioxide (NO_2) and fine particulate matter (PM_{10}) National Air Quality Objectives (NAQO). NO_2 concentrations at road side locations immediately adjacent to the proposed development are currently exceeding the NAQO.

The proposed development would be car free and heating and hot water requirements would be provided through air source heat pumps and low NOx boilers. As such the development is not expected to result in an increase of pollutant emissions over the existing situation and has been demonstrated to be air quality neutral.

During the construction phase, emissions of dust and exhaust gases from construction activities can impact air quality. These will be effectively controlled through the use of suitable mitigation measures implemented through the provision of a dust management plan which would be agreed with LBC prior to the start of construction.

The design of the development has aimed to reduce the exposure of prospective hotel residents and other users of the building to poor air quality through the use of mechanical ventilation with air intakes placed at roof level where pollutant concentrations would be expected to be reduced compared to that experienced at ground level.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Air Quality Assessment*** document submitted in support of this planning application.

4.5. Policy CC5 Waste

Policy Details

The Council will seek to make Camden a low waste borough.

We will:

a aim to reduce the amount of waste produced in the borough and increase recycling and the reuse of materials to meet the London Plan targets of 50% of household waste recycled/composted by 2020 and aspiring to achieve 60% by 2031;

b deal with North London's waste by working with our partner boroughs in North London to produce a Waste Plan, which will ensure that sufficient land is allocated to manage the amount of waste apportioned to the area in the London Plan;

c safeguard Camden's existing waste site at Regis Road unless a suitable compensatory waste site is provided that replaces the maximum throughput achievable at the existing site; and

d make sure that developments include facilities for the storage and collection of waste and recycling.

Feasibility

Facilities for storage and collection

Due to the limited building footprint and space within the building especially at ground floor, management of the various waste streams must be highly efficient. As small dedicated waste storage area is located at basement -2 level, which limits the quantity of waste that can be held on site. This will require the operations team to encourage low levels of waste to be generated from the outset. Waste will be transported through the building via the back of house lift, and stored temporarily in the basement. The lift opens directly onto a loading area at ground floor to the rear of the building, where outgoing waste will be picked up.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Design and Access Statement*** document submitted in support of this planning application.

Waste Management Plan

To ensure the management of waste during the operation of the proposed development, a dedicated waste and recycling rooms would be provided at basement -2 level. This room would contain adequate provision for each use within the building in accordance with the London Borough of Camden's requirements. This would ensure waste and recycling bins would be housed internally within the building, minimising the potential for unsightly bins being placed on the public highway. An outline servicing strategy is provided within the Transport Assessment submitted with the application which details how waste collection and other servicing and deliveries would be managed, ensuring any potential impact to surrounding areas is managed. A more detailed Delivery and Servicing Plan would be prepared during the detailed design of the proposals. This would be secured through an appropriately worded planning condition.

Waste and recycling produced during the construction phase of the development would be managed through the use of a Site Waste Management Plan which would detail the types of waste that would be generated, how the waste would be managed, which contractors would be used and how the quantity of waste generated would be measured.

For further detail demonstrating how the proposed development complies with this specific policy please refer to the ***Operational Management Plan*** document submitted in support of this planning application.

5. Appendix 1 – BREEAM Pre-Assessment Report

135-149 Shaftesbury Avenue
London
WC2H 8AH

BREEAM NC 2014 Pre-Assessment Report

Prepared For:
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December 2017

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1. Executive Summary

A BREEAM pre-assessment has been carried out for the proposed development at 135-149 Shaftesbury Avenue. The purpose of this assessment is to convey the intent to make the site as sustainable as practical and to be in support of the planning application.

The proposed development will be a mixed use non-domestic site, with a 94 room hotel, a four screen basement cinema, and a spa.

Camden Council makes specific mention of sustainability in their planning documents (DP22), and encourages all major developments to achieve a minimum level of excellent with 60% of the Energy category, 60% of the Water category, and 40% of Waste category credits achieved.

This project will be assessed against the 2014 BREEAM New Construction scheme.

This pre-assessment report demonstrates that the applicant is targeting several sustainable practices in order for the development's design to target the highest score practically possible for the Odeon Hotel.

Although all areas of sustainability have been addressed to make this development as BREEAM compliant as possible, it is very unlikely for the development to achieve BREEAM Outstanding (85%). The pre-assessment demonstrates a capability for the development to obtain a maximum score of 73.38%. The target of Excellent for a development with such complexities inherent with retaining the façade of a Listed Building is considered to be a very successful outcome.

It is therefore recommended that the development target a BREEAM level of Excellent, with a score of 73.38% above the 70% threshold required for BREEAM Excellent.

2. BREEAM Pre-Assessment Score

The scoring for 2014 BREEAM New Construction is expressed as a percentage, with the requirements for achieving ratings as follows:

Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Each category of the assessment has a different credit weighting to reflect the relevant importance of the issues as well as adjusting for the different numbers of credits in each category.

Table 2.1 demonstrates the development's possible BREEAM score divided by category, as well as showing targets to achieve Very Good, Excellent, and Outstanding ratings.

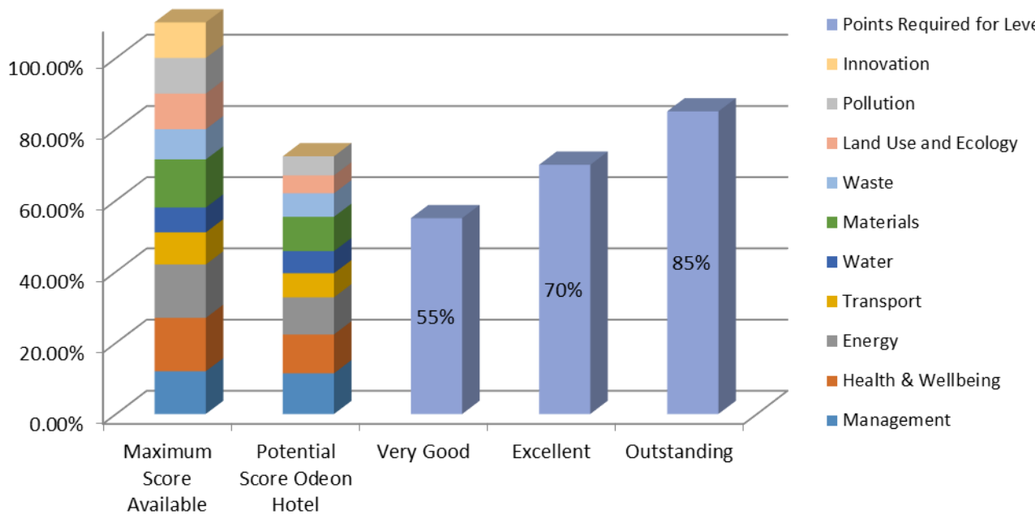

Table 2.1 Odeon Hotel potential score and BREEAM rating targets

At this stage the proposed development at Odeon Hotel is capable of achieving a maximum possible score of 73.38%.

The current design meets all minimum requirements for BREEAM Excellent as stipulated by the BRE, as well as strives to achieve the highest score possible as required by Camden Council's BREEAM policies.

3. BREEAM Pre-Assessment Estimator Summary

The table below summarizes the results of the BREEAM Pre-Assessment for the Odeon Hotel development. More detailed scoring for each credit rationale can be found under Appendix 1.

BREEAM Rating	**Credits Available**	**Credits Achieved**	**% Credits Achieved**	**Weighting**	**Category Score**
Management	21	20	95.24%	12.00%	11.43%
Health & Wellbeing	22	16	72.73%	15.00%	10.91%
Energy	23	16	69.57%	15.00%	10.43%
Transport	12	9	75.00%	9.00%	6.75%
Water	9	8	88.89%	7.00%	6.22%
Materials	14	10	71.43%	13.50%	9.64%
Waste	9	7	77.78%	8.50%	6.61%
Land Use and Ecology	10	6	60.00%	10.00%	6.00%
Pollution	13	7	53.85%	10.00%	5.38%
Innovation	10	0	0.00%	10.00%	0.00%
Total	143	99	69.23%	110.00%	**73.38%**

Table 3.1 Summary of BREEAM Scoring

4. APPENDIX 1 – 2014 New Construction Pre-Assessment Estimator

Category assessment

Management | Man

Man Management

135-149 Shaftesbury Avenue

MANAGEMENT	
Man 01 - Project brief and design :	4
Man 02 - Lifecycle cost and service life planning :	4
Man 03 - Responsible construction practices :	6
Exemplary credit? :	
Man 04 - Commissioning and handover :	3
Man 05 - Aftercare :	3
Exemplary credit? :	

Credits awarded : 20.0

Health and Wellbeing | Hea

Hea Health and wellbeing

135-149 Shaftesbury Avenue

HEALTH AND WELLBEING	
Hea 01 - Visual comfort :	4
Exemplary credit? :	
Hea 02 - Indoor air quality :	4
Exemplary credits? :	0
Hea 03 - Safe containment in laboratories :	0
Hea 04 - Thermal comfort :	3
Hea 05 - Acoustic performance :	3
Hea 06 - Safety and security :	2

Credits awarded : 16.0

Energy | Ene

Ene Energy

135-149 Shaftesbury Avenue

ENERGY

Ene 01 - Data entry method :	Simple credit entry
Ene 01 - Reduction of energy use and carbon emissions :	5
Exemplary credits? :	0
Ene 02 - Energy monitoring :	2
Ene 03 - External lighting :	1
Ene 04 - Low carbon design :	3
Ene 05 - Energy efficient cold storage :	0
Ene 06 - Energy efficient transportation systems :	3
Ene 07 - Energy efficient laboratory systems :	0
Ene 08 - Energy efficient equipment :	2
Ene 09 - Drying space :	0

Credits awarded : 16.0

Transport | Tra

Tra Transport

135-149 Shaftesbury Avenue

TRANSPORT	
Tra 01 - Public transport accessibility :	5
Tra 02 - Proximity to amenities :	1
Tra 03 - Cyclist facilities :	0
Tra 04 - Maximum car parking capacity :	2
Tra 05 - Travel plan :	1

Credits awarded : 9.0

Water | Wat

Wat Water

135-149 Shaftesbury Avenue

WATER	
Wat 01 - Water consumption :	4
Exemplary credit? :	
Wat 02 - Water monitoring :	1
Wat 03 - Water leak detection :	2
Wat 04 - Water efficient equipment :	1

Credits awarded : 8.0

Materials | Mat

Mat Materials

135-149 Shaftesbury Avenue

MATERIALS	
Mat 01 - Life cycle impacts :	4
Exemplary credits? :	0
Mat 02 - Hard landscaping and boundary protection :	1
Mat 03 - Responsible sourcing of materials :	2
Exemplary credit? :	
Mat 04 - Insulation :	1
Mat 05 - Designing for durability and resilience :	1
Mat 06 - Material efficiency :	1

Credits awarded : 10.0

Waste | Wst

Wst Waste

135-149 Shaftesbury Avenue

WASTE	
Wst 01 - Construction waste management :	3
Exemplary credit? :	
Wst 02 - Recycled aggregates :	1
Exemplary credit? :	
Wst 03 - Operational waste :	1
Wst 04 - Speculative floor and ceiling finishes :	1
Wst 05 - Adaptation to climate change :	0
Exemplary credit? :	
Wst 06 - Functional adaptability :	1

Credits awarded : 7.0

Land Use and Ecology | Le

Le Land use and ecology

135-149 Shaftesbury Avenue

LAND USE AND ECOLOGY	
LE 01 - Site selection :	1
LE 02 - Ecological value of site and protection of ecological features :	2
LE 03 - Minimising impact on existing site ecology :	2
LE 04 - Enhancing site ecology :	1
LE 05 - Long term impact on biodiversity :	0

Credits awarded : 6.0

Pollution | Pol

Pol Pollution

135-149 Shaftesbury Avenue

POLLUTION	
Pol 01 - Impact of refrigerants :	2
Pol 02 - NOx emissions :	0
Pol 03 - Surface water run-off :	3
Pol 04 - Reduction of night time light pollution :	1
Pol 05 - Reduction of noise pollution :	1

Credits awarded : 7.0

Innovation | Inn

Inn Innovation

135-149 Shaftesbury Avenue

INNOVATION	
Inn 01 - Innovation :	0

Credits awarded : 0.0