1 Triton Square & St Anne's

Sustainability Statement

October 2016

1 TRITON SQUARE & ST ANNE'S PLANNING DOCUMENTS

EXISTING & PROPOSED DRAWINGS VOL. 1 (1 TSQ)
EXISTING & PROPOSED DRAWINGS VOL. 2 (ST ANNE'S)
DESIGN & ACCESS STATEMENT VOL. 1 (1 TSQ)
DESIGN & ACCESS STATEMENT VOL. 2 (ST ANNE'S)
HOUSING STUDY
TOWNSCAPE & VISUAL IMPACT ASSESSMENT
HERITAGE STATEMENT
LANDSCAPE MASTERPLAN
PLANNING STATEMENT
STATEMENT OF COMMUNITY INVOLVEMENT
TRANSPORT ASSESSMENT
ENERGY STATEMENT

SUSTAINABILITY STATEMENT

DAYLIGHT AND SUNLIGHT STUDY
OVERSHADOWING STUDY
INTERNAL DAYLIGHT STUDY
AIR QUALITY ASSESSMENT
SURFACE WATER DRAINAGE PROFORMA
CONSTRUCTION MANAGEMENT PLAN
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ARBORICULTURAL ASSESSMENT

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01 INTRODUCTION

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GLOSSARY

TERM	DEFINITION
AECB	Association of Environment Conscious Building
BRE	Building Research Establishment
BREEAM	BRE Environmental Assessment Methodology
CAZ	Central London Activity Zone
CO2	Carbon Dioxide
CS	Camden Core Strategy 2010-2025
CPG	Camden Planning Guidance Sustainability 2015
DP	Camden Development Policies 2010-2025
EA	Environment Agency
EU	European Union
FRA	Flood Risk Assessment
FSC	Forest Stewardship Council
GLA	Greater London Authority
kg	Kilogram
LBC	London Borough of Camden
LDF	Local Development Framework
NO2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NPPF	National Planning Policy Framework
PEFC	Programme for the Endorsement of Forestry Certification
PM2.5	Particle matter with a diameter of 2.5 micrometres or less
PM10	Particle matter with a diameter of 10 micrometres or less
SPG	Supplementary Planning Guidance
SUDS	Sustainable Drainage Systems
SWMP	Site Waste Management Plan
TER	Target emission rate
VOC	Volatile Organic Compounds

1.1 PURPOSE OF THIS REPORT

1.1.1
This Sustainability Statement has been prepared by Arup Associates and Eight Associates as part of a planning application by British Land (BL or the 'Applicant'). This planning application seeks full planning permission for the extension and refurbishment of the 1 Triton Square office building and the redevelopment of St Anne's for residential use along with works to the public realm (the 'proposed development'). Both of these buildings lie within the London Borough of Camden (LBC).

1.1.2
This document has been written in relation to both buildings.

1.1.3
The purpose of the Sustainability Statement is to provide an independent verification that the site-wide development plans and designs of 1 Triton Square and St Anne's are in accordance with relevant national, regional and local policy guidance.

1.1.4
The Sustainability Statement provides a direct response to the local and regional sustainability policy requirements of the LBC Local Development Framework (LDF) and the Mayor of London's Sustainable Design and Construction Supplementary Planning Guidance (2014). It demonstrates how sustainable strategies have been considered and implemented during design, and details how the proposed development meets or exceeds the sustainability-specific requirements of LBC and the Mayor of London's local planning policies.

1.1.5
This assessment of the proposed development's sustainability performance against relevant policies and project targets identifies opportunities and constraints of the applicant site and design.

1.1.6
In addition, the assessment findings provide a framework for the team to inform project targets and aspirations and to monitor the scheme's performance throughout the design and construction process.

1.1.7
The Sustainability Statement references other reports that sit in a suite of documents that form the Planning Application.

1.2 THE PROJECT

1.2.1
Arup Associates were commissioned by British Land Property Management Limited in Autumn 2015 to develop the proposals for 1 Triton Square.

1.2.2
The proposed development is located at London's Regent's Place, between the Osnaburgh Street and Brock Street developments.

1.2.3
The 1 Triton Square proposals respond to the increasing demand for high quality office space in Camden generating an expansion of commercial tenant accommodation to suit a wide variety of potential occupiers. The development reinvents the existing ground floor spaces to be engaging and accessible including a new retail unit, gym and affordable workspace unit. Levels 1 to 8 provide high quality and well served office space, flexible and adaptable to suit a broad range of potential occupiers.

1.2.4
Externally the public realm associated with 1 Triton Square is to be upgraded including a unique and characterful garden space within Longford Place to the north of the building.

1.2.5
The proposals for St Anne's respond to the increasing demand within Camden for affordable housing, in particular three-bedroom units. The existing building on the site has been surveyed and has been deemed to be unsuitable for refurbishment and change of use. The proposal therefore involves the demolition of this existing building and the construction of a new residential block.

1.2.6
The vision for the development originates in British Land's core aim to create 'Places People Prefer, places where people want to work, shop and live'.

1.2.7
A comprehensive consultation process with LBC and local stakeholders has led to a design which responds appropriately to its context whilst providing the new and refurbished office space at the heart of the Regent's Place Estate.

1.3 STRUCTURE OF THIS REPORT

1.3.1
This sustainability statement is structured as follows:

- **Section 1** (this chapter) introduces the Sustainability Statement, outlines the purpose and scope and provides an overview of the existing site and the proposed development.
- **Section 2** explains the methodology of the sustainability assessment and limitations and assumptions.
- **Section 3** provides a summary of the baseline information review, including national, regional and local policy and other sustainability related expectations.
- **Section 4** describes the project team's approach to consider and integrate sustainable strategies throughout the design process and to influence the construction and operation methods of the proposed development.
- **Section 5** assesses the performance of the proposed development and provides the results of the sustainability appraisal against planning policy requirements.
- **Appendix A** provides a summary of the policy review.
- **Appendix B** presents the BREEAM pre-assessment for the proposed development of 1 Triton Square.

02 METHODOLOGY

2.1 SUSTAINABILITY ASSESSMENT METHODOLOGY

2.1.1
The LBC 'Camden Development Policies 2010 – 2025' requires developments to demonstrate how sustainable development principles have been incorporated into design (DP Policy 22). This Sustainability Statement describes the extent to which the proposed development meets or exceeds sustainability requirements for the development, as set out in the relevant planning policies. A full list of the relevant planning policies is included in Section 3.1. Further details are included in Appendix A

2.1.2
The sustainability assessment was undertaken in three main stages:

- **Stage 1** a desktop review of relevant national, regional and local policy;
- **Stage 2** appraisal of the sustainability performance of the proposed development against identified relevant policy; and
- **Stage 3** preparation of the Sustainability Statement report.

2.2 ASSUMPTIONS AND LIMITATIONS

2.2.1
The Sustainability Statement has drawn upon a number of other documents that have been submitted with the Planning Application for the proposed development, including the Design and Access Statements for 1 Triton Square and St Anne's, Energy Statement and Transport Assessment. Where required these documents include assumptions and limitations that are not explained in the Sustainability Statement. Reference documents are noted where applicable.

03 BASELINE REVIEW

3.1 SUSTAINABILITY POLICY EXPECTATIONS

3.1.1
A baseline policy review of national, regional and local policy guidance on sustainable development was undertaken to determine the relevant requirements set out in policy. Policy documents taken into consideration are listed below, with a review of all policies provided within Appendix A.

3.1.2
The review identified the principle policies for consideration as a part of this Sustainability Statement. These are highlighted in bold.

NATIONAL POLICY
- National Planning Policy Framework (NPPF) (2012)

REGIONAL POLICY
- Greater London Authority (GLA) – The Mayor of London – The London Plan consolidated with alterations since 2011 (March 2015) and associated documents:
- **Mayor's Sustainable Design and Construction, Supplementary Planning Guidance (2014)**
- Mayor's Cultural Strategy (2012)
- Mayor's Climate Change Adaptation Strategy, Managing Risks and Increasing Resilience (2011)
- Mayor's Climate Change Mitigation and Energy Strategy, Delivering London's Energy Future (2011)
- Mayor's Water Strategy, London's Water Future (2011)
- Mayor's Business Waste Strategy, Making Business Sense of Waste (2011)
- Mayor's Transport Strategy (2010)
- Mayor's Economic Development Strategy (2010)
- Mayor's Air Quality Strategy, Cleaning the Air (2010)
- Mayor's Noise Strategy, A Sounder City (2004)
- Mayor's Biodiversity Strategy, Connecting with London's nature (2002)

LOCAL POLICY
- **LBC Core Strategy 2010 – 2025 (2010)**
- **LBC Development Policies 2010 – 2025 (2010)**
- **LBC Planning Guidance 3: Sustainability (2015)**

04 APPROACH TO SUSTAINABLE DEVELOPMENT

4.1 BRITISH LAND CORPORATE RESPONSIBILITY POLICY AND TARGETS

4.1.1
The British Land Sustainability Strategy[1] sets the framework for the way British Land manages its impacts on the workplace, marketplace, environment and the communities in which it operates and aims to continually improve performance.

4.1.2
British Land sets itself challenging sustainability[2] targets to drive progress across its business and supply chain as it strives to help staff and suppliers embed corporate responsibility in business as usual. Many of these targets relate to the way that British Land's developments are designed and constructed. For example, all of British Land's major commercial developments are to target BREEAM 'Excellent' rating. High sustainability performance is also required of new developments to ensure that in due course, those properties enable the British Land portfolio to meet the targets set for managed properties.

4.2 THE BRITISH LAND SUSTAINABILITY BRIEF FOR DEVELOPMENTS

4.2.1
British Land takes its sustainability commitments seriously and, as a consequence, has developed a 'Sustainability Brief for Developments'[3] ('Sustainability Brief' or 'the Brief'), to facilitate the management of the environmental and community impacts of its developments during design and construction. Use of the Brief forms part of British Land's Environmental Management System, which is audited annually and certified to the ISO14001 standard.

4.2.2
The aims of the Sustainability Brief are to:

- Promote the establishment of sustainability objectives and targets;
- Raise the sustainability awareness of project teams; and
- Define the processes, standards, guidance and responsibilities for managing sustainability issues at each stage in a development project.

4.2.3
The Sustainability Brief approach encourages proactive and innovative approaches to environmental, social and economic issues related to sustainability across the design team, and will ensure that the targets set across a range of issues are met.

4.3 OBJECTIVES & TARGETS

4.3.1
The Brief sets out a process for achieving continual improvement in sustainability performance throughout the design and construction of a development project. This process includes setting and implementing sustainability objectives and targets during the design and construction of each project.

4.3.2
In setting the objectives and targets, the project team consider key issues associated with the sustainability performance of the development, organised under the following headings:

- Microclimate and local character;
- Occupier health and wellbeing;
- Biodiversity;
- Community;
- Energy;
- Materials and waste;
- Water;
- Local economy, employment and training; and
- Certification.

[1] British Land's Sustainability Strategy: http://www.britishland.com/sustainability/strategy.aspx

[2] British Land 2016 social and environmental targets: http://www.britishland.com/sustainability/targets-and-performance

[3] British Land's 'Sustainability Brief for Developments', 2015: http://www.britishland.com/~/media/Files /B/British-Land-V2/downloads/investor-downloads/bl-sustainability-brief-2015.pdf

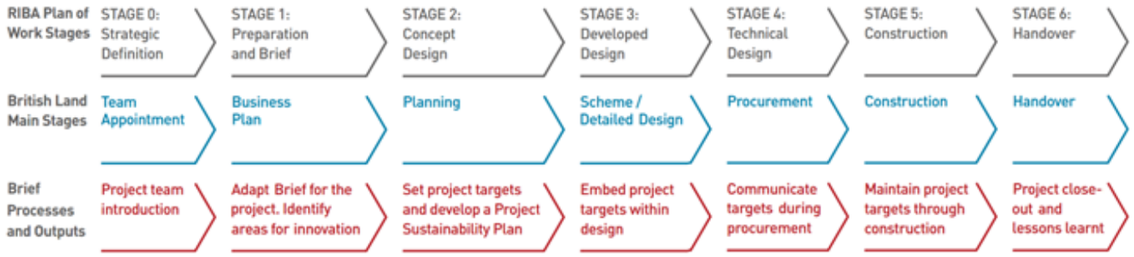

Figure No.4. 1:
Outline process for setting and implementing sustainability objectives and targets.

4.3.3
The process of continual improvement set out in the Sustainability Brief is illustrated in Figure 4.1.

4.3.4
The processes identified within the Brief have been applied to the proposed development. High level sustainability objectives for the proposed development, covering water efficiency, energy/ carbon performance and recycled content of materials, among others, were set early in the design stage of the proposed development in consultation with the design team and the Applicant.

4.3.5
Contingent on planning approval, the process set out in the Sustainability Brief will be used to form a sustainability management plan for the development and guide the next stages in design and construction plans.

4.3.6
The process will ensure that every effort will been taken to ensure that targets and aspirations for the proposed development, and more broadly the policy requirements detailed in this statement, will be met.

4.4 BREEAM

4.4.1
The proposed development of 1 Triton Square is tracking compliance with 'Excellent' performance as set out in the Building Research Establishment (BRE)'s Environmental Assessment Method (BREEAM) New Construction 2014 scheme. The BREEAM Pre-Assessment Summary undertaken for the proposed development is included with the Planning Application.

4.4.2
A BREEAM Pre-Assessment report for the proposed development of 1 Triton Square is included in Appendix B. This has been developed with reference to the criteria in BREEAM New Construction 2014, for which it is demonstrated that a rating of 75.80%, translating into a summary rating of 'Excellent' as being achievable

05 SUSTAINABILITY ASSESSMENT

5.1 SUSTAINABILITY ASSESSMENT

5.1.1
This section provides an overview of how the proposed development supports the defined sustainability objectives found within the relevant planning policies, as set out in:

- Mayor's Sustainable Design and Construction, Supplementary Planning Guidance (2014); and
- LBC Core Strategy 2010 – 2025 (2010)
- LBC Development Policies 2010 – 2025 (2010)
- LBC Planning Guidance 3: Sustainability (2015)

5.1.2
The structure of the assessment narrative is presented through the following section headings:

- Land, Site Layout and Building Management;
- Townscape and Visual Impact;
- Public Access, Open Space and Amenity;
- Infrastructure;
- Safety and Security;
- Transport;
- Energy and Carbon Dioxide Emissions;
- Water Efficiency;
- Materials Management;
- Surface Water Run-off and Flood Risk;
- Nature of Conservation and Biodiversity;
- Adapting to Climate Change and Greening the City;
- Sustainable Construction Practices; and
- Pre-Assessments.

5.1.3
For each section a summary of relevant policy is provided followed by a table with the proposed development response.

5.1.4
The requirements of the relevant objectives outlined in the LBC Core Strategy, Development Policies and Planning Guidance 3: Sustainability are provided in the assessment table (see Table 4.1). The table provides a response as to how the proposed development responds to LBC's relevant sustainability planning policies.

5.1.5
In instances where particular policies from the local planning documents are not applicable to the proposed development, the policies have been excluded from the assessment table.

5.1.6
The relevant planning policies are noted in abbreviation. For reference:

- SPG: London Mayor's Supplementary Planning Guidance policy 2014;
- CS: LBC Core Strategy policy 2010 – 2025;
- DP: LBC Development Policies 2010 – 2025; and
- CPG: LBC Planning Guidance 3 (Sustainability) 2015.

5.2 LAND, SITE LAYOUT AND BUILDING MANAGEMENT

5.2.1
The SPG states that buildings and their surroundings should be designed and built to optimise the use of land, including through optimising density and design, considering the accessibility of the site and its local context (SPG Section 2.2).

5.2.2
The development should also carefully consider the design of the site, building layout, footprint, scale and height of buildings, as well as the location of land uses in the context of the following aspects (SPG Section 2.3):

- **Reuse of existing building**: any existing buildings that can be practically refurbished, retrofitted, or extended should be retained and reused.
- **Landform**: the design of new developments should take advantage of any opportunities the existing landform offers to enhance the sustainability of the development.
- **Mixed land use**: where appropriate, development should include a mix of land uses to reduce the need for local residents and visitors to travel.
- **Site layout**: the development should ensure the layout of the site and buildings maximises the opportunities provided by natural systems, such as light and wind and the potential for sustainable drainage systems.
- **Micro-climate**: the effects of the development on micro-climate should be considered, such as overshadowing, contributing to urban heat island effect, and the comfort of the street environment.

5.2.3
The LBC Core Strategy and Development Policies contain a number of requirements on land, site layout and building management which are of relevance to the proposed development:

- **Appropriate development**: promote appropriate development in the highly accessible areas of Central London, considered suitable locations for the provision of homes, shops, food, drink and entertainment uses, offices, community facilities and are particularly suitable for uses that are likely to significantly increase the demand for travel (CS3).
- **Sustainable design**: to promote a high standard design of sustainable buildings and spaces by making full use of the site and accounting for design, surroundings, sustainability, amenity, heritage, transport accessibility and any other relevant considerations. The design must demonstrate that the proposed development maintains the structural stability of the building and neighbouring properties, avoids adversely affecting drainage and run-off or causing other damage to the water environment, and avoids cumulative impacts upon structural stability or the water environment in the local area (CS1, DP27).
- **Travel demand**: Development are to be well serviced by public transport, with a thorough assessment of all potential options for developments before edge-of-centre (CS1).
- **Increased density**: encourage increased density through excellent design and sensitively considering the amenity of occupiers, neighbours and the character and built form of surroundings (CS1).
- **Mixed uses**: A mix of employment facilities and types is expected including an element of housing where possible (CS1, CS8, DP1).
- **Small and medium-sized businesses:** promote small and medium sized businesses through affordable workspace (CS8, DP1).
- **End users:** promote a high standard design to meets the needs of the end user (DP13).

5.2.4
The development must avoid harmful effects on existing and future occupiers and nearby properties, or take appropriate measures to minimise potential negative impacts (CS5).

5.2.5
Where affordable housing is being provided, developments should prioritise homes with three-bedrooms or more. Proposed development should aim to deliver high quality affordable housing for Camden households (CS6).

5.2.6
Developments must provide an acceptable standard of accommodation in terms of internal arrangements, dwellings, room sizes, amenity space, facilities for the storage, recycling and disposal of waste, facilities for bicycle storage and outdoor space for private or communal amenity space, wherever practical. These requirements must be considered at the design stage (DP26).

5.2.7
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • Located in the vibrant Regent's Place mixed-use district, the proposed development contributes to the continued strategic growth of Camden through provision of new and enhanced office, retail, community facilities, and introduction of affordable workspace and residential accommodation. • The proposed development will incorporate a mix of uses of residential, office, retail, leisure and operational areas to help reduce the need for local residents and visitors to travel. • Further details on provision of outdoor space for private or communal amenity is described in Section 5.4.5 of this Sustainability Statement. • Provision of facilities for storage, recycling and disposal of waste is further described in Section 5.10.5 of this Sustainability Statement. • Accessibility and inclusive design is an integral part of the proposed development. Pedestrian connectivity and facilities for bicycle storage are further demonstrated in Sections 5.4.4 and 5.7.7 of this Sustainability Statement. • Further details are provided in the Design and Access Statements for 1 Triton Square and St Anne's and the Transport Assessment that accompanies the Planning Application. **1 TRITON SQUARE:** • The development design maximises the opportunities provided by natural light, through features such an expansive 21m by 18m atrium top and cladding design that maximise the amount of light reaching the office interior, whilst limiting unwanted heat gains. The proposed development does not include new basement excavation beyond the existing basement development footprint. • The effect of the local micro-climate on the proposed development is considered through sensitivity to local wind conditions and the integration of soft landscaping to the upper terraces. • In line with BREEAM targets, the proposed development aims to reduce the local heat island effect and contribute to local biodiversity and green infrastructure through landscape planting at ground and terrace level, and provision of a brown roof, further described in Section 5.13.9.of this Sustainability Statement. **ST ANNE'S:** • The existing building has been extensively surveyed and has been deemed unsuitable for refurbishment. • The proposed new development will provide a mix of affordable units, including a significant proportion of three-bedroom homes. • The residential building makes use of green roofs to reduce the urban heat island effect. • The project team will develop a Home User Guide that encourages residents of the development to minimise their environmental impacts. • The development aims to reduce nuisance noise between neighbours by targeting good levels of acoustic insulation in separating/party walls and floors. • The development aims to improve the quality of life for residents by providing good levels of daylighting. This will also reduce the need for energy to light apartments. • The building services strategy has been carefully considered in order to balance the need for energy-smart, low carbon technologies with the need for adequate and controllable ventilation. • Further detail on the provision and sizing of accommodation is described in the Design and Access Statements that accompany this Planning Application.	SPG section: 2.2, 2.3 LBC CS: CS1, CS3, CS5, CS6, CS8 LBC DP: DP1, DP13, DP26, DP27

5.3 TOWNSCAPE AND VISUAL IMPACT

5.3.1
The LBC Core Strategy requires the proposed development to be of the highest standard, respecting the local context and character and providing a high standard of landscaping and boundary features. The proposed development must be of a height that does not harm existing views nor detract from the panorama as a whole (CS14, DP24).

5.3.2
The proposed development must also consider the scale of neighbouring buildings, the character and proportions of the existing building, quality of materials to be used, visually interesting frontages, location for building services equipment and appropriate amenity space (DP24).

5.3.3
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
• A full analysis of the visual impact of the proposed development has been undertaken. The details of the analysis is contained in the Design and Access Statements accompanying the Planning Application, and outlines the principles of the proposed development, including the height and massing of the building in response to the site's opportunities and constraints. • Focused studies of the massing and key streetscape views identified as part of the consultation process have informed the evolution of the design, to ensure that it will respond appropriately in key distant views to its specific urban local context and townscape in local views	LBC CS: CS14 LBC DP: DP24

5.4 PUBLIC ACCESS, OPEN SPACE AND AMENITY

5.4.1
The Mayor's Sustainable Design and Construction SPG has no specific section to address public access and open space; however it encourages new developments to include the potential for incorporating open space, recreation space and child play space to enhance public amenity (Mayor's SDC SPG Section 2.3).

5.4.2
The LBC Core Strategy and Development Policies requires the proposed development and spaces between buildings to be inclusive and accessible, with disabled parking and drop-off facilities integrated with public transport facilities (CS14, DP29).

5.4.3
Developments that increase the demand for community facilities and services are require to make appropriate contributions towards providing new facilities or improving existing facilities (DP15).

5.4.4
The proposed development is required to provide public open space on-site, contribute to the provision of additional public open space on other sites, or improve other open spaces in the area (CS15, DP31).

5.4.5
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • To the north of 1 Triton Square, 'Longford Place' currently houses a disused outdoor crèche structure and open public space with generally hard landscaping. The closing of the outdoor crèche (due to lack of demand) and refurbishment and extension of 1 Triton Square provide an opportunity to redefine this space providing active and high-quality community amenity along the northern edge of the building. • The quantity and quality of accessible public realm has been enhanced by the scheme through the removal of the existing taxi drop off to the eastern side of 1 Triton Square, the reinvention of the substation cladding and the general upgrade of landscaping to all four sides of the building. • The public space to the north of 1 Triton Square has been designed as an open garden space. A unique and characterful design approach has been taken to create a playful area comprising lawn amenity and sculptural stone seating and play structures. • The proposed development and its associated landscape and public realm strengthens the connection of Regent's Place to the Regents Park Estate. • The Design and Access Statements and the landscape masterplan submitted as part of this Planning Application further describe the design approach for public access, open space and amenity. **1 TRITON SQUARE:** • The street frontage of the building at ground level along Triton Square and Longford Place has been redesigned to animate the street and provide opportunities for more and different publically-available amenities. Public amenity features include enhanced retail space accessible at the south side of the building, and gym facilities (with membership available for the public) accessible via the east side of the building. • Further details of the inclusive accessibility of the site, such as wheelchair access and access by pedestrians and cyclists are provided in Section 5.7.7 of this Sustainability Statement. • The proposed development includes provision for affordable work space. This space will be located at ground floor along the northern façade with direct access from Longford Place. • The proposed development includes a terrace to each side of the building which provides an accessible amenity space for building users. **ST ANNE'S:** • Design proposals have taken into consideration external and internal accessibility. This includes cyclist and pedestrian access to the sites, as well as the provision of a wheelchair-accessible flat at ground and first floor level. • Dwellings are provided with private external space (in the form of balconies, which have been sized in accordance with GLA requirements) in addition to outdoor communal space. A private garden is located at ground floor level. • The development will respect the needs of neighbours and future occupants by creating a secure, inclusive and adaptable development.	SPG Section: 2.3 LBC CS: CS14, CS15 LBC DP: DP15, DP26, DP29, DP31

5.5 INFRASTRUCTURE

5.5.1
The LBC Core Strategy requires developments to make appropriate contributions towards the infrastructure needs they generate, making sure that infrastructure is provided that is suitable to meet increasing demand caused by development (CS10).

5.5.2
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • As further described in Section 5.2.7 of this Sustainability Statement and the Design and Access Statements that accompany the Planning Application, the proposed development contributes to the continued strategic growth of Camden through provision of new and enhanced office, retail, community facilities, and introduction of affordable workspace and residential accommodation. • The existing utility infrastructure (electricity, gas, water supply, and sewer) will be upgraded to suit the redeveloped building requirements as well the additional area and programming created by the extension.	LBC CS: CS10

5.6 SAFETY AND SECURITY

5.6.1
Developments are required to demonstrate that design principles have incorporated measures which contribute to community safety and security. These include (CS17):

- appropriate design, access and layout to reduce opportunities for crime;
- designing out risks from fire and arson, reflecting guidance from the government publication “Safer Places: The Planning System and Crime Prevention”; and
- appropriate and proportional security and community safety measures within the design.

5.6.2
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • The proposed development is committed to ensuring that measures are designed into the building for safety, security and mitigation of potential for crime and anti-social behaviour, which aligns with the objectives set out in CS17. Further detail is provided in the Design and Access Statements that accompany the Planning Application. . **1 TRITON SQUARE:** • In line with BREEAM targets, an evidence based assessment on security needs will be carried out and a set of recommendations will be developed to inform the design process. The assessment will satisfy principles and standards that address the issues of crowded places and counter-terrorism. **ST ANNE’S:** • The development will be designed cognisant of the principles of Crime Prevention through Environmental Design (CPTED) and Secured by Design (SbD). • Following receipt of planning permission the project team will consult with the local Designing out Crime Officer in order to receive guidance on local crime patterns and advice in relation to specific design elements for St Anne’s.	LBC CS: CS17

5.7 TRANSPORT

5.7.1
The SPG has no specific section on Transport; however it encourages developments to include a mix of uses where suitable, to provide a range of services commensurate to the public transport accessibility (SPG Section 2.3).

5.7.2
The SPG also states that developments should be designed to encourage and facilitate walking and cycling and the use of public transport. This will enable air pollutants deriving from a particular development to be minimised. To further support this policy, developments should ensure that the local car parking standards is not exceeded (SPG Section 4.3).

5.7.3
The LBC Core Strategy promotes a range of sustainable transport measures to relieve existing pressures on the transport system. The proposed development should ensure patterns of land use minimise the need to travel by car (CS11, CS13).

5.7.4
In addition, the LBC Development Policies require transport impacts of the proposed development to be assessed and mitigated (DP16). Connections to walking, cycling and public transport networks should be integrated into the design (DP17).

5.7.5
The aspiration is that developments be car-free, provide safe pedestrian and cycle links and high quality cycle parking (DP17, DP18).

5.7.6
Where road transport is required during construction and/or operation, developments are require to minimise negative impacts and consider the use of more sustainable alternatives. A loading bay will be required for the proposed development (DP20).

5.7.7
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • In line with the requirements set out in SPG 2.3, the proposed development incorporates a mix of land uses to reduce the need for travel of local residents and visitors as well as to provide a range of services commensurate to the public transport accessibility. • A Transport Assessment, submitted as part of this Planning Application, provides information on likely transport impacts of the proposed development and the steps that will be taken to mitigate impacts. **1 TRITON SQUARE:** • To encourage and facilitate walking, cycling and the use of public transport in line with SPG 4.3, the proposed development has given high prominence to cycling facilities with approximately 516 long stay and 48 short stay cycle storage spaces to be provided on the ground floor using a double stacking parking system. Provisions are also made for associated facilities including showers, lockers and changing rooms. • A servicing area is provided in the existing basement development which serves the whole of the Regent's Place Campus. Servicing for the proposed development will continue to be accommodated via the existing off-street basement servicing area, accessed from Drummond Street and Longford Street via the private access road and ramp. A Servicing and Waste Management Strategy has been developed for the site which confirms that the three loading bays provided in the basement can accommodate the expected demand. **ST ANNE'S:** • The development is located within central London and therefore has excellent public transport provision. The design aims to encourage sustainable modes of transport and will include provision of 43 secure cycle storage for residents. • Home office facilities will be provided within each unit, to allow residents to work from home. Facilities provided will include double power sockets and two telephone points, sufficient wall space to install a desk, and adequate ventilation and daylight. • A substantial amount of bicycle storage has been provided, in a secure, internal room.	SPG Section: 2.3, 4.3 LBC CS: CS11, CS13 LBC DP: DP16, DP17, DP18, DP20, Appendix 2

5.8 ENERGY AND CARBON DIOXIDE EMISSIONS

5.8.1
The SPG encourages the minimisation of the overall carbon dioxide emissions from a development through the implementation of the energy hierarchy. The development should (SPG Section 2.4):

- Contribute to a resilient and low carbon energy infrastructure.
- Be accompanied by an energy demand assessment.
- Prioritise passive measures in design.
- Assess the potential to connect to or expand an existing district heating or cooling network; or establish a new network.

5.8.2
The SPG encourages major developments to incorporate renewable energy technologies to minimise overall carbon dioxide emissions where feasible. Where developments do not achieve the Mayor's carbon dioxide reduction targets set out in the London Plan, the development should make a contribution to the local borough's carbon dioxide off-setting fund (SPG Section 2.5).

5.8.3
Developments are encouraged to incorporate monitoring and demand side response (DSR) equipment where appropriate to enable occupiers to monitor and reduce their energy use and participate in demand side response opportunities.

5.8.4
LBC requires the proposed development to reduce its effects on climate change through demonstrating high quality design and the following energy hierarchy (CS13, DP22, DP32, CPG2):

- ensuring the development uses less energy;
- making use of energy from efficient sources; and
- generating renewable energy onsite

5.8.5
Once the design has minimised energy consumption in line with the energy hierarchy, a reduction in carbon dioxide emissions of 20% from on-site renewable energy generation is required unless it can be demonstrated that provision is not feasible (CS13, CPG6).

5.8.6
Developments are required to connect to decentralises energy networks or include combined heat and power (CHP) unless technically infeasible (CS13, CPG5).

5.8.7
Developments must submit an energy statement which addresses sustainable development principles and demonstrates how carbon dioxide emissions will be reduced in line with the energy hierarchy (DP22, CPG2).

5.8.8
The proposed development is expected to reduce carbon emissions by making improvements to the existing building. Where retro-fitting measures are not identified, environmental improvements will be secured by way of condition. As a guide, at least 10% of the project cost should be spent on environmental improvements to reduce operational carbon emissions, with potential measures bespoke to each property (CS13, CPG 4).

5.8.9
When installing photovoltaics (PVs) the preference is for installation to be flush to the roof or wall, with a meter is to be installed for monitoring purposes (CPG6).

5.8.10
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • An Energy Strategy Statement has been provided to accompany the Planning Application, which confirms compliance with SPG 2.4 through the following: Energy demand assessment; The application of the energy hierarchy principles; The pursuit of energy efficient design measures; and the implementation of the energy hierarchy (lean>clean>green) to reduce carbon emissions. • Energy efficiency and low carbon measures applied to the proposed development achieve a 34.6% improvement in regulated carbon dioxide emissions for the new build portion of the development, derived from Part L 2013. The on-site photovoltaic system serves the site-wide development and achieves a further 11.9% reduction in annual carbon dioxide emissions. The total carbon reduction for the whole development is therefore 236 tonnes of CO2 per annum. • All available renewable energy technologies were then considered. On-site renewable energy technologies considered as part of the development of the energy strategy include solar hot water panels, heat pumps, air source heat pumps, ground source heat pumps, wind turbines, biomass heating and photovoltaic panels. The results of this feasibility study indicated that only photovoltaic (PVs) panels were appropriate for the proposed development. • The integration of PV into the scheme, in addition to energy efficient measures, lead to an overall 46.5% improvement in regulated carbon dioxide emissions for the new build portion of the development, derived from Part L 2013. This is the equivalent to saving 121 tonnes of CO2 per annum. • A feasibility study into the provision of decentralised energy has been undertaken as part of an independent study carried out by Buro Happold. CHP was not deemed feasible for this development and there are currently no energy networks in the area. • Further details on the energy and carbon strategy, including a feasibility study of carbon emissions savings and low and zero carbon (LZC) energy technologies for the proposed development, are described in the Energy Statement that accompanies the Planning Application. • Details of the installation of the rooftop PV system and provision for future connection of building systems to a district heating and cooling network will be provided during detailed design stages. **1 TRITON SQUARE:** • The refurbishment of 1 Triton Square, forming part of the development, achieves 14% better than Part L 2013 and a saving of 115 tonnes of CO2 per annum. In line with GLA guidance, the refurbishment part of the development seeks to meet and where possible exceed Part L 2013, which has therefore been achieved. • Furthermore, the proposed development comprises a refurbishment of an existing building, for which an integral aspect of the proposed works will include the retention and re-use of the building's structural frame and envelope. There is a significant saving in embodied energy from the retained fabric and structure, as a consequence of renovating the existing building. This equates to additional carbon savings through avoided emissions produced during the manufacture of materials required for a new construction. This saving will further compensate for the carbon emissions associated with running energy use. • The BREEAM strategy for the proposed development is described in further detail in the BREEAM Pre-Assessment included with this Planning Application. **ST ANNE'S:** • The new build residential scheme at St Anne's is to achieve or offset zero carbon requirements in line with Camden Energy Policy. • It has been confirmed that 52.1% improvement on 2013 Building Regulations will be achieved and 41.6% of the total carbon emission reduction for this development will be achieved by a low or zero carbon technology namely PV panels. • Please refer to the Energy Strategy Statement for details of the reduction in carbon emissions (in line with the energy hierarchy) over Building Regulations Part L Target Emission Rate (TER). • In line with the Applicant's requirements, 100% of internal and external lighting will be high efficiency lighting. All internal light fittings will be LED. External lighting will be appropriately controlled to avoid daylight operation and will have a luminous efficacy of greater than 45 lumens per circuit watt. • White goods will be energy efficient to reduce each dwelling's unregulated energy demand. All fridges, freezers, fridge-freezers, washing machines, tumble dryers, washer-dryers and dishwashers will be at least B rated under the EU Energy Efficiency Labelling Scheme.	SPG Section: 2.4, 2.5 LBC CS: CS13 LBC DP: DP22, DP32 LBC CPG: CPG2, CPG4, CPG5, CPG6

5.9 WATER EFFICIENCY

5.9.1
The SPG requires all developments to maximise the opportunities for water saving measures and appliances, including the use of alternative sources of water, installation of water efficiency measures and the incorporation of rainwater harvesting (SPG Section 2.6).

5.9.2
Commercial units to be metered MBP (SPG Section 2.6)

5.9.3
Developments are required to be water efficient through reducing water consumption, reducing amounts disposed, maximising re-use and minimising the need for further water infrastructure (CS13, CPG7)

5.9.4
Developments should incorporate grey water recycling, install water meters that are visible to occupants, fit water butts to landscaped areas, and regularly maintain grey and blackwater systems. A separate standard mains supply is required to provide drinking water (CPG7)

5.9.5
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
1 TRITON SQUARE: • In line with BREEAM targets, the proposed development aims to achieve water efficiency through a number of measures including water efficient components, water monitoring and leak detection system. The proposed development will also provide space for a combined rainwater harvesting and greywater system to reduce water demand, in line with the requirements set out in SPG 2.6. • The proposed development will 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. **ST ANNE'S:** • Water efficient sanitary fittings will be installed as standard within the units. The development will target water consumption of no more than 105 litres per person per day within all residential units. Indicatively this may include low flow showerheads and taps, dual flush toilets and baths not exceeding specific overflow limits. • Potable water will not be used for irrigation purposes. The development will utilise drought resistant planting and rainwater harvesting will be provided using a collection tank, located below the upper roof and above the communal garden/brown roof areas.	SPG Section: 2.6 LBC CS: CS13 LBC CPG: CPG7

5.10 MATERIALS MANAGEMENT

5.10.1
The Mayor's Sustainable Design and Construction SPG encourages the careful choice and use of building materials to reduce the generation of waste and ensure high quality external environment and a healthy internal environment. The development design should consider (SPG Section 2.7):

- Prioritise materials that have a low embodied energy, can be sustainably sourced, durable, and will not release toxins into the internal and external environment.

- Maximise the potential to use pre-fabrication elements.

5.10.2
The LBC Core Strategy requires that the proposed developments promotes improved waste management strategies and choices, providing adequate facilities for recycling, storage and disposal of waste (CS18, DP26).

5.10.3
The LBC Development Policies require robust waste management during construction. The proposed development is required to reduce waste by first re-using the building. Where this is not possible, the waste hierarchy should be implemented (DP22, CPG8).

5.10.4
Materials must be sourced responsibly to ensure they are safe to health, with at least 10% of the total value of materials derived from recycled and reused sources (increasing to 15-20% for major developments) (CPG8).

5.10.5
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • In respect to new materials, the proposed development will meet performance requirements in line with the targeted BREEAM credits and targets set out in the British Land Sustainability Brief. The materials specification and products considered for the proposed development will target, as appropriate, the following characteristics: • 100% of timber to be certified under FSC; • Timber marked as 'Grown in Britain'; • Materials to be certified to BES 6001 'Very Good' or 'Excellent; • Locally extracted and manufactured materials; and • Paints and sealants with low or zero Volatile Organic Compounds (VOCs). • As set out in the British Land Sustainability Brief, the Principal Contractor will be required to adopt site waste management practices throughout the construction phase. This will include the identification and setting of resource efficiency and waste diversion targets, in accordance with the proposed development's BREEAM commitments while aspiring to British Land's target for 'zero waste to landfill' during construction, including strip-out, demolition and construction waste. • Potential implementation practices include the development of a resource management plan, procedures for monitoring waste volumes, and identification of good practice waste management measures to maximise diversion of waste from landfill. • The Design and Access Statements for both 1 Triton Square and St Anne's, submitted as part of the Planning Application, describe material and resource considerations and includes opportunities for the selection and sourcing of sustainable materials. **1 TRITON SQUARE:** • An integral aspect of the proposed works will include the retention of the building's structural frame and cladding, which aligns with the objectives of SPG Section 2.7 to reduce the embodied energy of developments, maximise use of existing resources, and minimise consumption of new materials. • In line with the targeted BREEAM credits, the proposed development will follow a materials efficiency assessment process in order to identify opportunities to optimise materials efficiency (including assessment of opportunities for pre-fabrication elements) and minimise the environmental impact of materials use (including assessment of opportunities to minimise release of toxins into the internal or external environment, including those that deplete stratospheric ozone). • In line with BREEAM targets, the proposed development aims to provide appropriately sized space dedicated for the segregation and storage of operational recyclable and/or compostable wastes volumes and management of non-recyclable and compostable waste streams. **ST ANNE'S:** • The existing building has been extensively surveyed and has been deemed unsuitable for refurbishment. However, a pre-demolition waste audit will be carried out to identify opportunities to reuse and recycle key demolition materials. The contractor will be required to adhere to British Land's 'zero waste to landfill' policy. • The Green Guide to Specification is a reference tool providing guidance on the relative environmental impacts for a range of different building elemental specifications, based on Life Cycle Assessment and the Environmental Profile Methodology. The design team has committed to using the Green Guide to Specification to select materials with a low environmental impact. • Internal bins will be provided for storage of recyclable, compostable waste and general waste, in addition to a suitably sized communal bin store. • Sufficient external space will be provided for the storage of recyclable, compostable and general waste streams.	SPG Section: 2.7 LBC CS: CS18 LBC DP: DP22, DP26 LBC CPG: CPG8

5.11 SURFACE WATER RUN-OFF AND FLOOD RISK

5.11.1
The Mayor's Sustainable Design and Construction SPG emphasises the importance for all developments to incorporate mitigation measures in design to reduce their potential impact on increased surface water flooding due to anticipated increased intensity in rainfall events. Developments should (SPG Section 3.4):

- Maximise all opportunities to achieve greenfield runoff rates in their developments.
- Follow the drainage hierarchy set out in the London Plan.
- Design Sustainable Drainage Systems (SuDS) into their schemes that incorporate attenuation for surface water runoff as well as habitat, water quality and amenity benefits.

5.11.2
Developments should be designed to incorporate adaptation measures to improve their resistance and resilience against all types of flooding and the potential increase in flood risk as a result of climate change, through:

- Incorporating the recommendation of the TE2100 plan for the future tidal flood risk management in the Thames estuary.
- Where development is permitted in a flood risk zone, incorporate appropriate residual risk management measures into the design.
- Considered all sources of flooding when designing and constructing developments.

5.11.3
Development should also be designed to maximise opportunities to protect fluvial and tidal watercourses, flood defences and culverts.

5.11.4
The LBC Core Strategy requires the proposed development adequately manages any increase in surface water or sewage discharge. The development must not increase the risk of flooding and is required to prevent or mitigate against flood risk, manage drainage and surface water. Appropriate mitigation measures are to be demonstrated (CS13, DP23, CPG11).

5.11.5
Sustainable Urban Drainage System (SuDS) are to be implemented and the drainage system design hierarchy followed. Flood resistant architecture and on-site retention facilities are to be promoted. Developments are to achieve a reduction in greenfield surface water run off of at least 50% once SUDS have been installed (CS Appendix 1, CPG11).

5.11.6
Basement and underground developments are required to be assessed for impacts on drainage, flooding, ground water conditions and structural stability (CPG11).

5.11.7
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • The SPG priority standards apply primarily to development proposed in TE2100 Flood Zones 2 and 3. The proposed development is situated within Flood Zone 1 and is considered to have low risk of future tidal flooding and is not located within 16m of a fluvial or tidal watercourse. • The drainage hierarchy has been considered in the overall design. Surface water drainage calculations in line with the Camden Surface Water Drainage Pro-forma, submitted as part of the Planning Application, demonstrate there is approximately a 50% reduction in the rainfall flow introduced into the local sewer system due to the proposed scheme. • The use of ponds and open water features has not been possible to use due to the limited space. The use of water courses and surface water sewers are also unavailable to the project due to the absence of both these features. The proposed development holds significant advantages over the existing site, with a combination of harvesting surface water for re-use and storm water attenuation, the site will discharge lower flows of rainwater into the nearby sewers. **1 TRITON SQUARE:** • The proposed development will incorporate sustainable drainage systems (SuDS) in line with national standards and will comply with targeted BREEAM credits and the drainage hierarchy set out in CPG11. The drainage measures undertaken by the proposed development will also contribute to alleviating potential surface flood risk for the public realm, where feasible. The proposed development will take into account the potential for flooding from all sources, and will include the implementation of mitigation measures in line with BREEAM requirements. • Rainwater harvesting as well as greywater treatment and re-use aim to lower peak water demands and outflows. Longford Place is proposed to have increased permeable area with more 'green' spaces allowing for greater infiltration and less run-off to sewer. The surrounding exteriors of the building will be drained by existing drainage. **ST ANNE'S:** • The proposed building will occupy the same area as the existing site. It will improve on the existing system by including a mixture of permeable surfaces and brown roofs. • The proposed development includes a garden area which will be new and is built above a gravel/sand substrate. It is intended that the substrate acts as a soakaway to the garden, thereby reducing the total water volume discharged from the site. Brown roofs will be also provided at the 6th floor and roof of the proposed development. These roofs are expected to have a buildup greater than 50mm and will act as an attenuation method for rainwater as it is discharged off the building rooftops.	SPG Section: 3.4 LBC CS: CS13, Appendix 1 LBC DP: DP23 LBC CPG: CPG11

5.12 NATURE CONSERVATION AND BIODIVERSITY

5.12.1
The Mayor's Sustainable Design and Construction SPG states that developments should be sensitively designed so that there is no net loss in the quality and quantity of habitat across a development site and to enhance biodiversity and increase connectivity between patches of urban habitat (SPG Section 2.8).

5.12.2
The LBC Core Strategy requires developments top provide opportunities for biodiversity within the fabric and curtilage of buildings, and demonstrate how biodiversity considerations have been incorporated into the design (CS15, CPG13).

5.12.3
The development must consider how a built structure and any landscaped elements can deliver wider ecological benefits and enhancements (CPG13).

5.12.4
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: The design team are committed to help protect and enhance biodiversity on site, including the following: • Bat protection in line with best practice; • All trees and shrubs cleared out of bird breeding season (March-August); • Trees to be managed in line with arboricultural report; • New planting to include native species / insect and bird attracting species. • Where possible, areas of dense planting will be provided (including shrubs, groundcover and bulbs) and will be bias towards wildlife-friendly species • The planters on the roof terrace will be planted with species that are either native or beneficial to wildlife. One planter will include climbing plants, to provide a vertical habitat for insects. These will be UK native species that benefit wildlife, such as dog rose (Rosa canina), honeysuckle (Lonicera periclymenum) or sweet pea (Lathyrus odoratus). • Substrate depth will vary across the roof to promote a diversity of both shallow and deep-rooted plants, and species that are more and less drought tolerant. A range of substrate depths also creates differing habitats for a number of invertebrate species. • Areas of this top roof will be left untreated (brown roof) to promote colonisation by local plant species. **1 TRITON SQUARE:** • 1 Triton Square is a refurbishment and extension development of an existing building. The site comprises the building and immediately adjacent hard landscaping with limited presence of ecological features. By re-using a developed site, the proposed development will not result in any negative impacts to the biodiversity value within the local context. • The proposed development also includes provision for bird and bat bricks / boxes to enhance habitat amenities. In addition, the development provides for a total of 1,215 m2 of biodiverse vegetated terraces at the 5th and 5th floor levels, and 560 m2 of brown roof. • In line with BREEAM targets, the proposed development aims to enhance the ecological features of the site and promote urban greening that contributes to biodiversity enhancement, which is in line with SPG 2.8. **ST ANNE'S:** • The proposed development aims to enhance the ecological value of the site via the landscape design (garden planting at ground floor level and planters on the sixth floor roof terrace) and through the use of two types of green roof. In total, the design provides for 191 m2 of green/brown roof area. Ecological features such as bird and bat boxes and insect houses will also be incorporated. • The private garden on the ground floor will include plant species that are either native or beneficial to wildlife. Planting will include a diverse mix of species, including a variety of fruiting and flowering species, grasses and herbaceous plants to provide a nectar source and overwintering habitat for invertebrates and in turn a foraging habitat for birds. • A biodiverse green roof is proposed for the section of inaccessible flat roof at sixth floor level. This will include a range of different plant species which are either UK native or of value to wildlife. This green roof will include similar species to those found in nearby Regent's Park, thereby aiming to facilitate that creation of a wildlife corridor. • Plant diversity will be achieved by using a seed mix that contains a mix of stonecrop, herb and wildflower species, which will give the roof the appearance of a wildflower meadow. • An extensive green roof is proposed on the top roof of the building. This would consist of a sedum blanket, or other similar system, which contains a range of moss and grass species, keeping weight and maintenance to a minimum. • A deadwood loggery will also be installed on this roof to provide an egg laying and larval habitat for invertebrates. This will increase the variety of insects that in turn provide food for birds and bats and will be situated in a shaded location, for example near a corner wall. • Bird boxes will be installed in the ground floor garden to provide a nesting habitat for small birds such as robins and blue tits. • An invertebrate house will be installed either in the private garden or close to the biodiverse green roof. This will provide an egg laying and larval habitat for invertebrates, such as solitary bees. • Bat bricks or boxes will be installed in a suitable location (such as the west side of the building).	SPG Section: 2.8 LBC CS: CS15 LBC CPG: CPG13

5.13 ADAPTING TO CLIMATE CHANGE AND GREENING THE CITY

5.13.1
The development aims to incorporate climate change adaption and greening the city priorities and best practice, as a means to reduce carbon dioxide emissions, improve water and energy security and tackle social inequality. The following sub-headings illustrate how the development adheres to the key items addressed in the relevant policy documents including the Mayor's Sustainable Design and Construction SPG and LBC Core Strategy.

TACKLING INCREASED TEMPERATURE AND DROUGHT

5.13.2
The Mayor's Sustainable Design and Construction SPG states that developments should prevent overheating in the future and promote heat and drought resistant planting through considering the following (SPG Section 3.2):

- Design in line with the cooling hierarchy to prevent overheating over the scheme's lifetime.
- Prioritise landscape planting that is drought resistant and has a low water demand for supplementary watering.
- Consider any long term potential for extreme weather events to affect a building's foundations and to ensure they are robust.

5.13.3
The LBC Core Strategy requires developments to minimise the effects of - and adapt to - climate change. Buildings and spaces must be designed to cope with and minimise the effects of climate change, considering anticipated changes to the climate (CS13, DP22, CPG12).

5.13.4
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • To incorporate climate change adaptation measures in the development design, thermal dynamic modelling has been undertaken to assess the overheating risk within the conditioned areas of the building. The assessment has included future projected climate change scenarios to ensure the risk of overheating is minimised over the scheme's lifetime. • The cooling hierarchy has been considered and applied in the design. Cooling demand for 1 Triton Square has been reduced wherever possible to reduce demand. Active cooling is not required for the residential units of St Anne's. Further detail is provided in the passive energy reduction section of the Energy Statement included with the Planning Application. • The provision of new planting and vegetated areas, such as the new open public garden space proposed for Longford Place, will also help to minimise the urban heat island effect to the local microclimate. • All drainage calculations have included an allowance for climate change. • The development as a whole will utilise areas of green and brown roof, in addition to rainwater harvesting and attenuation, to reduce the rate of run-off and subsequently the risk of flash flooding. **1 TRITON SQUARE:** • The proposed development includes an accessible terrace to each side of the building. In line with BREEAM targets, design aims to prioritise landscape planting that is drought resistant and has a low water demand for supplementary watering where possible. • The design of any new foundations for the proposed development will take into consideration projected climate change conditions during the building's lifetime. These factors will inform consideration of the long term durability of foundation structures including particular attention to changing environmental factors. **ST ANNE'S:** • The design will include various adaptation measures for drier summers. Drought resistant plants will be selected in any soft landscaped areas to reduce water demands associated with irrigation. Furthermore, no mains-fed irrigation will be specified, all irrigation will be provided by rainwater. • The development will include water efficient fixtures and fittings to reduce internal water consumption. • 50% of south-facing windows will be shaded by balconies to minimise the risk of overheating. Furthermore, external thermal elements will be well insulated (beyond the minimum standards set out in Building Regulations) to prevent heat penetration and ensure flats remain cool throughout the summer months. Window glazing will be optimised to ensure solar gains are balanced against overheating risk. • Flats are unable to be naturally ventilated due to external noise levels; however, the building will be mechanically ventilated using MVHR units. Openable windows will provide purge ventilation. Mechanical cooling will not be provided, thereby reducing the need for plant equipment that expels hot air during summer, which increases local outdoor air temperature. • Materials used in the external building fabric will be selected to limit the effects of degradation due to environmental factors such as increased solar radiation, temperature variation and extreme weather events.	SPG Section: 3.2 LBC CS: CS13 LBC DP: DP22 LBC CPG: CPG12

INCREASING GREEN COVER

5.13.5
The Mayor's Sustainable Design and Construction SPG promotes urban greening and protection and planting of trees as a measure to help adapting the city to future climates. Developments are encouraged to integrate green infrastructure into scheme design, including creating links with wider green infrastructure network.

5.13.6
Developments are also required to demonstrate their contribution to the Mayor's target to increase tree cover across London by 5% by 2025 and green cover by 5% in the Central London Activity Area (CAZ) by 2030 (SPG Section 3.3).

5.13.7
The LBC Core Strategy and Development Policies require the proposed development to incorporate green roofs, brown roofs or green walls (CS14, DP22, DP26, CPG10).

5.13.8
Any loss of trees will be resisted. Where the loss of trees is unavoidable, replacement planting is required (CS15).

5.13.9
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
1 TRITON SQUARE: • The proposed development includes an accessible terrace to each side of the building as well as provision of new vegetated landscaping at street level. • In line with BREEAM targets, the development aims to protect and enhance ecological features of the site through landscaping at roof terraces level and the favouring of native species planting. **ST ANNE'S:** • The development will utilise areas of planting to mitigate the urban heat island effect through evaporative cooling. The development includes areas of planting at ground floor level and on the sixth floor roof terrace, and two substantial areas of green roof.	SPG Section: 3.3 LBC CS: CS14, CS15 LBC DP: DP22, DP26 LBC CPG: CPG10

5.14 SUSTAINABLE CONSTRUCTION PRACTICES

5.14.1
The development is committed to provide a sensitive design that is sympathetic to the needs of its users and the surrounding area. It follows the principles of good design to ensure adequate mitigation and management measures are incorporated with regard to land contamination, noise and pollutions. The following sub-headings illustrate how the development adheres to the key items addressed in the relevant policy documents including Mayor's Sustainable Design and Construction SPG and LBC Core Strategy.

LAND CONTAMINATION

5.14.2
The Mayor's Sustainable Design and Construction SPG states that where a site is affected by contamination, mitigation measures should be employed at an early stage to ensure the site is developed safely (SPG Section 4.2).

5.14.3
The LBC Core Strategy further emphasises the importance that the proposed development should not result in contaminated land (CS16, DP26).

5.14.4
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • A detailed assessment of the existing foundations and structure is being carried out to inform necessary strengthening works and the design of the structural retro-fit works. The current design proposals involve a number of new piled foundations in the centre of the building, possibly also with some strengthening of existing foundations, as well as the extension of some areas of basement on plan. • In line with the British Land Sustainability Brief and responding to the requirement for sub-ground works, the team will be carrying out a Geotechnical Desk Study, which will assess land contamination risk and suggest appropriate mitigation procedures as necessary. • The Applicant is committed to using contractors signed up to the Considerate Contractors Scheme (CCS) to enhance the management of site operations during construction works and to reduce the risk of contamination as far as feasible during the construction process. • The Applicant will require the main contractor to prepare and implement a Construction Environmental Management Plan (CEMP) to minimise the environmental effects of the construction of the proposed development through implementation of best practice pollution prevention measures, in line with Environmental Agency guidance. • The CEMP will include procedures and control measures to identify and mitigate potential land contamination issues. • An initial CEMP for the proposed development is submitted as part of the Planning Application.	SPG Section: 4.2 LBC CS: CS16 LBC DP: DP26

AIR POLLUTION

5.14.5
The Mayor's Sustainable Design and Construction SPG requires developments to be designed so that they are at least 'air quality neutral'. The design should also minimise the generation of air pollution and mitigate against increased exposure to poor air quality (SPG Section 4.3).

5.14.6
The LBC Core Strategy requires developments to consider the impact of proposals on air quality. The LBC Air Quality Action Plan sets out measures to reduce air pollution emissions from a variety of sources (CS16).

5.14.7
Developments are required to prevent odours, fumes or dusts from becoming a nuisance, with disturbance from dust due to demolition minimised (DP22, DP26).

5.14.8
Air quality assessments are required where developments could potentially cause significant harm to air quality. Mitigation measures are expected in developments that are located in areas of poor air quality, and developments are to focus on energy efficiency and an efficient energy supply (DP32).

5.14.9
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • The operations of the proposed development will be designed in line with targeted BREEAM requirements, and will not create any adverse effects from air pollution on the site or contribute to deterioration of the borough's nitrogen dioxide (NO2) or PM10 pollution levels. • Measures to reduce adverse effects on air pollution from the building's operational phase include encouraging low carbon transport through the provision of cycle storage facilities; incorporation of improved plant efficiencies in the mechanical design; and location of combustion flues to promote dispersion of pollutants. • Measures to mitigate operational CO2 emissions are addressed in Section 5.8.10 of this Sustainability Statement and within the Energy Statement included with the Planning Application. • Measures to promote indoor air quality are addressed in Section 5.10.5 of this Sustainability Statement and within the Design & Access Statement included with the Planning Application. • The Applicant is committed to requiring high levels of sustainability performance from contractors. Please refer to Section 5.14.4 for more detail on sustainable requirements during construction.	SPG Section: 4.3 LBC CS: CS16 LBC DP: DP22, DP26, DP32

NOISE

5.14.10
The Mayor's Sustainable Design and Construction SPG encourages that noise should be reduced at the source and then designed out of the scheme to reduce the need for mitigation measures (SPG Section 4.4).

5.14.11
The LBC Development Policies require the proposed development to consider its impact on the noise environment. Noise and vibration from construction activities must be minimised and mitigation measures put in place to limit noise disturbance in the vicinity of the proposed development (DP28).

5.14.12
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • A noise assessment has been undertaken to support the development design. Based on measured existing noise levels, maximum design noise levels from plant associated with the new building have been determined in line with the requirements set out by LBC. • Noise levels from the operations of the proposed development, such as external plant noise, will be designed in line with targeted BREEAM requirements. • The Applicant is committed to requiring high levels of sustainability performance from contractors. Please refer to Section 5.14.4 for more detail on sustainable requirements during construction.	SPG Section: 4.4 LBC DP: DP28

LIGHT POLLUTION

5.14.13
The Mayor's Sustainable Design and Construction SPG states that developments should be designed to minimise light pollution, including glare, light trespass and sky glow. (SPG Section 4.5)

5.14.14
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • The proposed development shall minimise the potential for night light pollution by designing external lighting in accordance with targeted BREEAM requirements and compliance with ILP (Institution of Lighting Professionals) guidance notes. • The Applicant is committed to requiring high levels of sustainability performance from contractors. Please refer to Section 5.14.4 for more detail on sustainable requirements during construction.	SPG Section: 4.5

WATER POLLUTION

5.14.15
The Mayor's Sustainable Design and Construction SPG encourages developments to incorporate SuDS, which can help to minimise pollution in urban runoff and improve water quality. During construction, developments should incorporate pollution control measures to prevent groundwater and surface water contamination (SPG Section 4.6).

5.14.16
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • The proposed development shall maintain existing foul drainage connection to Thames Water combined sewer. • Appropriate post construction checks shall be implemented to ensure mis-connections have not occurred. • The Applicant is committed to requiring high levels of sustainability performance from contractors. Please refer to Section 5.14.4 for more detail on sustainable requirements during construction.	SPG Section: 4.6

COMMUNITY INVESTMENT

5.14.17
The LBC Core Strategy requires the proposed development to produce an Employment and Training Strategy and provide training opportunities on-site during construction (CS8).

5.14.18
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
SITE-WIDE COMMITMENTS: • In line with the British Land Sustainability Brief, the Applicant is committed to enhancing local economy, employment and training through the development of commercial projects to develop community-based skills and opportunity. • The Applicant is committed to requiring contractors to, at minimum: • Develop and operate a local procurement plan that takes into account any local authority framework. • Develop and operate an education, employment and skills strategy which includes apprentices, local schools, learning and training. Furthermore, 3% of supplier tier 1 & 2 workforce to be apprentices. Shared apprenticeship models also to be considered. • Support at least one community day each year, where team members give time to a local project. • Undertake at least one additional educational or community initiative.	LBC CS: CS8

5.15 PRE-ASSESSMENT

5.15.1
A BREEAM Pre-assessment has been undertaken of the proposed development of 1 Triton Square. A summary of the assessment and findings are included in the BREEAM Pre-Assessment included with this Planning Application.

5.15.2
The Mayor's Sustainable Design and Construction SPG provides emphasis on efficient water use, stating 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 (SPG Section 2.6).

5.15.3
The LBC Development Policies require the proposed development to achieve "Excellent" in the BREEAM assessment with the following minimum standard for categories as a percentage of un-weighted credits: Energy 60%; Water 60%; and Materials 40%. A pre-assessment and post-construction assessment are required (DP22, CPG3, CPG4, CPG9).

5.15.4
From 2019 developments must also encourage zero carbon design (DP22).

5.15.5
The following commitments demonstrate initiatives by which the development would adhere to these policies:

DEVELOPMENT COMMITMENT	RELEVANT PLANNING POLICY
1 TRITON SQUARE: • The project team undertook a pre-assessment of the design of the proposed development of 1 Triton Square in line with the assessment methodology set out in BREEAM 2014 UK New Construction. The Pre-assessment demonstrates a strategy for how the proposed development could track a rating level of "Excellent" and is included with this Planning Application. **ST ANNE'S:** • The new build residential scheme at St Anne's is to achieve or offset zero carbon requirements in line with Camden Energy Policy. • It has been confirmed that 52.1% improvement on 2013 Building Regulations will be achieved and 41.6% of the total carbon emission reduction for this development will be achieved by a low or zero carbon technology namely PV panels. • Please refer to the Energy Strategy Statement included with the Planning Application for details of the reduction in carbon emissions.	SPG Section: 2.6 LBC DP: DP22 LBC CPG: CPG3, CPG4, CPG9

5.16 LBC SUSTAINABILITY POLICY REQUIREMENTS

5.16.1
The table below provides an overview assessment of how the proposed development of 1 Triton Square and St Anne's aligns with the sustainability policy requirements outlined in the LBC Core Strategy 2010 – 2025 (2010), LBC Development Policies 2010 – 2025 (2010) and LBC Planning Guidance 3: Sustainability (2015).

5.16.2
In instances where particular LBC policies are not applicable to the proposed development, a narrative is provided in the assessment table for explanation.

Table 1 Summary of project compliance with relevant LBC sustainability policy requirements.

Resource Management

Initiative	Local Borough of Camden Policy	Compliance 1 Triton Square	Compliance St Anne's
Land, Site Layout and Building Management			
Use of land	**Use of land (CS1)** Developments must demonstrate they make full use of the site. **End uses (DP13)** Development must demonstrate it meets the likely needs of the end user	✓ The proposed development meets the LBC policy.	
Basements and lightwells	**Basements (DP27)** Basements cannot result in flooding or ground instability.	N/A The proposed development does not include new basement excavation beyond the existing basement footprint.	N/A The proposed development does not include new basement excavation beyond the existing basement footprint.
Local food growing	**Local food growing (CPG14)** To provide space for individual or communal food growing where possible and appropriate.	N/A The nature of the proposed development is not appropriate to provide space to grow food; building occupants are able to grow food on vegetated terraces if desired.	
Site layout and building design	**Sustainable design (DP24)** To promote a high standard of design of buildings and spaces. **Green infrastructure (CS14, DP22, CPG10)** To encourage the installation of green roofs and walls on all appropriate developments. **Views and skyline (CS14)** Developments should avoid harming important views or creating crowding effects around landmarks **Inclusive design (CS14, DP29)**	✓ The proposed development meets the LBC policy.	

	To achieve an environment that meets the highest standards of accessibility and inclusive design in all developments.	
	Mixed use development (CS1, DP1) A mix of uses is required, including an element of housing **Accommodation and internal arrangements (CS6, DP26)** Provide an acceptable standard of accommodation in terms of internal arrangements. **Existing and future occupiers (CS5)** Avoid harmful effects on existing and future occupiers and nearby properties **Employment facilities (CS8)** A mix of employment facilities is expected **Secondary uses (DP1)** Where inclusion of secondary uses cannot be practically achieved, a contribution to a mix of uses elsewhere or payment-in-lieu is required	✓ The proposed development meets the LBC policy.
Townscape and Visual Impact		
	Townscape and visual impact (CS14, DP24) Respect the local context and character of the area and surroundings through protecting existing views, design of tall buildings, and sensitive design of landscaping and boundary features.	✓ The proposed development meets the LBC policy.
Public Access, Open Space and Amenity		
	Inclusive design (CS14, DP29) Achieve an environment that meets the high standards of accessibility and inclusive design. **Community facilities (CS15, DP15)** support existing community facilities or improving existing facilities **Open space provision (CS15, DP31)** New and enhanced open spaces should be provided where possible. Where on-site provision is not feasible, new or enhanced open space should be provided elsewhere. **Amenity spaces (DP26)** Provide an acceptable standard of accommodation for private or communal amenity space.	✓ The proposed development meets the LBC policy.
Infrastructure		
	Infrastructure (CS10) Make appropriate contributions towards the infrastructure needs the development generates.	✓

		The proposed development meets the LBC policy.
Security and Safety		
	Security and safety (CS17) Development should be designed to be safe, minimising the potential for crime and anti-social behaviour.	✓ The proposed development meets the LBC policy.
Transport		
	Transport impacts of development (DP16) Major developments to be accompanied by a Transport Assessment Statement, Travel Plan and Design and Access Statement **Facilities to encourage active travel (CS11, DP17)** Ancillary facilities must be provided within new and refurbished buildings to support active transport modes such as walking, cycling and running. **Cycle and car parking standards (DP18)** Developments must provide on-site cycle parking and should be car-free. **Loading bay (DP20)** Developments over 2,500 sq m. require loading/unloading bay.	✓ The proposed development meets the LBC policy.
Energy and carbon dioxide emissions		
Energy and Carbon	**Energy hierarchy (CS13, CPG2)** Developments are required to implement the energy hierarchy.	✓ The proposed development meets the LBC policy.
	Sustainable development and climate change (CS13) Developments are required to minimise carbon emissions through design.	✓ The proposed development meets the LBC policy.
Energy demand assessment	**Energy Efficiency Statement (DP22)** Developments over 500 sq. m must address sustainable development principles in a Design and Access Statement or an Energy Efficiency Statement. **Energy Statement (CPG2)**	✓ The proposed development meets the SPG priority standard.

	Development must submit an Energy Statement which demonstrates how carbon dioxide emissions will be reduced in line with the energy hierarchy.	
Use less energy	**Passive measures (DP32, CPG4)** Developments are to focus on energy efficiency and an efficient energy supply.	✓ The proposed development meets the LBC policy.
Efficient energy supply	**Decentralised energy networks and CHP (CPG5)** Investigate the potential to connect to an existing or planned decentralised energy network and install a CHP unit	✓ The proposed development meets the LBC policy.
Renewable energy	**Low and zero carbon technologies (CPG6)** Target at least 20% reduction in carbon dioxide emission through the installation of on-site renewable energy technologies.	✓ The proposed development meets the LBC policy.
Water Efficiency		
Water efficiency	**Water saving measures (CS13, DP23, CPG7)** Development must be designed to be water efficient and incorporating water efficient features. **Grey water harvesting (DP23)** Development should include a grey water harvesting system and regularly maintain grey and black water systems. **Water butts (CPG7)** Gardens or landscaped areas require water butts. **Water meters (CPG7)** Water meters to be installed and visible to occupants.	✓ The proposed development meets the LBC policy.
	BREEAM (CPG9) Development must achieve a BREEAM minimum standard of 60% for the water category.	✓ The proposed development meets the LBC policy.
Materials and Waste		

Design phase	**Design out construction waste (CPG8)** Reduce waste by first re-using the building. Where this is not possible the waste hierarchy should be implemented. **Material sourcing (CPG8)** Materials must be sourced responsibly. As part of the Design and Access Statement, a description of how the development has considered materials and resources is required.	✓ The proposed development meets the LBC policy.
Construction phase	**Waste facilities (CS18)** Developments must provide adequate facilities for recycling and the storage and disposal of waste. **Re-use of waste (DP22)** During demolition works, materials are either to be re-used on-site or salvaged and re-used off-site. **CMP and SWMP (CS18, CPG8)** A Construction Management Plan and Site Waste Management Plan are required.	✓ The proposed development meets the LBC policy.
Operation phase	**Operational waste management (DP26)** Provision for space for collection and storage of recycling and disposal of waste.	✓ The proposed development meets the LBC policy.
Surface water run-off and flood risk		
Surface water flooding and sustainable drainage	**Surface water run-off rate (CPG 11)** Surface water run off should be reduced by 50% across the development **Drainage system design hierarchy (CPG 11)** Developments must not increase the risk of flooding and must follow the sustainable drainage system design hierarchy **Sustainable drainage systems (CS Appendix 1, DP23, CPG11)** The most sustainable SUDS method should be used.	✓ The proposed development meets the LBC policy.
Flood resilience and resistance of buildings in flood risk areas	**Flood risk management (CS13)** Adequate management of the increase in surface water or sewage discharge of development operations	✓ The proposed development meets the LBC policy.

Nature conservation and biodiversity		
Nature conservation and biodiversity	**Green space (CS15)** Open space provision and opportunities for biodiversity within the fabric and curtilage of buildings are required where possible. **Biodiversity (CPG13)** Biodiversity is to be fully incorporated into design and construction.	✓ The proposed development meets the LBC policy.

Climate Change Adaptation

Initiative	Local Borough of Camden Policy	Compliance 1 Triton Square	Compliance St Anne's
Tackling Increased Temperature and Drought			
Overheating	**Climate change resilience and adaptation (CS13, DP22, CPG12)** All developments are to minimise the effects of, and adapt to, climate change by meeting the highest feasible environmental standards in design.	✓ The proposed development meets the LBC policy.	
Increasing Green Cover			
Urban greening	**Urban greening (CS14, DP22, CPG10)** A high standard of landscaping and boundary features, with green and brown roofs and green walls encouraged **Gardens (DP26)** Provision of gardens in appropriate developments will be expected	✓ The proposed development meets the LBC policy.	
Trees	**Trees (CS15)** Any loss of trees will be resisted and replacement measures will be required.	✓ The proposed development meets the LBC policy.	

Sustainable Construction

Initiative	Local Borough of Camden Policy	Compliance 1 Triton Square	Compliance St Anne's
Land Contamination			
Land contamination	**Contaminated land (CS16, DP26)** Developments on contaminated land must take appropriate remedial action.	✓ The proposed development meets the LBC policy.	
Air Pollution			
Air pollution	**Air quality (CS16, DP22, DP26, DP32)** Developments to consider the impact of proposals on air quality including odours, fumes and dusts.	✓ The proposed development meets the LBC policy.	
Noise Pollution			
Noise pollution	**Noise impact of development (DP28)** The consideration of development impact on the noise environment and provision of an acoustic report. Noise should be reduced at source, and then designed out of a scheme to reduce the need for mitigation measures.	✓ The proposed development meets the LBC policy.	
Light Pollution			
Light pollution	**Preventing light pollution (CS5)** Developments and lighting schemes should be designed to minimise light pollution.	✓ The proposed development meets the LBC policy.	
Water Pollution			
Surface water runoff	**Surface water quality (CS13)** Encourage those working on demolition and construction sites to prevent pollution by incorporating prevention measures and following best practice.	✓ The proposed development meets the LBC policy.	

Sustainable Construction

Initiative	Local Borough of Camden Policy	Compliance 1 Triton Square	Compliance St Anne's
Community investment			
	Occupancy terms (CS8) Development to liaise with LBC and managed workspace providers to ensure that appropriate accommodation is provided **Training opportunities (CS8)** An Employment and Training Strategy for the development is required **Community facilities (CS10)** Proportionate provision for community facilities is required	✓ The proposed development meets the LBC policy.	

06 CONCLUSION

6.1.1
This Sustainability Statement provides a direct response to the local and regional policy context and sets out how the proposed development meets the requirements of the relevant policies issued by LBC and the Mayor's London Plan SPG on Sustainable Design and Construction (2014).

6.1.2
The sustainability commitments outlined in this Sustainability Statement document how the proposed development complies with relevant local and regional policy planning requirements for sustainable development and where appropriate, references intentions in further project stages.

6.1.3
Delivery of the sustainability commitments outlined in this statement demonstrate how the proposed development would contribute to supporting local and regional policy and therefore promote a more sustainable London.

07 APPENDIX A
POLICY REVIEW

A1.1 INTRODUCTION

A1.1.1 This Appendix summarises relevant national policy guidance on sustainable development.

A1.1.2 For a full summary of relevant planning policy, refer to the Planning Statement submitted with the planning application.

A1.2

The National Planning Policy Framework (March 2012)

A1.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. The policy constitutes the Government's view of what sustainable development in England means in practice for the planning system.

A1.2.2 The NPPF sets out the Government's view of three crucial roles that sustainable development can play in the planning system in England:

- an economic role, contributing to a strong, responsive, competitive economy;
- a social role, supporting vibrant and healthy communities; and
- an environmental role, protecting and enhancing our natural, built and historic environment.

A1.2.3 The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications.

A1.2.4 The key principle applied as part of the NPPF is a presumption in favour of sustainable development. This is to be incorporated into both plan making and decision making at the local level.

A1.2.5 The NPPF sets out 12 core planning principles which "should underpin both plan-making and decision-taking." These stipulate that planning should:

- Be led by local plans which set out a vision for the future of the area and provide a practical framework within which decisions on planning applications can be made efficiently;
- Emphasise enhancing and improving the places in which people live their lives, not scrutiny alone;
- Drive sustainable development to deliver homes, business and industrial units, infrastructure and support local vitality, objectively identifying local need and setting out a clear strategy for allocating land;
- Seek to secure a high-quality of design and a good standard of amenity for occupants;
- Protect the diversity of different areas of England, protecting Green Belts and recognising the "intrinsic character and beauty of the countryside";
- Support the transition to a low-carbon future, take account of flood risk and coastal change and encourage the reuse of existing and renewable resources;
- Help conserve and enhance the natural environment and reduce pollution, allocating land of "lesser environmental value";
- Encourage the re-use of land that has been previously developed (brownfield land);
- Promote mixed use developments, encouraging multiple benefits from urban and rural land;
- Conserve heritage assets "in a manner appropriate to their significance";
- Manage development to make full use of public transport, walking and cycling; and
- Take account of local strategies to improve health, social, and cultural wellbeing.

A1.2.6 The Framework details the following measures to be incorporated in developments to deliver sustainable development.

A1.2.7 The core planning principles relevant to the project include:

BUILDING A STRONG, COMPETITIVE ECONOMY

A1.2.8 Local councils should aim to meet the needs of business, and help make the economy fit for the future. Local councils should support both town centres and rural business, and raise the quality of life in rural areas. Local councils should have a clear economic strategy for their area, based on understanding business needs, addressing potential barriers to investment to support sustainable growth.

ENSURING THE VITALITY OF TOWN CENTRES

A1.2.9 The framework aims to support town centres and to protect local high streets, placing town centres at the heart of communities. The Framework maintains the "town centres first" approach, which means that new shops and leisure developments should look for sites in town centres first. Only if suitable sites are not to be had, shops and leisure developments can look for edge of centre and then out of centre sites.

SUPPORTING A PROSPEROUS RURAL ECONOMY

A1.2.10 Planning policies should support economic growth in rural areas. This is in order to create jobs and prosperity through the expansion of all types of business and enterprise. Diversification of agriculture and other land based business is supported. Rural tourism and leisure developments should be supported and facilities expanded where not currently provided. Services such as shops, sports facilities, public houses and places of worship will be retained and developed.

PROMOTING SUSTAINABLE TRANSPORT

A1.2.11 The Government wants to cut down pollution and traffic jams by making it easy for people to use public transport. The Framework makes it clear that new development should have good public transport links, with priority given to cyclists and people on foot. Important local facilities, such as schools and shops, should be within walking distance of most new properties where possible. Planning for the development of airports should take account of their growth and role in serving business, leisure, training and emergency service needs.

SUPPORTING HIGH QUALITY COMMUNICATIONS INFRASTRUCTURE

A1.2.12 Electronic communications networks should be expanded whilst limiting the amount of infrastructure required through ensuring that interference is not created, consultation is carried out with interested parties, exposure to radiation is not beyond recommended levels and use of existing infrastructure is explored.

Delivering a wide choice of quality homes

A1.2.13 Not deemed material to this planning application, however this policy seeks to promote the development of appropriate quality and affordable housing.

Requiring good design

A1.2.14 Good design is important for sustainable development in order to make places better for people. The planning system should promote good design for all development. Local Plans and neighbourhood plans should set out design standards for new developments which ensure that development functions well in the quality of the area, develop a strong sense of place, incorporate mixed uses, support the local character, create safe environments, and are visually attractive. Design with a high level of sustainability should be promoted as long as it does not cause material harm to designated heritage assets or their setting.

A1.2.15 Developers are expected to work closely with people affected by their proposals. Their designs should take account of the views of the community.

PROMOTING HEALTHY COMMUNITIES

A1.2.16 The Government wants communities to be strong, vibrant and healthy. These communities should have good quality buildings in their area, and have good local services that serve community needs.

A1.2.17 All parts of a community should be involved in preparing local and neighbourhood plans. Local councils should plan to provide community facilities, such as local shops, meeting places, public houses and places of worship.

PROTECTING GREEN BELT LAND

A1.2.18 The Green Belt is a belt of land surrounding a town or city; it is used to stop towns growing into each other. Green Belt areas are set out in local plans. The Framework keeps current Green Belt protections. All inappropriate development harmful to Green Belt is not allowed. Local councils should try to make the Green Belt better. Local

councils can do this in lots of ways, for example by having walking paths, more wildlife and plants, and by making the land look better.

Meeting the challenge of climate change, flooding and coastal change

A1.2.19 The Framework sets out planning's important role in tackling climate change, and moving to a low carbon economy. Planning can help lower greenhouse gas emissions released into the air, through:

- Choosing good locations [see transport, above] and layouts for new development.
- Support for better energy efficiency in existing buildings, and
- Backing the delivery of renewable and low carbon energy, including commercial developments and community-led schemes.

A1.2.20 Local Plans should take account of climate change over the longer term by getting location and design right. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change and incorporating adaptation where impacts are unavoidable.

CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT

A1.2.21 The natural and local environment should be enhanced through the following means:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Conserving and enhancing the historic environment

A1.2.22 The Framework keeps protections for old buildings and monuments (these are called heritage assets). Development causing substantial harm or loss to an important heritage asset is not allowed, unless in wholly exceptional circumstances. Similar protections should be given to unofficial sites of archaeological interest, if it can be shown they are of substantial significance.

A1.2.23 Local councils are encouraged to show how they will protect and improve heritage assets most at risk of being lost, for communities to enjoy. Councils should have up to date evidence about the historic environment in their areas, and use it to weigh up the significance of heritage assets and how they contribute to the local area.

A2.1 INTRODUCTION

A2.1.1 This Appendix summarises relevant regional policy guidance on sustainable development.

A2.1.2 For a full summary of relevant planning policy, refer to the Planning Statement submitted with the planning application.

A2.2

THE LONDON PLAN CONSOLIDATED WITH ALTERATIONS SINCE 2011 (MARCH 2015)

6.1.5 The Mayor of London's London Plan was adopted by the Greater London Authority (GLA) in July 2011. In October 2013 the Mayor published Revised Early Minor Alterations to the London Plan 2011, which act as formal alterations to the London Plan 2011 and form part of the development plan for Greater London. Further Alterations to the London Plan were published in March 2015.

6.1.6 The London Plan provides the strategic framework for the development of London until 2036 and forms part of the development plan for Greater London. It integrates economic, transport, environmental and social plans for the capital. The London Plan provides the context for development plans for all individual boroughs which are required to be in accordance with the policies set out in the Plan.

A2.2.1 It provides the strategic plan setting out an integrated economic, environmental, transport and social, environmental framework for the future development of London. It also integrates the geographic and locational aspects of the Mayor's other strategies and provides the context within which individual London boroughs should set local planning policy.

A2.2.2 London Plan Policy 5.3 relates to "Sustainable design and construction" which is relevant to the project states that the highest standards of sustainable design and construction should be achieved. For major developments minimum design standards outlined in the Mayor's Supplementary Planning Guidance (SPG) Sustainable Design and Construction should be demonstrated within the design and access statement. The standards include measures to achieve other polices in the London Plan and the following sustainable design principles:

- Minimising carbon dioxide (CO2) emissions across the site, including the building and services (such as heating and cooling systems);
- Avoiding internal overheating and contributing to the urban heat island effect;
- Efficient use of natural resources (including water), including making the most of natural systems both within and around buildings;
- Minimising pollution (including noise, air and urban run-off);
- Minimising the generation of waste and maximising reuse or recycling;
- Avoiding impacts from natural hazards(including flooding);
- Ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions;
- Securing sustainable procurement of materials, using local supplies where feasible; and
- Promoting and protecting biodiversity and green infrastructure.

Mayor's Supplementary Planning Guidance on Sustainable Design and Construction (April 2014)

A2.2.3 The Mayor adopted the updated SPG on Sustainable Design and Construction in April 2014 (from the previously published 2006 SPG)

A2.2.4 The SPG provides guidance on the implementation of London Plan policy 5.3 - Sustainable Design and Construction, as well as a range of policies in the London Plan, primarily Chapters 5 and 7 that deal with matters relating to sustainable design and construction.

A2.2.5 The SPG aims to support developers, local planning authorities and neighbourhoods to achieve sustainable development. It provides guidance on to how to achieve the London Plan objectives effectively, supporting the Mayor's aims for growth, including the delivery of housing and infrastructure.

A2.2.6 The guidance in the SPG is intended to:

- provide detail on how to implement the sustainable design and construction and wider sustainability policies in the London Plan;
- provide guidance on how to develop more detailed local policies on sustainable design and construction;
- provide best practice guidance on how to meet the sustainability targets set out in the London Plan; and
- provide examples of how to implement sustainability measures within developments.

A2.2.7 To support the policies in the London Plan the SPG includes guidance on:

- Land
- Site layout and building deign
- Energy and carbon emissions
- Renewable energy
- Water efficiency
- Materials and waste
- Nature conservation and biodiversity
- Tackling increased temperature and drought
- Increasing green cover and trees
- Flooding
- Land contamination
- Air pollution
- Noise
- Light pollution
- Water pollution

A2.3

MAYORAL STRATEGIES

A2.3.1 Within London, the GLA Act 1999 as amended by the 2007 Act has led to the development of a number of Mayoral strategies which provide the strategic direction for London on certain issues. The Mayoral strategies relevant to this application are outlined below in chronological order.

CULTURAL STRATEGY

A2.3.2 The Mayor's Culture Strategy – 2012 and beyond (November 2010) is the principal means by which the Mayor sets out his vision, objectives and work programme for culture in London.

A2.3.3 The Strategy "recognises the significance of the cultural and creative sectors in making London a world city, and advocates continued support and investment".

A2.3.4 The Strategy identifies the following priority areas:

- Maintaining London's position as a world city for culture;
- Widening the reach to excellence;
- Education, skills and careers;
- Infrastructure, environment and the public realm;
- Culture and London 2012; and
- Delivering the Cultural Strategy.

A2.3.5 For each priority area a number of policies and associated actions have been set and partner bodies identified to help achieve their delivery.

Climate Change Adaptation Strategy

A2.3.6 The aim of the Mayor's Climate Adaptation Strategy "Managing Risks and Increasing Resilience" (October 2011) is to "assess the consequences of climate change on London and to prepare for the impacts of climate change and extreme weather to protect and enhance the quality of life of Londoners." The Mayor proposes that this aim will be met though achieving seven key objectives and will work collaboratively with partners to manage climate change impacts.

A2.3.7 The Strategy outlines who and what is vulnerable to extreme weather today, considers how climate change will affect the existing climate risks, or create new risks or opportunities in the future and provides a framework for action.

CLIMATE CHANGE MITIGATION AND ENERGY STRATEGY

A2.3.8 The Mayor's Climate Change Mitigation and Energy Strategy "Delivering London's Energy Future" (October 2011) contains 17 policies and supporting actions to reduce

London's CO2 emissions from 2011 to 2025.

A2.3.9 The Strategy has four objectives:
- to reduce CO2 emissions to mitigate climate change;
- to maximise economic opportunities from the transition to a low carbon capital;
- to ensure a secure and reliable energy supply for London; and
- to meet, and where possible exceed, national climate change and energy objectives.

A2.3.10 To limit further climate change the Mayor has set a target to reduce London's CO2 emissions by 60% of 1990 levels by 2025. The Strategy details the programmes and activities that are on-going across London to achieve this. These include:
- RE:NEW – retrofitting London's homes with energy efficiency measures, and helping Londoners save money off their energy bills;
- RE:FIT – retrofitting London's public sector buildings, saving millions of pounds every year;
- RE:CONNECT – ten low carbon zones in London aiming to reduce CO2 emissions by 20% by 2012 across the community; and
- Decentralised energy programme – aiming to supply 25% of London's energy from secure, low carbon local sources.

WATER STRATEGY

A2.3.11 The purpose of the Mayor's Water Strategy "London's Water Future" (October 2011) is to promote improved water management – both in terms of the water we want (such a drinking water) and the water we don't want (such as sewage and floodwater in the wrong place). Twenty actions have been established for implementation within London.

A2.3.12 The Strategy promotes increasing water efficiency and reducing water wastage to balance supply and demand for water, safeguard the environment and help tackle water affordability problems. It also sets out how the Mayor will help communities at risk of flooding to increase their resilience to flooding.

A2.3.13 Four key objectives for water management in London under pin the Strategy:
- To use the water London already has more effectively and efficiently;
- To minimise the release of untreated wastewater and diffuse pollution into the water environment;
- To manage, and where possible reduce, the threat of flooding to people and their property; and
- To reduce the greenhouse gas emissions produced from supplying water and treating wastewater.

Business Waste Strategy

A2.3.14 The Mayor's Business Waste Strategy "Making Business Sense of Waste" (November 2011) sets out initiatives to help London businesses to save money and reduce harm to the environment through better waste management.

A2.3.15 Four broad policies set out the direction of the Business Waste Strategy:

- Policy 1: Promoting the commercial value of a resource-efficient business – supporting businesses to realise the hidden savings and revenue opportunities from waste prevention and more effective management of the waste they generate.
- Policy 2: Boosting reuse, recycling and composting participation in the commercial and industrial sector – dealing with the practical issues that require intervention to help businesses prevent waste at source, access cost-effective recycling services, and to separate and store their waste in a way that does not cause harm to the environment, health or local area
- Policy 3: Supporting the waste infrastructure market in London to grow and to deliver for businesses – providing assistance to the waste sector to broker new partnerships, access new sources of business waste, develop new waste infrastructure, find suitable sites for development, overcome planning and investment issues, and access new sources of business waste, develop new waste infrastructure, find suitable sites for development, overcome planning and investment issues, and maximise opportunities for carbon reduction and energy generation.
- Policy 4: Driving improvements in resource efficiency in the construction and demolition sector while continuing to maintain the good levels of reuse and recycling performance already being achieved – focusing on driving environmental performance for the large source of waste arisings in London.

A2.3.16 A number of proposals are outlined within the policy areas, together these set the high-level direction for managing business waste between until 2031 to address the need for better resource efficiency and an improved waste infrastructure to meet the objectives and targets in the London Plan.

TRANSPORT STRATEGY

A2.3.17 The Mayor's Transport Strategy (May 2010) contains the aims and objectives for transport in supporting London as a world-class city. The Strategy acknowledges existing traffic-related issues, and presents proposals to alleviate these and improve the capacity of the transport network to accommodate demographic and economic growth.

A2.3.18 The focus of the Strategy is for the period up to 2031.

A2.3.19 The Transport Strategy has six goals:
- To support economic development and population growth
- Enhance the quality of life for all Londoners
- Improve the safety and security of all Londoners
- Improve transport opportunities for all Londoners
- Reduce transport's contribution to climate change, and improve its resilience
- Support delivery of the London 2012 Olympic and Paralympic Games and its legacy.

A2.3.20 Closely aligned with the Transport Strategy is the Mayor's Air Quality Strategy, which s summarised below.

Economic Development Strategy

A2.3.21 The Mayor's Economic Development Strategy (May 2010) sets out the Mayor's long-term vision with respect to London's economy and provides a direction for London as a whole over the next 20 years. The vision is for London to be the best big city on the world. Underlying the Strategy is a projection of continuing growth in London's economy and population to 2031 and beyond.

A2.3.22 The Mayor has set five economic objectives as part of the Strategy. A number of themes run through them including the statutory cross-cutting themes of equality of opportunity, community safety, health and health inequalities, sustainable development, and climate change adaptation and mitigation.

A2.3.23 The five objectives are:
- Objective 1: to promote London as the world capital of business, the world's top international visitor destination, and the world's leading international centre of learning and creativity;
- Objective 2: to ensure that London has the most competitive business environment in the world;
- Objective 3: to make London one of the world's leading low carbon capitals by 2025 and a global leader in carbon finance;
- Objective 4: to give all Londoners the opportunity to take part in London's economic success, access sustainable employment and progress in their careers; and
- Objective 5: to attract the investment in infrastructure and regeneration which London needs, to maximise the benefits from this investment and in particular from the opportunity created by the 2012 Olympic and Paralympic Games and their legacy.

AIR QUALITY STRATEGY

A2.3.24 The Mayor's Air Quality Strategy "Cleaning the Air" (December 2010) overarching aim is "to reduce air pollution in London so that the health of Londoners is improved".

A2.3.25 The vision is "To protect the health of Londoners and enhance their quality of life by significantly improving the quality of the air we breathe in London. This will:
- Make London a more pleasant place to live and work in;
- Reduce the burden on health services in the capital;
- Enhance London's reputation as a green city –

making it more attractive to tourists and businesses; and
• Make London cleaner whilst safeguarding its biodiversity."

A2.3.26 The Strategy sets out how the vision will be achieved and actions that will be taken to reduce air pollution in London. The policies and proposals are based around transport and non-transport measures for reducing emissions and improving air quality.

A2.3.27 As a priority, the European Union (EU) air quality limit values for particulate matter (PM10), (PM2.5) and nitrogen dioxide (NO2) need to be met as well as prioritising the objectives set by the Government in its Air Quality Strategy.

Noise Strategy
A2.3.28 The Mayor's strategy for noise management 'A Sounder City' (March 2004) outlines the approach and action plan to manage ambient noise levels within the Greater London area. The Strategy identifies the following key issues:
• Securing good, noise reducing surfaces on Transport for London's roads;
• Securing a night aircraft ban across London;
• Reducing noise through getter planning and design of new housing.
Biodiversity Strategy
A2.3.29 The Mayor's Biodiversity Strategy "Connecting with London's nature" (July 2002) states that the vision for London is:
"to develop London as an exemplary, sustainable world city, based on three interwoven theme of strong and diverse long term economic growth, social inclusiveness to give all Londoners the opportunity to share in London's future success, and fundamental improvements in London's environment and use of resources".

A2.3.30 The objectives of the biodiversity Strategy include:
• Biodiversity for people: ensuring all Londoners have ready access to wildlife and natural green spaces.
• Nature for its own sake: to conserve London's plants and animals and their habitats.
• Economic benefits: greening plays an integral role in the urban renaissance in new and existing infrastructure.
• Functional benefits: biodiversity assists in reducing flooding and erosion prevention. It also provides local climatic benefits through amelioration of ambient noise and absorption of some pollutants.
• Sustainable development: quality open spaces together with green footpaths and cycleways. Food grown locally and organically in allotments and gardens provides wildlife habitat and composting of green waste and growing energy crops in London can reduce its wider ecological footprint.

A2.3.31 Policy proposal 6 of the Strategy states,
"The Mayor will and boroughs should ensure that new developments capitalise on opportunities to create, manage and enhance wildlife habitat and natural landscape. Priority should be given to sites within or near to areas deficient in accessible wildlife sites, areas of regeneration, and adjacent to existing wildlife sites."

A2.3.32 This requires that, wherever appropriate, new developments should include new or enhanced habitat, or design (e.g. green roofs) and landscaping which promotes biodiversity, and provision for their management.

A3 LOCAL POLICY

A3.1
Introduction

A3.1.1 This Appendix summarises relevant local policy guidance on sustainable development.

A3.1.2 For a full summary of relevant planning policy, refer to the Planning Statement submitted with the planning application.

A3.2
London Borough of Camden Core Strategy 2010 – 2025 (2010)

A3.2.1 The Core Strategy sets out LBC's planning vision and strategy for the borough. It is the central part of Camden Council's Local Development Framework, a group of documents that set out planning strategy and policies.

A3.2.2 LBC adopted the Core Strategy on 8 November 2010. The Core Strategy replaces the Unitary Development Plan that had been adopted on 2 March 2000 and revised in June 2006.

A3.2.3 The Core Strategy covers physical aspects of location and land use along with other factors including environment and social factors. The Strategy provides a spatial framework to assist Council partners and other organisations in delivering relevant parts of their programmes.

A3.2.4 The Core Strategy has been developed in the context of projected challenges around population growth, social change, climate change and sustainability, environmental quality, housing need, economic success, inequalities, crime and safety and improving transport demand.

A3.2.5 These challenges are addressed through four themes:
• A sustainable Camden that adapts to a growing population;
• A strong Camden economy that includes everyone;
• A connected Camden community where people lead active, healthy lives; and
• A safe Camden that is a vibrant part of the city.

A3.3
London Borough of Camden Development Policies 2010 – (2010)

A3.3.1 LBC's Development Policies set out detailed planning guidance around achieving the vision and objectives of the Core Strategy, and are used by LBC to assess applications for planning permission in the Borough.

A3.3.2 The Development Policies document is organised similarly to the Core Strategy, with the following sections:
• Location and management of Camden's growth;
• Meeting Camden's needs - Providing homes, jobs and facilities;
• A sustainable and attractive Camden - Tackling climate change and protecting Camden's environment and quality of life; and
• Delivery and monitoring.

A3.4 London Borough of Camden Planning Guidance 3: Sustainability (2015)

A3.4.1 LBC's Planning Guidance support policies within the Core Strategy and Development Policies. "Sustainability" guidance is provided within Supplementary Planning Document (SPD) 3 and is an additional material consideration in planning decisions. The new guidance replaces the Camden Planning Guidance 2006.

A3.4.2 Supplementary Planning Document (SPD) 3 provides information on carbon reduction, sustainable developments and highlights LBC's requirements and guidelines around
• Tackling climate change through promoting higher environmental standards;
• Promoting sustainable design and construction; and
• Water management.

A3.4.3 The guidance covers energy statements, the energy hierarchy, energy efficiency in new and existing buildings, decentralised energy and combined heat and power (CHP), renewable energy, water efficiency, sustainable use of materials, sustainability assessment tools such as BREEAM, green roofs, brown roofs and green walls, flooding, climate change adaptation, biodiversity and urban food growing.

08 APPENDIX B
BREEAM ASSESSMENT

B1 EXECUTIVE SUMMARY

Arup Associates have been commissioned to carry out a BREEAM Pre assessment report for the proposed development at 1 Triton Square, located in the London Borough of Camden.

It is a client requirement for the project to be assessed against BREEAM scheme and achieve a rating of Excellent.
This BREEAM Pre-Assessment report outlines the design approach and target score in relation to the formal BREEAM assessment of the project, and is based on currently available design information.

This report demonstrates that the proposed development has the potential to achieve a score of 75.80% which equates to a rating of Excellent.

B2 INTRODUCTION

Arup Sustainability Group have assessed the proposed development at 1 Triton Square in relation to BREEAM 2014 New Construction criteria and set out a design strategy based on current available design information.
This report outlines a design strategy to achieve BREEAM certification. A summary of targeted credits analysis is provided with reference to the criteria in BREEAM 2014 New Construction for Office building types, for which it is demonstrated that a rating of 75.80%, translating into a summary rating of Excellent is achievable.

All of the minimum standards for Excellent have been targeted and the current scorecard provides a buffer over the minimum target score of 70% (the threshold for an Excellent rating)

Additional credits have also been highlighted as also potential achievable.

The BREEAM Assessment will be applied using the Shell and Core Assessment option in accordance with the Client's scope of works which is limited to the base building.
This report is not a formal assessment report and is a pre-assessment report, which informs the design team of which target credits to include in the Stage 1/2 design proposals and Stage 1/2 cost plan.

Formal BREEAM assessments are carried out at RIBA stage 3/4 with post construction review.

B3 BREEAM 2014 NEW CONSTRUCTION

BREEAM is used to assess the environmental performance of new and existing buildings and is regarded by the UK construction and property sector as the measure of best practice in environmental design and management. An acceptable balance between capital cost and life cycle costs will need to be achieved.
The BREEAM 2014 New Construction Scheme awards credits in relation to the following construction, design and procurement options:

- Management – commissioning, education and training of building users;
- Health and Wellbeing – natural ventilation, daylighting, occupant controls
- Energy – carbon emissions, heating and lighting control, energy monitoring, use of daylight, provision of shading;
- Transport – car parking provision, cyclist facilities, public transport node,
- Water – leak detection, meters, low flush toilets and grey water use;
- Materials – specification of building materials and prohibition of hazardous substances;
- Waste – waste management, storage & processing of recycled materials and floor finishes.
- Land use and Ecology – change in ecological value, protection of ecological features and protection of natural habitats;
- Pollution – pollution monitoring, ozone depleting substances, NOx emission rates; and
- Innovation – sustainability related benefits which are not rewarded by standard BREEAM issues.

The BREEAM 2014 rating is given as Pass, Good, Very Good, Excellent or Outstanding. The weighting factors are applied in order to account for the relative significance that each category has on the environmental impact of the development. The average scores are calculated as follows:

BREEAM RATING	MINIMUM SCORE REQUIRED
PASS	30
GOOD	45
VERY GOOD	55
EXCELLENT	70
OUTSTANDING	85

A3.1 MINIMUM STANDARDS

BREEAM sets minimum standards of performance in key areas which should be achieved, i.e. are mandatory to achieve a particular BREEAM rating. Minimum standards for Excellent rating are outlined in the table below:

BREEAM issue	Minimum standard for Excellent
Man 03: Responsible construction practices	One credit (Considerate construction)
Man 04: Commissioning and handover	Criterion 10 (Building User Guide)
Man 5: Aftercare	One credit (Seasonal commissioning)
Ene 01: Reduction of energy use and carbon emissions	Five credits
Ene 02: Energy monitoring	One credit (First sub-metering credit)
Wat 01: Water consumption	One credit
Wat 02: Water monitoring	Criterion 1 only
Mat 03: Responsible sourcing of materials	Criterion 1 only
Wst 03: Operational waste	One credit
LE 03: Minimising impact on existing site ecology	One credit

B4 BREEAM SCORE SUMMARY

A summary of the BREEAM 2014 criteria developed by the Building Research Establishment is listed in this section along with the targeted BREEAM score determined for the 1 Triton Square development.

A full outline of the targeted credits and criteria is given in Section B5.
It is recommended that the detailed BREEAM requirements for each of the target credits are included in the scheme design and cost plans for the development.
Each of the target credits will be re-assessed during detailed design and the design team will aspire to achieve a rating of 'Excellent' where technically and commercially
Certain credits have not been included in the target rating as they are often technically difficult to achieve as the design develops when information is made available, the target credits will be reviewed.
All of the additional options outlined in this report should be assessed by the design team and the project quantity surveyor in order to reach a decision in relation to the most cost effective options for the client.

It is the responsibility of the design team to ensure that the requirements of each of the credits are fully incorporated into the design and that any requirement for additional ecology surveys, acoustic calculations, energy calculations, provision of BREEAM renewables reports etc. are clearly detailed on the design and construction programmes.
The design team should ensure that sufficient evidence is provided to demonstrate that the BREEAM criteria for the target ratings have been met.
Arup Sustainability Group does not have any design responsibility in accordance with the requirements of the BREEAM Licence issued by the Building Research Establishment.

CREDIT ALLOCATION TABLE			
Environmental Section	**No. of Credits available**	**No. of Credits targeted**	**Weighting**
Management	18	18	11%
Health & Wellbeing	10	7	10.5%
Energy	21	15	15%
Transport	9	9	10%
Water	9	7	7.5%
Materials	13	9	14.5
Waste	9	6	9.5%
Land Use & Ecology	10	8	11
Pollution	13	8	11
Innovation	10	0	100%
		Total BREEAM Score	**75.80%**
		Rating	**"Excellent"**

B4.1 KEY ASSUMPTIONS

The target credits allocated in the target rating are based on a number of design assumptions which cannot be fully assessed or confirmed at present. Each of the target credits will be re-assessed during detailed design and the design team will aspire to achieve a rating of 'Excellent' where technically and commercially feasible.
The BREEAM Assessment will be applied using the Shell and Core Assessment option in accordance with the Client's scope of works which is understood to cover the base building. Fit-out issues have therefore been filtered out of the scope of this BREEAM Pre-Assessment as defined in BREEMA UK New Construction non-domestic building technical manual 2014, Appendix D.
Should any of the above circumstances change during design development, the BREEAM Assessor should be notified as the credit allocation and scorecard may change accordingly.

B5 SUMMARY OF BREEAM 2014 CRITERIA AND TARGET CREDIT ALLOCATION FOR 1 TRITON SQUARE

The following table provides a complete checklist, with both base case and uplift scenarios.

		Available	Targeted	Potential	Early Action	Comments
MANAGEMENT						
Man 01	Project brief and design	4	4	4	Stage 1 (BREEAM AP) Stage 2 (Consultation)	**Credit 1: Stakeholder consultation (project delivery):** Requires client, building occupier, design team and contractor involved in contributing to the decision making process for the project and defining their roles and responsibilities. Credit achievable. **Credit 2: Stakeholder Consultation (third party):** Requires third party consultation and feedback incorporation into design proposal. Credit achievable. **Credits 3 & 4: Sustainability Champion (design) and Sustainability Champion (monitoring progress)** Requires involvement of BREEAM AP since feasibility stage. Targeted and implemented design team meetings (ongoing)
Man 02	Life cycle cost and service life planning	4	1	4	Stage 2 (Elemental LCC)	**Credits 1 – 3: Elemental and Component level life cycle cost (LCC)** Requires specialist Life Cycle Cost analysis to facilitate optioneering. Credits currently highlighted as potential. **Credit 4: Capital Cost reporting** Requires client to report final capital cost to be used for future BRE benchmarking Credit achievable
Man 03	Responsible construction practices	6	6	6		**Credit O: Pre-requisite** Requires use of Legally harvested and traded timber only **Credit 1: Environmental management** Requires appointment of contractor operating EMS and implementing best practice pollution prevention policies. **Credit 2: Sustainability Champion** Requires involvement of BREEAM AP or SSM during constructions stage **Credit 3 Considerate Construction** Requires registration with CCS and scoring beyond compliance **Credit 4: Monitoring of construction site impacts –Utility consumption** Requires the contractor to monitor site energy and water use **Credit 5: Monitoring of construction site impacts - Transport of construction materials & waste** Requires the contractor to monitor site impacts related to transport of construction materials and waste. Requirements will be implemented via Contractor's clauses as part of ER's requirements. Credits achievable.
Man 04	Commissioning and handover	4	4	4		**Credit 1: Commissioning and testing schedule and responsibilities** Requires scheduling commissioning activities and reference standards to be used **Credit 2: Commissioning building services** Requires commissioning of building services and appointment of specialist commissioning manager during the design stage by either the client or the principal contractor **Credit 3: Testing and inspecting building fabric** Requires thermographic survey and/or airtightness test and inspection carried out by specialist **Credit 4: Handover (mandatory for Excellent)** Requires development of Building User Guide (BUG) and training schedule for facility managers Requirements will be implemented via Contractor's clauses as part of ER's requirements. Credits achievable.
		18	**15**	**18**		

		Available	Targeted	Potential	Early Action	Comments
HEALTH AND WELLBEING						
Hea 01	Visual Comfort	3	1	1	Stage 2	**Credit 2: Daylighting** Requires building areas to meet good practice daylight factors. Credit unlikely to be achieved due to site constraints and floor plan depth. Not targeted. **Credit 3: View out** Requires 95% of relevant areas to be within 7m of a wall with 20% window. Credit unlikely to be achieved due to floor plan depths. Not targeted. **Credit 4: Internal and external lighting levels, zoning and control** Requires lighting design to comply with CIBSE standards and allow for occupant control. Credit achievable.
Hea 02	Indoor Air Quality	2	1	1		**Credit 2: Ventilation** Requires minimum distances between intake and exhaust and suitable filtration measures. Credit achievable. **Credit 5: Potential for natural ventilation** Requires flexible and adaptable ventilation strategy to cope with potential occupant needs and climatic scenarios. Credit unlikely to be achieved due to floor plan depth and required levels of controls.
Hea 04	Thermal comfort	2	2	2		**Credit 1: Thermal modelling** Requires thermal modelling to demonstrate compliance with CIBSE thermal comfort criteria Credit achievable **Credit 2: Adaptability - for a projected climate change scenario** As above, but in relation to future climate change. Design to allow for flexibility. Credit considered to be achievable.
Hea 05	Acoustic Performance	1	1	1		**Credit 1: Acoustic performance** Requires compliance with best practice indoor ambient levels. Specialist input required during design and acoustic testing at post construction stage. Credit achievable.
Hea 06	Safety and Security	2	2	2	Stage 2 (SNA)	**Credit 1: Safe access** Requires dedicated cycle paths, pedestrian paths and delivery access. Footpaths to be well connected to public paths/transport facilities and to be signposted in large developments. External lighting to comply with BS 5489-1:2013 Credit achievable **Credit 2: Security of site and building** Requires Specialist consultant to produce a Security Needs Assessment and develop recommendations to be incorporated into design proposals. SNA and recommendations are being developed by a Suitably Qualified specialist. Credit achievable.
		10	**7**	**7**		

		Available	Targeted	Potential	Early Action	Comments
ENERGY						
Ene 01	Reduction of energy use and carbon emissions	12	8	9		**Credit 1: Energy performance** Critical BREEAM issue. BREEAM Excellent requires a minimum EPRNC of 0.375 (5 credits). Planning requirements demand high energy performance, therefore 8 credits considered achievable, subject to further investigation.
Ene 02	Energy Monitoring	2	2	2		**Credit 1 and 2: Sub-metering of major energy consuming systems, high energy load and tenancy areas** Requires sub metering strategy to cover at least 90% of energy end-use consumption, sub metering of high energy load and tenancy areas and BMS system or similar. Credits achievable.
Ene 03	External Lighting	1	1	1		**Credit 1: External lighting** Requires no external lighting OR efficient light fittings coupled with daylight switch controls and presence detection in areas of intermittent pedestrian traffic. Credit achievable.
Ene 04	Low carbon design	3	1	1	Stage 2 Passive design analysis and LZC feasibility study	**Credit 1: Passive design - Passive design analysis** Requires analysis and implementation of passive solutions to reduce energy demand (>5%) Passive measures have been investigated and incorporated. Credit achievable. **Credit 2: Free cooling** Requires analysis and implementation of free cooling solutions to reduce energy demand. Credit unachievable. **Credit 3: Low and zero carbon technologies - LZC feasibility study** Requires LZC specialist study and implementation of LZC technologies to reduce energy demand. Required CO2 savings at whole building level are unlikely to be achieved, due to site constraints and limited opportunities for LZC technologies. Credit not targeted.
Ene 06	Energy Efficient Transportation Systems	3	3	3		**Credits 1 and 2: Energy consumption and Energy efficient features** Requires development of transportation analysis and incorporation of energy efficient feature into lifts and other transportation systems. Contractor to develop energy consumption comparison and select most efficient solution. Credit achievable.
		21	**15**	**16**		

		Available	Targeted	Potential	Early Action	Comments
TRANSPORT						
Tra 01	Public Transport Accessibility	3	3	3		**Credit 1: Public Transport** Requires site location with high accessibility index or dedicated bus service. Building location benefits from PTAL rating of 6b which is the highest achievable. Credits achievable.
Tra 02	Proximity to amenities	1	1	1		**Credit 1: Proximity to amenities** Requires site location in close proximity of amenities such as food outlet, cash machine etc. Building located in close proximity to required amenities. Credit achievable.
Tra 03	Cyclist facilities	2	2	2		**Credits 1 and 2: Cycle storage and cycle facilities.** Requires cycle storage and facilities for building users/staff. Current proposals incorporate requirements. Credit achievable.
Tra 04	Maximum Car Parking Capacity	2	2	2		**Credit 1 – Car parking capacity** Requires low car parking provision. No car parking provision. Credit achievable.
Tra 05	Travel Plan	1	1	1		**Credit 1: Travel plan** Requires specialist travel plan development and implementation. Transport Assessment accompanies planning application. Credit achievable.
		9	**9**	**9**		

		Available	Targeted	Potential	Early Action	Comments
WATER						
Wat 01	Water Consump-tion	5	3	5		**Credit 1: Water consumption** Requires use of water efficient fittings and implementation of rainwater harvesting and grey water recycling where possible. Three credits should be achievable by means of using water efficient fittings. Two additional credits subject to further investigations depending on viability of rainwater/ grey water solutions
Wat 02	Water Monitoring	1	1	1		**Credit O and 1: Pre-requisite and Water monitoring** Requires water meter on the mains water supply and sub metering of plant/areas accounting for more than 10% of water demand and pulsed output to be connected to BMS Credit achievable.
Wat 03	Leak Detection	2	2	2		**Credit 1: Leak detection system** Requires leak detection system with compliant set of features. Credit achievable **Credit 2: Flow control devices** Requires flow control devises in each sanitary facility/area. Credit achievable.
Wat 04	Water Efficient Equipment	1	1	1		**Credit 1: Water efficient equipment** Requires unregulated water demands to be mitigated or reduced. Unregulated water demands to be identified, irrigation likely to be major unregulated use. Credit achievable
		9	**7**	**8**		

		Available	Targeted	Potential	Early Action	Comments
MATERIALS						
Mat 01	Life Cycle Impacts	5	3	3		**Credit 1: Life cycle impacts** Requires use of low environmental impact materials which are highly rated under the Green Guide to Specification. Three credits currently considered achievable, subject to further investigation.
Mat 02	Hard Landscaping and Boundary Protection	1	1	1		**Credit 1: Hard landscaping and boundary protection** Requires external hard landscaping to be rated A or A+ under the Green Guide to Specification. Considered to be achievable.
Mat 03	Responsible Sourcing of Materials	4	2	3		**Credit 0: Pre-requisite** Requires the Contractor to use solely legally harvested and trade timber and timber based products **Credit 0, 1 and 2: Sustainable Procurement Plan and Responsible sourcing of materials (RSM)** Requires to implement a sustainable procurement plan and demonstrate that a significant amount of construction products holds recognized responsible sourcing credentials/certificates. Requirements will be implemented via design specifications and Contractor's clauses as part of ER's requirements. Two credits achievable; one additional credit highlighted as potential.
Mat 04	Insulation	1	1	1		**Credit 1: Embodied impact** Requires use of A+ rated insulation for external walls, and A or A+ rated insulation elsewhere. Requirements will be implemented via design specifications and Contractor's clauses as part of ER's requirements.
Mat 05	Designing for durability and resilience	1	1	1		**Credit 1: Protecting vulnerable parts of the building from damage & protecting exposed parts of the building from material degradation** Requires design to incorporate durability & resilience measures. Credit achievable.
Mat 06	Material efficiency	1	1	1	Stage 1 onwards (Optimise material use)	**Credit 1: Material efficiency** Requires implementation of a material efficiency strategy into design and construction Current proposals account for material efficiency, this will be further implemented during construction. Credit achievable.
		13	**9**	**10**		

		Available	Targeted	Potential	Early Action	Comments
ENERGY						
Wst 01	Construction Waste Management	4	2	4		**Credit 1: Construction resource efficiency** Requires a pre-demolition audit and Contractor's Resource Management Plan resulting into significant reduction of construction waste. **Credit 3: Diversion of resources from landfill** Requires significant diversion of construction, demolition and excavation waste from landfill. Requirements will be implemented via Contractor's clauses as part of ER's requirements, this also includes demolition works. Two credits achievable; two additional credit highlighted as potential.
Wst 02	Recycled Aggregates	1	0	1		**Credit 1: Recycled aggregates** Requires use of high grade aggregate to contribute to the total amount of recycled and/or secondary aggregate. Requires further investigations on achievability and specialist input. Credit highlighted as potential.
Wst 03	Operational Waste	1	1	1		**Credit 1: Operational waste** Mandatory requirement for Excellent. Requires provision of dedicated waste storage for recyclable waste and supporting facilities. Credit achievable.
Wst 04	Speculative Floor and Ceiling Finishes	1	1	1		**Credit 1: Speculative floor and ceiling finishes** Requires floor and ceiling finished to be installed only in a show area (speculative development). The building will be Shell and Core and therefore the credit is targeted.
Wst 05	Adaptation to climate change	1	1	1	Stage 2	**Credit 1: Adaptation to climate change – structural and fabric resilience** Requires a systematic (structural and fabric resilience specific) risk assessment addressing climate change risks Credit achievable.
Wst 06	Functional adaptability	1	1	1	Stage 2	**Credit 1: Functional adaptability** Requires implementation of functional adaptability strategy. Credit achievable.
		9	**6**	**9**		

		Available	Targeted	Potential	Early Action	Comments
LAND USE AND ECOLOGY						
LE 01	Site Selection	2	1	1		**Credit 1 Previously occupied land** At least 75% of the proposed development's footprint is on an area of land which has previously been occupied Credit achievable. **Credit 2: Contaminated land** Requires remediation of contaminated land, when present. Credit not achievable.
LE 02	Ecological Value of Site and Protection of Ecological Features	2	2	2		**Credit 1: Ecological value of site** Requires site located on a land defined as 'land of low ecological value' The site was assessed as being of low ecological value. Credit achievable **Credit 2: Protection of ecological features** Requires the contractor to implement measures to protect ecological features Requirements to be implemented via Contractor's clauses as part of ER's requirements. Credit achievable.
LE 03	Minimising impact on existing site ecology	2	2	2		**Credit 1: Change in ecological value** Requires no or minimal negative change in ecological value. Second credit available for appointment of Suitably Qualified Ecologist. A SQE developed a set of recommendations to enhance ecological value and provide a net gain in biodiversity as a result of the development.
LE 04	Enhancing site ecology	2	1	2	Stage 1 (Ecologist Appointment)	**Credit 1 and Credit 2: Ecologist's report and recommendations and Increase in ecological value** Requires early appointment of SQE and implementation of site's ecology enhancement recommendations. A SQE will developed recommendations to enhance ecological value and provide a net gain in biodiversity as a result of the development. First credit achievable. Second credit conservatively highlighted as potential.
LE 05	Long Term Impact on Biodiversity	2	2	2		**Credit 1: Long term impact on biodiversity** Requires construction works to comply with UK and EU legislation, to be confirmed by a Suitably Qualified Ecologist, and the development of a Habitat Management plan (5 years). Additional site's long term biodiversity measures also required. Requirements to be implemented via Contractor's clauses as part of ER's requirements. Credit achievable.
		10	**8**	**9**		

		Available	Targeted	Potential	Early Action	Comments
POLLUTION						
Pol 01	Impact of Refrig-erants	3	1	1		**Credit 1: Impact of refrigerants** Requires no refrigerants or refrigerants with low Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) or GWP. One credit considered achievable. Achievability of additional credits will be investigated as design progresses. **Credit 2: Refrigerant Leak Detection** Requires inclusion of refrigerant leak detection system. Not targeted. Achievability of this credit will be investigated as design progresses.
Pol 02	NOx emissions	3	3	3		**Credit 1: NOx emission levels for heating and hot water** Requires specification and installation of boiler with low NOx emissions. Three credits considered achievable.
Pol 03	Surface Water Run Off	5	3	3		**Credit 1: Flood resilience** Requires a site specific Flood Risk Assessment to confirm annual probability of flooding and, in case of medium/high risk, additional resilience measures to be implemented as per specialist's recommendations. Two credits considered achievable. **Credit 2: Surface water run-off** First credit requires appointment of a drainage specialist and drainage measures to ensure peak rate of run-off is not greater than it was for the pre-development site. Also requires SuDS maintenance agreements for the ownership. Second credit required no flooding in case of local drainage system failure and either a run-off volume no greater than it was for the pre-devel-opment site or reduction of the peak rate of run-off to the limiting discharge. One credit targeted. Achievability of second credit will be investigated as design progresses. **Credit 3: Minimising watercourse pollution** Requires no discharge from site for rainfall up to 5mm, SuDS, pollutions prevention systems. Not targeted. Achievability of this credit will be investigated as design progresses.
Pol 04	Reduction of Night Time Light Pollu-tion	1	1	1		**Credit 1: Reduction of night time light pollution** Requires no external lighting or reduction of obtrusive light as per ILP Guidance notes coupled with automatic switch off between 23:00 and 7:00 and low lighting levels for safety/security lighting and advertisements. Credit achievable.
Pol 05	Noise Attenuation	1	1	1		**Credit 1: Reduction of noise pollution** Requires specialist noise impact assessment and a difference no greater than +5dB during the day (07:00 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level. Credit achievable.
		13	**8**	**8**		

		Available	Targeted	Potential	Early Action	Comments
INNOVATION						
Man 03	Responsible construction practices	1	0	1		Requires the construction site to score at exemplary level under CCS scheme (or other appropriate scheme). Requirements to be implemented via Contractor's clauses as part of ER's requirements. Credit conservatively highlighted as potential.
Hea 01	Visual Comfort	1	0	0		Requires exemplary daylight levels. Credit unlikely to be achieved due to site constraints and floor plan depth.
Ene 01	Reduction of energy use and carbon emissions	5	0	0		Requires exemplary levels of energy performance. Credit unlikely to be achieved due to site constraints as well as technical and commercial unfeasibility.
Wat 01	Water Consumption	1	0	0		Requires exemplary levels of water efficiency. Credit unlikely to be achieved due to site constraints as well as technical and commercial unfeasibility.
Mat 01	Life Cycle Impacts	3	0	0		Requires exemplary material environmental performance or Life Cycle assessment. Commercial building with limited opportunity for exemplary material selection (structural timber, rammed earth, straw etc.). Unlikely to be achieved.
Mat 03	Responsible Sourcing of Materials	1	0	0		Requires exemplary material procurement. Gaps in supply chain result in limited opportunities to comply with this credit. Not achievable.
Wst 01	Construction Waste Management	1	0	0		Requires exemplary levels of construction resource efficiency and diversion from landfill. Credit difficult to be achieved in practice. Credit not targeted.
Wst 02	Recycled Aggregates	1	0	0		Requires exemplary percentage of recycled aggregates. Limited opportunities for procuring suitable recycled aggregates in London area. Not achievable.
Wst 05	Adaptation to climate change	1	0	0		Requires achievement of a set of BREEAM credits/points to holistically respond to climate change. Credit conservatively highlighted as not targeted. As design progresses, project specific opportunities to score in this section will be investigated.
		10	**0**	**1**		

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