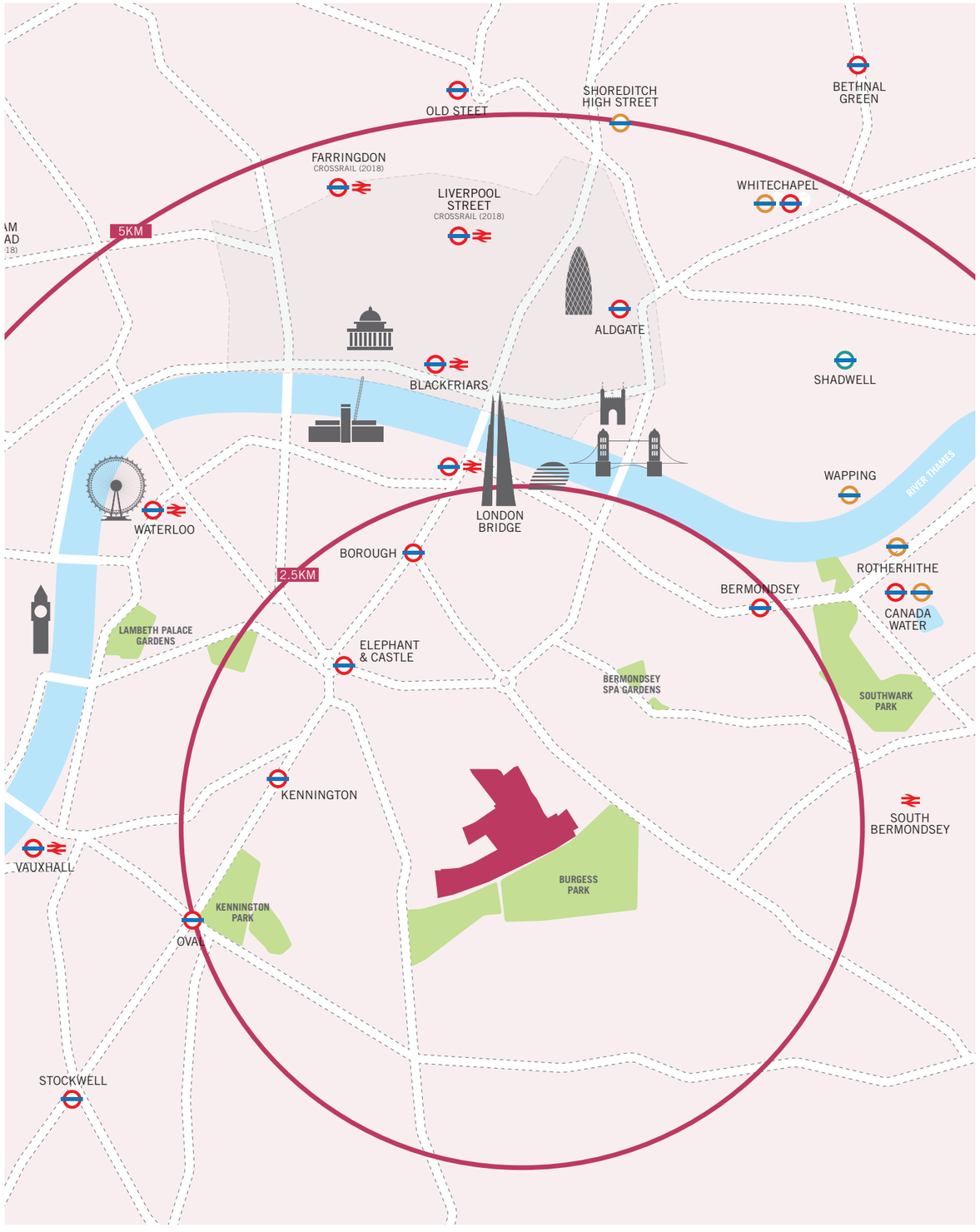

Planning Application for the Aylesbury Estate Regeneration

Masterplan & First Development Site Application

Sustainability Statement

HTA Design LLP

v1

AYLESBURYNOW

CONTENTS

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1.0 INTRODUCTION

This document describes the response to the sustainability policies for the Aylesbury First Development site and the Masterplan. Where the same policy response is relevant to both elements of the project the information is provided in the description of the first Development site and referenced in the masterplan description but not repeated.

EXECUTIVE SUMMARY

The Aylesbury Estate

The Aylesbury estate is a regeneration project encompassing the demolition and reconstruction of approximately 3500 homes in Southwark, London. The regeneration project will continue over the coming decades as the residents are decanted and rehoused in the new dwellings. The application is for

a) The First Development Site

b) The Comprehensive Development (FDS and Masterplan)

This document describes our Sustainability Strategy for the First Development Site and The Masterplan which is

- compliant with local, regional and national policies.
- is consistent with current legislation and our understanding of future proposed legislation
- creates a successful, enjoyable, healthy and low impact neighbourhood

We have used BREEAM Communities as the supporting standard for the proposals to ensure that we are meeting current best practice in sustainable design and masterplanning.

Our sustainability strategy for The First Development site is to create a new urban quarter that meets or exceeds the highest quality standards for new housing in London. The substantial size of this phase is designed to rehouse substantial numbers of current residents in order to free up existing buildings for demolition. This will accelerate the pace of the development. Regarding energy efficiency we are delivering a London Plan policy compliant sustainability strategy that relies on highly energy efficient buildings that meet Building Regulations 2013 and exceed them by 36.81% of CO2 emissions. We will achieve this by linking all the dwellings to a common heating system powered by a gas fired Combined Heat & Power and supplementing this with some roof-mounted renewable energy. Please refer to the Energy Strategy document for further detail.

Sustainability Standards

We will use BREEAM Communities Standard to manage the links in the sustainability strategy between the Outline Masterplan and this first phase of development.

The extra care building in the First Development Site will be developed to meet the requirements of BREEAM Very Good.

We have completed and submit the Southwark Sustainable Development Checklist as a chapter in this document.

The First Development Site will meet the standards set out in the Code for Sustainable Homes Level 4.

Although the Code for Sustainable Homes is set to be removed from Government policy in the near future, we are committed to producing a Code compliant scheme as this standard represents a good and well-understood benchmark for sustainable development.

Since it is a requirement of GLA planning legislation it will be some time before it is removed from policy requirements and in that light we are proceeding with the design for the First Development Site as though the Code remains in place.

Subsequent phases will meet the standards required in the relevant London Plan in force when each phase is delivered.

The Aylesbury Masterplan showing the Green Routes and Spaces

2.0 NATIONAL POLICIES

National Planning Policy framework (NPPF)
The National Planning Policy Framework states that ***'there are three dimensions to sustainable development: economic, social and environmental'.***

economic – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;

social – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being;

The environmental role is described as ***'contributing to protecting and enhancing our natural, built and historic environment: and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy'.***

The NPPF goes on to state that ***'..to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system'.***

This development supports all three aims by
- contributing to the local economy as evidenced by a commitment to achieve the elements SE 01 Economic Impact and SE 17 Labour and Skills of the BREEAM Communities Standard.

- contributing to social development by achieving the SE 17 labout & Skills element of the BREEAM Communities Standard, the SE 02 Demographic Needs and Priorities, SE 05 Housing Provisions and SE 06 Delivery of Services, Facilities and Amenities element.

- protecting and enhancing the ntural, built and historic envoronment by meeting the requirements of RE 01 energy Strategy, SE 11 Green Infrastructure, SE 03 Flood risk, RE 07 Transport CO2 emissions, RE 04 Sustainable Buildings and LE 01 Ecology Strategy.

REGIONAL POLICIES (THE LONDON PLAN)

The London Plan, Spatial Development Strategy for Greater London
Policy 5.1 Climate change mitigation: Achieve an overall reduction in londons CO2 emissions of 60% (below 1990 levels) by 2025

London Plan Policy 5.2, Minimising Carbon Dioxide Emissions

Development proposals should make the fullest contribution to minimising CO2 in accordance with the following energy hierarchy:

1. Be lean: use less energy.

2. Be clean: supply energy efficiently.

3. Be green: use renewable energy.

Major development proposals should include a detailed energy assessment to demonstrate how the minimum targets for CO2 reduction outlined above are to be met within the framework of the energy hierarchy.

The First Development Site
Refer to the Energy Strategy for predicted CO2 savings in buildings, from energy efficient services and from renewable energy systems.

The Masterplan
Refer to the Energy Strategy for predicted CO2 savings in buildings, from energy efficient services and from renewable energy systems.

LONDON PLAN POLICY 5.3, SUSTAINABLE DESIGN AND CONSTRUCTION

Major development proposals should meet the minimum standards outlined in the Mayor's Supplementary Planning Guidance on Sustainable Design and Construction14 and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve the following sustainable design principles:

a) Minimising CO2 across the site, including the building and services (such as heating and cooling systems).

b) Avoiding internal overheating and contributing to the urban heat island effect.

c) Efficient use of natural resources, including making the most of natural systems both within and around buildings.

d) Avoiding pollution (including noise, air and urban runoff).

e) Minimising the generation of waste and maximising reuse or recycling.

f) Avoiding impacts from natural hazards (such as flooding).

g) Ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions.

h) Securing sustainable procurement of materials, using local supplies where feasible, and

i) Promoting and protecting biodiversity and green infrastructure.

c) Efficient use of natural resources, including making the most of natural systems both within and around buildings.

d) Avoiding pollution (including noise, air and urban runoff).

e) Minimising the generation of waste and maximising reuse or recycling.

f) Avoiding impacts from natural hazards (such as flooding).

g) Ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions.

h) Securing sustainable procurement of materials, using local supplies where feasible, and

i) Promoting and protecting biodiversity and green infrastructure.

The site is designed to meet the requirements of Code for Sustainable Homes level 4, BREEAM Communities Very Good and BREEAM New Construction 2011 Very Good for the Care Home. See the pre-assessments for all of these standards in this document.

The Masterplan
The site is designed to meet the requirements of Code for Sustainable Homes level 4 as a minimum and BREEAM Communities Very Good. See the pre-assessments for these standards in this document.

LONDON PLAN POLICY 5.5, DECENTRALISED ENERGY NETWORKS

The Mayor expects 25% of the heat and power used in London to be generated through the use of localised decentralised energy systems by 2025. In order to achieve this target the Mayor prioritises the development of decentralised heating and cooling networks at the development and area wide levels, including larger scale heat transmission networks.

The First Development Site
Refer to the Energy Strategy for predicted energy contributions from distributed energy generation.

The Masterplan
Refer to the Energy Strategy for predicted energy contributions from distributed energy generation.

LONDON PLAN POLICY 5.6, DECENTRALISED ENERGY IN DEVELOPMENT PROPOSALS

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

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

1. Connection to existing heating or cooling networks.

2. Site wide CHP network.

3. Communal heating and cooling.

The First Development Site
Refer to the Energy Strategy for a description of the Decentralised Energy generation proposals including CHP and Heat Network.

The Masterplan
Refer to the Energy Strategy for a description of the Decentralised Energy generation proposals including CHP and Heat Network.

LONDON PLAN POLICY 5.7, RENEWABLE ENERGY

The Mayor seeks to increase the proportion of

energy generated from renewable sources

Within the framework of the energy hierarchy, major development proposals should provide a reduction in expected CO2 through the use of on-site renewable energy generation, where feasible.

The First Development Site
Refer to the Energy Strategy for predicted energy contributions from renewable energy generation.

The Masterplan
Refer to the Energy Strategy for predicted energy contributions from renewable energy generation.

LONDON PLAN POLICY 5.9, OVERHEATING AND COOLING

The Mayor seeks to reduce the impact of the urban heat island effect in London and encourages the design of places and spaces to avoid overheating and excessive heat generation, and to reduce overheating due to the impacts of climate change and the urban heat island effect on an area wide basis.

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

1. Minimise internal heat generation through energy efficient design.
2. Reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation and green roofs and walls.
3. Manage the heat within the building through exposed internal thermal mass and high ceilings.
4. Passive ventilation.
5. Mechanical ventilation.
6. Active cooling systems (ensuring they are the lowest carbon options).

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

The First Development Site
Refer to the Energy Strategy for assessment of heating/cooling strategy for the proposals.

The Masterplan
SE 08 Microclimate

The Masterplan is designed in accordance with the BREEAM Communities requirements SE 08 Microclimate

Aim: To ensure the development provides a comfortable outdoor environment through the control of general climatic conditions

1. A microclimate simulation shows the effect of urban morphology on the external microclimate
2. The development is designed to minimise adverse conditions
3. The development is designed to increase positive conditions throughout the year
5. An appropriate and diverse range of favourable microclimate conditions have been provided throughout the development
7. The design of public space optimises microclimate conditions
8. The location and design of routes takes account of microclimate conditions

Energy Strategy
Refer to the Energy Strategy for assessment of heating/cooling strategy for the proposals.

LONDON PLAN POLICY 7.1, BUILDING LONDON'S NEIGHBOURHOODS AND COMMUNITIES

Planning decisions

C. Development should enable people to live healthy, active lives; should maximise the opportunity for community diversity, inclusion and cohesion [...] and should met the principles of lifetime neighbourhoods.

The First Development Site
The design incorporates 6 units of specialist housing for adults and 50 units of older persons accommodation in Extra Care building.

Code for Sustainable Homes
The First Development Site proposals are designed to meet the requirements for Health and Wellbeing under HEA1/2/3/4 in the Code for Sustainable Homes. These requirements cover daylight, sunlight, sound transmission, private amenity space(balconies & terraces) and Lifetime Homes. Lifetime Homes is a set of requirements that are designed to enable homes to be flexible enough to accommodate disabled or housebound occupants with the minimum of alterations.

Ene 8 - Cycle Storage

Communal and individual bike stores to be provided for all dwellings at a rate of 1 cycle space for every 2 bedrooms for apartments and one cycle space per bedroom for the one bedroom apartments. The use of cycles to travel helps residents keep fit and healthy and reduces the carbon emissions of their transportation.

BREEAM Communities
The First Development site is designed in accordance with the BREEAM Communities requirements TM 02 Safe and Appealing Streets

Aim: To create safe and appealing spaces that encourages human interaction and a positive sense of place.

1. The transport assessment or statement and travel plans are used to inform the objectives for the design of streets.
2. A context appraisal has carried out to determine the appropriate layout of streets in relation to existing context
3. A movement framework has developed to determine the layout and design of streets that will promote sustainable modes of movement and transport through travel plans
5. Street layouts are safe and secure, overlooked and ownership is clear.
6. Design measures are incorporated into the masterplan to ensure safety with regard to large vehicles and pedestrian and cycle movement. Delivery areas are not accessed through parking areas and do not share pedestrian and cyclist routes.
8. The landscape design strategy enhances pedestrian routes through design and the provision of attractive landscaping.
9. Pedestrian routes allow easy navigation using key features and existing neighbourhoods.
11. Within the developments traffic management plan, targets have been set regarding road traffic accident reduction.
12. Potential vehicle noise disturbance and potential visual and vibration disturbance from heavy vehicles mitigated through layout and buffer zones.
14. A maintenance contract will be in place for external areas that are not covered by the local authority for at least five years from occupation.

TM 03 Cycling network
The First Development site is designed in accordance with the BREEAM Communities requirements for TM 03 Cycling network

Aim: To promote cycling as a leisure activity and as an alternative to vehicle use by providing a safe and efficient cycle network.

1. The movement framework developed for TM02 covers items A-E in the standard

Cycle routes are segregated from vehicles and pedestrians as appropriate:

- on low speed streets (below 20mph) cyclists can be integrated with vehicles
- on busy streets or where there are higher traffic speeds there should be clearly defined cycle lanes.

TM 05 Cycling Facilities
The First Development site is designed in accordance with the BREEAM Communities requirements for TM 05 Cycling Facilities

Aim: To promote cycling by ensuring the adequate provision of cyclist facilities.

1. Consultation has taken place to establish likely requirements for cycling facilities.
2. The results have been analysed and an appropriate level of cycle facilities has been agreed.
4. A commitment exists to provide adequate space for cycle storage
5. Non-residential uses have facilities in accordance with BREEAM 2011
7. During consultation the LA and developer have agreed a maintenance strategy for facilities

SE 05 Housing Provision
The First Development site is designed in

accordance with the BREEAM Communities requirements for SE 05 housing Provision.

Aim:To minimise social inequalities and foster a socially inclusive community by ensuring appropriate housing provision within the development.

1. The housing type and tenure is based on the needs of the local area (SE02)
2. The developer and LA agree on specific targets for the number of affordable, social and intermediate housing on the site
3. The developer commits to achieving minimum space standards throughout the development
5. The proposed affordable units are distributed across the development and integrated with the other dwellings in terms of design
7. Suitable financial models are established so that displaced residents are prioritised, and that affordable units will be available to meet future demographic trends.

SE 07 Public Realm
The First Development site is designed in accordance with the BREEAM Communities requirements for SE 07 Public Realm

Aim: To encourage social interaction by creating comfortable and vibrant spaces in the public realm.

1. Consultation has taken place to understand the activities that the public realm can promote
2. The public realm is designed to allow multiple uses for different users
3. The design of the public realm takes account of the role it plays in connectivity
5. An assessment is carried out to determine the potential of using some streets as shared street space or homezones
6. Where there are appropriate spaces identified plans indicate where those spaces will be developed. Appropriate surfaces and signage will be used to identify these areas

OR,

7. Where shared streets are inappropriate, the design shows how space for social interaction has been considered
9. Evidence from microclimate studies are used to influence the design of social spaces, benches are located in shaded areas
10. The local identity is strengthened through the design of social spaces, informed by consultation.

The Masterplan
Code for Sustainable Homes
The Masterplan is designed in to allow the Code for Sustainable Homes benchmarks to be applied to all housing within the development parcels.

BREEAM Communities
The Masterplan is designed in accordance with the BREEAM Communities requirements TM 02 Safe and Appealing Streets (see First Development site description for further details)

The Masterplan is designed in accordance with the BREEAM Communities requirements SE 02 Housiing Provision (see First Development site description for further details)

The Masterplan is designed in accordance with the requirements of SE 06 Delivery of Services, Facilities and Amenities.

Aim: To ensure essential facilities are provided and that they are located within a reasonable and safe walking distance.

Local requirements gathered from consultation are used to determine facilities to be provided, and these are provided within a walkable distance from most homes.

TM 03 Cycling network
The Masterplan is designed in accordance with the BREEAM Communities requirements for TM 03 Cycling network

Aim: To promote cycling as a leisure activity and as an alternative to vehicle use by providing a safe and efficient cycle network.

Cycle routes are segregated from vehicles and pedestrians as appropriate:

- on low speed streets (below 20mph) cyclists can be integrated with vehicles
- on busy streets or where there are higher traffic speeds there should be clearly defined cycle lanes

TM 05 Cycling Facilities
The Masterplan is designed to facilitate the BREEAM Communities requirements for TM 05 Cycling Facilities.

LONDON PLAN POLICY 7.6, ARCHITECTURE

Strategic

A. Architecture should make a positive contribution to a coherent public realm, streetscape and wider cityscape. It should incorporate the highest quality materials and design appropriate to its context.

Planning Decisions

B. Buildings and structures should:

e) Incorporate best practice in resource management and climate change mitigation and adaptation

f) Provide high quality indoor and outdoor spaces and integrate well with the surrounding streets and open spaces.

The First Development Site
The Code for Sustainable Homes
The First Development Site is designed to meet the requirements for pollution impacts under Pol 1/2 in the Code for Sustainable Homes.

Pol 1 - Global Warming Potential
This credit will be achieved by requiring that the contractor manages the building materials specification to ensure that no insulants with a GWP of more than 5 are specified. This includes all insulation materials in the building fabric and services.

Pol 2 - NOx Emissions
This will be achieved by requiring the contractor to specify low NOx boilers in the individual or communal heating system. This assumes that gas-fired boilers are to be used.

The First Development Site is designed to meet the requirements for Construction site Impacts under Man2/3 in the Code for Sustainable Homes.

Man 2 - Considerate Constructors Scheme
The contractor building this scheme will be required to be a member of this scheme and score 32 points or above for the development.

Man 3 - Construction Site Impacts
The contractor will be required to measure the impacts of construction in terms of energy and water usage and set targets for site activities including water consumption and CO2 emissions.

Was 2 - Site Waste Management Plan
The contractor will be required to provide a Site Waste Management Plan will be implemented on this project. 85% of construction waste will be diverted from landfill.

The Masterplan
The Masterplan is designed to meet the requirements for Health and Wellbeing under HEA1/2/3/4 in the Code for Sustainable Homes. These requirements cover daylight, sunlight, sound transmission, private amenity space(balconies & terraces) and Lifetime Homes. Lifetime Homes is a set of requirements that are designed to enable homes to be flexible enough to accommodate disabled or housebound occupants with the minimum of alterations.

SE 10 Adapting to Climate Change
The Masterplan is designed in accordance with the BREEAM Communities requirements SE 10 Adapting to Climate Change

Aim: To ensure the development is resilient to the known and predicted impacts of climate change.

1. Evidence from LA and statutory bodies on known and predicted impacts of climate change
2. The masterplan takes account of evidence of impacts and demonstrates in the design how risks will be managed.

The Masterplan is designed in accordance with the BREEAM Communities requirements SE 07 Public Realm

Aim: To encourage social interaction by creating comfortable and vibrant spaces in the public realm.

1. Consultation has taken place to understand the activities that the public realm can promote
2. The public realm is designed to allow multiple uses for different users
3. The design of the public realm takes account of the role it plays in connectivity
5. An assessment has been carried out to determine the potential of using some streets as shared street space or homezones
6. Where there are appropriate spaces identified plans indicate where those spaces will be developed. Appropriate surfaces and signage will be used to identify these areas

OR,

7. Where shared streets are inappropriate, the

design shows how space for social interaction has been considered

9. Evidence from microclimate studies are used to influence the design of social spaces, benches are located in shaded areas
10. The local identity is strengthened through the design of social spaces, informed by consultation.

TM 02 Safe and Appealing Streets
The Masterplan is designed in accordance with the BREEAM Communities requirements TM 02 Safe and Appealing Streets.

Aim: To create safe and appealing spaces that encourages human interaction and a positive sense of place.

1. The transport assessment or statement and travel plans are used to inform the objectives for the design of streets.
2. A context appraisal is carried out to determine the appropriate layout of streets in relation to existing context
3. A movement framework is developed to determine the layout and design of streets that will promote
   sustainable modes of movement and transport through travel plans
5. Street layouts are safe and secure, overlooked and ownership is clear.
6. Design measures are incorporated into the masterplan to ensure safety with regard to large vehicles and pedestrian and cycle movement. Delivery areas are not accessed through parking areas and do not share pedestrian and cyclist routes.
8. The landscape design strategy enhances pedestrian routes through design and the provision of attractive landscaping.
9. Pedestrian routes allow easy navigation using key features and existing neighbourhoods.
11. Within the developments traffic management plan, targets have been set regarding road traffic accident reduction.
12. Potential vehicle noise disturbance and potential visual and vibration disturbance from heavy vehicles mitigated through layout and buffer zones.
14. A maintenance contract will be in place for external areas that are not covered by the local authority for at least five years from occupation.

LE 05 Landscape
The Masterplan is designed in accordance with the BREEAM Communities requirements LE 05 Landscape

Aim: To ensure that the character of the landscape is respected and, where possible, enhanced through the location of features and design appropriate to the local environment.

1. The ecologist confirms that the detailed landscape design conforms to the Ecology strategy.
3. At least 60% of tree and shrub and herbaceous planting consist of appropriate native species, or other appropriate species recommended by the ecologist.
4. A commitment is made to appoint an ecology clerk of works to manage implementation
6. Water efficiency is considered in the selection of planting and irrigation and informed by the water strategy in RE-03 Water Strategy.
8. At least 80% of tree and shrub and herbaceous planting consist of appropriate native species or species recommended by the ecologist.
10. There is a commitment to prepare a landscape maintenance and management plan.
11. The proposed landscape design has been developed with reference to the community needs outlined in consultation for SE-07-Public Realm
12. Existing landscape features considered important will be preserved in the new development.
13. The proposed landscape design has been assessed by an independent design review panel.

SE 11 Green infrastructure
The Masterplan is designed in accordance with the BREEAM Communities requirements SE 11 Green infrastructure

Aim: To ensure access to high quality space in the natural environment and/or urban green infrastructure for all.

1. Consultation has taken place to understand the desired uses of green space
2. A green infrastructure plan is developed as part of the masterplan. A summary of the consultation responses and constraints are explained.
4. The masterplan is designed to allow residents to be within walking distance of greenspace via a safe and convenient pedestrian route.
5. There is a long-term management strategy in place for greenspace.
7. The green infrastructure plan sets out the provision of the desired uses and designs from consultation. Any deviations are justified.

LE 04 Enhancement of Ecological Value

The Masterplan is designed in accordance with the BREEAM Communities requirements LE 04 Enhancement of Ecological Value

Aim: To ensure that the ecological value of the development is maximised through enhancement.

The masterplan enhances ecological value through the creation of appropriate new habitats or through the increase in scale of existing habitats in accordance with the recommendations of the ecologist and other authorities.

SE 10 Adapting to Climate Change
The Masterplan is designed in accordance with the BREEAM Communities requirements SE 10 Adapting to Climate Change

Aim: To ensure the development is resilient to the known and predicted impacts of climate change.

1. Evidence has been gathered from LA and statutory bodies on known and predicted impacts of climate change
2. The masterplan takes account of evidence of impacts and demonstrates in the design how risks will be managed.

SE 08 Microclimate
The Masterplan is designed in accordance with the BREEAM Communities requirements SE 08 Microclimate

Aim: To ensure the development provides a comfortable outdoor environment through the control of general climatic conditions

1. A microclimate simulation shows the effect of urban morphology on the external microclimate. (Refer to Environmental Statement chapter on Microclimate)
2. The development is designed to minimise adverse conditions
3. The development is designed to increase positive conditions throughout the year
5. An appropriate and diverse range of favourable microclimate conditions have been provided throughout the development
7. The design of public space optimises microclimate conditions
8. The location and design of routes takes account of microclimate conditions

Sustainable Design and Construction, Supplementary Planning Guidance

Section 2.3, Site Layout and Building Design
The design of the site and building layout, footprint, scale and height of buildings as well as the location of land uses should consider:

New design of development:

Potential for incorporating open space, recreation space, child play space

Energy demands and the ability to take advantage of natural systems and low and zero carbon energy sources

Access to low carbon transport modes

Potential to address any local air quality, noise disturbance, flooding and land contamination issues

The First Development Site
The First Development Site is designed to meet the requirements for Code for Sustainable Homes Level 4. This includes an Ecology Strategy to protect any valuable ecology and to improve the ecological value of the site by adding significant green spaces and native planting.

The Energy Strategy document describes the proposals for low carbon buildings, energy efficiency and renewable energy systems.

The proposals also include access to private amenity space for all homes, provate gardens for houses and balconies, courtyard gardens and roof terraces for the apartments.

The description of the proposals for open space, play and recreation space is contained within the Landscape section of the Design and Access Statement.

The Masterplan
The Energy Strategy document describes the proposals for low carbon buildings, energy efficiency and renewable energy systems.

SE 11 Green infrastructure
The Masterplan is designed to meet the requirements for BREEAM Communities Very Good. This includes the requirements for consideration of SE 11 Green infrastructure

Aim: To ensure access to high quality space in the natural environment and/or urban green infrastructure for all.

1. Consultation has taken place to understand the desired uses of green space.
2. A green infrastructure plan has been developed as part of the masterplan.
4. The masterplan has been designed to allow residents to be within walking distance of greenspace via a safe and convenient pedestrian route.
5. There will be a long-term management strategy in place for greenspace.

SE 04 Noise Pollution
The Masterplan is designed to meet the requirements for BREEAM Communities Very Good. This includes the requirements for consideration of SE 04 Noise Pollution

Aim: To ensure that the development is designed to mitigate the impacts of noise. This includes mitigation from existing sources of noise, reducing potential noise conflicts between future site occupants, and protecting nearby noise-sensitive areas from noise sources associated with the new development.

1. A noise impact assessment has been carried out.
2. All noise attenuation measures have been incorporated into the masterplan

SE 03 flood Risk
The Masterplan is designed to meet the requirements for BREEAM Communities Very Good. This includes the requirements for consideration of SE 03 flood Risk

Aim: To ensure that sites and developments take due account of flood risk and, where it is present, take appropriate measures to reduce the risk of flooding to the development and the surrounding areas.

1. A site specific flood risk assessment has been carried out.
2. The flood zones are determined in accordance with best practice and planning policy
3. A commitment is made to incorporate the recommendations of all appropriate statutory bodies into the masterplan

TM 01 Transport Assessment
The Masterplan is designed to meet the requirements for BREEAM Communities Very Good. This includes the requirements for consideration of TM 01 Transport Assessment

Aim: To ensure transport and movement strategies reduce the impact of the development upon the existing transport infrastructure and improve environmental and social sustainability through transport.

1. A transport assessment has been developed
2. A travel plan coordinator has been appointed to develop travel plans
3. A travel plan has been developed outlining the design methods used to encourage sustainable transport
5. The transport assessment and travel plans positively influence the development, by reducing the need for car travel and reducing length of trips.

RE 07 Transport CO2 Emissions
The Masterplan is designed to meet the requirements for BREEAM Communities Very Good. This includes the requirements for consideration of RE 07 Transport CO2 Emissions

Aim:To reduce pollution associated with car use and provide viable alternatives to car ownership.

1. Feasibility study thas been carried out o establish alternative transport options
2. Travel plans for the development have been created
4. One alternative means of sustainable transport has been established.
5. The sustainable transport options will be well advertised
6. Management plans are in place tomonitor use and maintain facilities

SECTION 2.4, ENERGY AND CARBON DIOXIDE EMISSIONS

The overall carbon dioxide emissions from a development should be minimised through the implementation of the energy hierarchy set out in London Plan policy 5.2, 5.3.

Developments should contribute to ensuring resilient energy infrastructure and a reliable energy supply, including from local low and zero carbon sources.

The design of developments should prioritise passive measures.

Developers should aim to achieve Part L2010 Building Regulations requirements through design and energy efficiency alone, as far as is practical.

The First Development Site
The proposals relating to CO2 emissions are described in the Energy Strategy.

The Masterplan
The proposals relating to CO2 emissions are described in the Energy Strategy.

3.0 SUSTAINABILITY STANDARDS

The following sustainability standards have been applied to the design phase of the site. The Code for Sustainable Homes and the BREEAM New Construction Standards will be re-assessed at design and construction phases of the buildings to ensure that these measures are carried out.

View of the First Development Site

3.1 SOUTHWARK SUSTAINABILITY CHECKLIST

Southwark Sustainability Policies
Southwark Sustainable Design and Construction SPD (2009)

Southwark Sustainability Checklist

The following pages contain the completed Sustainability Checklist.

Detail of the Aylesbury Masterplan

LONDON Borough of Southwark

Sustainability assessment checklist cover sheet

Site address	**Aylesbury Estate**		
Description of development	**815 new homes (first development site)**	**2733 New Homes (outline)**	
Type of application	Full (yes)	Outline (yes)	
Use class(es) proposed	**D1 Community Centre 260m2**	**A1 Retail 200-500 m2**	
Units/ floorspace (m2) proposed by use class		**A1,A2 or A4 Retail or B1 workspace 600-3000 m2**	
	C2 Extra Care 5,500m2	**B1 Employment 600-2500m2**	
		D1 Early Years 500-650m2	
		D1 medical Facility 2000-3000m2	
		D1 community 300-600m2	
Code for Sustainable Homes design stage assessment completed	**YES**	Code for Sustainable homes level to be achieved	**4 - 6**
BREEAM pre-assessment completed	BREEAM rating to be achieved	**Very Good**	
Name of assessor	**Rory Bergin**	License number of assessor	**HT RB43**
The following assessments have also been completed.			
	Environmental Impact Assessment	Yes	
	Design and Access Statements	Yes	
	Flood Risk Assessment	Yes	
	Health Impact Assessment	Not at this stage	
	Equalities Impact Assessment	Not at this stage	
	Energy Assessment	Yes	
	Tree Report	Yes	
	Ecology/Biodiversity Report	Yes	
	Transport Assessment	Yes	
	Green Travel Plan	Yes	
	Site Waste Management Plan	Not at this stage	
	Construction Management Plan	Yes	
	Green Travel Plan	Yes	
	Green Procurement Plan	Not at this stage	
	Buildings for Life Assessment	Not at this stage	
	Air Quality Assessment	Yes	
	Noise Assessment	Yes	
	Other (please specify)	BREEAM Communities Assessment	

Sustainability issues	Minimum standard	Preferred standard	Comment
Safety and security Will new development be safe and secure?	The development meets Secured by Design principles.	The development will obtain Secured by Design Certification.	**The development will meet Secured by Design Principles**
Information and communications technology Will proposed dwellings increase access to the internet and promote ICT?		All proposed dwellings have fibre optic termination	**YES**
Pre-application consultation Has the local community been consulted at pre-application stage?		Consultation has been carried out with the local community and other stakeholders at pre-application stage.	**Yes, consultation is ongoing**
Parking for people with disabilities Will the proposal provide adequate and convenient parking for people with disabilities?	Will the proposal provide adequate and convenient parking for people with disabilities?		**YES, this is described in the Statement of Community Involvement**
Accessibility Will people with disabilities, parents with pushchairs, the elderly and infirm find it easy to move around the development?			**YES**
Transport impacts The proposal is located in an appropriate location for its size and tripgenerating characteristics. Any harmful transport impacts are mitigated, including through preparing a green travel plan and site specific s106 planning obligations.	The proposal is located in an appropriate location for its size and tripgenerating characteristics. Any harmful transport impacts are mitigated, including through preparing a green travel plan and site specific s106 planning obligations.		**A financial contribution to TFL to allow upgrades to bus services will be paid.** **A Green travel Plan will be prepared. Cycle storage is designed into the buildings and cycle routes are integrated into the street design.**

Sustainability issues	Minimum standard	Preferred standard	Comment
Community facilities			
	The proposal will not create a deficiency in access to community facilities.		**New community centres provided as part of the first development (1) site and the masterplan (1)**
How will the proposal contribute towards meeting the local needs for community space?	The proposal makes the minimum financial contribution towards community facilities as set out in the S106 Planning Obligations SPD.	The proposal directly improves access to high quality community facilities for a range of users.	
High quality living and working environments			
Will the proposed dwellings have good standards of daylight and sunlight?	The application meets the daylight and sunlight requirements set out in the Residential Design SPD.	The application meets the daylight and sunlight requirements set out in the Residential Design SPD.	**Analysis is presented in the Daylight, Sunlight and Overshadowing chapter of the Environmental Statement**
How will the development affect the sunlight/daylight of existing neighbouring occupiers?	The application meets the BRE recommended standards for daylight and sunlight access.		**Analysis is presented in the Daylight, Sunlight and Overshadowing chapter of the Environmental Statement**
How has the impact from sources of noise been minimised through site layout and landscaping?	he minimum standards in the Sustainable Design and Construction SPD are met.	The preferred standards in the Sustainable Design and Construction SPD are met.	**Analysis is presented in the Noise and Vibration chapter of the Environmental Statement.**
Will all proposed buildings have good sound insulation?			
How will proposed commercial or non-residential development help promote the health and well-being of future occupiers?		The development achieves at least 55% of the credits available in the health and well-being section of the appropriate BREEAM assessment	**The non-residential elements will be assessed under BREEAM new construction 2011 and achieve a minimum score of Very Good. Please refer to the Pre-Assessment in the Sustainability Statement.**
Are internal layouts flexible and capable of adaptation and multiple uses during their lifetime?			**There is provision or flexible workspaces and non-market units for social enterprises in the masterplan. All residential units are designed to the Lifetime Homes standard which incorporates some flexibility in the construction of dwellings to cope with disabled or ill residents. The design of units on Thurlow Street is intended to allow for flexibility and potential changes of use to commercial space.**
Adapting to climate change			
How will the indoor comfort of users be maintained in a changing climate?	The minimum standards in the Sustainable Design and Construction SPD are met.	The preferred standards in the Sustainable Design and Construction SPD are met.	**Ann overheating study has been carried out and is referred to in the Energy Strategy.**

Sustainability issues	Minimum standard	Preferred standard	Comment
Housing Tenure			
Is there a tenure mix that reflects the needs of the local community? Will the proposal promote the creation of mixed communities?	The application meets the minimum requirements set out in Southwark Plan policy 4.4 and Affordable Housing SPD.		**The design reflects the requirements set out in the AAP**
Dwelling mix			
Is there an accommodation mix that reflects the needs and aspirations of the local community? Will the proposal provide wheelchair housing?	The application meets the minimum requirements set out in Southwark Plan policy 4.3.	The proposal provides a dwelling mix which fully reflects housing needs in Southwark, including a significant proportion of family sized housing. All dwellings meet wheelchair accessibility standards.	**The design reflects the requirements set out in the AAP** **All dwellings have been designed to meet South East London Housing Partnership guidelines**
Lifetime homes			
Will the proposed homes meet Lifetime Homes Standards?	All dwellings meet lifetime homes standards.		**YES**
Amenity space			
Will the proposed homes have a good standard of amenity space, including private amenity space?	All 3 bed houses have access to at least 50sqm of private amenity space; all 3 bed flats have access to at least 10sqm of private amenity space; all 1 and 2 bed flats have access to at least 50sqm of communal amenity space.	All 3 bed houses have access to at least 50sqm of private amenity space; all dwellings have access to at least 10sqm of private amenity space.	**Private amenity space meets the London Plan requirements**
Open space and play facilities			
Will the proposed homes have good access to public open space and play space?	On-site play space is provided in accordance with the Residential Design Standards SPD. If this is not feasible, the development makes a financial contribution in line with s106 SPD. Open spaces have management and maintenance plans in place.		

View of the New Houses on Westmoreland Road

Southwark sustainability checklist

Sustainability issues	Minimum standard	Preferred standard	Comment
Minimising car use			
How will the proposal discourage car use and encourage people to use sustainable modes of transport, such as walking and cycling and public transport?	The proposal provides the minimum number of car parking spaces needed to ensure that the development can operate successfully, in accordance with the Sustainable Transport SPD. The proposal makes a contribution towards strategic transport improvements in line with the s106 Planning Obligations SPD. The proposal provides a green travel plan which promotes sustainable travel in accordance with the Sustainable Transport SPD.		**The design reflects the requirements set out in the AAP, (0.35 spaces for social housing per dwelling 0.4 spaces for private sale units per dwelling)**
Cycling			
How will the proposal make good provision for cyclists?	There is provision of convenient, secure and weatherproof cycle parking to the minimum cycle parking standards set out in Southwark Plan Appendix 15 and the Sustainable Transport SPD. This includes providing showers and lockers.	The proposal provides a significantly greater amount of convenient, secure and weatherproof cycle parking spaces than the minimum. The proposal creates or contributes towards more direct, safe and secure cycling routes.	**2 cycle places proposed for all 3Bed and larger homes, 1 cycle place for smaller units**
Health and well-being			
How will the proposal contribute to the health and well-being of the local community and overcome health inequalities?	The proposal makes the minimum financial contribution towards health as set out in the S106 Planning Obligations SPD.	The proposal directly improves access to high quality health and social care for the local community.	**Medical centre and pharmacy provided as part of the development on plot 18.**

Sustainability issues	Minimum standard	Preferred standard	Comment
Nuisance			
How will the proposal minimise nuisance and inconvenience during the construction process?	The proposal meets the minimum construction management standards in the Sustainable Design and Construction SPD.	The developer signs up to the Considerate Contractors Scheme.	**Developer/contractors of elements of the masterplan will be required to sign up to the considerate Constructors Scheme.**
Urban design and architecture			
Is the proposal of high quality architecture? How does the proposal relate to buildings and spaces around the development site? How does it contribute to the character and distinctiveness of the area?	A Design and Access Statement is submitted which meets the minimum requirements set out in Design and Access Statements SPD	The design and access statement addresses shows that both the minimum requirements and best practice set out in the Design and Access Statements SPD has been met.	**The urban design and architecture meets the aspiration set out in the AAP. For a full description please refer to the Design and Access Statement.**
The historic environment			
How will the proposal preserve or enhance the historic environment?	The proposal will not harm the historic environment, and meets Southwark Plan policies 3.15 - 3.19.	The proposal will enhance the historic environment, including repair, renovate or refurbish a listed building currently at risk.	**The design replaces a poor quality housing estate, there are no buildings of historic quality within the area of the masterplan or the first development site. Where the site is close to existing streets of strong character and identity the scale and design of the proposals is sympathetic to these. Please refer to the Design and Access Statement for further details.**

Views towards Blocks One and Six of the first Development Site

Sustainability issues	Minimum standard	Preferred standard	Comment
Employment			
How will the proposal help reduce the skills gap and improve employment opportunities for Southwark residents?	There is no loss in the number of jobs provided on the site (unless an exception is allowed by Southwark Plan policies). Contributions made towards employment, training and education as set out in the s106 Planning Obligations SPD.	The development increases the number and range of jobs available and exceeds the minimum contributions in the s106 Planning Obligations SPD, such as contributing to childcare facilities, providing a work placement or a mentoring agreement with local schools, and/ or programmes to engage social housing tenants with employment and skills support.	**New employment opportunities are created through the construction activities and through the non-domestic provision within the development. Refer to credits SES 01 Economic Impact Study and SE 17 Labour and Skills in the BREEAM Communities Standard.**
Enterprise			
How will the proposal impact on local businesses? How will the proposal encourage the growth of small and medium sized enterprises (SMEs) and an entrepreneurial culture?	There is not a let loss of business floorspace or small business units (unless an exception is allowed by Southwark Plan policies).	The proposal improves the amount and range of good quality business floorspace, including affordable/ flexible business space suitable for SMEs and start up businesses. The development provides additional benefits for businesses. This could include the provision of business advice and support to local businesses, relocation assistance for existing businesses, and a commitment to procure goods and services during the construction phase of development from companies and organisations based in Southwark, based on a percentage of the total value of the contract.	**Each unit is Code for Sustainable Homes Compliant including the provision of a Homes Office. 3600 m2 of retail/office space is being provided within the development. Refer to credits SES 01 Economic Impact Study and SE 17 Labour and Skills in the BREEAM Communities Standard.**
If the development is for a town centre use and will generate a lot of trips, is it located in a town or local centre?	The proposal is located within a centre, or it meets the exceptions set out in PPS6 and the Southwark Plan policy 1.8.	The proposal supports The proposal is located within a centre.	

Sustainability issues	Minimum standard	Preferred standard	Comment
Open space and green infrastructure			
How will the proposal contribute to Southwark's network of green spaces, particularly in those areas which are currently deficient?	There is not net loss of publicly accessible open space. The proposal complies with Southwark Plan policies 3.25, 3.26 and 3.27 protecting open spaces. The proposal makes a s106 contribution towards open spaces in line with the s106 planning obligations SPD.	There is a net gain of public open space. The proposal directly improves access to a range of quality public open spaces and/or makes a direct contribution to improving green links and corridors.	**There is no net gain of public open space**
Biodiversity			
How will the development contribute to nature conservation and biodiversity?	The proposal meets the minimum biodiversity standards set out in the Sustainable Design and Construction SPD.	The proposal meets the preferred biodiversity standards set out in the Sustainable Design and Construction SPD.	**Please refer to the Ecology and Nature Conservation chapter of the Environmental Statement**
Land contamination			
Will the proposal remediate any contaminated land on the application site?	Any contaminated land on the site will be remediated to an acceptable level.		**Please refer to LE 02 Land Use issue of the BREEAM Communities Standard**
Artificial lighting			
Has artificial lighting been designed and selected to reduce light pollution and nuisance, including reflection into the night sky?	External lighting meets the minimum standards set out in the Sustainable Design and Construction SPD.		**Please refer to Credits ENE6 of the Code for Sustainable Homes**
How will the design of the proposed development minimise the use of energy?	The proposal meets the minimum energy efficiency standards in the Sustainable Design and Construction SPD or an area based plan.	The proposal meets the preferred energy efficiency standards in the Sustainable Design and Construction SPD or an area based plan.	**Please refer to the SE 16 Light Pollution issue in the BREEAM Communities Standard**
Clean source of energy			
Will the proposal be supplied by a clean and efficient source of energy?	The proposal meets the minimum energy supply standards in the Sustainable Design and Construction SPD or an area based plan.	The proposal meets the preferred energy supply standards in the Sustainable Design and Construction SPD or an area based plan.	**A Combined Heat and Power system and a heat network supplying hot water to the development will be supplied in an energy Centre for the first Develpoment site. For further detail please refer to the Energy Strategy**

View towards the Older Persons Housing in block One

Southwark sustainability checklist

Sustainability issues	Minimum standard	Preferred standard	Comment
Air quality			
How will the proposal impact on air quality? How will the proposal ensure a good level of indoor air quality?	The proposal meets the minimum air quality standards set out in the Sustainable Design and Construction SPD.	The proposal meets the minimum air quality standards set out in the Sustainable Design and Construction SPD.	**Please refer to the Local Air Quality asssessemnt in the Environmental Statement.**
Risk from flooding			
How has the development minimised the risk to property and life from flooding?	The development passes the PPS25 Sequential and Exceptions tests and meets the minimum flood risk design standards set out in the Sustainable Design and Construction SPD.	The development meets the preferred flood risk standards as set out in the Sustainable Design and Construction SPD.	**Please refer to the Flood Riskk Assessment**
How does the development help reduce the risk of flooding, including reducing surface water run-off from the site?	The development meets the minimum drainage and run-off standards set out in the Sustainable Design and Construction SPD or an area based plan.	The development meets the preferred drainage and run-off standards set out in the Sustainable Design and Construction SPD or an area based plan.	**Please refer to the Water Resources, Water Quality, flood risk and Drainage chapter of the Environmental Statement.**
Materials			
How will the proposal reduce the environmental impact of materials used and will the materials be obtained from a responsible source?	The development achieves the minimum materials standards set out in the Sustainable Design and Construction SPD.	The development achieves the preferred materials standards set out in the Sustainable Design and Construction SPD.	**Please refer to Credits Mat 1,2 & 3 of the Code for Sustainable Homes Pre-Assessment.**

Sustainability issues	Minimum standard	Preferred standard	Comment
Town centres and local services			
How will the proposal support the vitality and viability of Southwark's town centres? How will the proposal support access to local shopping and services? How will the proposal promote a diversity of shops including independent shops?	The proposal meets the criteria of Southwark Plan policies 1.7, 1.9 and 1.10. The proposal will not involve the loss of any small business units (unless an exception is allowed by Southwark Plan policy 1.6). The proposal would not harm the amenities of any neighbouring occupiers. The proposal meets the minimum public realm contributions of the S106 Planning Obligations SPD.	The development improves the local community's access to a range of shopping and services. A proportion of proposed retail units are provided for independent occupiers through a s106 planning obligation. The development contributes to an improved shopping environment, such as through shop front improvements, access and/or safety improvements. , over and above what is required in the	**The design provides improved pedestrian and cycle access to Walworth road and Old Kent Road** **The proposals include improved public transport provision.** **The masterplan provides new retail opportunities including startup units and workspaces.**
Arts, culture and tourism			
How will the proposal support regeneration and wealth creation through the arts, culture and tourism? How will the impacts of tourism be carefully managed?	Development meets the requirements of Southwark Plan Policy 1.11. Visitor generating schemes provide and implement a visitor management strategy.	In addition to the minimum standards, the development helps support local arts, culture and tourism activity, including the provision of accessible and affordable studio and exhibition space.	**The community space provision in the first Development Site and in the Masterplan can be used for local arts group meetings and exhibitions.**
Using land efficiently			
Will the proposal use land efficiently and in a way which is compatible with the local context?	**Efficient use of land** The proposal is on brownfield land. The density of the proposal is in line with the densities set out in Southwark Plan policies 3.11 and 4.1 and the proposal meets the criteria of policy 3.11.		**The development provides the following denisties:** **• FDS (815 units (2648 Hab Rooms) on 4.4 ha = 185 units/ ha; 602 HR/ ha** **• Masterplan = 2733 units (10,513 Hab Rooms) on 22.1 ha = 124 units/ ha; 475 HR/ha**

Detail of the Aylesbury First Development site from Burgess Park

Sustainability issues	Minimum standard	Preferred standard	Comment
Renewable energy			
Will the proposal use on-site renewable technologies?	The proposal meets the minimum renewable energy standards in the Sustainable Design and Construction SPD or an area based plan.	The proposal meets the preferred renewable energy standards in the Sustainable Design and Construction SPD or an area based plan.	**Please refer to the Energy Strategy**
Reducing greenhouse gas emissions			
How will the proposed development minimise the greenhouse gas emissions generated?	The proposal meets the minimum CO2 reduction target in the Sustainable Design and Construction SPD or an area based plan.	The proposal meets the preferred CO2 reduction target in the Sustainable Design and Construction SPD or an area based plan.	**Please refer to the Energy Strategy and Code for Sustainable Homes Pre-Assessment**
Water			
How will the proposal minimise water consumption and reliance on mains water?	The proposal meets the minimum water use standards in the Sustainable Design and Construction SPD or an area based plan.	The proposal meets the preferred water use target in the Sustainable Design and Construction SPD or an area based plan.	**Please refer to the WAT1 & 2 Credits of the Code for Sustaianble Homes Pre-Assessment and item RE 03 of the BREEAM Communities Standard**
Waste and resources			
How will the proposal minimise the materials needed in construction and the amount of demolition, excavation and construction waste sent to landfill?	The proposal meets the minimum construction waste standards as set out in the Sustainable Design and Construction SPD.	The proposal meets the preferred construction waste standards as set out in the Sustainable Design and Construction SPD.	**Please refer to the WAS 2 Credit in the Code for Sustainable Homes Pre-Assessment and the RE 02 and RE 05 credits in the BREEAM Communities Standard**
How will the development promote waste minimisation during its use?	The proposal meets the operational waste standards set out in the Sustainable Design and Construction SPD.	The proposal meets the preferred operational waste standards set out in the Sustainable Design and Construction SPD.	**Please refer to the WAS 1 and 3 credits in the Code for Sustainable Homes**

Detail of the Aylesbury Masterplan showing the Green Edge to Burgess Park

3.2 SUSTAINABILTY STANDARDS BREEAM COMMUNITIES

BREEAM Communities is a sustainability standard for masterplanning developed by the BRE as the first high level tool in their suite of sustainability standards. BREEAM Communities is an assessment method that provides a way to improve, measure and certify the social, environmental and economic sustainability of large scale development plans by integrating sustainable design into the masterplanning process.

- The assessment process takes place during the design and planning stages. It provides a framework for the developer, local authority and master planning professionals to work within, ensuring that sustainability is considered at the earliest stages – where the potential to achieve cost effective benefits are greatest.
- For UK assessments, the scheme has been designed to align with the current UK planning process, with all core planning principles found within national planning policy.

BREEAM Communities provides third-party certification that is designed to ensure independence, credibility and consistency. This supports;

- Stakeholder buy in, marketing activities and PR for the development and associated stakeholders
- The communication of the sustainability achievements and benefits of the site and enables international comparability
- A flexible approach, enabling phased certification of developments to account for long timescales and different ownership
- Higher ratings for building level assessments as a result of realising additional sustainability opportunities at this earlier stage and on a wider scale.

HTA's sustainability team, HTA Sustainable Futures are licensed assessors for this scheme and have used the standard successfully elsewhere in the UK.

The scheme is assessed in two stages; the first stage (Step 1) is an appraisal whether the project is meeting the requirements of the standard in terms of the Strategies for the project. This results in a certification that states that the project is in line with the goals of the standard, but doesn't provide a rating. This is appropriate for the Masterplan.

The second stage (Steps 2&3) is confirmation that the standard is being met in terms of the detail of the design and that the strategies presented in Step 1 are being implemented. This stage provides a certification and a rating. This is an appropriate tool for the First Development Site

The BREEAM Communities standard is achieved by providing evidence that defined steps and processes have been undertaken in the design process, decision-making or completed designs that the requirements of the standard have been met. The following text describes each of the 40 issues covered by the standard and the design teams approach to certification. Only the elements that are currently achieved are described. Elements of the standard that are not achieved are not described.

View of the First Development Site from Burgess Park

BREEAM Communities Credits **Summary**

Identifier	Issue name	Responsibility	Have mandatory standards been met?	Credits assumed	Credits available	% of credits achieved	Issue weighting	Issue score	Category score
Governance									
GO 01	Consultation plan	Client	Yes	1	1	100%	2.3	2.32	6.4
GO 02	Consultation and engagement	Client (consultation team)	Yes	1	2	50%	3.5	1.74	
GO 03	Design review	Architect	N/A	2	2	100%	2.3	2.32	
GO 04	Community management of facilities	Client	N/A	0	3	0%	1.2	0.00	
Social and economic wellbeing - Local economy									
SE 01	Economic impact	Client	Yes	2	2	100%	8.9	8.88	10.8
SE 17	Labour and skills	Client (Contractor)	N/A	1	3	33%	5.9	1.97	
Social and economic wellbeing - Environmental conditions									
SE 03	Flood risk assessment	Engineering	Yes	2	2	100%	1.8	1.80	8.4
SE 04	Noise pollution	Engineering	Yes	1	3	33%	1.8	0.60	
SE 08	Microclimate	Engineering	N/A	3	3	100%	1.8	1.80	
SE 10	Adapting to climate change	Architect	N/A	3	3	100%	2.7	2.70	
SE 13	Flood risk management	Engineering	N/A	2	3	67%	1.8	1.20	
SE 16	Light pollution	Engineering	N/A	1	3	33%	0.9	0.30	
Social and economic wellbeing - Social wellbeing									
SE 02	Demographic needs and priorities	Client	Yes	1	1	100%	2.7	2.70	10.5
SE 05	Housing provision	Client	N/A	1	2	50%	2.7	1.35	
SE 06	Delivery of services, facilities and amenities	Architect	N/A	3	7	43%	2.7	1.16	
SE 07	Public realm	Architect (Landscape Architect/Urban Design)	N/A	2	2	100%	2.7	2.70	
SE 09	Utilities	Engineering	N/A	1	3	33%	0.9	0.30	
SE 11	Green infrastructure	Landscape Architect	N/A	2	4	50%	1.8	0.90	
SE 12	Local parking	Architect	N/A	1	1	100%	0.9	0.90	
SE 14	Local vernacular	Architect	N/A	1	2	50%	0.9	0.45	
SE 15	Inclusive design	Architect	N/A	0	3	0%	1.8	0.00	
Resources and energy									
RE 01	Energy strategy	Engineering (energy)	Yes	3	11	27%	4.1	1.11	15.3
RE 02	Existing buildings and infrastructure	Architect	Yes	2	2	100%	2.7	2.70	
RE 03	Water strategy	Engineering (water)	Yes	1	1	100%	2.7	2.70	
RE 04	Sustainable buildings	Architect	N/A	4	6	67%	4.1	2.70	
RE 05	Low impact materials	Architect	N/A	3	6	50%	2.7	1.35	
RE 06	Resource efficiency	Architect	N/A	3	4	75%	2.7	2.03	
RE 07	Transport carbon emissions	Engineering (transport)	N/A	1	1	100%	2.7	2.70	
Land use and ecology									
LE 01	Ecology strategy	Landscape Architect (ecologist)	Yes	1	1	100%	3.1	3.15	7.7
LE 02	Land use	Architect (Landscape Architect/Urban Design)	Yes	1	3	33%	2.1	0.70	
LE 03	Water pollution	Engineering (water)	N/A	2	3	67%	1.0	0.70	
LE 04	Enhancement of ecological value	Landscape Architect (ecologist)	N/A	1	3	33%	3.1	1.05	
LE 05	Landscape	Landscape Architect	N/A	5	5	100%	2.1	2.10	
LE 06	Rainwater harvesting	Landscape Architect (ecologist)	N/A	0	3	0%	1.0	0.00	
Transport and movement									
TM 01	Transport assessment	Engineering (transport)	Yes	1	2	50%	3.2	1.59	10.1
TM 02	Safe and appealing streets	Architect (Landscape Architect/Urban Design)	N/A	4	4	100%	3.2	3.18	
TM 03	Cycling network	Architect (Landscape Architect/Urban Design)	N/A	1	1	100%	2.1	2.12	
TM 04	Access to public transport	Architect	N/A	2	4	50%	2.1	1.06	
TM 05	Cycling facilities	Architect (Landscape Architect/Urban Design)	N/A	2	2	100%	1.1	1.06	
TM 06	Public transport facilities	Engineering (transport)	N/A	1	2	50%	2.1	1.06	
Innovation									
Inn	Innovation		N/A	0	7	0%	7.0	0.00	0.0
								Final BREEAM Score	**69.2**
								BREEAM Rating	**VERY GOOD**

Excellent Score >70

BREEAM Communities Credits | **Client**

Notes: The Mandatory elements are assessed on Step 1 before planning is submitted, all others are assessed in Step 2 after planning is submitted. Elements in brackets are not currently included in the prediction.

Version 1.0 | 29/08/2014 | **Rory Bergin**

	Identifier	Issue name	Responsibility	Have mandatory standards been met?	Credits assumed	Credits available	% of credits achieved	Issue weighting	Issue score
	Governance								
1	GO 01	Consultation plan	Client	Yes	1	1	100%	2.3	2.32
		Aim: To ensure the needs, ideas and knowledge of the community are used to improve the quality and acceptability of the development throughout the design and construction process. 1. Members of community and stakeholders have been identified for consultation 2. Agreed Consultation Plan in place 3. Minimum consultation content is covered 4. A facilitated consultation method will be used to engage on specific aspects of the design		Progress: The client has engaged a consultation team, and they have been briefed on the requirements of BREEAM Communities. All issues are currently expected to be compliant					
2	GO 02	Consultation and engagement	Client (consultation team)	Yes	1	2	50%	3.5	1.74
		Aim: To ensure the needs, ideas and knowledge of the community are used to improve the quality and acceptability of the development throughout the design process. 1. The consultation plan is followed 2. Good practice consultation methods are used 3. Feedback is provided to the consultation group 5. The influence of consultation on the design can be demonstrated (7. A design workshop is used as part of the community and stakeholder process) extra credit							
3	GO 04	Community management of facilities	Client	N/A	0	3	0%	1.2	0.00
		Aim: To support communities in active involvement in developing, managing and/or owning selected facilities. (1. Community facilities developed during construction phase and handed over at project completion) extra credit 2. Training and manuals provided to responsible parties (4 The developer agrees to provide significant support to a community group or trust to manage the implementation phase of a facility) extra credit (6. The developer agrees to the development of a CDT or management company)extra credit							
	Social and economic wellbeing - Local economy								
4	SE 01	Economic impact	Client	Yes	2	2	100%	8.9	8.88
		Aim: To increase economic wellbeing in the wider area by ensuring that the development attracts inward investment, creates jobs and complements and enhances existing economic activity in the local area. 1. A compliant economic Study is completed. 3. There will be no net reduction in employment as a result of the development 4. The infrastructure and facilities in the proposal will contribute and complement existing businesses 5. The economic study includes a skills gap analysis for the local area. 7. The development will have a positive net gain on employment in the area. 8. Opportunities to attract inward investments to the area are included in the development proposal.							
5	SE 17	Labour and skills	Client (Contractor)	N/A	1	3	33%	5.9	1.97
		Aim:To ensure that the development contributes to the local area by enhancing, diversifying or adding skills and training opportunities. 1. The developer consults with the community and stakeholders to identify skills and training initiatives beneficial to the local area. related to SE02 (3. The development will support and promote training/apprenticeships during planning/construction phase 4. the training provided aligns with those identified in consultation) extra credit (6.The developer will partner with a training provider to promote local training 7. The local training will align with those identified in consultation) extra credit							
	Social and economic wellbeing - Environmental conditions								
	Social and economic wellbeing - Social wellbeing								
6	SE 02	Demographic needs and priorities	Client	Yes	1	1	100%	2.7	2.70
		Aim: To ensure that the development plans for the provision of housing, services, facilities and amenities on the basis of local demographic trends and priorities. 1. The scope of the development has been informed by a review of the demographic profiles and future trends. 2. The community is consulted on the local needs and priorities 4. Where the provision of some of these are outside the scope of the development, the long term impact has been assessed and a suitable mechanism for their delivery has been created							
7	SE 05	Housing provision	Client	N/A	1	2	50%	2.7	1.35
		Aim:To minimise social inequalities and foster a socially inclusive community by ensuring appropriate housing provision within the development. 1. The housing type and tenure is based on the needs of the local area (SE02) 2. The developer and LA agree on specific targets for the number of affordable, social and intermediate housing on the site 3.The developer commits to achieving minimum space standards 5. The proposed affordable units are distributed across the development and integrated with the other dwellings in terms of design (7. Suitable financial models are established so that displaced residents are prioritised, and that affordable units will be available to meet future demographic trends) extra credit							
	Resources and energy								
	Land use and ecology								
	Transport and movement								
	Innovation								
	Inn	Innovation		N/A	0	7	0.0	7.0	0.00
								Final BREEAM Score	
								BREEAM Rating	

BREEAM Communities Credits | **Design Team**

	Identifier	Issue name	Responsibility	Have mandatory standards been met?	Credits assumed	Credits available	% of credits achieved	Issue weighting	Issue score
	Governance								
1	GO 03	Design review	Architect	N/A	2	2	100%	2.3	2.32
		Aim: To ensure that the masterplan's design supports a vibrant, healthy, functional and inclusive development. 1. A consultation process is used to inform the development of the design. The Issues include -character and identity...etc 2. The opinions gathered have been taken into account. 3. Feedback is given to participants. 5. An independent and inter-disciplinary panel has been used to undertake a design review of the development 7. Improvements have been made to the design of the development as a result of the design review.		There will be a folder with all the DRP information in it for reference.					
	Social and economic wellbeing - Local economy								
	Social and economic wellbeing - Environmental conditions								
2	SE 10	Adapting to climate change	Architect	N/A	3	3	100%	2.7	2.70
		Aim: To ensure the development is resilient to the known and predicted impacts of climate change. 1. Evidence from LA and statutory bodies on known and predicted impacts of climate change 2. The masterplan takes account of evidence of impacts and demonstrates in the design how risks will be managed. (4. The masterplan takes account of evidence of the impacts of climate change and demonstrates how risks will be reduced) extra credit (6. The masterplan takes account of the evidence of impacts of climate change and demonstrates how risks will be reduced through 'win-win' measures) extra credit		Elisabetta to obtain the future climate files for assessment of future microclimate, wind, temperature. Trees and other planting to be climate change resistant. Rain gardens to deal wth rainwater Flood Risk					
	Social and economic wellbeing - Social wellbeing								
3	SE 06	Delivery of services, facilities and amenities	Architect	N/A	3	7	43%	2.7	1.16
		Aim: To ensure essential facilities are provided and that they are located within a reasonable and safe walking distance. 1.List of local requirements from SE02 are used to determine facilities to be provided 2. These are confirmed through a planning agreement 4. The local priority needs are incorporated 5. These are located within walking distance 7. The local needs which are high priorities are incorporated 8. These are located within walking distance (10. The local low priority needs have been incorporated 11. These are within walking distance) Three extra credits (13. Funding available to take over the operation of the provided services once construction is completed. 14. The management agrees to a monitoring process to review the performance of services in meeting the needs of the local community) One extra credit		AAP consultation Retail meeting with the council Plot 18 Ana Mcmillian notes on meeting RE plot 18 Extra Care and community Centre, library, health centre Giving space for hte existing shopping street Westmoreland square					
4	SE 07	Public realm	Architect (Landscape Architect/Urban Design)	N/A	2	2	100%	2.7	2.70
		Aim: To encourage social interaction by creating comfortable and vibrant spaces in the public realm. 1. Consultation has taken place to understand the activities that the public realm can promote 2. The public realm is designed to allow multiple uses for different users 3. The design of the public realm takes account of the role it plays in connectivity 5. An assessment is carried out to determine the potential of using some streets as shared street space or homezones 6. Where there are appropriate spaces identified plans indicate where those spaces will be developed. Appropriate surfaces and signage will be used to identify these areas OR, 7. where shared streets are inappropriate, the design shows how space for social interaction has been considered 9. Evidence from microclimate studies are used to influence the design of social spaces, benches are located in shaded areas 10. The local identity is strengthened through the design of social spaces, informed by consultation		Soundings consultation information, outputs from workshops, Christina and Miriam from Soundings Reproviding communuity garden spaces Friends of Burgess park Possible to achieve 9 and 10 Ana School Square					
5	SE 08	Microclimate	Architect (Sustainability)	N/A	3	3	100%		0.00
		Aim: To ensure the development provides a comfortable outdoor environment through the control of general climatic conditions 1. A microclimate simulation shows the effect of urban morphology on the external microclimate 2. The development is designed to minimise adverse conditions (4. The development is designed to increase positive conditions throughout the year) extra credit (6. An appropriate and diverse range of favourable microclimate conditions have been provided throughout the development 7. The design of public space optimises microclimate conditions 8. The location and design of routes takes account of microclimate conditions) extra credit		Elisabetta to do a detailed assessment of the microclimate of particular spaces.					
6	SE 11	Green infrastructure	Landscape Architect	N/A	2	4	50%	1.8	0.90
		Aim: To ensure access to high quality space in the natural environment and/or urban green infrastructure for all. 1. Consultation has taken place to understand the desired uses of green space 2. A green infrastructure plan is developed as part of the masterplan. A summary of the consultation responses and constraints are explained. 4. The masterplan is designed to allow residents to be within walking distance of greenspace via a safe and convenient pedestrian route 5. There is a long-term management strategy in place for greenspace (7. The green infrastructure plan sets out the provision of the desired uses and designs from consultation. Any deviations are justified. 8. In urban areas the accessible natural green space standard is achieved) extra credit		AAP layout we have deviated from it. Walkabouts with local people and stakeholders Retention of existing trees, Mainly with Notting Hill There will be a maintenance plan submitted with application					
7	SE 12	Local parking	Architect	N/A	1	1	100%	0.9	0.90
		Aim: To ensure parking is appropriate for the expected users and well integrated into the development. 1. Consultation has taken place between developer, LA, highways and community stakeholders on parking and transport needs. 2. The results have been assessed and an appropriate level of parking that promotes sustainable transport choices has been agreed. 4. Parking is integrated into the development without dominating the space, or interfering with cyclist, pedestrian or car movement 5. Residential parking is located behind, under above or to the side of buildings as opposed to within the front curtilage 6. Residential parking is overlooked by houses and is located an appropriate distance from the dwelling.		Study on car ownership parking layouts for site 1B/1C Illustrative masterplan					
8	SE 14	Local vernacular	Architect	N/A	1	2	50%	0.9	0.45

		Aim: To ensure that the development relates to local character whilst reinforcing its own identity. 1. A review of the area surrounding the development is undertaken to establish local character 2. Consultation has taken place to consider design 3. The results of the consultation have been analysed and agreed 5. The designer/developer has demonstrated that the key elements identified in 1 & 2 will be implemented (7. Steps have been taken to reinforce the local identity including use of local materials, local heights and features, local plant species. public art, involving the community in design of focal spaces and open spaces.) extra credit		Report on character areas Consultation reports from Soundings Brick materials and pitched roofs for some units D&A report						
9	SE 15	Inclusive design	Architect (Sustainability)	N/A	0	3	0%	1.8	0.00
		Aim : To create an inclusive community by encouraging the construction of a built environment that optimises accessibility for as many current and future residents as possible. 1. An inclusive design and management strategy is produced including issues of accessibility, inclusion and emergency access/egress for all occupants. 2. Community engagement is used to develop the inclusive design strategy in GO 02. 3. Where available, national and local guidance on procurement and design has been followed. (5. A person has been appointed to champion inclusive design within the project team.) extra credit (7. An appropriately qualified external access consultant is commissioned to provide on strategic and detailed issues. 8. Decisions relating to accessibility are tracked and recorded 9. There is evidence that design impacts are anticipated and that plans are made to develop operational strategies.) extra credit		Need an accessibility champion						
	Resources and energy									
10	RE 02	Existing buildings and infrastructure	Architect (Sustainability)	Yes	2	2	100%	2.7	2.70
		Aim: To take account of the embodied carbon in existing buildings and infrastructure and to promote their re-use where possible. 1. An assessment of existing buildings and infrastructure is carried out to determine what can be refurbished, re-used, recycled or maintained 2. A decision is made justifying the use or demolition of all existing buildings and infrastructure 4. The developer commits to recycling building or infrastructure materials and where possible using them on the site 6. The developer commits to refurbishing any existing building of significant value to local community		Need information from Southwark on any studies done on this area for the AAP Contact Katherine WSP investigation into retaining utilities						
11	RE 04	Sustainable buildings	Architect (Sustainability)	N/A	4	6	67%	4.1	2.70
		Aim: To increase the sustainability of all buildings within the development. 1. The team commits to design buildings to comply with recognised standards 2. The commitment is confirmed through a planning condition 3. The developer commits to use a standard for key issues, energy, water, waste embodied impacts and occupant heath and well-being 4. The commitment is confirmed through a planning condition 5. The developer commits to using an accredited third party scheme such as CfSH for all buildings on site. (4 credits achieved for Code level 4 and BREEAM Very Good) 6. The commitment is confirmed through a planning obligation		All residential buildngs to code 4 All non-residential buildings to BREEAM						
12	RE 05	Low impact materials	Architect (Sustainability)	N/A	3	6	50%	2.7	1.35
		Aim: To reduce the environmental impact of construction of the public realm through the use of low impact materials.		Discuss with Deloitte on construction of roads using recycled materials Some roads are to be reused and resurfaced					
13	RE 06	Resource efficiency	Architect (Sustainability)	N/A	3	4	75%	2.7	2.03
		Aim: To promote resource efficiency by reducing waste during construction and throughout the life cycle of the development. 1. Demolition waste audit 2. Waste management plan 3. WRAP protocol 4. SWMP 6. Landscape designs reusing demolition materials 7. Designing out waste principles 8. Developer commitments (10 Commitments to % of demolition and non demolition waste diversion from landfill) extra credits							
	Land use and ecology									
14	LE 01	Ecology strategy	Landscape Architect (ecologist)	Yes	1	1	100%	3.1	3.15
		Aim: To ensure that the development maintains or enhances biodiversity and protects existing natural habitats. 1. An ecology impact assessment has been undertaken 2. The EcIA takes account of any local knowledge of ecological issues through consultation (GO-02) 3. An ecology strategy covering the construction and operation phases has been drawn up to avoid damage to ecological features on site. 4. Where damage is unavoidable, a mitigation plan has been agreed. 5. The ecologist confirms that the masterplan conforms to the ecology strategy and that there will be no net loss of ecological value on site. 6. The developer confirms that all significant ecological features will be preserved and protected during development works. 8. The ecology strategy outlines a plan to ensure there is a net gain in biodiversity. 9. The ecologist confirms that the masterplan conforms to the ecology strategy and that there will be a net gain on the site.		There will be a net gain in biodiversity? Mark Wheeler Discuss with Julia. Olly, Sara Hattie Spray (Ecologist) WSP						
15	LE 02	Land use	Architect (Landscape Architect/Urban Design)	Yes	1	3	33%	2.1	0.70
		Aim: To encourage the use of previously developed and/or contaminated land and avoid land which has not been previously disturbed. 1. A desk study to identify any potential land contamination 2. A specialist has performed a site investigation 4. Where remediation is required the findings have informed the masterplan 6. A remediation strategy for the site has been prepared by a contaminated land specialist taking into consideration the sustainability principles in the UK Sustainable Remediation Forum's (SuRF-UK) 'Framework for Assessing the Sustainability of Soil and Groundwater Remediation'.OR 7. The developer has contracted a contaminated land specialist to prepare a remediation strategy for the site taking into consideration the sustainability principles outlined in the SuRF-UK 'Framework for Assessing the Sustainability of Soil and Groundwater Remediation'.		Walkover and desk study will identify contamination, possibly only related to the detailed phase. There will be a commitment for future phases. Mark Wheeler.						
16	LE 04	Enhancement of ecological value	Landscape Architect (ecologist)	N/A	1	3	33%	3.1	1.05
		Aim: To ensure that the ecological value of the development is maximised through enhancement. 1. The masterplan enhances ecological value through the creation of appropriate new habitats or through the increase in scale of existing habitats in accordance with the recommendations of the ecologist and other authorities. (3. The masterplan enhances ecological value through the protection or creation of wildlife corridors linking established or new habitats.) (5. The ecological plans are integrated within a green infrastructure plan.) extra credit		Oliver Chapman: Sara:Julia						
17	LE 05	Landscape	Landscape Architect	N/A	5	5	100%	2.1	2.10
		Aim: To ensure that the character of the landscape is respected and, where possible, enhanced through the location of features and design appropriate to the local environment. 1. the ecologist confirms that the detailed landscape design conforms to the strategy prepared under LE01 3. At least 60% of tree and shrub and herbaceous planting consist of appropriate native species, or other appropriate species recommended by the ecologist. 4. A commitment is made to appoint an ecology clerk of works to manage implementation 6. Water efficiency is considered in the selection of planting and irrigation and informed by the water strategy in RE-03 Water Strategy. 8. At least 80% of tree and shrub and herbaceous planting consist of appropriate native species or species recommended by the ecologist. (10. There is a commitment to prepare a landscape maintenance and management plan.)Extra credit (11. The proposed landscape design has been developed with reference to the community needs outlined in consultation for SE-07-Public Realm) (12. Existing landscape features considered important will be preserved in the new development) (13. The proposed landscape design has been assessed by an independent design review panel) extra credit		Trees and planting list from Southwark to be sent to Hattie Spray(Ecologist) to check for appropriateness. Oliver Chapman 9 & 10 are achieveable 13 is achieveable						
18	LE 06	Rainwater harvesting	Landscape Architect (ecologist)	N/A	0	3	0%	1.0	0.00
		Aim: To ensure that surface water run-off space is used effectively to minimise water demand. 1. Where 5-25% of the hard surface of the sire is designed to allow for the harvesting of rainwater for re-use 2. A rainwater collection system is designed in accordance with BS 8515:2009 and the collection area measured in accordance with BS 12056:2000 (4. Where 26-50% of the total hard surface of the site is designed to allow the harvesting of rainwater for reuse.) extra credit (6. Where more than 50% of the total hard standing and roof is designed to allow the harvesting of rainwater for reuse.) extra credit		Attenuation tanks provide a sump below drainage level, use this as a rainwater harvesting. Check if water from parking areas is going into tanks. Oliver Chapman Challenge credit with BRE on internal reuse of water.						
	Transport and movement									
19	TM 02	Safe and appealing streets	Architect (Landscape Architect/Urban Design)	N/A	4	4	100%	3.2	3.18
		Aim: To create safe and appealing spaces that encourage human interaction and a positive sense of place. 1. The transport assessment or statement and travel plans are used to inform the objectives for the design of streets. 2. A context appraisal is carried out to determine the appropriate layout of streets in relation to existing context 3. A movement framework is developed to determine the layout and design of streets that will promote sustainable modes of movement and transport through travel plans 5. Street layouts are safe and secure, overlooked and ownership is clear. 6. Design measures are incorporated into the masterplan to ensure safety with regard to large vehicles and pedestrian and cycle movement. Delivery areas are not accessed through parking areas and do not share pedestrian and cyclist routes. 8. The landscape design strategy enhances pedestrian routes through design and the provision of attractive landscaping. 9. Pedestrian routes allow easy navigation using key features and existing neighbourhoods. (11. Within the developments traffic management plan. targets have been set regarding road traffic accident reduction. 12. Potential vehicle noise disturbance and potential visual and vibration disturbance from heavy vehicles mitigated through layout and buffer zones.) extra credit (14. A maintenance contract will be in place for external areas that are not covered by the local authority for at least five years from occupation.) extra credit		Possible to achieve all these credits:Sara						
20	TM 03	Cycling network	Architect (Landscape Architect/Urban Design)	N/A	1	1	100%	2.1	2.12
		Aim: To promote cycling as a leisure activity and as an alternative to vehicle use by providing a safe and efficient cycle network. 1. The movement framework developed for TM02 covers items A-E Cycle routes are segregated from vehicles and pedestrians as appropriate: -on low speed streets (below 20mph) cyclists can be integrated with vehicles -on busy streets or where there are higher traffic speeds there should be clearly defined cycle lanes -separate cycle tracks should be introduced where space allows, in particular where the traffic speeds exceed 30mph -pedestrians and cyclists can share the same space, but steps must be taken to segregate the two, for example, a raised kerb or clear markings. Where pedestrians and cyclists share the same space but segregation is not possible, a minimum width of 3 metres should be provided. 3. The movement framework covers items F-G		Assume one credit : Ana McMillan Cycling is on the street but in dedicated lanes...						
21	TM 04	Access to public transport	Architect	N/A	2	4	50%	2.1	1.06
		Aim: To ensure the availability of frequent and convenient public transport links to fixed public transport nodes (train, bus, tram or tube) and local centres. 1. The distance from building entrance to transport nodes should be less than 650 m 2. The distance from building entrance to transport nodes should be less than 550 m (3. The distance is less than 450m) extra credit (4. The distance is less than 350m) extra credit		Measure the distances on the map: Elisabetta						
22	TM 05	Cycling facilities	Architect (Landscape Architect/Urban Design)	N/A	2	2	100%	1.1	1.06
		Aim: To promote cycling by ensuring the adequate provision of cyclist facilities. 1. Consultation to establish likely requirements 2. The results have been analysed and an appropriate level of cycle facilities has been agreed 4. A commitment to provide adequate space for storage 5. Non-residential uses have facilities in accordance with BREEAM 2011 7. During consultation the LA and developer have agreed a maintenance strategy for facilities		Consultation cycleabout: Discuss output with Julia Finlayson						
	Innovation									
	Inn	Innovation		N/A	0	7	0%	7.0	0.00	

BREEAM Communities Credits **Engineering**

Notes: The Mandatory elements are assessed on Step 1 before planning is submitted, all others are assessed in Step 2 after planning is submitted. Elements in brackets are not currently included in the prediction.

Version	**1.0**	**29/08/2014**	**Rory Bergin**					
	Identifier	**Issue name**	**Responsibility**	**Have mandatory standards been met?**	**Credits assumed**	**Credits available**	**% of credits achieved**	**Issue weighting**	**Issue score**
			Governance						
	Social and economic wellbeing - Environmental conditions								
1	SE 03	Flood risk assessment	Engineering	Yes	2	2	100%	3.5	3.48
	Aim: To ensure that sites and developments take due account of flood risk and, where it is present, take appropriate measures to reduce the risk of flooding to the development and the surrounding areas. 1. A site specific flood risk assessment 2. The flood zones are determined in accordance with best practice and planning policy 3. A commitment is made to incorporate the recommendations of all appropriate statutory bodies into the masterplan 4. Where there is a medium risk of flooding the development has been designed to minimise risk onsite 7. Where the FRA demonstrates that there is a low risk of flooding			High Risk of flooding, in zone 3, expect 2 credits, see exec summary for credit information					
2	SE 04	Noise pollution	Engineering	Yes	1	3	33%	1.8	0.60
	Aim: To ensure that the development is designed to mitigate the impacts of noise. This includes mitigation from existing sources of noise, reducing potential noise conflicts between future site occupants, and protecting nearby noise-sensitive areas from noise sources associated with the new development. 1. A noise impact assessment has been carried out. 2. All noise attenuation measures have been incorporated into the masterplan (4.Building locations and orientations have been informed by noise impacts.) (6. The developer commits to achieve indoor ambient noise levels that satisfy BS8233:1999 'reasonable') (7. The developer commits to achieve a rating noise level difference no greater than +5dB during the day and +3dB at night compared to background noise level from all 'industrial' sources)			Noise monitoring start is imminent, possible second credit. Can we achieve 3 credits.					
3	SE 13	Flood risk management	Engineering	N/A	2	3	67%	1.8	1.20
	Aim: To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk of localised flooding on and off site, watercourse pollution and other environmental damage. 1. SE03 recommendations have been incorporated into the masterplan 2. An appropriately qualified professional is appointed to calculate surface water run-off report 3. The peak rate of runoff is no greater post than pre-development allowing for 1 and 100 year events (5. Any additional rainwater discharge from a 6 hour event should be reduced by infiltration or Suds or alternatives justified) (extra credit) (7. Where flooding of property would not occur in the event of local drainage failure) (extra credit)			Positive to 5, extra credit for 5, possiby 7 as well, within detailed application					
4	SE 16	Light pollution	Engineering	N/A	1	3	33%	0.9	0.30
	Aim: To ensure that lighting on the development site is designed to reduce light pollution. 1. The lighting design guide for the development is in line with LA guidance and include street and security lighting. (3. 100% high efficiency street lighting with limited upward light transmission is installed) (extra credit) (5. 100% high efficiency lighting with limited upward light transmission is installed for additional lighting 6. The final lighting design guide outlines how light pollution will be minimised and the specification for the lighting is low powered) (extra credit)			Potential for 3 credits, Barney to speak to Alan Howard about specification					
	Social and economic wellbeing - Social wellbeing								
5	SE 09	Utilities	Engineering	N/A	1	3	33%	0.9	0.30
	Aim:To provide easy access to site service and communications infrastructure, with minimal disruption and need for reconstruction, and to allow for future growth in services. 1. provision of a single access point for each service on site 2. Coordinated installation of gas, electricity, water/sewage, comms, heating & cooling (4. Access to the services is provided away from circulation routes 5. individual service providers have committed to provide access for maintenance which is non-disruptive)(extra credit) (Ducting is provided in addition to the necessary capacity to allow for future expansion) (extra credit)			Question for the BRE: This is going to be impossible in a dense urban site. Some services are reused. Electrical and broadband services are reused.? Severe discruption?					
	Resources and energy								
6	RE 01	Energy strategy	Engineering (energy)	Yes	3	11	27%	4.1	1.11
	Aim: To recognise and encourage developments designed to minimise operational energy demand, consumption and carbon dioxide emissions. 1. An energy strategy has been prepared 3. The developer commits to implement recommendations achieving (40% CO2 reductions) (an additional credit is available for every subsequent 10% reductions)			35% above part L: Currently averaging 32%. Some uncertainty about CHP until procurement is completed. Proposed a series of values for U-Value, y-values. Assumptions about thermal massing. PV					
7	RE 03	Water strategy	Engineering (water)	Yes	1	1	100%	2.7	2.70
	Aim: To ensure that the development is designed to minimise water demand through efficiency and appropriate supply-side options taking full account of current and predicted future availability of water in the area. 1. The developer engages with all relevant bodies to develop overall water consumption targets. 2. A strategy is prepared to manage water demand on the site to meet those targets. 4. A commitment is made to enforce the adoption of water consumption targets on buildings constructed on the site 5. A commitment is made to design and specify landscape in accordance with the water strategy 6. Responsibility for managing the water supply/collection facilities are established			OK					
8	RE 07	Transport carbon emissions	Engineering (transport)	N/A	1	1	100%	2.7	2.70
	Aim:To reduce pollution associated with car use and provide viable alternatives to car ownership. 1. Feasibility study to establish alternative transport options 2. Travel plans for the development 4. One alternative means of sustainable transport established 5. The sustainable transport options are well advertised 6. Management plans are in place tomonitor use and maintain facilities			Separate meeting with Julia and Ian Dimblylow on this. Send Martin some dates to meet					
	Land use and ecology								
9	LE 03	Water pollution	Engineering (water)	N/A	2	3	67%	1.0	0.70
	Aim:To ensure that measures are put in place to protect the local watercourse from pollution and other environmental damage. 1. A drainage plan will be supplied to the water authority 2. Measures are put in place to prevent any water pollution in accordance with PPG1,5,6 4. A suitably qualified professional ensures the design will not allow pollution from hard surfaces in accordance with SuDs manual 5. Shut-off valves for any gas storage 6. Specification of petrol separators in surface water drainage (8. The SQE confirms that there will be no discharge up to 5mm rainfall) extra credit			Achieve 4, 5, 6, probably not 8.					
	Transport and movement								
.0	TM 01	Transport assessment	Engineering (transport)	Yes	1	2	50%	3.2	1.59
	Aim: To ensure transport and movement strategies reduce the impact of the development upon the existing transport infrastructure and improve environmental and social sustainability through transport. 1. A transport assessment is developed 2. A travel plan coordinator is appointed to develop travel plans 3. A travel plan is developed outlining the design methods used to encourage sustainable transport 5. The transport assessment and travel plans positively influence the development, by reducing the need for car travel, reducing length of trips,.... (7. The transport assessment confirms that there is spare capacity to meet the demands of the proposed development OR 8. Where development is phased public transport will be subsidised for early phases)								
.1	TM 06	Public transport facilities	Engineering (transport)	N/A	1	2	50%	2.1	1.06
	Aim: To encourage frequent use of public transport throughout the year by providing safe and comfortable transport facilities. 1. Consult LA, community and transport providers on transport facilities 2. Analyse and plan facilities that encourage public transport 3. Shelters at public transport stops 4. Adequate size of shelters for older people and disabled 6. Shelters to be compliant with partial list of requirements (8. Shelters to be compliant with full list of requirements) extra credit								
	Innovation								
	Inn	Innovation		N/A	0	7	0%	7.0	0.00

3.3 SUSTAINABILTY STANDARDS THE CODE FOR SUSTAINABLE HOMES

Project Details

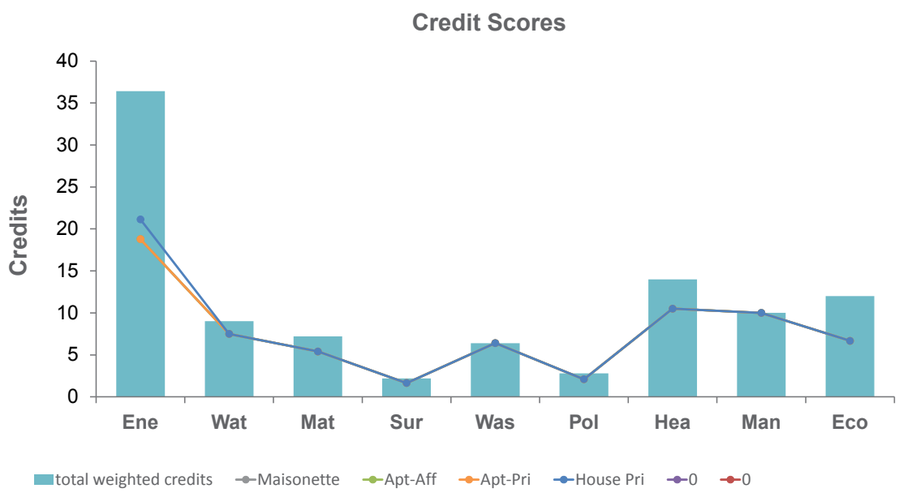
Development Name: Aylesbury Estate
Project Code: NHH-AES
Code Assessor: Rory Bergin
Date: 29-Aug-14
Code version: November 2010

Predicted Code Level

	Maisonette	Apt-Aff	Apt-Pri	House Pri
Target Code Level:	4	4	4	4
Pre-assessment Code Level:	4	4	4	4
Total Credit Score:	68.8	68.8	68.8	71.2
Target Credit Score:	68	68	68	68

Mandatory Elements - All Levels

Energy Code Level:		4	4	4
Water Code Level:		3&4	3&4	3&4
Materials:		✓	✓	✓
Surface Water:		✓	✓	✓
Household Waste:	✓	✓	✓	✓
Construction Waste:	✓	✓	✓	✓



Energy

Ene 1 - Dwelling Emission Rate

Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply.

% Improvement of DER over TER	Mandatory Levels	Credit Score
≥ 8%		1
≥ 16%		2
≥ 25%	**4**	**3**
≥ 36%		4
≥ 47%		5
≥ 59%		6
≥ 72%		7
≥ 85%		8
≥ 100%	**5**	**9**
Zero CO_2 Emissions	**6**	**10**

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
3	**3**	**3**	**3**		

Assumptions	Evidence Required
This score will be achieved by the use of good quality building fabric, efficient windows, and good airtightness. Likely energy solutions are -CHP/communal gas boilers with other roof mounted renewables.	*Detailed documentary evidence confirming the TER, DER and percentage improvement of DER over TER based on design stage SAP outputs** ***OR*** *Where applicable:* *A copy of calculations as detailed in the assessment methodology based on design stage SAP outputs** ***AND*** *Confirmation of FEE performance where SAP section 16 allowances have been included in the calculation* **Dated outputs with accredited energy assessor name and registration number, assessment status, plot number and development address.*

Ene 2 - Fabric Energy Efficiency

Credits are awarded based on the Fabric Energy Efficiency obtained from the SAP 2009 calculations (kWh/m^2/year).

Flats/Mid-Terrace Houses	End Terrace, Semi & Detached	Mandatory Levels	Credit Score
≤ 48	≤ 60		3
≤ 45	≤ 55		4
≤ 43	≤ 52		5
≤ 41	≤ 49		6
≤ 39	**≤ 46**	**5&6**	**7**
≤ 35	≤ 42		8
≤ 32	≤ 38		9

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
5	**5**	**5**	**7**		

Assumptions	Evidence Required
This score will be achieved by the density of the design, and the proportion of openings to the building fabric. These factors will combine to reduce the heating demand in the dwellings to a minimum.	*Detailed documentary evidence confirming fabric energy efficiency based on Design Stage SAP outputs* ***OR*** *Where applicable:* *A copy of calculations as detailed in the assessment methodology based on design stage SAP outputs* **Dated outputs with accredited energy assessor name and registration number, assessment status, plot number and development address.*

Ene 3 - Energy Display Devices

Credits are awarded where energy display devices are specified.

Provision of Energy Display Devices	Credit Score
An energy display device is supplied displaying current electricity **OR** primary heating fuel consumption data.	1
An energy display device is supplied displaying current electricity **AND** primary heating fuel consumption data.	2
Default credits where electricity is the primary heating fuel and an energy display device is supplied.	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
An energy display device will be supplied displaying current electricity and primary heating fuel consumption data. This information helps residents to keep control of their fuel bills, and prompts them to switch unused equipment off.	*Detailed documentary evidence confirming:* *That the correctly specified energy display device is dedicated to the dwelling* ***AND*** *The consumption data displayed by the correctly specified energy display device* *Where detailed documentary evidence cannot be produced at this stage:* *A specification can be allowed as evidence of intent to meet specific requirements* ***OR*** *A letter of instruction to a contractor/supplier or a formal letter from the developer giving the specific undertaking can be allowed*

Ene 4 - Drying Space

One Credit is awarded for the provision of either internal or external secure drying space with posts and footings or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for dwellings with 3 bedrooms or greater.

Drying Space to be Provided	Credit Score
Yes	1
No	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
This is achieved by installing external clothes dryers in the dwellings with gardens, and tidy drying systems over the baths in dwellings without gardens. This reduces the use of expensive electric clothes dryers and reduces the residents carbon dioxide emissions.	*For internal; location of drying fixings, details/location of ventilation provided, details of lock if communal dying space and length of line.* *For external; location of fixings/footings or posts, details of lock if communal dying space and length of line.* ***OR*** *A letter from the developer giving the specific undertaking.*

Ene 5 - Energy Labelled White Goods

Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme, White Goods

Energy Labelled White Goods	Credit Score
EU Energy Labelling info	1
A+ Rated Fridges & Freezers	1
A+ Rated Fridges & Freezers, A rated washing machines and dishwashers, and either B rated dryers or EU leaflet.	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
This will be achieved by providing information about energy rated goods in the Home User Guide. This prompts residents to consider the efficiency of new equipment when they are making a new purchase of white goods and other electrical appliances. (Q: will there be a difference between affordable/shared ownership and private)	*If no or not all white goods are provided:* *A copy of the EU Energy Efficiency Labelling Scheme leaflet. Confirmation that leaflets will be provided to all dwellings.* *Confirmation that all appliances available for purchase with the dwelling are compliant.* *If white goods are provided:* *Appliances should be provided with their applicable energy rating.*

Ene 6 - External Lighting

Credits are awarded based on the provision of space lighting with dedicated energy efficient fittings and security lighting fittings with appropriate control gear OR provision of dual lamp luminaires with both space and security lamps.

External Lighting Provision	Credit Score
Space Lighting	1
Space & Security Lighting	2
Space lighting & credits awarded by default for no security lighting	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	2	2	2		

Assumptions	Evidence Required
This will be achieved by providing external security lighting where appropriate, that is no more than 150 W low energy fittings and has appropriate switching gear. These fittings will only come on when the external light levels are low and when there is movement within the scope of the movement detector.	*Relevant drawings clearly showing the location of all external light fittings* *AND* *Detailed documentary evidence confirming:* *• The types of light fitting and efficacy, in lumens per circuit watt, for all lamps* *• The control systems applicable to each light fitting or group of fittings* *Where detailed information is not available at this stage:* *A letter of instruction to a contractor/supplier or a formal letter from the developer giving the specific undertaking*

Ene 7 - Renewable Technologies

Credits are awarded where either there is a 10% or 15% reduction in total carbon emissions that result from using renewable technologies.

% Contribution Made by Low or zero carbon Technologies	Credit Score
< 10%	0
≥ 10%	1
≥15%	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
0	0	0	0		

Assumptions	Evidence Required
This credit is not sought.	*A copy of calculations as detailed in the assessment methodology based on design stage SAP outputs* ***AND*** *Detailed documentary evidence confirming that the specified low or zero carbon technologies:* *• Meet any additional requirements defined in Directive 2009/28/EC as applicable.* *And are:* *• Certified under the Microgeneration Certification Scheme** ***OR*** *• Certified under the CHPQA standard** **As applicable.*

Ene 8 - Cycle Storage

Credits are awarded where adequate, safe, secure, and weather proof cycle storage is provided according to the Code requirements.

Provision of Cycle Storage	Credit Score
No cycle storage	0
Storage for 1 cycle for every	1
Storage for 1 cycle per bedroom	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
Description, eg: Communal and individual bike stores to be provided for all dwellings at a rate of 1 cycle space for every 2 bedrooms for apartments and one cycle space per bedroom for the houses. The use of cycles to travel helps residents keep fit and healthy and to reduce the carbon emissions of their transportation.	*Detailed documentary evidence showing:* *• The number of bedrooms and the corresponding number of cycle storage spaces per dwelling* *• Location, type and size of storage* *• Convenient access to cycle storage* *• Any security measures* *• Details of the proprietary system (if applicable)* *• How the requirements of clause 35 of Secured by Design – New Homes 2010 will be met (if applicable)* *Where detailed information is not available at this stage:* *A letter of instruction to a contractor/supplier or a formal letter from the developer giving the specific undertaking*

Ene 9 - Home Office

A credit is awarded for the provision of space for a home office. The location space and services provided must meet the Code requirements.

Provision of Home Office	Credit Score
Yes	1
No	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
Description, eg: This will be achieved by providing the appropriate space and services in each dwelling to enable home working, hobbies or study. These spaces will be designed to be well lit and adequately sized to house a desk, chair and some shelf space.	*Detailed documentary evidence showing:* *• Location of and sufficient space for the home office* *• Location and number of sockets* *• Location of telephone points* *• That adequate ventilation will be provided* *• That an average daylight factor of at least 1.5% is achieved* *• Confirmation of one of the following:* *– cable connection* *– that broadband is available at the site level (not for individual dwellings), i.e. a letter from the developer confirming that they have checked that broadband is available* *– two telephone points (or double telephone point)*

Water

Wat 1 - Indoor Water Use

Credits are awarded based on the predicted average household water consumption, calculated using the Code Water Calculator Tool. Minimum standards for each code level apply.

Predicted Water Use	Mandatory Levels	Credit Score
>120 l/person/day		0
<120 l/person/day	**1 & 2**	**1**
<110 l/person/day		2
<105 l/person/day	**3 & 4**	**3**
<90 l/person/day		4
<80 l/person/day	**5 & 6**	**5**

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
4	**4**	**4**	**4**		

Assumptions	Evidence Required
The use of potable water will be reduced to less than **90** litres/person/day. This will be achieved by the use of low flow taps, smaller baths, mains powered showers and dual flush WC's. Many areas of the UK that are highly populated do not receive sufficient rainwater to meet the needs of residents using the current average of 150 litres per person per day.	*Completed Water Efficiency Calculator for New Dwellings internal potable water use for each dwelling which has a different specification* ***AND*** *Detailed documentary evidence showing:* *• Location, details and type of appliances/ fittings that use water in the dwelling including any specific water reduction equipment with the capacity / flow rate of equipment.* *• Location, size and details of any rainwater and greywater collection systems provided for use in the dwelling* *Where detailed documentary evidence is not available at this stage;* *Completed Water Efficiency Calculator for New Dwellings internal potable water use for each dwelling which has a different specification* ***AND*** *A letter of instruction to a contractor/ supplier or a formal letter from the developer giving a specific undertaking, providing sufficient information to allow the water calculations to be completed*

Wat 2 - External Water Use

A credit is awarded where a compliant system is specified for collecting rainwater for external irrigation purposes. Where no outdoor space is provided the credit can be achieved by default.

Collection System	Credit Score
No individual or communal outdoor space, or only a balcony	1
Outdoor space with collection system	1
Outdoor space without collection system	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	**1**	**1**	**1**		

Assumptions	Evidence Required
The apartments will receive this credit by default as they will have a balcony. Houses with gardens are to be provided with water butts linked to the rainwater downpipes.	*Detailed documentary evidence stating type, size and location of any rainwater collection systems* *Where detailed documentary evidence is not available;* *A letter of instruction to a contractor / supplier or a formal letter from the developer giving a specific undertaking*

Materials

Mat 1 - Environmental Impact of Materials

At least 3 of the 5 key building elements must achieve a Green Guide 2008 Rating of A+ to D.

Environmental Impact of Materials	Mandatory Levels	Credit Score
Mandatory requirement met	**All**	**Yes**
Predicted number of credits		1-15

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
Yes	**Yes**	**Yes**	**Yes**		
12	**12**	**12**	**12**		

Assumptions	Evidence Required
This credit will be achieved by specifying materials that have a low environmental impact as described in the BRE Green Guide. Only materials that score a rating of C or higher will be used in the construction.	*Completed Code Mat 1 Calculator Tool, showing building elements at the design stage with the relevant Green Guide element numbers* ***AND*** *References stating the design or specification documentation used to complete the tool*

Mat 2 - Responsible Sourcing of Materials - Basic Building Elements

Credits are awarded where materials used in the basic building elements are responsibly sourced.

Responsible Sourcing - Basic Building Elements	Credit Score
Predicted number of credits	1-6

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
4	**4**	**4**	**4**		

Assumptions	Evidence Required
This credit will be achieved by procuring materials that have the correct certification. 100% of timber will be FSC certified.	*Completed Code Mat 2 Calculator Tool, showing building elements at the design stage* *AND* *Detailed documentary evidence stating the materials specified in each element* *A letter of intent confirming:* *• The product shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.* *And where possible:* *• A copy of the CoC and/or BES6001 and/or EMS certificate.* *For recycled materials: Documentation stating which particular materials will be recycled A letter of intent to use suppliers who can provide an EMS certificate (or equivalent) for the recycling process*

Mat 3 - Responsible Sourcing of Materials - Finishing Elements

Credits are awarded where materials used in the finishing elements are responsibly sourced.

Responsible Sourcing - Finishing Elements	Credit Score
Predicted number of credits	1-3

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
This credit will be achieved by procuring materials that have the correct certification. 100% of timber will be FSC certified.	*Completed Code Mat 3 Calculator Tool, showing building elements at the design stage* *AND* *Detailed documentary evidence stating the materials specified in each element* *A letter of intent confirming:* *• The product shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.* *And where possible:* *• A copy of the CoC and/or BES6001 and/or EMS certificate.* *For recycled materials: Documentation stating which particular materials will be recycled A letter of intent to use suppliers who can provide an EMS certificate (or equivalent) for the recycling process*

Surface Water

Sur 1 - Management of Surface Water Run-Off from Developments

The peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site. Where SUDS are used to improve the quality of the rainwater discharged or for protecting the quality of the receiving waters.

Surface Water Run-Off	Mandatory Levels	Credit Score	Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
Mandatory requirement met	**All**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**		
Default case		0						
No discharge from site for rainfall depths of 5mm		1	**0**	**0**	**0**	**0**		
Treatment to run-off water to reduce pollution		1	**1**	**1**	**1**	**1**		

Assumptions	Evidence Required
Surface runoff is increased due to a larger area of land being developed than previously, therefore the volume of runoff will need to be reduced either through infiltration or rainwater harvesting (for internal use). It is assumed that code compliant SUDS will also be used to reduce runoff. This can be provided using permeable paving in hard landscaped areas, or by diverting rainwater from roofs to soakaways.	*Mandatory Elements:* *Statement from the appropriately qualified professional confirming that they are qualified in line with the Code definition.* ***AND*** *The appropriately qualified professional's report containing all information necessary to demonstrate compliance with the peak rate of run-off and volume of run-off requirements.* ***AND*** *A Flood Risk Assessment confirming the risk of flooding from all sources of flooding (this may be contained within the appropriately qualified professional's report)* ***AND*** *Drawings showing the pre-development drainage for the site (natural or constructed)* ***AND*** *Drawings showing the proposed drainage solution, system failure flood flow routes, potential flood ponding levels and ground floor levels* ***AND*** *Confirmation from the appropriately qualified professional that local drainage system failure would not cause an increase in the risk of flooding within dwellings either on or off site* *Where credits are sought:* *The appropriately qualified professional's report detailing the design specifications, calculations and drawings to support the awarding of the credit(s)*

Sur 2 - Flood Risk

Credits are awarded where developments are located in areas of low flood risk or where in areas of medium or high flood risk appropriate measures are taken to prevent damage to the property and its contents.

Flood Risk	Credit Score	Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
Development in Zone 1	2						
Development in Zone 2 or 3, all protection measures are demonstrated, and ground floor level is 600mm above design flood level.	1	**2**	**2**	**2**	**2**		

Assumptions	Evidence Required
The site is a low flood risk area according to the Environment Agency maps, a full FRA will be carried out during the planning design phase.	*For developments situated in Zone 1, 2 or 3:* *A Flood Risk Assessment (prepared according to good practice guidance as outlined in Development and Flood Risk: A practice guide companion to PPS25) which shows the risk of flooding from all sources. For medium (Zone 2) or high (Zone 3a)* *• Site plans indicating the design flood level, the range of ground levels of the dwellings, car parking areas and site access (lowest to highest), showing that the criteria (finished floor levels of all habitable rooms and access routes being at least 600 mm above the design flood level) are met, along with any notes explaining the function of any areas lying below the design flood level* ***AND*** *• Confirmation from the local planning authority that the development complies with PPS25 and is appropriately flood resilient and resistant, and has managed any residual risk safely.*

Waste

Was 1 - Storage of Non-Recyclable Waste and Recyclable Household Waste

The space provided for waste storage should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacity calculated from BS5906.

Storage of Waste	Mandatory Levels	Credit Score	Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
Mandatory requirement met - minimum space and accessibility	**All**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**		
No Local Authority Collection Scheme and no external waste storage		2						
Local Authority collection scheme		4						
No Local Authority Collection Scheme and external waste storage provided		4	**4**	**4**	**4**	**4**		

Assumptions	Evidence Required
Space will be provided in each kitchen to store recyclable waste. It is assumed that there will be a Local Authority collection scheme.	*Mandatory element:* *Provide table: Cat 5.1 – Supplementary Information Sheet for Was 1 and Checklist IDPWhere 4 credits are sought:* *Detailed documentary evidence stating:* *• the location of internal and external storage* *• the number, types and sizes of internal and external storage* *AND* *A letter, leaflet, website or other published information from the Local Authority/waste scheme provider* describing;* *• the types of waste collected* *• the frequency of collection* *• if there will be pre or post collection sorting*

Was 2 - Site Waste Management Plan

A SWMP plan including the monitoring of waste generated on site and the setting of targets to promote resource efficiency must e produced and implemented. The SWMP should also include procedures and commitments for minimising waste and/or commitments to sort, reuse and recycle construction waste.

Site Waste Management Plan	Mandatory Levels	Credit Score	Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
Mandatory requirement met	**All**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**		
Minimising construction waste		1						
Minimising construction waste and diverting 50% of waste from landfill		2	**3**	**3**	**3**	**3**		
Minimising construction waste and diverting 85% of waste from landfill		3						

Assumptions	Evidence Required
A Site Waste Management Plan will be implemented on this project. This is mandatory for projects exceeding a build cost of £300k. 85% of construction waste will be diverted from landfill	*A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c* ***OR*** *Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c*

Was 3 - Composting

A credit is awarded where individual home composting facilities are provided, or where a community/communal composting service, either run by the Local Authority or overseen by a management plan is in operation.

Composting Facilities	Credit Score	Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
No composting facilities	0						
Individual composting facilities	1						
Communal composting facilities	1						
Local Authority collection system	1	**1**	**1**	**1**	**1**		

Assumptions	Evidence Required
Southwark provides a composting collection service for all units.	*Detailed documentary evidence stating:* *• the location and size of internal and external storage* *• that an information leaflet will be supplied* *• distance of storage from dwelling* ***AND*** *Completed Checklist IDP*

Pollution

Pol 1 - Global Warming Potential

A credit is awarded where all insulating materials only use substances (in manufacture and installation) that have a GWP of less than 5.

Global Warming Potential	Credit Score
All insulants have a GWP of less than 5	1
Some or none of the insulants have a GWP of	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
This credit will be achieved through the building materials specification to ensure that no insulants with a GWP of more than 5 are specified. This includes all insulation materials in the building fabric and services.	*Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or are unfoamed (from table Cat 6.1)*

Pol 2 - NOx Emissions

Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling.

NOx Emissions	Credit Score
> 100 mg/kWh	0
≤ 100 mg/kWh /Class 4 boiler	1
≤ 70 mg/kWh / Class 5 boiler	2
≤ 40 mg/kWh	3
Default - no NOx emissions produced	3

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	2	2	2		

Assumptions	Evidence Required
This will be achieved by specifying low NOx boilers in the communal heating system. This assumes that gas-fired boilers are to be used. If heat pumps or biomass systems are employed, these credits will not be available.	*Detailed documentary evidence describing:* *• The primary and any secondary heating systems and flue type* *• Dry NOX levels and/or boiler class of the primary and any secondary heating systems* *Where detailed documentary evidence is not available at this stage;* *A letter of instruction to a contractor/supplier or a formal letter from the developer to the Code assessor giving the specific undertaking*

Health & Wellbeing

Hea 1 - Daylighting

Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.

Daylight	Credit Score
Kitchen - 2% DF	1
Living room, dining room and home office - 1.5% DF	1
All key rooms - 80% view of sky	1

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
These credits will be varied throughout the buildings as it depends on the location of the individual home, the size of individual windows and the distance of the window from obstructions. Full analysis of this will be carried out as part of the Code of Sustainable Homes Design Stage Assessment.	*Copy of calculations as detailed in the methodology to demonstrate:* *• Average daylight factor using the formula described in the definitions section or computer simulation or scale model measurements* *• Position of the no-sky line and percentage of area of the working plane that receives direct light from the sky* *Confirmation from the developer that the calculations accurately reflect the dwelling as designed.*

Hea 2 - Sound Insulation

Credits are awarded where performance standards exceed those required in Building Regulations Part E. This can be demonstrated by carrying out pre-completion testing or through the use of Robust Details Limited.

Sound Insulation Performance Standard	Credit Score
Airborne: 3db higher; Impact 3db lower	1
Airborne: 5db higher; Impact 5db lower	3
Airborne: 8db higher; Impact 8db lower	4
Detached dwelling	4
Separating walls/floor only between non habitable spaces	3

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
3	3	3	3		

Assumptions	Evidence Required
The design is projected to exceed the requirement of the building Regulations by 5dB for Code level 4. This will be achieved by using constructions that have been previously sound tested to achieve these reductions. It may be necessary to involve acoustic consultants and manufacturers in the development of specific details.	*Where pre-completion testing will be carried out;* *A letter from the developer to:* *• Meet the relevant sound insulation performance levels* *• Use a Compliant Test Body to complete testing* *Where Robust Details will be used;* *• Confirmation that the Robust Details chosen will achieve the required performance standards for sound insulation (as applicable)* *• Confirmation that the relevant plots are registered with RDL (the Purchase Statement)*

Hea 3 - Private Space

A credit is awarded for the provision of an outdoor space that is at least partially private. The space must allow easy access to all occupants.

Provision of Private Space	Credit Score
Yes	1
No	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	1	1	1		

Assumptions	Evidence Required
Private Space in the form of private gardens will be provided for all houses. 1.5m2 per bedroom for private gardens or balconies, 1m per bedroom for shared gardens. Flats are to have private balconies.	*Evidence confirming:* *• The number of bedrooms served by the outdoor space* *• That the outdoor space meets the minimum size requirements* ***AND*** *Completed Checklist IDP* *Where a shared outdoor space is provided evidence confirming:* *• The private space is accessible only to occupants of designated dwellings*

Hea 4 - Lifetime Homes

Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Lifetime Homes is mandatory for Level 6.

Lifetime Homes Compliance	Mandatory Levels	Credit Score
All criteria will be met	6	4
All criteria will be met and sloping site exemption for criteria 2 and/or 3 is applied.		3

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
4	4	4	4		

Assumptions	Evidence Required
It is proposed that all dwellings will comply with all of the relevant elements of the Lifetime Homes checklist.	*Confirmation that all 16 of the Lifetime Homes design criteria are met or where an exemption from Lifetime Homes criteria 2 and/or 3 is sought:* *• Confirmation from the developer that all other design criteria are met* ***AND*** *Detailed documentary evidence demonstrating access routes subject to steeply sloping gradients at pre development and completion*

Management

Man 1 - Home User Guide

Credits are awarded where a simple guide is provided to each dwelling covering information relevant to the 'non-technical' home occupier, in accordance with the Code requirements.

Topics Covered by the Home User Guide	Credit Score
Operational Issues and user guide is available in	2
Operational issues, Site and Surroundings and user guide is available in alternative formats	3

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
3	**3**	**3**	**3**		

Assumptions	Evidence Required
A home user guide will be prepared for every resident, this will describe in non technical language how their home works, it will provide advice on low energy appliances and lifestyle, and information about local amenities. It will be available in other languages or formats on request.	*Where a home user guide will be supplied covering operational issues only:* *Confirmation in the form of a letter from the developer or in the specification that the guide will be:* *• Supplied to all dwellings within the development* *• Be developed to the required standards (as a minimum including a list of contents showing that the guide will cover all of the issues required in Checklist Man 1 Part 1)* *Where a home user guide covering operational issues and issues relating to the site and surroundings will be supplied:* *As above and including information covered in Checklist Man 1 Part 2*

Man 2 - Considerate Constructors Scheme

Credits are awarded where there is a commitment to comply with best practice site management principles using either the Considerate Constructors Scheme or an alternative scheme.

Scheme	Credit Score
Considerate Constructors - score of 25-34 OR alternative scheme - 50% of optional requirements	1
Considerate Constructors - score of 35-40 OR alternative scheme - 80% of optional requirements	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
The contractor building this scheme will be a member of this scheme and score 32 points or above for the development.	*For Considerate Constructors Scheme: Specification clause or other confirmation of commitment from the contractor or developer to comply with the Considerate Constructors Scheme and achieve formal certification under the scheme with either a pass score or a score of 32 points and above* ***AND*** *Confirmation that registration with the Considerate Constructor Scheme has taken place no later than the commencement of the construction phase*

Man 3 - Construction Site Impacts

Credits are awarded where there is a commitment and strategy to operate site management procedures on site.

Construction Site Impacts	Credit Score
Procedures to cover 2 or more construction site impacts	1
Procedures to cover 4 or more construction site impacts	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
The contractor will measure the impacts and set targets for site activities including water consumption and CO2 emissions.	*Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.*

Man 4 - Security

Credits are awarded for complying with Section 2 - Physical Security form Secured by Design - New Homes.

Security	Credit Score
Secured by Design Section 2 compliance	2
Secured by Design Section 2 non-compliance	0

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
This credit will be achieved by consulting with the local police in accordance with the Secured By Design standard.	*Detailed documentary evidence showing:* *• That an ALO/CPDA has been consulted with to ensure that the requirements of Section 2 – Physical Security from 'Secured by Design – New Homes' are met* *• A commitment to follow the advice provided by the ALO/CPDA*

Ecology

Eco 1 - Ecological Value of Site

One credit is awarded for developing land of inherently low value.

Ecological Value of Site	Credit Score
Land has ecological value	0
Land has low ecological value	1

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
0	**0**	**0**	**0**		

Assumptions	Evidence Required
The site is assumed to have ecological value and this credit cannot be achieved. (review of ecology information required)	*Where a suitably qualified ecologist is appointed;* *A copy of a report or letter from the ecologist highlighting the information required as set out in the 'Code for Sustainable Homes Ecology Report Template'* ***AND*** *Detailed documentary evidence identifying the construction zone and how any areas of ecological value outside the construction zone will remain undisturbed in accordance with the ecologist's recommendations.*

Eco 2 - Ecological Enhancement

A credit is awarded where there is a commitment to enhance the ecological value of the development site.

Ecological Enhancement	Credit Score
All key and additional recommendations of ecologist's to be adopted	1

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
1	**1**	**1**	**1**		

Assumptions	Evidence Required
This credit will be achieved by the appointment of a suitable qualified Ecologist and then following the recommendations of the Ecologists report.	*A copy of the ecologist's report highlighting the information required as set out in 'Code for Sustainable Homes Ecology Report Template'* ***AND*** *Detailed documentary evidence stating:* *• How the key recommendations and 30% of additional recommendations will be incorporated into the design* *• The planting schedule of any species to be incorporated from suitably qualified ecologists recommendations*

Eco 3 - Protection of Ecological Features

A credit is awarded where there is a commitment to enhance the ecological value of the development site.

Protection of Ecological Features	Credit Score
Features of ecological value are to be protected	1
Features of ecological value will not be protected	0
No ecological features	1

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
0	**0**	**0**	**0**		

Assumptions	Evidence Required
This credit cannot be achieved as the site has ecological value.	*Detailed documentary evidence* confirming ecological features present and how they will be protected* **Where compliance with the criteria is demonstrated by the relevant documents submitted to the Planning Authority which gained planning approval, these can be used as evidenc. Evidence is required where ecological features are being removed.*

Eco 4 - Change of Ecological Value of Site

Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements.

Change of Ecological Value of Site	Credit Score
Minor negative change : between -9 and ≤ -3	1
Neutral: > -3 and ≤ 3	2
Minor enhancement: >3 and ≤9	3
Major enhancement: >9	4

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
This credit can be achieved by increasing the number of species by planting suitable species in gardens and in public landscaped areas.	*Where the advice of an ecologist is sought, the following detailed documentary evidence must be provided:* *Code for Sustainable Homes Ecology Report Template completed by the ecologist* ***AND*** *Written confirmation from the developer confirming how the ecologist's recommendations will be implemented including a planting schedule*

Eco 5 - Building Footprint

Credits are awarded where the ratio of combined floor area of all dwellings on the site to their footprint is:

Building Footprint	Credit Score
Houses 2.5:1 or flats 3:1	1
Houses 3:1 or flats 4:1	2
Houses and flats weighted (2.5:1 and 3:1)	1
Houses and flats weighted (3:1 and 4:1)	2

Maisonette	Apt-Aff	Apt-Pri	House Pri	0	0
2	**2**	**2**	**2**		

Assumptions	Evidence Required
These credits can be achieved as the average height of the buildings will be greater than three storeys.	*Calculation of the building footprint ratio, stating the Net Internal Floor Area (NIFA) and the Net Internal Ground Floor Area (NIGFA)*

3.4 SUSTAINABILTY STANDARDS
BREEAM PRE-ASSESSMENT FOR THE EXTRA CARE BLOCK 1

BREEAM New Construction is a performance based assessment method and certification scheme for new buildings. The primary aim of BREEAM New Construction is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost effective manner. This is achieved through integration and use of the scheme by clients and their project teams at key stages in the design and procurement process.

BREEAM New Construction can be used to assess and rate the environmental impacts arising from a newly constructed building development, and its ongoing operation, at the following life cycle stages:

1. Design Stage (DS) - leading to an Interim BREEAM certified rating

2. Post-Construction Stage (PCS) - leading to a Final BREEAM certified rating

The BREEAM rating benchmarks for new construction projects assessed using the 2011 version of BREEAM are as follows:

BREEAM Rating	% score
Outstanding	≥ 85
Excellent	≥ 70
Very good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

For planning, a BREEAM 2011 New Construction pre-assessment has been carried out. This Extra Care building will be assessed using the BREEAM Multi-residential scheme and has been set a target rating of 'Very Good'. The pre-assessment summary shows the credits assumed achievable at this stage, having taken into consideration the current architectural information and discussed the latest designs with the architect. The current predicted score is 64.39%. There may be changes to the BREEAM credits targeted as the design progresses but the overall minimum score of 55% and associated rating of 'Very Good' will be maintained.

Artists Impression of Block 1 from Westmoreland Road

BREEAM

BREEAM 2011 New Construction Assessment Report: Rating & Key Performance Indicators

This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a buildings potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

Overall Indicative Building Performance

Building name	First Development Site Extra Care Block 1
Indicative building score (%)	64.39%
Indicative BREEAM rating	Pre-Assessment result indicates potential for BREEAM Very Good rating
Indicative minimum standards level achieved	Pre-Assessment result indicates the minimum standards for Very Good level

Summary of Indicative Building Performance by Environmental Section and Assessment Issue

Management	Indicative no. credits available	Indicative no. credits Achieved	Indicative contribution to score	Minimum standards level achieved
Man01 Sustainable Procurement	8.0	6.0	3.27%	Pre-Assessment result indicates the minimum standards for Outstanding level
Man02 Responsible Construction Practices	2.0	2.0	1.09%	Pre-Assessment result indicates the minimum standards for Outstanding level
Man03 Construction Site Impacts	5.0	4.0	2.18%	N/A
Man04 Stakeholder Participation	4.0	3.0	1.64%	Pre-Assessment result indicates the minimum standards for Outstanding level
Man05 Life cycle cost and service life planning	3.0	2.0	1.09%	N/A
Total indicative environmental section performance	**22.0**	**17.0**	**9.27%**	
Health & Wellbeing				
Hea01 Visual Comfort	3.0	2.0	1.88%	Pre-Assessment result indicates the minimum standards for Outstanding level
Hea02 Indoor Air Quality	4.0	1.0	0.94%	N/A
Hea03 Thermal Comfort	2.0	2.0	1.88%	N/A
Hea04 Water Quality	1.0	1.0	0.94%	Pre-Assessment result indicates the minimum standards for Outstanding level
Hea05 Acoustic Performance	4.0	1.0	0.94%	N/A
Hea06 Safety and Security	2.0	1.0	0.94%	N/A
Total indicative environmental section performance	**16.0**	**8.0**	**7.50%**	
Energy				
Ene01 Reduction of CO2 Emissions	15.0	6.0	4.22%	Pre-Assessment result indicates the minimum standards for Excellent level
Ene02 Energy Monitoring	1.0	1.0	0.70%	Pre-Assessment result indicates the minimum standards for Outstanding level
Ene03 External Lighting	1.0	1.0	0.70%	N/A
Ene04 Low and Zero Carbon Technology	5.0	2.0	1.41%	Pre-Assessment result indicates the minimum standards for Outstanding level
Ene05 Energy Efficient Cold Storage	N/A	N/A	N/A	N/A
Ene06 Energy Efficient Transportation Systems	2.0	2.0	1.41%	N/A
Ene07 Energy Efficient Laboratory Systems	N/A	N/A	N/A	N/A
Ene08 Energy Efficient Equipment	2.0	2.0	1.41%	N/A
Ene09 Drying Space	1.0	1.0	0.70%	N/A
Total indicative environmental section performance	**27.0**	**15.00**	**10.56%**	
Transport				
Tra01 Public Transport Accessibility	3.0	3.0	2.67%	N/A
Tra02 Proximity to Amenities	2.0	2.0	1.78%	N/A
Tra03 Cyclist facilities	1.0	1.0	0.89%	N/A
Tra04 Maximum Car Parking Capacity	2.0	2.0	1.78%	N/A
Tra05 Travel Plan	1.0	1.0	0.89%	N/A
Total indicative environmental section performance	**9.0**	**9.0**	**8.00%**	
Water				
Wat01 Water Consumption	5.0	3.0	2.00%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wat02 Water Monitoring	1.0	1.0	0.67%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wat03 Water Leak Detection and Prevention	2.0	1.0	0.67%	N/A
Wat04 Water Efficient Equipment	1.0	1.0	0.67%	N/A
Total indicative environmental section performance	**9.0**	**6.0**	**4.00%**	
Materials				
Mat01 Life Cycle Impacts	6.0	3.0	2.88%	N/A
Mat02 Hard Landscaping and Boundary Protection	1.0	1.0	0.96%	N/A
Mat03 Responsible Sourcing	3.0	1.0	0.96%	Pre-Assessment result indicates the minimum standards for Outstanding level
Mat04 Insulation	2.0	2.0	1.92%	N/A
Mat05 Designing for Robustness	1.0	1.0	0.96%	N/A
Total indicative environmental section performance	**13.0**	**8.00**	**7.69%**	
Waste				
Wst01 Construction Waste Management	4.0	3.0	3.75%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wst02 Recycled Aggregates	1.0	0.0	0.00%	N/A
Wst03 Operational Waste	1.0	0.0	0.00%	Pre-Assessment result indicates the minimum standards for Very Good level
Wst04 Speculative Floor and Ceiling Finishes	N/A	N/A	N/A	N/A
Total indicative environmental section performance	**6.0**	**3.00**	**3.75%**	
Land Use and Ecology				
LE01 Site Selection	2.0	1.0	1.00%	N/A
LE02 Ecological Value of Site and Protection of Ecological Features	1.0	1.0	1.00%	N/A
LE03 Mitigating Ecological Impact	2.0	2.0	2.00%	Pre-Assessment result indicates the minimum standards for Outstanding level
LE04 Enhancing Site Ecology	3.0	3.0	3.00%	N/A
LE05 Long Term Impact on Biodiversity	2.0	2.0	2.00%	N/A
Total indicative environmental section performance	**10.0**	**9.00**	**9.00%**	
Pollution				
Pol01 Impact of Refrigerants	3.0	1.0	0.77%	N/A
Pol02 NOx Emissions	3.0	0.0	0.00%	N/A
Pol03 Surface Water Run off	5.0	3.0	2.31%	N/A
Pol04 Reduction of Night Time Light Pollution	1.0	1.0	0.77%	N/A
Pol05 Noise Attenuation	1.0	1.0	0.77%	N/A
Total indicative environmental section performance	**13.0**	**6.00**	**4.62%**	
Innovation				
Inn01 Innovation	10.0	0.0	0.00%	N/A
Total indicative environmental section performance	**10.0**	**0.00**	**0.00%**	