



Sustainability Strategy

2562 / Gondar Gardens, London Borough of Camden

For

Linden Wates West Hampstead Ltd

November 2013



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Executive Summary

This document sets out the proposed commitments for the Gondar Gardens development in the London Borough of Camden. Sustainability targets are set out within this strategy for all residential units within the application area.

Gondar Gardens consists of the redevelopment of the reservoir street frontage to provide 28 residential units (Class C3 use) in two blocks from lower ground to third floors with basement parking, following substantial demolition of the roof and internal structure of the reservoir and its subsequent re-landscaping.

The 28 dwellings consist of two houses, eight duplexes and eighteen apartments. The number of bedrooms per dwelling ranges from one to four. 18 of the 28 dwellings are for private sale with the remainder being affordable housing.

The aim of this document is to clearly, concisely and comprehensively demonstrate how the development will comply with, and wherever possible, exceed sustainability policy requirements and best practice sustainability principles.

To do this, firstly a review of relevant national and local policy documents has been conducted with particular consideration of key sustainability issues such as energy, sustainable design and construction, surface water runoff and water consumption. The BRE Sustainability Checklist for Developments is used to ensure that wider sustainability issues are covered and as a framework for setting out policy requirements and mandatory Code for Sustainable Homes requirements.

The framework is set out in a table which lists requirements and outlines targets and measures which will be implemented to achieve the requirements. Where necessary, comments and links to further information about the measures are included in the table.

The technical appendix contains two documents referred to in the Sustainability Statement which detail how key sustainability measures outlined in the statement can be achieved.

Key Targets

- ❑ **All dwellings will achieve a Code for Sustainable Homes rating of Level 4.**
- ❑ **20% reduction in carbon dioxide emissions through the installation of on-site renewable energy technologies where feasible.**

Linden Homes recognise the importance of ensuring development is sustainable and commit to ensuring the Gondar Gardens development delivers on sustainability, where feasible, during both the construction phase and the occupation phase.



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1. Introduction

This document sets out the proposed commitments for the development at Gondar Gardens in West Hampstead. Targets are set out within the strategy for all residential units within the application area.

The scope of the strategy covers the environmental performance of the development as well as how the proposal will address broader site wide sustainability issues, including water use, flood risk, transport and ecology.

1.1. Project Description

Gondar Gardens consists of the redevelopment of the reservoir street frontage to provide 28 residential units (Class C3 use) in two blocks from lower ground to third floors with basement parking, following substantial demolition of the roof and internal structure of the reservoir and its subsequent re-landscaping.

The 28 dwellings consist of two houses, eight duplexes and eighteen apartments. The number of bedrooms per dwelling ranges from one to four. 18 of the 28 dwellings are for private sale with the remainder being affordable housing.

The proposed redevelopment site addresses Gondar Gardens road and the building line determined by the properties to the left and right is maintained. Building height above street level is four storeys and therefore in keeping with nearby building heights. The scale, mass and grain of the development is also in keeping with nearby properties.

All dwellings, houses, duplexes and apartments will achieve Code Level 4 under the Code for Sustainable Homes 2010 scheme.

The proposed energy strategy has been designed according to the energy hierarchy promoted by the Zero Carbon Hub, the London Plan and Camden Council Planning Policy. At this stage, the strategy centres on a combination of an enhanced building fabric and onsite Photovoltaic Panels (subject to detailed assessment and practicality).



1.2. Policy compliance

The strategy, and targets within it, comply with national and local policy requirements, in particular the London Plan, London Sustainability Design and Construction Supplementary Planning Guidance, Camden Core Strategy, Camden Development Policies and Camden Planning Guidance Sustainability.

Guidance has also been taken from the London Housing Draft Supplementary Planning Guidance and London Housing Design Guide Interim Edition.

1.3. Targets

Targets cover a range of environmental topic areas, and have been taken from well recognised sources, notably:

- ❑ The Code for Sustainable Homes (Level 4 will be achieved)
- ❑ The London Plan
- ❑ Camden Core Strategy
- ❑ Camden Development Policies
- ❑ Camden Planning Guidance Sustainability



2. Policy Context

2.1. Introduction and context

This Sustainability Statement sets out the targets and commitments of Linden Wates West Hampstead Ltd. (the developer) in relation to the proposed new development at Gondar Gardens and the measures by which the developer will meet these commitments.

The Gondar Gardens Sustainability Statement reflects existing policy frameworks at a number of levels including national, regional and local guidance. The key component that underpins policy at all levels is the concept of sustainable development. The following provides an overview of the policy documents that form the basis for the principles, targets and measures.

2.2. National policy

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) was published on 27th March 2012. The NPPF seeks to compliment the Localism Act, brought into force in November 2011. It is the UK Governments national policy for town planning and replaces Planning Policy Statements (PPS's) and Planning Policy Guidance (PPG's). The NPPF must be taken into account in the preparation of local and neighbourhood plans and is a material consideration in planning decisions.

It is a single document and has been conceptualised to make the planning system less complex and more accessible, to protect the environment and promote sustainable growth. The aim of the new policy environment is to enable and deliver Sustainable Development and to ensure planning operates to encourage sustainable growth. The NPPF presents many opportunities for all partners in the development process to get more involved in the development process from beginning to end. Within the NPPF Sustainable Development is conceptualised through the following three dimensions:

- Planning for prosperity (an economic role)
- Planning for people (a social role)
- Planning for places (an environmental role)

These three dimensions should be taken together and integrated to deliver multiple goals for Communities, Climate Change and Flooding, the Natural Environment, Transport, Housing and Design.



Laying the Foundations: A Housing Strategy for England

This document outlines the multifaceted approach to delivering the greater numbers of quality housing that is required in England. The housing strategy identifies the importance of housing in determining the livelihoods of individuals and families. The role in communities is therefore to be greater and should work alongside the housing market. New measures to improve the supply of housing are outlined and include:

- ❑ the £400 million Get Britain Building investment fund
- ❑ release of public sector land
- ❑ funding for new infrastructure
- ❑ proportionate and cost-effective regulation
- ❑ social and affordable housing reform

The Energy Act 2011

This act provides impetus to enable secure low-carbon energy supplies and fair competition in the energy markets. The act creates a new financing framework to enable the provision of fixed improvements to the energy efficiency of households and non-domestic properties; the 'Green Deal', will give householders, private landlords and businesses finance upfront to make energy efficiency improvements, which would then be paid for by energy bill savings. Other measures include the roll out of smart meters, widening access to Energy Performance Certificates (EPC) and a new obligation on energy companies to help certain groups of consumers, who need extra support, with saving energy.

The Climate Change Act 2008

The Climate Change Act sets out a framework for moving the UK to a low-carbon economy. The Act sets legally binding targets for the reduction of targeted greenhouse gas emission for the year 2050 through the following steps:

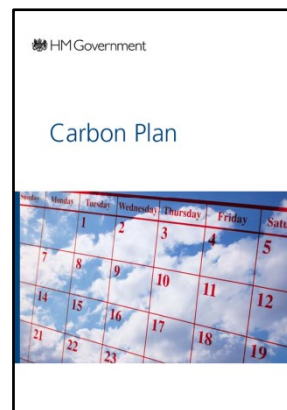
- ❑ the UK net carbon account for the year 2050 will be at least 80% lower than the 1990 baseline with the interim target of 2020 at 34%
- ❑ the establishment of a new Committee on Climate Change, to provide independent expert advice and guidance to Government on achieving targets and carbon budgets
- ❑ greater energy efficiency, with more consumers becoming "producers" of their own energy at home
- ❑ Investment in low-carbon fuels and technologies, such as wind, wave, solar power and carbon capture and storage.



The Carbon Plan: delivering our low Carbon Future

The Carbon Plan (December 2011) sets out the Government’s plan for achieving decarbonisation within the framework of the UK’s energy policy in order to make the transition to a low carbon economy while maintaining energy security and minimising costs to consumers.

The plan details interim goals that seek to make the Climate Change Act target of reducing Greenhouse Gas emissions by at least 80% below 1990 base year levels achievable by 2050. The pathway set by the plan encompasses low carbon buildings through energy efficiency and low carbon heating, low carbon transport, low carbon industry, low carbon electricity and agriculture, land use, forestry and waste.



Water White Paper

The Water White Paper (December 2011) discusses the future of water management and produces a vision of a resilient water sector where water is valued and water companies are more efficient.

Key reforms within the paper centre on tackling unsustainable water abstraction and reforming the water abstraction regime; improving water quality; aligning plans between government; regulators and companies; delivery of water and waste water infrastructure; and drainage. National standards for Sustainable Urban Drainage Systems (SuDS) and a new approval system for sustainable drainage will undergo review.

Waste Strategy for England

The Waste Strategy for England (Defra, May 2007) sets out the vision for sustainable waste management in the UK. The desired impact of this strategy is to achieve an annual net reduction in global greenhouse gas emissions from waste management of at least 9.3 million tonnes of carbon dioxide equivalent per year. The key Government objectives in the strategy are to:

- ❑ decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use;
- ❑ increase diversion from landfill of non-municipal waste and secure better integration of treatment for municipal and non-municipal waste;
- ❑ secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste.

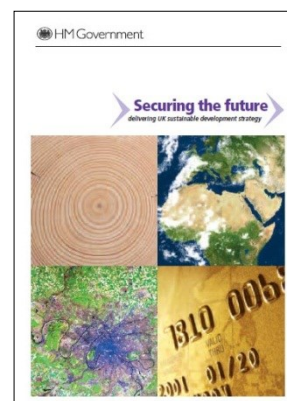


Securing the Future

The term “sustainable development” has various definitions which are under constant critical review to ensure their relevance and appropriate application to our communities from the scale of global to local. *Securing the Future: delivering UK sustainable development strategy* (2005) develops both a definition and a strategy for sustainable development. It has agreed four priorities for the UK and its devolved administrations. These priorities are:

1. sustainable consumption and production,
2. climate change and energy,
3. protecting our natural resources and enhancing the environment
4. creating sustainable communities and a fairer world

All priorities are incorporated into policy at the regional and local level.



2.3. Regional policy

The London Plan 2011

The new London Plan was adopted in July 2011. The document drives the Mayor’s vision for London’s spatial development according to social, economic, transport and environmental principles integrated into a development framework. Included within the Mayor’s vision is an objective detailing that London becomes

‘a world leader in improving the environment locally and globally, taking the lead in tackling climate change, reducing pollution, developing a low carbon economy, consuming fewer resources and using them more effectively’.

This objective is largely taken up in Chapter 5 - London’s response to Climate Change wherein it is stated that the Mayor seeks to achieve an overall reduction in London’s carbon dioxide emissions of 60 per cent (below 1990 levels) by 2025. Among the policies of importance to this document are:

Policy 5.2 Minimising carbon dioxide emissions, outlines the hierarchy for minimising carbon dioxide emissions – be lean, be clean, be green. This policy also states that major developments should include a detailed energy assessment.

The policy also sets out the following targets for carbon dioxide emissions reduction in buildings.

For the years 2010-2013, the target for residential buildings is: 25% improvement on 2010 building regulations (Code for Sustainable Homes 4)

Policy 5.3 Sustainable Construction and Design, seeks to ensure sustainable design standards are integral to the construction and operational processes of the proposal and ensure these standards have been considered at the beginning of the design process.

This policy also states that Major Developments should meet the minimum standards outlined in the Mayor’s Supplementary Planning Document.

Policy 5.7 Renewable Energy, specifies that within the energy hierarchy outlined in policy 5.2 (see above) major developments should provide a reduction in expected carbon dioxide emissions through the use of on-site renewable energy generation, where feasible.

Policy 5.9 Overheating and Cooling, sets out a cooling hierarchy that major development proposals should follow in order to reduce potential overheating and reliance on air conditioning systems.



Policy 5.10 Urban Greening, details that proposals should integrate green infrastructure such as green roofs, tree planting and soft landscaping.

Policy 5.12 Flood Risk Management, states that proposals should comply with the flood risk assessment and management requirements set out in PPS25 over the lifetime of the development and have regard to measures proposed in Thames Estuary 2100 and Catchment Flood Management Plans.

Policy 5.13 Sustainable Drainage, details the usage of sustainable urban drainage systems (SUDS) and the drainage hierarchy that developments should follow so that greenfield run-off rates can be achieved and ensure that surface run-off is managed as close to its source as possible.

Policy 5.15 Water Use and Supply, seeks to minimise the use of mains water through incorporating water saving measures and equipment and designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day.

Policy 5.17 Waste Capacity, supports the need to increase waste processing capacity in London and its relevance to new developments lies in its instruction to provide suitable waste and recycling storage facilities.

Policy 5.18 Construction, Excavation and Demolition Waste, instructs that major development sites are required to recycle construction, excavation and demolition (CE&D) waste on-site and that waste material should be removed by water or rail transport wherever that is practicable.

Sustainable Design and Construction: The London Supplementary Planning Guidance (SPG)

The sustainable design and construction SPG was published in May 2006 with the purpose of providing additional information to support the implementation of the London Plan. Whilst it does not set new policy it does carry material consideration.

With the date of publication being five years ago, it is necessary to meet the essential standards and consider the 'preferred' standards. The essential and preferred standards are referred to in the Sustainability Statement Assessment section of this document.

London Housing Strategy (Dec 2011)

This strategic document sets out a vision, as well as an assessment of housing conditions and the need for further housing provision, for London. It establishes policies to meet needs and improve housing conditions. The London Housing Strategy is related to the Mayor's other strategies including the London Plan.



2.4. Local policy

The following are Local Plan documents of relevance to the proposed development.

London Borough of Camden Core Strategy

Camden Core Strategy sets out the council's planning vision and strategy for the borough for the period 2010 to 2025 and is the central document in the Local Development Framework (LDF). In conjunction with the London Plan and other LDF documents it forms the statutory development plan for Camden and the basis for planning decisions in the borough.

Of paramount concern for the Gondar Gardens Sustainability Statement is Chapter 3 – 'A sustainable and attractive Camden - Tackling climate change and improving and protecting Camden's environment and quality of life'. The following policies are used in this Sustainability Statement with CS13 informing the greater percentage of this document:

CS13 – This policy seeks to reduce the effects of, and adapting to, climate change

CS14 - Promoting high quality places and conserving our heritage

CS15 - Protecting and improving our parks and open spaces & encouraging biodiversity

CS16 - Improving Camden's health and well-being..

CS17 - Making Camden a safer place

CS18. Dealing with our waste and encouraging recycling

Camden Development Policies

This document also comprises a key document in the Camden LDF. It contributes towards delivering the Core Strategy by setting out detailed planning policies that the Council will use when making decisions on applications for planning permission

The document directly addresses the policies established in the Core Strategy and provides more detail on these policies. The following development policies address the aforementioned Core Strategy policies

DP22. Promoting sustainable design and construction

DP23. Water

DP24. Securing high quality design

DP28. Noise and vibration

DP32. Air quality and Camden's Clear Zone



Sustainability Camden Planning Guidance 3

This document provides detailed guidance on how the Council's planning strategy and policies will be implemented for the specific topic of sustainability. It is consistent with the Core Strategy and Development policies document and also forms a 'material consideration' in planning decisions.

The document covers a range of topics that should be addressed by development and outlines Camden's commitment to reducing carbon emissions.



3. Summary of References

Table 1 sets out a list of the documents used to research and identify the Sustainability Statement requirements.

Table 1 Summary of references

Reference	Document
LP	The London Plan July 2011
LSD&C_SPG	London Sustainable Design & Construction Supplementary Planning Guidance May 2006
LHDG_IE	London Housing Design Guide INTERIM EDITION Aug 2010
DLHSD_SPG	Draft London Housing Sustainable Design Supplementary Planning Guidance
CCS	Camden Core Strategy Nov 2010
CDP	Camden Development Policies Nov 2010
SCPG3	Sustainability Camden Planning Guidance 3



4. Sustainability Assessment

In this section we give a detailed summary of how the overall strategy for Gondar Gardens comes together and how this strategy relates to the other documents in the submission. We have developed a target driven approach with targets being drawn down and related to the Policy Context section above.

4.1 Assessment Methodology

The section below sets out a number of targets which have been developed to meet and exceed the Local, Regional and National policy framework in place at this time. These have been driven by the desire of Linden Homes Chiltern to build a development which delivers a sustainable way of living by addressing social, economic and environmental drivers.

The following standards have been utilised to compile this document.

- BRE Checklist for Developments
- The Code for Sustainable Homes 2010

The assessment is structured around the sections, categories and objectives of the BRE Sustainability Checklist for Developments, developed by the BRE to cover specific sustainability and planning issues. The scale of the proposed development at Gondar Gardens and the early design stage has meant that not all of the questions posed in the BRE checklist are applicable or relevant at this stage and have therefore been omitted.

Under each section targets and measures are grouped according to whether they are derived from the Checklist, Policy (regional and local) or Code within a table. Details of where further information is regarding the target or measure, and how they will be achieved, is included in the tables. *Not all of the categories apply to the Gondar Gardens development and are therefore not included in the tables.*



5. Sustainability Statement

5.1 Land use, urban form and design Statement

Overview



Background

Development land in the UK continues to be in short supply, and pressure remains high to provide the majority of new developments on brown field sites or sites with low ecological value. In general development should be proposed in line with:

- The land use guidance contained in the development plan; and
- Current planning policy guidance notes and DETR Good Practice Guides.

Solutions

- Development which attracts a lot of people should be concentrated in or on the edge of existing towns or suburban centers
- Reclamation and remediation of contaminated land environmental land
- Encourage high density development
- Ensure that the form of development is appropriate for its sustained use.

Table 2 Land use, urban form and design targets and measures

	Targets and measures	Reference	Further information
Checklist	<p>Site criteria: site specific approval</p> <p>The site meets the requirements of the Development Plan - Camden Local Development Framework as well as national and regional (London) policy</p>	BRE_SC_1.1_a	Sustainability Statement targets draw upon the policy guidance established in Camden Core Strategy, Camden Development Polices and Camden Planning Guidance Sustainability
	<p>Site criteria: planning constraints</p> <p>This site has been designated as a Site of Nature Conservation Importance (SNCI) Borough Grade II.</p> <p>The Phase 1 Habitat report details measures to ensure the interest features of the SINC are not significantly impacted by the proposed development. These measures include a detailed management plan to be designed for the area turned over to grassland.</p>	BRE_SC_1.1_b	SNCI is a borough (non-statutory) designation. See: Phase 1 Habitat Survey (JBA Consultancy Services Ltd)
	<p>Reusing sites: use of brown field land</p> <p>The development re-uses brown field land. 100% of the site is on previously developed land.</p>	BRE_SC_1.2_c	The site is located on a disused Victorian reservoir.
	<p>Reusing sites: brown field land released for development</p> <p>The proposal involves the release of brown field land for redevelopment, the majority of which will be put back to open grassland.</p>	BRE_SC_1.2_d	

	Targets and measures	Reference	Further information
	<p>Form of development: grain</p> <p>The grain of the development is appropriate for needs, and in context with the surroundings. As a residential development the proposed designs reveal a human scale and a rhythm akin to the the row of terraces to either side of the proposed development.</p>	BRE_SC_1.3_a	See: Design and Access Statement (Rolfe Judd)
	<p>Form of development: layout</p> <p>Does the layout of the connecting roads, pavements, and spaces achieve a balance between good access into and through the development, and the provision of interesting and useful spaces?</p> <p>Yes, The layout of the proposal means the properties would ‘fill in’ the building line between nearby properties. Roads and pavements serving the developments would be users are currently in existence and serving nearby residents and visitors. It is proposed that goods vehicles will not enter the site. Refuse vehicles will serve the site from Gondar gardens. New access routes into the site will be interesting for residents using the space</p>	BRE_SC_1.3_b	

	Targets and measures	Reference	Further information
	<p>Form of development: scale</p> <p>The scale of the development is appropriate in terms of height and massing of the building. Both the mass and height of the development reflect that of nearby properties.</p> <p>The height of the development will not exceed 4 storeys above street level and will therefore be of a similar height to adjacent buildings. The building footprint shares a similar mass to adjacent buildings</p>	BRE_SC_1.3_c	See: Design and Access Statement (Rolfe Judd)
	<p>Open Space/Landscape: access to green space</p> <p>Residents occupying the proposed development will be within reach of significant green spaces. These are Golders Hill Park and Hampstead Heath located approximately 1.35km north east of the site and approximately 1.9km east of the site respectively.</p>	BRE_SC_1.4_b	
	<p>Density: density of all buildings related to public transport</p> <p>The density of the built environment has been linked to public transport as recommended in <i>Planning Policy Guidance Note 13</i>.</p>	BRE_SC_1.5_b	
	<p>Mix of Uses: mixed use</p> <p>The mix of uses in the proposed development meets the requirements of the London Plan and Camden’s Core Strategy.</p> <p>Apartments, Duplexes and Houses comprise the different housing</p>	BRE_SC_1.6_a	Priority has been given to provision of affordable family housing in accordance with the London Plan.

	Targets and measures	Reference	Further information
	<p>types in this development and sizes ranging from one bedroom to four bedrooms. Affordable housing and housing for private sale are both accommodated and Lifetimes Homes standard will be achieved where possible.</p>		
	<p>Mix of Uses: meeting the target on affordable homes</p> <p>The % of affordable homes provided meets the requirements of the London Plan and Camden’s Core Strategy’s affordable housing targets. 10 of the 28 units are affordable homes equating to a figure of above 30%.</p>	BRE_SC_1.6_b	
	<p>Mix of Uses: integration of affordable homes</p> <p>The affordable housing has been sensitively integrated with the rest of the development in terms of aesthetics and distribution. Affordable housing sits amongst the other units and no discernible difference can be seen in terms of aesthetics.</p> <p>Affordable housing meets the same assessment level of ‘Level 4’ for Code for Sustainable Homes as the units for private sale.</p>	BRE_SC_1.6_c	
	<p>Mix of Uses: flexible buildings</p>	BRE_SC_1.6_e	

	Targets and measures	Reference	Further information
	<p>Where feasible all homes will be designed to Lifetimes Homes standards and as such will follow the 16 design criteria that allow these homes to adapt in accordance with the occupants changing needs over a lifetime.</p>		
	<p>Aesthetics aspects: building details</p> <p>The appearance of the development, in relation to the detailed building elements (eg roofscapes, window details, etc.) is both attractive and in context. Designs build upon a study of the nearby properties and public consultations.</p>	BRE_SC_1.7	
	<p>Sustainable Design and Construction</p> <p><i>Major development proposals should meet the minimum standards outlined in the Mayor’s supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principle:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>minimising the generation of waste and maximising reuse or recycling</i> <p>Linden Wates will have a Site Waste Management Plan (SWMP) that is</p>	LP Policy 5.3 C-e	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
	<p>compliant with Code criteria. Linden Wates are committed to diverting 85% of non-hazardous waste from landfill.</p> <p>Linden Wates will also provide facilities for household, recyclable and composting waste as set out in the CSH.</p>		
Policy	<p>Flood Risk Management</p> <p><i>Development proposals must comply with the flood risk assessment and management requirements set out in the NPPF over the lifetime of the development.</i></p> <p>A flood Risk Assessment has been conducted by a suitably qualified professional.</p>	LP Policy 5.12 B	<p>See:</p> <p>Flood Risk Analysis (FRA)</p> <p>The FRA and Environmental Agency website confirms the development as being low risk.</p>
	<p>Flooding</p> <p><i>Developments must not increase the risk of flooding, and are required to put in place mitigation measures where there is known to be a risk of flooding.</i></p> <p>Mitigation measures will be put in place and based upon recommendations given in the FRA and Ground Survey. These will include sustainable Urban Drainage Systems (SUDs) where feasible</p>	SCPG3_11.3	Further details will be gained at the subsequent design stage.

	Targets and measures	Reference	Further information
	<p>Land</p> <p><i>100% of development on previously developed land, unless very special circumstances can be demonstrated.</i></p> <p>This development complies with the above policy. The development is proposed on the site of a former Victorian reservoir.</p>	<p>LSD&C_SPG 2.1.2</p>	
	<p>Tackling climate change: Reducing the effects of and adapting to climate change</p> <p><i>The Council will require all development to take measures to minimise the effects of, and adapt to, climate change and encourage all development to meet the highest feasible environmental standards that are financially viable during construction and occupation by:</i></p> <ul style="list-style-type: none"> • <i>ensuring patterns of land use that minimise the need to travel by car and help support local energy networks;</i> • <i>promoting the efficient use of land and buildings</i> <p>The proposed site sits in a high density urban area of residential character served by existing public transport networks including bus, rail and London underground making it feasible for residents to use these alternatives to car. Pedestrian and cycle movement will also be encouraged.</p>	<p>CCS_CS13_a&b</p>	

	Targets and measures	Reference	Further information
Code	<p>Management of Surface Water Run-off from developments</p> <p>A number of Sustainable Urban Drainage systems (SUDs) will be utilised throughout the site. As such the site will benefit from the award of additional credits for Sur 1, using an approved strategy that meets the long term maintenance and ownership of any SUD system.</p>	Sur 1	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

5.2 Transport Statement

Overview



Background

Transport is responsible for environmental, social and economic impacts. Locally it results in noise, air and water pollution, and congestion and it can prevent or provide access. Globally, transport is a major user of fossil fuel and contributes significantly to global warming. Lack of access has significant social implications too, by isolating certain sections of society and lowering their quality of life. Poor access also affects business prosperity.

Solutions

- Development to be located close to existing transport corridors and local amenities
- To enable people to live and work in close proximity to development
- Provide a safe and welcoming environment for pedestrians and cyclists
- Reduce single occupancy private car journeys and make provisions for a car club
- Dwellings to be provided with adequate cycle storage
- Control number and cost of car parking spaces available

Table 3 Transport targets and measures

	Targets and measures	Reference	Further information
Checklist	<p>General Policy: travel surveys</p> <p>Have travel surveys been carried out to research existing travel patterns and increase the understanding of travel needs?</p> <p>Travel surveys have been carried out to establish existing travel patterns in and around the area of the proposed development. ATC surveys have been carried out as well as a parking beat survey. The level of detail is appropriate for the size of the proposed development.</p>	BRE_SC_2.1_c	See: Transport Statement (iTransport)
	<p>General Policy: Traffic Impact Assessment (TIA)</p> <p>A Traffic Impact Assessment has yet to be carried out but the developers are committed to ensuring it is.</p>	BRE_SC_2.1_d	See: Transport Statement (iTransport)

	Targets and measures	Reference	Further information
	<p>Public transport provision: proximity to fixed public transport node</p> <p>Two routes, pedestrian pavement alongside the road and a pathway, are available to residents to use to the nearest major fixed transport node (train, tube, tram) .The distance to a major fixed node is <1km if using the pathway to West Hampstead. Taking a route along a road will result in a journey marginally over 1km. Kilburn is also located at a 1km distance from the proposed development.</p>	BRE_SC_2.2_a	<p><i>Nearby Railway stations include:</i></p> <p>West Hampstead Thameslink <1km ; West Hampstead Overground<1km; Cricklewood Rail >1km</p> <p><i>Nearby underground station:</i></p> <p>West Hampsptead<1km; Kilburn>1km</p> <p><i>Buses operating from West Hampstead:</i></p> <ul style="list-style-type: none"> • 139 (to Waterloo 328 (to Chelsea), and C11 (to Hampstead Heath).
	<p>Public transport provision: convenience of public transport</p> <p>What is the distance from the bus stop or other public transport node (new or existing), providing a regular service. (80% of the development to fall within this?) <500m</p>	BRE_SC_2.2_b	<p>See:</p> <p>Transport Statement Addendum for the location of the bus stop in relation to the proposed development.</p>
	<p>Parking: car parking standards</p> <p>Car parking standards for the development will meet Local Authority requirements. Provision of car parking spaces will be 0.7 spaces per dwelling across the site and address disabled parking and drop off-facilities.</p>	BRE_SC_2.3_b	<p>See:</p> <p>Transport Statement Addendum</p>

	Targets and measures	Reference	Further information
	<p>Parking: flexible design of car parks</p> <p>In accordance with Lifetime Homes Standards designs for car parking spaces will be flexible and allow for use by a wide range of people including those with reduced mobility.</p>	BRE_SC_2.3_c	Design criteria will also account for the approach of people from car parking spaces to dwelling entrances.
	<p>Parking: HGV offloading spaces</p> <p>Provision for off-road HGV unloading spaces or alternatives will be made. Unloading will be undertaken from the carriageway.</p>	BRE_SC_2.3_e	See: Transport Statement Addendum
	<p>Facilities for pedestrians and cyclists: provision of safe pedestrian routes</p> <p>Yes, full provision of a network of safe pavements around the development and to local facilities will be made.</p>	BRE_SC_2.4_a	See: Transport Statement Addendum
	<p>Proximity of local facilities, i.e within easy walking distance (500m) of > 60% of homes and offices: Proximity of local facilities to commercial development</p> <p>All of the following facilities can be found within 500m of the proposed development.</p>	BRE_SC_2.6	See: Transport Statement Addendum

	Targets and measures	Reference	Further information
	<ul style="list-style-type: none"> <input type="checkbox"/> Shop selling food including fresh groceries <input type="checkbox"/> Schools <input type="checkbox"/> Playground/amenity area <input type="checkbox"/> Local meeting place <input type="checkbox"/> Medical centre <input type="checkbox"/> Chemist (Pharmacy) <input type="checkbox"/> Leisure facilities including public house <input type="checkbox"/> Childcare facilities (nursery/crèche) <input type="checkbox"/> Post box/phone box <input type="checkbox"/> Religious building/place of worship <input type="checkbox"/> Cemetery <input type="checkbox"/> Contemplative features (Water garden, etc.) <input type="checkbox"/> Cash point machine 		

	Targets and measures	Reference	Further information
Policy	<p>Parking Standards and limiting the availability of car parking</p> <p><i>Development should comply with the Council's parking standards, as set out in Appendix 2, stating provision of:</i></p> <ul style="list-style-type: none"> • <i>1 storage or parking space per unit. Visitors – from threshold of 20 units, 1 space per 10 units or part thereof.</i> • <i>General housing: where justified by the likely occupancy of the dwelling and reserved for use by people with disabilities, above a threshold of 10 units, 1 space per 20 units or part thereof, with dimensions suitable for use by people with disabilities.</i> • <i>Rest of borough: maximum of 1 space per dwelling.</i> • <i>Meet Council's minimum standards for cycle parking as set out in Appendix 2</i> <p>Cycle storage will be in line with Camden Policy and the strategy for attaining Code 'Level 4'. Cycle Parking for all units will be within the secure basement area.</p> <p>Storage allocations for flats will be based on one storage space per unit and car parking provision will be based on 0.7 spaces per dwelling.</p>	<p>CDP_DP18&Appendix 2_C3</p>	<p>See:</p> <p>Transport Statement Addendum</p>

	Targets and measures	Reference	Further information
Code	<p>Cycle Storage</p> <p>Storage for cycles will be provided within the basement level for all units. For flats and two and three bedroom dwellings storage for one cycle per dwelling will be provided. For four bedroom units two storage spaces will be provided.</p>	Ene 8	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

5.3 Energy Statement

Overview



Background

In order to be more sustainable, reduce greenhouse gas emissions, and improve security and diversity of supply, we must improve energy efficiency and increase the amount of energy obtained from renewable sources. New development, while only representing a small proportion of overall stock, presents an opportunity to integrate higher standards of energy efficiency and renewable energy technologies.

Solutions

- Reduce carbon dioxide emissions from new buildings
- Ensure street lighting is as energy efficient as possible, and minimises upward light pollution
- A significant proportion of energy to be met by low or zero carbon technologies
- Passive design measures such as passive solar to reduce energy demand

Table 4 Energy targets and measures

	Targets and measures	Reference	Further information
Checklist	<p>Community-wide energy production: Assessing the potential for renewable energy</p> <p>The site been assessed for suitability for renewable energy production using indicative SAP calculations. The Energy Strategy demonstrates that the most appropriate Low or Zero Carbon (LCZ) Technology for use at this stage is Photovoltaic Cells.</p>	BRE_SC_3.1_a	<p>See:</p> <p>Appendix A: Energy Strategy (CarbonPlan)</p> <p>As stated in the Energy Statement consideration has also been given to other technologies to overcome future changes in the specifications and development designs at the detailed design stage.</p>
	<p>Street Lighting: Energy efficient street lighting</p> <p>Given the frontage development formal street lighting will not be required.</p> <p>All external space lighting provided by dedicated energy efficient fittings. Burglar security lighting will have a max wattage of 150W, PIR devices or daylight cut off sensors. All other security lighting to have dedicated energy efficient fittings and daylight cut off sensors or timers.</p>	BRE_SC_3.2_a	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
Policy	<p>The Energy hierarchy</p> <p><i>Energy strategies are to be designed following the steps set out by the energy hierarchy. The 3 steps of the energy hierarchy are:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Be lean</i> <input type="checkbox"/> <i>Be clean</i> <input type="checkbox"/> <i>Be green</i> <p>These steps have been taken into consideration and applied by the energy strategy. Site layout, design and grain promotes energy efficient living and efficient equipment and controls installed in individual dwellings will minimise demand for water heating, space heating, cooling and power. Linden Wates have utilised methods to use less energy and supply energy efficiently before considering renewable energy technologies.</p>	SCPG3_2.0	<p>See:</p> <p>Appendix A: Energy Strategy (CarbonPlan)</p> <p>The Energy Strategy proposes implementation of high efficiency fabric and a Photovoltaic (PV) System as well other energy efficient technologies.</p>
	<p>Renewable Energy</p> <p><i>All developments are to target at least a 20% reduction in carbon dioxide emissions through the installation of on-site renewable energy generation.</i></p> <p>The energy strategy outlines the use of photovoltaic cells in addition to highly energy efficient building fabric and services with additional energy saving devices to meet this target as far as feasible.</p>	SCPG3_6.2	<p>See:</p> <p>Appendix A: Energy Strategy (CarbonPlan)</p>

	Targets and measures	Reference	Further information
Code	<p>External Lighting</p> <p>All external space lighting provided by dedicated energy efficient fittings. Burglar security lighting to have a max wattage of 150W, PIR devices or daylight cut off sensors. All other security lighting to have dedicated energy efficient fittings and daylight cut off sensors or timers.</p>	Ene 6	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

5.4 Impact of individual buildings

Overview



Background

In order to build in a sustainable manner, it is necessary to minimise any negative impacts. The main impacts attributed to the construction of individual buildings are: energy in use; embodied energy and main environmental impacts of building materials; water consumption; health and wellbeing of occupants: indoor air quality/ daylighting/ noise; transport and access impacts of occupants and users; pollution to air (CO₂, SO_x and NO_x), ozone depletion.

Solutions

- Set a target using a proprietary quality-assured rating scheme like Code for Sustainable Homes.

Table 5 Impact of individual buildings targets and measures

	Targets and measures	Reference	Further information
	<p>Building types not covered by BREEAM</p> <p>CO₂ targets for the proposed residential buildings are a reduction in carbon dioxide emissions from on-site renewables.</p>	BRE_SC_4.2_a	Appendix A: Energy Strategy (CarbonPlan)
	<p>Building types not covered by BREEAM</p> <p>The predicted water consumption is 105 litres/per person/per day</p>	BRE_SC_4.2_c	This is in accordance with the mandatory rating for Code 'Level 4'.
	<p>Building types not covered by BREEAM</p> <p>Facilities to encourage walking, running and cycling been included in all buildings. These facilities include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cycle storage to be placed in an accessible location <input type="checkbox"/> An existing pavement to the front of the will serve residents <input type="checkbox"/> Residential homes will have showers 	BRE_SC_4.2_e	

	Targets and measures	Reference	Further information
Policy	<p>Energy Efficiency: new buildings</p> <p><i>All new developments are to be designed to minimise carbon dioxide emissions by being as energy efficient as is feasible and viable.</i></p> <p>This will be achieved through using highly energy efficient building fabric and services with additional energy saving devices; good utilisation of solar and internal heat gains; an excellent level of air tightness and good indoor air quality.</p>	SCPG3_3.3	
	<p>Natural Cooling</p> <p><i>A full model of the building should be carried out to ensure the building design optimises solar gain and daylight without resulting in overheating for developments comprising 5 dwellings or more or 500sq m or more of any floorspace.</i></p> <p>Linden Wates were committed to meeting this policy requirement and a full model will be carried out.</p>	SCPG3_3.8	

	Targets and measures	Reference	Further information
	<p>Natural Cooling</p> <p><i>Consider maximising the use of natural systems within buildings before any mechanical services are considered.</i></p> <p>The use of natural systems for cooling and ventilation within buildings is the preferential design choice of Linden Wates and this will be reflected in ventilation designs.</p> <p>An MVHR system may be used to improve air quality and lower levels of indoor air pollution and window condensation.</p>	<p>SCPG3_3.8</p>	
	<p>Efficient ventilation and cooling</p> <p><i>Where traditional mechanical cooling e.g. air conditioning units are proposed applicants must demonstrate that energy efficient ventilation and cooling methods have been considered first, and that they have been assessed for their carbon efficiency.</i></p> <p>An MVHR system may be used to improve air quality and lower levels of indoor air pollution and window condensation. This option represents a SAP 2009 approved method of ensuring that ventilation and cooling methods are examined for their carbon efficiency.</p>	<p>SCPG3_3.19</p>	

	Targets and measures	Reference	Further information
	<p>Water efficiency</p> <p><i>The Council expects all developments to be designed to be water efficient by minimising water use and maximising the re-use of water.</i></p> <p>The development will be water efficient. Target water use per person/per day will be >105 litres.</p> <p>It is expected that water butts will be connected to Rain Water Pipes (RWP) where appropriate. Consideration is being given to the use of rainwater harvesting tanks to further reduce the re-use of water.</p>	<p>SCPG3_7.2</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>
	<p>Insulation</p> <p><i>Materials should be selected to prevent penetration of heat, including the use of reflective building materials as well as green roofs and walls. Appropriate levels of glazing, which facilitates natural daylighting but prevents excessive overheating should also be considered.</i></p> <p>Materials will be selected to prevent penetration of heat and facilities will be provided to ensure appropriate provision of natural daylight.</p> <p>The use of Brown/Green walls could assist/prevent excessive overheating.</p>	<p>SCPG3_12.7</p>	<p>More details will be provided at the subsequent design stage.</p>

	Targets and measures	Reference	Further information
	<p>Tackling climate change: Reducing the effects of and adapting to climate change</p> <p><i>The Council will require all development to take measures to minimise the effects of, and adapt to, climate change and encourage all development to meet the highest feasible environmental standards that are financially viable during construction and occupation by:</i></p> <p><i>Minimising carbon emissions from the redevelopment, construction and occupation of buildings by implementing, in order, all of the elements of the following energy hierarchy:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>ensuring developments use less energy,</i> <input type="checkbox"/> <i>making use of energy from efficient sources, such as the King’s Cross, Gower Street, Bloomsbury and proposed Euston Road decentralised energy networks;</i> <input type="checkbox"/> <i>generating renewable energy on-site</i> <p>Work to address the above measures has been undertaken in accordance with the energy hierarchy.</p>	<p>CCS_CS13_c</p>	<p>See:</p> <p>Appendix A: Energy Strategy (CarbonPlan)</p> <p>CO₂ emission will be minimised through a mix of mechanisms including the use of high efficiency building fabric and Photovoltaic (PV) panels as well as the probable use of :</p> <ul style="list-style-type: none"> • High efficient individual gas-fired boiler • Flue gas heat recovery device • Improved heating controls • 100% Low energy light fittings

	Targets and measures	Reference	Further information
	<p>Promoting sustainable design and construction</p> <p><i>The Council will promote and measure sustainable design and construction by expecting new build housing to meet Code for Sustainable Homes Level Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.</i></p> <p>The proposed development will meet Code ‘Level 4’ for all dwellings</p>	<p>CDP_DP22</p>	
	<p>Promoting sustainable design and construction</p> <p><i>The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>summer shading and planting;</i> <input type="checkbox"/> <i>limiting run-off;</i> <input type="checkbox"/> <i>reducing water consumption;</i> <input type="checkbox"/> <i>reducing air pollution; and</i> <input type="checkbox"/> <i>not locating vulnerable uses in basements in flood-prone areas.</i> <p>Linden Wates are committed to meeting these policy requirements. These requirements will be met in consultation with the design team and on the basis of the recommendations of their respective reports.</p>	<p>CDP_DP22</p>	

	Targets and measures	Reference	Further information
Code	<p>Indoor Water Use</p> <p>Mandatory 105 l/p/d for Code level 4 will be achieved.</p>	Wat 1	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

5.5 Natural Resources

Overview



Background

Natural resources used in construction in the UK include building materials, water and energy. The UK construction industry uses 6 tonnes of building materials per person each year. By reusing and recycling building materials and choosing those with low environmental impacts, it is possible to minimize harmful environmental effects.

A sustainable resource management approach will help to minimise the contribution that both constructing and occupying a new development of any size makes to the problem of waste.

Solutions

- Implementation of a local sourcing strategy for materials used on site and in the development
- Use of materials rated A+ to D in the Green Guide
- Minimise air pollution from roads and buildings by planting trees and shrubs
- Encourage water recycling
- Encourage surface water drainage systems that slow down the run-off rates to rivers/watercourses

Table 6 Natural Resources targets and measures

	Targets and measures	Reference	Further information
	<p>Water conservation</p> <p>Consideration is being given to harvesting roof water for use for landscaping purposes, but it is too early in the design stage to say what percentage might be utilised. Consideration is also being given to use of rainwater inside homes.</p> <p>In accordance with the Code for Sustainable Homes Strategy it is expected that water butts will be connected to Rain Water Pipes (RWP) for all dwellings.</p>	BRE_SC_5.3_b	See: Appendix B: CSH pre-assessment (CarbonPlan)
	<p>Sustainable drainage</p> <p>A ground survey has been conducted. The results of which state that the site is underlain by clay and as such implementing sustainable drainage practices will be a challenge.</p>	BRE_SC_5.4_a	
Policy	<p>Sustainable Drainage</p> <p><i>Development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the</i></p>	LP Policy 5.13 A	It is known that 30m of clay underlays the site and will therefore infiltration techniques may not be feasible. It is also known that there are no watercourses in the nearby area, nor are there storm sewers.

	Targets and measures	Reference	Further information
	<p><i>following drainage hierarchy:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>store rainwater for later use</i> <input type="checkbox"/> <i>use infiltration techniques, such as porous surfaces in non-clay areas</i> <input type="checkbox"/> <i>attenuate rainwater in ponds or open water features for gradual release</i> <input type="checkbox"/> <i>attenuate rainwater by storing in tanks or sealed water features for gradual release</i> <input type="checkbox"/> <i>discharge rainwater direct to a watercourse</i> <input type="checkbox"/> <i>discharge rainwater to a surface water sewer/drain</i> <input type="checkbox"/> <i>discharge rainwater to the combined sewer.</i> <p>The proposed development will meet the above policy requirement where practical and feasible. This will be based on the findings and recommendations of the ground survey, drainage report and ecology survey. Rainwater attenuation may be possible through storing rainwater in tanks or sealed water features for gradual release.</p> <p>It is expected that water butts will be connected to Rain Water Pipes (RWP) where properties have gardens. Additionally, green/brown roofs will be incorporated under Photovoltaic (PV) panels where feasible.</p>		

	Targets and measures	Reference	Further information
	<p>Furthermore SNCI designation relates to the importance of grassland and slow worms habitats such that the Council would not favour the introduction of new habitats in the form of ponds or open water features</p>		
	<p>Water Quality and Wastewater Infrastructure</p> <p><i>Development proposals must ensure that adequate wastewater infrastructure capacity is available in tandem with development.</i></p> <p>Wastewater infrastructure capacity is available.</p>	<p>LP Policy 5.14 B</p>	
	<p>Water Use and Supplies</p> <p><i>Development should minimise the use of mains water by:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>incorporating water saving measures and equipment</i> <input type="checkbox"/> <i>designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day.</i> <p>The proposed development aims to achieve an indoor water use target of 105 litres/per person/per day or less. This will be achieved through a mix of measures including the installation of dual flush cisterns, 4l/min restricted flow basin taps, baths with a 149 litre capacity to overflow, showers restricted to 7 l/min and kitchen taps restricted to 5 l/min.</p>	<p>LP Policy 5.15 B</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
	<p>Waste Capacity</p> <p><i>Suitable waste and recycling storage facilities are required in all new developments.</i></p> <p>Sufficient space will be provided for waste and recycling storage facilities. This means making provision for waste containers provided by Camden Borough Council. Compost bins will also be provided in rear gardens of houses.</p>	<p>LP Policy 5.17 E</p>	
	<p>Construction, Excavation and Demolition Waste</p> <p><i>Ensure that major development sites are required to recycle CE&D waste onsite, wherever practicable, supported through planning conditions.</i></p> <p>Linden Wates are committed to complying with this policy and will endeavour to recycle as much CE&D waste onsite as is feasible.</p>	<p>LP Policy 5.18 A</p>	<p>More details will be given at the subsequent design stage.</p>
	<p>Materials</p> <p><i>50% timber and timber products from Forest Stewardship Council (FSC) source and balance from a known temperate source. 90% would meet preferred standards.</i></p> <p>Linden Wates will ensure that sourcing of timber materials will conform to London and Camden policy requirements.</p>	<p>LSD&C_SPG 2.3.3</p>	<p>More details will be given at the subsequent design stage.</p>

	Targets and measures	Reference	Further information
	<p>Materials</p> <p><i>Insulation materials containing substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming must not be used.</i></p> <p>Linden Wates are committed to complying with this policy requirement.</p>	<p>LSD&C_SPG 2.3.3</p>	<p>More details will be given at the subsequent design stage.</p>
	<p>Waste</p> <p><i>Provide facilities to recycle or compost at least 35% of household waste.</i></p> <p>Facilities and storage space will be provided for all units to allow for at least 35% of household waste to be recycled.</p>	<p>LSD&C_SPG 2.7.2</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>
	<p>Collecting rain water</p> <p><i>The Council will require buildings with gardens or landscaped areas that require regular maintenance to be fitted with water butts.</i></p> <p>It is proposed that buildings with gardens or landscaped areas will be fitted with water butts</p>	<p>SCPG3_7.8</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
	<p>Managing existing resources</p> <p><i>All developments should aim for at least 10% of the total value of materials used to be derived from recycled and reused sources. This should relate to the WRAP Quick Wins assessments or equivalent as (highlighted in the waste hierarchy information section below). Special consideration will be given to heritage buildings and features to ensure that their historic and architectural features are preserved.</i></p> <p>Major developments are anticipated to be able to achieve 15 - 20% of the total value of materials used to be derived from recycled and reused sources. Linden Wates are committed to meeting this policy requirement.</p>	<p>SCPG3_8.5</p>	<p>More details will be provided at the subsequent design stage.</p>
	<p>Surface Water</p> <p><i>All developments are expected to manage drainage and surface water on-site or as close to the site as possible, using Sustainable Drainage Systems (SUDS).</i></p> <p><i>The Council will expect developments to achieve a greenfield surface water run-off rate once SUDS have been installed. As a minimum, surface water run-off rates should be reduced by 50% across the development.</i></p>	<p>SCPG3_11.4</p>	

	Targets and measures	Reference	Further information
	<p>Plans and application documents to describe how water will be managed within the proposed development at Gondar Gardens will be submitted to the London Borough of Camden. This will include an explanation of the proposed SUDS, the reasons why certain SUDS have been ruled out and detailed information on materials and landscaping.</p>		
	<p>Water</p> <p><i>The Council will require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding by: incorporating water efficient features and equipment and capturing, retaining and re-using surface water and grey water on-site.</i></p> <p>Linden Wates are committed to meeting this policy requirement. The re-use of rainwater through the installation of water butts and water efficient bathroom and kitchen fixtures will assist in meeting the requirements.</p>	<p>CDP_DP23_b</p>	
	<p>Water</p> <p><i>The Council will require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding by: limiting the amount and rate of run-off and waste water entering the combined storm water and sewer network.</i></p>	<p>CDP_DP23_c</p>	

	Targets and measures	Reference	Further information
	<p>Linden Wates are committed to meeting this policy requirement and will endeavour to reduce the pressure on the combined sewer network through using appropriate techniques. Possible techniques could include minimising the use of impervious surfaces and attenuating rainwater by storing in tanks or sealed water features for gradual release.</p>		

5.6 Ecology

Overview



Background

The adverse impact of construction on wildlife and their habitats can be severe. The ecological value of any site should be established by a survey carried out by a recognized expert. Measures to enhance the ecological value of a site can then be proposed in the development. This may include landscaping; protecting the most important ecological attributes; creating new habitats and wildlife corridors, woodlands and wetlands.

Solutions

- A full ecological survey and development of a mitigation and enhancement strategy
- Plant locally occurring native trees and shrubs as specified in LPAP or BAP
- Preparation of a Landscape and Open Space strategy

Table 7 Ecology targets and measures

	Targets and measures	Reference	Further information
Checklist	<p>Conservation</p> <p>A full ecological survey of species habitats and significant natural features has been carried out by a suitable qualified ecologist. All the key recommendations taken from this survey will be carried out and a third of the additional recommendations will be carried out.</p>	BRE_SC_6.1_a	The majority of the site will not be developed and will be turned over to grassland limiting the negative impact the development may have on the ecology of the site.
	<p>Planting</p> <p>Advice from a qualified landscape architect has been sought and will be included in designs for the development.</p>	BRE_SC_6.3_a	
Policy	<p>Renewable Energy</p> <p><i>All renewable energy systems should be located and designed to minimise any potential adverse impacts on biodiversity, the natural environment and historical assets, and to avoid any adverse impacts on air quality.</i></p> <p>The assessment of appropriate renewable energy systems takes into consideration the above potential impacts and a decision is made where minimal disruption is placed upon biodiversity, the natural environment and air quality.</p>	LP Policy 5.7 D	<p>See:</p> <p>Appendix A: Energy Strategy (CarbonPlan)</p> <p>Photovoltaic (PV) panels have been recommended in the Energy Strategy as one of the comparative advantages of PV is the limited impact on the existing natural environment.</p>

	Targets and measures	Reference	Further information
	<p>Urban Greening</p> <p><i>Development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm. Elements that can contribute to this include tree planting, green roofs and walls, and soft landscaping.</i></p> <p>Linden Wates is committed to meeting this policy requirement and will work to meet the target in consultation with the appointed ecologist and landscape architect. Linden Wates will employ the use of brown and green roofs where feasible.</p>	<p>LP Policy 5.10 C</p>	<p>See: Phase 1 Habitat Survey (JBA Consultancy Services Ltd)</p>
	<p>Green Roofs and Development Site Environs</p> <p><i>Major development proposals should be designed to include roof, wall and site planting, especially green roofs and walls where feasible, to deliver as many of the following objectives as possible:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>adaptation to climate change (i.e. aiding cooling)</i> <input type="checkbox"/> <i>sustainable urban drainage</i> <input type="checkbox"/> <i>mitigation of climate change (i.e. aiding energy efficiency)</i> <input type="checkbox"/> <i>enhancement of biodiversity</i> <input type="checkbox"/> <i>accessible roof space</i> 	<p>LP Policy 5.11 A</p>	

	Targets and measures	Reference	Further information
	<p><input type="checkbox"/> <i>improvements to appearance and resilience of the building growing food.</i></p> <p>Linden Wates will employ the use of brown and green roofs where practical. It is feasible that brown and green roofs can be placed under Photovoltaic (PV) panels.</p>		
	<p>Biodiversity and access to nature</p> <p><i>Development Proposals should:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>wherever possible, make a positive contribution to the protection, promotion and management of biodiversity</i> <input type="checkbox"/> <i>prioritise assisting in achieving targets in Biodiversity Action Plans (BAPs) and/or improving access to nature in areas deficient in accessible wildlife sites</i> <p>Recommendations outlined in the ecology survey will be followed. It is foreseen that where recommendations are followed the ecological value of the site could be increased.</p> <p>It was considered unlikely that the proposed development would significantly impact on protected, BAP or rare species.</p>	<p>LP Policy 7.19 C</p>	<p>Recommendations made by the Ecologist have been, and will continue to be, addressed. This includes specific recommendations such as bat boxes for roosting, bird boxes for nesting and incorporating native or wildlife attracting trees to be located on the boundary of the site.</p>

	Targets and measures	Reference	Further information
	<p>Natural Environment and Biodiversity</p> <p><i>No net loss of biodiversity and access to nature on the development site.</i></p> <p>It is proposed that a majority of the site will be turned over to grassland. Recommendations for the grassland area to suitable managed to account for local biodiversity.</p>	<p>LSD&C_SPG 2.6.3</p>	
	<p>Brown roofs, green roofs and green walls</p> <p><i>The Council will expect all developments to incorporate brown roofs, green roofs and green walls unless it is demonstrated this is not possible or appropriate. This includes new and existing buildings.</i></p> <p>Linden Wates will employ the use of brown and green roofs where practical. It is feasible that brown and green roofs can be placed under Photovoltaic (PV) panels.</p>	<p>SCPG3_10.3</p>	
	<p>Council considerations when assessing applications</p> <p><i>A statement of the design objectives for the green or brown roof or green wall details of its construction and the materials used, including a section at a scale of 1:20 planting details, including details of the planting technique, plant varieties and planting sizes and densities a management plan detailed how the structure and planting will be maintained.</i></p>	<p>SCPG3_10.13</p>	<p>More detail will be provided at the subsequent design stage.</p>

	Targets and measures	Reference	Further information
	<p>Linden Wates are committed to complying with the above policy requirement and will work to produce this statement for examination.</p>		
	<p>Biodiversity: Lighting</p> <p><i>Lighting can have particular negative impacts on biodiversity. Unnecessary lighting should be avoided. Where lighting may harm biodiversity timers or specific coloured lighting will be required to minimise any disturbance.</i></p> <p>Lighting will be provided to entrances, including car lift and basement level. Basement lighting will be bulk head lights with cowls to minimise any spillage. External lighting will be LED wall down lighting.</p> <p>External lighting will be sensitively selected to minimise disturbance or negative impacts upon biodiversity. Burglar security lighting to have a max wattage of 150W, PIR devices or daylight cut off sensors. All other security lighting will have daylight cut off sensors or timers.</p> <p>There will be no additional street lighting.</p>	<p>SCPG3_13.24</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
	<p>Air quality and Camden’s Clear Zone</p> <p><i>The Council will require air quality assessments where development could potentially cause significant harm to air quality. Mitigation measures will be expected in developments that are located in areas of poor air quality.</i></p> <p>An Air Quality Assessment has been carried out. The migrating measures identified in the report will be implemented where viable.</p>	CDP_DP32	See: Air Quality Assessment
Code	<p>Ecological Enhancement</p> <p>All key and 30% of additional recommendations to be implemented.</p>	Eco 2	See: Appendix B: CSH pre-assessment (CarbonPlan)

5.7 Community Statement

Overview



Background

Well planned and designed community infrastructure provides places for people to meet and interact as well as meeting specific needs such as attending a meeting or going for a swim. In times of increasing mobility and distance from families, community facilities can help to create a vibrant community of place, rather than a dormitory settlement where people never meet their neighbours and travel elsewhere for leisure and services.

Solutions

- Conduct a social impact assessment
- Engage community through stakeholder events and respond to feedback and opinion
- Provide an information pack with each dwelling to explain sustainability features of the development
- Where there is no existing community, a new development should have a distinct character and identity
- Design developments reducing the opportunity for crime

Table 9 Community targets and measures

	Targets and measures	Reference	Further information
	<p>Community involvement and identity: Community Involvement</p> <p>There is a continuing programme of community involvement which started in July 2010. In respect of the current scheme a public exhibition took place on the 15th October 2013. Further meetings and consultation with community involvement are on-going.</p>	BRE_SC_7.1_b	<p>The purpose of the exhibition held on 15th October 2013 and meeting on 15th October was to discuss the proposals before a planning application was made and to give local people the opportunity to ask questions about the proposal and to give their views of the proposal at this stage.</p>
	<p>Community involvement and identity: Integration with existing community or identity of new community</p> <p>Measures to assist the development of a community with a strong identity include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Addressing safety issues through meeting ‘Secured by Design’ standards. <input type="checkbox"/> Making homes accessible to the widest range of residents and visitors through meeting ‘Lifetime Homes’ standards where this is feasible. <input type="checkbox"/> Providing a mix of housing types and tenure <input type="checkbox"/> Designing housing that reflects the local grain, building materials and scale. 	BRE_SC_7.1_c_i	

	Targets and measures	Reference	Further information
	<p>Community involvement and identity: Enhancement of existing development</p> <p>Does the development significantly enhance the existing area?</p> <p>At this early stage it is difficult to predict the significance of the enhancement, however the proposal would nevertheless enhance the visual amenities of the existing site/surrounding area as well as the open space and biodiversity of the site.</p>	BRE_SC_7.1_d	
	<p>Community involvement and identity: Information pack to homes and businesses</p> <p>A householder's pack with information on the following local services and community issues been provided.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Public transport services <input type="checkbox"/> Local facilities/amenities <input type="checkbox"/> Energy efficiency <input type="checkbox"/> Crime prevention <input type="checkbox"/> Water conservation <input type="checkbox"/> Refuse collection 	BRE_SC_7.1_e	This is in compliance with CSH Man 1.

	Targets and measures	Reference	Further information
	<p>Measures taken to reduce the opportunity for crime: Housing design</p> <p>100% of housing has been designed to 'Secured by design' standards. In compliance with this standard advice will be sought from the police or a recognised expert body on estate layout.</p>	BRE_SC_7.2_a	
	<p>Measures taken to reduce the opportunity for crime: Parking space and walkway design</p> <p>All parking spaces are located in a secure basement and all entrances will be overlooked.</p>	BRE_SC_7.2_c	
Policy	<p>Building London's Neighbourhoods and Communities</p> <p><i>New development should be designed so that the layout, tenure, mix of uses and interface with surrounding land will improve people's access to community infrastructure (including green spaces), commercial services and public transport.</i></p> <p>The proposed development addresses the need for London's neighbourhoods and communities to promote social cohesion. Design proposals therefore include a mix of tenure between affordable housing and housing for private sale, a mix of housing sizes ranging from one bedroom to four bedrooms and include apartments, duplexes and houses.</p>	LP Policy 7.1 B	

	Targets and measures	Reference	Further information
	<p>Secured by Design</p> <p><i>Development should be consistent with the principles of ‘Secured by Design’11, ‘Designing Out Crime’12 and ‘Safer Places’13. It should reduce the opportunities for criminal behaviour and contribute to a sense of security without being overbearing or intimidating.</i></p> <p>The proposed development will be consistent with the principles of ‘Secured by Design’. Architects will consult with a local Crime Prevention Design Advisor (CPDO) or Architectural Liaison Office (ALO).</p>	LP Policy 7.3 B	<p>This fulfills 2 credits under CSH Man 4.</p> <p>Linden Homes are committed to assisting community safety through building design</p>
	<p>Housing Choices</p> <p>Where feasible new housing is built to ‘The Lifetime Homes’ standards, but this is not always possible. Architectural designs will address each of the 16 Lifetime Homes Design Criteria</p>	LP Policy 3.8 B	
Code	<p>Home User Guide</p> <p>A Home User Guide covering operational issues and issues relating to the site and surroundings assembled with the Man 1 checklists parts 1 & 2 will be supplied to each dwelling. The Guide is to be provided in an appropriate format for users. This might include translation into foreign languages, braille, large print or audio cassette/CD.</p>	Man 1	<p>See:</p> <p>Appendix B: CSH pre-assessment (CarbonPlan)</p>

	Targets and measures	Reference	Further information
	<p>Security</p> <p>An ALO/CPDA will be appointed to ensure that the requirements of Section 2- Physical Security of Secured by Design for New Homes are met. Linden Wates commit to follow the advice provided by the ALO/CPDA.</p>	<p>Man 4</p>	<p>See: Appendix B: CSH pre-assessment (CarbonPlan)</p>

6.0 Technical Detail

In addition to this document which sets out the overarching strategy and targets a separate Technical Appendix has been provided which give additional detail on how key targets are to be met. This document includes:

	Appendix	Details
A	Energy Strategy	Summarises the energy strategy for the development detailing fabric efficiency standards and low and zero carbon technologies needed to meet the energy targets.
B	Code for Sustainable Homes Pre-Assessment Report	Report on findings of the Code Pre-assessment with details of how Level 4 for can be achieved and demonstrating commitment from the client to achieve these rating.

Flexibility through the detailed design process is important and so the information in these sections is provided only to show how the targets could be achieved and are based upon the design proposals as they stand. These documents do not represent a firm commitment to use the exact specifications shown nor to achieve the exact credit scores given; rather they are put forward to give an indication of how the targets set out can be achieved.