SUSTAINABILITY STATEMENT

In Support Of The Application For The Construction Of
1No Detached Dwelling
LAND TO THE FRONT OF 131a SATCHELL LANE, HAMBLE

This report is submitted in support of the Planning Application for the construction of a 3No bed detached dwelling on the land to the front of 131a Satchell Lane, Hamble.

This document intends to set out the basic structure of steps taken to improve the environmental performance of the proposed dwelling; including reducing the impact the proposals have on the environment and providing an efficient building for the end user.

This statement has not been undertaken by an accredited CSH Assessor but is an informal assessment of how the dwelling would likely comply with the CSH and is therefore structured to address the same categories within the Code, as well as considering Eastleigh Borough Council's Supplementary Planning Document 'Environmentally Sustainable Development' as adopted by the Local Plan.

ISSUE REQUIRING CODE FOR SUSTAINABLE HOMES CERTIFICATES

ESD 1 Minimum Code for Sustainable Homes & BREEAM Requirements
What level of the Code for Sustainable Homes will the residential development be designed to achieve?

It is an Essential Requirement that the development achieves a minimum of Level 3 under the Code for Sustainable Homes (CSH) in both design and post construction phases. In accordance with the Essential Requirement it is confirmed that the proposed dwelling shall achieve at least Level 3 of the CSH. This shall be demonstrated by the submission of an Interim and a Final Stage CSH certificate.

ISSUES REQUIRING SPECIFIC CODE FOR SUSTAINABLE HOMES CREDITS

ESD 3 External Water Consumption
How will the development's landscape area be watered?

The proposed development shall be provided with a minimum of 1No water butt connected to the rainwater down pipe at the rear of the property, accessible for the irrigation of the rear private garden. The overflow of the water butt shall connect into the drainage system as designed by an Engineer. (1No CSH Wat 2 Credit)

ESD 6 CO2 Reduction (Small Scale Zero/Low Carbon Technologies)
By what percentage will carbon emissions from buildings in this development be reduced by means of on-site zero or low carbon energy generation?

Currently no renewable energy sources have been incorporated into the proposals however the requirement for a minimum of 1No Code Ene7 credit, resulting in a 10% reduction in carbon dioxide emissions by use of local low / zero carbon energy, is noted. Should planning permission be granted, full design details shall be discussed with an accredited CSH / SAP assessor to ensure that the most appropriate system for the site be identified and details submitted to the Local Authority for approval. (1No CSH Ene 7 Credit)

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ISSUES REQUIRING OTHER COMPLIANCE CHECKS

ESD 4 Surface Water Runoff
What Sustainable Drainage Systems will be employed to attenuate storm water runoff from the development's roof areas and areas of hard standing?
It is suggested that the surface water to the parking area will drain to the northern boundary of the site and be collected by an acco drain crossing the driveway entrance. The water then will be directed to a soakaway or SUDS system as designed by an Engineer and proven by necessary percolation testing and other such tests deemed necessary by the Local Authority. A similar system is likely to be deemed necessary for the lower garden area at the rear of the property, with the acco drain situated at the folding door thresholds. The upper garden area shall be surfaced using a permeable material allowing surface water to drain directly away through the land.

ESD 5 Passive Solar Heat Gain
How have Developers maximised the potential for passive solar heat gain in their buildings?

The footprint of the proposed building is a square, orientated 7° off of north to align with the natural site layout and surrounding dwellings. The open plan ground floor utilises the light available from the north (partial), east and west elevations however the south elevation proposes minimal openings in order to maintain privacy to the adjacent building. A roof light over the stairwell will also allow natural light to flood down through the centre of the building. Additionally the proposed openings to three sides of the habitable space will allow sufficient cross flow ventilation, keeping the building cool in the summer and healthy in the winter. Further to this the entrance lobby and WC at ground floor and the bathroom and en-suite at first floor are placed to the north side of the building, allowing the majority of habitable space to be located to the usually warmer areas.

Due to the natural site layout the majority of the glazing is located on the west elevation. It is acknowledged that this could cause solar gains during the evenings of the summer months however it is proposed that suitable interior shading is provided to compensate. Additionally the minimal glazing to the south elevation will keep the building cool during the daytime of the summer months, negating the need for supplementary cooling systems. It is also proposed that the roof light above the staircase is open-able to allow a chimney effect that if opened on a summer evening would cause the warm air to rise and escape, drawing in fresher cooler evening air.

ESD 8 Trees
How many trees will be provided in every 30 linear metres of new street and in all communal car parks?

The private external space for the development proposes no removal of shrubs, hedgerows and trees existing on site. It is accepted that under ESD8 there may be a requirement for the inclusion of a minimum of one new tree and this shall be adhered to, seeking advice form a landscape consultant regarding the type and location of a suitable tree and seeking confirmation of approval with the Local Authority.

ISSUES WITH NO ESSENTIAL REQUIREMENT

2.1 Water Consumption
What measures will be taken to maximise water efficiency in buildings?

A Part G water calculation now forms part of the SAP and CSH assessments demonstrates the maximum water consumption litres / per person / per day. Reduced flow taps, low capacity baths and dual flush WCs will be used as a minimum.

3.1 Natural Daylight
How have Developers maximised the potential for natural daylight in their buildings?

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Large windows to all areas of the building have been included within the design, in association with an open plan layout to the living areas that allows light to flood the lower floor and circulation space.

3.3 CO2 Reduction (Improved Energy Efficiency)
What percentage improvement on the maximum carbon emissions allowable under Building Regulations is proposed for the new buildings in this development?

At least the minimum requirements under the Building Regulations and CSH level 3 will be achieved, although high insulation levels, lowered U Values and a reduced air leakage result will possibly improve the DER beyond the requirements.

3.4 CO2 Exterior Lighting
Q.EBC E4a: What measures are proposed to minimise the carbon emissions from external space and security lighting and which Code credits is the development designed to achieve?

Where possible the exterior lighting scheme will use lights and light sensors powered by PV cells. All other lights to be low energy.

Q. EBC E4b: How will the development minimise light pollution from external lights?

The lighting scheme will ensure low energy lights with low output to the parking and external circulation areas of the property to ensure that all areas are sufficiently lit for security purposes but of a level that would not cause disturbance.

3.6 Zero Carbon Residential Developments
What percentage of buildings in this development will be designed to emit net zero carbon emissions annually?
Zero. The development consists of a singular dwelling that will achieve CHS Level 3 or better.

3.7 Natural Ventilation
How will buildings be ventilated?
It is intended that the building will naturally achieve background and purge ventilation by use of trickle vents and open-able windows. Should the requirements of the SAP / CSH or Approved Document Part F of the Building Regulations require a Mechanical system then an MVHR system will be used.

3.8 Drying
What facilities for non-mechanical clothes drying will residents have?
A washing line shall be provided externally for summer time use, whilst the utility room shall be equipped with a retractable line or drying rack to ensure drying space during the winter months.

4.1 Construction Waste
What measures will be taken to minimise construction waste?
It is anticipated that a Site Waste Management Plan, although not mandatory for this site, will be produced, achieving 2 Code Credits Was 2.

4.2 Construction Materials
How many Code or BREEAM Materials credits will the development aim to achieve?
The development will strive to achieve as many Code Credits in this category as possible. All materials to be responsibly sourced where possible. All timber to be FSC certified.

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4.3 Waste Recycling
What measures will be taken to best facilitate waste recycling from the finished development?
A timber structure has been designed into the space to provide storage for recyclable waste. The recyclable waste will be collected at the same time as the other dwellings in the area and a waste collection point has been located at the dwelling boundary for this purpose.

4.4 Composting
What provision is being made to encourage composting in the residential development?
A compost bin shall be provided on the site for small amounts of household compostable waste.

5.1 Green Infrastructure
What elements of green infrastructure are proposed with the development and how will they be managed?
The dwelling will be provided with secure cycle storage to encourage the use of sustainable transport.

6.1 Biodiversity
How many Code FSH or BREEAM Ecology credits is the development designed to achieve for each building type?
The development will aim to achieve as many Code Credits in this category as possible. Native species of plants will be suggested for landscaping purposes in addition to the shrubs that will be retained. No trees are located on site therefore the loss of mature trees is not an issue. Bat and bird boxes will be considered.

6.2 Noise
What measures is the developer proposing to quantify and, where necessary mitigate, the noise impact on the development's occupants?
The property is a detached dwelling, therefore the improved insulation specification and either double or triple glazing (depending on the requirements of the SAP / CSH assessments), combined with the proposed set back from the road and the retention of the hedgerow should all serve to provide a significant reduction in dB from external noise sources should there be cause for concern.

6.3 Private Space
What provision for private or shared space will be made for the development?
The dwelling has been allocated a modest sized rear garden that, by the nature of the site, will be naturally private.

6.4 Lifetime Homes
Is the residential development being designed to comply with all of the Lifetime Homes standards?
It is unlikely the dwelling will be able to comply with ALL Lifetime Homes Standards, although through good design as many as possible will be achieved. Prior to construction, should the proposals be granted Planning Permission, it will be considered how any outstanding standards could be complied with.

6.5 Pollution
What measures will be taken to minimise the pollution impacts of road pollution on the development (if in an air quality management area) and of nitrogen oxides and materials with high Global Warming Potential on the wider environment?

All insulation shall be selected using Green Guide ratings. It is considered feasible to select insulation with a low GWP rating.

A space heating and hot water system with low NOx emissions will be selected.

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7.1 Construction Site Impacts
What measures will be taken to minimise the site impacts during construction?
It is anticipated that Code Credit Man 3 will be achieved, with a number of potential impacts (such as noise pollution, air pollution and dust levels) being monitored. Where possible deliveries to be made using small vehicles at appropriate times.

7.2 Building User Guides
What provision will be made for building or home user guides?
A file shall be compiled during the design and construction phase, this will form part of the buildings user manual which shall be made available to the occupants. (Code Credit Man 1)

7.3 Considerate Constructors Scheme
What level of certification for the Considerate Constructors Scheme (or equivalent) is the development aiming to achieve?
It is anticipated that the construction will be carried out under the Considerate Contractors Scheme with at least a compliance certificated being awarded. This should achieve 2 Code Credits Man 2.

8.1 Major Developments
What further sustainable measures are being proposed if the development is above 500 dwellings in size?
N/A

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