

Code for Sustainable Homes

CSH Build Standards



Date: 5th June 2013
Quote No: CWA10-12
Core Software: 5.4.2 Architect

Dear Sir,

Re: New Build – Judges Lodge, Branch Hill

The CSH assessment for the above property is now complete. The property has achieved level 4 with the information detailed below. Can you please review this information and let me know if you are happy with them.

If you require any amendments to the information or have any quires please do not hesitate to contact me.

Yours Sincerely



James Rivers

*These are mandatory elements and must be achieved to gain any code level or the whole Code process will fail



CSH Assessment
Re: New Build – Judges Lodge, Branch Hill
Build standards

Code level achieved:

| Total percentage points score | Code level |
|-------------------------------|------------|
| 36 | 1 |
| 48 | 2 |
| 57 | 3 |
| 68 | 4 |
| 84 | 5 |
| 90 | 6 |

| | Credits |
|--|---------|
| <p>Ene 1* <u>Dwelling emission rate</u> The property must achieve a 25% reduction in CO² emission.</p> <p>Information supplied from the SAP assessment and based on achieving DER/TER compliance.</p> | 5.5 |
| <p>Ene 2 * <u>Fabric energy efficiency</u> The minimum FEE required is 60 kWh/m²/year for a Detached property.</p> <p>Information supplied from the SAP assessment and based on improving insulation levels & air tests results above minimum standards.</p> | 3.6 |
| <p>Ene 3 <u>Energy Display Devices</u> An energy display device for electricity consumption. The device must display the following.</p> <ul style="list-style-type: none"> • Local time • Current mains energy consumption kilowatts/hours • Current emissions in (g/kg CO₂) and current • Tariff chosen by the client. • Current cost in pound and pence: If pre-payment system it needs to show real data. For credit paying customers cost should be displayed on a monthly basis. • Display accurate account balance information (amount in credit or debit) • Visual data to allow the identification of high and low usage, this maybe ‘non- numeric’ • Historical consumption data for comparison usage (day/ week etc) this should include cumulative consumption data in any of the following | 2.0 |

| forms day/week/month/billing period | |
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| <p>Ene 4 <u>Drying Space</u> A secure external drying line to the rear of the property.</p> <ul style="list-style-type: none"> The property must have a washing line of 6 meters +. <p>If an internal drying space is required please can you inform me.</p> | 1.0 |
| <p>Ene 5 <u>Energy Labelled White Goods</u> 'A+' rated fridge/ freezer, and 'A' rated washing machine and dishwasher are supplied to the dwelling. All white goods must be part of the EU energy efficiency labelling scheme.</p> <p>In addition, a copy of the EU energy efficiency labelling scheme leaflet must be supplied to all dwellings.</p> | 2.0 |
| <p>Ene 6 <u>External Lighting</u> The dwellings will only use space lighting and not security lighting.</p> <p>The space lighting will only be capable of accepting lamps with an efficiency of 40 lumens or greater per circuit watt and have an appropriate control system. For example, PIR or daylight sensors. For example, a tubular fluorescent light with PIR or daylight sensors.</p> | 2.0 |
| <p>Ene 7 <u>Low and Zero Carbon Technologies</u> None</p> | 0.0 |
| <p>Ene 8 <u>Cycle Storage</u> The property will require adequate storage facilities / space for 4 cycles '7m Long X 7.7 m Wide' if stored within the double garage.</p> <p>A proprietary system will be required to the sizes above to ensure that each bike can be secured / removed independently.</p> | 2.0 |
| <p>Ene 9 <u>Home Office</u> A wall length of 1.8m is required with a large window for daylight and ventilation. The room must also have 2 double power sockets, one / two telephone points, with broadband connection point. Confirmation that cable or broadband is available at the address.</p> <p>The room must achieve a daylighting factor of 1.5% and have a window open casement of 0.5m²</p> <p>Please Note: Can you let me know which room you want to put the home office within. A suitable room maybe a guest room, bar /games room</p> | 1.0 |

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| <p>Wat 1* <u>Indoor Water Use</u> The property must achieve a water consumption of equal or less than 105 litres/per person/per day.</p> <p>Confirmation of compliance is required by providing a list of all the applicable items installed.</p> | 3.0 |
| <p>Wat 2 <u>External Water Use</u> None – Unless the pool is filled be using appropriately treated 100% rainwater or 100% greywater</p> | 0.0 |
| <p>Mat 1 * <u>Environmental Impact of Materials</u> A minimum of three elements of the property must achieve a Green guide rating between A+ and B. Elements include wall, window, roof, ground floor and internal walls.</p> | 10.0 |
| <p>Mat 2 <u>Responsible Sourcing of Materials Basic Building Elements</u> None</p> | 0.0 |
| <p>Mat 3 <u>Responsible Sourcing of Materials Finishing Elements</u> None</p> | 0.0 |
| <p>Sur 1 * <u>Management of Surface Water Run-off from Development</u> A qualified hydrologist is required. Mandatory elements are required which will be satisfied by the hydrologist will guide.</p> <p>The report must also suggest that rainfall depth of 5mm will not discharge to water course and run-off water shall receive appropriate levels of treatment to achieve the credits.</p> | 2.0 |
| <p>Sur 2 <u>Flood Risk</u> A qualified hydrologist is required to assess the flood potential of the area. If the site has medium or high flood potential appropriate measure to reduce the risk must be incorporated.</p> | 2.0 |
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| <p>Was 1 * <u>Storage of Non-recyclable Waste and Recyclable Household Waste</u> The CAT 5.1 and IDP checklist must be completed.</p> <p>A minimum of 380 litres is required for general household waste. Must be easily accessible, usable and have a solid footing.</p> <p>In addition, if the local authority use before sorting three internal recycling bins are required with a minimum total capacity of 30 litres. For example, 10 litres paper, 10 litres plastic and 10 litres cardboard. Or if after sorting a single bin of 30 litres is required. Both types must be fixed to the inside of a kitchen unit to avoid removal and must be within 10 metres of the general waste bin.</p> <p>(Further information is required about the type of local authority scheme that is provided).</p> | 4.0 |
| <p>Was 2 <u>Construction Site Waste Management</u> A Site Waste Management Plan containing benchmarks, commitments and procedures for waste minimisation and diverting 50% of waste from landfill.</p> <p>Must be inline with Checklist WAS 2a 2b & 2c or using the SWMP's website or competent external source.</p> | 2.0 |
| <p>Was 3 <u>Composting</u> An external composting bin that is easily accessible, useable and away from windows and ventilation systems i.e. extracts. An internal composter of 7 litres is also required</p> <p>In addition, a guide for usability must accompany the composter; we can provide further guidance when required.</p> | 1.0 |
| | |
| <p>Pol 1 <u>Global Warming Potential (GWP)</u> All insulants within the building have a GWP factor of less than 5 (Only use blowing agents like air, CO2, pentane and avoid foamed glass, expanded polystyrene. For the list please contact me.</p> | 1.0 |
| <p>Pol 2 <u>NOx emissions</u> None</p> | 0.0 |
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| <p>Hea 1 <u>Daylight</u> Can be carried out by CSH assessor/ architect or competent person.</p> <p>Rooms within the property must achieve a minimum daylight factor to achieve the credits. The use of large windows to the kitchen, living room, dining room, and home office is required.</p> | <p>2.0</p> |
| <p>Hea 2 <u>Sound insulation</u> Credits achieved (Detached)</p> | <p>4.0</p> |
| <p>Hea 3 <u>Private Space</u> Private garden space with clearly definable boundaries. I.e. hedge or fence.</p> | <p>1.0</p> |
| <p>Hea 4 <u>Lifetimes Homes</u> Required. All 16 of the criteria must be satisfied (CSH can provide documentation).</p> <p>Note: I will require the 16 criteria of Lifetimes Homes to be incorporated into the architect's plans.</p> | <p>4.0</p> |
| | |
| <p>Man 1 <u>Home User Guide</u> Must fulfil the requirements in both Checklist Man 1 part 1 / part 2 and must be available other formats i.e. large print, Braille.</p> <p>Contents should consist of the below:</p> <p><u>Operational Issues</u> Environmental strategy / design and features Energy Water Use Recycling & Waste Sustainable DIY Emergency Information Links Reference & Further Information Provision of information in alternative formats</p> <p><u>Site and Surroundings</u> Recycling & Waste Sustainable (Urban Drainage Systems (SUDS) Public Transport Local Transport Local Amenities Responsible Purchasing Emergency Information Links, References & Further Information</p> | <p>3.0</p> |

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| <p>Man 2 <u>Considerate Constructors Scheme</u> Required on site. Best practise is required only with a final score of between 24 – 31.5 with a score of 3 in each section. Sign up the site before work starts</p> | 1.0 |
| <p>Man 3 <u>Construction Site Impacts</u> The site must monitor, report and set targets for CO2 production or energy use from the site & water consumption from the site. (Targets and templates available from www.kpizone.com) Sign up before work starts</p> <p>The site must also adopt best practise for air / water pollution arising from the site in accordance with the pollution prevent guide and BRE control and dust publication.</p> <p>The CSH can provide guidance on how to achieve best practise but it is up to the architect / builder to ensure that the dwelling implements this.</p> | 2.0 |
| <p>Man 4 <u>Security</u> The site must achieve a secure by design certificate. I have attached the SBD document, please contact either your local crime prevention office or Architectural Liaison Officer (ALO). Their thoughts need to be incorporated into the design of the dwelling. Section 2 of the SBD is required.</p> | 2.0 |
| <p>Eco 1 <u>Ecological Value of Site</u> A qualified ecologist is required to confirm the ecological value of the site. Potentially completed by the CSH assessor</p> | 1.0 |
| <p>Eco 2 <u>Ecological Enhancement</u> The recommendation from the ecologist to enhance the site, and an additional 30% of their recommendation are incorporated into the design stage.</p> | 1.0 |
| <p>Eco 3 <u>Protection of Ecological Features</u> Linked to Eco 1- A qualified ecologist or CSH assessor will identify the site as low value or will suggest ways to protect and maintain any key features.</p> | 1.0 |
| <p>Eco 4 <u>Change in Ecological Value of Site</u> Minor Enhancement: greater than 3 and less than or equal to 9 (Ecologist will provide guidance)</p> | 3.0 |
| <p>Eco 5 <u>Building Footprint</u> A house ratio of 3:1 achieved.</p> | 2.0 |
| Code Level 4 Achieved | '68' points obtained |

Standard Assessment Procedure

SAP Build Standards



Date: 5th June 2013
Quote No: CWA10-12
Plan Assessor: Architects 5.4.2

Dear Sir,

Re: Judges Lodge Branch Hill Hampstead

The SAP calculations for the above properties are now complete. The details used to produce the calculations are attached. Can you please review the details and let me know if they are acceptable.

Please note: We have managed to get the property to achieve Code level 4 without PV however, we have needed to make some assumptions regarding the U-values. Can you please review the u-values and ensure they are achieved or we will require PV for the property.

Yours Sincerely

A handwritten signature in blue ink, appearing to read 'Glenn Shewan'.

Glenn Shewan

Build Standards

Re: Judges Lodge Branch Hill Hampstead

Wall Construction

External Wall U-value = 0.25 W/m²K
As Specified

Sheltered Basement Wall U-value = 0.25 W/m²K
As Specified

Floor Construction

Ground Floor U-value = 0.15 W/m²K
As Specified

Roof Construction

Flat Roof U-value = 0.16 W/m²K
As Specified

Heating System / Controls

ASHP

- **Boiler:** Make & model to be confirmed
- **Minimum Efficiency:** 250%

Flue gas heat recovery system: None

Compensator: None

Emitter: Underfloor

Time and temperature zone control

Water Heating

From main space heating, 300 litre tank, 2.50 kwh / day heat loss

Secondary Heating

None

Ventilation

Air permeability of 3 M³/hM². Therefore, an air test is required on completion.

Mechanical Ventilation Unit:

- **Duct Type:** Rigid Ductwork
- **Specific Fan Power:** 0.83 W/l/s
- **Heat Exchange Efficiency:** 87%
- **Recommended product:** Nuaire MRXBOX95-WH1

Other

Windows / rooflights require a U-value of 1.40 W/m²K. (Windows must be double glazed and have a hard or soft Low-E coating.)

Doors require a U-value of 1.80 W/m²K.

100% low energy lighting required throughout the property.

Accredited construction details are required.

Renewables: None

Please Note:

- Any doors to the attic storage area must be sealed / locked in place to ensure air tightness.