## Code for Sustainable Homes **D/C**

## **Preliminary Report - for Planning**

INCLUDING CURRENT STATUS, ASSUMPTIONS & BASIS FOR DATA, AND EVIDENCE REQUIRED TO ACHIEVE TARGET CODE LEVEL

## PROPOSED NEW FLATS AT THE LODGE, COLLEGE PLACE, HIGHGATE ROAD, LONDON NW5 1BS for TRIDENT PROPERTY DEVELOPMENTS

Issue date: 27.07.2007

BRE Reference no: Pending confirmation from CSH at the BRE





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### Background

Full Code for Sustainable Homes Technical Guidance can be downloaded from the Code for Sustainable Homes webpage at www.planningportal.gov.uk. If you notice any errors or experience any difficulties when using the tool, you can report the problem at csh@bre.co.uk writing Code Tools in the title or body of text.

The pre-assessment estimator tool allows an evaluation of the potential rating achievable under a formal Code for Sustainable Homes assessment for a single dwelling type.

Several dwellings on the same site may achieve different levels and scores. Under a formal assessment, where there are any differences in how any of the credits are achieved, a new dwelling type must be created. However, a new pre-assessment estimator should only be created where there are changes between dwellings that affect any individual credit score.

Development Name:

The Lodge, College Place, Highgate Road, London NW5 185

**Dwelling Description:** 

Worst case 3-bed 5-person mansard roof apartment CURRENT STATUS

PREDICTED RATING - CODE LEVEL: No Level

Breakdown:

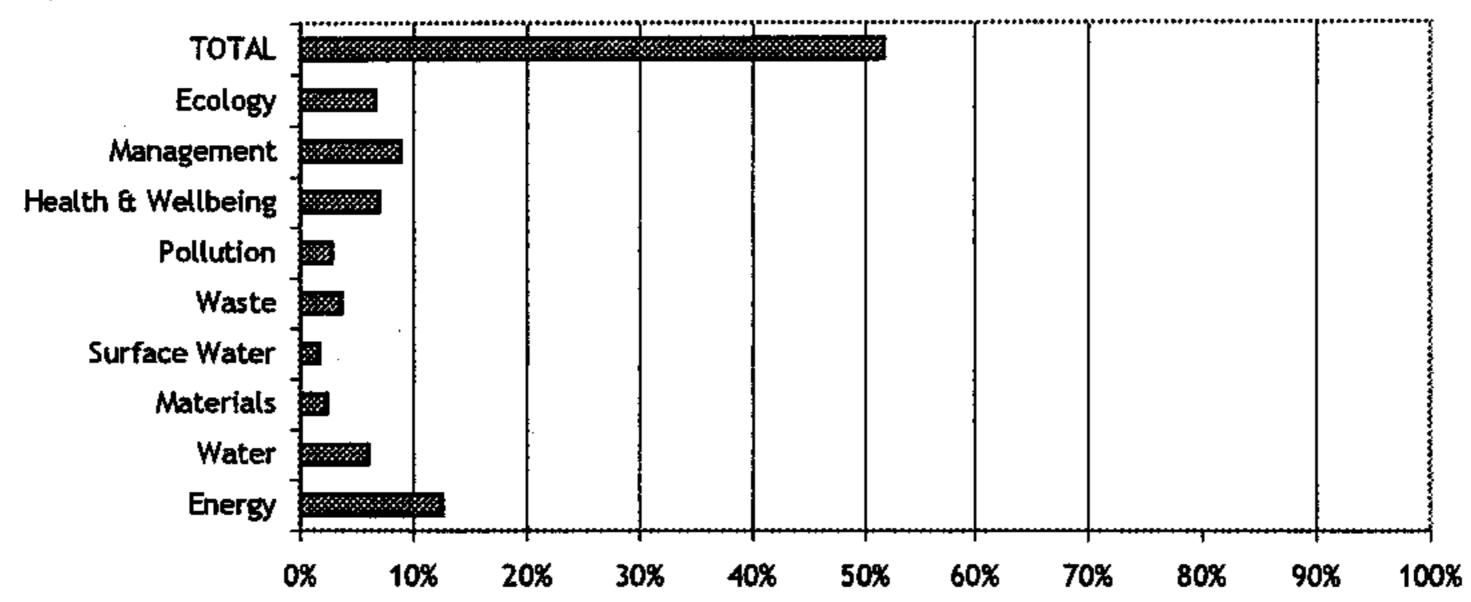
Energy - Code Level: No Level

Mandatory Requirements: Not met

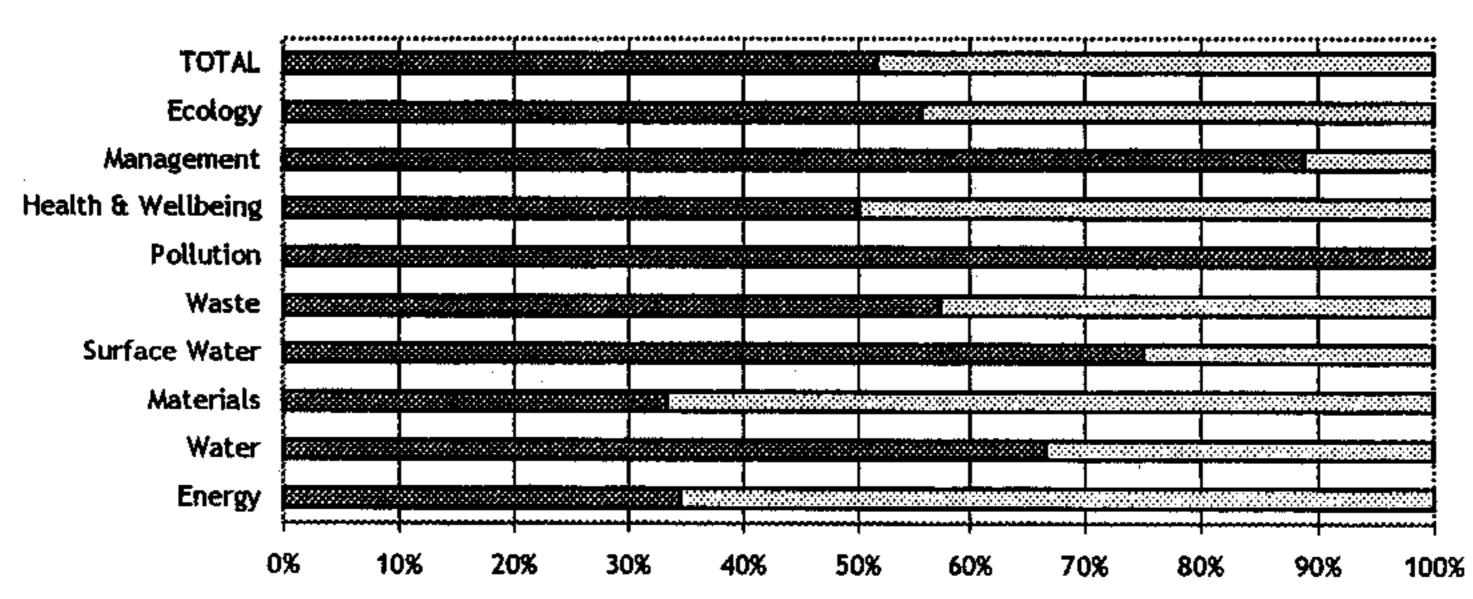
Water - Code Level: 4

% Points: 51.61% - Code Level: 2

Graph 1: Predicted contribution of individual sections to the total score



Graph 2: Predicted percentage of each credit and total score achievable



NOTE: The rating obtained by using this Pre Assessment Estimator is for guidance only. Predicted ratings may differ from those obtained through a formal assessment, which must be carried out by a licensed Code assessor.

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Background

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The pre-assessment estimator tool allows an evaluation of the potential rating achievable under a formal Code for Sustainable Homes assessment for a single dwelling type.

Several dwellings on the same site may achieve different levels and scores. Under a formal assessment, where there are any differences in how any of the credits are achieved, a new dwelling type must be created. However, a new pre-assessment estimator should only be created where there are changes between dwellings that affect any individual credit score.

Development Name:

The Lodge, College Place, Highgate Road, London NW5 1BS

**Dwelling Description:** 

'Worst case' apartment RECOMMENDATIONS TO ACHIEVE TARGET LEVEL

## PREDICTED RATING - CODE LEVEL: 3

Breakdown:

Energy - Code Level: 3

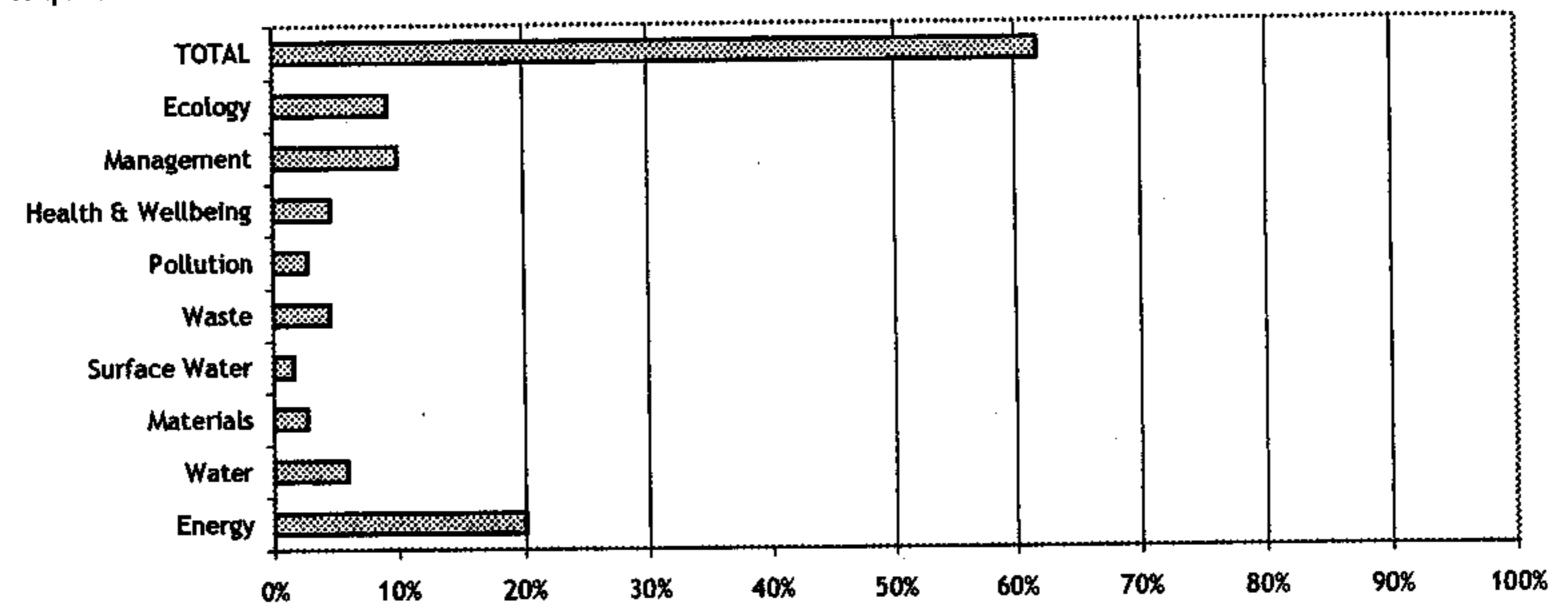
Water - Code Level: 4

Mandatory Requirements: All met

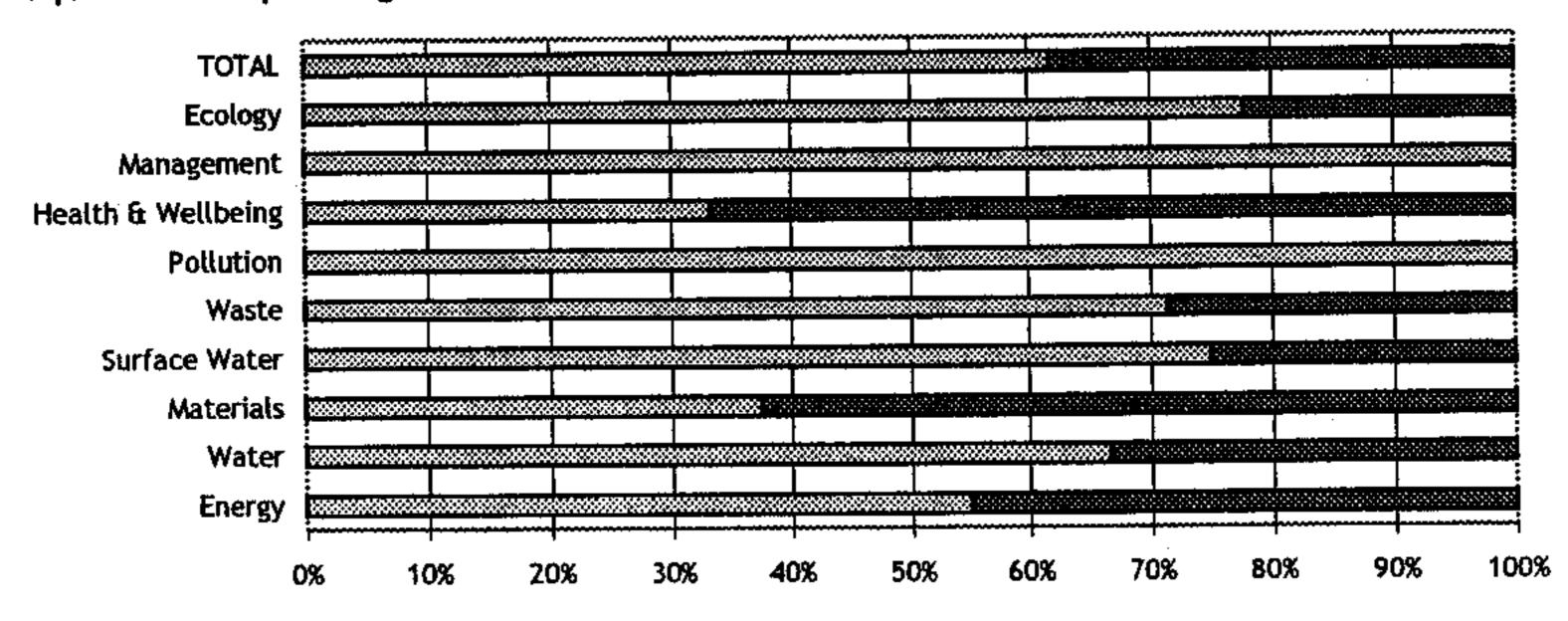
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% Points: 61.80% - Code Level: 3

Graph 1: Predicted contribution of individual sections to the total score



Graph 2: Predicted percentage of each credit and total score achievable



NOTE: The rating obtained by using this Pre Assessment Estimator is for guidance only. Predicted ratings may differ from those obtained through a formal assessment, which must be carried out by a licensed Code assessor.

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| CATEGOR  |                                      |  | et j        | Overall Score    | 61.80<br>Level |  |
|--|--------------------------------------|--|-------------|------------------|----------------|--|
| <b>4.7</b> 1000000000000000000000000000000000000 |                                      | ins Predicted: 55%   |             |                  |                | Atsymptions Made   |
|  | the Dw<br>(TER) a<br>Code to         | 14% Improvement 18 % Improvement 22% Improvement 25% Improvement 31% Improvement 37% Improvement 44% Improvement 52% Improvement 60% Improvement 69% Improvement | ission Rate | \$ of 15 Credits | Level 3        | High u-values assumed to achieve Code level 3. Assumptions to achieve Level 3 reduction in CO2 emissions(SAP version 2):- U-values: wall 0.17; Roof 0.1; windows 1.4; door 1.5; Air permeability 4;Gas system condensing combi boiler efficiency 91% with programmer, room thermostat and TRVs on radiators; Aperture area of solar panel 2.4 m², 70 litres solar store; 75% low-e lighting. DER 17.82.  |
| Ene 2<br>Building<br>Fabric                      | OR<br>OR<br>OR<br>Credits<br>obtains | 89% Improvement<br>100% Improvement  | 0<br>0<br>0 |                  | ** <u>.</u>    | Brick cavity. Full fill insulation to achieve Building Regs this is insufficient to satisfy the Code requirements. Higher level improvements required by Ene 1 will assume better HLP score. In this worst case the SAP 2005 calculation obtained is 1.18 so one credit can be awarded.  |
|  |                                      | Greater than 1.30 Less than or equal to 1.30   | 0 0         | 1 of 2 Credits   | <b>-</b>       |  |
| Ene 3<br>Internal<br>Lighting                    | energy<br>dweltir                    | lect the % of dedicated energy efficient lighting ————————————————————————————————————   |             | 2 of 2 Credits   | •              | Low-e lights throughout with task lights in kitchen. Fittings that comprise of the lamp, control gear, and an appropriate housing, reflector, shade or diffuser. The fitting must be dedicated in that it must be capable of only accepting lamps having a luminous efficacy greater than 40 lumens per circuit Watt. The fixing must be permanently fixed to the ceiting or wall. Compact or tubular fluorescent lighting fittings would normally meet this requirement. Lighting fittings for GLS tungsten lamps with bayonet cap or Edison screw bases, or tungsten halogen lamps would not comply. |
|  | OR                                   |  | <u> </u>    |                  |                |  |

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| Ene 4  | One credit is awarded for the provision of either internal or  |                | Tidy dry lines over bath or in wetroom. Adequate, controlled ventilation, complying with Building  |
|--|--|----------------|--|
| Drying Space                                   | external drying space with posts and footings, or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for                              |                | Regulations AD F (Ventilation). The fixing/ fitting needs to be a permanent feature of the room.   |
|  | dwellings with 3 bedrooms or greater.  |                |  |
|  | Will drying space meeting the criteria be provided?  |                |  |
|  | Yes ⊕<br>OR No O   | 1 of 1 Credits |  |
| Ene 5<br>Energy<br>Labelled<br>White Goods     | Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme or White Goods with the ratings stated below: |                | A+ rated fridge, 'A' rated 45 litre/use washing machine and 'A' rated 15 litre/use dishwasher. End labelling information in handover pack.   |
|  | Select the appropriate option below  |                |  |
|  | EU Energy tabelting information  | •              |  |
|  | OR A+ Rated Fridges and Freezers   | 2 of 2 Credits | -  |
|  | AND/OR A Rated washing machines & dishwashers  |                |  |
|  | AND B Rated Washer dryers and tumble dryers  |                |  |
| Lighting                                       | appropriate control gear.  Space Lighting  None provided  OR Non Code compliant lighting  OR Code compliant lighting   | 1 of 1 Credits | controlled by time clock or daylight sensor. Hallways, landings, stairwells, internal corridors and to have dedicated fluorescent fittings, controlled by push button time switches/ PIR sensors or equivalent. Communal rooms e.g. laundries, cycle and other storage spaces etc. to have dedicat fluorescent fittings & manual switching or occupant sensors. Security (Burglar) lighting to have + PIRs + daylight sensors. |
|  | OR Code compliant lighting and controls  | 1 of 1 Credits |  |
|  | Credits are awarded where either 10% or 15% of the dwellings heating energy requirements (SAP 2005) are met by low or zero                                     |                | Some on-site renewables required to help increase the SAP ratings in Ene1 but no feasibility stu-<br>commissioned although contribution from solar thermal flat plate or evacuated tube technolog-<br>contribute 10% of demand. The Code requires a more rigorous approach to renewables to ensur  |
| Ene 7<br>Low or Zero<br>Carbon<br>Technologies | carbon technologies. Note that where funding has not been  |                | appropriate technology is used for the site and its specific conditions. No credit can be assume stage.  |

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| lstie                   |   | Credits        | Level | Assumptions Made Two cycle spaces allocated for Top Floor 3-bed Mansard apartment.  |
|-------------------------|---|----------------|-------|---|
| Fne 8 Cycle             | Credits are awarded where safe, secure and weather proof cycle storage is provided according to the Code requirements.  Fill in the development details below |                |       | Two cycle spaces allocated for floor 3-bed mainsard apartment.  4no. other cycle spaces allocated for 4no. x 1-bed flats and 8no.further cycle spaces for 4no. x 2-bed flats giving a total of 14no. cycle spaces in communal storage area.  NB - See Appendix A for Cycle storage and minimum area requirements. |
|                         | Number of bedrooms:  Number of cycles stored per dwelling  Will the storage be communal?  | 2 of 2 Credits |       |   |
| Ene 9<br>Home<br>Office | One credit is awarded for the provision of space for a home office. The location, space and services provided must meet the Code requirements.                |                |       | Drawings with text (or dwgs + specifications) showing: location, type and size of storage; access to cycle storage; any security measures; details of the proprietary system (if applicable)  OR formal letter giving the specific undertaking.   |
|                         | Will there be provision for a Home Office?  |                |       |   |
|                         | Yes   | 1 of 1 Credits | -     |   |
|                         | OR No   |                |       |   |

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| from a Building Control officer confirming full AD L1A compliance.  A copy of the 'Design stage' Part L1A Building regulations Compliance Checklist' shopy of plans, elevations and sections as designed and construction details suffici |  |
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| Ene 2 - As above in Enei.   |  |
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|   |  |
| all rooms, OR a formal (letter-headed) letter of instruction to a contractor/suppl<br>Manufacturers literature confirming:<br>Dedicated energy efficient light fittings;  | light fittings in all rooms. Text describing on drawings or in specification the location and type of all light fittings in<br>older OR a formal letter from the developer to the Code Assessor giving the specific undertaking. AND |
| Efficacy of less than 40 lumens per circuit watt for any lamp.  |  |
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| Evidence Required  Foe 4 - Design Stage drawings showing & text describing (on dwas or  | r spec.*): Location & type of internal or external drying fixings/footings & posts; Co               | nfirmation of the min. length of drying line: |
|---|--|---|
| Specification of any humidistat controlled extract fan/passive vent(s undertaking.)   | s).(* or a letter of instruction to a contractor/supplier or a formal letter from devel              | oper to Code Assessor giving the specific     |
|   |  |   |
|   |  |   |
| Ene 5 - Text describing (on dwgs or in the specification*): Make and I  | model of all white goods provided; A copy of the Energy rating (EU Energy Efficien                   | cy Labelling Scheme) of all white goods       |
| provided. * OR a letter of instruction to a contractor/supplier OR a formal lette describing the EU Energy Efficiency Labelling Scheme.   | ter from developer to Code assessor giving the specific undertaking. If no white goo                 | is provided, relevant leaflet to be supplied  |
|   |  |   |
|   |  |   |
|   |  |   |
|   | and has of All outsmal light fittings OD a formal (letter headed) letter of instruc                  | tion to a contractor/supplier OR a formal     |
| Ene 6 - Relevant design stage drawings and text describing location a   | and type of ALL external right fittings on a normal fletter-headed) letter of his own                | CON TO A CONTRIBUCION SUPPLIES ON A TOTAL     |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cree   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cree   | ndertaking.  | ·   |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cree   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cree   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cree   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| letter from the developer to the Code Assessor giving the specific un<br>NB - if no security lighting is installed, then the security lighting cred   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| tetter from the developer to the Code Assessor giving the specific un<br>NB - If no security lighting is installed, then the security lighting creaturing the security lighting creaturing the security lamps also can be awarded to the security | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| ietter from the developer to the Code Assessor giving the specific un NB - If no security lighting is installed, then the security lighting crediuminalizes with both space and security lamps also can be awarded to the security lamps also ca  | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| ietter from the developer to the Code Assessor giving the specific un NB - If no security lighting is installed, then the security lighting crediuminalizes with both space and security lamps also can be awarded to the security lamps also ca  | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |
| Ene 6 - Relevant design stage drawings and text describing location a tetter from the developer to the Code Assessor giving the specific un NB - If no security lighting is installed, then the security lighting creatuminalizes with both space and security lamps also can be awarded to the security lamps also can be awarded to the first credit not sought.  Ene 7 - This credit not sought.   | ndertaking.<br>Hit can be awarded by default provided all the conditions of the first issue covering | ·   |

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Ene 8 - Drawings with text (or dwgs + specifications) showing:
location, type and size of storage; access to cycle storage; any security measures; details of the proprietary system (if applicable)

OR formal letter giving the specific undertaking.

Ene 9 - Drawings with text (or dwgs + specifications) showing:
- location and size of the home office
- location of sockets
- location of telephone/data points
- location of windows showing that adequate ventilation provided

OR letter giving specific undertaking.

|   | Y 2 WATER Overall Level: 3 on Credits Predicted: 67%  | Overall Score Credits | : 61.80<br>Level   |   |
|---|---|-----------------------|--------------------|---|
|   | ion to Overali Score: 6.00 points   | 4 of 6 Credits        |                    | Assumptions Made  |
| Wat 1 Internal Potable Water Use          | Credits are awarded based on the predicted average housely water consumption, calculated using the Code Water Calculation. Minimum standards for each code level apply.  Select the predicted water use  greater than 120 litres/ person/ day  OR less than 120 litres/ person/ day  OR less than 110 litres/ person/ day  OR less than 105 litres/ person/ day  OR less than 90 litres/ person/ day  OR less than 80 litres/ person/ day | old                   | Level 3<br>Level 4 | Dual flush 4.5/3 Tribune SP, manufactured by Impurbathroom Products (WRAS approved). Wash hand be with monobloc tap with spray insert rated at 1.7 litres/minute. Mixer gravity shower with 7litre/minute low flow rate shower head. 140 litre capacity to overflow small bath. Monobloc kitchen sink tap at 2.5litres/minute. 45 litre/use washing machine and litre/use dishwasher. |
| Wat 2<br>External<br>Potable<br>Water Use | One credit is awarded where a compliant system is specified collecting rainwater for external irrigation purposes. Where outdoor space is provided the credit can be achieved by def  Select the scenario that applies  No internal or communal outdoor space  OR Outdoor space with collection system  OR Outdoor space without collection system  | no                    |                    | Holding tank with soakaway to irrigate garden combined with roof run-off attenuation. (See Sur1) NB - see detailed requirements for specifications or rainwater collection systems that are Code compliant Appendix C.  |

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# Wat 1 - Text describing (on drawings or in the specification\*): Location, details and type of appliances/fittings that use water in the dwelling including any specific water reduction equipment; Location and details of any rainwater and greywater collection systems in the dwelling. (\* OR a letter of instruction to a contractor/supplier OR a formal letter from the developer to the assessor giving a specific undertaking). Wat 2 - Drawings or text describing (on drawings or in the specification\*): Type, size and location of any rainwater collection system/s (\* OR a letter of instruction to a contractor/supplier OR a formal letter from the developer to the assessor giving a specific undertaking).

| % of Section   | 7 3 MATERIALS Overall Level: 3<br>on Credits Predicted: 38%  | Overali Score<br>Credits | Level |   |
|--|--|--------------------------|-------|---|
| Mat 1<br>Environm-<br>ental Impact<br>of Materials           | Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2007 Rating of A+ to D. Tradable Credits: Points are awarded on a scale based on the Green Guide Rating of the specifications. The Code Materials Calculator can be used to predict a potential score.    Enter the predicted score   Will the mandatory requirement be met?   What is the predicted number of credits?   9 | 9 of 15 Credits          |       | It is assumed that at least three of the following five key elements will achieve a relevant Green Guide rating from the 2007 version of The Green Guide of A+ to D:Roof; External Walls; Internal Walls (including separating walls); Upper and Ground Floors (including separating floors); Windows. In particular 'A' ratings will need to be achieved for the roof, walls, windows and upper floors. The CSH Materials Calculator will be used to assess the number of credits awarded for the five key elements described above. |
| Responsible  | Credits are awarded where materials used in the key building elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.  Predicted Score  What is the predicted number of credits?  0   | 0 of 6 Credits           | · •   | Not sought.   |
| Mat 3 Responsible Sourcing of Materials - Finishing Elements | Credits are awarded where materials used in the finishing elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.  Predicted Score  What is the predicted number of credits?  0  | 0 of 3 Credits           | •     | Not sought.   |

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| Evidence Required   |   |
|---|---|
| Mat 1 - Drawings and text describing (on drawings or in the specification*):  |   |
| location and area of the elements with details of the materials used within the elements<br>(* OR a letter of instruction to a contractor/supplier OR a formal letter from the developer to the Code assessor |   |
| giving the specific undertaking).   |   |
| Where relevant. evidence of bespoke Green Guide rating(s) provided by the BREEAM Office.  |   |
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| Nat 2 - Not sought. More information is available from the Code Assessor if Mat2 and Mat3 required to be considered (Appendix D).   |   |
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| Mat 3 - Not sought. See Appendix D if Mat2 and Mat3 wish to be considered.  |   |
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|                       | ( A SURFACE WATER RUN-OFF Overall Li<br>on Credits Predicted: 75%  |  | Overall Score Credits | Level      |   |
|-----------------------|--|--|-----------------------|------------|---|
| Contribut             | on to Overall Score: 1.65 points   |  | 3 of 4 Credits        | All Levels | Assumptions Made  |
| Surface<br>Water Run- | Mandatory Requirement: Peak run-off rates and annivolumes post development must not exceed the preconditions for the site. Tradable Credits: Where ratholding facilities / SUDs are used to provide attenuation-off for the volumes required and in accordance criteria.  Provide the following Information  Will the mandatory requirement be metion  Will appropriate attenuation be provided from Hard Surfaces?  from Roofs? | vious inwater ation of water with the Code |                       | All Levels | Roof run-off attenuation by 50% at peak time, combined system for garden irrigation. (See Wat2). As the area of the roof will increase compared to the existing building it is important to ensure that peak run-off rates and annual volumes of run-off post development will be no greater than the previous conditions for the site. NB- When the drainage system already discharges all surface run-off to a properly designed soakaway system including permeable paving or other SUDs device for the appropriate design storms, then the credit may be awarded without the need to specify additional attenuation measures. Confirmation that the system is designed to cope with the required water run-off is required. |
| Risk                  | Credits are awarded where developments are locate low flood risk, or where in areas of medium or high appropriate measures are taken to prevent damage property and its contents in accordance with the Co  Select the appropriate option  Low Flood Risk  OR Medium flood risk with measures  OR Medium flood risk without measures  OR High flood risk with measures  OR High flood risk without measures                      | flood risk<br>to the                       | 2 of 2 Credits        |            | The site is on a hill and has a low annual probability of flooding. This has been confirmed by reference to the Environment Agency on-line flood map service, www.environment-agency.gov.uk. Low annual probability of flooding is an area where the chance of both river and sea flooding each year is <0.1% (1 in 1000) or less.  |

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| Evidence Required   |  |
|---|--|
| to required standard brief as Checklist 2 (See Appendi<br>AND   |  |
| Confirmation from an appropriate consultant that the attenuation device complies with the requirements. | capacity of the specified rain water run-off |
|   |  |
|   |  |
| ·   |  |
| sur 2 - Confirmation of low annual probability of flood   | ing.   |
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| CATEGORY 5 WASTE Dverattion  S of Section Credits Predicted: 71%  Contribution to Overatt Score: 4,57 points   | Credits E of 7 Credits | Level      | Assumptions Made   |  |
|--|------------------------|------------|--|--|
| Mandatory Requirement: The space provided for waste storal should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacicalculated from BS 5906. Tradable Credits are awarded for adequate internal and/ or external recycling facilities.    Tick the boxes that apply   While the minimum space be provided?   Internal storage (capacity 60 litres)   Internal storage (capacity 30 litres)   Local Authority Collection Scheme   External storage (180 litres)   Private recycling operator   3 types of waste or greater collected?   Internal storage (Internal Storage (Intern | зе                     |            | It is assumed Camden will collect at least 3 types of recyclable waste. Each flat will have internal storage for recyclable waste in dedicated position in kitchen.  Externally: A minimum capacity of 100 litres of waste storage per dwelling is required (based on 1-bed dwelling). Another 70 litres is required for every additional bedroom. Larger volumes if required by LA Scheme. All containers must be accessible to disabled people, particularly wheelchair users, and sited on a hard, level surface AND located in an adequate external area - no stacking.  Internally: Either Three internal storage bins for recyclable waste with a minimum total capacity of 30 litres (where no individual bin is smaller than 7 litres) OR a single 30 litre bin linked with a Local Authority service that collects at least 3 types of recyclable material in a single bin. |  |
| Was 2 Site Waste Management Plan (SWMP)/ Construction Waste  Commitments for minimising waste and/ or commitments to reuse and recycle construction waste.  Contents of the SWMP  is the development cost less than £200K?  Does the SWMP include:  + monitoring of waste generated on site?  + targets to promote resource efficiency?  + procedures for minimising waste?  + procedures to sort, reuse and recycle waste?  | ote<br>·<br>ind        | Alí Levels | Off-site sorting of waste by sub-contractor. Policy to use materials economically on site but not written down anywhere. For achievement of the mandatory levels a Site Waste Management Plan must be produced and implemented. This will require the monitoring of waste generated on site and the setting of targets to promote resource efficiency in accordance with the relevant guidance. Specific targets are not required. Additionally there will be commitments and procedures to minimise waste generation on site. Following Checklist 2 (Appendix F) a summary report outlining overall targets for the efficient ordering, performance in terms of waste handling and storing of materials will be provided.   |  |
| Was 3 One credit is awarded where individual home composting facilities are provided, or where a community/ communal composting service, either run by the Local Authority or overseen by a management plan is in operation.  Select the facilities available  No composting facilities  Individual composting facilities  OR Communal/ community composting?  Local Authority   | 0 of 1 Credit          |            | Credit not sought.   |  |

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| Balance Barreral   |        |
|--|--------|
| Evidence Required<br>Was 1 - Information from Council confirming scheme.   |        |
| was a - Information from Council Commining scheme.<br>Drawings showing and text confirming:  | ĺ      |
| the number of bedrooms;  | 1      |
| the location of internal and external storage (where applicable);  | . j    |
| the types and sizes of storage; and how the storage is accessed.   | 1      |
| -access arrangements conforming to H6 in AD H.   | İ      |
| N.B Free standing recycling bins placed directly on the floor do not comply.A letter from the Local Authority confirming the type and size of containers the   | it are |
| provided for their refuse collection and recycling scheme (where in operation) OR details of private recycling scheme & operator (if applicable).  | l      |
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| Was 2 - Mandatory Element  |        |
| 7143 Z - MRIINGUN J EVERINEUX  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include:  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: resource efficiency targets set for each stage of construction (including demotition) details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored the name and position of the person who is responsible for implementing the plan how the plan will be implemented.  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: presource efficiency targets set for each stage of construction (including demotition) details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored the name and position of the person who is responsible for implementing the plan how the plan will be implemented.   |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: resource efficiency targets set for each stage of construction (including demotition) details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored the name and position of the person who is responsible for implementing the plan how the plan will be implemented.  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demolition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demolition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  |        |
| A copy of the Site Waste Management Plan or the specification' describing what the Site Waste Management Plan will contain. Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implementedfor a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking). |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demolition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demolition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  |        |
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| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  "For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).   |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  "For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).   |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demotition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  "For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).   |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: -resource efficiency targets set for each stage of construction (including demolition) -details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored -the name and position of the person who is responsible for implementing the plan -how the plan will be implemented.  |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include:  resource efficiency targets set for each stage of construction (including demotition)  details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored  the name and position of the person who is responsible for implementing the plan  how the plan will be implemented.  ("or a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  Was 3 - Credit not sought.   |        |
| Details must be in accordance with the relevant guidance (Checklist 1- see Appendix F) and include: resource efficiency targets set for each stage of construction (including demotition) details of how the waste (as listed in Checklist 4- see Appendix F) will be measured and monitored the name and position of the person who is responsible for implementing the plan how the plan will be implemented.  "For a letter of instruction to a contractor/ supplier or a formal letter from the developer to the Code assessor giving the specific undertaking).  Was 3 - Credit not sought.   |        |

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| % of Secti   | Y 6 POLLUTION Overall Level: 3<br>on Credits Predicted: 100%<br>ion to Overall Score: 2.80 paints  |                   | Credits of 4 Credits | Level<br>All Levels | Assumptions Made  |
|--|--|-------------------|----------------------|---------------------|---|
| Pol 1<br>Global<br>Warming<br>Potential<br>(GWP) of<br>Insulants | One credit is awarded where all insulating materials have Global Warming Potential (GWP) of less than 5.  Select the most appropriate option  All insulants have a GWP less than 5  OR Some insulants have a GWP of less than 5  OR No insulants have a GWP of less than 5 | 0 1               | of 1 Credits         | -                   | It is asserted that all insulating materials in the elements of the dwelling listed below avoid the use of substances that have a significant GWP (in either their manufacture or installation): Roofs(including loft access); Walls, internal and external (including lintels and all acoustic insulation); Floors (including ground and upper floors); Hot water cylinder, pipe insulation and other thermal stores; Cold water storage tanks where provided; External Doors. |
| Pol 2<br>NOx<br>Emissions  | Credits are awarded on the basis of NOx emissions arising the operation of the space heating system within the dwe   | g from<br>elling. | •                    |                     | NOx emissions of boiler, as declared in manufacturer's issued technical literature, assumed to be less than or equal to 40mg/kWh (at 0% excess oxygen).   |
|  | OR Less than 100 mg/kWh OR Less than 70 mg/kWh   | 00000             | 3 of 3 Credits       |                     |   |

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# Evidence Required Pol 1 - Manufacturer's/installers literature confirming that all elements and blowing agents used have a GWP of less than 5 or are 'deemed to comply'. Completed Pol1 checklist and tables -see Appendix G. Drawings AND text identifying type and location of ALL insulation materials OR a letter of instruction to a contractor/ supplier OR a formal letter from the developer to the Code Assessor giving the specific undertaking.

Pol 2 - Technical literature/statement. Details of the primary and any secondary heating systems and flue type and

their dry NOx levels and/or Boiler Class. Dry NOx emissions data should be supplied in mg/kWh (at 0% excess oxygen).

| P0000000000000000000000000000000000000 | 7 HEALTH & WELLBEING Overall Level: 3  | Overall Score 61.60 |   |
|--|--|---------------------|---|
|  |  |                     |   |
| Hea 1 Daylighting                      | Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.  Select the compliant areas  Room  Kitchen: Avg DF greater than 2%  Living Room*: Avg DF greater than 1.5%  Dining Room*: Avg DF greater than 1.5%  Study*: Avg DF greater than 1.5%  Do all above rooms have a view of the sky?  Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%. *Tick the box if there is no study/ home office as this aspect of the credit will be awarded by default.                               | 0 of 3 Credits      | While basement of this development is unlikely to achieve this credit, the top floor apartment should achieve a View of the Sky and reasonable light levels in Living, Dining and Study rooms for which two credits would be available. However for the purposes of a 'worst case' it assumed that no score is achieved until verified by detailed analysis of architectural drawings.  |
| Hea 2<br>Sound                         | Credits are awarded where performance standards exceed those required in Building Regulations Part E. This can be demonstrate by carrying out pre-completion testing or through the use of Robust Details.  Select a performance standard or type of property  Credit not sought  Airborne: 3db higher; Impact: 3dB lower  OR Airborne: 5db higher; Impact: 5dB lower  OR Airborne: 8db higher; Impact: 8dB lower  OR Detached Property  OR Separating walls and floors only occur between non habitable spaces  OR Separating walls and floors only occur between | 1                   | Robust details will be adopted to achieve 5db improvements on Approved Document E for ALL flats. Confirmation will be provided demonstrating that the Robust Details chosen will achieve the required performance levels (as applicable), such as provided by the Robust Details website data sheets for all relevant construction details (see www.robustdetails.com). Additionally, RDL registration details relating to the site (the Purchase Statement) will be supplied.  OR for this Design Stage only, a letter of instruction to a contractor or a formal letter from the developer to the Code assessor giving the specific undertaking to satisfy the Code requirements. |
| Private                                | One credit is awarded for the provision of an outdoor space that is at least partially private. The space must allow easy access to all occupants.  Will a private/ semi-private space be provided?  Yes, private/semi-private space will be provided  OR No private/semi-private space  | I I                 | It is assumed at least 25m2 of shared semi-private space is available for the 25 residents that are envisaged to occupy the Lodge. The outdoor space could be: a private garden; a communal garden or courtyard; balconies; roof terraces; or patios. The space should be adjacent or in close proximity to the dwelling.  Minimum space requirements are: - Private space: 1.5 m2/bedroom - Shared space: minimum 1m2/bedroom.   |

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| ssue     |  | Credits        | Level | Assumptions Made    |
|----------|--|----------------|-------|---------------------|
| Lifetime | Credits are awarded where the developer has implemented all of<br>the principles of the Lifetime Homes scheme. |                |       | Credits not sought. |
| Homes    | All Lifetime Homes criteria will be met  | 0 4            |       |                     |
|          | OR Credit not sought   | 0 of 4 Credits | -     | •                   |

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## Evidence Required Hea 1 - Plans and sections showing: - room dimensions - position and dimensions of windows and other glazed areas - external buildings and other potential obstructions ECDPS are able to provide calculations demonstrating relevant daylight factors or view of the sky percentages.

Hea 2 - Text confirming (on drawings or in the specification\*) a commitment to meet relevant sound insulation performance levels AND where sound testing will be carried out:

- Details of the programme of precompletion testing to be carried out, including the number of groups and sub-groups.
- Construction details for all separating walls/floors
- A commitment to perform remediation work should any of the required tests fall and a commitment to re-testing to confirm that the performance levels have been achieved.
- Confirmation that the acoustic consultancy is accredited by UKAS (or a European equivalent) or is covered by a 'deemed to satisfy' scheme.

Hea 3 - Plans will need to show that the open space is the minimum size and is accessible to wheelchair users with details (in drawings or specification clauses) of:

- Level thresholds accessible approaches in accordance with Building Regulations Approved Document M
   AND
- Where a shared outdoor space is provided, details of the control arrangements for access.

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| Evidence Required          |                         |                     | -or or an entional e | wtra Annendiy I |   |
|----------------------------|-------------------------|---------------------|----------------------|-----------------|---|
| Hea 4 - Credits not sought | . Information available | from the Code Asses | sor as an opcional e | xua Appendix 3. |   |
|                            |                         |                     |                      |                 |   |
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| of Sectionalists  And 1  Iome User    | S PANAGENETI Coverali Level: 3  In Credits Predicted: 1009  In to Overali Score: 10:00 points  Credits are awarded where a simple guide is provided to each dwelling covering information relevant to the 'non-technical' home occupier, in accordance with the Code requirements. The guide must be available in alternative formats on request.  Tick the topics covered by the Home User Guide  Operational Issues  Site and Surroundings  | Credits 9 of 9 Credits 3 of 3 Credits | Level | A stand-alone Home User Guide ('HUG'), compiled using Checklist Man 1 Part 1 together with information that the guide is available in alternative accessible formats will be provided as part of a handover pack. The guide will also cover information relating to the site and its surroundings, compiled using Checklist Man 1 Part 2. The developer will provide a specific undertaking that the HUG will be supplied to all dwellings within the development AND be developed to the required standards AND be available in an alternative format upon request by the first home occupier.                                     |
|---------------------------------------|---|---------------------------------------|-------|---|
|                                       | Credits are awarded where there is a commitment to comply with best practice site management principles using either the Considerate Constructors Scheme or an alternative locally/nationally recognised scheme.  Select the appropriate scheme and score  No scheme used  Considerate Constructors  OR Best Practice: Score between 24 and 31.5  OR Best Practice+: Score between 32 and 40  Alternative Scheme*  OR Mandatory + 50% optional requirements  OR Mandatory + 80% optional requirements  In the first instance, contact BRE if you are considering using an alternative scheme. | 2 of 2 Credits                        |       | Local Government scheme for which the contractor would aim to achieve the highest level.  |
| Man 3<br>Construction<br>Site Impacts | Credits are awarded where procedures meeting the Code requirements are in place for the following:  Tick the impacts that will be addressed  Monitor, report and set targets for:  CO2/ energy use from site activities  CO2/ energy use from site related transport  water consumption from site activities  Adopt best practice policies in respect of:  air (dust) pollution from site activities  water (ground and surface) pollution  Water (ground and surface) pollution  | 2 of 2 Credits                        | -     | Procedures will be adopted that cover 4 or more of the following items:  1. Monitor, report and set targets for CO2 production or energy use arising from site activities; 2. Monitor and report CO2 or energy use arising from commercial transport to and from site; 3. Monitor, report and set targets for water consumption from site activities; 4. Adopt best practice policies in respect of air (dust) pollution arising from site activities; 5. Adopt best practice policies in respect of water (ground and surface) pollution occurring on the site; 6. 80% of site timber is reclaimed, reused or responsibly sourced. |

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| Issue    |  | Credits        |   | Assumptions Made   |
|----------|--|----------------|---|--|
| Man 4    | Credits are awarded for complying with Section 2 - Physical        |                |   | While the Secured by Design award may not be achieved, an Architectural  |
| Security | Security from Secured by Design - New Homes. An Architectural      |                |   | Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the |
|          | Liaison Officer (ALO), or alternative, needs to be appointed early |                |   | local police force will be consulted at the design stage and their       |
|          | in the design process and their recommendations incorporated.      |                | ] | recommendations incorporated into the design of the dwellings.           |
|          |  |                |   |  |
|          | Secured by Design Compliance                                       |                |   |  |
| Ì        | Credit not sought  | 2 of 2 Credits | . |  |
|          | OR Secured by Design Section 2 Compliance                          |                |   |  |
|          |  |                |   | · · · · · · · · · · · · · · · · · · ·                                    |

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## Byldense Regulred

Man 1 - Copy of HUG or undertakings as outlined in the assumptions made column. See Appendix H checklists for details of the minimum requirements for a compliant Home User Guide.

Man 2 - Text confirming a commitment from the contractor, or on the contractor (if not yet appointed) to comply with:

1. The Considerate Constructors Scheme and achieve formal certification under the scheme and a best practice score of between 32 and 40.

2. An equivalent local or nationally recognised independent scheme and achieve formal certification under the scheme and in addition to achieving all the mandatory requirements a commitment to address 80% of the optional items.

NOTE: Where an alternative scheme is used, the independent scheme assessor should complete Checklist - Compliance with an Alternative Scheme. Available from BRE. The scheme Assessor should seek confirmation from BRE that an alternative scheme is acceptable prior to formal submission of an assessment.

## Man 3 - Text\* confirming:

1. A commitment to meet the specific requirements of each item (to be achieved) in Checklist - Construction Site impacts (See Appendix !)

2. Details of how each requirement will be met.

\* specification clause, a letter of instruction to a contractor or a formal letter from the developer to the Code assessor giving the specific undertaking.

## Evidence Required

Man 4 - Text\* confirming:

1. An ALO/CPDA has been appointed to provide advice EARLY in the design stage to ensure that the requirements of Section 2 - Physical Security of Secured by Design - New Homes are met.

2. The advice of the ALO/CPDA will be followed. 3. Location and details of all recommended/ specified security features such as external lighting, door/ window locks etc. and their third party certification levels (if applicable).

\* specification clause, letter of instruction to contractor or a formal letter from developer to the Code assessor giving the specific undertaking.

|           | n Credits Predicted: 78%   | Credits        | Level | A manufacture to the   |
|-----------|--|----------------|-------|--|
|           | one credit is awarded for developing land of inherently low  |                |       | There is one listed tree on site which has been retained and protected by hoardings. Existing garden is grass covered but no mature shrubs, plants or other trees. One |
|           | OR Land has ecological value O  OR Land has low/ insignificant ecological value*   |                | -     | credit may be available if confirmed by an Ecological  Consultant.   |
|           | Low ecological value is determined either a) by using Checklist Eco 1 acrowhole development site; or b) where an ecologist is appointed and can combat the construction zone is of low/insignificant value and the rest of the development site will remain undisturbed by the works.  | firm           |       |  |
| 1         | One credit is awarded where there is a commitment to enhance the ecological value of the development site.  Tick the appropriate boxes  Will a Suitably Qualified Ecologist be appointed to recommend appropriate ecological features?  AND Will all key recommendations be adopted?  AND 30% of other recommendations be adopted? | 1 of 1 Credits |       | As per tick boxes.   |
|           | One credit is awarded where there is a commitment to main and adequately protect features of ecological value.  Tick the appropriate boxes   | tain           |       | One credit <u>may</u> be available subject to verification by an Ecological Consultant.  |
|           | Is the site of low ecological value (Eco 1)?  OR If the site has ecological features, will they be maintained and adequately protected during site clearance, preparation and construction works?  | 1 of 1 Credits | •     |  |
| Change of | Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements a calculated to be:  — Change in Ecological Value ————————————————————————————————————   |                |       | Minor landscaping designs to be implemented.   |
|           | Major negative change: fewer than -9  Minor negative change: between -9 and -3  OR Neutral: between -3 and +3  Minor enhancement: between +3 and +9  Major enhancement: greater than 9   | 2 of 4 Credits | -     |  |

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|           | Ic., 114.  |                | 1              | The flats are all contained within a five storey block   |
|-----------|--|----------------|----------------|--|
| Eco 5     | Credits are awarded where the ratio of combined flo            | or area or att | 1 1            | 19   |
| Building  | dwellings on the site to their footprint is:                   |                | <u> </u>       | therefore it is assumed that the density achieved fully  |
| Footprint | Ratio of Net Internal Floor Area: Net Internal Ground Floor Ar | rea ———        |                | complies with the Code requirements.  For block of flats: Where the Net Internal Floor Area: Net   |
|           | Credit Not Sought  | 0 1            | ]              | Internal Ground Floor Area is greater than 4:1.  |
|           | OR Houses: 2.5:1 OR Flats: 3:1                                 | 0              | i              | Trace in a contract to the contract of the con |
|           | OR Houses: 3:1 OR Flats: 4:1                                   | •              | 2 of 2 Credits |  |
|           | OR Houses & Flats Weighted (2.5:1 & 3:1)                       | 0              |                | · · · · · · · · · · · · · · · · · · ·  |
|           | OR Houses & Flats Weighted (3:1 & 4:1)                         | 0              |                |  |

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| Eco 2 - Name,   | qualifications and e                            | experience of th                        | e Ecologist.     | <u> </u>                |                |
|-----------------|---|---|------------------|-------------------------|----------------|
|                 |   |   |                  |                         |                |
|                 |   |   |                  |                         |                |
| Eco 3 - Ecologi | ical Report carried o                           | out by a suitably                       | qualified Ecolog | ist.                    |                |
| <b>!</b>        |   |   | •                |                         |                |
| Topographical   | ical Report carried of<br>I survey of site prio | out by a sultably<br>or to construction | qualified Ecolog | ist.<br>clearance compa | ared with proj |
| lanscaping pla  | ins of the site.                                |   |                  |                         |                |

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| Evidet  | ice Required       |                 |   |   |  |
|---------|--------------------|-----------------|---|---|--|
| Eco 5 - | Scaled floor plans | and elevations. | _ | _ |  |
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