Code for Sustainable Homes
Technical Guide May 2009 - Technical Guidance Note 2
Pre-Assessment Report

STROMA CERTIFIED CODE ASSESSOR

Condition 16.

MICHAEL COOK ASSOCIATES

Report Reference:	**4797\F13**
Site Registration:	**002638-101207-01-1113**
Site Name:	**13-25 St Dunstans**
Assessor Number:	**STRO002638**
Company:	**Michael Cook Associates**
Assessor:	**Neil St Clair**

THE CODE FOR SUSTAINABLE HOMES
CERTIFICATION MARK

Site Details	
Site Name:	13-25 St Dunstans
Site Registration:	002638-101207-01-1113
Site Address:	13-25
	St Dunstans Road
City/Town:	Worthing
County:	West Sussex
Postcode:	BN13 1AB
No. of Dwellings:	7
No. of Dwelling Types:	1
Planning Authority:	Worthing Borough Council
Funding Body:	

Assessor Details	
Company:	Michael Cook Associates
Assessor Name:	Neil St Clair
Cert Number:	STRO002638
Address:	Brooklyn Chambers
	11 Goring Road
City/Town:	Worthing
County:	West Sussex
Postcode:	BN4 12AP
Tel:	01903 248777
Email:	nstclair@michaelcookassociates.co.uk

Client Details	
Company:	
Contact Name:	Mr D. Chipping
Job Title:	
Email:	
Tel:	
Address:	
City/Town:	
County:	
Postcode:	

Architect Details	
Company:	Michael Cook Associates
Contact Name:	Amey Cheung
Job Title:	
Email:	acheung@michaelcookassociates.co.uk
Tel:	01903 248777
Address:	Brooklyn Chambers
	11 Goring Road
City/Town:	Worthing
County:	West Sussex
Postcode:	BN12 4AP

Developer Details	
Company:	
Contact Name:	Mr D. Chipping
Job Title:	
Email:	
Tel:	
Address:	
City/Town:	
County:	
Postcode:	

Dwelling ID	Plot No.	Address	Social Unit
1	1	Plot 1 13-25 St Dunstans Road	No
2	2	Plots 2 13-25 St Dunstans Road	No
3	4	Plot 4 13-25 St Dunstans Road	No
4	3	Plot 3 13-25 St Dunstans Road	No
5	5	Plot 5 13-25 St Dunstans Road	No
6	6	Plots 6 & 7 13-25 St Dunstans Road	No
7	7	Plots 6 & 7 13-25 St Dunstans Road	No

Assessor Report Notes

This report provides an initial analysis on the sustainability performance of the scheme based on review of available information. It is not intended as a final or full assessment and as such information should only be treated as indicative at this stage.

All mandatory requirements are to be met with the total current score as indicated on pages 3 of this report.

In order to attain a Level 3 rating, 57 points are required and it is strongly recommended that the categories avalible for credit awards are reviewed and measures taken to achieve a minimum of 60 points.

Development Summary & Ratings

Dwelling Type	Description	Level	Score
St Dunstans	All Plots Pre assessment	3	59.99

Deviations from Standard

Indicative house type used for the formation of this pre assessment report.

At design stage reports will provide information on each dwelling type on the site.

Score Sheet for 13-25 St Dunstans

	ENE									WAT		MAT			SUR		WAS			POL		HEA				MAN				ECO					Summary	
Dwelling ID	1	2	3	4	5	6	7	8	9	1	2	1	2	3	1	2	1	2	3	1	2	1	2	3	4	1	2	3	4	1	2	3	4	5	Score	Level
1	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
2	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
3	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
4	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
5	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
6	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3
7	5	1	2	1	1	2	0	2	0	3	1	13	3	0	2	2	4	2	1	1	3	0	3	1	0	3	1	2	2	1	1	1	2	0	59.99	3

Summary Score Sheet

Dwelling Type: St Dunstans

Dwellings: 1 to 7

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	5	15	14	29	48.28	36.4	17.57
ENE 2 Building Fabric	1	2					
ENE 3 Internal Lighting	2	2					
ENE 4 Drying Space	1	1					
ENE 5 Energy Labelled White Goods	1	2					
ENE 6 External Lighting	2	2					
ENE 7 Low or Zero Carbon Energy Technologies	0	2					
ENE 8 Cycle Storage	2	2					
ENE 9 Home Office	0	1					
Water							
WAT 1 Internal Water Use	3	5	4	6	66.67	9	6
WAT 2 External Water Use	1	1					
Materials							
MAT 1 Environmental Impact of Materials	13	15	16	24	66.67	7.2	4.8
MAT 2 Responsible Sourcing (Basic Building Elements)	3	6					
MAT 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off							
SUR 1 Management of surface water run-off from site	2	2	4	4	100	2.2	2.2
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	7	7	100	6.4	6.4
WAS 2 Construction Site Waste Management	2	2					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	4	4	100	2.8	2.8
POL 2 NOx Emissions	3	3					
Health & Wellbeing							
HEA 1 Daylighting	0	3	4	12	33.33	14	4.67
HEA 2 Sound Insulation	3	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	0	4					
Management							
MAN 1 Home User Guide	3	3	8	9	88.89	10	8.89
MAN 2 Considerate Constructors Scheme	1	2					
MAN 3 Construction Site Impacts	2	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	1	1	5	9	55.56	12	6.67
ECO 2 Ecological Enhancement	1	1					
ECO 3 Protection of Ecological Features	1	1					
ECO 4 Change of Ecological Value of Site	2	4					
ECO 5 Building Footprint	0	2					
	Level Achieved: 3		**Total Points Scored: 59.99**				

Evidence for ENE 1 (Dwelling Emission Rate) - St Dunstans
25% improvement (or more) of DER over TER from SAP 2005
Mandatory requirement for code level 3: = 25% improvement of Dwelling Emission Rate (DER) over the Building Regulations Target Emission Rate (TER) It is strongly recommended that SAP calculations are obtained as soon as the design is finalised to confirm that the development will meet the required mandatory level.

Evidence for ENE 2 (Building Fabric) - St Dunstans
HLP range less than or equal to 1.30
Note: SAP calculations will be required to determine the HLP score. It is strongly recommended that SAP calculations are obtained as soon as the design is finalised to confirm that the development will meet the levels as stated above.

Evidence for ENE 3 (Internal Lighting) - St Dunstans
Percentage of internal dedicated energy efficient lighting greater than or equal to 75% compliant
Dedicated light fittings are fittings which will only accept specific energy efficient lamps having a efficacy greater than 40 lumens per circuit Watt. The fittings must be permanent and fixed to the ceiling or wall.

Evidence for ENE 4 (Drying Space) - St Dunstans
Compliant external drying space
Rotary driers with permanent fixings to be incoporated in each dwellings private garden specified at: - 4m of line for 1 - 2 bed units - 6m of line for 3 bed units Note: If drying spaces are incoporaed internaly, the drying space must be located in a heated space with adequate ventilation. The fixings must be permanent.

Evidence for ENE 5 (Energy Labelled White Goods) - St Dunstans
EU energy efficiency labelling scheme leaflet provision/provided
EU energy labelling system information is to be included in the Home User Guide and issued to each dwelling. Note: A further credit can be achievied if appliances are provided to each unit to the required EU energy rating as below. Fridge / freezers - A+ rated And Washing machines and dishwashers - A rated And either Washer dryers or tumble dryers - B rated Or EU energy labelling information provided to each dwelling.

Evidence for ENE 6 (External Lighting) - St Dunstans
Complaint space lighting, no security lighting installed
The requirements for external space lighting and security lighting to be specified to achieve all credits. Confirmation should be gained that the Secure by Design lighting requirement does not conflict with these requirements. Note: Safety lighting provided in multi-residential buildings to illuminate stairs and escape routes designed as specified by regulation is outside the scope of the Code for Sustainable Homes.

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies) - St Dunstans
Credit(s) not sought or contribution of low or zero carbon technologies less than 10%
The use of low and Zero Carbon Technologies (solar thermal hot water or PV) have not been included within this report.

Evidence for ENE 8 (Cycle Storage) - St Dunstans
2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling
Cycle storage via sheds being provided for each dwelling with easy and direct access from store to public highway.

Evidence for ENE 9 (Home Office) - St Dunstans
Credit not sought or no compliant home office
Credit not sought

Evidence for WAT 1 (Internal Water Use) - St Dunstans
Internal water use less than or equal to 105 litres per person per day
Mandatory requirement for level 3: Less than or equal to 105 litres per/person/day. To meet the specified requirements of level 4 the development is to incude measures to reduce average household water useage. Information on flow rates for fittings including, WCs, showers, sink taps, basin taps and bath capacities will need to be provided to confirm water useage. Calculation procedures to be carried out in line with the water efficiency calculator for new dwellings for CfSH May 2009.

Evidence for WAT 2 (External Water Use) - St Dunstans
Compliant individual rainwater collection system
A rainwater collector (child safe water butt) shall be provided for each dwelling within private rear gardens and are to meet all CfSH specification requirements. Size requirements: 1-2 bed + garden = 150 litres min 3+ bed + garden = 200 litres min Where planting is specified requiring little water (following Ecologists recommendations) the above requirements can be halved. This will need written confirmation from a suitably qualified Ecologist.

Evidence for MAT 1 (Environmental Impact of Materials) - St Dunstans
Mandatory requirements met: At least 3 elements rated A+ to D, 13 credits scored
Mandatory requirement: 3 of the 5 key building elements must achieve an environmental impact rating of A+ to D according to the Green Guide 2007. The development construction confirmed to include timber frame and upvc windows.

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements)) - St Dunstans
3 credits scored
These credits are dependant on using construction materials that are sourced and manufactured responsibly, including: - Sustainably sourced timber - with appropriate certification e.g. FSC, PEFC - Other materials produced in factories with Environmental Management Systems (EMS) for the supply chain (i.e. sourcing of raw materials) and/or the key processes (i.e. manufacturing) are also rated.

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements)) - St Dunstans
Zero credits or credits not sought
These credits are dependant on using construction materials that are sourced and manufactured responsibly, including: - Sustainably sourced timber - with appropriate certification e.g. FSC, PEFC - Other materials produced in factories with Environmental Management Systems (EMS) for the supply chain (i.e. sourcing of raw materials) and/or the key processes (i.e. manufacturing) are also rated.

Evidence for SUR 1 (Management of surface water run-off from site) - St Dunstans

Mandatory requirements met: Peak rate of run-off is no greater for the developed than for the pre-development. Volume of rainwater discharge caused by the new development is entirely reduced. No discharge to watercourse(s) for rainfall depth up to 5mm

Mandatory requirement: Surface water run-off from the development, must not exceed previous run-off from site.
A consultant will be required to assess wether the mandatory requirement is met by default or if additional attenuation measures are required.

Credits have been included for sustainable drainage equipment (SUDs). To improve the quality or for protecting the quality of receiving waters by ensuring no discharge to the water course for rainfall depths up to 5mm.

In order to gain any credits a consultants report will be required to highlight that CfSH requirements have been met.

If SUDS are required to meet the target or are planned to be installed to gain credits, a consultant will be required to design this system.

Evidence for SUR 2 (Flood Risk) - St Dunstans

Low flood risk - zone 1

A Flood Risk Assessment (FRA) is required, carried out in accordance with good practice guidance PPS25 and where applicable written confirmation from the Environment Agency of the reduction in flood risk category of the site if under the protection of existing/maintained defences.

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities) - St Dunstans

Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: After collection sorting with appropriate internal storage of recyclable materials

Mandatory requirement:
Waste storage provided must be either the size of all external containers provided by the local authority or min. capacity calculated from BS 9506, whichever is largest.

External storage space indicated on site plan must meet mandatory requirements.

Confirmation required that Worthing Bourough Council operate a recycling collection with after collection sorting.

In order to achieve the requirements for 4 credits, dedicated internal storage for recycling will meet the following requirements
- At least three separate bins with a capacity of 7 litres.
- Minimum total capacity of 30 litres.
- Bins provided in an adequate internal space.

Evidence for WAS 2 (Construction Site Waste Management) - St Dunstans

Mandatory requirements met: Compliant site waste management plan inline with checklist WAS 2a. SWAMP including procedures/commitments for minimising waste inline with checklist WAS 2b & 2d. SWAMP including procedures/commitments to sort, reuse and recycle waste inline with checklist WAS 2c & 2d

Mandatory requirement:

As it is mandatory, a site waste management plan must be drawn up, including plans for:
- Monitoring of waste generated on site
- Targets to promote resource efficiency.

In Addition, the SWMP is to include procedures and commitments for:
- Minimising construction waste
AND
- Sorting, re-using and recycling construction waste.

Evidence for WAS 3 (Composting) - St Dunstans

Individual compositing facility/facilities

A container specifically designed for home composting is to be specified.
Container to be sited according to manufactures instructions, be in a dedicated postition and to be accessible to disabled people. Information on composting must be provided to all households.

Evidence for POL 1 (Global Warming Potential of Insulants) - St Dunstans
All Insulants have a GWP of less than 5
Foamed Insulants to be specified as having a GWP of <5 for the blowing agent. A detailed building design will be required along with the Pol 1 checklist completed by the contractor will be required to confirm credits.

Evidence for POL 2 (NOx Emissions) - St Dunstans
NOx emissions less than or equal to 40mg/kWh
The use of gas fired boilers for space heating and as top up for solar thermal hot water system has been included within this report. The boiler within low NOx emission of 40mg/KWH has been allowed for with 2 credits awarded.

Evidence for HEA 1 (Daylighting) - St Dunstans
Credit(s) not sought
Credit not sought

Evidence for HEA 2 (Sound Insulation) - St Dunstans
Accredited Part E sound testing has been undertaken Airborne 5dB higher, impact 5dB lower
Building of seperating elements between dwellings to achieve sound insulation values of 5db higher for airbourne sound and 5db lower for impact sound than those givern in AD E of the Building Regulations. Confirmation will be required that a compliant test body will carry out a programme of pre-completion testing demostrating the above standard is achieved. Details of separating elements with evidence of the potential for the constructions to meet the required performance will be required e.g. a design statemement from an acoustic consultant.

Evidence for HEA 3 (Private Space) - St Dunstans
Individual private space provided
Private rear garden space is to be provided for the use of the occupants of each dwelling. Outdoor spaces minimum space requirements: 1.5sqm per bedroom for Private space. The space needs to be adjacent to or in close proximity to the dwelling.

Evidence for HEA 4 (Lifetime Homes) - St Dunstans
Credits not sought
Credit not sought

Evidence for MAN 1 (Home User Guide) - St Dunstans
All criteria of inline with checklist MAN 1 part 1 - operational issues will be met All criteria of inline with checklist MAN 1 part 2 - site and surroundings will be met
A home user guide to be compiled using checklist Man 1 Part 1 and to be issued to all dwellings with information that the guide is also available in alternative accessible formats. Type of information to be included: - Environmental strategy/ design and features - Energy - Water Use - Recycling and Waste - Sustainable DIY - Emergency Information - Links, References and Further Information - Provision of information in alternative formats A further credit for inclusion of items from checklist Man 1 Part 2 site and surroundings has also been allowed for. Type of information to be included: - Recycling and Waste - Sustainable Urban Drainage (SUDS) - Public transport - Local amenities - Responsible purchasing - Emergenency information - Links, references and further information

Evidence for MAN 2 (Considerate Constructors Scheme) - St Dunstans
Considerate constructors scheme: Best practise only, a score of between 24 and 31.5
Appointed contractor to register with the Considerate Contractors Scheme and ensure that the development will comply, and will achieve a best practice score of 24-31.5. If best practice is surpassed, with a score of 32 or over, another credit will be gained.

Evidence for MAN 3 (Construction Site Impacts) - St Dunstans
Monitor, report and set targets for CO2 production or energy use from site activities Monitor, report and set targets for water consumption from site activities Adopt best practise policies in respects to air (dust) pollution from site activities Adopt best practise policies in respects to water (ground and surface) pollution
Appointed contractor to put in place site management processes to include four of the following: - Monitor, report and set targets for CO2/energy use during construction - Monitor, report and set targets water consumption from site activities. - Adoption of Best practice policies in respect of water pollution related to site activities. - Adopt best practice policies in respect of air (dust) pollution from site activities. - 80% of site timber is reclaimed, re-used or responsibly sourced (including formwork, site hoardings and other temporary site timber used for the purpose of facilitating construction).

Evidence for MAN 4 (Security) - St Dunstans
Secure by design section 2 compliant
The scheme is intended to be registered with Secured by Design and consulting the Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police at the design stage. Incorporating their recommendations and complying with section 2 (Pyhsical Security) of the Secured by Design New Homes 2010.

Evidence for ECO 1 (Ecological Value of Site) - St Dunstans
Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist
Ecologist report is required to establish if the the existing site has ecological value.

Evidence for ECO 2 (Ecological Enhancement) - St Dunstans
Key recommendations and 30% additional recommendations by a suitably qualified ecologist
An ecologist is to be employed and all key recommendations and 30% of additional recommendations are to be met by the appointed contractor.

Evidence for ECO 3 (Protection of Ecological Features) - St Dunstans
Land of low ecological value as identified under ECO 1
Credit can be awarded where all existing features of ecological value are protected on site during works including site clearance, preparation and construction will be required. Credit can also be awarded if the site is classified as having a low ecological value .

Evidence for ECO 4 (Change of Ecological Value of Site) - St Dunstans
Neutral: Greater than -3 and less than or equal to +3
As part of the ecologists report, they will need to make recommendations to gain credits in this section. Credits would be confirmed on completion of a Code Ecology template, which a qualified Ecologist would be required to complete

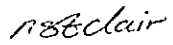
Evidence for ECO 5 (Building Footprint) - St Dunstans
Credit not sought
Credit not sought

Assessor Declaration

I Neil St Clair, can confirm that I have compiled this report to the best of my ability, I have based all findings on the information that is referenced within this report, and that this report is appropriate for the registered site.

To the best of my knowledge all the information contained within this report is correct and accurate. I have within my possession all the referencematerial that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certificationfor Quality Assurance monitoring.

Signed:



Neil St Clair
Michael Cook Associates
03 February 2011

Information about Code for Sustainable Homes

The Code for Sustainable Homes (the Code) is an environmental assessment method for rating and certifying the performance of new homes. It is a national standard for use in the design and construction of new homes with a view to encouraging continuous improvement in sustainable home building. The Code is based on EcoHomes©.

It was launched in December 2006 with the publication of 'Code for Sustainable Homes: A stepchange in sustainable home building practice' (Communities and Local Government, 2006), and became operational in England from April 2007.

The Code for Sustainable Homes covers nine categories of sustainable design. Each category includes a number of environmental issues. Each issue is a source of impact on the environment which can be assessed against a performance target and awarded one or more credits. Performance targets are more demanding than the minimum standards needed to satisfy Building Regulations or other legislation. They represent good or best practice, are technically feasible, and can be delivered by the building industry. The issues and categories are as follows:

- Energy & CO2 Emissions
  - Dwelling Emission Rate
  - Building Fabric
  - Internal Lighting
  - Drying Space
  - Energy Labelled White Goods
  - External Lighting
  - Low or Zero Carbon Technologies
  - Cycle Storage
  - Home Office
- Water
  - Internal Water Use
  - External Water Use
- Materials
  - Environmental Impact of Materials
  - Responsible Sourcing of Materials - Basic Building Elements
  - Responsible Sourcing of Materials - Finishing Elements
- Surface Water Run-off
  - Management of Surface Water Run-off from the Development
  - Flood Risk
- Waste
  - Storage of Non-Recyclable Waste and Recyclable Household Waste
  - Construction Site Waste Management
  - Composting
- Pollution
  - Global Warming Potential of Insulants
  - NOx Emissions

- Health & Wellbeing
  - Daylighting
  - Sound Insulation
  - Private Space
  - Lifetime Homes
- Management
  - Home User Guide
  - Considerate Constructors Scheme
  - Construction Site Impacts
  - Security
- Ecology
  - Ecological Value of Site
  - Ecological Enhancement
  - Protection of Ecological Features
  - Change in Ecological Value of Site
  - Building Footprint

The Code assigns one or more performance requirements (assessment criteria) to all of the above environmental issues. When each performance requirement is achieved a credit is awarded (with the exception of the four mandatory requirements which have no associated credits). The total number of credits available to a category is the sum of credits available for all the issues within it.

Mandatory minimum performance standards are set for some issues. For four of these, a single mandatory requirement is set which must be met, whatever Code level rating is sought. Credits are not awarded for these issues. Confirmation that the performance requirements are met for all four is a minimum entry requirement for achieving a level 1 rating. The four un-credited issues are:

- Environmental Impacts of Materials
- Management of Surface Water Run-off from Developments
- Storage of Non-Recyclable Waste and Recyclable Household Waste
- Construction Site Waste Management

If the mandatory minimum performance standard is met for the four un-credited issues, three further mandatory issues need to be considered. These are agreed to be such important issues that separate Government policies are being pursued to mitigate their effects. For two of these, credits are awarded for every level of achievement recognised within the Code, and minimum mandatory standards increase with increasing rating levels.

The two issues with increasing mandatory minimum standards are:

- Dwelling Emission Rate
- Indoor Water Use

The final issue with a mandatory requirement for Level 6 of the Code is:

- Lifetime Homes

Further credits are available on a free-choice or tradable basis from other issues so that the developer may choose how to add performance credits (converted through weighting to percentage points) achieve the rating which they are aiming for.

The environmental impact categories within the Code are not of equal importance. Their relative value is conveyed by applying a consensus-based environmental weighting factor (see details below) to the sum of all the raw credit scores in a category, resulting in a score expressed as percentage points. The points for each category add up to 100.

The weighting factors used in the Code have been derived from extensive studies involving a wide range of stakeholders who were asked to rank (in order of importance) a range of environmental impacts. Stakeholders included international experts and industry representatives.

It is also important to note that achieving a high performance in one category of environmental impact can sometimes result in a lower level of performance for another. For instance, if biomass is used to meet heating demands, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NOX emission. It is therefore impossible to achieve a total percentage points score of 100.

The Code uses a rating system of one to six stars. A star is awarded for each level achieved. Where an assessment has taken place by where no rating is achieved, the certificate states that zero stars have been awarded:

Code Levels	Total Points Score (Equal to or Greater Than)
Level 1 ★☆☆☆☆☆	36 Points
Level 2 ★★☆☆☆☆	48 Points
Level 3 ★★★☆☆☆	57 Points
Level 4 ★★★★☆☆	68 Points
Level 5 ★★★★★☆	84 Points
Level 6 ★★★★★★	90 Points

Formal assessment of dwellings using the Code for Sustainable Homes may only be carried out using Certified assessors, who are qualified 'competent persons' for the purpose of carrying out Code assessments.

Energy & CO2 Emissions
ENE 1: Dwelling Emission Rate **Available Credits:**15 **Aim:**To limit emissions of carbon dioxide (CO2) to the atmosphere arising from the operation of a dwelling and its services.
ENE 2: Building Fabric **Available Credits:**2 **Aim:**To future proof the energy efficiency of dwellings over their whole life by limiting heat losses across the building envelope.
ENE 3: Internal Lighting **Available Credits:**2 **Aim:**To encourage the provision of energy efficient internal lighting, thus reducing the CO2 emissions from the dwelling.
ENE 4: Drying Space **Available Credits:**1 **Aim:**To provide a reduced energy means of drying clothes.
ENE 5: Energy Labelled White Goods **Available Credits:**2 **Aim:**To encourage the provision or purchase of energy efficient white goods, thus reducing the CO2 emissions from appliance use in the dwelling.
ENE 6: External Lighting **Available Credits:**2 **Aim:**To encourage the provision of energy efficient external lighting, thus reducing CO2 emissions associated with the dwelling.
ENE 7: Low or Zero Carbon Technologies **Available Credits:**2 **Aim:**To reduce carbon emissions and atmospheric pollution by encouraging local energy generation from renewable sources to supply a significant proportion of the energy demand.
ENE 8: Cycle Storage **Available Credits:**2 **Aim:**To encourage the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys.
ENE 9: Home Office **Available Credits:**1 **Aim:**To reduce the need to commute to work by providing residents with the necessary space and services to be able to work from home.

Water
WAT 1: Indoor Water Use **Available Credits:**5 **Aim:**To reduce the consumption of potable water in the home from all sources, including borehole well water, through the use of water efficient fittings, appliances and water recycling systems.
WAT 2: External Water Use **Available Credits:**1 **Aim:**To encourage the recycling of rainwater and reduce the amount of mains potable water used for external water uses.

Materials
MAT 1: Environmental Impact of Materials **Available Credits:**15 **Aim:**To encourage the use of materials with lower environmental impacts over their lifecycle.
MAT 2: Responsible Sourcing of Materials - Basic Building Elements **Available Credits:**6 **Aim:**To recognise and encourage the specification of responsibly sourced materials for the basic building elements.
MAT 3: Responsible Sourcing of Materials - Finishing Elements **Available Credits:**3 **Aim:**To recognise and encourage the specification of responsibly sourced materials for the finishing elements.

Surface Water Run-off
SUR 1: Management of Surface Water Run-off from developments **Available Credits:**2 **Aim:**To design housing developments which avoid, reduce and delay the discharge of rainfall to public sewers and watercourses. This will protect watercourses and reduce the risk of localised flooding, pollution and other environmental damage.
SUR 2: Flood Risk **Available Credits:**2 **Aim:**To encourage housing development in low flood risk areas, or to take measures to reduce the impact of flooding on houses built in areas with a medium or high risk of flooding.

Waste
WAS 1: Storage of non-recyclable waste and recyclable household waste **Available Credits:**4 **Aim:**To recognise and reward the provision of adequate internal and external storage space for non-recyclable waste and recyclable household waste.
WAS 2: Construction Site Waste Management **Available Credits:**2 **Aim:**To promote reduction and effective management of construction related waste through the use of a Site Waste Management Plan (SWMP).
WAS 3: Composting **Available Credits:**1 **Aim:**To encourage developers to provide the facilities to compost household waste, reducing the amount of household waste sent to landfill.

Pollution
POL 1: Global Warming Potential of Insulants **Available Credits:**1 **Aim:**To reduce global warming from blowing agent emissions that arise from the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.
POL 2:NOx Emissions **Available Credits:**3 **Aim:**To reduce the emission of nitrogen oxides (NOX) into the atmosphere.

Health & Wellbeing
HEA 1: Daylighting **Available Credits:**3 **Aim:**To limit emissions of carbon dioxide (CO2) to the atmosphere arising from the operation of a dwelling and its services.
HEA 2: Sound Insulation **Available Credits:**4 **Aim:**To ensure the provision of improved sound insulation to reduce the likelihood of noise complaints from neighbours.
HEA 3: Private Space **Available Credits:**1 **Aim:**To improve the occupiers' quality of life by providing an outdoor space for their use, which is at least partially private.
HEA 4: Lifetime Homes **Available Credits:**4 **Aim:**To encourage the construction of homes that are accessible and easily adaptable to meet the changing needs of current and future occupants.

Management
MAN 1: Home User Guide **Available Credits:**3 **Aim:**To encourage and reward provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.
MAN 2: Considerate Constructors Scheme **Available Credits:**3 **Aim:**To recognise and encourage construction sites managed in an environmentally and socially considerate and accountable manner.
MAN 3: Construction Site Impacts **Available Credits:**2 **Aim:**To recognise and encourage construction sites managed in a manner that mitigates environmental impacts.
MAN 4: Security **Available Credits:**2 **Aim:**To encourage the design of developments where people feel safe and secure; where crime and disorder, or the fear of crime, does not undermine quality of life or community cohesion.

Ecology
ECO 1: Ecological value of site **Available Credits:**1 **Aim:**To encourage development on land that already has a limited value to wildlife, and discourage the development of ecologically valuable sites.
ECO 2: Ecological enhancement **Available Credits:**1 **Aim:**To enhance the ecological value of a site.
ECO 3: Protection of ecological features **Available Credits:**1 **Aim:**To protect existing ecological features from substantial damage during the clearing of the site and the completion of construction works.
ECO 4: Change in ecological value of site **Available Credits:**4 **Aim:**To reward steps taken to minimise reductions and to encourage an improvement in ecological value.
ECO 5: Building footprint **Available Credits:**2 **Aim:**To promote the most efficient use of a building's footprint by ensuring that land and material use is optimised across the development.

Disclaimer

The contents of this publication reflect the assessment produced by the licensed Code assessor. Stroma Certification Ltd is not liable for any loss or damage sustained as a consequence of this report or any related information.

Copyright

The Code for Sustainable Homes, name, logo and associated documentation are owned by the Department for Communities and Local Government.

All software, calculation tools, templates and all related material provided by Stroma Certification remains the property of Stroma Certification Ltd.