



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



10 / 0245 / FULL



Assessor: Michael Brogden
Company: DEAssessments
Assessor Number: STRO000212
Site Name: 644 Hanworth Road
Site Registration:
Report Reference: Pre CSH Assessment v1





Site Details

Site Name: 644 Hanworth Road
 Site Registration:
 Site Address: 644 Hanworth Road

City/Town: Hounslow
 County: Middlesex
 Postcode: TW4 5NP
 No. of Dwellings: 4
 No. of Dwelling Types: 1

Assessor Details

Company Name: DEAssessments
 Assessor Name: Michael Brogden
 Assessor Number: STRO000212
 Assessor Address: 14 High Street
 Chipping Sodbury

City/Town: Bristol
 County: South Gloucestershire
 Postcode: BS37 6AH
 Tel: 01454 317940
 Email: enquiries@deassessments.co.uk

Client Details

Company Name:
 Contact Name:
 Job Title:
 Email:
 Tel:
 Address:

City/Town:
 County:
 Postcode:

Architect Details

Company Name:
 Contact Name:
 Job Title:
 Email:
 Tel:
 Address:

City/Town:
 County:
 Postcode:

Developer Details

Company Name:
 Contact Name:
 Job Title:
 Email:
 Tel:
 Address:

City/Town:
 County:
 Postcode:

Assessor Report Notes

This assessment has been based on a basic site plan. The assumptions which make this report are founded on the credits usually sought in complying with CSH level 3.

All assumptions and credits will need to be confirmed with the design team before this report can be used as a document to confirm the projects progress towards achieving CSH level 3.



Development Summary & Ratings

Dwelling Type	Description	Level	Score
Flat - 644 Hanworth Road	Flat - 644 Hanworth Road	3	58.95

Deviations from Standard
No Deviations from Standard



Summary Score Sheet

Dwelling Type: Flat - 644 Hanworth Road

Plots: 1, 2, 3, 4

	Credit Score	Credits Available	Score Assessment				
			Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
Ene 1 Dwelling Emission Rate	5	15	15	29	51.72	1.26	18.83
Ene 2 Building Fabric	1	2					
Ene 3 Internal Lighting	2	2					
Ene 4 Drying Space	1	1					
Ene 5 Energy Labelled White Goods	2	2					
Ene 6 External Lighting	2	2					
Ene 7 Low or Zero Carbon Energy Tech	0	2					
Ene 8 Cycle Storage	2	2					
Ene 9 Home Office	0	1					
Water							
Wat 1 Internal Potable Water Use	4	5	5	6	83.33	1.50	7.5
Wat 2 External Water Use	1	1					
Materials							
Mat 1 Environmental Impact of materials	10	15	15	24	62.50	0.30	4.5
Mat 2 Responsible Sourcing (Basic Building Elements)	5	6					
Mat 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run Off							
Sur 1 Reduction of Surface Water Run-off from Site	2	2	3	4	75.00	0.55	1.65
Sur 2 Flood Risk	1	2					
Waste							
Was 1 Household Waste Storage & Recycling Facilities	4	4	6	7	85.71	0.91	5.49
Was 2 Construction Site Waste Management	2	2					
Was 3 Composting	0	1					
Pollution							
Pol 1 Global Warming Potential of Insulants	1	1	1	4	25.00	0.70	0.7
Pol 2 NOx Emissions	0	3					
Health & Wellbeing							
Hea 1 Daylighting	1	3	5	12	41.67	1.17	5.83
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	7	9	77.78	1.11	7.78
Man 2 Considerate Constructors Scheme	0	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	1.33	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: 58.95		



Evidence Gathered

Evidence for ENE1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE4 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE5 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE6 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE7 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE8 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE9 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAT1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAT2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for SUR1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for SUR2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for POL1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).



Evidence Gathered

Evidence for POL2 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for HEA1 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for HEA2 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for HEA3 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for HEA4 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for MAN1 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for MAN2 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for MAN3 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for MAN4 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for ECO1 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for ECO2 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for ECO3 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for ECO4 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).
Evidence for ECO5 - 644 Hanworth Road Default Text: Credit not sought (please change where applicable).



Assessor Declaration

I Michael Brogden, 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 reference material that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certification for Quality Assurance monitoring.

Signed:

Michael Brogden
DEAssessments
05 March 2010

Code for Sustainable Homes Report

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 step-change in sustainable home building practice (Communities and Local Government, 2006). The Code became operational in April 2007 in England, and having a Code rating for new build homes mandatory, from 1st May 2008. This mandatory requirement comes into effect for all developments where a local authority has received a building notice, initial notice or full plans application after 1st May 2008. Developments where a local authority had received these stages on or before 30 April 2008 will be exempt.

Where Building Regulations apply, compliance is necessary at all times.

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. The Issues and category's are as follows

- Energy and 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

Code for Sustainable Homes Report

- Flood Risk
- Waste
 - Storage of non-recyclable waste and recyclable household waste
 - Construction Site Waste Management
 - Composting
- Pollution
 - Global Warming Potential of Insulates
 - NO_x Emissions
- Health and 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

Performance targets are more demanding than the minimum standard 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.

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 Runoff 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

Code for Sustainable Homes Report

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 demand, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NO_x 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 blue star is awarded for each level achieved. Where an assessment has taken place but where no rating is achieved, the certificate states that zero stars have been awarded:

Code for Sustainable Homes Report

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 licensed and registered individuals, who are qualified 'competent persons' for the purpose of carrying out Code assessments.

Code for Sustainable Homes Report

Energy and 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.

Code for Sustainable Homes Report

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.

Code for Sustainable Homes Report

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: NO_x Emissions

Available Credits: 3

Aim: To reduce the emission of nitrogen oxides (NO_x) into the atmosphere.

Health and 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.

Code for Sustainable Homes Report

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: 2****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.

Code for Sustainable Homes Report

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.



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



10 / 0245 / FULL



Assessor: Michael Brogden
Company: DEAssessments
Assessor Number: STRO000212
Site Name: 644 Hanworth Road
Site Registration:
Report Reference: Pre CSH Assessment v1





Site Details

Site Name: 644 Hanworth Road
Site Registration:
Site Address: 644 Hanworth Road

City/Town: Hounslow
County: Middlesex
Postcode: TW4 5NP
No. of Dwellings: 4
No. of Dwelling Types: 1

Assessor Details

Company Name: DEAssessments
Assessor Name: Michael Brogden
Assessor Number: STRO000212
Assessor Address: 14 High Street
Chipping Sodbury

City/Town: Bristol
County: South Gloucestershire
Postcode: BS37 6AH
Tel: 01454 317940
Email: enquiries@deassessments.co.uk

Client Details

Company Name:
Contact Name:
Job Title:
Email:
Tel:
Address:

City/Town:
County:
Postcode:

Architect Details

Company Name:
Contact Name:
Job Title:
Email:
Tel:
Address:

City/Town:
County:
Postcode:

Developer Details

Company Name:
Contact Name:
Job Title:
Email:
Tel:
Address:

City/Town:
County:
Postcode:

Assessor Report Notes

This assessment has been based on a basic site plan. The assumptions which make this report are founded on the credits usually sought in complying with CSH level 3.

All assumptions and credits will need to be confirmed with the design team before this report can be used as a document to confirm the projects progress towards achieveing CSH level 3.



Development Summary & Ratings

Dwelling Type	Description	Level	Score
Flat - 644 Hanworth Road	Flat - 644 Hanworth Road	3	58.95

Deviations from Standard
No Deviations from Standard



Summary Score Sheet

Dwelling Type: Flat - 644 Hanworth Road

Plots: 1, 2, 3, 4

	Credit Score	Credits Available	Score Assessment				
			Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
Ene 1 Dwelling Emission Rate	5	15	15	29	51.72	1.26	18.83
Ene 2 Building Fabric	1	2					
Ene 3 Internal Lighting	2	2					
Ene 4 Drying Space	1	1					
Ene 5 Energy Labelled White Goods	2	2					
Ene 6 External Lighting	2	2					
Ene 7 Low or Zero Carbon Energy Tech	0	2					
Ene 8 Cycle Storage	2	2					
Ene 9 Home Office	0	1					
Water							
Wat 1 Internal Potable Water Use	4	5	5	6	83.33	1.50	7.5
Wat 2 External Water Use	1	1					
Materials							
Mat 1 Environmental Impact of materials	10	15	15	24	62.50	0.30	4.5
Mat 2 Responsible Sourcing (Basic Building Elements)	5	6					
Mat 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run Off							
Sur 1 Reduction of Surface Water Run-off from Site	2	2	3	4	75.00	0.55	1.65
Sur 2 Flood Risk	1	2					
Waste							
Was 1 Household Waste Storage & Recycling Facilities	4	4	6	7	85.71	0.91	5.49
Was 2 Construction Site Waste Management	2	2					
Was 3 Composting	0	1					
Pollution							
Pol 1 Global Warming Potential of Insulants	1	1	1	4	25.00	0.70	0.7
Pol 2 NOx Emissions	0	3					
Health & Wellbeing							
Hea 1 Daylighting	1	3	5	12	41.67	1.17	5.83
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	7	9	77.78	1.11	7.78
Man 2 Considerate Constructors Scheme	0	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	1.33	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: 58.95				



Evidence Gathered

Evidence for ENE1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE4 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE5 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE6 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE7 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE8 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for ENE9 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAT1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAT2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for MAT3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for SUR1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for SUR2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for WAS3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).

Evidence for POL1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).



Evidence Gathered

Evidence for POL2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for HEA1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for HEA2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for HEA3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for HEA4 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for MAN1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for MAN2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for MAN3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for MAN4 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for ECO1 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for ECO2 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for ECO3 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for ECO4 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).
Evidence for ECO5 - 644 Hanworth Road
Default Text: Credit not sought (please change where applicable).



Assessor Declaration

I Michael Brogden, 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 reference material that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certification for Quality Assurance monitoring.

Signed:

Michael Brogden
DEAssessments
05 March 2010

Code for Sustainable Homes Report

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 step-change in sustainable home building practice (Communities and Local Government, 2006). The Code became operational in April 2007 in England, and having a Code rating for new build homes mandatory, from 1st May 2008. This mandatory requirement comes into effect for all developments where a local authority has received a building notice, initial notice or full plans application after 1st May 2008. Developments where a local authority had received these stages on or before 30 April 2008 will be exempt.

Where Building Regulations apply, compliance is necessary at all times.

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. The Issues and category's are as follows

- Energy and 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

Code for Sustainable Homes Report

- Flood Risk
- Waste
 - Storage of non-recyclable waste and recyclable household waste
 - Construction Site Waste Management
 - Composting
- Pollution
 - Global Warming Potential of Insulates
 - NO_x Emissions
- Health and 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

Performance targets are more demanding than the minimum standard 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.

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 Runoff 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

Code for Sustainable Homes Report

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 demand, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NO_x 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 blue star is awarded for each level achieved. Where an assessment has taken place but where no rating is achieved, the certificate states that zero stars have been awarded:

Code for Sustainable Homes Report

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 licensed and registered individuals, who are qualified 'competent persons' for the purpose of carrying out Code assessments.

Code for Sustainable Homes Report

Energy and 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.

Code for Sustainable Homes Report

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.

Code for Sustainable Homes Report

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: NO_x Emissions

Available Credits: 3

Aim: To reduce the emission of nitrogen oxides (NO_x) into the atmosphere.

Health and 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.

Code for Sustainable Homes Report

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: 2

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.

Code for Sustainable Homes Report

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.