Code for Sustainable Homes

Technical Guide November 2010 - Full Technical Guide

Pre-Assessment Report

Report Reference:	
Site Registration:	
Site Name:	**Keats Lane, Earl Shilton**
Assessor Number:	**STRO007302**
Company:	**UK Building Compliance**
Assessor:	**Luke Wilson**

Site Details	
Site Name:	Keats Lane, Earl Shilton
Site Registration:	
Site Address:	Keats Lane
	Earl Shilton
City/Town:	
County:	Leicestershire
Postcode:	
No. of Dwellings:	3
No. of Dwelling Types:	1
Planning Authority:	Hinckley & Bosworth Borough Council
Funding Body:	

Assessor Details	
Company:	UK Building Compliance
Assessor Name:	Luke Wilson
Cert Number:	STRO007302
Address:	The Old Factory Offices
	8 Hawley Road
City/Town:	Hinckley
County:	Leicestershire
Postcode:	LE10 0PR
Tel:	01455 634 855
Email:	info@ukbuildingcompliance.co.uk

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

Architect Details	
Company:	Hayward Architects
Contact Name:	Chris Parker
Job Title:	-
Email:	mail@hayward-architects.co.uk
Tel:	01455 635665
Address:	19 Station Road
City/Town:	Hinckley
County:	Leicestershire
Postcode:	LE10 1AW

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

Dwelling ID	Plot No.	Address	Social Unit
1	1 & 2	1 & 2 Keats Lane Earl Shilton	No
2	3	3 Keats Lane Earl Shilton	No
3	4, 5, 6 &	4, 5, 6 & 7 Keats Lane Earl Shilton	No

Development Summary & Ratings

Dwelling ID	Dwelling Type	Description	Level	Score
		3Keats Lane	3	58.74
		4, 5, 6 & 7Keats Lane	0	58.2
1 & 2	Keats Lane		3	59.33

Deviations from Standard

No deviations from standard

Score Sheet for Keats Lane, Earl Shilton

	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	6	3	2	1	2	2	0	2	1	3	1	12	0	0	0	2	4	0	1	1	2	3	4	1	0	3	0	0	2	1	0	1	2	0	59.33	3
2	5.5	3	2	1	2	2	0	2	1	3	1	12	0	0	0	2	4	0	1	1	2	3	4	1	0	3	0	0	2	1	0	1	2	0	58.74	3
3	6	3.1	2	1	2	2	0	0	1	3	1	12	0	0	2	2	4	0	1	1	2	3	4	1	0	3	0	0	2	1	0	1	2	0	58.2	0

Summary Score Sheet

Dwelling Type: Keats Lane

Dwelling ID: 1

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	6	10	19	31	61.29	36.4	22.31
ENE 2 Fabric Energy Efficiency	3	9					
ENE 3 Energy Display Device	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 Technologies	0	2					
ENE 8 Cycle Storage	2	2					
ENE 9 Home Office	1	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	12	15	12	24	50	7.2	3.6
MAT 2 Responsible Sourcing (Basic Building Elements)	0	6					
MAT 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off							
SUR 1 Management of Surface Water Run-Off from Site	0	2	2	4	50	2.2	1.1
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	5	8	62.5	6.4	4
WAS 2 Construction Site Waste Management	0	3					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	3	4	75	2.8	2.1
POL 2 NOx Emissions	2	3					
Health & Wellbeing							
HEA 1 Daylighting	3	3	8	12	66.67	14	9.33
HEA 2 Sound Insulation	4	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	0	4					
Management							
MAN 1 Home User Guide	3	3	5	9	55.56	10	5.56
MAN 2 Considerate Constructors Scheme	0	2					
MAN 3 Construction Site Impacts	0	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	1	1	4	9	44.44	12	5.33
ECO 2 Ecological Enhancement	0	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: 59.33				

Evidence for ENE 1 (Dwelling Emission Rate) - Keats Lane
Improvement above Part L Building Regulations 2010. 6 credits allocated
Assumptions for ENE 1
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 2 (Fabric Energy Efficiency) - Keats Lane
Semi Detached 3 credits allocated
Assumptions for ENE 2
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 3 (Energy Display Device) - Keats Lane
Correctly specified display device showing current primary heating fuel consumption data. Correctly specified display device showing current consumption data.
Assumptions for ENE 3
Assumed correctly specified Display Device showing current consumption data and primary heating fuel consumption data.

Evidence for ENE 4 (Drying Space) - Keats Lane
Compliant external drying space
Assumptions for ENE 4
Assumed Compliant External Drying Space to garden of property.

Evidence for ENE 5 (Energy Labelled White Goods) - Keats Lane
A+ rated fridge & freezers or fridge/freezer A rated washing machine and dishwasher, AND EITHER a tumble dryer (a washer-dryer would be an acceptable alternative to a standalone tumble dryer) with a B rating or where a tumble dryer is not provided, the EU Energy Efficiency Labelling Scheme Information will be provided.
Assumed correctly specified appliances supplied.
Assumptions for ENE 5

Evidence for ENE 6 (External Lighting) - Keats Lane
Complaint space lighting, no security lighting installed
Assumed Compliant external space lighting provided.
Assumptions for ENE 6

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies) - Keats Lane
Credit(s) not sought or contribution of low or zero carbon technologies less than 10%
Assumptions for ENE 7
Assumed no Low or Zero Carbon Technologies included.

Evidence for ENE 8 (Cycle Storage) - Keats Lane
2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling
Assumptions for ENE 8
Assumed correctly specified storage for 2 cycles provided.

Evidence for ENE 9 (Home Office) - Keats Lane
Compliant home office
Assumptions for ENE 9
Assumed Bedroom 2 will meet requirements of a home office.

Evidence for WAT 1 (Internal Water Use) - Keats Lane
Internal water use less than or equal to 105 litres per person per day
Assumptions for WAT 1
Assumed water usage will be less than or equal to 105 litres/person/day. Flow rates etc to be in accordance with calculations supplied by UK Building Compliance.

Evidence for WAT 2 (External Water Use) - Keats Lane
Compliant individual rainwater collection system
Assumptions for WAT 2
Assumed compliant water butt is provided.

Evidence for MAT 1 (Environmental Impact of Materials) - Keats Lane
Mandatory requirements met: At least 3 elements rated A+ to D, 12 credits scored
Assumptions for MAT 1
Assumed traditional construction. TBC following detailed design.

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements)) - Keats Lane
Zero credits or credits not sought
Assumptions for MAT 2
No credits sought.

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements)) - Keats Lane
Zero credits or credits not sought
Assumptions for MAT 3
No credits sought.

Evidence for SUR 1 (Management of Surface Water Run-Off from Site) - Keats Lane
Mandatory Met: Peak rate of run-off and annual volume of run-off is no greater for the developed than for the pre-development. The system has also been designed for local drainage system failure.
Assumptions for SUR 1
Mandatory requirements met.

Evidence for SUR 2 (Flood Risk) - Keats Lane
Low flood risk - zone 1
Assumptions for SUR 2
Low flood risk zone, credits awarded.

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities) - Keats Lane
Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: Before collection sorting with appropriate internal storage of recyclable materials
Assumptions for WAS 1
Mandatory requirement met.

Evidence for WAS 2 (Construction Site Waste Management) - Keats Lane
Credit not sought
Assumptions for WAS 2
Credits not sought.

Evidence for WAS 3 (Composting) - Keats Lane
Individual compositing facility/facilities

Assumptions for WAS 3
Individual composting facility/ facilities provided.

Evidence for POL 1 (Global Warming Potential of Insulants) - Keats Lane
All insulants have a GWP of less than 5
Assumptions for POL 1
Assumed insulation materials will have a GWP of less than 5.

Evidence for POL 2 (NOx Emissions) - Keats Lane
Class 5 boiler
Assumptions for POL 2
Class 5 boiler assumed.

Evidence for HEA 1 (Daylighting) - Keats Lane
Kitchen: Average daylight factor of at least 2% Living room: Average daylight factor of at least 1.5% Dining room: Average daylight factor of at least 1.5% Home office: Average daylight factor of at least 1.5% All rooms (kitchen, living, dining and where applicable the home office) have 80% of the working plane with direct light from the sky
Assumptions for HEA 1
Assumed all rooms achieve daylight levels required.

Evidence for HEA 2 (Sound Insulation) - Keats Lane
Robust details have been incorporated Airborne 8dB higher, impact 8dB lower
Assumptions for HEA 2
Robust details have been incoroporated.

Evidence for HEA 3 (Private Space) - Keats Lane
Individual private space provided.
Individual private space provided.
Assumptions for HEA 3

Evidence for HEA 4 (Lifetime Homes) - Keats Lane
Credits not sought
Assumptions for HEA 4
Credits not sought.

Evidence for MAN 1 (Home User Guide) - Keats Lane
All criteria inline with checklist MAN 1 Part 1 - Operational Issues will be met All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met
Assumptions for MAN 1
Assumed Home user guide parts 1 & 2 will be provided. These can be supplied by UK Building Compliance at additional cost.

Evidence for MAN 2 (Considerate Constructors Scheme) - Keats Lane
Credits not sought
Assumptions for MAN 2
Credits not sought.

Evidence for MAN 3 (Construction Site Impacts) - Keats Lane
Credit(s) not sought

Assumptions for MAN 3
Credits not sought.

Evidence for MAN 4 (Security) - Keats Lane
Secured by design section 1 & 2 compliant
Assumptions for MAN 4
Assumed project will be Secured by design section 1 & 2 compliant.

Evidence for ECO 1 (Ecological Value of Site) - Keats Lane
Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist
Assumptions for ECO 1
Land of low ecological value.

Evidence for ECO 2 (Ecological Enhancement) - Keats Lane
Credit not sought or no compliant enhancement
Assumptions for ECO 2
Credits not sought.

Evidence for ECO 3 (Protection of Ecological Features) - Keats Lane
Land of low ecological value as identified under ECO 1
Assumptions for ECO 3
Land of low ecological value.

Evidence for ECO 4 (Change of Ecological Value of Site) - Keats Lane
Neutral: Greater than -3 and less than or equal to +3
Assumptions for ECO 4

Evidence for ECO 5 (Building Footprint) - Keats Lane
Credit not sought
Assumptions for ECO 5
Credit not sought.

Summary Score Sheet
Dwelling Type: 3 Keats Lane

Dwelling ID: 2

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	5.5	10	18.5	31	59.68	36.4	21.72
ENE 2 Fabric Energy Efficiency	3	9					
ENE 3 Energy Display Device	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 Technologies	0	2					
ENE 8 Cycle Storage	2	2					
ENE 9 Home Office	1	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	12	15	12	24	50	7.2	3.6
MAT 2 Responsible Sourcing (Basic Building Elements)	0	6					
MAT 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off							
SUR 1 Management of Surface Water Run-Off from Site	0	2	2	4	50	2.2	1.1
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	5	8	62.5	6.4	4
WAS 2 Construction Site Waste Management	0	3					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	3	4	75	2.8	2.1
POL 2 NOx Emissions	2	3					
Health & Wellbeing							
HEA 1 Daylighting	3	3	8	12	66.67	14	9.33
HEA 2 Sound Insulation	4	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	0	4					
Management							
MAN 1 Home User Guide	3	3	5	9	55.56	10	5.56
MAN 2 Considerate Constructors Scheme	0	2					
MAN 3 Construction Site Impacts	0	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	1	1	4	9	44.44	12	5.33
ECO 2 Ecological Enhancement	0	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: 58.74				

Evidence for ENE 1 (Dwelling Emission Rate)
Improvement above Part L Building Regulations 2010. 5.5 credits allocated
Assumptions for ENE 1
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 2 (Fabric Energy Efficiency)
Detached 3 credits allocated
Assumptions for ENE 2
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 3 (Energy Display Device)
Correctly specified display device showing current primary heating fuel consumption data. Correctly specified display device showing current consumption data.
Assumptions for ENE 3
Assumed correctly specified Display Device showing current consumption data and primary heating fuel consumption data.

Evidence for ENE 4 (Drying Space)
Compliant external drying space
Assumptions for ENE 4
Assumed Compliant External Drying Space to garden of property.

Evidence for ENE 5 (Energy Labelled White Goods)
A+ rated fridge & freezers or fridge/freezer A rated washing machine and dishwasher, AND EITHER a tumble dryer (a washer-dryer would be an acceptable alternative to a standalone tumble dryer) with a B rating or where a tumble dryer is not provided, the EU Energy Efficiency Labelling Scheme Information will be provided.
Assumptions for ENE 5
Assumed correctly specified appliances supplied.

Evidence for ENE 6 (External Lighting)
Complaint space lighting, no security lighting installed
Assumptions for ENE 6
Assumed Compliant external space lighting provided.

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies)
Credit(s) not sought or contribution of low or zero carbon technologies less than 10%
Assumptions for ENE 7
Assumed no Low or Zero Carbon Technologies included.

Evidence for ENE 8 (Cycle Storage)
2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling
Assumptions for ENE 8
Assumed correctly specified storage for 2 cycles provided.

Evidence for ENE 9 (Home Office)
Compliant home office
Assumptions for ENE 9
Assumed Bedroom 2 will meet requirements of a home office.

Evidence for WAT 1 (Internal Water Use)
Internal water use less than or equal to 105 litres per person per day
Assumptions for WAT 1
Assumed water usage will be less than or equal to 105 litres/person/day. Flow rates etc to be in accordance with calculations supplied by UK Building Compliance.

Evidence for WAT 2 (External Water Use)
Compliant individual rainwater collection system
Assumptions for WAT 2
Assumed compliant water butt is provided.

Evidence for MAT 1 (Environmental Impact of Materials)
Mandatory requirements met: At least 3 elements rated A+ to D, 12 credits scored
Assumptions for MAT 1
Assumed traditional construction. TBC following detailed design.

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements))
Zero credits or credits not sought
Assumptions for MAT 2
No credits sought.

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements))
Zero credits or credits not sought
Assumptions for MAT 3
No credits sought.

Evidence for SUR 1 (Management of Surface Water Run-Off from Site)
Mandatory Met: Peak rate of run-off and annual volume of run-off is no greater for the developed than for the pre-development. The system has also been designed for local drainage system failure.
Assumptions for SUR 1
Mandatory requirements met.

Evidence for SUR 2 (Flood Risk)
Low flood risk - zone 1
Assumptions for SUR 2
Low flood risk zone, credits awarded.

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities)
Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: Before collection sorting with appropriate internal storage of recyclable materials
Assumptions for WAS 1
Mandatory requirement met.

Evidence for WAS 2 (Construction Site Waste Management)
Credit not sought
Assumptions for WAS 2
Credits not sought.

Evidence for WAS 3 (Composting)
Individual compositing facility/facilities

Assumptions for WAS 3
Individual composting facility provided.

Evidence for POL 1 (Global Warming Potential of Insulants)
All insulants have a GWP of less than 5
Assumptions for POL 1
Assumed insulation materials will have a GWP of less than 5.

Evidence for POL 2 (NOx Emissions)
Class 5 boiler
Assumptions for POL 2
Class 5 boiler assumed.

Evidence for HEA 1 (Daylighting)
Kitchen: Average daylight factor of at least 2% Living room: Average daylight factor of at least 1.5% Dining room: Average daylight factor of at least 1.5% Home office: Average daylight factor of at least 1.5% All rooms (kitchen, living, dining and where applicable the home office) have 80% of the working plane with direct light from the sky
Assumptions for HEA 1
Assumed all rooms achieve daylight levels required.

Evidence for HEA 2 (Sound Insulation)
Detached property
Assumptions for HEA 2
Robust details have been incoroporated.

Evidence for HEA 3 (Private Space)
Individual private space provided.
Assumptions for HEA 3
Individual private space provided.

Evidence for HEA 4 (Lifetime Homes)
Credits not sought
Assumptions for HEA 4
Credits not sought.

Evidence for MAN 1 (Home User Guide)
All criteria inline with checklist MAN 1 Part 1 - Operational Issues will be met All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met
Assumptions for MAN 1
Assumed Home user guide parts 1 & 2 will be provided. These can be supplied by UK Building Compliance at additional cost.

Evidence for MAN 2 (Considerate Constructors Scheme)
Credits not sought
Assumptions for MAN 2
Credits not sought.

Evidence for MAN 3 (Construction Site Impacts)
Credit(s) not sought

Assumptions for MAN 3
Credits not sought.

Evidence for MAN 4 (Security)
Secured by design section 1 & 2 compliant
Assumptions for MAN 4
Assumed project will be Secured by design section 1 & 2 compliant.

Evidence for ECO 1 (Ecological Value of Site)
Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist
Assumptions for ECO 1
Land of low ecological value.

Evidence for ECO 2 (Ecological Enhancement)
Credit not sought or no compliant enhancement
Assumptions for ECO 2
Credits not sought.

Evidence for ECO 3 (Protection of Ecological Features)
Land of low ecological value as identified under ECO 1
Assumptions for ECO 3
Land of low ecological value.

Evidence for ECO 4 (Change of Ecological Value of Site)
Neutral: Greater than -3 and less than or equal to +3
Assumptions for ECO 4

Evidence for ECO 5 (Building Footprint)
Credit not sought
Assumptions for ECO 5
Credit not sought.

Summary Score Sheet

Dwelling Type: 4, 5, 6 & 7 Keats Lane

Dwelling ID: 3

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	6	10	17.1	31	55.16	36.4	20.08
ENE 2 Fabric Energy Efficiency	3.1	9					
ENE 3 Energy Display Device	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 Technologies	0	2					
ENE 8 Cycle Storage	0	2					
ENE 9 Home Office	1	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	12	15	12	24	50	7.2	3.6
MAT 2 Responsible Sourcing (Basic Building Elements)	0	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	5	8	62.5	6.4	4
WAS 2 Construction Site Waste Management	0	3					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	3	4	75	2.8	2.1
POL 2 NOx Emissions	2	3					
Health & Wellbeing							
HEA 1 Daylighting	3	3	8	12	66.67	14	9.33
HEA 2 Sound Insulation	4	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	0	4					
Management							
MAN 1 Home User Guide	3	3	5	9	55.56	10	5.56
MAN 2 Considerate Constructors Scheme	0	2					
MAN 3 Construction Site Impacts	0	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	1	1	4	9	44.44	12	5.33
ECO 2 Ecological Enhancement	0	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: 0		Total Points Scored: 58.2				

Evidence for ENE 1 (Dwelling Emission Rate)
6 credits allocated
Assumptions for ENE 1
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 2 (Fabric Energy Efficiency)
3.1 credits allocated
Assumptions for ENE 2
TBC following completion of SAP Calculations undertaken by UK Building Compliance.

Evidence for ENE 3 (Energy Display Device)
Correctly specified display device showing current primary heating fuel consumption data. Correctly specified display device showing current consumption data.
Assumptions for ENE 3
Assumed correctly specified Display Device showing current consumption data and primary heating fuel consumption data.

Evidence for ENE 4 (Drying Space)
Compliant external drying space
Assumptions for ENE 4
Assumed Compliant External Drying Space to garden of property.

Evidence for ENE 5 (Energy Labelled White Goods)
A+ rated fridge & freezers or fridge/freezer A rated washing machine and dishwasher, AND EITHER a tumble dryer (a washer-dryer would be an acceptable alternative to a standalone tumble dryer) with a B rating or where a tumble dryer is not provided, the EU Energy Efficiency Labelling Scheme Information will be provided.
Assumptions for ENE 5
Assumed correctly specified appliances supplied.

Evidence for ENE 6 (External Lighting)
Complaint space lighting, no security lighting installed
Assumptions for ENE 6
Assumed Compliant external space lighting provided.

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies)
Credit(s) not sought or contribution of low or zero carbon technologies less than 10%
Assumptions for ENE 7
Assumed no Low or Zero Carbon Technologies included.

Evidence for ENE 8 (Cycle Storage)
Credit(s) not sought or no compliant cycle storage
Assumptions for ENE 8
Assumed correctly specified storage for 2 cycles provided.

Evidence for ENE 9 (Home Office)
Compliant home office
Assumptions for ENE 9
Assumed Bedroom 2 will meet requirements of a home office.

Evidence for WAT 1 (Internal Water Use)
Internal water use less than or equal to 105 litres per person per day

Assumptions for WAT 1
Assumed water usage will be less than or equal to 105 litres/person/day. Flow rates etc to be in accordance with calculations supplied by UK Building Compliance.

Evidence for WAT 2 (External Water Use)
Compliant individual rainwater collection system
Assumptions for WAT 2
Assumed compliant water butt is provided.

Evidence for MAT 1 (Environmental Impact of Materials)
Mandatory requirements met: At least 3 elements rated A+ to D, 12 credits scored
Assumptions for MAT 1
Assumed traditional construction. TBC following detailed design.

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements))
Zero credits or credits not sought
Assumptions for MAT 2
No credits sought.

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements))
Zero credits or credits not sought
Assumptions for MAT 3
No credits sought.

Evidence for SUR 1 (Management of Surface Water Run-Off from Site)
Mandatory Met: Peak rate of run-off and annual volume of run-off is no greater for the developed than for the pre-development. The system has also been designed for local drainage system failure. No discharge to watercourse(s) for rainfall depth up to 5mm. Run-off from all hard surfaces shall receive an appropriate level of treatment (as per the SudS manual) to minimise risk of pollution.
Assumptions for SUR 1
Mandatory requirements met.

Evidence for SUR 2 (Flood Risk)
Low flood risk - zone 1
Assumptions for SUR 2
Low flood risk zone, credits awarded.

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities)
Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: Before collection sorting with appropriate internal storage of recyclable materials
Assumptions for WAS 1
Mandatory requirement met.

Evidence for WAS 2 (Construction Site Waste Management)
Credit not sought
Assumptions for WAS 2
Credits not sought.

Evidence for WAS 3 (Composting)
Individual compositing facility/facilities

Assumptions for WAS 3
Individual composting facility provided.

Evidence for POL 1 (Global Warming Potential of Insulants)
All insulants have a GWP of less than 5
Assumptions for POL 1
Assumed insulation materials will have a GWP of less than 5.

Evidence for POL 2 (NOx Emissions)
Class 5 boiler
Assumptions for POL 2
Class 5 boiler assumed.

Evidence for HEA 1 (Daylighting)
Kitchen: Average daylight factor of at least 2% Living room: Average daylight factor of at least 1.5% Dining room: Average daylight factor of at least 1.5% Home office: Average daylight factor of at least 1.5% All rooms (kitchen, living, dining and where applicable the home office) have 80% of the working plane with direct light from the sky
Assumptions for HEA 1
Assumed all rooms achieve daylight levels required.

Evidence for HEA 2 (Sound Insulation)
Detached property
Assumptions for HEA 2
Robust details have been incoroporated.

Evidence for HEA 3 (Private Space)
Individual private space provided.
Assumptions for HEA 3
Individual private space provided.

Evidence for HEA 4 (Lifetime Homes)
Credits not sought
Assumptions for HEA 4
Credits not sought.

Evidence for MAN 1 (Home User Guide)
All criteria inline with checklist MAN 1 Part 1 - Operational Issues will be met All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met
Assumptions for MAN 1
Assumed Home user guide parts 1 & 2 will be provided. These can be supplied by UK Building Compliance at additional cost.

Evidence for MAN 2 (Considerate Constructors Scheme)
Credits not sought
Assumptions for MAN 2
Credits not sought.

Evidence for MAN 3 (Construction Site Impacts)
Credit(s) not sought

Assumptions for MAN 3
Credits not sought.

Evidence for MAN 4 (Security)
Secured by design section 1 & 2 compliant
Assumptions for MAN 4
Assumed project will be Secured by design section 1 & 2 compliant.

Evidence for ECO 1 (Ecological Value of Site)
Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist
Assumptions for ECO 1
Land of low ecological value.

Evidence for ECO 2 (Ecological Enhancement)
Credit not sought or no compliant enhancement
Assumptions for ECO 2
Credits not sought.

Evidence for ECO 3 (Protection of Ecological Features)
Land of low ecological value as identified under ECO 1
Assumptions for ECO 3
Land of low ecological value.

Evidence for ECO 4 (Change of Ecological Value of Site)
Neutral: Greater than -3 and less than or equal to +3
Assumptions for ECO 4

Evidence for ECO 5 (Building Footprint)
Credit not sought
Assumptions for ECO 5
Credit not sought.

Assessor Declaration

I Luke Wilson, 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:

Luke Wilson
UK Building Compliance
23 December 2013

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, four 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

For one issue a mandatory requirement at Level 5 or 6:

- Fabric Energy Efficiency

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:**10 **Aim:**To limit CO2 emissions arising from the operation of a dwelling and its services in line with current policy on the future direction of regulations.
ENE 2: Fabric Energy Efficiency **Available Credits:**9 **Aim:**To improve fabric energy efficiency performance thus future-proofing reductions in CO2 for the life of the dwelling.
ENE 3: Energy Display Device **Available Credits:**2 **Aim:**To promote the specification of equipment to display energy consumption data, thus empowering dwelling occupants to reduce energy use.
ENE 4: Drying Space **Available Credits:**1 **Aim:**To promote a reduced energy means of drying clothes.
ENE 5: Energy Labelled White Goods **Available Credits:**2 **Aim:**To promote 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 promote 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 limit CO2 emissions and running costs arising from the operation of a dwelling and its services by encouraging the specification of low and zero carbon energy sources to supply a significant proportion of energy demand.
ENE 8: Cycle Storage **Available Credits:**2 **Aim:**To promote the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys and the associated CO2 emissions.
ENE 9: Home Office **Available Credits:**1 **Aim:**To promote working from home by providing occupants with the necessary space and services thus reducing the need to commute.

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 promote 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 specify materials with lower environmental impacts over their life-cycle.
MAT 2: Responsible Sourcing of Materials - Basic Building Elements **Available Credits:**6 **Aim:**To promote the specification of responsibly sourced materials for the basic building elements.
MAT 3: Responsible Sourcing of Materials - Finishing Elements **Available Credits:**3 **Aim:**To promote 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 surface water drainage for housing developments which avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers using SuDS techniques. This will protect receiving waters from pollution and minimise the risk of flooding and other environmental damage in watercourses.
SUR 2: Flood Risk **Available Credits:**2 **Aim:**To promote 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 promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 2: Construction Site Waste Management **Available Credits:**3 **Aim:**To promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 3: Composting **Available Credits:**1 **Aim:**To promote the provision of compost facilities to reduce the amount of household waste send to landfill.

Pollution
POL 1: Global Warming Potential of Insulants **Available Credits:**1 **Aim:**To promote the reduction of emissions of gases with high GWP associated with the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.
POL 2:NOx Emissions **Available Credits:**3 **Aim:**To promote the reduction of nitrogen oxide (NOX) emissions into the atmosphere.

Health & Wellbeing
HEA 1: Daylighting **Available Credits:**3 **Aim:**To promote good daylighting and thereby improve quality of life and reduce the need for energy to light the home.
HEA 2: Sound Insulation **Available Credits:**4 **Aim:**To promote 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 quality of life by promoting the provision of an inclusive outdoor space 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 promote the 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 promote the environmentally and socially considerate, and accountable management of construction sites.
MAN 3: Construction Site Impacts **Available Credits:**2 **Aim:**To promote construction sites managed in a manner that mitigates environmental impacts.
MAN 4: Security **Available Credits:**2 **Aim:**To promote 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 promote 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 promote the protection of 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 minimise reductions and promote 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.

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