Code for Sustainable Homes

Technical Guide November 2010 - Technical Guidance Note 2

Pre-Assessment Report

STROMA CERTIFIED CODE ASSESSOR

energist

Report Reference:	**PB.FR.NW2**
Site Registration:	**006882-140120-53-1110**
Site Name:	**194A Fordwych Road**
Assessor Number:	**STRO006882**
Company:	**Energist UK**
Assessor:	**Dominique Gilbert**

THE CODE FOR SUSTAINABLE HOMES

CERTIFICATION MARK

Site Details	
Site Name:	194A Fordwych Road
Site Registration:	006882-140120-53-1110
Site Address:	Fordwych Road
City/Town:	London
County:	Greater London
Postcode:	NW2 3NX
No. of Dwellings:	1
No. of Dwelling Types:	1
Planning Authority:	Camden Council
Funding Body:	

Assessor Details	
Company:	Energist UK
Assessor Name:	Dominique Gilbert
Cert Number:	STRO006882
Address:	Energist House
	Kemble Enterprise Park
	Kemble
City/Town:	Cirencester
County:	Gloucestershire
Postcode:	GL7 6BQ
Tel:	08458 386 387
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Client Details	
Company:	Daniel & Anne Hazelwood
Contact Name:	Daniel & Anne Hazelwood
Job Title:	
Email:	
Tel:	
Address:	194 Fordwych Road
City/Town:	London
County:	
Postcode:	NW2 3NX

Architect Details	
Company:	Peter Brades Architects
Contact Name:	Peter Brades
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Email:	0207 2263884
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Address:	42 Colebrook Row
	Islington
City/Town:	London
County:	
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Developer Details	
Company:	
Contact Name:	Unknown
Job Title:	
Email:	
Tel:	
Address:	
City/Town:	
County:	
Postcode:	

Dwelling ID	Plot No.	Address	Social Unit
1	194a	Fordwych Road	No

Development Summary & Ratings

Dwelling ID	Dwelling Type	Description	Level	Score
		Fordwych Road	4	68.91

Deviations from Standard

No deviations from standard

Score Sheet for 194A Fordwych Road

	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	3.6	5.6	2	1	2	2	0	2	1	3	1	10	3	1	1	2	4	2	1	1	3	1	4	1	4	3	0	2	2	1	1	1	2	0	68.91	4

Summary Score Sheet

Dwelling Type: Fordwych Road

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	3.6	10	19.2	31	61.94	36.4	22.54
ENE 2 Fabric Energy Efficiency	5.6	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	10	15	14	24	58.33	7.2	4.2
MAT 2 Responsible Sourcing (Basic Building Elements)	3	6					
MAT 3 Responsible Sourcing (Finishing Elements)	1	3					
Surface Water Run-off							
SUR 1 Management of Surface Water Run-Off from Site	1	2	3	4	75	2.2	1.65
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	7	8	87.5	6.4	5.6
WAS 2 Construction Site Waste Management	2	3					
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	1	3	10	12	83.33	14	11.67
HEA 2 Sound Insulation	4	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	4	4					
Management							
MAN 1 Home User Guide	3	3	7	9	77.78	10	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	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: 4		Total Points Scored: 68.91				

Evidence for ENE 1 (Dwelling Emission Rate)
Improvement above Part L Building Regulations 2010. 3.6 credits allocated
Credits are awarded for a percentage reduction over the Part L 2010 Target Emission Rate. The completed SAP calculation confirms the number of credits that can be awarded.
Assumptions for ENE 1

Evidence for ENE 2 (Fabric Energy Efficiency)
Detached 5.6 credits allocated
Credits are awarded for reducing the heat demand of the property, taking into account fabric U values, air tightness and both internal and solar gains. The completed SAP calculation confirms the number of credits that can be awarded.
Assumptions for ENE 2

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.
The developer will install an Energy Display Device to each dwelling on this development. In order to achieve 2 credits the device must be able to monitor, record and display electricity and primary heat fuel consumption. In addition the device must also be able to display: - Local Time - Current mains energy consumption in both kilowatts and kilowatt hours. - Current emissions in grams or kilograms CO2 - Current Tariff - Current cost - Accurate account balance information - Non numeric visual presentation of data - Historical consumption data
Assumptions for ENE 3

Evidence for ENE 4 (Drying Space)
Compliant external drying space
1 credit can be awarded for providing sufficient equipment for drying clothes. A 4m+ of drying line must be provided. - For 3+ bed dwellings, 6m+ of drying space must be provided. There is sufficient space in the rear gardens to provide a rotary dryer.
Assumptions for ENE 4

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.
The developer will supply white goods that are compliant with the criteria for energy efficiency as set out in the Code guidance as follows: Fridges, freezers and fridge freezers (A+ rated): 1 credit can be awarded. And Washing machines and dishwashers: (A rated): 2 credits can be awarded And where provided Tumble dryers and washer dryers: B rated
Assumptions for ENE 5

Evidence for ENE 6 (External Lighting)
Compliant space lighting Compliant security lighting
All space lighting will be dedicated low Energy with daylight cut off sensors, time switching or PIR sensors. All burglar security lighting will be less than 150w and controlled by PIR and daylight cut off sensors. All other security lighting is provided by dedicated energy efficient lighting and controlled by daylight cut off sensors or a time switch. Therefore 2 credits can be awarded in this pre-assessment.
Assumptions for ENE 6

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%
Credit not achieved.
Assumptions for ENE 7

Evidence for ENE 8 (Cycle Storage)
Studio or 1 bedroom dwelling - Storage for 1 cycle per dwelling 2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling 4 bedrooms or more - Storage for 4 cycles per dwelling
Credits are awarded for providing adequate and secure cycle storage, as follows: The dwelling will have storage for 2 cycles. On this proposed development there is sufficient space to award 2 credits, by using storage in the garages, sheds in the rear garden of houses or communal cycle storage.
Assumptions for ENE 8

Evidence for ENE 9 (Home Office)
Compliant home office
1 credit can be awarded where space and facilities are provided to allow a room to be used as a home office. In addition the proposed home office must achieve a daylight factor of 1.5% Having assessed the proposed development, 1 credit can be awarded, as the room is likely to achieve the daylight factor of 1.5%
Assumptions for ENE 9

Evidence for WAT 1 (Internal Water Use)
Internal water use less than or equal to 105 litres per person per day
It is mandatory at Code Level 3 and 4 to achieve internal mains water consumption of 105 litres per person per day. The following specification will achieve this requirement: Basin Taps: 3 litres/minute Kitchen Taps: 4.5 litres/minute Shower flow rate: 9 litres/minute Bath Volume: 150 Litres WC: 4/2.6 litre dual flush
Assumptions for WAT 1

Evidence for WAT 2 (External Water Use)
Compliant individual rainwater collection system
Credits are awarded for providing a system for collecting rainwater for re-use externally. A 200 litre water butt will be sufficient for this individual house with a private garden. In this instance there is sufficient space to provisionally award this credit.
Assumptions for WAT 2

Evidence for MAT 1 (Environmental Impact of Materials)
Mandatory requirements met: At least 3 elements rated A+ to D, 10 credits scored
It is a mandatory requirement of this category that 3 out of 5 of the key building elements have a Green Guide Rating of A+ to D. A Green Guide Calculation will be completed confirming the number of credits that can be awarded in this section. However, 10 credits is a realistic estimate of what can be achieved.
Assumptions for MAT 1

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements))
3 credits scored
Credits will be awarded based on the Chain of Custody Certificates that can be provided by suppliers of basic building elements. 3 credits is a reasonable assumption.
Assumptions for MAT 2

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements))
1 credit scored
Credits will be awarded based on the Chain of Custody Certificates that can be provided by suppliers of finishing Building elements. 1 credit is a reasonable assumption.
Assumptions for MAT 3

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. Run-off from all hard surfaces shall receive an appropriate level of treatment (as per the SudS manual) to minimise risk of pollution.
It is mandatory that: - There is no increase in the peak rate of run off from the site following development, for both the 1 year and 100 year return period events. - There is no increase in the volume of run off from the 100 year event of 6 hour duration following development of the site. Where there is an increase in run off, this must be reduced using infiltration and other SUDs techniques. - The dwelling will not flood in the event of a total drainage failure. Full calculations will need to be carried out by a suitably qualified engineer confirming how these elements will be met. Where SUDs techniques will be used, there is a possibility that 2 credits could be awarded, however given the drainage strategy has not yet been completed, credits will not be assumed in this instance.
Assumptions for SUR 1

Evidence for SUR 2 (Flood Risk)
Low flood risk - zone 1
The site is assumed to be low flood risk therefore 2 credits can be awarded. A full Flood Risk Assessment in accordance with PPS25 will need to be prepared, assessing the risk of flooding from all sources, and allowing for the impact of climate change.
Assumptions for SUR 2

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: After collection sorting with appropriate internal storage of recyclable materials
The mandatory elements will be met by providing sufficient storage space for waste, and ensuring it's accessibility to disabled people. Where a recycling scheme is available, providing adequate fix internal storage for recyclable material is provided, tradeable credits can be awarded.
Assumptions for WAS 1

Evidence for WAS 2 (Construction Site Waste Management)
Compliant site waste management plan containing benchmarks, procedures and commitments for the minimizing and diverting 50% waste from landfill in line with the criteria and with Checklist WAS 2a, 2b & 2c
Credits are awarded for promoting resource efficiency and diverting waste from landfill through the management of construction site waste. It is assumed the developer will produce a compliant site waste management plan and divert 50% of all non-hazardous waste from landfill, therefore 2 credits can be awarded. A further credit could be awarded for diverting 85% of waste from landfill, however being a stringent target, this will not be awarded without further evidence.
Assumptions for WAS 2

Evidence for WAS 3 (Composting)
Individual compositing facility/facilities
Credits are awarded for providing an adequate composting facility. There is sufficient space for a compost bin in the rear garden and so 1 credit can be awarded. In addition, a leaflet on composting will have to be provided to the householder in addition to sufficient space for an internal 7 litre container.
Assumptions for WAS 3

Evidence for POL 1 (Global Warming Potential of Insulants)
All insulants have a GWP of less than 5
All insulants will have a GWP of less than 5. Mineral wool has a GWP of Zero while PU Foam boards have a GWP of less than 5.
Assumptions for POL 1

Evidence for POL 2 (NOx Emissions)
NOx emissions less than or equal to 40mg/kWh
As a gas boiler is proposed, it is assumed 3 credits can be awarded, as the majority of A rated boilers emit less than 40 mg/kWh.
Assumptions for POL 2

Evidence for HEA 1 (Daylighting)
Living 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
Credits are awarded based on the amount of natural daylight received to kitchens, living rooms, dining rooms and home offices. Based on the proposed plans it is expected 1 credit can be achieved, however detailed calculations may yield more credits.
Assumptions for HEA 1

Evidence for HEA 2 (Sound Insulation)
Detached property
As the proposed dwelling is detached 4 credits can be awarded by default.
Assumptions for HEA 2

Evidence for HEA 3 (Private Space)
Individual private space provided
Credits are awarded for providing private outdoor space for occupants. This space must also be accessible to disabled people. In this case there is clearly sufficient space to award this credit, provided disability arrangements are met.
Assumptions for HEA 3

Evidence for HEA 4 (Lifetime Homes)
All criteria of Lifetime Homes in line with all 16 principals of Lifetime Homes
The developer has confirmed a commitment to build to all the relevant Lifetime Homes standards and so 4 credits can be awarded. The plans supplied confirm this commitment.
Assumptions for HEA 4

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
Credits are awarded for the provision of a Home User Guide which provides the occupier with information on both the operation of the dwelling and the local site and surroundings. This guide will be provided and therefore 3 credits can be awarded.
Assumptions for MAN 1

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

Evidence for MAN 3 (Construction Site Impacts)
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
By monitoring energy and water consumption and displaying this information on site. In addition, by implementing best practice policy in respect of air and water pollution, 2 credits can be awarded.
Assumptions for MAN 3

Evidence for MAN 4 (Security)
Secured by design section 2 compliant
In order to achieve credits, the recommendations of an Architectural Liaison Officer or Crime Prevention Design Advisor, regarding the Physical Security of the dwelling must be implemented.
Assumptions for MAN 4

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
It is currently assumed there are no features of Ecological value within 3 metres of the construction zone, therefore 1 credit can be awarded.
Assumptions for ECO 1

Evidence for ECO 2 (Ecological Enhancement)
Key recommendations and 30% additional recommendations by a suitably qualified ecologist
The recommendations of a suitably qualified Ecologist will need to be implemented in order to achieve 1 credit.
Assumptions for ECO 2

Evidence for ECO 3 (Protection of Ecological Features)
Ecological features will be adequately protected and maintained
As it is assumed the site contains no features of Ecological value within 3 metres of the construction zone, this credit can be awarded by default.
Assumptions for ECO 3

Evidence for ECO 4 (Change of Ecological Value of Site)
Neutral: Greater than -3 and less than or equal to +3
Credits will be awarded based on the change in ecological value (plant species per hectare). Given the nature of this development, it is assumed that 2 credits can be awarded.
Assumptions for ECO 4

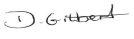
Evidence for ECO 5 (Building Footprint)
Credit not sought
Credit not sought.
Assumptions for ECO 5

Assessor Declaration

I Dominique Gilbert, 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:



Dominique Gilbert
Energist UK
22 January 2014

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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