Sustainability Summary

The Lodge
Fitzroy Park
N6 6HT

Prepared by

metropolis pd bs green

On behalf of

Mr and Mrs Springer

March 2012

Ref: 5131 SS0312FR00

Prepared by Metropolis Green

On behalf of Mr and Mrs Springer

Produced By	Position	Date
Shaun Kelly	Senior Sustainability Consultant	20/03/2012

Approved By	Position	Date
Miranda Pennington	Partner & BRE Global Licensed Code and EcoHomes Assessor	20/03/2012

Contact Details:
Metropolis Green LLP
30 Underwood Street
London
N1 7JQ
T: 020 7324 2662
E: info@metropolisgreen.com
W: www.metropolisgreen.com

Contents

1.0 Introduction

1.1 Document Purpose

1.1.1 This document has been prepared by BRE Global Licensed Code Assessors, Metropolis Green, on behalf Mr and Mrs Springer, to assess the proposed development in line with the requirements of the Code for Sustainable Homes Level 4.

1.1.2 This document sets out the sustainability measures and achievements that will be implemented at The Lodge and explains how the development will achieve a Code for Sustainable Homes (Code) rating of Level 4.

1.1.3 Pre-assessment is based on the information and commitments provided by the design team to date, and shows that the site has the potential to achieve Code Level 4, with a score of 69.31% which is above the mandatory threshold for Code Level 4 and leaves a small margin of flexibility.

1.1.4 The site has been registered for Design Stage Assessment with BRE Global Ltd (BREEAM) for the Code for Sustainable Homes under registration ID BRE-00017602-DS-001-00.

1.1.5 A summary of the pre assessment report will be included with this document (See Appendix A).

1.2 Summary

1.2.1 The requirement to achieve certification at the level of Code level 4 has been set by London Borough of Camden Council's Planning Policy.

1.2.2 Pre-assessment has shown that the site has potential to achieve the required Code level 4 with a total predicted score of 69.31%.

1.2.3 Through achieving Code level 4, the project team has clearly demonstrated how the new dwelling meets the rigorous sustainability targets set by the Code. Is also evident that majority of the sustainability measures and technologies employed to achieve this level of the Code are only possible through the complete redevelopment of the site.

2.0 Site Context and Background

2.0.1 The site is approximately 580 sqm in size with a large 3 bedroom detached family dwelling over 3 storeys. External to the dwelling is a large, established garden and an outdoor swimming pool as well as a car parking area.

2.0.2 The site is situated on the very North-East fringe of theLondon Borough of Camden.

2.0.3 The site has good transport links, including being of equidistant proximity to both Highgate and Archway Underground stations. By car, the A1 runs just north of the site, which allows for a swift connection onto the M1 and out of Greater London.

2.1 Scheme Proposals

2.1.1 The strategy adopted at The Lodge involves the complete demolition of the entire building. However, it is the intention of the client to preserve the street scene as much as possible. Because of this, the

2.1.2 area which encloses the entrance space, kitchen and family room is to be rebuilt, as a replica of the existing. Original elements (eg tiles) will be reused in order to maintain the existing aesthetics of the building. The reason for its initial demolition is in a bid to convert the existing building into an energy efficient modern home. The current single skin block wall does not provide sufficient insulation for the building. The diagram below indicates the area of the building which is to be replicated as a new-build while retaining the feature gable roof to the front facade.

2.1.3 It is the applicant's intention to achieve certification under the Code and thereby to build a sustainable dwelling.

2.1.1 Due to the more stringent and up to date requirements of the Code by building a new dwelling to Code standards there are clear operational and construction benefits that would not be achieved by the refurbishment of the existing building assessed under the EcoHomes standard. The proposed dwelling will offer clear benefits in terms of significantly reduced operational carbon and water usage over the existing building in its current state as well as if it were refurbished to EcoHomes standards.

2.2 *Planning Policy*

2.2.1 Core Strategy sets out the key elements of the Council's planning vision and strategy for the borough. It is the central part of Local Development Framework (LDF) and was adopted in November 2010. The LDF is a group of documents setting out the borough's planning strategy and policies.

2.2.2 The London Borough of Camden's Development Polices (DP) 2010 – 2025 requires new housing to be built to Code level 4.

Policy DP22 - Promoting sustainable design and construction

The Council will require development to incorporate sustainable design and construction measures. Schemes must:

a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5, have been incorporated into the design and proposed implementation; and

b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

f) summer shading and planting;

g) limiting run-off;

h) reducing water consumption;

i) reducing air pollution; and

j) not locating vulnerable uses in basements in flood-prone areas.

2.0 The Code for Sustainable Homes

2.1.2 The Code for Sustainable Homes is an environmental assessment for rating and certifying the performance of new homes. It is a national standard and was released by the Department for Communities and Local Government in December 2006. From April 2007, the Code replaced EcoHomes. The Building Research Establishment (BRE) are responsible for administering and monitoring the scheme and are also responsible for all certification and quality assurance of this national environmental standard for housing.

2.1.3 The Code measures the sustainability of a new home against 9 categories of sustainable design, rating the 'whole home' as a complete package. The Code uses a 1 to 6 star rating system to communicate the overall level of the environmental performance of the new home.

2.1.4 Points in each category are weighted and therefore individual credits across the categories score differently. For example credits available in energy have a far heavier weighting than those in surface water run-off. It is a requirement of Camden council that the scheme achieves 50% of the credits available in the Energy category.

2.1.5 All Code assessments are completed in two phases – the Design Stage and the Post Construction Stage (PCS). Only after the PCS assessment has been completed and all the evidence for achieving the target level has been submitted will the final certification for the dwelling be issued by BRE.

2.1.6 For the purposes of planning, a Code Pre-Assessment was submitted to ensure that the design team set a strategy for achieving the target Code level also demonstrating to the Local Planning Authority that the scheme is able to achieve the specified level of the Code.

2.1.7 The Code is an important standard that will help the development and construction industry adapt to the real challenges that the industry faces in terms of reducing its environmental impact and importantly, in driving down carbon emissions to help stop climate change.

3.0 Mandatory Standards and Tradable Credits

3.1.1 This section of the report details the mandatory standards and tradable credits of the Code for Sustainable Homes.

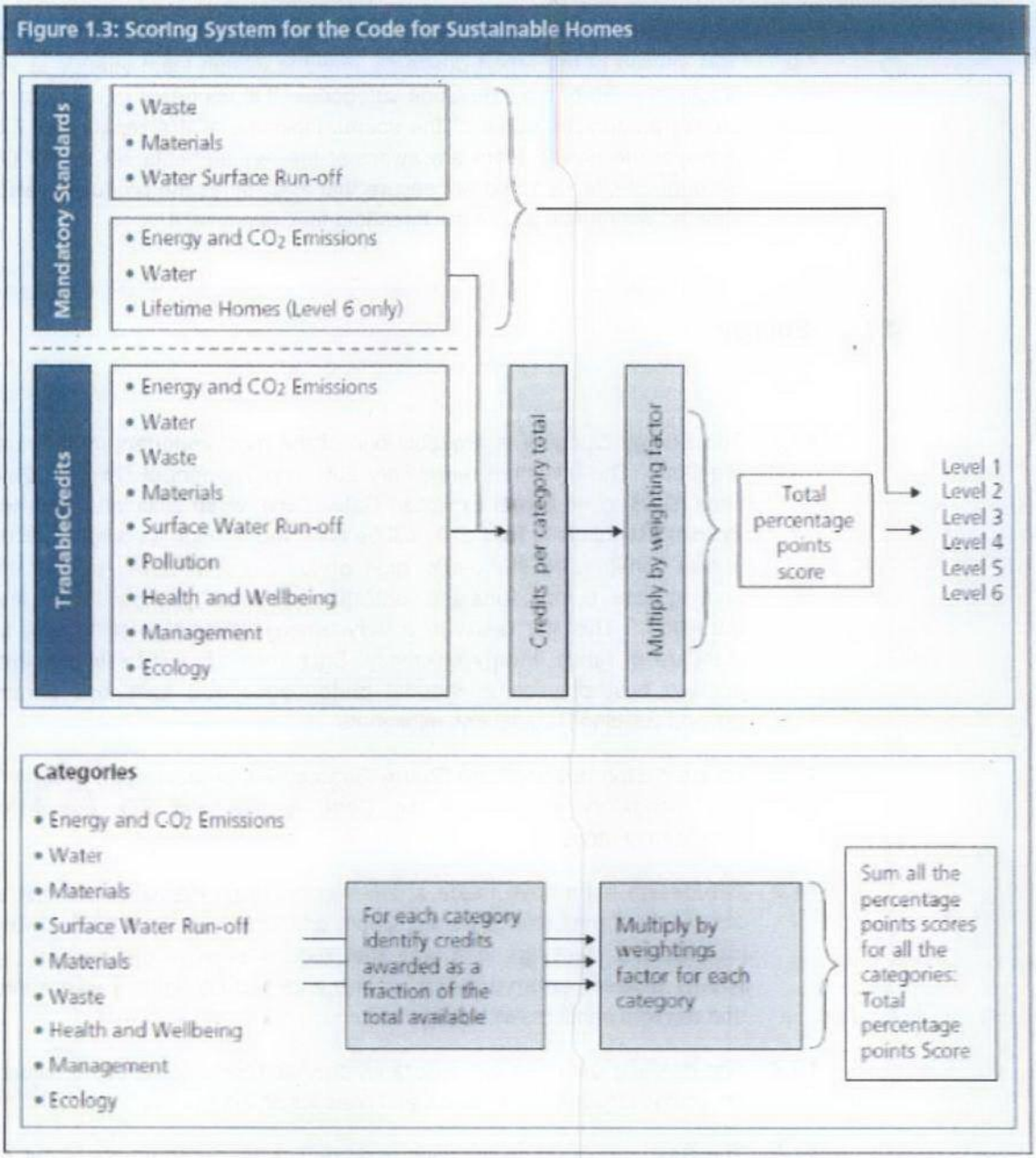
3.1.2 Firstly, there are two types of mandatory elements in the Code. There are mandatory elements that are the same across all levels of the Code (non-credit scoring), and there are elements that increase with each level of the Code (credit scoring).

3.1.3 Table 1 below depicts both the different types of mandatory elements and how they interact with the tradable credits to arrive at a given Code level. Mandatory standards are very important factors in achieving the desired (or any level) of the Code.

3.1.4 Tradable credits make up the flexible element of the Code. Once the mandatory elements have been met, the developer may then choose which credits are sought in order to meet the desired level of the Code. At increasing levels of the Code virtually all tradable credits must be met to achieve these higher environmental standards.

3.1.5 It must however be noted that credits are subject to change. This is in-line with the rationale of the Code which recognises that there will be unforeseen and unpredictable changes that arise during the construction of new buildings and dwellings. For this reason, the minimum threshold for CSH level 4 has been exceeded to ensure that if credits are lost during either the DS or PCS, the scheme will still be able to achieve the target level of the Code.

Figure 1 - Mandatory Standards and Tradable Credits



4.0 Code for Sustainable Homes Pre-Assessment Results Summary

4.0.1 This section of the report describes how the design team intends to achieve credits in each of the nine Code categories. It is important to note that as the project progresses some of the scores indicated in this report may change, however the design team are aware of the requirements set by the London Borough of Camden and will ensure that at all times the proposed residential scheme will remain above the threshold for Code level 4.

4.1 Energy

4.1.1 The Energy category is arguably one of the most important impact areas of the Code. The minimum mandatory 25% improvement of Dwelling Emission Rate (DER) over Target Emission Rate (TER), when calculated according to Building Regulations Part L1A, will be achieved through a combination of high quality construction standards, high performance windows, energy efficient heating plant, pumps, fans and ventilation equipment, along with high levels of insulation. This will result in a very energy efficient dwelling with a high standard of fabric energy efficiency. Such methods will be implemented to achieve best practice in thermal performance and heat loss parameters beyond Building Regulations minimums.

4.1.2 As the design develops the Energy Strategy will be developed to ensure that this mandatory element of the Code is met and CO_2 emissions are significantly reduced.

4.1.3 The design team have made a commitment to providing meters that inform occupants of their energy consumption, enabling them to make decisions and manage the dwellings in a way that reduce energy consumption. 100% energy efficient external space lighting and security lighting with movement and daylight sensors will be provided.

4.1.4 The dwelling will have cycle storage, provision for a home office, information on energy efficient white goods and lines for drying clothes.

4.1.5 The SAP and Code calculations used during the development of the energy strategy will define the final energy specification, the approach is a combination of highly efficient, fabric and efficient services ensuring reduced operational CO_2 emissions over the lifetime of the building.

4.1.6 Overall, 17.7 of the available 31 credits will be achieved, which as a result of the weighting factors will deliver 20.78 points to the scheme in total. This score exceeds the minimum 50% requirement set by the London Borough of Camden, achieving 57.09% of the available credits in this category

4.2 Water

4.2.1 Achieving the mandatory element of the Water category is a challenging area of the Code. A Code level 4 dwelling must achieve a water consumption rate of 105 litres per person per day (l/p/d) for issue Wat 1, which represents a significant reduction on current building regulations that would allow for 125 l/p/d.

4.2.2 The design team will be achieving the specified level of daily water consumption through careful selection of water efficient fittings and fixtures. There are a range of products available that will be investigated for this site at detailed design stage of the project. The design team is considering the application of rainwater harvesting to help achieve this rigorous target for the site

4.2.3 1 credit has been achieved by having a rainwater collection system which will be supply water for garden irrigation and feed the swimming pool.

4.2.4 Overall 4 of the available 6 credits will be achieved, which as a result of the weighting factors will deliver 6.00 points to the scheme in total.

4.3 Materials

4.3.1 The Materials category of the Code promotes the sustainable procurement and use of materials, taking into account the environmental impacts of materials and the responsible sourcing of basic building and finishing elements by using the BRE Green Guide to Specification.

4.3.2 For every Code level there is a mandatory element of the Code to achieve an A+ to D rating for at least three out five building elements, which include; the Roof, External Walls, Internal Walls, Upper and Ground Floors, and Windows. Thereafter the higher the Green Guide rating, the more points are awarded. This supports the selection of materials with low life cycle impacts and is rewarded under Code issue Mat 1. The design team have committed to 12 credits for this issue and, due to the early involvement of the Code Assessor, the design team is aware of these requirements and can choose to include elements which achieve a higher rating in the Green Guide.

4.3.3 In addition, the design team will focus on ensuring that the building products specified for the main building elements (such as internal and external walls, roofs, foundation, etc.) will be responsibly sourced. There have been 4 credits allocated for Mat 2, and 2 credits allocated for Mat 3.

4.3.4 Overall 18 of the available 24 credits will be achieved, which as a result of the weighting factors will deliver 5.40 points to the scheme in total.

4.4 Surface Water Run-Off

4.4.1 The Surface Water Run-Off category of the Code deals with the risk of flooding from new developments and addresses wider issues of flood risk associated with climate change.

4.4.2 In order to meet the mandatory criteria for this credit area, the post construction conditions can be no worse than the existing conditions. In order to demonstrate compliance with the criteria an appropriately qualified drainage engineer will be required to carry out calculations as prescribed in the Code and in-line with the guidance in the SUDs Manual (CIRIA C697, 2007) and Preliminary Rainfall Run Off Management for Developments (EA/DEFRA, 2007) or for at least the 1 year and 100 year return period events.

4.4.3 The site is made up of buildings, hard standing and garden surfaces. The site will comply with the mandatory requirement by default because the new development is not increasing the impermeable area. Default compliance can be demonstrated through providing drawings of the site pre- and post-development. Additionally 2 credits are available for ensuring no run-off for rainfall of up to 5 mm and for appropriate treatment (which includes filtering through brown roofs) of run-off. At this stage credits have not been awarded as it is not possible to assess the attenuation without calculations provided by an appropriately qualified engineer.

4.4.4 The site is located in Flood Zone 1 and as such has a low risk of flooding and achieves full credits for this issue. A flood risk assessment is required to award these credits as part of the full Code assessment.

4.4.5 Overall 2 of the available 4 credits will be achieved, which as a result of the weighting factors will deliver 1.10 points to the scheme in total. Please note that there may be scope to gain further points in this category once detailed calculations have been completed.

4.5 Waste

4.5.1 The Waste category of the Code deals with waste and recycling issues for both the construction stage and the occupation stage of the development ensuring the waste hierarchy is addressed.

4.5.2 The mandatory requirements for this category of the Code will be met through providing the correct amount of space for external waste and recycling facilities. Recycling will be conveniently provided for The Lodge through the provision of dedicated internal storage containers for recyclable waste with a total capacity of 30 litres.

4.5.3 Facilities for storage of food waste recycling containers provided by the London Borough of Camden will be provided within the dwelling.

4.5.4 The requirement in this category is for a Site Waste Management Plan (SWMP), will be met through contractual agreements with the selected construction contractor. Credits have been allocated for this credit on the basis that the SWMP will be prepared in line with best practice and will include commitments and procedures for sorting, recycling and diverting at least 85% of waste from landfill.

4.5.5 Overall 8 of the available 8 credits in this category will be achieved, which as a result of the weighting factors will deliver 6.40 points to the scheme in total.

4.6 Pollution

4.6.1 The Pollution section of the Code deals with insulation materials and with Nitrogen Oxide (NO_x) emissions. The design team has confirmed that insulation materials with a Global Warming Potential (GWP) of less than 5 will be specified.

4.6.2 High efficiency gas boilers will be specified for the dwellings, with NO_x emissions of less than 40 mg/kWh. Therefore, full credits have been awarded for this issue.

4.6.3 Overall 4 of the available 4 credits will be achieved, which as a result of the weighting factors will deliver 2.80 points to the scheme in total.

4.7 Health and Wellbeing

4.7.1 The Health and Wellbeing section of the Code covers factors that can contribute to the overall comfort and welfare of the occupants.

4.7.2 For issue Hea 1 regarding daylighting, 2 credits have been allocated as very high levels of natural daylighting are expected within this dwelling. Average Daylight Factor calculations are required to demonstrate compliance for this issue. Kitchens must achieve a daylight factor of 2% or higher; and living rooms, dining rooms and the home office area must all receive an average daylight factor of at least 1.5% to score points. This issue will be reviewed once calculations have been performed and results provided for assessment.

4.7.3 As the Lodge is a detached property it gains the full 4 credits for sound insulation in Hea 2.

4.7.4 The Hea 3 requirements for private space will be met for the dwelling with the garden.

4.7.5 All relevant Lifetime Homes criteria will be met as the dwelling is being designed to a standard which will meet and exceed the requirements for the Lifetime Homes standard. 4 credits have been allocated for this issue.

4.7.6 A minimum 11 of the available 12 credits will be achieved, which as a result of the weighting factor will deliver 12.83 points to the scheme in total.

4.8 Management

5.8.1 The Management section of the Code targets both the construction stage and the way dwellings are used during occupation.

5.8.2 Educating the owners on the sustainable features of their dwelling and their surrounding area is an important element of delivering sustainable housing, and as such all credits for the Home User Guide will be achieved.

5.8.3 The construction contractor for this project will be obliged through contractual arrangements to meet best practice standards of the Considerate Constructors Scheme, and will also be required to commit to monitor, report and set targets for construction site impacts.

5.8.4 An Architectural Liaison Officer or Crime Prevention Design Advisor will be consulted at an appropriate time and credits for a secure design will be achieved.2 credits have been awarded for Secured by Design Section 2 compliance in Man 4.

5.8.5 Overall 9 of the available 9 points will be achieved, which as a result of the weighting factors will deliver 8.88 points to the scheme in total.

4.9 Ecology

4.9.1 Ecology is a heavily weighted category of the Code, and for this reason the points are invaluable to the scheme to reach Code level 4.

4.9.2 The site has ecological value and is therefore unable to obtain the credit for Eco1 or Eco 2. Existing features of ecological value will be protected during construction and demolition which will ensure the credit for protection of ecological features can be achieved.

4.9.3 2 credits have been awarded for a neutral change in ecological value to the site.

4.9.4 Further credits are available in this section which can only be attained through the appointment of a suitably qualified ecologist who should provide a detailed ecological report which sets out the ecological value of the site, features which require protection and those which can be removed and makes recommendations for ecological enhancement.

4.9.5 All existing features giving the site ecological value will be maintained and adequately protected gaining the site 1 credit for Eco 3.

4.9.6 At this stage it is possible to obtain a minimum of 3 of the available 9 credits in this category, which as a result of the weighting factors will deliver 4.00 points to the scheme in total.

4.10 Code for Sustainable Homes Pre-Assessment Score Summary

4.10.1 This pre-assessment shows that the development is on track to meet Code level 4 with a score of 69.31%. It should be noted that this pre-assessment has been undertaken at an early stage during the design process and is therefore subject to change. It is also important to note that the Code level 4 threshold could be achieved by a range of credits that differs from those credits allocated in this pre-assessment.

4.10.2 The Code Assessor and the design team are satisfied with this approach to designing and constructing a sustainable development that is attractive, efficient and which provides the occupants of the dwelling with a functional, healthy, pleasant environment and allows them to pursue a lower carbon lifestyle.

Appendix A – Code for Sustainable Homes Pre-Assessment

breglobal

Results

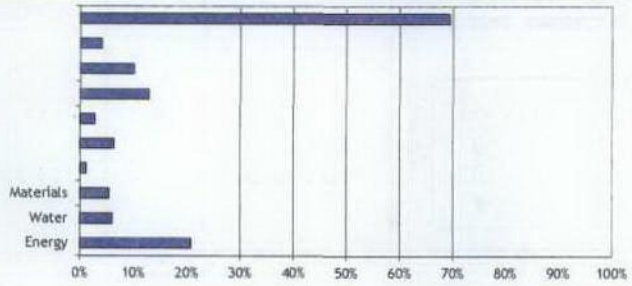
Development Name:	The Lodge, Fitzroy Park, Camden
Dwelling Description:	New 5 bed house
Name of Company:	Metropolis Green
Code Assessor's Name:	Shaun Kelly
Company Address:	Metropolis Green 30 Underwood Street N1 7JQ
Notes/Comments:	Planning Pre Assessment 03/12

PREDICTED RATING - CODE LEVEL: 0 (However if Mandatory Requirements are met CODE LEVEL 4 will be achieved.)

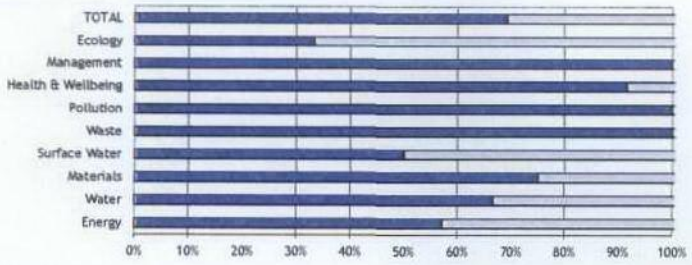
Mandatory Requirements: **Not met**

% Points:	**69.31%**	**- Code Level: 4**
Breakdown:	**Energy**	**- Code Level: 4**
	Water	**- Code Level: 4**

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



Graph 2: Predicted percentage of credits achievable: Total and by Category



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

CATEGORY 1 ENERGY	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted:	57.09	Credits	Level
Contribution to Overall % Score:	20.78 points	17.7 of 31 Credits	Level 4

Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score What is the predicted number of credits? 5.2 OR Are zero net CO_2 emissions achieved? ☐	5.2 of 10 Credits	Level 4
Ene 2 Fabric Energy Efficiency	Credits are awarded based on the Fabric Energy Efficiency (kWh/m²/yr) of the dwelling. Minimum standards apply at Code levels 5 and 6. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score Apartments, Mid-terrace ◉ OR End terrace, Semi and Detached ○ OR Staggered Mid terrace ○ What is the predicted number of credits? 3.5	3.5 of 9 Credits	-
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel None Specified ○ Primary Heating only ○ OR Electricity only ○ OR Electricity and primary heating fuel ◉	2 of 2 Credits	-

Issue		Credits	Level
Ene 4 Drying Space	One credit is awarded for the provision of either internal or external secure drying space with posts and footings or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for dwellings with 3 bedrooms or greater. Will drying space meeting the criteria be provided? Yes ◉ OR No ○	1 of 1 Credits	-
Ene 5 Energy Labelled White Goods	Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme, White Goods with ratings ranging from A+ to B or a combination of the previous according to the technical guide. Select the appropriate option below EU Energy labelling information only ☑ A+ rated appliances ☐ A+, A and B rated appliances ☐ Combination of compliant rated white goods with EU Energy Labelling Scheme ☐	1 of 2 Credits	-
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting None provided ○ OR Non Code compliant lighting ○ OR Code compliant lighting ◉ Security Lighting None provided ○ OR Non Code compliant lighting ○ OR Code compliant lighting and controls ◉ Dual lamp luminaires Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-

Issue		Credits	Level
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO_2 emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies Less than 10% of demand (●) OR 10% of demand or greater ( ) OR 15% of demand or greater ( )	0 of 2 Credits	-
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below Number of bedrooms: 5 Number of cycles stored per dwelling* 4.0 * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	2 of 2 Credits	-
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? Yes (●) OR No ( )	1 of 1 Credits	-

CATEGORY 2 WATER	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 66.66		Credits	Level
Contribution to Overall Score: 6.00 points		4 of 6 Credits	Level 4
Wat 1 Indoor Water Use	Credits are awarded based on the predicted average household water consumption, calculated using the Code Water Calculator Tool. Minimum standards for each code level apply. Select the predicted water use / Mandatory Requirement greater than 120 litres/ person/ day ○ OR ≤ less than 120 litres/ person/ day ○ OR ≤ less than 110 litres/ person/ day ○ OR ≤ less than 105 litres/ person/ day ◉ OR ≤ less than 90 litres/ person/ day ○ OR ≤ less than 80 litres/ person/ day ○	3 of 5 Credits	Level 3 AND Level 4
Wat 2 External Water Use	A credit is awarded where a compliant system is specified for collecting rainwater for external irrigation purposes. Where no outdoor space is provided the credit can be achieved by default. Select the scenario that applies No internal or communal outdoor space ○ OR Outdoor space with collection system ◉ OR Outdoor space without collection system ○	1 of 1 Credits	-

CATEGORY 3 MATERIALS	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 75.00		Credits	Level
Contribution to Overall Score: 5.40 points		18 of 24 Credits	No Level
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. Tradable Credits: Points are awarded on a scale based on the Green Guide Rating of the specifications. The Code Materials Calculator can be used to predict a potential score. Mandatory Requirement: Will the mandatory requirement be met? ☐ Enter the predicted score: What is the predicted number of credits? 12	12 of 15 Credits	No Level
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	Credits are awarded where materials used in the basic building elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score. Enter the predicted Score: What is the predicted number of credits? 4	4 of 6 Credits	-
Mat 3 Responsible Sourcing of Materials - Finishing Elements	Credits are awarded where materials used in the finishing elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score. Enter the predicted Score: What is the predicted number of credits? 2	2 of 3 Credits	-

CATEGORY 4 SURFACE WATER RUN-OFF	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted:	50.00%	Credits	Level
Contribution to Overall Score:	1.10 points	2 of 4 Credits	All Levels

Sur 1 Management of Surface Water Run-off from developments

Mandatory Requirement: Peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site and that the additional predicted volume of rainwater discharge caused by the new development is entirely reduced as far as possible in accordance with the assessment criteria. Desiging the drainage system to be able to cope with local drainage system failure. Tradable Credits: Where SUDS are used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters.

Mandatory Requirement

Will the mandatory requirement be met? ☑

Select the appropriate option

- No SUDS ☐
- No runoff into watercourses for the first 5 mm of rainfall ☐
- Runoff from hard surfaces will receive an appropriate level of treatment ☐

0 of 2 Credits | All Levels

Sur 2 Flood Risk

Credits are awarded where developments are located in areas of low flood risk or where in areas of medium or high flood risk appropriate measures are taken to prevent damage to the property and its contents in accordance with the Code criteria in the technical guide.

Select the annual probability of flooding (from PPS25*)

- Zone 1 - Low ◉
- OR Zone 2 - Medium ○
- OR Zone 3 - High ○

Select the apropriate option(s)

- Low risk of flooding from FRA** ☑
- All measures of protection are demonstrated in FRA ☐
- Ground floor level and access routes are 600 mm above design flood level ☐

2 of 2 Credits | -

* Planning Policy Statement 25 - Planning and Flood Risk

** FRA - Flood Risk Assessment

CATEGORY 5 WASTE	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted:	100.00%	Credits	Level
Contribution to Overall Score:	6.40 points	8 of 8 Credits	All Levels

Was 1 Storage of non-recyclable waste and recyclable household waste

Mandatory Requirement: The space provided for waste storage should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacity calculated from BS 5906. Tradable Credits are awarded for adequate internal and/ or external recycling facilities.

Mandatory Requirement

Will the minimum space be provided and be accessible to disabled people? ☑

Internal Recyclable household waste storage

Where there is no external recyclable waste storage and no Local Authority collection scheme

Internal storage (capacity 60 litres) ☐

0 of 2 Credits

Local Authority collection Scheme

Post Collection sorting

Internal storage (capacity 30 litres) ☑

Pre-collection sorting

Internal storage (3 separate bins, capacity 30 litres) ☐

4 of 4 Credits — All Levels

External Storage, no Local Authority collection scheme

3 separate internal storage bins (capacity 30 litres) ☐

AND

Houses

External Storage(capacity 180 litres) ☐

Flats

Private recycling operator ☐

3 or greater types of waste collected ☐

0 of 4 Credits

Issue		Credits	Level
Was 2 Construction Site Waste Management	A credit is awarded where a compliant SWMP is provided with targets and procedures to minimise construction waste. Credits are available where the SWMP include procedures and commitments for diverting either 50% or 85% of waste generated from landfill. SWMP details Does the SWMP include: + No SWMP ○ + SWMP with targets and procedures to minimise waste? ○ + SWMP with procedures to divert 50% of waste ○ + SWMP with procedures to divert 85% of waste ◉	3 of 3 Credits	
Was 3 Composting	A credit is awarded where individual home composting facilities are provided, or where a community/ communal composting service, either run by the Local Authority or overseen by a management plan is in operation. Select the facilities available No composting facilities ○ Individual composting facilities ◉ OR Communal/ community composting*? ○ Local Authority ☐ OR Private with management plan ☐ * including if an automated waste collection system is in place	1 of 1 Credit	-

CATEGORY 6 POLLUTION	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 100.00%		Credits	Level
Contribution to Overall Score: 2.80 points		4 of 4 Credits	All Levels
Pol 1 Global Warming Potential (GWP) of Insulants	A credit is awarded where all insulating materials only use substances (in manufacture AND installation) that have a GWP of less than 5. Select the most appropriate option All insulants have a GWP less than 5 (●) OR Some insulants have a GWP of less than 5 (○) OR No insulants have a GWP of less than 5 (○)	1 of 1 Credits	-
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option Greater than 100 mg/kWh (○) OR Less than 100 mg/kWh (○) OR Less than 70 mg/kWh (○) OR Less than 40 mg/kWh (●) OR Class 4 boiler (○) OR Class 5 boiler (○) OR All space and hot water energy requirements are met by systems who do not produce NOx emissions (○)	3 of 3 Credits	-

CATEGORY 7 HEALTH & WELLBEING	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 91.00%		Credits	Level
Contribution to Overall Score: 12.83 points		11 of 12 Credits	No level

Hea 1 Daylighting

Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.

Select the compliant areas

Room	
Kitchen: Avg DF of at least 2%	☑
Living Room*: Avg DF of at least 1.5%	☑
Dining Room*: Avg DF of at least 1.5%	☑
Study*: Avg DF of at least 1.5%	☑
80% of working plane in all above rooms receive direct light from the sky?	☐

Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.

2 of 3 Credits

-

Hea 2 Sound Insulation

Credits are awarded where performance standards exceed those required in Building Regulations Part E. This can be demonstrated by carrying out pre-completion testing or through the use of Robust Details Limited.

Select a type of property

Detached Property	◉
Attached Properties:	
- Separating walls and floors only exist between non habitable spaces	○
- Separating walls and floors exist between habitable spaces	○

Select a performance standard

	Performance standard not sought	◉
	Airborne: 3db higher; Impact: 3dB lower	○
OR	Airborne: 5db higher; Impact: 5dB lower	○
OR	Airborne: 8db higher; Impact: 8dB lower	○

4 of 4 Credits

-

Issue		Credits	Level
Hea 3 Private Space	A credit is awarded for the provision of an outdoor space that is at least partially private. The space must allow easy access to all occupants. Will a private/ semi-private space be provided? Yes, private/semi-private space will be provided ◉ OR No private/semi-private space ○	1 of 1 Credits	-
Hea 4 Lifetime Homes	Mandatory Requirement: Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. Tradable credits: Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance All Lifetime Homes criteria will be met ◉ OR Exemption from LTH criteria 2/3 applied ○ Credit not sought ○	4 of 4 Credits	No level

CATEGORY 8 MANAGEMENT	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 100.00%		Credits	Level
Contribution to Overall Score: 10.00 points		9 of 9 Credits	All Levels
Man 1 Home User Guide	Credits are awarded where a simple guide is provided to each dwelling covering information relevant to the 'non-technical' home occupier, in accordance with the Code requirements. Tick the topics covered by the Home User Guide Operational Issues? ☑ Site and Surroundings? ☑ Is available in alternative formats? ☑	3 of 3 Credits	-
Man 2 Considerate Constructors Scheme	Credits are awarded where there is a commitment to comply with best practice site management principles using either the Considerate Constructors Scheme or an alternative locally/ nationally recognised scheme. Select the appropriate scheme and score No scheme used ○ Considerate Constructors OR Best Practice: Score between 24 and 31.5 ○ OR Best Practice+: Score between 32 and 40 ◉ Alternative Scheme* OR Mandatory + 50% optional requirements ○ OR Mandatory + 80% optional requirements ○ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	2 of 2 Credits	-
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed Monitor, report and set targets, where applicable, for: - CO_2 / energy use from site activities ☑ - CO_2 / energy use from site related transport ☐ - water consumption from site activities ☑ Adopt best practice policies in respect of: - air (dust) pollution from site activities ☑ - water (ground and surface) pollution on site ☑ 80% of site timber is reclaimed, re-used or responsibly sourced ☐	2 of 2 Credits	-

Issue		Credits	Level
Man 4 Security	Credits are awarded for complying with Section 2 - Physical Security from Secured by Design - New Homes. An Architectural Liaison Officer (ALO), or alternative, needs to be appointed early in the design process and their recommendations incorporated. Secured by Design Compliance Credit not sought ○ OR Secured by Design Section 2 Compliance ◉	2 of 2 Credits	-

CATEGORY 9 ECOLOGY	Overall Level: 4	Overall Score	69.31
% of Section Credits Predicted: 33.00%		Credits	Level
Contribution to Overall Score: 4.00 points		3 of 9 Credits	All Levels
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option Credit not sought ○ OR Land has ecological value ◉ OR Land has low/ insignificant ecological value* ○ * Low ecological value is determined either a) by using Checklist Eco 1 across the whole development.site; or b) where an suitably qualified ecologist is appointed and can confirm or c) produces an independent ecological report of the site, that the construction zone is of low/ insignificant value; AND the rest of the development site will remain undisturbed by the works.	0 of 1 Credits	-
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes Will a *Suitably Qualified Ecologist* be appointed to recommend appropriate ecological features? ☐ AND Will all key recommendations be adopted? ☐ AND 30% of other recommendations be adopted? ☐	0 of 1 Credits	-
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features Site with features of ecological value? ◉ OR Site of low ecological value (as Eco 1)? ○ AND All* existing features potentially affected by site works are maintained and adequately protected? ☑ *If a suitably qualified ecologist has confirmed that a feature can be removed due to insignificant ecological value or poor health conditions, as long all the rest have been protected, then this box can be ticked.	1 of 1 Credits	-

Issue		Credits	Level
Eco 4 Change of Ecological Value of Site	Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements and is calculated to be: Change in Ecological Value Major negative change: fewer than -9 ○ Minor negative change: between -9 and -3 ○ OR Neutral: between -3 and +3 ◉ Minor enhancement: between +3 and +9 ○ Major enhancement: greater than 9 ○	2 of 4 Credits	
Eco 5 Building Footprint	Credits are awarded where the ratio of combined floor area of all dwellings on the site to their footprint is: Ratio of Net Internal Floor Area: Net Internal Ground Floor Area Credit Not Sought ◉ OR Houses: 2.5:1 OR Flats: 3:1 ○ OR Houses: 3:1 OR Flats: 4:1 ○ OR Houses & Flats Weighted (2.5:1 & 3:1) ○ OR Houses & Flats Weighted (3:1 & 4:1) ○	0 of 2 Credits	