

# CODE FOR SUSTAINABLE HOMES - NOV 2010

THE ENVIRONMENTAL RATING FOR HOMES



## PRELIMINARY ASSESSMENT

INCLUDING ANY ASSUMPTIONS AND BASIS FOR DATA

**13/15 John's Mews, London WC1N 2PA**  
for **Wandsworth Sand and Stone Ltd**



Issue Date : 30 April 2014  
Code Registration Number : Ongoing



Tel: 020 8968 5400 326 Kensal Road, London W10 5BZ

## INTRODUCTION

This document was commissioned by Louise Turley of FT Architects Ltd on behalf of Wandsworth Sand and Stone Ltd and written by Julian Williams of Abba Energy Ltd. There are two units being assessed on this site.

This report reviews the current standing of this scheme, employing verbal and available design information. Sufficient evidence is not yet available to enable an Interim Stage assessment to be undertaken.

**Following this report (and where issued by Abba Energy), it will be the project team's responsibility to ensure that the drawings and specifications follow and clearly state the requirements for the relevant Code for Sustainable Homes issues.** Information should then be submitted to the Assessor for the Final report to be made. Please note that without the evidence the assessor cannot award the credits. Reference should be made to Code November 2010 Technical Guide.

Project name	13/15 John's Mews, London WC1N 2PA	Code Version	Nov-10
Client	Wandsworth Sand and Stone Ltd	Target Rating	Level 4
Assessment Type	PRELIMINARY	Preliminary Rating Achieved	Level 4

## PRELIMINARY ASSESSMENT

The following table includes the basis of data input, sources and assumptions. Each issue is 'weighted' differently, to reflect considered importance, according to the following equivalent percentage scores per credit point: Energy & CO2 Emissions (Ene) – 1.17%; Water (Wat) – 1.50%; Materials (Mat) – 0.30%; Surface Water Runoff (Sur) – 0.55%; Waste (Was) – 0.80%; Pollution (Pol) – 0.70%; Health & Wellbeing (Hea) – 1.17%; Management (Man) - 1.11%; Ecology (Eco) – 1.33%. Where credits have been awarded, it is assumed that the criteria (detailed within the relevant version of the Code Technical Guide) will be met.

Please note – Architect = 23 Architecture (23A), Code Consultant = Abba Energy (AE).

References to 'dwelling' mean a unit of accommodation, house or flat.

ESTIMATED TOTAL CREDITS BEFORE 'WEIGHTING' FOR 'CATEGORY ISSUES'	76
TARGET PERCENTAGE REQUIRED	57.00%
ESTIMATED TOTAL PERCENTAGE	70.36%
ESTIMATED CODE RATING	Level 4



## Results

<b>Development Name:</b>	13-15 John's Mews
<b>Dwelling Description:</b>	Two 3-bed 4-storey mews houses
<b>Name of Company:</b>	Abba Energy Ltd
<b>Code Assessor's Name:</b>	Julian Williams
<b>Company Address:</b>	326 Kensal Road, London, W10 5BZ
<b>Notes/Comments:</b>	Change of use garage, workshop and offices converted to 2 domestic dwellings. Planning permission granted. New permission sought to add basement level to each dwelling. Code for Sustainable Homes Preliminary Report for Planning 30/04/2014

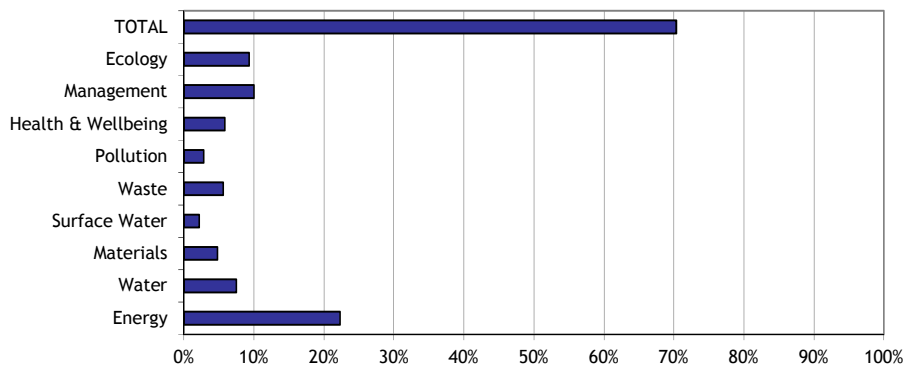
## PREDICTED RATING - CODE LEVEL: 4

**Mandatory Requirements:** All Levels

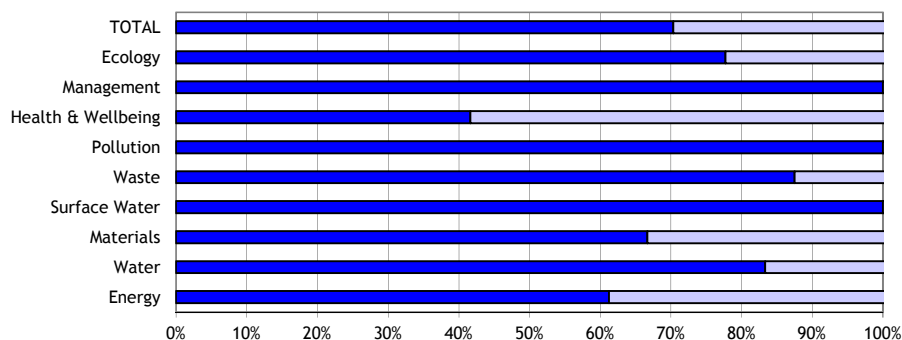
**% Points:** 70.36% - Code Level: 4

**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	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 61.29		Credits	Level			
Contribution to Overall % Score: 22.30 points		19.0 of 31 Credits	Level 4			
Ene 1 Dwelling Emission Rate	<p>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.</p> <p>Enter the predicted score _____</p> <div><p>What is the predicted number of credits? <input type="text" value="5.0"/></p><p>OR Are zero net CO<sub>2</sub> emissions achieved? <input type="checkbox"/></p></div>	5.0 of 10 Credits	Level 4	The Design Team will provide a level of fabric, mechanical and electrical performance through the appropriate use of insulation, energy and air tightness strategies that will demonstrate the achievement of a 47% improvement of DER over TER for which 5 credits are awardable.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.	
Ene 2 Fabric Energy Efficiency	<p>Credits are awarded based on the Fabric Energy Efficiency (kWh/m<sup>2</sup>/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.</p> <p>Enter the predicted score _____</p> <div><p>Apartments, Mid-terrace <input checked="" type="radio"/></p><p>OR End terrace, Semi and Detached <input type="radio"/></p><p>OR Staggered Mid terrace <input type="radio"/></p><p>What is the predicted number of credits? <input type="text" value="5.0"/></p></div>	5.0 of 9 Credits	-	As a mid-terrace pair of dwellings the Design Team will target a FEE of 43.00kWh/m2/yr or better through the use of appropriate levels of insulation for energy conservation. This level of Fabric Energy Efficiency achieves 5 credits.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.	
Ene 3 Energy Display Devices	<p>Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption.</p> <p>Select whether the EDD monitors electricity and/or fuel _____</p> <div><p>None Specified <input type="radio"/></p><p>Primary Heating only <input type="radio"/></p><p>OR Electricity only <input type="radio"/></p><p>OR Electricity and primary heating fuel <input checked="" type="radio"/></p></div>	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	<p>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.</p> <p>Will drying space meeting the criteria be provided?</p> <div> <div>Yes <input checked="" type="radio"/></div> <div>OR No <input type="radio"/></div> </div>	1 of 1 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Ene 5 Energy Labelled White Goods	<p>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.</p> <p>Select the appropriate option below</p> <div> <div>EU Energy labelling information <u>only</u> <input type="checkbox"/></div> <div>A+ rated appliances <input checked="" type="checkbox"/></div> <div>A rated washing machine and dishwasher <input checked="" type="checkbox"/></div> <div>B rated tumble dryer or washer dryer <input checked="" type="checkbox"/></div> <div>EU Energy labelling information provided <input checked="" type="checkbox"/></div> </div>	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Ene 6 External Lighting	<p>Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear..</p> <p>Space Lighting</p> <div> <div>None provided <input type="radio"/></div> <div>OR Non Code compliant lighting <input type="radio"/></div> <div>OR Code compliant lighting <input checked="" type="radio"/></div> </div> <p>Security Lighting</p> <div> <div>None provided <input checked="" type="radio"/></div> <div>OR Non Code compliant lighting <input type="radio"/></div> <div>OR Code compliant lighting and controls <input type="radio"/></div> </div> <p>Dual lamp luminaires</p> <div> <div>Compliant with both above criteria <input checked="" type="checkbox"/></div> </div>	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
* Statutory safety lighting is not covered by this requirement					

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 7 Low or Zero Carbon Technologies	<p>Credits are awarded where there is a 10% or 15% reduction in CO<sub>2</sub> emissions resulting from the use of low or zero carbon technologies.</p> <p>Select % contribution made by low or zero carbon technologies</p> <div> <div>Less than 10% of demand</div> <div>OR 10% of demand or greater</div> <div>OR 15% of demand or greater</div> <div> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> </div> </div>	1 of 2 Credits	-	A gas, solar thermal and PV system will target a reduction of at least 10% in CO <sub>2</sub> emissions through the use of LZC technologies resulting in one credit being awardable at this stage. The specified LZC technologies will need to be installed and certified under the Microgeneration Certification Scheme.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Ene 8 Cycle Storage	<p>Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements.</p> <p>Fill in the development details below</p> <div> <div>Number of bedrooms:</div> <div>Number of cycles stored per dwelling*</div> <div> <div>3</div> <div>0.0</div> </div> </div> <p>* if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling</p>	0 of 2 Credits	-	Current design does not provide architecturally satisfying compliant provision, so credit not applied for.	
Ene 9 Home Office	<p>A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements.</p> <p>Will there be provision for a Home Office?</p> <div> <div>Yes</div> <div>OR No</div> <div> <input checked="" type="radio"/> <input type="radio"/> </div> </div>	1 of 1 Credits	-	A Daylight report will confirm compliance with the daylight criteria and suitable space and services will be specified, therefore one credit is awarded.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.

CATEGORY 2 WATER		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 83.33		Credits	Level			
Contribution to Overall Score: 7.50 points		5 of 6 Credits	Level 4			
Wat 1 Indoor Water Use	<p>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.</p> <p>Select the predicted water use / Mandatory Requirement</p> <div> <p>greater than 120 litres/ person/ day <input type="radio"/></p> <p>OR ≤ less than 120 litres/ person/ day <input type="radio"/></p> <p>OR ≤ less than 110 litres/ person/ day <input type="radio"/></p> <p>OR ≤ less than 105 litres/ person/ day <input type="radio"/></p> <p>OR ≤ less than 90 litres/ person/ day <input checked="" type="radio"/></p> <p>OR ≤ less than 80 litres/ person/ day <input type="radio"/></p> </div>	4 of 5 Credits	Level 3 AND Level 4		The design and the Contractor's specification will comply partially with the criteria for this issue, to a point above the minimum mandatory Code Level 4 requirement.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Wat 2 External Water Use	<p>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.</p> <p>Select the scenario that applies</p> <div> <p>No internal or communal outdoor space <input type="radio"/></p> <p>OR Outdoor space with collection system <input checked="" type="radio"/></p> <p>OR Outdoor space without collection system <input type="radio"/></p> </div>	1 of 1 Credits	-		Water butts of a modest but suitable and compliant type will be provided for the ground floor exterior courtyard planting.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.

CATEGORY 3 MATERIALS		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66		Credits	Level			
Contribution to Overall Score: 4.80 points		16 of 24 Credits	All Levels			
Mat 1 Environmental Impact of Materials	<p><b>Mandatory Requirement:</b> At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D.</p> <p><b>Tradable Credits:</b> 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.</p> <p>Mandatory Requirement</p> <div> <div>Will the mandatory requirement be met?</div> <input checked="" type="checkbox"/> </div> <p>Enter the predicted score</p> <div> <div>What is the predicted number of credits?</div> <div>10</div> </div>	10 of 15 Credits	All Levels		Detailed Specifications of all relevant material elements are being developed in order to gain a good score of credits under this issue. Preliminary estimates grant 10 credits.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	<p>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.</p> <p>Enter the predicted Score</p> <div> <div>What is the predicted number of credits?</div> <div>6</div> </div>	6 of 6 Credits	-		Detailed Specifications of all relevant material elements are being developed in order to gain a good score of credits under this issue. Preliminary estimates grant 6 credits. Responsible sourcing supply lines and Certificates will target full compliance for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	<p>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.</p> <p>Enter the predicted Score</p> <div> <div>What is the predicted number of credits?</div> <div></div> </div>	0 of 3 Credits	-			



CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 100.00%		Credits	Level			
Contribution to Overall Score: 2.20 points		4 of 4 Credits	All Levels			
Sur 1 Management of Surface Water Run-off from developments	<p><b>Mandatory Requirement:</b> 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. Designing the drainage system to be able to cope with local drainage system failure. <b>Tradable Credits:</b> Where SUDS are used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters.</p> <p>Mandatory Requirement</p> <div> <div>Will the mandatory requirement be met?</div> <input checked="" type="checkbox"/> </div> <p>Select the appropriate option</p> <div> <div>No SUDS</div> <input type="checkbox"/> </div> <div> <div>No runoff into watercourses for the first 5 mm of rainfall</div> <input checked="" type="checkbox"/> </div> <div> <div>Runoff from hard surfaces will receive an appropriate level of treatment</div> <input checked="" type="checkbox"/> </div>	2 of 2 Credits	All Levels		<p>Hard surface areas will not be increased between the Existing and the Proposed schemes. Drawings and Calculations will be provided to demonstrate that the mandatory requirements will be met. Furthermore attenuation will be provided that enables full compliance with this issue.</p>	<p>The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.</p>
Sur 2 Flood Risk	<p>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.</p> <p>Select the annual probability of flooding (from PPS25*)</p> <div> <div>Zone 1 - Low</div> <input checked="" type="radio"/> </div> <div> <div>OR Zone 2 - Medium</div> <input type="radio"/> </div> <div> <div>OR Zone 3 - High</div> <input type="radio"/> </div> <p>Select the appropriate option(s)</p> <div> <div>Low risk of flooding from FRA**</div> <input checked="" type="checkbox"/> </div> <div> <div>All measures of protection are demonstrated in FRA</div> <input type="checkbox"/> </div> <div> <div>Ground floor level and access routes are 600 mm above design flood level</div> <input type="checkbox"/> </div>	2 of 2 Credits	-		<p>The Environment Agency Flood map indicates a low risk of flooding. This will need to be verified by a FRA prepared according to good practice guidance as outlined in PPS25 that takes in to account all sources of local flooding to ensure that the credits have been correctly awarded.</p>	<p>The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.</p>
* Planning Policy Statement 25 - Planning and Flood Risk						
** FRA - Flood Risk Assessment						

CATEGORY 5 WASTE		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%		Credits		Level		
Contribution to Overall Score: 5.60 points		7 of 8 Credits		All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	<p><b>Mandatory Requirement:</b> 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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.</p> <p>Mandatory Requirement</p> <div> <div>Will the minimum space be provided and be accessible to disabled people?</div> <input checked="" type="checkbox"/> </div> <p>Internal Recyclable household waste storage</p> <div> <div>Where there is no external recyclable waste storage and no Local Authority collection scheme</div> <div>Internal storage (capacity 60 litres)</div> <input type="checkbox"/> </div> <p>Local Authority collection Scheme</p> <div> <div>Post Collection sorting</div> <div>Internal storage (capacity 30 litres)</div> <input checked="" type="checkbox"/> <div>Pre-collection sorting</div> <div>Internal storage (3 separate bins, capacity 30 litres)</div> <input type="checkbox"/> </div> <p>External Storage, no Local Authority collection scheme</p> <div> <div>3 separate internal storage bins (capacity 30 litres)</div> <input type="checkbox"/> <div>AND</div> <div>Houses</div> <div>External Storage(capacity 180 litres)</div> <input type="checkbox"/> <div>Flats</div> <input type="checkbox"/> <div>Private recycling operator</div> <input type="checkbox"/> <div>3 or greater types of waste collected</div> <input type="checkbox"/> </div>	0 of 2 Credits			The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
		4 of 4 Credits	All Levels			
		0 of 4 Credits				

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	<p>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.</p> <p>SWMP details</p> <div> <p>Does the SWMP include:</p> <p>+ No SWMP <input type="radio"/></p> <p>+ SWMP with targets and procedures to minimise waste? <input type="radio"/></p> <p>+ SWMP with procedures to divert 50% of waste <input type="radio"/></p> <p>+ SWMP with procedures to divert 85% of waste <input checked="" type="radio"/></p> </div>	3 of 3 Credits		The design and the Contractor's specification will comply fully with the criteria for this issue.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.
Was 3 Composting	<p>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.</p> <p>Select the facilities available</p> <div> <p>No composting facilities <input checked="" type="radio"/></p> <p>Individual composting facilities <input type="radio"/></p> <p>OR Communal/ community composting*? <input type="radio"/></p> <p>Local Authority <input type="checkbox"/></p> <p>OR Private with management plan <input type="checkbox"/></p> </div>	0 of 1 Credit	-	This credit not applied for at present due to space restrictions on site.	As an option for potential credit the Code Assessor will include the criteria requirements within the detailed Code Compliance Specifications for this issue, when issued for the Contractor and Project Team to follow.

\* including if an automated waste collection system is in place

CATEGORY 6 POLLUTION		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% 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	<p>A credit is awarded where <u>all</u> insulating materials only use substances (in manufacture AND installation) that have a GWP of less than 5.</p> <p>Select the most appropriate option</p> <div> <p>All insulants have a GWP less than 5 <input checked="" type="radio"/></p> <p>OR Some insulants have a GWP of less than 5 <input type="radio"/></p> <p>OR No insulants have a GWP of less than 5 <input type="radio"/></p> </div>	1 of 1 Credits	-		The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
Pol 2 NOx Emissions	<p>Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling.</p> <p>Select the most appropriate option</p> <div> <p>Greater than 100 mg/kWh <input type="radio"/></p> <p>OR Less than 100 mg/kWh <input type="radio"/></p> <p>OR Less than 70 mg/kWh <input type="radio"/></p> <p>OR Less than 40 mg/kWh <input checked="" type="radio"/></p> <p>OR Class 4 boiler <input type="radio"/></p> <p>OR Class 5 boiler <input type="radio"/></p> <p>OR All space and hot water energy requirements are met by systems who do not produce NOx emissions <input type="radio"/></p> </div>	3 of 3 Credits	-		The Gas boiler, solar thermal and PV system will fully comply with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 41.00%		Credits	Level			
Contribution to Overall Score: 5.83 points		5 of 12 Credits	No level			
Hea 1 Daylighting	<p>Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.</p> <p>Select the compliant areas</p> <div> <p><u>Room</u></p> <p>Kitchen: Avg DF of at least 2% <input type="checkbox"/></p> <p>Living Room*: Avg DF of at least 1.5% <input type="checkbox"/></p> <p>Dining Room*: Avg DF of at least 1.5% <input type="checkbox"/></p> <p>Study*: Avg DF of at least 1.5% <input checked="" type="checkbox"/></p> <p>80% of working plane in all above rooms receive direct light from the sky? <input type="checkbox"/></p> </div> <p>Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.</p>	0 of 3 Credits	-		<p>The DF required for the Study will be met, in full compliance with Ene9. Further daylight analysis may be able to confirm compliance with daylight factors and View of the Sky criteria. Abba Energy is able to offer a Daylight Report service. Currently no further credits can be assumed at this stage.</p>	<p>The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.</p>
Hea 2 Sound Insulation	<p>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.</p> <p>Select a type of property</p> <div> <p>Detached Property <input type="radio"/></p> <p>Attached Properties:</p> <ul style="list-style-type: none"> <li>- Separating walls and floors only exist between non habitable spaces <input type="radio"/></li> <li>- Separating walls and floors exist between habitable spaces <input checked="" type="radio"/></li> </ul> </div> <p>Select a performance standard</p> <div> <p>Performance standard not sought <input type="radio"/></p> <p>Airborne: 3db higher; Impact: 3dB lower <input type="radio"/></p> <p>OR Airborne: 5db higher; Impact: 5dB lower <input type="radio"/></p> <p>OR Airborne: 8db higher; Impact: 8dB lower <input checked="" type="radio"/></p> </div>	4 of 4 Credits	-		<p>The design and the Contractor's specification will comply fully with the criteria for this issue.</p>	<p>The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.</p>

Issue	Credits	Level	Assumptions Made	Evidence Required
<p>Hea 3 Private Space</p> <p>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.</p> <p>Will a private/ semi-private space be provided?</p> <div> <div>Yes, private/semi-private space will be provided</div> <div>OR No private/semi-private space</div> <div> <input checked="" type="radio"/> <input type="radio"/> </div> </div>	1 of 1 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.
<p>Hea 4 Lifetime Homes</p> <p><u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6.</p> <p><u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme.</p> <p>Mandatory Requirement</p> <div> <div>Dwelling to achieve Code Level 6?</div> <div> <input type="checkbox"/> </div> </div> <p>Lifetime Homes Compliance</p> <div> <div>All Lifetime Homes criteria will be met</div> <div>OR Exemption from LTH criteria 2/3 applied</div> <div>Credit not sought</div> <div> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> </div> </div>	0 of 4 Credits	No level	Credit not applied for.	

CATEGORY 8 MANAGEMENT		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% 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 <div><div>Operational Issues?<input checked="" type="checkbox"/></div><div>Site and Surroundings?<input checked="" type="checkbox"/></div><div>Is available in alternative formats?<input checked="" type="checkbox"/></div></div>	3 of 3 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy to compile (or engage others to compile) a suitable publication for this purpose, liaising with the Code Assessor on any variations to the Specification requirements.	
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 <div><div>No scheme used<input type="radio"/></div><div>Considerate Constructors</div><div>OR Best Practice: Score between 24 and 31.5<input type="radio"/></div><div>OR Best Practice+: Score between 32 and 40<input checked="" type="radio"/></div><div>Alternative Scheme*</div><div>OR Mandatory + 50% optional requirements<input type="radio"/></div><div>OR Mandatory + 80% optional requirements<input type="radio"/></div></div> * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue. N.B. Since January 2013 the CCS scoring system has changed with the benchmark scores for achieving significantly beyond Best Practice being between 35 and 50 with a score of at least 7 in each of the 5 sections.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.	
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 <div><div>Monitor, report and set targets, where applicable, for:</div><div><div>- CO<sub>2</sub>/ energy use from site activities<input type="checkbox"/></div><div>- CO<sub>2</sub>/ energy use from site related transport<input type="checkbox"/></div><div>- water consumption from site activities<input checked="" type="checkbox"/></div><div>Adopt best practice policies in respect of:</div><div>- air (dust) pollution from site activities<input checked="" type="checkbox"/></div><div>- water (ground and surface) pollution on site<input checked="" type="checkbox"/></div><div>80% of site timber is reclaimed, re-used or responsibly sourced<input checked="" type="checkbox"/></div></div></div>	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes. On day one a water check meter must be installed on site, then read and monitored monthly thereafter.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	<p>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.</p> <p>Secured by Design Compliance</p> <div><div>Credit not sought</div><div>OR Secured by Design Section 2 Compliance</div></div>	2 of 2 Credits	-	The design and the Contractor's specification will comply fully with the criteria for this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.



CATEGORY 9 ECOLOGY		Overall Level: 4	Overall Score	70.36	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits		Level		
Contribution to Overall Score: 9.33 points		7 of 9 Credits		All Levels		
Eco 1 Ecological Value of Site	<p>One credit is awarded for developing land of inherently low value.</p> <p>Select the appropriate option</p> <div><div>Credit not sought <input type="radio"/></div><div>OR Land has ecological value <input type="radio"/></div><div>OR Land has low/ insignificant ecological value* <input checked="" type="radio"/></div></div> <p>* 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.</p>	1 of 1 Credits	-	Existing site of buildings on hard surfaces has no ecological value, therefore this credit is complied with by default.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.	
Eco 2 Ecological Enhancement	<p>A credit is awarded where there is a commitment to enhance the ecological value of the development site.</p> <p>Tick the appropriate boxes</p> <div><div>Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? <input checked="" type="checkbox"/></div><div>AND Will all key recommendations be adopted? <input checked="" type="checkbox"/></div><div>AND 30% of other recommendations be adopted? <input checked="" type="checkbox"/></div></div>	1 of 1 Credits	-	A suitably qualified ecologist will be appointed to recommend appropriate ecological features and all key recommendations will be implemented along with 30% of other recommendations, gaining one credit.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.	
Eco 3 Protection of Ecological Features	<p>A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value.</p> <p>Type and protection of existing features</p> <div><div>Site with features of ecological value? <input type="radio"/></div><div>OR Site of low ecological value (as Eco 1)? <input checked="" type="radio"/></div><div>AND All* existing features potentially affected by site works are maintained and adequately protected? <input type="checkbox"/></div></div> <p>*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.</p>	1 of 1 Credits	-	Existing site has no ecological value, therefore this credit is complied with by default.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	<p>Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements and is calculated to be:</p> <p>Change in Ecological Value</p> <div> <p>Major negative change: fewer than -9 <input type="radio"/></p> <p>Minor negative change: between -9 and -3 <input type="radio"/></p> <p>OR Neutral: between -3 and +3 <input checked="" type="radio"/></p> <p>Minor enhancement: between +3 and +9 <input type="radio"/></p> <p>Major enhancement: greater than 9 <input type="radio"/></p> </div>	2 of 4 Credits	-	Existing site has no ecological value, therefore this credit is complied with by default.	The Contractor will follow the Code Compliance Specifications compiled by Abba Energy during the build, liaising with the Code Assessor on any changes.
Eco 5 Building Footprint	<p>Credits are awarded where the ratio of combined floor area of all dwellings on the site to their footprint is:</p> <p>Ratio of Net Internal Floor Area: Net Internal Ground Floor Area</p> <div> <p>Credit Not Sought <input type="radio"/></p> <p>OR Houses: 2.5:1 OR Flats: 3:1 <input type="radio"/></p> <p>OR Houses: 3:1 OR Flats: 4:1 <input checked="" type="radio"/></p> <p>OR Houses &amp; Flats Weighted (2.5:1 &amp; 3:1) <input type="radio"/></p> <p>OR Houses &amp; Flats Weighted (3:1 &amp; 4:1) <input type="radio"/></p> </div>	2 of 2 Credits		Each house will be 4 storeys high and therefore fully comply with this issue.	The Design Team will incorporate the criteria to comply with this issue during Detailed Design, using the Code Compliance Specifications compiled by Abba Energy. The Contractor will then follow the Code Compliance Specifications during the build, liaising with the Code Assessor on any changes.

## CONCLUSION

The Code for Sustainable Homes assesses the environmental quality of a development by considering the broad concerns of climate change, use of resources, pollution, and impacts on bio-diversity. These concerns are balanced against their need for a high quality internal environment. The Code Certification pass marks are 36% (Level 1), 48% (Level 2), 57% (Level 3), 68% (Level 4), 84% (Level 5) and 90% (Level 6). However, these can only be applied after all categories have been sub-totalled into their overall 'Issue' categories. At such time scores are 'weighted' and the final marks then calculated.

**The Preliminary rating for this scheme is estimated as achieving the Target Rating if the issues awarded with credits are implemented in full.**

To allow for a margin of safety, it is recommended that a score that is at least 5.0% in excess of the required target percentage is specified. This is because failure on any major issue may force unexpected or unwanted alternative strategies to achieve the desired rating and potentially additional expense.

The Project Team should check and confirm the data and assumptions contained within this report at the earliest opportunity. This will aid the timely and accurate submission of data for the Interim Code Assessment.

The project team should ensure that the drawings and specifications follow AND clearly state ALL the relevant Code issues for each of the applicable credits. Please note that for the Interim Stage Assessment, without the evidence, the assessor cannot award the credits for such certificated assessment. Once the relevant Code issues are integrated with the design, ALL compliant data (auditable proof, as described in the Code Technical Guide) should then be submitted to the Assessor for the Interim Stage report to be written. Once this report is finished it can be submitted to the BRE for QA and Interim Certification, as necessary. This is then followed by the Post Construction Stage report, which is compiled following site visit(s), receipt of "as built" evidence and ultimately, Post Construction Certification.

## REFERENCES

This report was based on the following drawings along with written, verbal and web-based evidence:

Drawing No. Reference	Status/Revision	Dated
Existing Drawings.pdf	Existing	26/07/2013
Proposed Drawings.pdf (Approved scheme prior to April 2014)	Proposed/ various revisions	26/07/2013
200_32_16 pro basement plan op B.pdf	Pre-planning	04/2014

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