

Agar Grove Phase 1b - CSH Construction Stage Assessment

March 2018 – Initial Issue

Section	Credits Awarded	Out of	Current Site Compliance	Evidence to be Provided	
<p><i>Key: Blue = Evidence already provided Red = Evidence Outstanding Purple = NRG to calculate</i></p>					
ENE 1	DER	3.6 - 3.8	10	A 27% improvement over the Part L 2013 baseline has been achieved. This exceeds the minimum standards for Code Level 4 and meets Planning Condition 32	NRG SATISFIES
ENE 2	FABRIC ENERGY EFFICIENCY	3.1 - 7	9	7 Credits have been awarded after an FEE score of 38.8 kWh/m ² /year was achieved for Block F. 3.1 credits have been achieved for Block G (47.5 kWh/m ² /year) 3.5 credits have been achieved for Block H (46.5 kWh/m ² /year) SAP Calculations confirm this score.	NRG SATISIFES
ENE 3	DISPLAY ENERGY DEVICES	1	2	Blocks G will be provided Display Energy Devices that show electricity usage in each flat. The device must be fixed to the mains supply and be capable of displaying the following: <ul style="list-style-type: none"> • Current mains energy consumption (kilowatts and kilowatt hours) <ul style="list-style-type: none"> • Current emissions (g/kg CO2) • Current tariff • Current cost (in pounds and pence). • Display account balance information for pre-pay customers (amount in credit or debit) <ul style="list-style-type: none"> • Visual presentation of data (i.e. non-numeric) • Historical consumption data <p>Block F & H does not require display energy devices due to performance in other credits.</p>	Written confirmation that a compliant Display Energy Device is to be provided sought



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ENE 4	DRYING SPACE	1	1	<p>A Tidy Drier of at least 6m in line length is to be installed in the bathroom of each Flat.</p> <p>A minimum extract high rate of 13l/s must be achieved and be controlled according to the requirements of Approved Document - Part F.</p>	<p style="text-align: center;">Drawings showing tidy driers</p> <p style="text-align: center;">Written confirmation of sufficient Ventilation Rates</p> <p style="text-align: center;">Tidy drier data sheet</p>
ENE 5	ECO GOODS	1	2	<p>To the dwellings, an Energy Saving Trust Leaflet detailing information about the Energy Efficiency of White Goods (EU Labeling Scheme) shall be supplied.</p> <p>To achieve an additional credit, a full package of White Goods can be supplied to each Flat to the following specification:</p> <p style="text-align: center;">A+ rated Fridge/Freezer; A rated Dishwasher; A rated Washing Machine OR B rated Washer/Dryer</p> <p>At this time, it is assumed no dishwasher has been specified for the dwellings from current documents</p>	<p style="text-align: center;">Written confirmation that a leaflet on the EU Energy Labelling Scheme will be supplied to all dwellings.</p> <p style="text-align: center;">Datasheets of any white goods</p>
ENE 6	EXTERNAL LIGHTS	2	2	<p>All external space lighting, including lighting in common areas, is provided by energy efficient light bulbs/lamps with appropriate control systems.</p> <p>Any security lighting is to be a maximum of 150w with PIR and dusk to dawn sensors to reduce unnecessary usage.</p>	<p style="text-align: center;">Written confirmation of the type of light fittings and the control systems applicable.</p>
ENE 7	LOW OR ZERO CARBON TECHNOLOGIES	0	2	<p>0 Credits have been awarded. While there is provision of renewable technology to the development, this does not supply at least 10% of the annual energy demand.</p> <p style="text-align: center;">SAP Calculations confirm this score</p>	<p style="text-align: center;">NRG SATISFIES</p>



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ENE 8	CYCLE STORAGE	1	2	<p>Cycle storage sufficient for 1 Credits will be supplied to the development.</p> <p>This will be:</p> <ul style="list-style-type: none"> - 76 spaces in Block F - 15 spaces in Block G - 40 spaces in Block H <p>in the form of proprietary storage.</p> <p>It requires a secure lock and a secure fixing. This must be the following:</p> <p>Secure Lock: A permanent mortice deadlock or mortice sash lock that conforms to BS 3621:2007 can be used where the door is at least 44mm thick and is locked to the doorframe.</p> <p>Secure Fixing: A stand which allows both wheel and frame to be locked and must, as a minimum, be of galvanised steel bar construction (with a minimum thickness of 3mm) and have a minimum foundation depth of 300mm with a welded anchor T-bar set in concrete to prevent it being easily removed from the ground.</p> <p>Cycle Storage has direct access to the highway and is only accessible to residents.</p>	<p>Written confirmation of weatherproof and Security arrangements.</p>
ENE 9	HOME OFFICE	1	1	<p>The Home Office area designated in the dwelling GA drawings has been shown to accommodate a desk, bookcase, provision of 2 double sockets and 1 telephone points, all to be in close proximity to the wall space so extension cables are not required.</p>	<p>Written confirmation of:</p> <ul style="list-style-type: none"> • 1.8m of continuous wall space • Location of sockets • Location of telephone points • Broadband provision

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WAT 1	INTERNAL WATER	4	5	<p>The site sanitary ware will be designed to be less than 90 litres of water/person/day.</p> <p>Sample calculation subject to confirmation with Developer:</p> <table border="1" data-bbox="730 444 1402 976"> <thead> <tr> <th data-bbox="730 444 1192 513"><u><90ltrs/person/day (4 credits)</u></th> <th data-bbox="1192 444 1402 513">Option 1</th> </tr> </thead> <tbody> <tr> <td data-bbox="730 513 1192 581">W/C</td> <td data-bbox="1192 513 1402 581">4/2.6</td> </tr> <tr> <td data-bbox="730 581 1192 649">Basin Taps (Litres Per Min)</td> <td data-bbox="1192 581 1402 649">3</td> </tr> <tr> <td data-bbox="730 649 1192 717">Kitchen Taps (Litres Per Min)</td> <td data-bbox="1192 649 1402 717">8</td> </tr> <tr> <td data-bbox="730 717 1192 786">Shower (Litres Per Min)</td> <td data-bbox="1192 717 1402 786">6</td> </tr> <tr> <td data-bbox="730 786 1192 854">Bath</td> <td data-bbox="1192 786 1402 854">156</td> </tr> <tr> <td data-bbox="730 854 1192 922"> </td> <td data-bbox="1192 854 1402 922"> </td> </tr> <tr> <td data-bbox="730 922 1192 976">TOTAL</td> <td data-bbox="1192 922 1402 976">89.9</td> </tr> </tbody> </table> <p>White Goods, when supplied, are to meet or better the following standards for the specification in WAT 1 to be valid:</p> <p style="text-align: center;">Washing Machine – 8.17 ltrs/kg of dry load Dishwasher – 1.25 ltrs/place setting</p>	<u><90ltrs/person/day (4 credits)</u>	Option 1	W/C	4/2.6	Basin Taps (Litres Per Min)	3	Kitchen Taps (Litres Per Min)	8	Shower (Litres Per Min)	6	Bath	156			TOTAL	89.9	<p>Written confirmation of:</p> <ul style="list-style-type: none"> • WC flush volume • Shower flow rate (ltrs/minute) • Basin and Kitchen Taps Flow Rate (ltrs/minute) • Bath capacity (ltrs to overflow)
<u><90ltrs/person/day (4 credits)</u>	Option 1																				
W/C	4/2.6																				
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Shower (Litres Per Min)	6																				
Bath	156																				
TOTAL	89.9																				
WAT 2	EXTERNAL WATER	0	1	<p>Water collection via water butts is not required on site. Credit not sought.</p>	<p>[Credit not sought]</p>																

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MAT 1	ENVIRONMENTAL IMPACT OF MATERIALS	7	15	<p>MAT 1 – Materials – As per the Building Research Establishments “Green Guide to Specification”, 7 credits have been awarded based on the Construction Details provided.</p> <p style="text-align: center;">Full NRG Materials Calculations confirm.</p>	Full Construction Details
MAT 2	RESPONSIBLE SOURCING: BASICS	6	6	<p>All Timber to be FSC/PEFC certified. Where possible, brick/block/roof tiles to have EMS (ISO:14001/BES:6001) Certification.</p> <p style="text-align: center;">Elements are:</p> <ul style="list-style-type: none"> a) Frame b) Ground Floor c) Upper Floor d) Roof e) External Walls f) Internal Walls g) Substructure/Foundations h) Staircase 	Written confirmation that the necessary Materials Certificates will be supplied when available.
MAT 3	RESPONSIBLE SOURCING: FINISHES	2	3	<p>All timber used in the following sections will be FSC/PEFC where available:</p> <ul style="list-style-type: none"> a) Panelling b) Fascias c) Skirting d) Internal and external door finishing’s e) Staircase 	Written confirmation that the necessary Materials Certificates will be supplied when available.
SUR 1	SURFACE WATER MANAGEMENT	2	2	<p>CSH Mandatory Requirement: The post-development run-off of Surface Water is to be no greater than pre-development run-off.</p> <p>This requirement can potentially be met by default by special case criteria (If impermeable area of site decreases/stays the same) – detailed HERE</p>	SUR 1 Template



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				<p>Flood Risk and Drainage Assessment by Peter Brett Associates shows the following credits are achieved:</p> <p>1 credit: No discharge from the development from the first 5mm of rainfall.</p> <p>1 credit: The run-off from all hard surfaces shall receive an appropriate level of treatment in accordance with The SuDS Manual to minimise the risk of pollution.</p>	
SUR 2	FLOOD RISK	2	2	<p>2 Credits have been awarded based on the Flood Risk Assessment provided by Peter Brett Associates</p> <p>As of 6th March 2014, Planning Policy Statement PPS25 ceased to be a current document for planning purposes. However, this change does not impact the requirements for this section of the Code.</p> <p>A Flood Risk Assessment is a mandatory requirement of the Code.</p>	Flood Risk Assessment
WAS 1	RECYCLING FACILITIES	4	4	<p style="text-align: center;"><u>CSH Mandatory Requirement:</u></p> <p>External Refuse & Recycling Storage must be sized to comply with whichever is greater/larger: the requirements of the Local Authority <i>or</i> the standards of BS:5906</p> <p style="text-align: center;">BS:5906 Standard:</p> <p>100ltrs of Waste Storage (Refuse/Recycling) for the First Bedroom of each dwelling 70ltrs per each Bedroom thereafter...</p> <p style="text-align: center;"><u>CSH Mandatory Requirement:</u></p> <p>Inclusive Design Principles Checklist to be completed and complied with if credits are sought in WAS 1, HEA 3 and WAS 3</p>	<p style="color: red;">Please fill-in and return both Checklist “Inclusive Design Principles (mandatory)” and “Supplementary Information Sheet – WAS 1”.</p> <p style="color: blue;">Written confirmation of the location and size of the internal recycling storage</p>

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				<p>Internal recycling facilities of 1 bin of at least 30ltrs in total volume is to be provided to the dwelling. The bin should be suitably labeled for recycling. This will be in a fixed location within the kitchen and in addition to a normal waste bin.</p> <p>The Local Authority provides a Post Sorting Recycling Service...</p> <p>LINK</p>	
WAS 2	SWMP	3	3	<p>A full Site Waste Management Plan in line with current CfSH guidance (what was previously the SWMP 2008 regulations) will be provided with waste being recycled off-site by a licensed external contractor.</p> <p>For all three credits, over 85% of the non-hazardous waste by weight or volume must be diverted from Landfill.</p>	<p>Written confirmation that the SWMP will be compliant with Checklist WAS 2a, 2c and 2d and that 85% of non-hazardous waste will be recycled.</p> <p>Monthly waste data from site</p>
WAS 3	COMPOSTING	1	1	<p>The Local Authority provides a Food Waste Collection Service. Space for a 7ltr Caddy has been specified in the Kitchen.</p> <p>A composting leaflet is to be provided to all dwellings as part of the Home User Guide (MAN 01)</p>	<p>Written confirmation of:</p> <ul style="list-style-type: none"> • Space for Kitchen Caddy • Compost Bin in line with IDP Checklist
POL 1	ODP / GWP	1	1	<p>All insulation used in the construction has a Global Warming Potential of less than 5.</p>	<p>Construction Notes Drawing showing insulation.</p>
POL 2	NOx OUTPUT FROM BOILER	3	3	<p>Broag Remeha Quinta Pro boiler with NOx emissions of <40 mg/kWh @0% oxygen is to be installed in the dwelling for 3 credits.</p>	<p>Written confirmation of boiler emissions</p>
				<p>Full NRG Daylight Calculations confirm that 2 credits are available in this section.</p>	<p>NRG SATISFIES</p>

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HEA 1	DAYLIGHT	2	3		
HEA 2	SOUND INSULATION	3	4	<p>The dwelling is to achieve a 5db improvement of Part E Compliance in order to achieve 3 credits.</p> <p>Post-Construction Sound Testing will be undertaken by a Suitably Qualified Acoustician to confirm this.</p>	<p>Written confirmation of Post-Construction Sound Testing</p> <p>Sound Test Report</p>
HEA 3	PRIVATE SPACE	1	1	<p>The dwelling has Private Space in line with the Inclusive Design Principles Checklist; therefore, 1 Credit is available in this section.</p>	<p>Written confirmation that all Private Space is in line with the IDP Checklist.</p>
HEA 4	LIFETIME HOMES	4	4	<p>All 16 points of Lifetime Homes will be adhered to on this scheme where applicable.</p>	<p>Please fill in and return completed Lifetime Homes Checklist (Hea 4) indicating compliance with points from 1–16.</p>
MAN 1	HOME USER GUIDE	3	3	<p>To each dwelling, a simple guide that covers information relevant to the ‘non-technical’ occupant on the operation and environmental performance of the dwelling is being supplied. In addition, information on the site and surrounding area is to be included to achieve all three credits.</p> <p>It must meet the required standards in the MAN 1 Checklist Parts 1 & 2, and be available in different formats and languages</p>	<p>Written confirmation that the Home User Guide will:</p> <ul style="list-style-type: none"> • Be supplied to all dwellings • Meet the required standards set out in Checklists MAN 1 Parts 1 & 2
MAN 2	CONSIDERATE CONSTRUCTORS	2	2	<p>The Considerate Constructors Scheme is to be followed and a Beyond Best Practice score is to be achieved.</p>	<p>Written confirmation that the CCS will be followed, and a Beyond Best Practice score will be achieved.</p>

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				This represents a score of at least 7 in each section and at least 35 overall.	Considerate Construction Second visit report and certificate
MAN 3	CONSTRUCTION SITE IMPACTS	2	2	<p>The following will be undertaken:</p> <ol style="list-style-type: none"> 1. Adopt policies in respect of air pollution arising from site 2. Adopt policies in respect of water pollution occurring on site. 3. All timber for Site Use (Hoarding etc) is either responsibly sourced/re-used/recycled. 4. Monitor Water Consumption from Site activities. 	<p>Air and Water Pollution Policies</p> <p>Measurements of water consumption from site on a monthly basis</p> <p>Written confirmation that:</p> <ul style="list-style-type: none"> • The Site Manager will inform his staff of the pollution policies during his Site meetings • The water consumption will be monitored regularly and the data will be retained • All timber used for Site purposes is responsibly sourced or re-used from other Sites.
MAN 4	SECURE BY DESIGN	2	2	<p>A full Secure by Design Certificate is to be achieved on this development.</p> <p>If this is not possible then Secure by Design Part 2 is to be adhered to and the recommendations of the local Liaison Officer will be implemented.</p>	Written confirmation that SBD will be achieved
ECO 1	ECOLOGICAL VALUE OF SITE	1	1	1 Credit confirmed by Ecology report provided by MKA Ecology during Phase 1A.	Ecology Report

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ECO 2	ECOLOGICAL ENHANCEMENT	1	1	All of the Key Recommendations and at least 30% of the Additional Recommendations contained within the Ecology Report are to be implemented on Site.	Ecology Report
ECO 3	PROTECTION OF ECOLOGY	1	1	1 Credit confirmed by Ecology Report provided by MKA Ecology during Phase 1A.	Ecology Report
ECO 4	CHANGE OF SITE USE	2	4	CSH Ecology Template to be completed by MKA Ecology to confirm that there will be a Neutral Change in the ecological value of the Site.	CSH Ecology Template
ECO 5	BUILDING FOOTPRINT	1/2	2	<p>1 credit is available for the Building Footprint of Block F as the Net Internal Floor Area to Net Internal Ground Floor Area ratio meets 3:1.</p> <p>2 credits are available for the Building Footprint of Block G and Block H as the Net Internal Floor area to Net Internal Ground Floor Area ratio meets 4:1</p> <p style="text-align: center;">NRG measurements to confirm</p>	Floor Plans

<u>Rev.</u>	<u>Issue Purpose</u>	<u>Author</u>	<u>Date</u>
N/A	Initial Issue for Comment	RT	21/03/2018

FINAL SCORE: 68.58% (Worst case dwelling)

Code 4 = 68, Code 5 = 84



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Code for Sustainable Homes									
Summary Score Sheet		Site: Agar Grove Phase 1B							
		Score assessment							
		Score	Credits available	Sub-total	Credits available	% achiev'd	Weighting factor	Credits Score	
Energy	Ene 1	Dwelling Emission Rate	3.6	10	13.1	31	42.2581	0.364	15.38194
	Ene 2	Fabric Energy Efficiency	3.5	9					
	Ene 3	Display Energy Devices	0	2					
	Ene 4	Drying Space	1	1					
	Ene 5	White Goods	1	2					
	Ene 6	External Lighting	2	2					
	Ene 7	Low or Zero Carbon Technologies	0	2					
	Ene 8	Cycle Storage	1	2					
	Ene 9	Home Office	1	1					
Water	Wat 1	Internal Potable Water	4	5	4	6	66.7	0.09	6.00
	Wat 2	External Potable Water	0	1					
Materials	Mat 1	Environmental Impact of Materials	7	15	16	24	66.7	0.072	4.80
		Roof	1	3					
		External Walls	2	3					
		Internal Walls	2	3					
		Floors - upper and ground	1	3					
		Windows	1	3					
	Mat 2	Resp Sourcing of Materials: Basic Elements	6	6					
	Mat 3	Resp Sourcing of Materials: Finishing Elements	3	3					
Surface	Sur 1	Reduction of Surface Run-Off Rates	2	2	4	4	100.0	0.022	2.20
Water	Sur 2	Flood Risk Assessment	2	2					
Waste	Was 1	Household Waste Storage	4	4	8	8	100.0	0.064	6.40
	Was 2	SWMP	3	3					
	Was 3	Composting	1	1					
Polution	Pol 1	GWP of Insulation	1	1	4	4	100.0	0.028	2.80
	Pol 2	NO _x Emissions	3	3					
Health and Wellbeing	Hea 1	Daylighting	2	3	10	12	83.3	0.14	11.67
	Hea 2	Sound Insulation	3	4					
	Hea 3	Private Space	1	1					
	Hea 4	Lifetime Homes	4	4					
Management	Man 1	Home User Guide	3	3	9	9	100	0.1	10.00
	Man 2	Considerate Constructors	2	2					
	Man 3	Construction Site Impacts	2	2					
	Man 4	Security	2	2					
Land Use and Ecology	Eco 1	Ecological Value of Site	1	1	7	9	77.8	0.12	9.33
	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	2	2					
					Credits	75.1			
					Total	104		Score: 68.58	
								Rating: Code 4	
								Rating	Score
								Code 3	57
								Code 4	68

