

APPENDIX G

CODE FOR SUSTAINABLE HOMES REPORT – Rev A

17.11.14

593 – ST.PANCRAS WAY – PHASE 2

Cartwright Pickard Architects

Report produced by a licensed assessor at

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Job – 03610

8 – 14 St Pancras Way - Phase 2

Code for Sustainable Homes Pre-assessment

Code for Sustainable Homes Pre-assessment

Job title: **8 – 14 St Pancras Way – Phase 2**

Job Number: **03610**

Document Title: **Code for Sustainable Homes Pre-assessment**

Prepared By: **Anna Fleming, Associate Director**

QA and Checked By: **Jim Grace; Director**

Signed:

Dated:

Approved By: **Steve Marshall; Director**

Signed:

Dated:

Version: **For Planning**

Revisions:	No:	Date:	Approved:

Code for Sustainable Homes Pre-assessment

Executive Summary

The purpose of this report is to demonstrate how 8 – 14 St Pancras Way – Phase 2 development will achieve a Code for Sustainable Homes Level 4 rating in line with the requirements of Camden Council Planning Department.

The pre-assessment and report were undertaken by Anna Fleming (Synergy Consulting Engineers Ltd) who is a licensed assessor with Stroma (Licence No – STRO006528)

A Code for Sustainable Homes pre-assessment has been carried out for the worst case dwelling resulting in an overall score of 69.57%, which is above the threshold for a Code Level 4 rating and includes all the minimum standards for that rating level.

The score achieved in the pre-assessment is a minimum target. The design team will endeavour to explore opportunities to achieve additional credits and increase the overall score as the design progresses.

Code for Sustainable Homes Pre-assessment

The Code for Sustainable Homes

Synergy Consulting Engineers have conducted a Code for Sustainable Homes pre-assessment of the residential development at 8 – 14 St Pancras Way. This does not constitute a formal assessment, but reflects the design team's current intentions and provisional commitments.

A Code for Sustainable Homes pre-assessment spreadsheet is included as an Appendix A to this report. This outlines a set of targeted credits that, if achieved, would result in an overall score of 69.57%, which is above the threshold for a Code Level 4 rating and includes all the minimum standards for that rating level. This achieves the planners' minimum rating of Level 4.

A selection of the target credits within each of the ten Code for Sustainable Homes sections are outlined under the following headings. Full details of the targets can be found in the Pre-assessment Estimator section at the end of the report.

Energy

There is a mandatory requirement for a Code Level 4 rating to achieve a 13 % improvement in SAP 2013 DER/TER (Ene 1).

Preliminary SAP calculations have been undertaken resulting in a percentage improvement of 39%. This reduction will be achieved by means of a high-performance building envelope and energy-efficient building services and systems.

Additional targeted tradable credits include dedicated energy-efficient internal and external light fittings, and provision of clothes drying space and home office facilities.

Water

Indoor water use will be reduced to less than 105 litres per person per day, which is a mandatory requirement for a Code Level 4 rating. This will be achieved by specifying water-efficient appliances such as WCs, taps, showers and white goods.

Materials

It is a mandatory requirement for any Code rating that at least three of the five key building elements achieve at least a D rating in the Green Guide to Specification. However, nine credits are targeted under issue Mat 1, which considerably exceeds the mandatory requirement.

Code for Sustainable Homes Pre-assessment

Targets also include credits for the use of responsibly sourced materials such as FSC timber and other materials covered by the BES 6001 sourcing standard or a certified Environmental Management System (EMS).

Surface Water Runoff

It is a mandatory requirement for any Code rating that the peak rate of runoff 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 is entirely reduced.

Waste

It is a mandatory requirement for any Code rating that the external space allocated for waste storage is at least 100 litres for a single bedroom dwelling, with a further 70 litres for each additional bedroom, in accordance with BS 5906.

Additional credits are targeted for providing three internal storage bins (30 litres).

Another mandatory requirement is to implement a Site Waste Management Plan (SWMP) that includes monitoring, reporting and setting appropriate resource efficiency targets with regard to defined waste groups generated on site. An additional credit is targeted for implementing a best-practice SWMP incorporating commitments to minimise waste streams.

Pollution

There are no mandatory requirements in the Pollution section.

However, one credit is targeted for specifying only insulation materials with a Global Warming Potential (GWP) of less than 5.

Health & Wellbeing

There are no mandatory requirements in this section.

Credits are targeted for achieving the relevant minimum average daylight factors in living, dining and study areas (1.5%), exceeding the sound insulation standards required by Building Regulations Part E, providing private outdoor space for residents and all of the principles of the Lifetime Homes scheme.

Code for Sustainable Homes Pre-assessment

Management

There are no mandatory requirements in this section.

Target credits include provision of a comprehensive Home User Guide to residents, achieving a score that meets best practice under the Considerate Constructors Scheme (CCS) and minimising a range of construction site impacts.

Ecology

There are no mandatory requirements in this section.

Credits are targeted for siting the development on land that has low ecological value, appointing and implementing the recommendations of an ecologist and meeting the Code's minimum site density requirements.

Code for Sustainable Homes Pre-assessment

Appendices

Appendix 1 CSH Pre Assessment

Please find attached copy of pre-assessment.

CANAL SIDE STUDIO FLATS - CODE FOR SUSTAINABLE HOMES HITLIST

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3610 / Canal Side Studio Flats / Rev C

Key to colours in category section

red: credits not achieved amber: credits part achieved subject to evidence green: credits achieved; no further evidence required

Desired Code Level: **4**
 Points required: 68

Prepared by: Anna Fleming
 Checked by: Jim Grace

Rev: **C**
 Date: 14/11/2014

Predicted Level: 4

Target Credits: 69.57
 Achieved Credits: 0.00
 Achieved Level: 0

The following items are MANDATORY for code level 4 irrespective of the credits total.

- Ene 1 - CO2:** CO2 reduction compared to Building Regs minimum must be NO LESS than 19%
- Ene 2 - Fabric En Eff:** None for Code Level 4
- Wat 1 - Int. Usage:** Water consumption per person per day must be NO MORE than 105 l/person/day
- Mat 1 - Materials:** At least 3 of the following elements MUST be rated D, or better, in the Green Guide ; Roof, External walls, Internal Walls, Upper&Ground Floors, Windows
- Sur 1 - Water run-off :** Run-off rates and annual volumes of run-off post development MUST BE NO GREATER than the previous conditions for the site.
- Was 1 - Waste:** Space allowed for waste storage must be the greater of the following; a) As required by Local Authority recycling scheme, OR, b) As Calculated by BS5906
- Hea 4 - Lifetime Homes:** None for Code level 4

M&E Engineer	Synergy
Contractor	CONT
Architect	CPA
Structural Eng	SE
Ecologist	Ecologist
Daylighting	Daylight
Acoustician	Acoustician

Proposal	Details	Max Credits	Target Credits	Weighted Credits	Achieved Credits	Ownership	Notes
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ENERGY

31 19.5 24.1 0.0

Ene 1 - CO2	2013 DER is 39% better than TER	Taken From SAP Calculation	10	4.5	5.3		Synergy	
Ene 2 - Fabric Energy Efficiency	Apartment Block, or mid-terrace	FEE = 45 kWh/m2/yr	9	4	5.0		Synergy	
Ene 3- Energy Display devices	Electricity AND primary heating fuel consumption displayed		2	2	2.5		Synergy	
Ene 4 - Drying Space	Yes		1	1	1.3		CPA	
Ene 5 - White Goods	fridges , freezers, wmc & d/w (2 credits)	Fridges, freezers and fridge/freezers Cat A+ Rated, Washing machines and dishwashers Cat A rated, Washer dryers and tumble dryers Cat B rated	2	2	2.5		CONT / CPA	
Ene 6 - External Ltg	Energy eff. security ltg AND Energy eff. external ltg (2 credits)	External lighting provided by dedicated energy efficient fittings. Burglar security lights have: a maximum wattage of 150W AND movement detecting control devices (PIR) AND daylight cut-off sensors. All other security lighting: has dedicated energy efficient fittings AND is fitted with daylight cut-off sensors OR timers.	2	2	2.5		Synergy	
Ene 7 - ZLC	10% Renewables (1 credit)	Where energy is supplied from local renewable or low carbon energy sources funded under the Low Carbon Building Programme (or similar), or is designed and installed in a manner endorsed by a feasibility study prepared by an independent energy specialist AND There is a 10% reduction in carbon emissions as a result of this method of supply.	2	1	1.3		Synergy	
Ene 8 - Cycle Storage	Generous cycle storage (2 credits)	Studio / 1b; one cycle store per dwelling 2b & 3b; two cycle stores per dwelling 4 beds and above; four cycle stores per dwelling	2	2	2.5		CPA	
Ene 9 - Home Office	Home Office (1 credit)	Home office should have: (a) 2No. Double power sockets (b) 2No. Telephone points (or 1 telephone pt plus 1 broadband connection to the property) (c) daylight factor of 1.5% (d) adequate ventilation (openable window or PSV)	1	1	1.3		CPA / Synergy	

Proposal	Details	Max Credits	Target Credits	Weighted Credits	Achieved Credits	Ownership	Notes
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WATER

		6	4	6			
Wat 1 - Int. Usage	≤ 105 l/p/day (3 Credits)	5	3	4.5		CPA	
Wat 2 - Ext. Usage	No gardens (1 credit)	0	1	1.5			

MATERIALS

		24	15	4.5	0		
Mat 1 - Materials	A	Green Guide Rating for roof	3	2	0.6	CPA	
	A	Green Guide Rating for external walls	3	2	0.6	CPA	
	A	Green Guide Rating for internal walls	3	2	0.6	CPA	
	A	Green Guide Rating for upper and ground floors	3	2	0.6	CPA	
	B	Green Guide Rating for windows	3	1	0.3	CPA	
Mat 2 - Sourcing basic Building elements	Cert's mostly 3rd Tier (4 credits)	Most materials certified MTCC,SGS,TFT or EMS	6	4	1.2	CONT / CPA	
Mat 3 - Sourcing Finishing elements	Cert's 1st & 3rd Tiers (2 credits)	Some materials certified FSC, CSA,SFI with CoC,PEFC,or re-used materials, some certified MTCC,SGS,TFT or EMS	3	2	0.6	CONT / CPA	

SURFACE WATER RUN-OFF

		4	3	1.65	0		
Sur 1 - Water run-off	SUDS principles applied to all hard surfaces (1 - credit)	2	1	0.6		SE	
Sur 2 - Flood risk	Low flood risk site - 2 credits	2	2	1.1		SE	

WASTE

		8	5	4.0	0.0		
Was 1 - Waste	No local collection or external recyclable waste storage (2 credits)	4	2	1.6		CPA	
Was 2 - Construction Site Waste	Procedures to minimise waste and reduce landfill by 85%(3 credits)	a. Set best practice targets for waste per 100m2 b. Minimize non-hazardous waste at design stage. c.Procedures for minimizing non-hazardous waste d.Monitor, measure and report non-hazardous waste AND divert 85 % of construction waste fro landfill to re-use, or salvage, or supplier take-back	3	3	2.4	CONT	
Was 3 - Composting	No provision - (0 credits)	1	0	0.0	0		

POLLUTION

		4	1	0.7	0		
Pol 1 - GWP	All insulants have GWP ≤ 5 (1 credit)	All insulants in the following elements need a GWP ≤ 5: -Roofs: Including loft access -Walls, internal & external incl. lintels and all acoustic insulation) -Floors (including ground and upper floors) -Hot water cylinder, pipe insulation and other thermal stores -Cold water storage tanks where provided -External Doors	1	1	0.7		CPA / Synergy
Pol 2 - NOx	NOx > 100 mg/kWh (0 credits)	0	3	0.0		Synergy	

Proposal	Details	Max Credits	Target Credits	Weighted Credits	Achieved Credits	Ownership	Notes
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HEALTH AND WELLBEING

12 11 12.8 0.0

Hea 1 - Daylight	Kitchen daylight factor > 2 (1 credit)	Kitchens achieve a minimum average daylight factor of at least 2%	1	1	1.2		CPA / Daylight	
	Other rooms daylight factor > 1.5 (1 credit)	All living rooms, dining rooms and studies (including any room designated as a home office under Ene 9 - Home Office) must achieve a minimum average daylight factor of at least 1.5%	1	1	1.2		CPA / Daylight	
	Sky visible from > 80% of working plane (1 credit)	80% of the working plane in kitchens, living rooms, dining rooms and studies (including any room designated as a home office under Ene 9 - Home Office) must receive direct light from the sky.	1	1	1.2		CPA / Daylight	
Hea 2 - Sound	Non-detached (3 credits)	airborne & impact sound attenuation 5db better than part E	4	3	3.5		CPA / Acoustician	
Hea 3 - Private Space	Yes (1 credit)	outdoor space (private or semi-private) has been provided that is: a) of a minimum size that allows all occupants to sit outside b) allows easy access to all occupants, including wheelchair users c) accessible only to occupants of designated dwellings	1	1	1.2		CPA	
Hea 4 - Lifetime Homes	All (4 credits)	All the principles of lifetime homes have been complied with	4	4	4.7		CPA	

MANAGEMENT

9 7 7.8 0.0

Man 1 - Home User Guide	Yes (3 credits)	Home User Guide WILL be provided	3	3	3.3		CONT	
Man 2 - Considerate constructor	Best Practice (1 credit)	Commitment to meet Best Practice under a local or national considerate constructor scheme.	2	1	1.1		CONT	0
Man 3 - Construction site impact	>4 procedures (1 credit)	No. of procedures adopted from the list, a-f, opposite	2	1	1.1		CONT	a. Monitor, report and set targets for CO2 production or energy use arising from site activities b. Monitor and report CO2 or energy use arising from commercial transport to and from site c. Monitor, report and set targets for water consumption from site activities d. Adopt best practice policies in respect of air (dust) pollution arising from site activities e. Adopt best practice policies in respect of water (ground and surface) pollution occurring on the site f. 80% of site timber is reclaimed, re-used or responsibly sourced.
Man 4 - Security	Yes (1 credit)	Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force is NOT consulted at the design stage and their recommendations are incorporated into the design of the dwelling	2	2	2.2		CPA	Need to review is information provided is adequate.

ECOLOGY

9 6 8.0 0.0

Eco 1 - Ecological value	Low - confirmed by checklist (1 credit)		1	1	1.3		CPA / Ecologist	
Eco 2 - Enhancement	Yes (1 credit)	A Suitably Qualified Ecologist must be appointed to recommend appropriate ecological features that will positively enhance the ecology of the site	1	1	1.3		CPA / Ecologist	
Eco 3 - Protection	Low value site (1 credit)	If the site is of low ecological value as defined under Eco 1, then 1 credit may be awarded by default	1	1	1.3		CPA / Ecologist	
Eco 4 - Species	Neutral (2 credits)	No. of species changed by between +3 and -3	4	2	2.7		CPA / Ecologist	
Eco 5 - Building Footprint	Average (1 credit)	Houses: Internal Floor area is MORE than 2.5 x Ground floor area Flats: Internal Floor area is MORE than 3 x Ground floor area	2	1	1.3		CPA	