London Borough of Camden

Energy Efficiency and Renewable Energy and Sustainability Plan

S106 Pro-forma V.3 – Part A Pre-implementation

(To be submitted for approval : planningobligations@camden.gov.uk)

Scheme address:	Land bounded by Grafton Terrace, Maitland Park Villas and Maitland Park, containing Existing TRA Hall and Garages; and Land adjacent to Maitland Park Villas containing existing Aspen House, gymnasium and garages
Planning Reference:	2014/5840/P (as amended by 2015/6696/P)
Related Planning References:	2016/0762/P, 2016/2448/P, 2017/0661/P, 2019/4998/P, 2019/6310/P and 2020/0549/P
Scheme Description:	Provision of residential units and replacement Tenants and Residents Association hall across two sites with associated multi-use games area, landscape and associated works, following demolition of Aspen House, gymnasium and garages at Maitland Park Villas and TRA Hall and garages on Grafton Terrace.
Person/s undertaking review on behalf of applicant *(include organisation name and registration number)***:**	Jessica Finnigan Ridge & Partners LLP OC309402

This form must be completed by an appropriately qualified independent Energy and Sustainability Consultant, undertaking the review of the Energy Efficiency and Renewable Energy and Sustainability Plans, as required by the S106 Legal Agreement, on behalf of the applicant. Please complete the form in full. If you have any questions please contact planningobligations@camden.gov.uk

S106 CLAUSE DETAILS

Please summarise how the applicant is meeting their planning obligations relating to energy / sustainability as outlined within the S106 agreement (add/ remove rows as applicable).

S106 clause no.	S106 clause wording	Summary of performance
4.8.1 – 4.8.2	On or prior to the commencement of the Construction Phase (other than site clearance and preparation, relocation of services, utilities and public infrastructure and demolition or works in relation to the MUGA) of the Relevant Phase to submit to the Council for approval the Energy Efficiency and Renewable Energy Plan in relation to the Relevant Phase. Not to permit commencement of the Construction Phase (other than site clearance and preparation, relocation of services, utilities and public infrastructure and demolition or works in relation to the MUGA) of the Relevant Phase until such time as the Council has approved the Energy Efficiency and Renewable Energy Plan for the Relevant Phase as demonstrated by written notice to that effect.	The completion of this *Energy Efficiency and Renewable Energy and Sustainability* pro-forma is intended to set out how the detailed design proposals for the Maitland Park scheme align with/ exceed the commitments set out in the planning submission document titled 'Energy Statement' by TGA Consulting dated 21 February 2020. Key performance indicators are set out in the 'Building Specification Targets' section of this form, on the next page, demonstrating how the detailed design proposals for the building fabric, LZC technologies and metering & monitoring arrangements meet/ exceed the planning stage commitments. The sitewide CO_2 emission reductions over baseline have been demonstrated by the design stage SAP sample calculations to be 54.9% - exceeding the minimum on-site requirement of 35% dictated by the London plan and the planning stage commitment of 44%.
4.9.1 – 4.9.2	On or prior to the commencement of the Construction Phase (other than site clearance and preparation, relocation of services, utilities and public infrastructure and demolition or works in relation to the MUGA) of the Relevant Phase to submit to the Council for approval the Sustainability Plan in relation to the Relevant Phase. Not to permit commencement of the Construction Phase (other than site clearance and preparation, relocation of services, utilities and public infrastructure and demolition or works in relation to the MUGA) of the Relevant Phase until the Sustainability Plan for the Relevant Phase has been approved by the Council as demonstrated by written notice to that effect.	The completion of this *Energy Efficiency and Renewable Energy and Sustainability* pro-forma is intended to set out how the detailed design proposals for the Maitland Park scheme align with/ exceed the commitments set out in the planning submission document titled 'Home Quality Mark Assessment' by Envision dated 23 July 2020, that sets out a sustainability strategy for the development. The targeted HQM level rating of '3 Star' has been achieved by the completed design stage HQM assessment. Furthermore, as per the planning stage commitments, 50% of Energy credits, 53% of Water credits and 24% of Material credits have been proven based on the detailed design proposals.

BUILDING SPECIFICATION TARGETS

Energy and Sustainability Statement key targets:

Please outline in the table below the key targets from the Energy and Sustainability Statements submitted at Full Planning stage, and summarise how the detailed design specification compares. Add or delete rows as necessary.

Please clearly outline any reasons for changes to the approved building specification.

	Approved Planning Documents: energy and sustainability statement targets	**Pre-Implementation (Detailed Design Stage): performance against targets**
Carbon reduction targets	44% Reduction in CO_2 Emissions from Baseline (Section 3.4 of TGA Energy Statement)	54.9% Reduction in CO_2 Emissions from Baseline
Building fabric u-values and air permeability	External Wall: 0.12W/m^2K Party Wall: 0.25W/m^2K Windows: 1.4W/m^2K External Doors: 1.4W/m^2K Ground Floor: 0.12W/m^2K Roof: 0.1W/m^2K Air Permeability: 2m^3/h.m^2 (Table 2.1 of TGA Energy Statement)	External Wall: 0.12W/m^2K Party Wall: 0W/m^2K Windows: 1.4W/m^2K External Doors: 1.4W/m^2K Ground Floor: 0.12W/m^2K Roof: 0.1W/m^2K Air Permeability: 2m^3/h.m^2
Low carbon technologies	80.85kWp Solar PV Centralised ASHP (Section 2.5 and 2.6 of TGA Energy Statement)	80.85kWp Solar PV Centralised ASHP
Renewable energy targets	Target from LBC planning guidance document CPG3 for 20% reduction in CO_2 emissions (Section 1.2 of TGA Energy Statement)	44.9% reduction in CO_2 emissions in Be Green stage of Energy Hierarchy
Decentralised energy network connection	'There is no viable municipal heat and power network in this area nor is there one planned. No provision has been made, therefore, to connect this development into a heat network in the future.' i.e. **N/A**	N/A

	(Section 2.8 of TGA Energy Statement)	
Metering, monitoring and management	Dwellings to have individual heat meters (Section 2.5 of TGA Energy Statement)	Dwelling Heat Interface Units (HIUs) are to be heat metered and monitored. Heat meters are to be installed to monitor the heat supplied by the ASHP installations. These meters are shown on the heating schematics included within the 'Supporting Evidence' information pack – with these heat meters bubbled in red on the two schematics (MPR-RDG-AV-ZZ-SM-J-001712 and MPR-RDG-GT-ZZ-SM-J-001702) showing the centralised ASHP plant. Local smart meters are to be provided for the PV generated power with BT points such that they can be remote monitored and read by Camden. The building services plant will be monitored and controlled by a BMS system. The BMS is to be interfaced with the billing system which shall be provided by the BMS supplier but shall be in accordance with the requirements of the Camden Heat Network Specification. The outputs from the BMS shall be available for monitoring and metering of the various elements of the building services installation, including data logging, benchmarking and alarms.
Code for Sustainable Homes - **Overall % + Rating** - **% credits Energy** - **% credits Water** **% credits Materials**	**HQM Targets** Overall Rating: Level 3 Overall Credits: 214 Energy Credits: 50% Water Credits: 53% Materials Credits: 24% (Envision Home Quality Mark Assessment, 23/07/2020)	**HQM Design Stage Assessment** Overall Rating: Level 3 Overall Credits: 214 Energy Credits: 50% Water Credits: 53% Materials Credits: 24% The Home Quality Mark Design Stage Assessment report included in the 'Supporting Information' pack demonstrates that the targeted Code Level 3 rating and the targeted % of energy, water and materials credits at planning stage have been proven in the design stage HQM assessment. Envision confirm in their report that they are now awaiting BRE verification of the assessment and interim certification.
BREEAM - **Overall % + Rating** - **% credits Energy** - **% credits Water** - **% credits Materials**	BREEAM N/A	BREEAM N/A
Materials, sourcing and waste	Relevant HQM Credits **Assumed** 6.1 Responsible Sourcing: 9	Relevant HQM Credits **Proven** 6.1 Responsible Sourcing: 9

	6.2 Materials Impacts: 0 6.3 Life Cycle Costing: 0 6.4 Durability: 7 10.4 Site Waste Management: 4 (Envision Home Quality Mark Assessment, 23/07/2020)	6.2 Materials Impacts: 0 6.3 Life Cycle Costing: 0 6.4 Durability: 7 10.4 Site Waste Management: 4 (Envision Home Quality Mark Design Stage Assessment, 21/10/2020)
Green infrastructure	Relevant HQM Credits **Assumed** 2.1 Identifying Ecological Risks and Opportunities: 6 2.2 Managing Impacts on Ecology: 9 2.3 Ecological Change and Enhancement: 8 2.4 Long Term Ecological Management and Maintenance: 4 (Envision Home Quality Mark Assessment, 23/07/2020)	HQM Design Stage Credits **Proven** 2.1 Identifying Ecological Risks and Opportunities: 6 2.2 Managing Impacts on Ecology: 9 2.3 Ecological Change and Enhancement: 8 2.4 Long Term Ecological Management and Maintenance: 4 (Envision Home Quality Mark Design Stage Assessment, 21/10/2020)
Water efficiency and SuDS	Relevant HQM Credits **Assumed** 3.1 Flood Risk: 19 3.2 Managing Rainfall Impacts: 9 8.1 Water Efficiency: 0 10.3 Construction Water Use: 4 (Envision Home Quality Mark Assessment, 23/07/2020)	HQM Design Stage Credits **Proven** 3.1 Flood Risk: 19 3.2 Managing Rainfall Impacts: 9 8.1 Water Efficiency: 0 10.3 Construction Water Use: 4 (Envision Home Quality Mark Design Stage Assessment, 21/10/2020)
Other		

ENERGY HIERARCHY

Please enter in the tables below carbon reductions for each stage of the energy hierarchy (Baseline, Be Lean, Be Clean, Be Green) and for each development type, following the guidance outlined in the GLA's *Guidance on Preparing Energy Assessments* and *Camden Planning Guidance CPG3*.

Please be aware that where carbon dioxide reduction targets are not met, the applicant will be required to provide details of their remedial proposals, either to:

1. Retrofit on-site carbon reduction measures with a view to meeting targets, or
2. Implement carbon reduction measures elsewhere in the borough (prior agreement with the Council will be sought)
3. Make a carbon offset payment, where appropriate.

Key targets from approved Energy Statement:

	Commercial New-build (includes major refurbishments assessed under Part L2A)			Residential New-build (includes major refurbishments assessed under Part L1A)			Commercial Refurbishment (assessed under Part L2B)			Residential Refurbishment (assessed under Part L1B)		
	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*
Baseline		N/A	N/A	161.5[1]	N/A	N/A		N/A	N/A		N/A	N/A
Be Lean				104.4[1]	57.1	35.3						
Be Clean				118.5[1]	-14.1	-8.7						
Be Green				90.4[1]	28.1	17.4						
TOTAL					71.1	**44**						
Target						100	N/A	N/A	N/A	N/A	N/A	N/A
Shortfall						56	N/A	N/A	N/A	N/A	N/A	N/A

** reduction calculated against previous stage (except TOTAL, which is calculated against Baseline)*

Notes:

1: The 'Total tCO_2' values have been sourced from. *'Table 3.4 – Total Development Annual Energy Demand and Carbon Dioxide Emissions'.* within the approved Energy Statement completed by TGA Consulting Engineers, dated 21 February 2020. Notably, the TGA reporting includes for the renewable ASHP technology within the Be Clean stage of the hierarchy, instead of the Be Green stage of the hierarchy.

Pre-implementation (Detailed Design Stage) proposals:

	Commercial New-build (includes major refurbishments assessed under Part L2A)			Residential New-build (includes major refurbishments assessed under Part L1A)			Commercial Refurbishment (assessed under Part L2B)			Residential Refurbishment (assessed under Part L1B)		
	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*
Baseline		N/A	N/A	141.2	N/A	N/A		N/A	N/A		N/A	N/A
Be Lean				127.1	14.1	10						
Be Clean				127.1	0	0						
Be Green				63.75	63.35	44.9						
TOTAL					77.45	**54.9**						
Target						100	N/A	N/A	N/A	N/A	N/A	N/A
Shortfall						45.1	N/A	N/A	N/A	N/A	N/A	N/A

** reduction calculated against previous stage (except TOTAL, which is calculated against Baseline)*

EVIDENCE:

Pre-implementation (Detailed Design Stage)

	Enclosed? Yes	N/A	Notes:
Copies of SAP/ SBEM worksheets	☒	☐	Please submit SAP/SBEM calculations evidencing the CO2 savings for each stage of the energy hierarchy, including baseline (TER), alongside this report. State which apartments have been sampled (if applicable). Results need to reflect the detailed design of the development.

Title of Submission	Date produced	Author's Name, Organisation & Client
SAP Calculations	02/09/20	Author: John Simpson Author Organisation: AJ Energy Consultants Limited Client: Bouygues
HQM Dwelling Specific Credits (note: confirms SAP sample)	06/10/20	Author: Clive Roberts Author Organisation: Ridge & Partners LLP Client: Bouygues
Sitewide Emissions Summary	28/10/20	Author: Jessica Finnigan Author Organisation: Ridge & Partners LLP Client: Bouygues

Code for Sustainable Homes Design Stage Assessment	☒	☐	This will need to be a Design Stage Assessment. Although the Council is no longer able to condition new housing developments to achieve CfSH certification, applications already committed through S106 to achieving certification will be required to fulfil this obligation.

Title of Submission	Date produced	Author's Name, Organisation & Client
Home Quality Mark Design Stage Assessment	21/10/20	Author: Charlotte Brewin Author Organisation: Envision Client: Bouygues

BREEAM Design Stage	☐	☒	Please note: this will need to be the Design Stage Assessment revie and not a copy of the "Pre-Assessment" review. Applicants should

Assessment and Certificate	also submit Design Stage certificates, or evidence from BRE of submission of this review for certification.

Title of Submission	Date produced	Author's Name, Organisation & Client

Technical details/ plans/ drawings of installed CHP and other low/ zero carbon technologies (where relevant)	☒	☐	Please submit details where relevant, as outlined in the S106.

Title of Submission	Date produced	Author's Name, Organisation & Client
Heating Schematic Drawings	01/04/20, 22/05/20 & 26/05/20	Author: Russell Jackson & Clive Roberts Author Organisation: Ridge & Partners LLP Client: Bouygues

CHP Air Quality Assessment	☐	☒	Please follow the Council's guidance on completing air quality assessments outlined in *CPG6*.

Title of Submission	Date produced	Author's Name, Organisation & Client

Decentralised Energy Network connection details.	☐	☒	Details should include: plans/drawings demonstrating: adequate plant room space provision; space for future heat exchanger; details of provisions made for connections (capped pipework, pipe routes, and provision of domestic hot water isolation valves); and any further details demonstrating that the connection has been designed in accordance with the CIBSE Heat Networks Code of Practice for the UK .

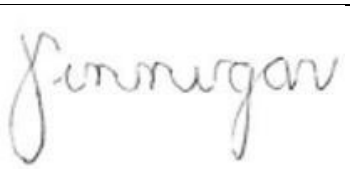
Title of Submission	Date produced	Author's Name, Organisation & Client

Remedial CO_2 and renewables proposals	☐	☒	Document containing full details of proposals to fulfil approved carbon reduction targets &/or renewable energy targets by: retrofitting on site, measures elsewhere in Borough, or additional offset contribution.

Title of Submission	Date produced	Author's Name, Organisation & Client

Please provide any further information relevant to this development – prior to implementation:

I confirm that the information supplied in this Proforma (and supporting evidence) is accurate. I will notify the Council should any of the information contained change. The agreed contents of the Energy Efficiency and Renewable Energy and Sustainability Plan, the information contained in this Proforma and the terms of Section 106 agreement pursuant to the planning permission must be complied with, unless otherwise agreed in writing by the Council.

Signed:	
Print full name:	Jessica Finnigan
Position:	Senior Sustainability Engineer
Date:	29/10/20

Please submit to: planningobligations@camden.gov.uk

End of form A (Pre-Implementation)