

## Sustainability/Energy statement review (for internal use only)

**Site name:** 30 Broad Street, Teddington, TW11 8RF

**Planning ref number:** 09/0382/FUL

**Reviewed by:** K. Mecz

**Applicant:** Mr H Patel

**Planning Stage:** Detailed

**Review Date:** 28/05/2009

**Loft conversion, new second floor on rear edition, rear extension and conversion into 6No. 1-bed flats and 1No. 2-bed flat. Internal floor area of studio flats average of 34m<sup>2</sup>. 2-bed flat total internal area of 57m<sup>2</sup>. Total site internal floor area approximately 261m<sup>2</sup>. Non-residential shop floor area of 85m<sup>2</sup>.**

Target	Achieved?	Comments
20% CO <sub>2</sub> emissions reduction through the use of renewable technologies	x	<ul style="list-style-type: none"><li>2m<sup>2</sup> of solar PV panels proposed, which should offset a minor percentage of site CO<sub>2</sub> emissions (estimated at 1-2% with 200kgCO<sub>2</sub>/yr)</li></ul>
EcoHomes 'Excellent' rating	(x)	<ul style="list-style-type: none"><li>A pre-assessment has been submitted without predicted scores attached</li><li>While it may be possible, given proposed sustainability considerations outlined in Checklist, that the site can meet an Excellent rating, it has not yet proved this.</li><li>A completed pre-assessment is still required</li></ul>
Sustainable Construction Checklist	✓	<ul style="list-style-type: none"><li>Complete except for the environmental rating</li><li>All other points adequately addressed</li></ul>

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should be able to provide this but unlikely to provide renewables.



### Detailed notes<sup>1</sup>

Priority	Location in Document	Statement	Observation	Policy	Actions Required
<b>Sustainable Construction Checklist</b>					
High	1 Code for Sustainable Homes or BREEAM assessment	Will a Code for Sustainable Homes assessment be undertaken? No.	The development, as a conversion and extension is suitable for assessment under EcoHomes. This is shown by the pre-assessment part-completed in first application, but without a completed score attached.  Due to the extensive nature of the proposal, resulting in significant changes to the layout and use of the building, it is likely to be assessable under EcoHomes.	London Plan (LP) 4A.3; CP1	Developer should complete and score an EcoHomes assessment
Med	Table 1	Solar PV installation; 2 panels min; 2m <sup>2</sup> min; Solar Fusion Ltd model; 2.5kWp system; 1.2 tonnes of CO <sub>2</sub> a year saving	An installation of two solar panels, as proposed, would generate approximately 0.4kWp; not 2.5kWp as stated. This will result in offsets of approximately 200kgCO <sub>2</sub> /yr; not 1.2tCO <sub>2</sub> /yr as stated. This is unlikely to generate an offset of more than 1-2% of total residential CO <sub>2</sub> emissions.  In addition, the location of proposed panels is not shown on plans. Presumably these will be located on rear roof spaces (south-facing), however space is limited on this roof aspect. It is unlikely that any	LP 4A.7; CP1; CP2	Planning officer to determine if proposal suitable.

<sup>1</sup> Comments are made where considered necessary. Where no comments are given, information provided in report is deemed sufficient. This includes basic details of: site; policy requirements; energy efficiency measures including materials, and with reference to Building Regulations; predicted site energy consumption (calculated either from SAP/SBEM data or from benchmarks); feasibility of communal or decentralised systems; feasibility of renewable energy technologies including life cycle and maintenance issues.



Priority	Location in Document	Statement	Observation	Policy	Actions Required
			solar technology system larger than that proposed would be unfeasible. Due to site limitations, most other renewable technologies are also likely to be unfeasible on-site.		
Low	11 Building Materials	Will the development use sustainably sourced building materials such as timber certificated by the Forestry Stewardship Council? No	The use of sustainably sourced timber and their sources has been listed in point 10 of the Checklist	LP 4A.3; CP1	None
Low	15 The Built Form	Has the proposal been designed to reduce the need for air conditioning? Yes – each flat have adequate window for cross-ventilation.	3 of the 7 flats are single aspect and so have no opportunity for cross ventilation.	LP 4A.3; CP1	None

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### 2<sup>nd</sup> review

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EcoHomes 'Excellent' rating	✓	<ul style="list-style-type: none"><li>A pre-assessment has been submitted demonstrating an score of 88, which would return an 'Excellent' rating</li><li>Some credits are not necessarily achievable on-site, and others are queried, however there is enough leeway in the credits predicted that the loss of some may not result in the loss of the 'Excellent' rating</li></ul>
Sustainable Construction Checklist	✓	<ul style="list-style-type: none"><li>Complete except for the environmental rating</li><li>All other points adequately addressed</li></ul>



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<b>EcoHomes Pre-assessment Estimator</b>					
Low	Ene 1 Dwelling Emission Rate	[CO <sub>2</sub> emissions] Less than or equal to 5 kg/m <sup>2</sup> /yr	This is extremely low, especially for a refurbished dwelling and will require high efficiency measures to accomplish.	London Plan (LP) 4A.3; CP1	None
Low	Pol 3 Reduction of surface runoff	<p>Where rainwater holding facilities and/or sustainable drainage techniques are used to provide attenuation of water run off to either natural watercourses and/or municipal drainage systems, by 50%* in areas of low probability of flooding, 75%* in areas of medium flood risk and 100%* in areas of high flood risk, at peak times from: Hard surface runoff and Roof Runoff</p> <p>The rain water gulleys and downpipes from the roofs and floor will be connected to the existing main surface sewer. There will be a rain water collection tank under ground connection to the rear roof gulley. The rain water will be used for used for</p>	The underground connection tank for water storage has not been included in site plans	LP 4A.3; CP1; CP3	None

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		the cleaning, washing up and maintenance for the building e.g window cleaning. [Both credits achieved]			
Low	Pol 4 Renewable and Low emissions energy source	Where evidence provided demonstrates that the first credit has been achieved [feasibility study considering renewable and low emission energy has been carried out and the results implemented] and 10% of total energy demand for the development is supplied from local renewable, or low emission energy, sources* [1 credit achieved]	The first credit was not predicted therefore they are not eligible to achieve the second credit. Furthermore they are highly unlikely to achieve the second credit here with the predicted renewables installation of 2m <sup>2</sup> of solar PV.	LP 4A.3; LP 4A.7; CP1; CP2	None
Low	Mat 3 Responsible sourcing of Materials: Finishing Elements	Where the majority of materials in the following secondary building and finishing elements are responsibly sourced*: 1. Stair (including handrails, balustrades, banisters, other guarding/rails (excluding staircase)) 2. Window (including sub-frames, frames, boards, sills) 3. External & internal door: (including sub-frames, frames, linings, door) 4. Skirting (including architrave, skirting board & rails) 5. Panelling (including any other trim) 6. Furniture (including fitted; kitchen, bedroom, and bathroom) 7. Facias (soffit boards, bargeboards, gutter boards, others)	I'm not sure that locally available wood supplies alone will qualify every element here for the credits	LP 4A.3; CP1	None



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		8. Any other significant use			
		1.,2,3,4,5,6,7, are all made from local available wood. [2 credits achieved]			
Low	Wat 2 External potable water use	Rain water collection system for watering gardens and landscaped areas - rain water harvesting system underground.	Again, this has not been included on the plans	LP 4A.3; CP1; CP3	None
Low	Eco 2 Ecological enhancement	Enhancing the ecological value of the site through consultation with an accredited expert	Are there any outdoor spaces or plans for improved landscaping?	LP 4A.3; CP1; CP4	None
Low	Total [Score]	88 = Excellent [rating]	Although some of the credits listed may not be achieved, there is a large leeway here for credits to be lost and the overall rating may still be obtained.	LP 4A.3; CP1	Developer must ensure that even if some pre-assessment credits are not achieved, the overall 'Excellent' rating is obtained.

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