Proposed Redevelopment of 27 Britannia Street, Camden

Sustainability Statement

Watkin Jones Group
55 Ffordd William Morgan
St Asaph Business Park
LL17 0JG
Tel – 01745 538 200

Contents

1. INTRODUCTON

Watkin Jones has produced this report to outline the development of the sustainability strategy for the proposed redevelopment of 15-27 Britannia Street, London WC1X 9JP.

The report supports the Energy Statement and BREEAM Pre-Assessment for the scheme and the commitment to design and build a scheme to comply and meet BREEAM “Very Good” standard.

The site is located in the Camden Borough and is located in an established area with local amenities’ and transport close to Kings Cross St Pancras station with main line and underground railways. The scheme will include the retention of some of the existing building elevations and will provide facilities for local students attending the University of the Arts associated with their new campus facilities at Kings Cross. It is proposed to redevelop the area to include 263 student bedrooms with communal facilities and a dedicated performance/ gallery area, four apartments and provide a self contained office suite at ground floor level.

2. PLANNING REQUIREMENTS

This report has been written in accordance with the regional and local planning policy, with particular reference to the guidance provided by the London Borough of Camden Planning Guidance 2006 for the production of a sustainable design and construction report. Furthermore, consideration has been given to the emerging Camden Planning Guidance which is due to be adopted later in 2011.

The relevant authorities for this site are the Greater London Authority and the London Borough of Camden. The requirements of both authorities have been considered and taken in to account within this feasibility study.

Greater London Planning Policy 4A.3 requires all new large development to include a statement showing how sustainability principles will be met. This report outlines the measures that will be taken to adhere to the policies.

Camden Planning Guidance 2006 Section 44 “Sustainable Design and Construction” and Sections 3 “Energy Efficiency: New Buildings”; 4 “Energy Efficiency: Existing Buildings”; 5 “Decentralised Energy and CHP”; 7 “Water Efficiency”; 8 “Sustainable Use of Materials”; and 13 “Biodiversity” of the emerging 2011 Camden Planning Guidance provide detailed advice on how larger developments can meet the sustainable development requirements through the assessment of their environmental impact using a BREEAM Assessment. All proposed developments are to incorporate sustainability principles; these include effective use of energy, water, materials and resources.

3. SUSTAINABLE DESIGN & CONSTRUCTION

3.1 BUILDING DESIGN

The scheme has been designed to retain and reuse various constituent parts of the buildings at the application site including individual buildings in some cases. These will be incorporated within the proposed development, and new build elements will be provided in some cases. Whilst some of the existing building external fabric will be re-used, it is proposed to upgrade the thermal and insulation values. This approach will also apply to the new areas and insulation materials will be selected to achieve lower U value improvements to the building fabric and lower air permeability through good building practices which will reduce the energy requirements for the building.

It is proposed to naturally ventilate the building with opening windows and individual fans will be used to provide local extract in bath rooms and kitchens on timers removing the need for mechanical air-conditioning.

Watkin Jones has appointed Halcrow Yolles to undertake an indicative BREEAM Multi-Residential Design Stage Pre-Assessment to be carried out and the initial design achieves a “Very Good” standard and replicating the requirements of Policy DP22 of the Development Policies DPD. A copy of the Pre-Assessment Report has been prepared as part of the application and is separately bound.

The scheme has been designed to comply with part L building regulations and a separate energy report has been produced to support the planning application. A summary statement is included in section 3.2 Energy Strategy. A number of energy efficient and water saving measures have been included in the design and will be included in the building specification in line with the BREEAM report.

3.2 ENERGY STRATEGY

A separate energy report has been produced as part of the planning submission which details the baseline energy demand and expected carbon reductions and energy savings from the efficient building design and use of low or zero carbon technology solutions.

The design methodology is to utilise gains made through the inclusion of effective passive systems reducing the demand of the dwellings through improved building and fabric design. A centralised CHP will provide an efficient hot water system and provide local electricity generation which will be used to power the lighting and general landlord’s requirements reducing the energy demand for the building.

Assessment Stage	Total Emissions (kgCO2)	Total Carbon Saving (%)
Baseline	228.8	0
“Enhanced” baseline	213.03	11.8
Including CHP	114.13	47.4

Indicative SAP assessments have been produced to support the Energy and Sustainability statements and the combined improvements above will result in an estimated carbon reduction of 47.4%.

In addition to the above, energy labelled white goods will be specified with an A+ rating under the EU Energy Efficiency Labelling Scheme. The specification will also include energy efficient lighting with communal areas controlled by passive infrared detection. Lighting in general will be high frequency ballast florescent fittings with high an efficacy above the minimum required for BREEAM. Lighting levels will be in line with “best practice” CIBSE guidelines for lighting.

Electric and water sub-meters will be installed to each studio flat and cluster flat to monitor the power and water usage. The information will be recorded and monitored on a computer on a monthly basis.

It is intended to use natural ventilation to cool the rooms during warm periods. Climate change means that London is expected to experience more extreme weather conditions and buildings will be designed to accommodate the future possibility of overheating of properties. Air conditioning and cooling systems would increase the energy demands and passive systems have been proposed for the buildings to reduce the possibility of overheating. Blinds will be fitted to each bedroom and kitchen to minimise solar gain and openable windows will be fitted to all rooms to allow natural rapid ventilation for independent operation.

3.2 WATER USE AND SUSTAINABLE DRAINAGE

Potable water system design and specification will incorporate devices that will minimise the water use and remove the possibility of cross contamination of systems. These will include the use of aerated taps, low flow showers and dual flush toilet cisterns.

The provision of a dedicated metered water supply for the building has been specified for the development. This will have a pulsed outlet option to enable a future connection to a building management system for monitoring water consumption within the building.

Individual water meters will be installed for each studio flat and cluster flat to allow each supply pipe to be measured and recorded. The system will be capable of allowing the water use to be recorded to control occupant usage and identify potential leaks on the system.

Similar systems have been employed on similar schemes and have resulted in the average water use being reduced to 85 litres per person per day per student, a significant improvement on the average person using 161 litres per day in London (Environmental Agency recorded usage).

The potential for Sustainable Urban Drainage System has been considered for the site; however, as the scheme is on an existing site, physical constraints restrict the options available.

3.3 BIODIVERSITY AND ECOLOGY

Watkin Jones has appointed Environmental Perspectives LLP to undertake an Ecology report for the site. The survey has been undertaken by a 'suitably qualified ecologist' as defined in the Code for Sustainable Homes and BREEAM requirements.

As the existing site consists hard standing and buildings it is defined as having an overall low ecological value. The Ecology report recommends various enhancements to be undertaken including landscaping, stag beetle loggery/ dead wood piles, bird boxes and horticultural good practices.

The proposed development is likely to achieve 7 BREEAM credits of the 8 available under Land Use and Ecology.

3.4 CONSTRUCTION AND MATERIALS

The proposed development will be formally registered with the Considerate Constructors scheme. Best practices will be utilised on site and we expect to achieve a score between 32 and 40.

Watkin Jones will employ trained and experienced site personnel to monitor and implement the Code of Considerate Practices being: Consideration, Environment, Cleanliness, Good Neighbour, Respectful, Safe, Responsible and Accountability for the scheme.

Construction site impacts will be targeted, managed and monitored on a regular basis to include four of the following:

- CO_2 or energy arising from site activities
- CO_2 or energy arising from transport to and from site
- Water consumption arising from site activities
- Air dust pollution arising from the site
- Water (ground and surface) pollution arising from activities on site
- Environmental materials policy implementation
- Environmental management system implementation
- Monitoring construction waste
- Recycling construction waste

Individuals will be assigned to 'champion' the management and use of best practices.

Materials will be responsibly sourced wherever possible, and aggregates will be recycled. Consideration has been given to the Green Guide Specification (2008) and sourcing materials with lower environmental impacts.

All insulation products will have low GWP (global warming potential) of less than 5 and have an ODP (ozone depleting potential) of zero.

4. SUMMARY

Sustainable design and construction principles have been incorporated in to the scheme and careful consideration has been given to ensure the design principles have been met. The appointment of a specialist to undertake BREEAM Design Stage Pre-Assessment and a BREEAM Post Construction Review will demonstrate the scheme achieves a “Very Good’ standard.

5. APPENDIX 1 – BREEAM DESIGN STAGE ASSESSMENT

Separately bound.