BB PARTNERSHIP LTD
CHARTERED ARCHITECTS

SUSTAINABILITY STATEMENT

INTERNAL AND EXTERNAL ALTERATIONS

in connection with

CONVERSION/RESTORATION
of
46, 47 and 47a BEDFORD ROW LONDON WC2

27th March 2014

SUSTAINABILITY AND ENERGY STATEMENT

1.0 Introduction

This statement supports the submission for planning and listed building consent which comprise alterations to and change of use of No's. 46 and 47/47a Bedford Row from B1 office space to C3 residential dwellings.

The development comprises the conversion of two buildings which are Grade 2 listed buildings.

This statement sets out how this development has been designed and what appropriate and viable measures have been taken into consideration in order to try and reduce the CO2 emissions and make the development as environmentally friendly and as energy efficient as possible. The categories that have been considered are based on those set out in EcoHomes and BREAM assessment tools.

Due to the buildings being listed the environmental improvements will be limited as the historic character of the building cannot be compromised. We have therefore approached the development on the basis that as achieving the standard of 'excellent' under BREAM Domestic Refurbishment would not be possible (refer to BREAM Domestic Refurbishment Pre-Design Assessment prepared by Abitar) the best that can be done would be to improve the energy efficiency beyond that which currently exists.

2.0 Existing Building Assessment

As the properties have until recently been occupied their external and internal fabric is generally in a reasonable state of repair both internally and externally although the envelope is poorly insulated and the internal finishes in need of replacement plus complete redecoration.

The main elements that are in need of repair and renewal are all the mechanical, electrical, water and plumbing services.

The heritage values of the building have been assessed and are described in the heritage statement.

3.0 Sustainability Assessment

(refer to BREAM Domestic Refurbishment Pre-Design Assessment prepared by Abitar)

3.1.1 Energy and CO2 Emissions - To minimise the demands on heating and energy in general and to improve the efficiency of the heating and electrical systems the following works will be carried out:-

- all existing and new roofs will be insulated to comply with current building regulation standards.
- where possible secondary glazing will be installed behind all new and existing windows to reduce heat loss
- existing windows and external doors will be repaired and refurbished and have draught-seals fitted to make them 'sit' more tightly in their frames and reduce heat loss
- insulation will be introduced to all new timber floors that are suspended above unheated spaces.
- all existing plumbing and heating systems will be replaced and upgraded to modern standards using high efficiency boilers and radiators, insulated pipework, hot water cylinders etc... for space and water heating
- low energy 'A' rated appliances such as fridges, dishwashers, freezers and washing machines will be installed to all kitchens and utility rooms
- drying spaces will be provided using extendable clothes hanging rails in bathrooms
- home office facility will be provided to each dwelling
- in accordance with building regulations 75% of the lighting will comprise low energy fittings

It will not be possible to introduce technologies such as low carbon or renewable energy devices nor insulated internal linings to the walls due to the detrimental impact this would have on the character of these listed buildings

3.1.2 Water – Water will be conserved by using the following:-

- flow restrictors to taps,
- the installation of water metering
- reduced capacity wc flushing cisterns with short flush operation options.
- reduced capacity washing machines

There is very little external space and hard surfaced areas as the entire footprint of the site is built upon with the exception of two small patios at the rear and consequently there are no green or planted areas. As such collection or recycling of rainwater for domestic use will not be worthwhile.

3.1.3 Transport – The site is in Central London and as such is surrounded by excellent public transport facilities. There are many regular bus routes on both Theobalds Road and High Holborn and two underground stations within 5 to 10 minutes walking distance. There are also public bicycle facilities in the locality.

As the buildings cover the whole footprint of the site it is not possible to provide any car or bike parking facilities as there is no space available with the exception of the house at No.47 and the basement/ground floor duplex flat in No.46 both of which will be able to store bicycles in their rear courtyards.

3.1.4 Waste – Waste generated from the site during the demolition and construction process will be dealt with in accordance with Defra's Site Waste Management Plan procedures.

Facilities will be provided for storage of general and recyclable waste generated by the new residential use of the property within the kitchen of each dwelling.

3.1.5 Ecology – As the whole footprint of the site is built over it has no ecological value and no potential for ecological enhancement.

3.1.6 Pollution – To minimise impact on air quality the development will be designed to reduce environmentally damaging emissions in both the construction process and building usage as well as those generated by vehicles (see 3.1.3 and 3.1.7). No plant, machinery or external equipment is proposed that would emit air pollutants or cause odours

3.1.7 Materials – Use of low impact building materials that achieve a good rating in the Green Guide will be considered in the building specification to ensure as far as is possible that they are selected on the basis of a sustainable supply plus a manufacturing process that uses least possible energy consumption and does not create environmentally damaging CFC and ozone depleting gases. The materials will also be selected on the basis of proximity to the site in order to try and minimise the overall transportation costs and emissions.

3.1.8 Health and Well-Being – To promote the sense of health and well-being for the users the internal plan form and use of spaces have been laid out within the existing buildings in the best way possible (given the constraints of the buildings Grade 2 listing and the surrounding buildings) to maximise the amount of sunlight and daylight for both internal rooms (refer Daylight/Sunlight Report prepared by Abitar) and outside spaces, to give them privacy and to make access to any available external spaces easy.

The buildings will continue to be naturally ventilated, heated using radiant rather than convecting devices and converted and altered to ensure that as much as is reasonably possible will be done in terms of sound insulation such that the well-being of the occupiers is not affected by traffic noise or that created by other occupants.

In addition to the above consideration has been given to the introduction of as many of the standards set out in Lifetime Homes guidance as is possible in an effort to improve each dwellings accessibility and future adaptability (refer Lifetime Homes Statement).

3.1.9 Management – The following management arrangement will be applied during the construction process and after occupation:-

- the building contractor invited to tender will have to be members of the Considerate Contractors Scheme and will therefore be expected to manage the site in an environmentally friendly and accountable manner
- a home user guide will be produced for each occupant to enable them to understand and operate their home efficiently.
- the design of the conversion of the buildings from office to residential use has considered security to make occupants feel safe.

4.0 Summary

Given the listed status of these buildings special consideration has had to be prioritised to ensure that their historic and architectural features are protected and preserved. This has therefore restricted the scope of measures that can be incorporated and therefore limited the level of environmental improvement and conservation of fuel and power that has been achievable.

Although working within these constraints has been challenging and it has not been possible to attain a level of 'excellent' under BREAM Domestic Refurbishment standards, everything that is reasonable has been proposed and this has resulted in a development that is more sustainable and energy efficient than the existing buildings.