42-44 PARK VIEW ROAD
WELLING
DA16 1RT

JOB NO. 3442

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SUSTAINABLE DESIGN, CONSTRUCTION AND RENEWABLE ENERGY STATEMENT

Introduction

The proposal involves demolition of the existing rear extensions and outbuildings, construction of a new single storey rear extension, formation of accommodation in the roof of No. 42 incorporating an L shaped dormer extension to the rear and two dormer windows to the front roof slope, with associated car and cycle parking, refuse storage and outdoor amenity space and alterations to create 3 new dwellings bringing the total number of dwellings to 5.

Sustainability has been a key consideration in the design process for redevelopment of this previously developed land.

The proposed development will be designed to meet Building Regulations requirements. The design includes the following sustainability measures. These elements will be dealt with in greater detail as the design is developed for construction in advance of an application for Building Regulations approval.

Categories for Assessment

Energy efficiency

The development will minimise and reduce carbon emissions by following the lean, clean, green energy hierarchy.

The development will incorporate Smart Meter technology that allows occupants to monitor and manage their energy usage.

Design principles have been adopted to reduce energy consumption and CO_2 emissions using passive design, renewable energy sources and energy efficiency measures. These include:

- Achieve a Dwelling Emission Rate to meet the targets set out in the Building Regulations. SAP and SBEM calculations will be provided by an accredited SAP and SBEM assessor to demonstrate compliance.
- Design building fabric to exceed building regulations fabric standards and U values to reduce heat loss.
- Energy efficient lighting.
- Maximising natural light and ventilation.
- Inclusion of roof mounted photovoltaic panels for renewable energy where required.
- Making provision for secure outdoor clothes drying with washing lines to private gardens, terraces and balconies.
- Using energy efficient white goods.
- Secure weatherproof cycle storage.
- Provision of space and services for home office opportunities.

Building fabric

New walls, floors and roofs will include thermal insulation to meet or exceed current U values.

Lighting

All light fittings will include energy efficient lamps. All lighting in communal areas will be energy efficient and be controlled by movement detectors and timed shut off.

Energy efficient white goods

It is proposed that fridges and freezers are provided and have an A+ rating under the EU Energy Efficiency Labelling Scheme, and that information on the EU Energy Labelling Scheme is provided covering other appliances. If washing machines and dishwashers are provided these will have an A rating.

Cycle Storage

Secure covered cycle parking will be provided to meet London Plan standards.

Water efficiency

Water efficiency measures will be provided to achieve a consumption target of 105 litres or less per head per day.

Over heating

The risks of overheating have been addressed in the design by ensuring that all dwellings are dual aspect with cross ventilation.

Materials

Materials will be responsibly selected from sustainable or managed sources, including products with EMAS, EMS, FSC and PEFC certifications.

High efficiency hot water and heating systems will be specified, along with construction detailing to reduce air permeability and prevent thermal bridges.

Building materials will be sourced locally and recycled materials will be used wherever possible.

The design will aim to make efficient use of materials including standardisation and re-use of off cuts where practical.

The design will also consider the future dismantling and re-use of materials.

Surface water run off

The design includes sustainable drainage systems to attenuate surface water discharge, including a green roof, soft landscaping and permeable paving Surface water run-off is into the existing system, and the design will ensure that no additional run-off will occur.

Flood risk

The site is located in an area of low annual probability of flooding. A flood risk assessment is submitted with the application.

Construction site waste management

The waste hierarchy of 'Reduce, re-use, recycle' will be adopted to minimise construction waste. There is limited demolition and excavation required, and the existing topography will be generally retained to minimise excavation spoil. A site waste management plan will be adopted which includes a commitment to minimise waste generated on site in accordance with WRAP / Envirowise guidance.

Waste: storage of non-recyclable waste and recyclable household waste

The new dwelling will include separate storage bins within the kitchen for recyclable waste in addition to the general refuse bin. Refuse bins are located at ground floor level within the enclosed communal store and meet local authority storage requirements. Separate bins are provided for general refuse and recyclables.

Refuse collection will be from Deptford High Street with level access in the same manner as the existing collection arrangements.

Composting facilities

Composting facilities are not considered appropriate for this development, but will be explored further as the design is developed for construction.

Pollution

Insulation materials will be selected to avoid the use of substances that have a global warming potential of 5 or more. Heating and hot water systems will have low NO_x emissions.

Health and well being

The design incorporates good levels of natural day lighting, sound insulation which meets or exceeds Building Regulations requirements, dual aspect with the opportunity for natural cross ventilation, good outlook, and private outdoor space to the new dwelling to ensure that good quality accommodation is provided.

Sound Insulation

Airborne and impact sound insulation will be designed to exceed the performance standards set out in the Building Regulations, Approved Document E.

Air Quality

The air quality assessment submitted with the application demonstrates that suitable air quality is provided.

Construction site impacts

The contractor will be a member of the Considerate Constructors Scheme, and be required to comply with best practice site management principles. The contractor will adopt best practice policies in respect of air (dust) pollution arising from site activities, and in respect of water (ground and surface) pollution occurring on the site.

Security

The design will comply with the guidance of Secured by Design.

Ecology

The existing site is of low ecological value. The green roof will provide improved ecological value which will be integrated into the local area.

Management

The new dwelling will be provided with a simple Home User Guide which informs the occupier of environmental performance issues in a non-technical format.

Conclusion

The above points demonstrate that the proposed development will be designed to meet or exceed Building Regulations requirements and achieve a sustainable building.