

## **ENERGY EFFICIENCY STATEMENT IN SUPPORT OF PROPOSALS AT :**

---

**FORMER DEXTER PAINTS SITE, GANNOW LANE, BURNLEY.**

---

**PROPOSED REDEVELOPMENT OF SITE FOR 35 NO. ELDERLEY BUNGALOWS.**

---

**OUR REF : NIX - 09**

**DATE : JANUARY 2024**

## INTRODUCTION

1. This statement is provided to fulfil the requirements of Burnley's Validation Checklist for Planning and Other Applications, adopted by the Council in November 2017. Local Requirement 8 of the check list asks for an energy efficiency statement for all major applications for residential development (i.e 10 or more dwellings) and for non-residential development with a gross floor space of 1,000 sq.m. or over. In this case, the proposed development is for 10 new apartments and therefore this statement is made to meet those requirements. The statement is required to show how the energy related aspects of the proposal meet the requirements of government and local plan policies.

## PLANNING POLICY BACKGROUND

2. Policy SP5 of the adopted Burnley Local Plan relates to Development Quality and Sustainability with proposals expected to address energy efficiency and incorporate measures to minimise energy and water consumption, appropriate to their scale and nature.

## HOW ENERGY EFFICIENCY HAS BEEN TAKEN INTO ACCOUNT IN THE DESIGN AND LAYOUT OF THE SCHEME

3. The scheme adopts a 'fabric first' approach to energy efficiency. Part L1A and L2a of the Approved Building Regulations 2021 concern the conservation of fuel and power in new dwellings and new building other than dwellings. These cover the matters :
  - Building performance and design;
  - Conservation of fuel and power;
  - CO<sup>2</sup> emissions and;
  - Air permeability.

In addition to these minimum requirements, the following design features are incorporated into this scheme:

### Building form.

This includes orientation, height to floor area and passive ventilation and cooling. This reduces the heating and cooling loads of the building.

### Thermal envelope.

The shell of the building acts as a thermal barrier to unwanted heat or mass transfer between the interior of the building and the outside conditions. The Building Regulations standards will be adhered to. This reduces the envelope and air exchange heat loss reducing heating requirements by a factor of two or more.

### Insulation

This maximises the long term thermal performance of the building element overall. The strategy is to reduce heating, cooling and lighting loads by using high levels of insulation, optimising the glazing area and minimising the infiltration of outside air.

### Windows

The windows will use multiple glazing layers and low conductivity gases to increase thermal performance and use framing materials with very low conductivity.

### Heating systems

The residential units will use boilers that are 98% efficient. This will be by the use of condensing boilers that produce high efficiency systems. In the commercial elements of the building, forced air systems will not be used. Heat pumps will be used to transfer heat from a cold medium to a warmer medium.

## HOW THE DEVELOPMENT WILL MAXIMISE THE EFFICIENT USE OF RESOURCES

### 4. Heating.

The following measures will be incorporated into the heating systems:

- Water saving fixtures;
- Use of tankless (condensing or non-condensing) water heaters;
- Water heaters located close to point of use;
- Recover of heat from warm waste water;
- Use of air source or exhaust air heat pumps;
- Use of solar thermal water heaters where possible.

The integrated effect of all these can produce savings of up to 90% over traditional methods.

### 5. Lighting systems.

A reduction in energy use from lighting can be achieved by:

- Use of daylighting with occupancy;
- Use of the most efficient lighting devices available and ;
- Use of such measures as ambient/task lighting.

The lighting required for ambient lighting in large buildings can be reduced by 50% or more compared to fluorescent lighting by the use of efficient lamps, sensors and zone lighting. A low level of background lighting can be used with local levels of task lighting.

### Water

The following measures will allow efficiency in water usage:

- Low flush toilets;
- Modify equipment such as lower flow taps; water efficient appliances and showerheads;
- Use high pressure hoses and low volume cleaning systems;
- Install sub meter systems;
- Look for leaks by monitoring trends for increased usage.

HOW THE RISKS FOR FUTURE CLIMATE CHANGE HAVE BEEN PLANNED FOR

6. The risks to the building associated with future climate change are :

- Natural cross ventilation for overheating;
- Attenuation measures to hold increased rainfall on site;
- A resilient and adaptable building to repair work and risk of damage;

All of the above measures if well designed and implemented, will result in an environmentally friendly and cost-effective building in its design and construction, fulfilling the policy objectives for energy efficiency.