

The Prestwich Regeneration LLP

Prestwich Village

Information for Discharge of Condition 40

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1.0 Introduction

This document has been prepared on behalf of The Prestwich Regeneration LLP, a Joint Venture ('JV') between Bury Council and Muse Places and is submitted in support of the planning application for "Prestwich Village", particularly to address Condition 40, which states:

'No above-ground works shall take place on any relevant phase or sub-phase of development hereby permitted until the following information on the proposed low/zero carbon energy sources has been submitted to and approved by the Local Planning Authority for that phase or sub-phase, where relevant.'

This document provides a summary of the measures which have been taken to minimise energy use and improve efficiency, in order to work towards achieving future Net Zero targets.

1.1 Development Description

The project comprises a council operated multi-storey car park/ travel hub, which provides 301 car parking spaces and is intended for use by the general public. The facility has 3 levels 00 to 02. The upper Level 02 is an open roof car parking area. Dedicated cycle storage is provided at ground floor level.

2.0 Energy Strategy

Due to the nature of the scheme being a transport hub, particular emphasis has been placed on sustainable transport measures – Details of which not specifically covered by this document, however summarised below:

- The development location naturally promotes the use of public transport, with the site being located adjacent to the Metrolink and several bus routes encouraging users to reduce individual transport, resulting in reduced CO₂ emissions.
- The building includes dedicated cycle storage, again encouraging users to reduce individual transport, resulting in reduced CO₂

To demonstrate compliance with the Building Regulations, Local Planning Policy and the Client's sustainability targets, an energy hierarchy has been employed, as summarised below:

1. Reduce Energy Demand

The most effective means of reducing energy use and CO₂ emissions is to drive down demand, which is achieved by prioritising passive measures.

The building orientation and optimised façade design has been employed to take advantage of natural ventilation and daylighting.

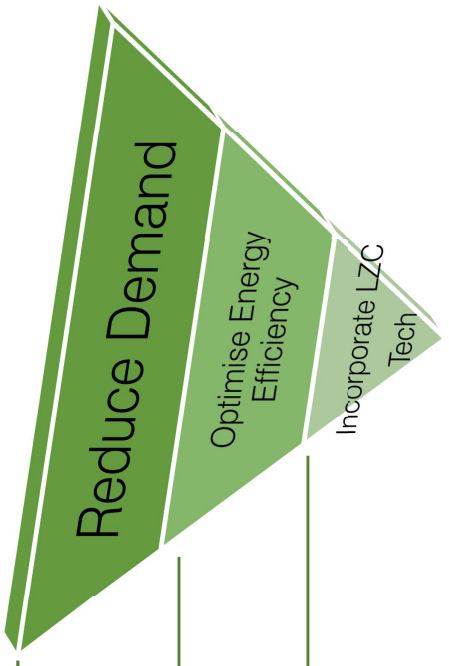
2. Optimise Energy Efficiency

Active measures have been taken to optimise the energy efficiency of all fixed building services, including but not limited to; artificial lighting systems, ventilation, heating & cooling systems and vertical transport systems (lifts).

3. Low & Zero Carbon Technology

Where possible, further reductions in CO₂ should be achieved by integrating low & zero carbon tech into the design.

A technical appraisal was undertaken during design development to assess a number of low and zero-carbon (LZC) design principles and technologies to review suitability for inclusion within the scheme development.



2.1 Reduce Energy Demand

Passive Measures

- The car park is designed as 'Open Sided', as classified under Building Regulations Part B & F, which serves 2hr functions:
 1. The car park is naturally ventilated and does not require any mechanical ventilation; reducing energy use associated with fans etc.
 2. During daytime hours, the building takes the benefit of some natural daylighting, reducing the reliance on artificial lighting.
- The building has very limited ancillary space, which subsequently means no requirement for mechanical cooling etc.

Optimise Energy Efficiency - Active Measures & High Efficiency Systems

Energy-Efficient Lighting

- LED lighting is highly efficient & uses around 75% less energy than incandescent bulbs.
- When compared to fluorescent lighting, LED lighting is significantly more efficient, provides full brightness instantly and lasts longer.
- As such, 100% of artificial lighting installed shall be low energy LED fittings.

Lighting Control System

- Lighting throughout the car park shall be zoned and separately controlled to ensure the artificial lighting system does not operate when not required.
- Roof level parking luminaires shall be controlled by presence detection along with photocell and timeclock. The photocell and timeclock will only permit lighting to be operated during hours of darkness.

Electric Vehicle Charge Points

- EV charging points will be provided to support the use of electric vehicles, aiming to reduce the reliance on internal combustion engines.
- A minimum of 10% spaces shall be provided with access to an active EV charge point.
- Passive provision shall be made for the remaining spaces to be provided with EV charge points in the future.

Energy-Efficient Vertical Transportation

- Lift traffic analysis has been undertaken to ensure the correct number of lifts are specified for the development needs.

2.2 Incorporate Low & Zero Carbon Technology

Low & Zero Carbon Technology

Due to the nature of the scheme being a MSCP; photovoltaics were the only Low & Zero Carbon technology considered feasible for the scheme, however due to the fact the top level of the car park is allocated for parking space provision; installing PV would require a canopy structure/similar above the roof structure, which was considered to potentially have an adverse effect on the surrounding residents, so this was not incorporated into the scheme design.

3.0 Conclusion

This document outlined the energy hierarchy used to demonstrate compliance with Building Regulations, achieve local sustainable policies and assess the feasibility of incorporating Low and Zero Carbon design principles and technologies for the development: pertaining to Planning Condition 40 in particular.

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