BNE Team (Sustainability)

Consultation Response Form

Reference Number:	21/00953/FUL
Application Type:	Full
Proposal:	Demolition of existing buildings and erection of a care home (Use Class C2) with external amenity space, access, parking, landscaping and other associated works
Site Address:	Former Hotel Felix Whitehouse Lane Cambridge
Sustainability Officer:	Tracy Martin
Case Planning Officer:	Mary Collins
Date:	04.05.21

Comments

Energy & Carbon Emissions

The applicant has provided an Energy Strategy in support of this application which suggests a 'fabric first' approach to reducing the energy demand of the development via:

- High fabric efficiency
- Efficient building services
- Targeted performance parameters better than the notional Building Regulations Part L
- Mechanical ventilation with heat recovery
- Low energy lighting throughout

A Combined Heat and Power (CHP) unit was found to be the most feasible low/zero carbon technology for this project based on the findings of a feasibility study. The carbon savings of this technology have been referenced in two sections of the document (page 10 and page 17), shown below:

"6.1 Results – Be Clean (New Build Elements including CHP) The figures were determined as follows:

TER 38.2 kg.CO2/m² per annum
BER 41.5 kg.CO2/m² per annum

Given the already included improvements to fabric design and building construction, appropriate technologies are considered in section 7 to achieve the further reduction required to attain compliance."

And;

"7.9 Results – Be Green (New Build Elements with PV) The figures were determined as follows:

TER 38.2 kg.CO2/m² per annum
BER 34.2 kg.CO2/m² per annum"

A copy of the BRUKL output document is provided in Appendix A for information – this appears to reference the use of a CHP unit but fails to mention PV.

I am more than happy with the applicant taking a fabric first approach to the development and both solar PV and CHP are policy compliant technologies for achieving the 10% carbon reduction required by the Local Plan. But, the energy strategy for this development seems a little confused so I would like the applicant to provide some clarification as to the renewable or low/zero carbon technology they intend to use, (CHP, solar PV or both?), and the accurate BER associated with the installation of this, before I would offer support for this scheme from a sustainable construction point of view. This is because we would normally condition the contents of this report, along with detailed design stage carbon calculations, and at present I am not confident that the scheme proposed offers compliance with Local Plan Policy CC/3.

Overheating Risk

The development consists of a large number of single-aspect dwellings which can be prone to overheating. I am aware that the developer intends to use a mechanical ventilation system but would strongly recommend that overheating analysis be undertaken for a sample of dwellings (including west facing), using current and future climate scenarios.

Water Efficiency

The applicant has provided a Water Management & Conservation Statement which details how water efficient fixtures, fittings and appliances will be used to ensure a maximum internal water consumption of 110 litres/person/day.

Building Regulations Part G calculations have been carried out, which demonstrate a total water consumption of 105.85 litres/person/day can be achieved based on the targeted specifications. This would make the development compliant with Local Plan Policy CC/4 and if the application is approved, this strategy would be made a condition of the development

Construction Management Plan

The applicant suggests that a 'Resource Management Plan' (RMP) will be produced for the Proposed Development for each phase of construction to define measures for how to minimise the volume of waste arising from demolition and construction activities, which is sent to landfill.

The RMP will provide detail on:

- Procedures and practices that will be enforced during the demolition and construction phases to divert waste from landfill
- How waste arising from demolition and landfill will be sorted and stored effectively to allow materials to be reused and recycled on and/or off site where possible.

Although we would favour the reuse of buildings over demolition wherever possible, demolition and new construction may be proposed where the original structure is no longer fit for purpose, producing a more sustainable development. A detailed Construction Management Plan must be submitted to and approved by the local authority, detailing measures to limit demolition waste to landfill and ensure the new structure is low in embodied carbon.