

SUSTAINABILITY STATEMENT

Passive Design and fabric Performance

The orientation of the buildings has been determined by the urban design response to the layout of the site and the integration and relationships with neighbouring properties. All houses have south facing windows, which will benefit from solar gain. Existing and new trees will help mitigate this in summer, providing seasonal shading.

The building fabric will be designed to exceed current building regulations to provide a well-insulated shell and optimise air tightness.

The houses are relatively simple in form, resulting in a fairly modest surface area which will be more efficient than more complex forms.

The houses will facilitate cross ventilation across the house to reduce the risk of overheating. This will be assessed in more detail at the building regulations stage.

Energy calculations and predicted EPC's will be prepared at the construction drawings stage of the project.

Low Carbon Energy

There is scope for photovoltaic (pV) panels to be fitted on the south, east and west roof slopes if desired. Given the orientation of the site, it is likely these will need to be installed on outward facing roof slopes.

Given the slate finish of the proposed roofs, there is the option for solar tiles to be used to minimise the impact on the appearance of the building, however, these are less efficient and more costly than conventional panels. If pV systems are installed, there is the option to provide these with battery storage.

It is anticipated that heating will be provided by air source heat pumps, providing a low carbon system for heating and hot water that will not be reliant on imported gas. This can be integrated with the pV system which can contribute to water heating in the summer months.

Other low carbon strategies, such as Mechanical Ventilation and Heat Recovery (MVHR) may be considered in the technical design development of the scheme. A summer bypass facility would be incorporated to avoid contributing to overheating.

Domestic appliance will be sourced with consideration of the energy rating. Light fittings will be LED or Compact fluorescent to minimise energy use.

Minimising Carbon Footprint

The specification of the building fabric will take into consideration the recommendations of the BRE Green Guide to Building Specification to minimise the embodied carbon in the construction of the properties.

The use of electric based sustainable heating and ventilation systems will minimise the operational carbon resulting from the development.

Healthy Placemaking

The proposals retain existing trees around the perimeter of the site, which will be supplemented by additional trees to accommodate the Buio-Diversity strategy.

Each house will have a private garden, providing a safe space for residents to relax in the open air. The site is sustainably located within the Hitchin Settlement envelope with close access to public parks, recreation facilities as well as the open countryside.

Promoting Bio-diversity

A BNG Calculation report and strategy accompanies this application with a net gain in excess of 10% proposed.

An ecological assessment also accompanies the application.

Houses will be provided with water butts to enable water to be recycled for garden watering.

Sustainable Travel and Air Quality

The site is within easy walking distance of the town centre.

The scheme provides on site parking for residents and their visitors. Each house will be provided with provisions for EV charging points.

Each house will also have provision for cycle parking, either in the garages provided or in sheds in the gardens.

Consideration has been made for servicing the site for refuse and delivery vehicles etc.

Conserving Water

The project will be subject to the building regulations requirement of a water usage of a maximum of 110 litres per person per day.

Water butts will be provided to enable rainwater to be recycled for garden watering.

Incorporating Sustainable Drainage

the site is located in Flood Zone 1 and is not considered at risk of flooding.

The surface water drainage strategy will be developed in the technical design of the scheme and will prioritise infiltration and SUDS methods if viable.

CONCLUSIONS

The application provides three new homes in a sustainable location with easy access to local facilities as well as the countryside. The houses will be constructed to exceed the building regulations in regard to building fabric, energy and water use.

The retention of existing mature trees, additional landscaping and private garden areas will create an attractive and healthy place to live.