

LAND TO THE NORTH EAST OF DUNCOTS CLOSE ICKLEFORD

SUSTAINABILITY & ENERGY STATEMENT

CONSTRUCTION OF 9 NEW HOMES

APRIL 2025

Introduction

1. Local Plan Policy D1 'Sustainable Design', states that new developments must seek to include measures which reduce energy consumption. The Council's recently adopted Sustainability SPD notes at paragraph 1.26 that for minor developments of less than 10 dwellings applicants should provide a Sustainability and Energy Statement for review by Officers as part of the application process. This is the purpose of this section of this Statement. It follows and is based upon the guidance set out in the SPD.
2. The overall target for the site is that there will be an onsite reduction in regulated carbon emissions of at least 35% beyond the baseline of Part L of the building regulations and all homes will achieve at least a 'B' EPC rating. This is to be achieved by optimising passive design and fabric performance as well as the use of low energy and sustainable heating technologies. The following provides an outline of the aspects which have already been considered and will continue to be developed as part of the detailed design of the site.

Optimising Passive Design & Fabric Performance

Layout:

3. The site is broadly set on an east west access. Care has therefore been taken to design the dwellings to take advantage of south facing elevations and where some of the dwellings include rear elevations with a primarily northern aspect toward rear gardens larger glazed areas are provided to maximise light and solar gain where possible.

Insulation

4. As set out in the SPD, the applicant is conscious that around half of the heat loss in a typical home occurs through the walls and the roof. PDHL seeks to ensure insulation levels beyond current building regulations requirements as this is often the cheapest and most effective method of reducing CO2 emissions and energy needs. Good quality insulation including loft insulation, wall insulation, floor insulation and draught proofing keeps buildings warmer in the winter and cooler in the summer.

Air tightness

5. Air leakage occurs in several places but in particular draughty windows, doors and joints between ceilings and walls are the primary causes. In this case it is proposed to include high quality double glazed windows and care is taken to ensure gaps around window and door frames are properly sealed. All holes around services passing through the external walls including water pipes, gas pipes, boiler flues and electrical cables will also be sealed.

Low Carbon Energy

6. The SPD highlights a number of low carbon energy options which could be considered as part of residential developments. These include Ground Source Heat Pumps, Air Source Heat Pumps, Solar, PV, Biomass and Wind Turbines.
7. The applicant favours the use of air source heat pumps (shown green opposite). These work by converting the temperature of the outside air into heat for the building and supplying energy for the hot water system. The units are small scale and so do not require a large outside area and can be located discreetly to minimise visual impacts.
8. On a recent development undertaken by the applicant in nearby Guilden Morden (Cambridgeshire) the use of heat pumps alongside the passive measures discussed above achieved a 35% betterment against building regulation requirements was achieved and a similar outcome is expected here. EV charging points are also highlighted (blue).



Plan showing the location of ASHP's and PV charging points

Minimising Carbon Footprint

9. The Applicant is keen to ensure that Whole Life Carbon (WLC) principles are followed as part of the sites development. Consideration has and will continue to be given to both the embedded and operational carbon impacts of the proposals.
10. To minimise waste (which also has the advantage of reducing unnecessary costs) the Applicant will follow best practice through the efficient management of waste during construction. This will reduce construction waste and but where this cannot be avoided as much as possible will be recycled and so diverted away from landfill.
11. Operational waste will also be minimised through the encouragement of recycling. This is achieved through the provision of convenient storage for waste internally and also externally to the houses. The plan opposite highlights the consideration of waste storage at each property.

Healthy Placemaking

12. The development is not of a scale whereby new public square and other open spaces are required or could be provided.
13. However, the proposals have been developed with landscaping as a key element of the scheme.
14. The public areas are appropriately overlooked from the dwelling frontages whilst the private garden spaces retain high levels of privacy.



Plan showing refuse storage locations

Promoting Biodiversity

15. As highlighted above a PEA and BNG metric calculation has been undertaken. The proposals include the provision of new on site hedgerow, wildflower and tree planting.

Sustainable Travel

16. To encourage the use of electric vehicles all of the houses are provided with EV charging points. All benefit from cycle storage either within garages or stores within the garden areas.

Conserving Water

17. The proposals will include aerated washbasin/kitchen taps and shower heads, tapered and low capacity baths, low flush toilets and water efficient white goods and appliances such as washing machines and dishwashers.