

Proposed Care Home

Including Five Age Related Cottages

Providence Hill, Bursledon, Hampshire

Sustainability Statement



Ref: 256 – 01A

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Introduction

This Sustainability Statement has been prepared by Colten Care Ltd (hereafter referred to as the Applicant), to review and report on the sustainability of the proposed development along Providence Hill in Bursledon, Hampshire. The Applicant's proposals are for a development providing a care home for older people as follows:

- Seventy-three individual bedrooms with en-suite facilities.
- Communal facilities for residents, to include a dining room, lounge, theme/activity room, Spa (including a hairdresser) and external gardens and terraces.
- Administrative accommodation including Reception, Offices, Training Rooms, Meeting Rooms and Staff changing and washing Facilities.

In addition, The Applicant has proposed five, age related cottages which could offer independent living alongside the care home.

The proposed development falls under the Local Authority jurisdiction of Eastleigh Borough Council. The aim of this statement is to consider the development in relation to the relevant planning policy requirements set out by national planning guidance and the adopted Eastleigh Borough Council Core Strategy.



Energy Use and Renewable Technologies

Reducing Energy Demand

Energy saving measures will be included throughout the Care Home development to reduce the energy demand of the site over a Building Regulations baseline. These measures will include improved insulation standards and U-values from a Building Regulations baseline for all of the thermal elements. In addition, further measures could be adopted within the detailed design of the buildings to reduce the energy load. These include:

Providing 100% LED energy efficient light fittings incorporating room movement sensors to ensure lights are not left on within unoccupied rooms. Corridor lighting to be on similar style sensors which will reduce light levels to 30% lighting when no movement is detected.

Specifying Class 5 gas boilers of at least 90% efficiency.

Locating fridges and freezer points away from cookers.

Where installed, specifying energy efficient white goods throughout with energy ratings of no worse than 'B'.

Positioning radiators (with localised heating controls) away from windows.

Insulating all pipework.

Providing advice on energy saving measures to staff and occupants via provision of a non-technical building users guide.

Orientation of the building has been carefully considered and solar gain will be optimised through the sizing and materials used in doors and windows. The orientation and configuration of development will make little, if any, contribution to the urban heat island effect. It is not expected that there will be any negative microclimatic effects associated with the general scale of other properties in the area.

Similar to solar gain the building will be modelled to minimise solar overheating, all to comply with the latest building regulations.

Renewable Energy Opportunities

There are a variety of renewable technologies that could be implemented within a development such as this care home. Further consideration will be given by The Applicant to their incorporation at the detailed design stage. The renewable technologies that could theoretically be considered applicable to the site are Solar PV Panels, Solar Thermal Panels, Ground Source Heat Pumps, Air Source Heat Pumps, Biomass, Wind Turbines and Hydro Power. The following paragraphs consider the constraints and opportunities that will either prevent or allow these technologies to be incorporated.

Hydro power would not be a suitable technology for the care home development as it is not located in close proximity to an available watercourse.

Wind turbines would not be suitable for the site due to its urban location. The installation of a large wind turbine would undoubtedly present a visual blight on the local community.

Although the installation of Air Source Heat Pumps could be effective in terms of reducing energy demand and carbon emissions, they also tend to be an eyesore and noisy for a development that will actively encourage its residents to spend time outdoors. In addition, this technology has very high Nitrous Oxide (NOx) emissions (approximately 1,000mg/kWh) which act as a global warming agent. In contrast, the specification of Class 5 gas boilers has NOx emissions of less than 70mg/Wh.



A plant room has been included within the development proposals. However, the inclusion of a central biomass boiler within this location is not feasible. Additional space would need to be allocated for the storage of biomass fuel and a dedicated parking area allocated for deliveries. Furthermore, biomass boilers also have high NOx emissions of greater than 100mg/kWh.

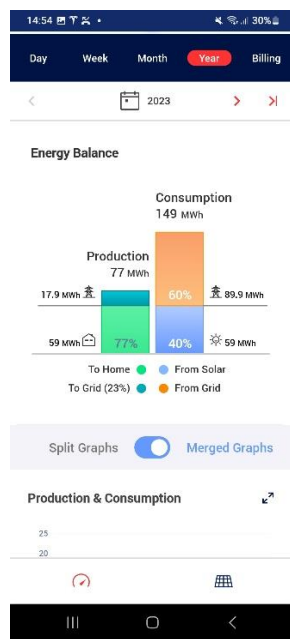
The site layout provides sufficient space for the inclusion of Ground Source Heat Pumps. Their installation could be particularly effective at reducing the energy demand of the proposed care home.

The proposals for the care home allow significant scope for the rooftop installation of either solar thermal or solar photovoltaic (PV) panels. Solar thermal panels would make a contribution to the high hot water demand of the care home. Water or glycol (heat transfer liquid) would be circulated to roof level where heat is exchanged with water from the conventional system. PV panels offer an even more attractive option than solar thermal when viewed from a financial perspective. Although the initial capital outlay for PV panels is higher than that incurred for solar thermal panels, there is the potential for long term remuneration via the Feed-in Tariff and reduced payback periods as a result.

The Applicant currently own twenty one existing care homes located in Dorset, Hampshire and Wiltshire and as a standard include photovoltaic solar panels into there new build projects and are retro fitting PV panels to the existing building stock.

With previously installed PV panels The Applicant can already provide evidence on the renewable and usage for a typical care home. Below are the 2023 data taken from Kingfishers Care Home, the Solar Edge app monitors the homes energy usage.

Typical Colten Care Nursing Home (Kingfishers) Solar PV Electrical Usage



Screenshot 01



Screenshot 02



Screenshot 03

Electric Vehicle Charging Points (EVCP)

In compliance with the current building regulations, The Applicant will provide EVCP points and duct for future EVCP points within the parking areas.



Waste Management

Water Efficiency

The Applicant is committed to reducing water demand throughout the proposed care home. All Wc's within the care home development will be dual flush with a maximum 6 litre flush and lower 3 litre flush. In addition, the care home will be fitted with spray/aerator taps and flow restrictors on hand basins. The specification of all sanitary devices will be considered at the detailed design stage and each will be subject to an evaluation based upon technical performance, cost and market appeal, together with compliance with the water regulations.

Rainwater Harvesting

Drier summers, increased drought conditions and higher temperatures due to climate change are likely to reduce water supplies across all of southern England over the next few decades. Beyond the water efficiency savings detailed above, the Applicant is committed to further reducing mains water use in the care home by incorporating an appropriate rainwater harvesting facility. This will take the form of water butts allocated within selected communal gardens, facilitating the irrigation of soft landscaping without recourse to potable water supplies.

Education

Wastewater reduction advice will be provided to occupants and staff within a comprehensive building user's guide.

Sustainable Drainage

The Applicant will ensure that there is not an increase in surface water runoff rates by maintaining or reducing the total area of impermeable surfaces on site. By using permeable surfaces wherever practicable, the Applicant will increase the level of infiltration into the strata and reduce surface water runoff rates for all storm incidences up to and including the 1 in 100 year event. A complex drainage strategy will not be required due to its generous green space and proposed use of permeable paving.

Green Waste

The Applicant, gardeners and staff are encouraged to be as creative as possible with their garden waste and try to minimise what is placed in our green bins.

Green /brown waste - The use of onsite compost bins, incorporating kitchen waste and used coffee grounds along with general garden waste.

Woody material - This is used to create habitats for our wildlife visitors over winter and supports for plants etc. shredded to create mulch, used to create dead hedges and structures.

Hugelkultur beds - These are starting to be made in our gardens and are a wonderful way of using all materials to create habitats, raised beds and points of interest.

Water- rain butts are used and recycling the unused water from the home.



Reduction and Recycling of Construction and Domestic Waste

The Applicant will implement a site waste strategy during the demolition and construction process that maximises the recycling and reuse of materials and minimises waste to be dispatched to landfill. Construction operations generate waste materials as a result of general handling losses and surpluses. These wastes can be reduced through the appropriate selection of construction methods, good site waste management practices and spotting opportunities to avoid creating unnecessary waste. A Site Waste Management Plan (SWMP) will be prepared by the Applicant to include procedures to sort, reuse and recycle construction waste. Implementing a SWMP will result in various benefits for the care home development, which may include:

Better control of the risks relating to the materials and waste on the site. 'Good housekeeping' of waste improves site safety.

Demonstrating compliance with the legislative framework.

Utilising a mechanism demonstrating how waste is managed and minimised and how associated costs are controlled.

A tool to aid compliance with various Environmental Management Systems e.g. ISO14001 or BREEAM.

A system to help make cost savings by better managing the supply chain of materials and their storage, handling, recovery and eventual disposal.

Compliance with contractual requirements from public or private sector clients.

The amount of wasted materials deriving from the construction process will be reduced by the Applicant adopting Modern Methods of Construction and introducing regular audits to monitor and control site activities very closely, for example reviewing materials ordering and site practices to prevent damage and cross-contamination. Survey have found that detailed attention to the quantity of materials purchased and the way these are off loaded, labelled and stored, can significantly reduce the amount of materials wasted.

The Applicant's proposals have allocated sufficient space for the general refuse and recyclable waste bins to comply with the requirements of the Eastleigh Borough Council waste collection service. Seven Eurobins of 1,100 litres each will be allocated to the bin store on site.



Materials

While a major consideration in materials selection is the external appearance of the buildings, from a sustainability perspective it is equally important that the developer seeks to minimise the environmental impact of the materials used over the lifetime of the building – from manufacture to eventual demolition, to disposal. For building materials, the Applicant will, wherever viable and practicable, specify 'A+' or 'A' rated materials using the online BRE Green Guide to Housing Specification.

Wherever feasible. The Applicant will commit to using materials that are locally sourced, are from renewable sources and are recycled (e.g. secondary aggregates). The use of recycled materials (e.g. crushed concrete from waste used for hard-standing) has zero embodied energy impact, other than that expended in their processing or transport.

All insulating materials will have an Ozone Depleting Potential of Zero and a Global Warming Potential of less than 5. It is intended that the development will utilise low Volatile Organic Compounds. These are usually solvents that have the capacity to rapidly evaporate. Once airborne they cause chemical or photochemical reactions in the atmosphere leading to the formation of smog containing, amongst other things, ground level ozone and can produce a number of physical problems such as eye and skin irritation, lung and breathing problems, headaches, nausea and muscle weakness.

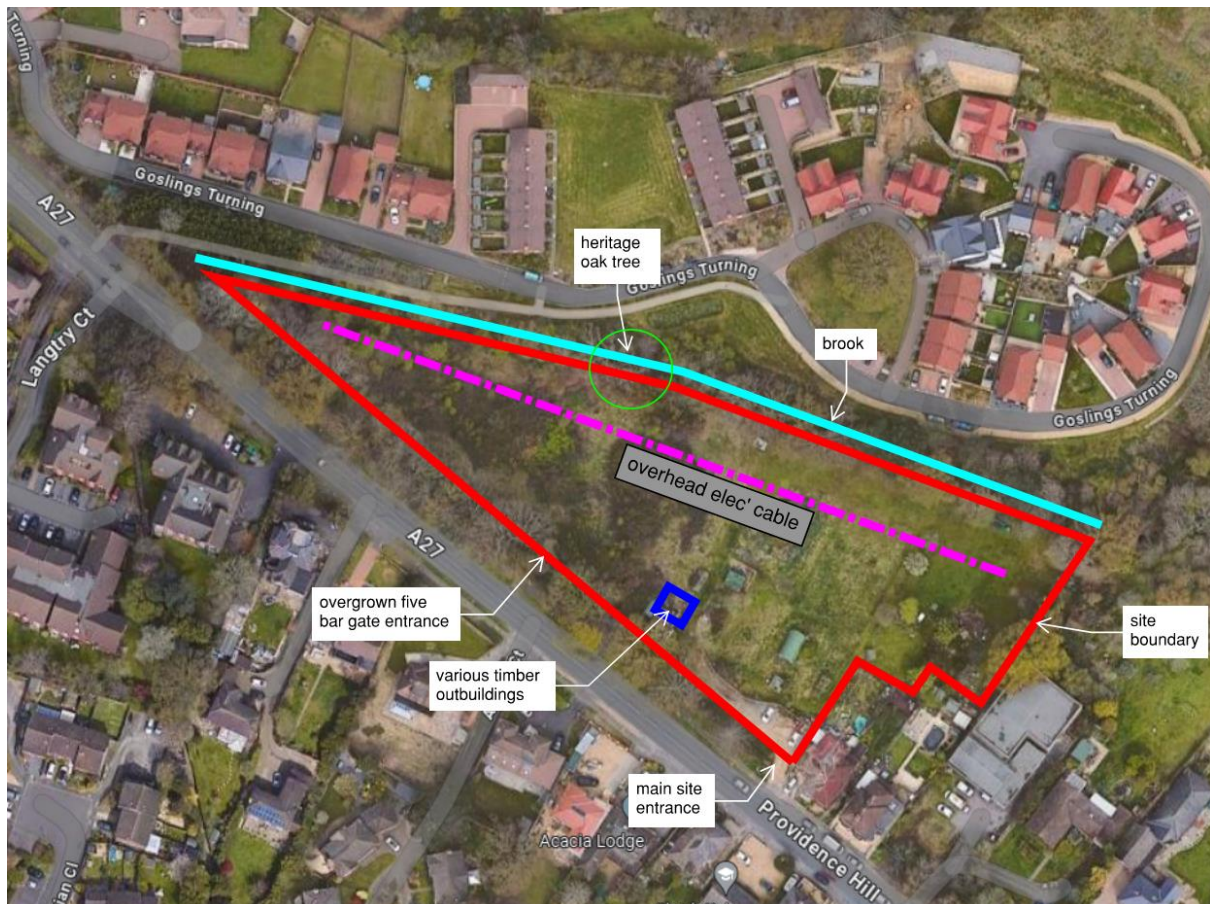
Timber used in the development for both basic and finishing elements will be sourced from sustainable European sources (e.g. PEFC or FSC).



Biodiversity and Ecological Enhancement

Protecting and enhancing the best of existing biodiversity

The development site was formerly small holding and has been unoccupied for several years. Along the southern boundary is an array of mature trees with TPO's all outside of the site boundary. To the north is a small brook lined with a variety of trees. Along the northern boundary there is one heritage oak tree with increased RPA which must be protected. The western side of the site has become overgrown with young self-seeded saplings, with the eastern section of the site being grass open space.



Mitigating the impact of development and securing net biodiversity gain

Ecology and full biodiversity survey reports to be carried out and provided as part of the planning application including recommendations for biodiversity net gain.

Any trees removed can be stockpiled to create insect and general wildlife habitats.

New hard and soft landscape can be sympathetic to their surroundings and should include raised beds, wildlife zones and composting areas.

Wildlife meadow turf/seed can be laid to open areas to encourage insects.

Native species and hedgerows can be used to define gardens.

Bird feeding stations can also be located around the gardens.



Integrating biodiversity with the built environment

The new buildings can incorporate bird, bat and insect boxes. Ideally these boxes will be built into the structures of the building within external bricks and within roof structures.

Siting, location and context

The siting of the care home is to be carefully considered to ensure minimal impact to the existing diversity within the development boundary. Adverse impacts of development should be mitigated and compensatory measures should be taken to ensure an overall gain in biodiversity.

Design

Detailed design of buildings and other structures should include specific measures for biodiversity, including trees in hard landscaping, living ('green') roofs, nesting and roosting sites.

Management

The Applicant has a Sustainability team and are in the process of creating a group Environmental Strategy which is bringing together all existing sustainability methods and set out procedures on how these can and will be improved.

In house gardeners are employed to maintain the external appearance of the gardens and their surroundings ensuring biodiversity and protection of wildlife is key to the operation of the care home.



Transport and Access

Designing for Security and Access

The proposed development will be designed with reference to 'Secured by Design' principles and an Architectural Liaison Officer will be consulted during the detailed design phase. Security standards in respect of external doors and windows will be very high. External areas will be well lit, and if it is feasible, external lighting will be operated with motion sensors to deter burglars and intruders.

The Applicant's commitment to inclusivity will be demonstrated through their attitude towards movement and inclusivity. The Applicant will incorporate the requirements of the Disability Discrimination Act (1995) into their detailed design, making any necessary adjustments to ensure disabled access, and regularly reviewing whether the buildings are fully accessible and effective. Although the site slopes steeply, the Applicant will maintain level access to the main entrance from the existing footway and road into the site from Providence Hill.

Green Transport Options

Parking spaces on site including EVCP and the inclusion on space for 'Sheffield' cycle stands and electronic buggy storage, as well as pedestrian routes around the array of proposed open spaces, the Applicant is promoting sustainable transport choices for the new staff and occupants of the care home. Local bus services are readily accessible from stops located 300-400m away (a 3 to 4 minute walk).



Conclusion

This Sustainability Statement sets out an approach which would enable the Applicant to create a sustainable and planning policy compliant development. The Applicant's proposals would deliver on an excellent opportunity to develop this allocated site, in a manner consistent with the Adopted Local Plan Policy. The proposal will establish a new residential care home and five age restricted cottages of high quality architecture, with the associated benefit of employment use and a positive economic contribution to the village of Bursledon.

Sustainability and cost saving benefits will occur as a result of building an energy efficient and well insulated building. The construction of the care home will, by taking into account current planning policies for sustainable development and Modern Methods of Construction, reduce the carbon dioxide emissions from the proposed development beyond Building Regulations requirements. In addition, by specifying energy efficient internal lighting, reviewing opportunities to incorporate renewable energy technologies and referencing the BRE's Green Guide to Housing Specification and endeavouring to select A+ or A rated building elements, the Applicant will further reduce the lifecycle impacts of the proposed development.

A Site Waste Management Plan will be developed and adopted by site personnel. This will include the setting of targets for the total quantity of waste generated on site and measures for reducing the quantity of waste generated from individual streams. In addition, space will be allocated for the segregation of domestic and construction related waste.

The Applicant will reduce the surface water runoff rates at the site from their pre-development levels. This will be achieved in part by maximising opportunities to incorporate ecologically valuable soft landscaping. In addition, and wherever practicable, areas of permeable paving will be used to promote sustainable drainage and alleviate the pressure on the existing foul sewer.

