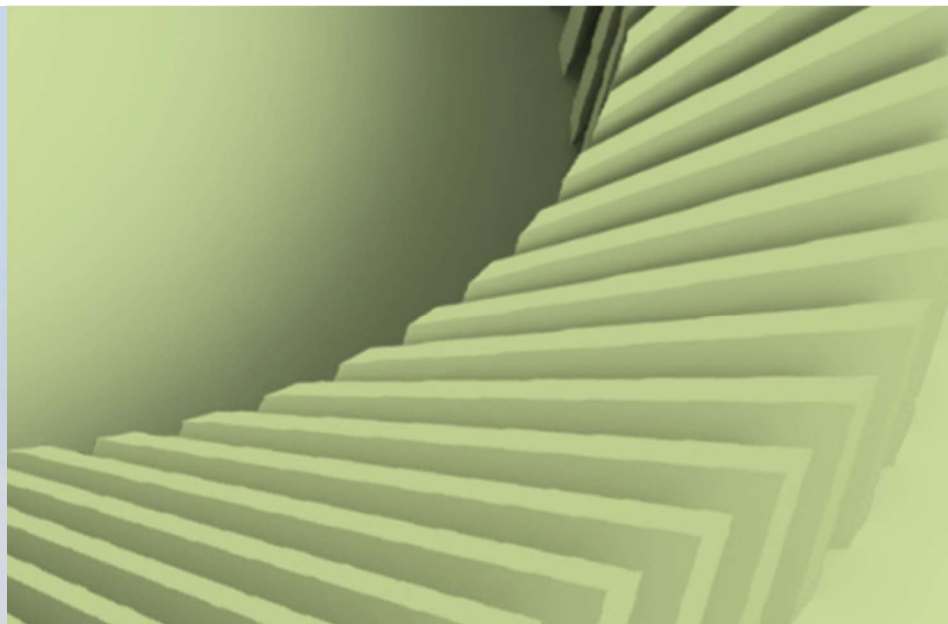


Splendid Hospitality Group

Horncastle House, East Grinstead

Energy and Sustainability Statement

May 2025



focus-consultants.com

Create. Deliver. Assess.

Focus Consultants 2010 LLP, Focus House, Millennium Way West, Phoenix Business Park, Nottingham NG8 6AST. 0115 976 5050

Contact Information

Client: Splendid Hospitality Group
C/O MEC Consulting Group
The Old Chapel,
Station Rd,
Hugglescote,
Coalville
LE67 2GB

Client Lead: Tim Rose

Tel: 01530 264 753

Email: Tim.Rose@m-ec.co.uk

Prepared By: Focus Consultants 2010 LLP
Focus House
Millennium Way West
Phoenix Business Park
Nottingham
NG8 6AS

Project: Horncastle House

Document Title: Energy and Sustainability Statement

Date: May 2025

Focus Contact Details: Adam Revall, Associate
adam.revill@focus-consultants.com

Signature:



Document Control Sheet

Rev	Status	Prepared By	Reviewed By	Issue Date
-	First Issue	AR	BM	02.05.2025

Contents Page

	Page
1.0 Executive Summary	3
2.0 Introduction	4
3.0 Planning Policy	4
4.0 Energy and Sustainability Analysis	5
5.0 Conclusion	10

Appendices

- Appendix 1 - Proposed Site Location Plan
- Appendix 2 - Energy Calculations (Existing BRUKL Document – available on request due to size)

1.0 Executive Summary

The proposed development will be located at Horncastle House, East Grinstead. The proposed development seeks approval for the construction of an 80-bedroom care home, replacing Horncastle House and Willow Lodge as well as the retention of an existing 10 bedroom Acquired Brain Injury (ABI) unit.

This statement has reviewed the scheme in accordance with the Mid Sussex District Council's policy documents. It has concluded that the policies DP39, DP42 are relevant.

The table below demonstrates how the specification of the proposal at the site compares to Approved Document Part L's limiting standards

Table 1: Comparison with Building Regulations Part L 2021		
Building Element	Limiting Part L 2021 Specification	Proposed Part L 2021 Specification
External Walls U-Value	0.26	0.18
Roof U-Value	0.16	0.15
Ground Floor U-Value	0.18	0.12
Window U-Value	1.60	1.40
Pressure Test	8.00	5.00

In addition to the proposed fabric specification, the development is also proposing an efficient M&E strategy. It is currently predicted that space and hot water heating will be serviced via a communal Air Source Heat Pump system, in addition to the incorporation of Solar PV to help supplement the energy use in day to day operation.

Existing SBEM calculations from a similar scheme in size and operation have been utilised to approximate performance of the proposed care home. The proposals are indicated to achieve a circa 4.85% improvement in carbon emissions over the Part L 2021 Standards, in addition to meeting all other Part L metric requirements.

The retention and upgrades to be made to the Maple Lodge building are demonstrative of the developer's intention to establish sustainable approaches to the proposals. Rather than demolish and rebuild, this approach is favourable towards the embodied carbon aspects of the scheme, and material selection will be engrained into the procurement strategy where allowing to opt for lower embodied carbon options.

2.0 Introduction

2.1 Purpose of the Report

Instructions were received from MEC Consulting Group to produce an Energy and Sustainability Statement for the proposed development at Horncastle House, East Grinstead. This report has been produced to support the planning application to be submitted for the development.

This statement provides a response to the relevant planning policy objectives within Mid Sussex District Council.

The proposed site development is to make use of an energy efficient building fabric and efficient heating systems to achieve compliance and a reduction to the emissions specified by Part L1 of the 2021 Building Regulations.

2.2 Site and Building Description

The development will be located at Horncastle House, East Grinstead. The application seeks approval for the construction of an 80-bedroom care home, replacing Horncastle House and Willow Lodge as well as the retention of an existing 10 bedroom Acquired Brain Injury (ABI) unit. A proposed site plan has been included in Appendix 1.

2.3 Methodology

Existing SBEM calculations have been utilised to determine approximate performance of the proposed new care home building at the site. The specifications and results for the buildings as proposed are compared to the target building baseline, which is the benchmark for Part L of Building Regulations compliance.

This report will assess the fabric performance of the proposed building, determine the feasibility of connection to district heating networks and where required assess the feasibility of incorporating on site renewable technologies

The report will demonstrate how the proposed scheme complies with the required Mid Sussex District Council policies.

2.4 Limitations

This statement is generated based upon early design stage information, limited by the information available at the time of generation. Best endeavours have been undertaken to generate the necessary calculations to fulfil the

requirements of the specific policy and demonstrate compliance.

However, the design may be subject to change and the tools used are a guide limited by their design as regulation compliance measures against a notional performance, they are not a guarantee of 'As Built' performance nor should they be treated as such.

3.0 Planning Policy

The Mid Sussex District Plan 2014 – 2031 outlines the requirements for new developments regarding sustainability. Applicable policies have been provided and are detailed below.

3.1 Mid Sussex District Plan 2014 – 2031

3.1.1 DP39: Sustainable Design and Construction

All development proposals must seek to improve the Sustainability of development and should where appropriate and feasible according to the type and size of development and location, incorporate the following measures:

- *Minimise energy use through the design and layout of the Scheme including through the use of natural lighting and ventilation;*
- *Explore opportunities for efficient energy supply through the use of communal heating networks where viable and feasible;*
- *Use renewable sources of energy;*
- *Maximise efficient use of resources, including minimising Waste and maximising recycling/ re-use of materials through both construction and occupation;*
- *Limit water use to 110 litres/person/day in accordance with Policy in accordance with Policy DP42: Water Infrastructure and the Water Environment;*
- *Demonstrate how the risks associated with future climate change have been planned for as part of the layout of the scheme and design of its buildings to ensure its longer term resilience*

3.1.2 DP42: Water Infrastructure and the Water Environment

Non-residential buildings should meet the equivalent of a 'Good' standard, as a minimum, with regard to the BREEAM water consumption targets for the development type.

4.0 Energy and Sustainability Analysis (Proposed Care Home)

4.1 Proposed Fabric and Services Specification

4.1.1 Proposed fabric specification

In efforts to reduce the overall carbon emissions associated with the development and to maximise the energy efficiency, as outlined in Policy DP39, the developer has a robust 'fabric first' approach to the build specification.

This has been achieved through building fabric improvements with an uplift on the minimum requirements of Approved Document Part L2B, and also specification of efficient mechanical and electrical services, including a number of 'add-on' measures to improve efficiency and performance.

The table below demonstrates how the specification of the development at Horncastle House, East Grinstead compares to the limiting values and minimum efficiencies allowed within Part L 2021:

Building Element	Limiting Part L 2021 Specification	Proposed Part L 2021 Specification
External Walls U-Value	0.26	0.18
Roof U-Value	0.16	0.15
Ground Floor U-Value	0.18	0.12
Window U-Value	1.60	1.40
Pressure Test	8.00	5.00

The development is proposed to adopt a 'fabric first' approach to specification, and as detailed above, the proposed U-Values demonstrate an improvement on the minimum requirements under Part L.

All of the main building elements have been designed to provide a thermally efficient building envelope that achieves an improvement on the minimum requirements set out within Part L.

Insulated cavity wall, roof, floors and openings provide a comfortable environment within the development and reduce the buildings' reliance on the main heating system.

Intelligent construction methods and high quality of construction is also utilised in the specification of this development. The more onerous air permeability target will

ensure that performance is enhanced by minimising heat and energy losses through air gaps.

4.1.2 Proposed mechanical and electrical services

In addition to the robust fabric specification as detailed above, the client is also proposing an efficient M&E strategy.

Building Element	Limiting Part L 2021 Specification	Proposed Part L 2021 Specification
Heating Efficiency	100%	Seasonal COP 3.50
Lighting Efficacy	80lm/w	110lm/w
Ventilation	Intermittent Fans	Intermittent Fans

The proposed development will incorporate the installation of a communal Air Source Heat Pump system to provide heating to the bedrooms and wider building at Horncastle House. Air Source Heat Pumps (ASHP) can extract heat from the outdoor air, even when the outside temperatures are very low, for use in space heating and hot water systems. They are typically very efficient in relation to heating efficiency.

In communal areas, lighting occupancy sensors will be utilised that switch off or dim the lighting when occupants are not present in areas such as circulation spaces, toilets or storage areas. This prevents lighting from being left on when it is not needed, therefore saving energy

The use of an all-electric heating solution strategy also brings the client in line with what appears to be the Government's preferred direction of travel for domestic heating going forward and given the continuing decarbonisation of the grid, electricity can be seen as an increasingly low carbon solution.

The developer are also proposing to install one Electric Vehicle (EV) charging point, and cable routes to service one in five remaining parking spaces at the scheme.

While this is not directly connected to the energy performance of the building, it does demonstrate their commitment to emphasising low carbon technologies throughout the site, as this will provide the easily accessible facility for the end users to operate an electric vehicle rather than a petrol fuelled vehicle.

To summarise, all the main building elements outlined in Tables 2 and 3 have been designed to provide a thermally efficient building envelope that achieves an improvement on the minimum requirements set out within Part L. These

elements along with the incorporated heating and ventilation systems ensure enhanced energy efficiency and reduce CO₂ emissions, thus mitigating the impacts of climate change and ingraining principles of sustainable construction.

4.2 Low Carbon Heating (Be Clean)

In line with Policy requirements of DP39, opportunities for efficient energy supply through the use of communal heating networks has been completed. An exercise has been completed reviewing the possibility for the development to connect to an existing district heat network. The Association for Decentralised Energy's (ADE) network map has been used to confirm the closest possible connection point.

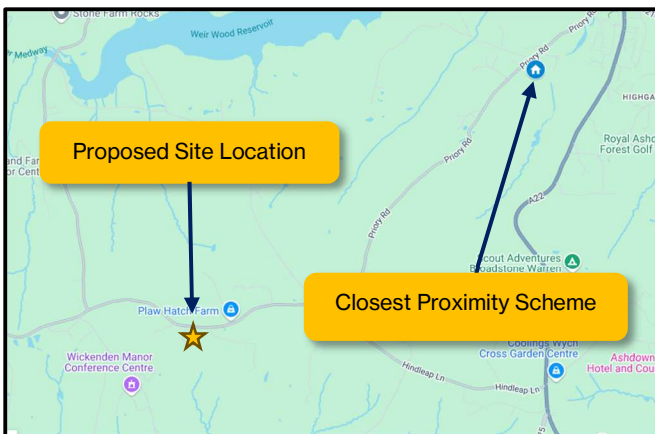


Figure 1 – Association of Decentralised Energy - www.theade.co.uk

As demonstrated in Figure 1, the closest connection point is the *Hoathly Hill DH Scheme, RH18 5JA* approximately 2.5 miles from the proposed site location. Due to the extended distance between these two points, it is considered that this would not be a feasible application to connect to the existing system.

However, due to the proposals incorporating a communal ASHP system, sufficient infrastructure will be installed to allow for the potential connection at a future point, as and when the proposed heating system reaches end of life.

4.3 Renewable and Low Carbon Energy

Policy DP39 guidance encourages the use of renewable sources to meet the energy needs of new developments. In line with this, site specific analysis has been provided for those renewable energy technologies considered feasible. For this scheme they are identified below:

1. Solar Thermal
2. Photovoltaics
3. Heat Pumps.

4.3.1 Solar thermal heating

Solar thermal panels collect solar radiation to heat water that can then be used for either space heating or domestic hot water. There are two types of competing solar thermal technologies; flat-plate and evacuated tube.

Evacuated tube collectors are more efficient and therefore require less active collector array than the equivalent output of a flat plate system. However, in general, capital costs for the two technologies are comparable.



The system consists of solar collectors that are often roof mounted. Liquid is passed through the solar collectors and then to a heat exchanger in a domestic hot water cylinder, which will also have a top-up heat source (gas, biomass, or electricity) to ensure reliability of supply.

Solar thermal collectors can still produce energy from diffuse sunlight and are therefore less susceptible to performance reductions from orientation and angle compared to PV.

A typical 3-4m² collector area system (area dependent on technology) is capable of providing 50% the annual domestic hot water demand for a typical 2-3 bed house. The proportion of hot water provided varies over the course of a year, with the system achieving 100% coverage during the summer months and 5% during the winter.

It is questionable whether the Solar Thermal could meet the requirements of the development, and even if so, it would not be the most efficient or cost-effective method to do so. As such, the use of solar thermal is not considered appropriate for this scheme.

4.3.2 Heat pumps

A ground source heat pump (GSHP) can harness the energy from the ground for use within buildings. This makes it possible to use the heat in the ground during the winter months to meet our heating needs. In the summer months

it is also possible to cool buildings using ground temperatures that are lower than ambient air.



A typical ground system consists of a ground to water heat exchanger often called the 'ground loop' or 'ground coil,' a heat pump and a distribution system. Water (or other solution) is passed round the system 'absorbing' heat from the ground and upgrading this heat via the heat pump into the building.

The heat exchanger can consist of either a vertical borehole system, where long pipes are driven deep into the ground or a horizontal trench system, which operates at shallower depths.

The performance of a HP is measured using a COP (coefficient of performance). This defines the amount of useful energy output from the heat pump compared to the energy input. Typical systems can achieve a COP in the region of 350-400%.

The COP is maximised where the flow temperature of the heating circuit is between 35-40°C and therefore GSHP are ideally suited for connection to under-floor heating. The potential scale of GSHP is only limited by the availability of land for the ground loop and reasonable levels of energy abstraction. Typical costs for ground source heat pumps range from £800/kW for trench systems to £1,500/kW for vertical borehole systems.

Based on discussions with the client, the constraints of the proposed site and scheme layout do not lend well to the use of ground source heat pumps and as a result of this, this technology has not been considered to be feasible.

Air source heat pumps (ASHP) work in a similar way to ground source and are able to extract heat from the outdoor air, even when the outside temperatures are very low, for use in space heating and hot water systems. ASHP are also available in air – air formats, in which the heat is emitted into the building through ductwork, in which instance can also provide the option for air conditioning or cooling in summer, however they cannot serve hot water systems.



These systems only require space for an external condenser unit, which makes them much simpler to install when compared to GSHP. These systems also offer a significant reduction in carbon emissions from that of a conventional heating system (especially electric heating systems).

As indicated in the previous sections of the report, the client is committed to installing a sustainable heating system for the development. A communal ASHP specification is included in the design proposals, to service the building's heating and hot water.

4.3.3 Photovoltaics

Photovoltaic panels convert solar radiation into direct current electricity. In principle, they are an ideal source of renewable energy as they harness the most abundant source of energy on the Earth, the sun, and they produce electricity, which is the most useful form of energy.



PV's are silent in operation, have no moving parts and have a long life with low maintenance levels. PV systems can be connected to the grid or battery arrays in remote locations. Grid connected systems consist of PV arrays connected to the grid through a charge controller and an inverter. PV cells are more efficient at lower temperatures so good ventilation should be allowed around the PV modules where possible.

In addition to the inclusion of the communal ASHP system, the development also intends to install Solar PV to generate renewable energy and lower operational carbon emissions. This further enhances the sustainability metrics of the proposals. At present, design proposals based on the existing calculations include for a system of approximately 26.5kWp in size. Table 2 demonstrates the approximate generation;

System	Proposed Energy Generation (kWh/yr)
Photovoltaic Systems	23,812.80

Whilst an intended layout has not been completed at this stage, a chosen supplier will be contacted to confirm exact output of the system. The size and generation of the proposed Solar PV system may be subject to change, depending on a number of factors such as orientation, product and any shading which could affect performance.

4.4 Carbon Emissions

4.4.1 Carbon Emissions Summary

Existing SBEM calculations from a scheme of similar size and nature have been utilised for the development to understand the proposed performance in relation to carbon emissions.

The below tables detail the estimated performance of the proposed scheme against all relevant assessment metrics of Part L 2021. The output for the utilised SBEM calculation used to derive these figures is provided in Appendix 2.

	Units (kg/CO ₂ /year)
Target Emission Rate	45,596.10
Building Emission Rate	43,386.20
Reduction	2,209.90
Percentage Reduction	4.85%

	Units (kWh/m ² /year)
Target Primary Energy Rate	108.63
Building Primary Energy Rate	103.50
Reduction	5.13
Percentage Reduction	4.72%

	Units (MJ/m ² /year)
Target Heating and Cooling Demand	403.00
Building Heating and Cooling Demand	381.68
Reduction	21.32
Percentage Reduction	5.29%

Based on the existing SBEM calculations utilised, the Horncastle House care home building will demonstrate an approximate improvement in carbon emissions over the target value of approximately 4.85%. It is also confirmed to meet all other proposed building regulation metrics under Part L 2021.

4.5 Water Consumption

It is a requirement that emphasis be placed on the planned water use of the buildings in operation. The proposed development whilst classified as non-residential buildings, and as such, Policy DP42 identifies that a minimum ‘Good’ rating be achieved under the BREEAM water consumption credits.

To achieve this metric, efficient water saving sanitaryware will be installed to help reduce the development’s water consumption in operation. Where this is not possible, flow restrictors will be installed to limit water use of sanitaryware items.

This proposed specification has yet to be confirmed at this stage, however will be established during the later stages of design. When adopted, it will be ensured that the minimum Good rating under BREEAM will be achieved.

4.6 Sustainable Construction Methods

4.6.1 Building Orientation, Air Flow and Solar Gains

In accordance with Policy DP39, consideration has been given to utilise solar gain across the development. Based on the design proposals, the communal spaces in the care home are strategically positioned to face south wherever possible, maximising access to natural sunlight, encouraging a passive form of heating. Efforts have been made to maximise southerly orientations for bedrooms where possible, to encourage higher amounts of solar gain. Where this has not been feasible for all bedrooms, Easterly and Westerly orientations have been utilised.

The new care home building is to be constructed using a traditional form of construction. The use of high thermal

mass and good insulation levels as a result of this construction type provides an effective medium for managing solar gains, both having the ability to hold heat and cool. The nature of the materials having high levels of thermal mass means they can absorb excess heat throughout the day, keeping the surrounding area cooler, and then slowly release and re-radiate the stored heat as the temperature drops. This prevents rooms from becoming uncomfortably hot in summer and stores warmth in winter.

The development seeks to further maximise passive airflow through careful design of windows. Together with the ventilation, this will help to provide a comfortable yet efficient system for managing overheating for future residents.

It is currently expected that compliance will be achieved through a combination of passive measures and ventilation, and the client is committed to ensuring the requirements of Approved Document Part O are met. Where further measures are required to ensure compliance, these will be installed in full.

4.6.2 Material Selection & Efficiency

The proposed development at Horncastle House will strive to incorporate sustainable design into the buildings.

Material selection for both the new construction of the care home and refurbishment works of Maple Lodge will be carefully considered to incorporate climate-resilient products that withstand changing weather conditions, ensuring the durability of the building.

Additionally, material selection will endeavour to show preference to suppliers who operate responsible sourcing practices and have current environmental management certificates. Examples including FSC/PEFC certified timber products will be utilised, this ensures all products have been obtained from sustainable and legal sources.

The development design will look to conform to standard material dimensions to avoid waste generation. This reduces waste not only at the manufacturing stage, but also during construction as it reduces the need to re-size materials on site. In addition, the use of standardised materials increases the ease of deconstruction and improves the likelihood that the materials will be reused, in the eventuality that the site is redeveloped in the future.

4.6.3 Embodied Carbon

The retention of Maple Lodge and decision to refurbish the building over the demolition and new construction offers large benefits in terms of embodied carbon.

Carbon that would otherwise be emitted from the demolition of the existing building, and those new materials that would be used in the reconstruction, including transportation and on-site emissions will be saved.

As part of both the refurbishment and new construction of the buildings, the client is committed to implementing practices during the construction which will demonstrate a reduction in emissions.

Whilst specific materials will be determined at a later stage of the project, consideration will be given to prioritising a reduction in carbon emissions through the procurement strategy. Namely, the re-use of demolition or recycled materials or low carbon options will be considered where feasible to the construction efforts, rather than defaulting to wholly new materials at each opportunity. Furthermore, where aggregates are to be used, the procurement of secondary aggregates will be assessed in terms of viability to the design.

Where feasible, contractors and site personnel required will be selected who are local to the site to aid the construction efforts. This again will reduce the associated CO₂ emissions of travel, in addition to supporting the local economy.

4.6.4 Waste and Recycling

As part of the design development and in efforts to reduce waste throughout the construction process, the design team have implemented several measures to eliminate potential excess.

A pre-demolition audit will be undertaken before any demolition of the existing buildings on site occurs, to maximise the recovery of material for subsequent high grade or value applications. Key materials will be identified and quantified to assess applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy. Opportunities for reuse and recycling of demolition materials within the same development will be explored and taken wherever possible and given priority.

The awarded contractor will be required to have an effective site waste management system adopting waste hierarchy principles of reduce, reuse, or recycle. All waste will be handled by a licensed waste contractor who will

segregate, and process waste produced. Such waste will be separated into key waste groups and recycled at a waste processing plant to be refined into new products or reused in other projects where they cannot be reformed.

A target will be set for the contractor in terms of reduction of waste that is taken to landfill that will be an improvement on standard market practices, and they will be expected to demonstrate compliance with this. Site hoarding or materials where safe and appropriate will be transported from other sites for reuse.

The design of the buildings looks to incorporate recycling facilities for residents further encouraging the principles of recycling. Mid Sussex District Council operate an alternative collection for refuse waste & recycling waste, allowing for residents to segregate waste types in a more sustainable manner. To enable efficient segregation of operational waste for their residents, sufficient spacings and access will be provided around the buildings to enable waste bins to be collected in line with the council waste collection regime. The potential for on-site composting facilities for use on the communal garden areas will also be explored, subject to other requirements and considerations.

5.0 Conclusion

This statement has reviewed the proposed development at Horncastle House, East Grinstead. The application seeks approval for the construction of an 80-bedroom care home, replacing Horncastle House and Willow Lodge as well as the retention of an existing 10 bedroom Acquired Brain Injury (ABI) unit. This report has provided an assessment of the proposed scheme against the relevant policies: *DM39*, *DM42*

As discussed throughout the report, the proposed development is aligned to achieve the policy requirements. The resulting impact of a reduction in energy use will be favourable towards future residents' operational costs in occupation. A lesser energy use will also in turn result in a reduction in omitted carbon emissions, helping to promote the sustainability aspects of the scheme and steer towards the local council's and wider national efforts to reduce the effects of climate change.

The statement has highlighted that the scheme currently proposes to utilise a good thermal envelope to minimise heat loss, as well as efficient heating and lighting systems, which will drive energy efficiency in the buildings. This is in line with the required policy objectives of sustainable design and reducing energy use.

Existing SBEM calculations from a similar scheme in size and operation have been utilised to approximate performance of the proposed care home. The proposals are indicated to achieve a circa 4.85% improvement in carbon emissions over the Part L 2021 Standards, in addition to meeting all other Part L metric requirements.

Details of the proposal's sustainable construction methods, and efforts to reduce waste and promote efficiency have been outlined. This will be achieved through an effective procurement strategy and implementation of measurable on-site practices, underpinning the stated performance of the site in relation to its energy efficiency and carbon emission savings predicted.

Whilst both the design and services strategy are the preferred specification at this present time, the strategy and required contribution may be subject to change as design develops further. Nonetheless, it will be ensured that where any changes are made, the policy requirements listed will be maintained.

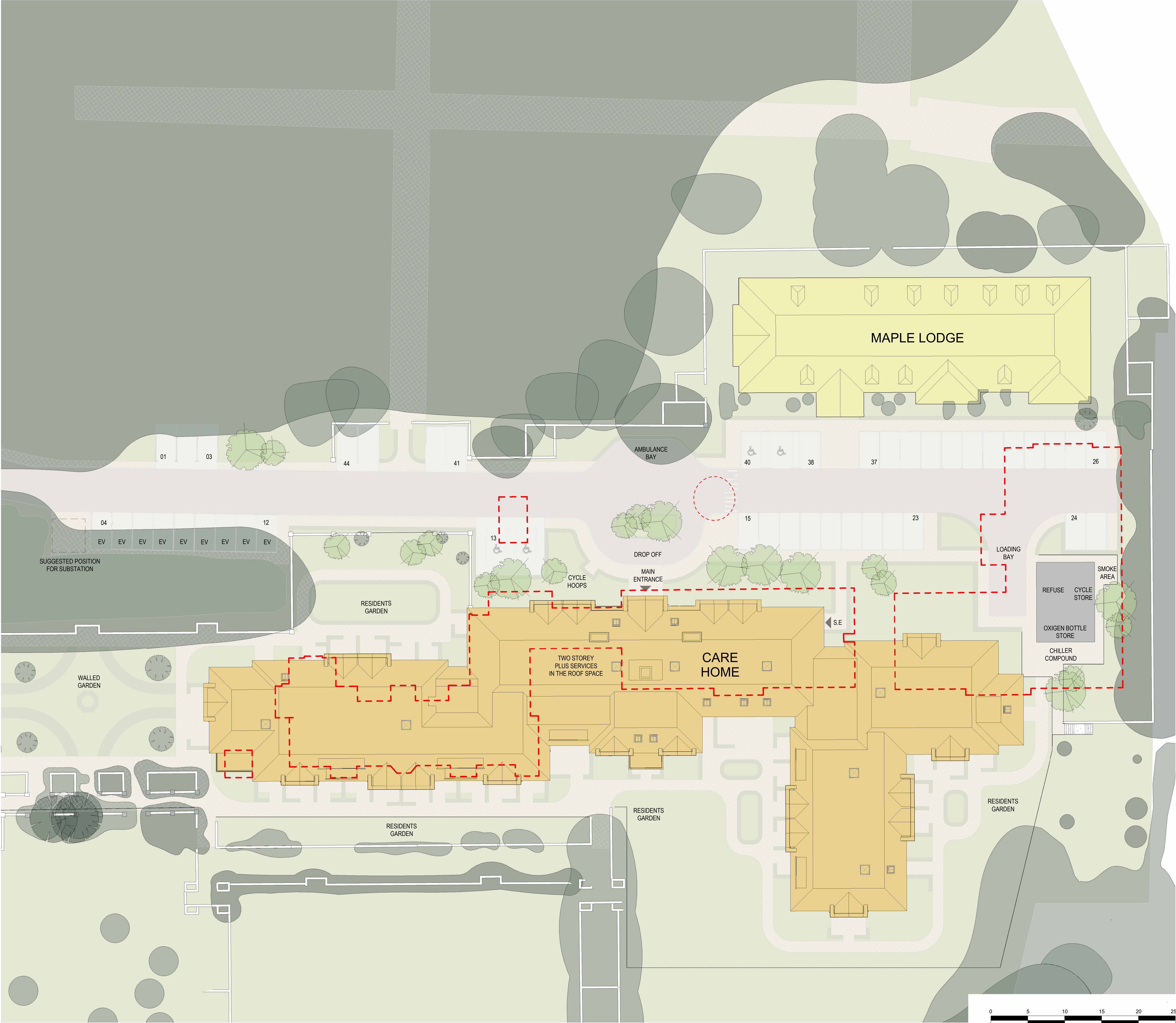
This statement has been produced based upon early design stage information, limited by the information available at the time of generation. Any changes to the known design following the completion of this statement may have an impact on the noted performance and policy requirements.



Appendix 1

Proposed Site Location Plan



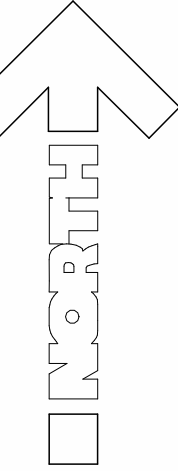


SCHEDULE OF ACCOMMODATION		
SITE AREA BOUNDARY		
5.61 Ha / 13.86 acres		
CARE HOME		
GROUND FLOOR	40 BEDROOMS	
FIRST FLOOR	40 BEDROOMS	
TOTAL	80	
GROSS INTERNAL FLOOR AREA		
GROUND	2,055 m ²	
FIRST	2,045 m ²	
SECOND	410 m ²	
TOTAL	4,510 m ²	
SPACE PER RESIDENT		
56.4 m ²		
PARKING (INCL. 4 DISABLED BAYS)		
44		

--- OUTLINE OF EXISTING BUILDINGS TO BE DEMOLISHED

KEY:

- PROPOSED TREES
- EXISTING TREES
- REMOVED TREES



P9	ISSUED FOR COORDINATION	MD	VK	03/04/2025
P8	ISSUED FOR COORDINATION	MD	PK	20/02/2025
P7	DESIGN REVIEW PANEL	MD	PK	12/12/2024
P6	ISSUED FOR COMMENTS	MD	PK	28/06/2024
P5	ISSUED FOR COMMENTS	MD	PK	30/05/2024

Rev.	Description	Author	Checked	Date
------	-------------	--------	---------	------

CARLESS + ADAMS

01628 665131 enquiries@carless-adams.co.uk
carless-adams.co.uk

Design the best,
to live the best

Client

SPLENDID HEALTHCARE

Project

HORNCastle
EAST GRINSTEAD

Title

SITE LAYOUT

CAP no.

A

scale

1 : 250

author

SR

chk'd

MD

date

21/02/2024

sheet size

A1

project.	org.	zone.	level.	type.	role.	class.	num.	status.	rev.
1034	CA	01			A		01		P9

For construction purposes dimensions shall not be scaled & figured dimensions must be verified on site before work commences.
This drawing is Copyright ©



Appendix 2

Energy Calculations (Existing BRUKL Document –
available on request due to size)