

Sustainability Assessment

80 Whitley Wood Road, Reading

Prepared by Ivan Ball

Bluesky Unlimited
39 Marsh Baldon
Oxfordshire
OX44 9LP

ivan@blueskyunlimited.co.uk

6th July 2026



This report has been prepared by bluesky unlimited with all reasonable skill, care and diligence, and taking account of the services and terms agreed between bluesky unlimited and the client. This report is confidential to the client, and bluesky unlimited accepts no responsibility whatsoever to third parties to whom this report, or part thereof, is made known, unless formally agreed by bluesky unlimited beforehand. Any such party relies upon the report at their own risk.

Bluesky unlimited disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of services.

Contents

1.0	Executive Summary	4
2.0	Introduction	5
	2.1 Context	5
	2.2 Preamble	5
3.0	Assessment Methodology and Targets	6
	3.1 Methodology	6
	3.2 Targets	7
4.0	Proposal	8
	Environmental Considerations	9
5.0	Climate change	9
6.0	Place Making	10
7.0	Transport and Movement	11
8.0	Ecology and Landscaping	12
9.0	Resources	13
10.0	Buildings	14
11.0	Conclusion	15

1.0 Executive Summary

This Sustainability Assessment has been prepared in support of a planning application for a (retrospective) change of use from residential (C3) to a mixed use (sui generis) residential and childcare nursery for 15 FTE childcare spaces and erection of two no. log cabins for this purpose.

Policy CC2: Sustainable Design and Construction says;

Proposals for new development, including the construction of new buildings and the redevelopment and refurbishment of existing building stock, will be acceptable where the design of buildings and site layouts use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change.

The proposal is for the (retrospective) change of use of the site although there are no changes proposed to the residential dwelling on site. The application seeks consent for two cabins (referred to as Cabin 1 and Cabin 2).

The use of the BREEAM methodology would be very onerous and therefore, whilst it is not proposed to seek compliance with BREEAM this Assessment provides an alternative assessment and demonstrates how the proposal meets the requirements of Policy CC2.

The site is located in a sustainable location, close to existing facilities and infrastructure and the childcare nursery use meets local needs.

Throughout the design process, the applicant and design team members have given careful consideration to the sustainability issues relating to the site, and how these can be enhanced in a marketable and feasible manner. As a result, this Assessment demonstrates that the development meets relevant sustainability criteria and in a number of areas exceeds them.

The application is supported by various other specialist reports and this Statement uses the detail within those reports to inform the Sustainability Assessment.

2.0 Introduction

2.1 Context

2.1.1 Bluesky Unlimited has been commissioned by Donna DeFazio to prepare a Sustainability Assessment in support of a planning application for a (retrospective) change of use from residential (C3) to a mixed use (sui generis) residential and childcare nursery for 15 FTE childcare spaces and erection of two no. log cabins for this purpose.

2.1.2 This report provides an assessment demonstrating how the proposal meets the requirements of Policy CC2.

2.1.3 The objectives of the Sustainability Assessment are to;

- ❖ examine and comprehend the key sustainability themes and associated standards within the national and local planning policy and guidance;
- ❖ assess the performance of the development proposals in achieving the sustainability standards;
- ❖ identify any opportunities and appropriate actions required to ensure sustainability is delivered at the detailed design stage.

2.2 Preamble

2.2.1 Costs for sustainable initiatives and strategies are reducing through improvements in technology, design techniques and construction methods. Utility prices continue to rise and individuals and organisations are starting to value the more intangible benefits associated with 'sustainability'. A greater awareness is becoming apparent about the need for sustainable environments and building owners and occupiers are starting to demand these. A large part of designing sustainably is to do with addressing global warming through energy efficient design and using tools such as life-cycle assessments to maintain the balance between longevity and cost.

2.2.2 Sustainable development is a core principle throughout the development.

3.0 Assessment Methodology and Targets

3.1 Methodology

3.1.1 The methodology involves completing a detailed policy review of current and emerging national and local policy relating to sustainability to provide a specific policy context for the assessment.

3.1.2 Furthermore a review of good practice methods and techniques relating to sustainability has been made.

3.1.3 The key aspects of sustainability are addressed under the following headings and these form the structure of this assessment.

- ❖ Climate change
- ❖ Place making
- ❖ Transport
- ❖ Ecology
- ❖ Resources
- ❖ Business
- ❖ Buildings

3.1.4 The set of targets the site will achieve is set out in section 3.2 below. The subsequent sections propose strategies for meeting the targets and for the development to become an example of good practice, which delivers a sustainable building by addressing social, economic and environmental drivers.

3.2 Targets

Schedule of Sustainability Requirements

3.2.1 The following targets have been crafted to enable compliance with the Local planning policy.

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
7.0	Transport and Movement	
	There are a total of six parking spaces provided and the survey carried out confirms these provide sufficient capacity.	Whole site

Schedule of Sustainability Requirements		
	Description of Target	Target/ Scope
9.0	Resources	
	All materials within the cabins are A+, A or B rated according to The Green Guide to Specification.	Whole Site
	All timber for basic elements has been obtained from appropriately certified legal sources.	Whole Site
	Waste arising from site had been monitored and segregated into at least five waste streams for recycling throughout the construction period.	Whole Site

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
10.0	Buildings	
	Carbon dioxide emissions have been reduced through improved energy efficiency.	The building
	All windows contain 24mm double-glazed sealed units to improve thermal efficiency.	The building
	All internal lighting has been provided using dedicated low energy fittings.	The building

4.0 Proposal

4.1 Planning permission is sought for the retention of the following;

Unit Type	Floor Area GEA
	m ²
Cabin 1	24.5
Cabin 2	28.4
	52.9

Environmental Considerations

5.0 Climate Change

5.1 Flooding

- 5.1.1 Climate change projection predicts a decrease in annual rainfall in the South East of England by up to 10% with significantly wetter winters (between 15-20% more winter rain) and an increase in frequency of severe weather. Drier summers may lead to increased flash flooding when sudden storms cause rapid run off over dry ground. Recent research suggests the number of people at risk of localised urban flooding in England could increase fourfold due to climate change.
- 5.1.2 Sustainable drainage involves the provision of surface water drainage systems that slow down the run off rate to rivers/watercourses and aquifers, thus conserving water as a natural resource.
- 5.1.3 The site is not located within Flood Zones 2 or 3 and the flood risk is considered to be low. A Flood Risk Assessment was not required to support the application and has not been prepared.
- 5.1.4 Whilst there is a minor change to the impermeable area of the site the rainwater runoff will drain to the existing soft landscaping and does not increase the risk of localised flooding.

5.2 Surface Water Management

- 5.2.1 Consideration has been given to the use of grey water recycling. However, the internal infrastructure required would add considerable complexity to the construction. In addition, the cost of systems does not currently make them a viable option. They have therefore not been included in the proposed development.

6.0 Place Making

6.1 Efficient Use of Land

- 6.1.1 Building intensification, where appropriate, is a key objective of Government policy in order to meet the requirements for new buildings, whilst limiting pressure on green field sites. The use, design and layout of the site is appropriate to the location.

6.2 Design Process

- 6.2.1 High quality design is an integral element to sustainable development, both of internal and external spaces and some key elements, which have been considered within the detailed design of the accommodation have included the following:

- ❖ Resource efficiency;
- ❖ Safety;
- ❖ Adequate daylight;
- ❖ Flexible and functional use of accommodation;

6.3 Passive Solar Gain and Daylighting

- 6.3.1 The energy required for space heating and lighting can be reduced by using the orientation, form and fenestration to make the most use of passive solar gain.
- 6.3.2 The two cabins benefit from large window and glazed door openings which are orientated towards due south. These provide both cabins with excellent levels of natural daylighting and solar gain throughout the day.

6.4 Adaptability

- 6.4.1 Cabin 2 benefits from a single WC cubicle but otherwise the cabins are open plan and provide maximum flexibility for future uses should the need arise.

6.5 Safety and Security

- 6.5.1 The cabins are located within the rear private garden to the existing dwelling and provide a safe and secure environment for the intended use. Access can only be achieved via the front of the property directly from Whitley Wood Road.

7.0 Transport and Movement

The application site is located on Whitley Wood Road in south Reading and is close to local services, bus services and cycle routes.

7.1 Public Transport

7.1.1 The nearest bus stops to the application site are located approximately 120 metres to the south of the site, within Hartland Road, 375 metres to the north of the site and within St Michaels Road, 450 metres to the west of the site. Routes 5 and 9 serve the area providing services to Reading Town Centre, Whitley and Whitley Wood every 12 minutes and Reading Town Centre, Royal Berkshire Hospital, Whitley and Whitley Wood Green Park every 60 minutes respectively.

7.1.23 Reading railway station is located approximately 5.7km to the north of the site and is easily accessible by foot, cycle or bus and provides direct services to Didcot Parkway and London Paddington and the wider network.

7.2 Pedestrian and Cycle

7.2.1 Local to the application site, lit footways are provided along both sides of Whitley Wood Road.

7.2.2 The existing infrastructure links the application site to nearby residential areas, bus stops and to the town centre.

7.2.3 Cycle parking is provided in accordance with RBC's parking requirements and a cycle store has been constructed within the rear garden area.

7.3 Parking

7.3.1 The site has parking for six vehicles in a tandem arrangement. Whilst the staff are encouraged to use sustainable modes of transport to travel to the site, the three parking spaces closest to the building are allocated to staff use with the three in front for the use of parents dropping off children.

7.3.2 The parking survey carried out by Motion shows the nursery car park does not reach capacity for drop offs and the facility does not impact on the parking capacity within the carriageway.

8.0 Ecology and Landscaping

- 8.1.1 There is limited grass and planting associated with the proposal and no habitats are to be removed.
- 8.1.2 It is understood there has been no requirement for an ecology or biodiversity assessment although an assessment has been made of the trees impacted by the proposal. This concludes that the new structures have not caused any harm to the nearby trees.

9.0 Resources

9.1 Materials

9.1.1 The Green Guide to Specification is a simple guide for design professionals. The guide provides environmental impact, cost and replacement interval information for a wide range of commonly used building specifications over a notional 60-year building life. The construction had targeted the use of materials that are A+, A or B rated.

9.1.2 Preference had been given to the use of local materials & suppliers where viable to reduce the transport distances and to support the local economy although Cabin 2 has been supplied by Dunster House, who are based in Bedfordshire.

9.1.3 In addition, all timber used has been certified as FSC or PEFC.

9.2 Pollution

9.2.1 Any new insulation materials installed have a zero-ozone depleting potential.

9.3 Construction waste

9.3.1 Construction operations generate waste materials as a result of general handling losses and surpluses. These wastes have been reduced through appropriate selection of the construction method, good site management practices and spotting opportunities to avoid creating unnecessary waste.

9.3.2 The use of a modular system for the construction of the cabins has reduced waste considerably.

9.5 Waste and Recycling

9.5.1 Operational waste and recycling has been considered in the following way:

- ❖ External space is provided for storing recyclable materials, for collection by the Authority or private contractors, within the boundary of the site;
- ❖ The external space for recyclable material is of sufficient size to accord with Local Authority procedures;
- ❖ Internal storage for recyclables is provided.

10.0 Buildings

10.1 Energy use and CO₂ emissions statement

10.1.1 Introduction

- 10.1.1.1 The application seeks to retain the two cabins, which have been built and to retain the existing dwelling although no alterations have been proposed to the structure of the original house. The objective has been to reduce the energy demand to an economic minimum by making investment in the parts of the cabins that have the greatest impact on energy demand and are the most difficult and costly to change in the future, namely the building fabric.

10.1.2 Methodology

Passive solar gain and Daylighting

- 10.1.2.1 The dimensions and orientation of the windows and glazed doors (towards due south) provide the cabins with good levels of natural daylighting and solar gain.

Building Envelope

- 10.1.2.2 The external walls and roofs of the cabins have been insulated with a combination of Celotex PIR insulation and mineral wool insulation in appropriate areas. The ceilings to both cabins have also been finished with plasterboard.

- 10.1.2.3 The windows and glazed doors to the cabins are glazed with 24mm double glazed units.

Air Leakage

- 10.1.2.4 Large amounts of heat are lost in winter through air leakage from a building (also referred to as infiltration of air permeability) often through poor sealing of joints and openings in the building. The cabins achieve good standards of air tightness, which will improve energy efficiency and reduce emissions.

Ventilation

- 10.1.2.5 The windows to the cabins are openable and an intermittent mechanical extract fan is fitted to the WC in Cabin 2.

Lighting

- 10.1.2.6 Throughout the building natural lighting has been optimised and LED lighting has been used throughout.

10.2 Water use statement

- 10.2.1 In the South East of England, water demand exceeds the volume licensed for abstraction, with the shortfall being met from ground water. In excess of 20% of the UK's water is used domestically with over 50% of this used for flushing WCs and washing (source: Environment Agency). The majority of this comes from drinking quality standard or potable water.
- 10.2.2 The amount of potable water used within buildings can be reduced by using fixed fittings, which reduce water use in WC's and to taps and showers. Greywater harvesting systems are not proposed.
- 10.2.3 Water efficient devices have been fully evaluated, and installed. The specification of the WC and hand wash basin has been subject to an evaluation based on technical performance, cost and market appeal, together with compliance with the water use regulations.

11.0 Conclusion

- 11.1 This Assessment demonstrates that the proposed development has been provided in a sustainable manner in terms of its economic, social and environmental sustainability.
- 11.2 Throughout the design process, the applicant and design team have given careful consideration to the sustainability issues relating to the site, and how these can be enhanced in a marketable and feasible manner. As a result, this Assessment demonstrates that the accommodation meets relevant sustainability criteria.
- 11.3 The Assessment also describes the responsibilities that the applicant, designers and consultant and construction team have in delivering sustainability measures that have contributed to, meet and/or exceed the objectives and targets set out above.