Sensitive Lighting Strategy

Red House Museum, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JP

Kingscrown Land & Commercial Ltd.

Status	Issue	Name	Date
Draft	0.1	Amber Williams BSc (Hons), MSc, MPhil Consultant Ecologist	12/02/2026
Review	0.2	Elen Griffin BSc (Hons), MRSB, Senior Ecologist	13/02/2026
Final	1	Amber Williams BSc (Hons), MSc, MPhil Consultant Ecologist	15/02/2026

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Contents

1.0 Introduction

Arbtech Consulting Limited was instructed by Kingscrown Land Commercial Ltd. to produce a Sensitive Lighting Strategy for Red House Museum, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JP (hereafter referred to as "the site").

This report is prepared to inform a planning application with the Kirklees Council. The proposal is described as: *Change of use and alterations to museum, cart shed and barns to form 3 dwellings (Class C3) with associated landscaping and car parking (Listed Building within a Conservation Area).*

A plan showing the proposed development is provided in Appendix 1.

This plan has been informed by Bat Report (Whitcher Wildlife Ltd., 2025) and Arboricultural Impact Assessment to BS 5837:2012 (JCA Ltd., 2025).

2.0 Site Context and Survey Information

2.1 Site Location and Landscape Context

The survey site is centred on National Grid Reference SE 20758 26236 and has an area of approximately 0.5ha. The site is located in the town of Gomersal, with the main Oxford Road to the east with woodland and some open fields beyond and residential areas to the north, west and south with pockets of green space and tree lines throughout. The site comprises four buildings, woodland, grassland, scrub and associated hardstanding. The surrounding landscape is predominantly residential dwellings with associated vegetated gardens. The wider landscape comprises of woodland parcels connecting to hedge and tree lined agricultural fields. The on site woodland connects the site to more extensive areas of woodland offsite to the east. These features likely enhance the site for foraging and commuting bats by providing a linear landscape feature to aid in dispersal.

2.2 Ecological Information

This plan has been informed by Bat Report (Whitcher Wildlife Ltd., 2025). There are four buildings on site (B1-4).

B1 – Low habitat value for roosting bats.

B2 – Low habitat value for roosting bats.

B3 – Negligible habitat value for roosting bats.

B4- Moderate habitat value for roosting bats.

B1-2 were subjected to one bat emergence and re-entry surveys during the optimal survey season 2025. B4 was subjected to two bat emergence and re-entry surveys during the optimal survey season 2025.

No bats were observed emerging or re-entering any building during the surveys.

During the surveys low but consistent activity from foraging and commuting bats was observed above the car park, gardens around the buildings and within the wooded areas. Key flight paths include from the woodland to the west across the site to the east, and from the north to forage above the car park (north of B1-2). Common pipistrelles were most frequently observed, in addition to occasional *Nyctalus sp.* and one account of a single *Myotis sp.*

3.0 Sensitive Lighting Strategy

Key Features and Areas that are Sensitive for Bats

- The buildings present on site have not been found to host roosting bats and therefore the proposed works to onsite buildings are not likely to disturb bats.
- The proposed works have been recommended to include 2no.bat boxes and these will be a sensitive area for bats.
- Trees to the east of B3- referenced T22, T27, G29, T35 within the Arboricultural Implications Assessment (JCA Ltd., 2025) are proposed to be felled due to facilitate works. However, the site is notedly densely planted with trees and vegetation providing value for commuting and foraging bats. Aside form aforementioned trees, all other trees will be retained. Retained trees and vegetation represent sensitive areas for bats.
- In summary, the whole of this small site offers value for bats in the form of commuting and foraging opportunities, and therefore lighting must be controlled across the whole of the developed site.

External Lighting

All external lighting will be installed in accordance with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: *Guidance Note 08/23: Bats and Artificial lighting at Night* (BCT & ILP 2023). External lighting will be installed in a way as to limit artificial light spill over habitats of value to protected and/ or notable species potentially using the site. External lighting installation will avoid excessive light spill over:

- Retained habitats of elevated value including retained trees and scrub.
- The roof spaces of retained buildings.
- The grassland areas.
- The car park to north of site (outside of the rlb).
- Any newly installed species-specific habitat prescriptions i.e bat boxes (suggested locations found in Appendix X & X).

The following lighting design prescriptions are considered suitable for the type and scale of the proposed development to minimise the impacts of artificial lighting on site on bats and other protected/ notable species. External lighting will be installed in accordance with the below design prescriptions:

- **Reducing the operating time of lighting and levels of illuminance provided via:**
  Preventing the use of motion sensors where possible to allow lights to be turned off permanently whilst not in use.
  Where the use of motion sensors is desirable, light sensors should be set to lighting periods of no longer that 30 seconds to prevent unnecessary light spill.
- **Avoiding light spill via:**
  The use of directional lighting by using luminaires with rear shields and an upwards lighting ratio of zero.
- **Light type:**
  Use of lamps that minimise UV emissions or use UV filters to reduce the attractiveness of the lamp to invertebrates as not to attract invertebrates away from bat foraging habitat.
  Use high-pressure sodium or LED lamps, ideally warm white as this has a low relative attractiveness of invertebrates.
  Installing lighting systems that deliver no greater than a 3lux average illuminance, with a maximum horizontal illuminance of 0.6 uniformity (subject to appropriate maintenance factors).

Internal Lighting

Impacts of artificial light spill through windows will be mitigated by fitting internal lighting fixtures in line with recommendations within Guidance Note 08/23 (BCT & ILP 2023). Specifically, in order to limit light spill through windows, internal lighting will be recessed into the ceiling and set back a minimum of 1m from all windows as to limit horizontal light spill. A schematic representation of the effect of these lighting prescriptions is provided on **Figure 1** below.

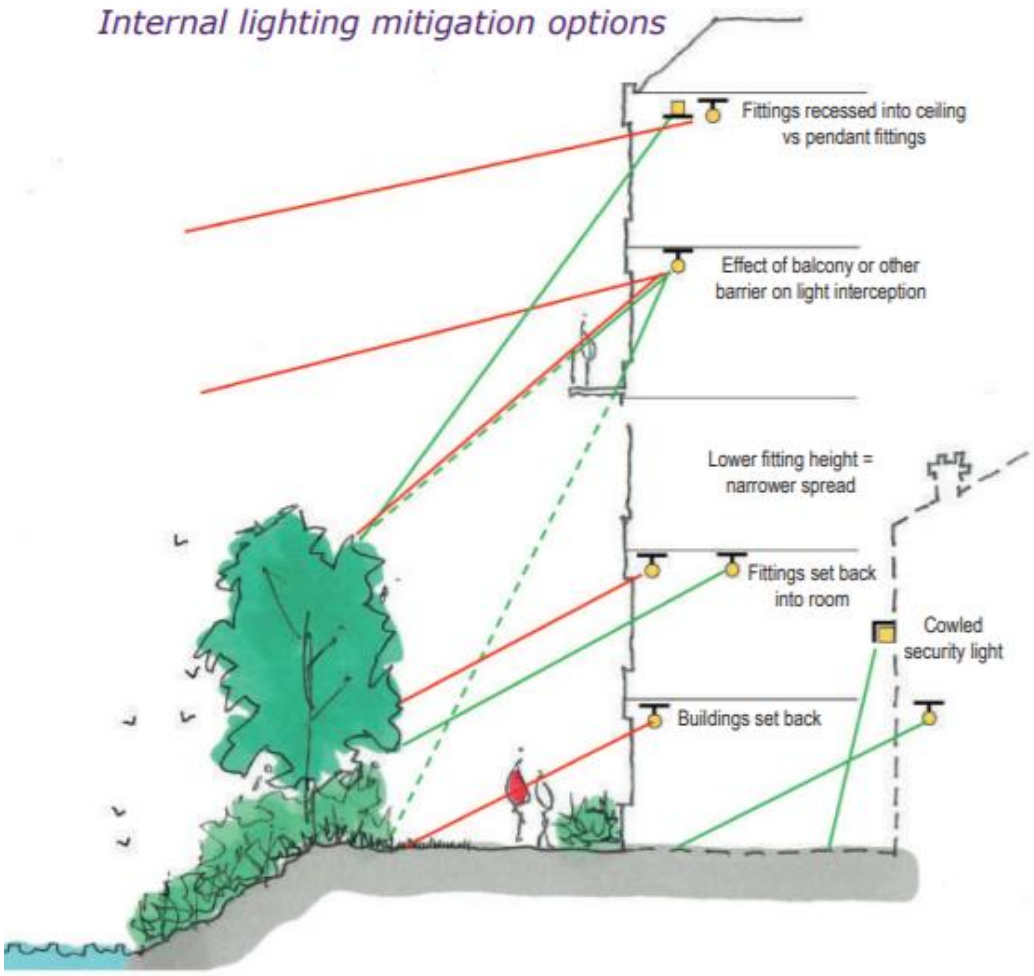
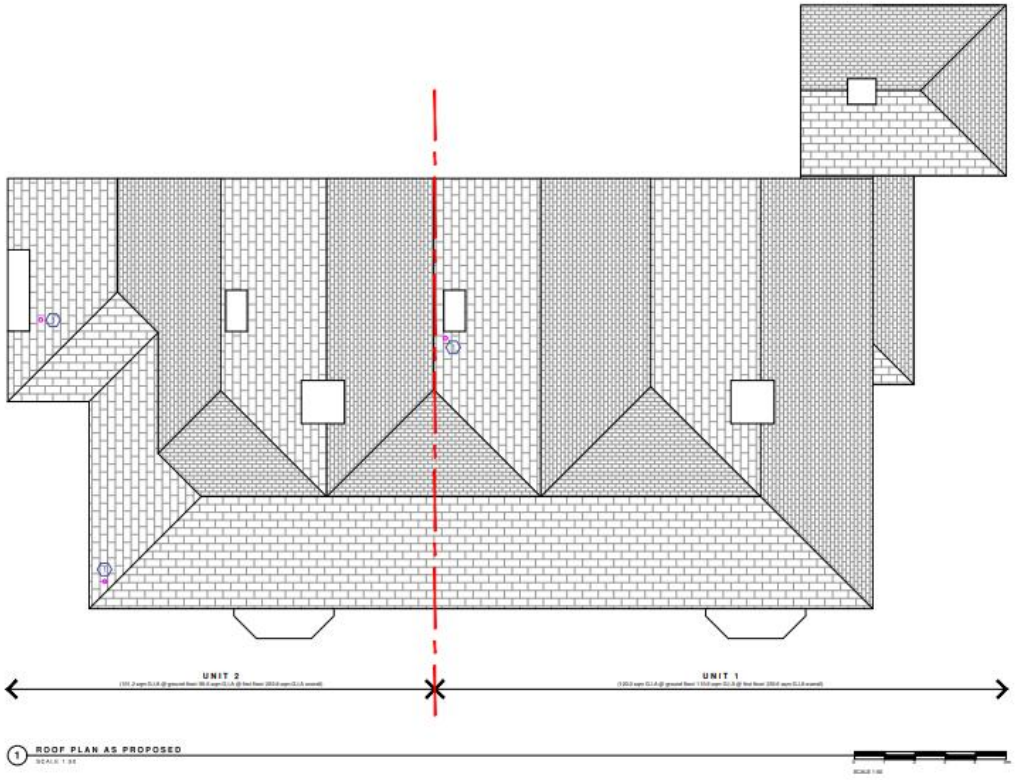


Figure 1: Internal Lighting mitigation options. Image taken from Guidance Note 08/23 (BCT & ILP 2023).

Appendix 1: Proposed Development Plan

Site overview

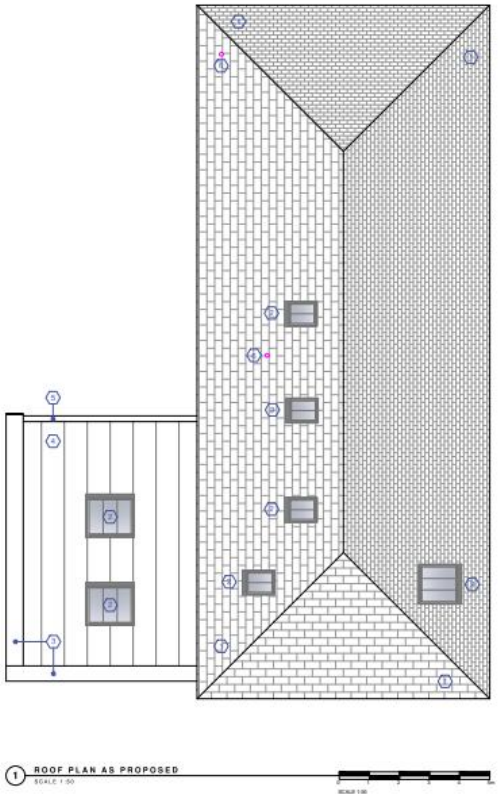
B2


UNIT 2
UNIT 1
1 ROOF PLAN AS PROPOSED


KEY/SCHEDULE OF WORKS


NORTHLIGHT
BP Land Ltd
Red House,
261 Oxford Road, Gomersal,
Cleckheaton, BD19 4JP
Red House
Roof Plan as Proposed
PLANNING APPLICATION
1:50
CG
feb '25
24.034/ (AL)12
A

B3



1 ROOF PLAN AS PROPOSED

SCALE 1:50

KEY/SCHEDULE OF WORKS

NEW WALL LINING

EXISTING WALL/FEATURE TO BE DEMOLISHED

NORTHLIGHT

BP Land Ltd

Red House,
281 Oxford Road, Gomersal,
Cleckheaton, BD19 4JP

Barn
Roof Plan as Proposed

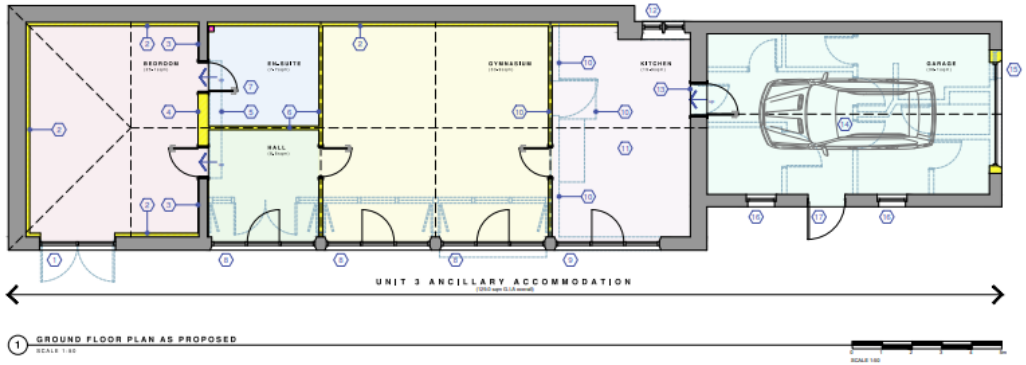
PLANNING APPLICATION

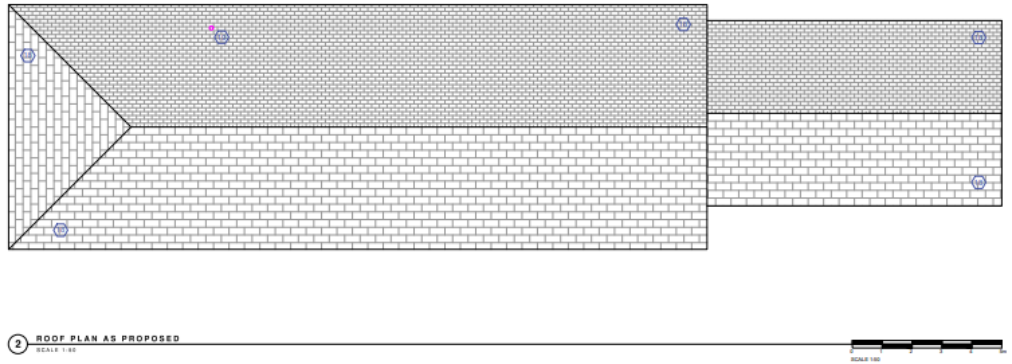
1:50 CG

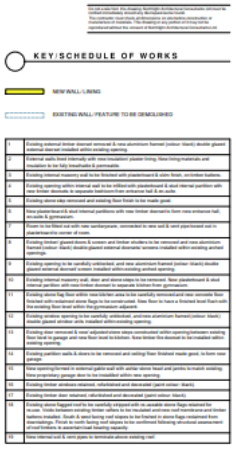
Feb '25 -

24.034/ (AL)31 B

B4


BEDROOM
ENSUITE
HALL
GYMNASIUM
KITCHEN
GARAGE
UNIT 3 ANCILLARY ACCOMMODATION
1 GROUND FLOOR PLAN AS PROPOSED
SCALE 1:50


2 ROOF PLAN AS PROPOSED
SCALE 1:50


KEY/SCHEDULE OF WORKS
NEW WALL LINING
EXISTING WALL/FEATURE TO BE DEMOLISHED


NORTHLIGHT
BP Land Ltd
Red House,
281 Oxford Road, Gomersal,
Cleckheaton, BD19 4JP
Coach House
Ground Floor & Roof Plan as Proposed
PLANNING APPLICATION
1:50
CG
Feb '25
-
24.034/ (AL)20
B

Appendix 2: Site Location Plan

Appendix 3: Wildlife Sensitive Areas and Proposed Bat Box Locations

Proposed bat box location on B2