







Preliminary Bat Roost Assessment & Nesting Bird Survey Report

Quay Street, Tewkesbury,
Gloucestershire, GL20 5BE

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Quality Assurance

	Name	Position	Date	Signature
Surveyor and Survey Date	Joseph Wilkie	Ecologist	24/04/2023	
Authored	Joseph Wilkie	Ecologist	02/05/2023	
Reviewed	Rachel Barber BSc, MSc, MCIEEM	Director/ Senior Ecologist	03/05/2023	
Approved	Rachel Barber	Director/ Senior Ecologist	11/05/2023	

Document History

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1	11/05/2023	Issued to the client.

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The evidence in this document is based upon the field survey(s) detailed. Due to the changing nature of ecology the list of species present cannot be considered comprehensive and Smart Ecology cannot guarantee that other protected/notable species and habitats are not present.

The ecology of a site is constantly changing and therefore the information provided in this document is only relevant at the time of survey. **If it has been over 12 months since this survey was undertaken advice should be sought on whether an updated survey is necessary.**

The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Non-Technical Summary

Purpose of Report	<p>Smart Ecology was commissioned by Corbally Group (Tewkesbury) Ltd. to undertake a preliminary bat roost assessment and nesting bird survey of three buildings at Quay Street, Tewkesbury, Gloucestershire, GL20 5BE.</p> <p>This was to inform a planning application to Tewkesbury Borough Council. It is proposed to convert the buildings to residential accommodation, which would involve the following:</p> <p>Building B1</p> <ul style="list-style-type: none"> • Demolition of the existing eastern two-storey section. • Erection of new extensions on the eastern and northern elevations of the retained section. • Remodelling and re-roofing of the retained building. <p>Building B2</p> <ul style="list-style-type: none"> • Erection of a second storey. • Remodelling and re-roofing. <p>Building B3</p> <ul style="list-style-type: none"> • Demolition of the existing flat roof southern section. • Erection of four-storey extension on the southern elevation of the retained section. • Remodelling and re-roofing of the retained building.
Methodology	<p>A desk study was undertaken, and a daytime external and internal inspection of the buildings was carried out to look for evidence of, and potential for, roosting bats and nesting birds.</p>

Species	Suitability Assessment	Survey & Mitigation Requirements	Timing
Building B1			
Bats	High (active period)	Emergence/re-entry surveys - Three surveys to determine the presence or likely absence of roosting bats in the building. If roosting bats are found to be present then one or more additional surveys may be required to fully characterise the roost(s). Five surveyors will be required to view all elevations and potential roost features.	May to September inclusive, at least two between May and August inclusive.
	Low (hibernation period)	Hibernation - Any necessary mitigation must be determined after emergence/re-entry survey(s) have been carried out.	N/A



Species	Suitability Assessment	Survey & Mitigation Requirements	Timing
Birds	Potential	Mitigation - Undertake works to the building outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).
Building B2			
Bats	Negligible	No further surveys are required. It is recommended that careful working methods are implemented by contractors during works, details of which are provided in Appendix 3.	N/A
Birds	Potential	Mitigation - Undertake works to the building outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).
Building B3			
Bats	Confirmed (active period)	Emergence/re-entry surveys - An appropriate number of surveys are required to characterise the confirmed bat roost present within the building. Two or three surveys are usually sufficient. Four surveyors will be required to view all elevations and potential roost features. It is recommended that droppings collected are sent for DNA analysis to confirm the species.	May to September inclusive, at least two between May and August inclusive.
Birds	Potential	Mitigation - Undertake works outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).



Conclusions

The proposed works to building B1 could impact roosting bats. Therefore, further surveys of the building are required to determine the presence or absence of roosting bats.

It is considered that the proposed development of building B2 would have no impacts on roosting bats.

Building B3 is a confirmed bat roost and so further surveys are required to characterise this confirmed roost.

Mitigation is required to avoid potential impacts on nesting birds in all buildings.



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1 Introduction

1.1 Background

1.1.1 Smart Ecology was commissioned by Corbally Group (Tewkesbury) Ltd. to undertake a preliminary bat roost assessment and nesting bird survey of three buildings at Quay Street, Tewkesbury, Gloucestershire, GL20 5BE (central grid reference SO 8929 3299). Refer to Figure 1, Section 8 for a location map.

1.1.2 This was to inform a planning application to Tewkesbury Borough Council. It is proposed to convert the buildings to residential accommodation this would involve the following:

Building B1

- Demolition of the existing eastern two-storey section.
- Erection of new extensions on the eastern and northern elevations of the retained section.
- Remodelling and re-roofing of the retained building.

Building B2

- Erection of a second storey.
- Remodelling and re-roofing.

Building B3

- Demolition of the existing flat roof southern section.
- Erection of four-storey extension on the southern elevation of the retained section.
- Remodelling and re-roofing of the retained building.

1.1.3 Refer to Appendix 1 for the existing and proposed plans.

1.1.4 The survey comprised a daytime external and internal inspection of the buildings to look for evidence of, and potential for, roosting bats and nesting birds.

1.1.5 This report has been prepared by Joseph Wilkie, an ecologist at Smart Ecology and a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), with reference to the Bat Conservation Trust's (BCT) good practice guidelines (Collins, 2016), CIEEM's Guidelines for Ecological Report Writing (CIEEM, 2017), and BS42020 Biodiversity – a code of practice for planning and development (BSI, 2013).

1.2 Aims

1.2.1 The purpose of the survey and report was to:

- Check the buildings for evidence of roosting bats and nesting birds.
- Describe and assess the suitability of the buildings for roosting bats and nesting birds.
- Assess the impact of the proposed development on bats and nesting birds.
- Provide details of any required further surveys and/or mitigation.
- Provide recommendations for biodiversity enhancements.



1.3 Site Context

- 1.3.1 The three surveyed buildings are situated in the western fringe of the town of Tewkesbury. Urban development bounds the area to the north, east and south, with the River Avon adjacent to the west with floodplain grazing marsh and pasture fields beyond. Further areas of floodplain grazing marsh are present in the wider landscape with scattered areas of broadleaved woodland (including ancient woodland), wood pasture and parkland and traditional orchard set amongst arable and pasture farmland bounded by hedgerows and tree lines. The River Severn, as well as several tributaries and large waterbodies, are also present in the local area.



2 Methodology

2.1 Desk Study

2.1.1 The Multi-Agency Geographic Information Centre (MAGIC)¹ website was consulted for existing information on:

- Statutory designated sites designated for bats within 6 km of the surveyed building².
- Granted bat European Protected Species (EPS) mitigation licences within 2 km of the surveyed building.
- Habitats within 6 km of the surveyed building³.

2.1.2 A data search was not obtained from the Local Records Centre as it was considered that this would not provide any significant additional information to inform the assessment.

2.1.3 The search areas are considered sufficient to take into account ecological receptors which could potentially be impacted by the proposed development.

2.2 Field Survey

Personnel

2.2.1 The survey was carried out by Joseph Wilkie; see Table 2-1 for details of the surveyor's experience and qualifications. All work was undertaken with reference to BCT's good practice guidelines (Collins, 2016).

Table 2-1: Surveyor information

Surveyor	Natural England Bat Survey Licence	Experience
Joseph Wilkie BSc, Qualifying member of CIEEM	Level 1 (2021-54618)	Four years' experience in ecological consultancy. BSc Environmental Resource Management (Plymouth University – 1 st).

Habitat Assessment

2.2.2 Habitats on and in the vicinity of the surveyed building were assessed for their suitability for commuting and foraging bats.

2.2.3 Taking into account information regarding habitats within 6 km of the surveyed building obtained during the desk study, an assessment of habitat suitability was then made with reference to the BCT good practice guidelines (Collins, 2016); see Table 2-2 for the assessment criteria.

¹ <http://magic.defra.gov.uk> (accessed April 2023).

² 6 km is the largest known bat Core Sustainance Zone (CSZ) (Collins, 2016).

³ To inform an assessment of the suitability of habitats for commuting and foraging bats.



Table 2-2: Habitat suitability assessment criteria

Suitability	Description
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

Building Survey

2.2.4 The survey was undertaken on the 24th of April 2023. Refer to Table 2-3 for details of weather conditions during the survey.

Table 2-3: Survey weather conditions

Variable	Weather Conditions
Cloud cover	100 %
Temperature	7°C
Wind	Light breeze (BWS 2)
Precipitation	Rain

2.2.5 The buildings were surveyed for evidence of, and potential for, roosting bats following the methodology outlined in the BCT good practice guidelines (Collins, 2016). A detailed external and internal inspection of the buildings was undertaken using a high-powered torch (Clulite 1 million candle power), close focusing (8.5 x 21) binoculars, and an endoscope. Possible entry/exit locations for bats, potential roost sites, and the presence of or evidence of bats (e.g. carcasses, droppings, urine, grease marks, feeding remains, squeaking etc.) were noted. Samples of any bat droppings present were taken following good practice guidance protocol for the collection of bat droppings for DNA analysis (Collins, 2016).

2.2.6 An assessment was made of the suitability of the buildings for roosting bats during the bat active period (i.e. March to October) with reference to the BCT good practice guidelines (Collins, 2016); see Table 2-4 for the assessment criteria.



Table 2-4: Bat roost suitability assessment criteria and required surveys

Suitability	Description	Number of Surveys Required ²
Negligible	Negligible suitability for roosting bats.	None
Low	1 + potential roost sites that may be used by individual bats opportunistically. However, these potential roost sites do not provide suitable conditions ¹ or have suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.	One
Moderate	1 + potential roost sites with suitable conditions ¹ and surrounding habitat but unlikely to support high conservation status roosts.	Two
High	1 + potential roost sites with good conditions ¹ and surrounding habitat, that are obviously suitable for use by large number of bats regularly.	Three
Confirmed bat roost	1 + roost sites.	Two (minimum)

¹ Conditions include size, protection, shelter, temperature, humidity, height above ground, light levels and disturbance levels.

² Recommended number of emergence/re-entry surveys required by the BCT good practice guidelines (Colins, 2016) to provide confidence that bats are absent from the building/structure, or to characterise confirmed roosts.

2.2.7 During the survey, the interior and exterior of the buildings were also checked for evidence of birds (e.g. droppings, feathers, nesting material etc.), and features with potential for use by nesting birds.

Hibernation Assessment

2.2.8 An assessment of the suitability of the buildings for hibernating bats was undertaken, which considered the following aspects (Middleton, 2019):

- Presence and suitability of potential roost features.
- Likely temperature and humidity conditions during the hibernation period (i.e. between November and February).
- The suitability of habitat in the local landscape for bats.
- Presence of known roosts within, or close to, the structure/building.

2.2.9 Refer to Table 2-5 for the assessment criteria and suitability.



Table 2-5: Hibernation assessment criteria (adapted from Middleton, 2019)

Suitability	Description
Negligible	Negligible suitability for roosting bats.
Low	Limited number of external features, many features shallow (e.g. less than 10 cm deep). The features would not typically be regarded as providing the protection from weather or favourable temperature and humidity conditions required during the winter period. OR External and/or internal features present which offer full protection from the weather, however the surrounding habitat offers negligible/low suitability for bats. OR No roosts exist in the structure or nearby over the active period.
Moderate	External and/or internal features present which larger numbers of bats could occupy. The features offer full protection from the weather and there is potential for suitable temperature and humidity conditions. The site is well connected to moderate or high suitability habitat.
High	External and/or internal features present which offer a 'classic' hibernation setting (e.g. stable temperature, humid conditions, underground site). The site is well connected to moderate or high suitability habitat.

2.3 Limitations

- 2.3.1 Bat droppings may not be found during surveys as these often remain in inaccessible locations such as under tiles, between tiles and felt, or within crevices and cavities. However, it was still possible to note whether there were any suitable features which could be used by roosting bats.
- 2.3.2 The floors of all three buildings were covered by debris and/or pigeon droppings, which could have obscured bat droppings and/or feeding remains. However, it is considered that any accumulations of droppings and/or feeding remains would have been apparent, and therefore this is not considered to be significant limitation to determining the presence or likely absence of roosting bats and bat droppings were found.
- 2.3.3 The roof space over the three-storey section of building B1 was not entered due to safety concerns. The space was viewed from the top of the hatch and assessed for its potential for roosting bats, this is not considered to be a significant limitation provided the recommended surveys are completed.
- 2.3.4 Parts of the eastern and northern elevations and the roof of building B3 were not fully visible from the road, this is not considered to be a significant limitation provided the recommended surveys are completed.
- 2.3.5 Several rooms within building B3 were not entered due to structural safety concerns. These areas were viewed from a safe distance. Flooding was also present within sections of the building which may have removed potential droppings and/or feeding remains (if present). This is not considered to be a significant limitation provided the recommended surveys are completed.



2.3.6 Bird nests are often hidden away in areas that are not viewable. However, it was still possible to identify any visible evidence of old nests and features with potential for use by nesting birds.



3 Results

3.1 Desk Study

Statutory Designated Sites

- 3.1.1 No statutory designated sites which include bats as a reason for their designation are located within 6 km of the surveyed buildings.

EPS Mitigation Licences

- 3.1.2 One EPS bat mitigation licence has been granted within 2 km of the surveyed buildings; refer to Table 3-1 for details.

Table 3-1: Granted bat EPS mitigation licences within 2 km

Case Reference	Approximate Distance from Site (km)	Species Affected	Start Date	End Date	Impact Allowed
2020-46984-EPS-MIT	815	Soprano pipistrelle	01/09/2020	30/09/2025	Destruction of a breeding site and resting place

Habitat Assessment

- 3.1.3 With reference to Collins (2016), it is assessed that habitats within the local landscape have **high suitability** for foraging and commuting bats; see Table 3-2 for details of the assessment. The presence of highly suitable habitats in the local landscape indicates a high likelihood that bats may roost in buildings close to these habitats where suitable roosting opportunities are available.

Table 3-2: Habitat assessment

Habitat and Environmental Context	Suitability Descriptions ¹		Comment	Suitability ¹
General location	H	Rural	Urban fringe.	M
	M	Suburban/intensive farmland		
	L	Dense urban		
Foraging opportunities (within 50 m)	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	Urban and industrial development. River Avon with several riverside trees.	M
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		



Habitat and Environmental Context	Suitability Descriptions ¹		Comment	Suitability ¹
Foraging opportunities within 2 km	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	Tree lined sections of River Avon and River Severn with large areas of floodplain grazing marsh. Arable and pasture farmland with scattered wood pasture and parkland, broadleaved woodland and traditional orchard priority habitats also present.	H
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		
Foraging opportunities within 2 - 6 km	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	More extensive areas of floodplain grazing marsh along the banks of the Rivers Avon and Severn. Further woodland including ancient woodland, and areas of lowland meadow.	H
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		
Commuting opportunities	H	Continuous, high quality, well connected habitat (e.g. river valleys, hedgerows, tree lines, woodland edge)	Continuous connectivity to foraging habitat via Rivers Avon and Severn as well as field hedgerows/tree lines.	H
	M	Continuous connected habitat (e.g. tree lines, linked back gardens)		
	L	Isolated habitats (e.g. gappy hedgerow, unvegetated stream)		
Overall Assessment Result			Features in the local landscape are assessed to have high suitability for foraging and commuting bats.	HIGH

¹ H = High; M = Moderate; L = Low

3.2 Field Survey

3.2.1 Refer to Tables 3-3 to 3-5 for the results of the building survey.



Table 3-3: Building survey results (B1)

General Photographs



Southern elevation



Northern and western elevations



Northern elevation



Western elevation eastern part



Interior



Interior



Interior

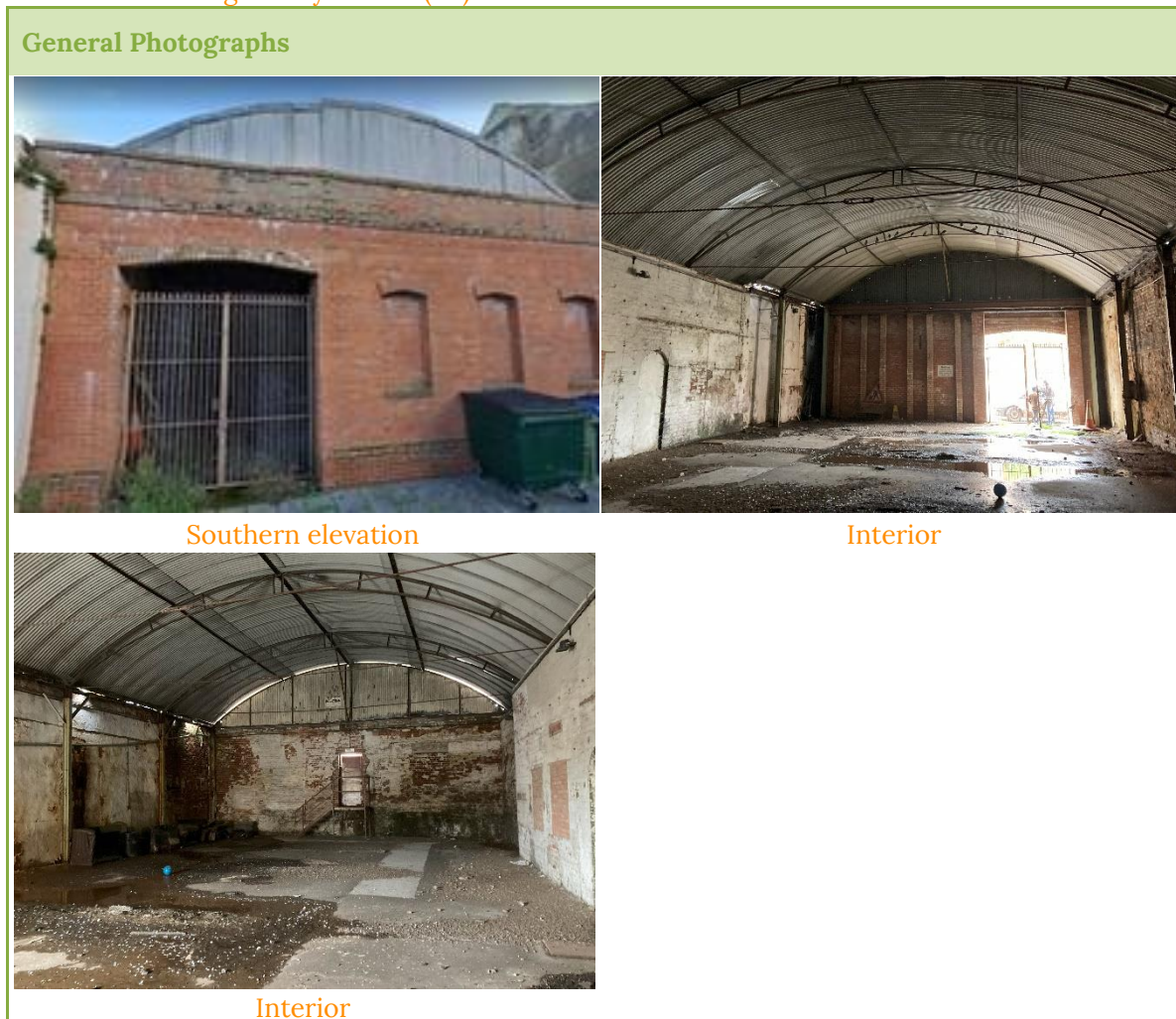
Roof space over two-storey section

General Description	Building description	Derelict three-storey building with later two-storey addition in the eastern part.
	Current use	Derelict.
	Number of storeys	Three-storey and two-storey sections.
	Age	Unknown.
External Description	Elevation construction	Brickwork, part rendered.
	Roof type	Double pitched.
	Roof material	Flat clay tiles.
	Roof ridge orientation	Approximately north to south and east to west.
	Bargeboards/fascias/soffits	Wood soffit and fascia.
	Windows/doors	Wood framed. Dormers on three-storey section.
	Lead flashing	Connecting roof of two-storey section to eastern gable of three storey part. Lead roof section in south-west corner.
Artificial lighting	None.	
External Potential Bat Roost Features (See Appendix 2 for photographs)	<ul style="list-style-type: none"> • Gaps between tiles on all roof slopes (P1). • Gap into soffit box on northern elevation of two-storey section (P2). 	
External Features for Birds (See Appendix 2 for photographs)	<ul style="list-style-type: none"> • Gaps between tiles on all roof slopes (P1). • Gap into soffit box on northern elevation of two-storey section (P2). 	
Internal Description	Number of roof spaces	Two roof spaces: Inaccessible space over three-storey section (see Limitations, Section 2.3). 'L' shape space over two-storey section.

	Roof space dimensions	Three-storey section roof space approximately 1.5 m high, 4.5 m wide and 8.5 m long. Two-storey section roof space, larger section approximately 2.5 m high, 5 m wide and 10 m long, smaller section 2.5 m high.
	Presence and extent of cobwebs	Dense cobweb in roof spaces hanging from roof support timbers.
	Roof construction	Rafter, truss and ridge beams.
	Roof lining	Bitumen felt.
	Elevation construction	Brick and plaster.
	Natural light levels	None.
	Exposure to weather	None.
	Level of disturbance	Low disturbance in roof spaces and building interior.
	Flight space	Uncluttered throughout.
	Artificial lighting	None working.
Internal Potential Bat Roost Features (See Appendix 2 for photographs)		<ul style="list-style-type: none"> • Gaps in brickwork into open wall cavity (P3). • Gap between roof support timbers and gable wall in two-storey roof space (P4). • Roof support timbers.
Potential Access Points to Interior (See Appendix 2 for photographs)		<ul style="list-style-type: none"> • Interior fully accessible: • Many broken windows. • Hole in soffit (P2) into roof spaces. • No loft hatches or interior doors.
Internal Features for Birds		<ul style="list-style-type: none"> • Entire building interior and all roof spaces colonised by pigeons.
Evidence of Bats		<ul style="list-style-type: none"> • None.
Evidence of Birds		<ul style="list-style-type: none"> • Hundreds of pigeons present at time of survey. • Numerous nests, eggs and dead birds. • Layers of droppings throughout entire building on all surfaces.



Table 3-4: Building survey results (B2)



General Description	Building description	Empty former storage building.
	Current use	Derelict.
	Number of storeys	One.
	Age	Unknown.
External Description	Elevation construction	Brickwork.
	Roof type	Curved.
	Roof material	Corrugated metal sheets.
	Roof ridge orientation	Approximately north to south.
	Bargeboards/fascias/soffits	None.
	Windows/doors	Metal door frame, no windows.
	Lead flashing	None.
Artificial lighting	None.	
External Potential Bat Roost Features	<ul style="list-style-type: none"> • None. 	

External Features for Birds	<ul style="list-style-type: none"> None. 	
Internal Description	Number of roof spaces	None. Open to roof.
	Building dimensions	Approximately 6 m high, 20 m long and 11 m wide.
	Presence and extent of cobwebs	None.
	Roof construction	Steel frame.
	Roof lining	None.
	Elevation construction	Brick.
	Natural light levels	Relatively light.
	Exposure to weather	Many holes in roof.
	Level of disturbance	Low disturbance.
	Flight space	Open.
Artificial lighting	None.	
Internal Potential Bat Roost Features	<ul style="list-style-type: none"> None noted. 	
Potential Access Points to Interior	<ul style="list-style-type: none"> Gaps around and between wire fence on southern elevation. Gaps in roof. 	
Internal Features for Birds	<ul style="list-style-type: none"> Steel frame. 	
Evidence of Bats	<ul style="list-style-type: none"> None. 	
Evidence of Birds	<ul style="list-style-type: none"> Pigeons present at time of survey. 	

Table 3-5: Building survey results (B3)





Eastern elevation



Interior



Interior



Interior



Interior



Interior

General Description	Building description	Derelict former brewery.
	Current use	Derelict.
	Number of storeys	Three and four-storeys.
	Age	Unknown.
External Description	Elevation construction	Brickwork.
	Roof type	Double pitched and flat roof.

	Roof material	Flat clay tiles (double pitched section). Unknown (flat section, see Limitations, Section 2.3).
	Roof ridge orientation	Double pitched section approximately east to west.
	Bargeboards/fascias/soffits	None.
	Windows/doors	Wood and metal frames.
	Lead flashing	None noted.
	Artificial lighting	None.
External Potential Bat Roost Features	<ul style="list-style-type: none"> None. 	
External Features for Birds	<ul style="list-style-type: none"> None noted. 	
Internal Description	Number of roof spaces	None. Open to roof.
	Building dimensions	Approximately 20.5 m long and 10.5 m wide.
	Presence and extent of cobwebs	Light cover throughout interior.
	Roof construction	Rafter, purlin and truss.
	Roof lining	Timber sarking.
	Elevation construction	Brick and plaster.
	Natural light levels	Relatively light, darker sections in northern part.
	Exposure to weather	Relatively sheltered. Many holes in roof in northern flat roof section.
	Level of disturbance	Low disturbance.
	Flight space	Open.
Artificial lighting	None.	
Internal Potential Bat Roost Features	<ul style="list-style-type: none"> Gaps into suspended ceiling cavity (P5). Roof and ceiling support timbers throughout. 	
Potential Access Points to Interior	<ul style="list-style-type: none"> Entire interior open: Many broken/open windows. Holes in roof in northern part. 	
Internal Features for Birds	<ul style="list-style-type: none"> Roof and ceiling support timbers. 	
Evidence of Bats (See Appendix 2 for photographs)	<ul style="list-style-type: none"> Approximately 100 scattered droppings within northern third-storey room (P6). 	
Evidence of Birds	<ul style="list-style-type: none"> Pigeons present at time of survey. 	



4 Evaluation

4.1 Bats

Suitability Assessment

Building B1

- 4.1.1 The building was assessed to have **high suitability** for roosting bats during the active season with potential roost sites (e.g. under tiles, within roof spaces) with good conditions and high suitability surrounding habitat, that are obviously suitable for use by large numbers of bats regularly.
- 4.1.2 The building was assessed to have **low suitability for hibernation**, with a relatively small number of features present with potential for use by species which can hibernate in more exposed conditions (including gaps between roof tiles), but which are not considered likely to provide the protection from weather or favourable temperature and humidity conditions during the winter period which would be found in a classic hibernation site.

Building B2

- 4.1.3 No evidence of, or potential for, roosting bats was identified either on the exterior or within the interior of the surveyed building, and the building is assessed to have **negligible suitability** for roosting bats.

Building B3

- 4.1.4 A **confirmed bat roost** was present within the building. The roost site is likely to be on exposed ceiling support timbers. Other features were also present throughout the building with high suitability for roosting bats.
- 4.1.5 The building was assessed to have **low suitability for hibernation**, with a relatively small number of features present with potential for use by species which can hibernate in more exposed conditions (including roof and ceiling support timbers), but which are not considered likely to provide the protection from weather or favourable temperature and humidity conditions during the winter period which would be found in a classic hibernation site.

Legislation and Planning Policy

- 4.1.6 All bat species and their roosts are protected by the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended); see Table 4-1.

Table 4-1: Legal implications of legislation with regard to bats

Legislation	Legal Implications
Conservation of Habitats and Species Regulations 2017 (as amended)	It is illegal to: <ul style="list-style-type: none">• Deliberately capture, injure or kill bats.• Deliberately disturb¹ bats.• Damage or destroy a breeding site or resting place².



Legislation	Legal Implications
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(4) b and c and 9(5) only	It is illegal to: <ul style="list-style-type: none"> Intentionally or recklessly disturb bats while they are occupying a structure or place of shelter or protection². Intentionally or recklessly obstruct access to a structure or place of shelter or protection².

¹ Disturbance under the Conservation of Habitats and Species Regulations 2017 (as amended) is defined as impairing the ability of an animal to survive, breed, reproduce, rear or nurture their young, hibernate or migrate, or to significantly affect the local distribution or abundance of the species.

² Bat roosts are any structure or place used for breeding, shelter or protection and are protected even when bats are not present.

4.1.7 A EPS licence is required if works affect bats or their roosts. EPS licences are issued by Natural England only after the following three tests have been satisfied:

- The proposed works must be for the purpose of preserving public health or safety or other imperative reasons of overriding public interest.
- There is no satisfactory alternative to the proposed works.
- The proposed works will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

4.1.8 The presence of bats is a material consideration in the planning process and local planning authorities will refuse planning permission where a EPS licence is unlikely to be granted and a criminal offence relating to bats is likely to result from a development.

4.1.9 Additionally, barbastelle, Bechstein's bat, brown long-eared, greater horseshoe bat, lesser horseshoe bat, noctule, and soprano pipistrelle bats are designated as species of principal importance (priority species) under the Natural Environment and Rural Communities Act 2006. Section 40 of this Act places a duty on local planning authorities to 'have regard' to conserving these species when determining planning applications.

4.1.10 Paragraph 174 of the National Planning Policy Framework (NPPF) 2021 states that planning decisions should protect sites of biodiversity value, minimise biodiversity impacts, and contribute to net biodiversity gains. Paragraph 180 states that planning permission should be refused if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for. The NPPF also emphasises the need to protect priority species.

Impact Assessment

Building B1

4.1.11 It is proposed to demolish the eastern two-storey section of the building and erect new extensions on the northern and eastern elevations of the three-storey section. The retained building will be converted to residential accommodation which will require interior renovation and re-roofing. Therefore, the proposed works to the building could potentially destroy bat roosts and disturb, kill, or injure bats (if present at the time of works).

Building B2

4.1.12 No impacts are anticipated.



Building B3

4.1.13 It is proposed to demolish the southern flat roof section of the building and erect extensions on the southern elevation. The four-storey, double-pitched part will be retained and converted to residential accommodation which will require interior renovation and re-roofing. Therefore, all potential roost features will be destroyed and the proposed works to the building would destroy a bat roost and disturb, kill, or injure bats (if present at the time of works).

4.2 Birds

Suitability Assessment

4.2.1 Many pigeons were present in all buildings at the time of survey and all buildings were open for other birds to enter with many nesting features.

Legislation and Planning Policy

4.2.2 Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended); see Table 4-2 for details.

Table 4-2: Legal implications of legislation with regard to birds

Legislation	Legal Implications
Wildlife and Countryside Act 1981 (as amended)	<p>It is illegal to intentionally:</p> <ul style="list-style-type: none">• Kill, injure or take any wild bird.• Take, damage or destroy a wild bird's nest while it is in use or being built.• Take or destroy the eggs of any wild bird.• There is additional protection for birds listed on Schedule 1 (S1) of the Act, which includes barn owls, whereby it is an offence to intentionally or recklessly disturb a S1 bird while building a nest or in or near a nest containing eggs or young, and disturb dependent young of a S1 bird.

4.2.3 Additionally, several bird species are designated as species of principal importance (priority species) under the Natural Environment and Rural Communities Act 2006, including house sparrow and common starling which often nest in buildings. Section 40 of this Act places a duty on local planning authorities to 'have regard' to conserving these species when determining planning applications. The NPPF also emphasises the need to protect priority species.

Impact Assessment

4.2.4 If destructive and obstructive works take place during the nesting season (which is typically March to August inclusive) then there is potential for killing/injury of birds, and destruction of eggs and active nests.



5 Further Actions

5.1 Surveys and Mitigation

5.1.1 Details of required further surveys and/or mitigation are provided in Table 5-1.

Table 5-1: Survey and mitigation requirements

Species	Suitability Assessment	Survey & Mitigation Requirements	Timing
Building B1			
Bats	High (active period)	Emergence/re-entry surveys - Three surveys to determine the presence or likely absence of roosting bats in the building. If roosting bats are found to be present then one or more additional surveys may be required to fully characterise the roost(s). Five surveyors will be required to view all elevations and potential roost features.	May to September inclusive, at least two between May and August inclusive.
	Low (hibernation period)	Hibernation - Any necessary mitigation must be determined after emergence/re-entry survey(s) have been carried out.	N/A
Birds	Potential	Mitigation - Undertake works to the building outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).
Building B2			
Bats	Negligible	No further surveys are required. It is recommended that careful working methods are implemented by contractors during works, details of which are provided in Appendix 3.	N/A
Birds	Potential	Mitigation - Undertake works to the building outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).



Species	Suitability Assessment	Survey & Mitigation Requirements	Timing
Building B3			
Bats	Confirmed (active period)	<p>Emergence/re-entry surveys - An appropriate number of surveys are required to characterise the confirmed bat roost present within the building. Two or three surveys are usually sufficient. Four surveyors will be required to view all elevations and potential roost features.</p> <p>It is recommended that droppings collected are sent for DNA analysis to confirm the species.</p>	May to September inclusive, at least two between May and August inclusive.
Birds	Potential	<p>Mitigation - Undertake works outside of the nesting season. If this is not possible then the building must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence. Any active nests then found would have to be left undisturbed until the young had fledged.</p>	No destructive and obstructive works between March and August inclusive (or an inspection must be carried out by an ecologist).



5.2 Enhancements

5.2.1 In line with the NPPF, details of opportunities to permit biodiversity enhancements are provided in Table 5-2.

Table 5-2: Opportunities for biodiversity enhancements

Opportunity	Details
Provision of bat tubes/ shelters/boxes	<p>It is recommended that additional roosting opportunities are provided for bats in building B2.</p> <p>This could include the installation of at least two bat tubes integrated into the external elevations of the proposed second storey extension or converted part of the building (e.g. 1FR or 2FR Schwegler Bat Tube). Bat tubes provide permanent roosts for bats and require little or no maintenance.</p> <p>Alternatively/additionally, at least two wall mounted bat shelters/boxes could be provided on the exterior of the proposed second storey extension or converted part of the building (e.g. Schwegler 2FE Wall-Mounted Bat Shelter, 1FF Schwegler Bat Box, and/or Beaumaris Woodstone Bat Box),.</p> <p>Bat tubes, shelters, and boxes must be installed at least 3 m above ground level, have a clear flight path to and from the entrances, be positioned where they would not be affected by artificial light spill from windows and other artificial light sources, and ideally orientated to face south, south-east or south-west.</p>
Provision of bird nest boxes	<p>It is recommended that additional nesting habitat is provided for birds.</p> <p>This could include the installation of at least two nest boxes integrated into the elevations of each of the proposed buildings (e.g. Build-in Woodstone Half Open Box, WoodStone Build-in Swift Nest Box B, and/or Vivara Pro WoodStone House Sparrow Nest Box).</p> <p>Alternatively/additionally, at least two nest boxes could be installed on the exterior walls of the buildings (e.g. Schwegler 1SP Sparrow Terrace, Schwegler 1B Nest Box, 3S Schwegler Starling Nest Box, and/or 2GR Schwegler Nest Box).</p> <p>Nest boxes must be installed at least 3 m above ground level, ideally facing between the north and east. Birds must have a clear flight path to and from the boxes.</p>



6 Local Records Centre Submission

A record of evidence of bats recorded on the site during the survey is provided in Table 6-1. This record will be sent to the Local Records Centre.

Site Name	Quay Street, Tewkesbury, Gloucestershire, GL20 5BE	Survey by	Joseph Wilkie
Grid Reference	SO 8927 3297	Position	Ecologist
Provided By	Smart Ecology Ltd.	Survey Date	24/04/2023

Table 6-1: LRC Submission

Common Name	Scientific Name	Comment
Unidentified bat	-	Approximately 100 scattered droppings within northern third-storey room of former brewery.



7 References

British Standards Institute (BSI) (2013). BS4202 Biodiversity – A code of practice for planning and development. BSI, London.

CIEEM (2017). *Guidelines for Ecological Report Writing – Second Edition.* Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines, 3rd edition.* Bat Conservation Trust, London.

Middleton, N. (2019). *Assessing Sites for Hibernation Potential. A Practical Approach, including a Proposed Method & Supporting Notes.* Unpublished.



8 Figures

Figure 1 – Location Map



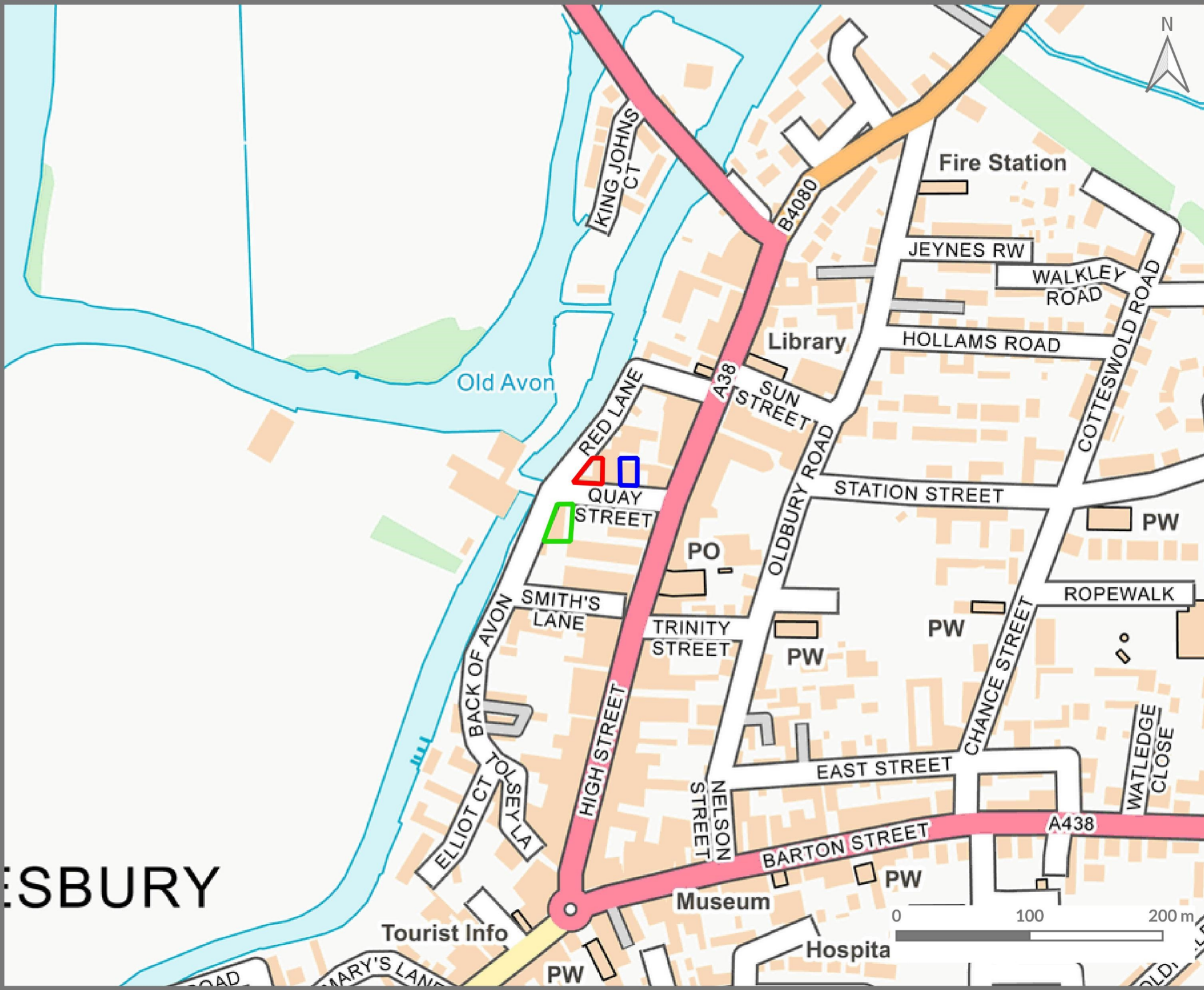


Figure 1 - Location Map
Buildings at Quay Street, Tewkesbury, Gloucestershire, GL20 5BE

- Building B1
- Building B2
- Building B3

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Date:	18/04/2023
Drawn by:	Joseph Wilkie
Checked by:	Rachel Barber

Smart Ecology\Projects\2023\2023-013\GIS



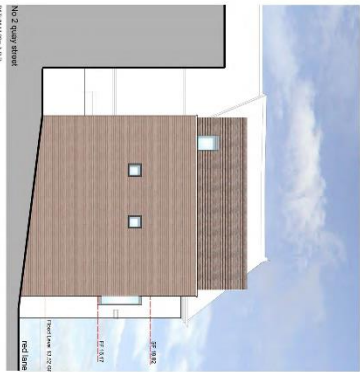
TWESBURY



Red Lane (East) (from elevation)



West/rear elevation



Northside elevation

- FEASIBILITY
- FOR INFORMATION
- FOR COMMENT
- PRELIMINARY
- PLANNING
- BUILDING REGULATIONS
- TENDER
- CONSTRUCTION ISSUE
- AS BUILT

REV. DATE: 04/08/2023
 4: 2023/02/23
 3: 2023/02/23
 2: 2023/02/23
 1: 2023/02/23

BESWICK PARTNERSHIP LIMITED
 CHARTERED ARCHITECTS
 100, GLOUCESTER ROAD, GLOUCESTER, GLOUCESTERSHIRE, GL1 2JH
 TEL: 01452 343434
 WWW.BESWICKARCHITECTS.CO.UK

HEALINGS HALL OFFICES SITE
 TEWESBURY AND RED LANE
 GLOUCESTERSHIRE

PROPOSED ELEVATIONS
 DATE: 04/08/2023
 DRAWN BY: [Name]
 CHECKED BY: [Name]

822 81 - 24 B
 bpl architecture





- FEASIBILITY
- FOR INFORMATION
- FOR COMMENT
- PRELIMINARY
- PLANNING
- BUILDING REGULATIONS
- TENDER
- CONSTRUCTION ISSUE
- AS BUILT

rev. date: description:
A 2023/11/28 Minor updates



BESWICK PARTNERSHIP LIMITED
 CHARTERED ARCHITECTS
 10, COLLETT STREET, TEWKESBURY, GLOS.
 TEL: 01295 232111
 E: info@beswickarchitects.co.uk
 W: www.beswickarchitects.co.uk

client: CORNALLY GROUP (TEWKESBURY) LTD

project: HEALINGS HILL BREWERY BUILDING
 100, HEALINGS HILL, TEWKESBURY, GLOS.
 TEWKESBURY



drawing title: PLANS AND ELEVATIONS FOR PLOTS 1-4



date: 2023/07/11
 scale: 1:100 @ A2
 drawn by: [redacted]
 checked by: [redacted]



drawing number: 816.81 - 16
 revision: A



Appendix 2 – Building Survey Photographs

Number	Description	Photograph
Building B1		
P1	Example of gaps between tiles on all roof slopes.	 A photograph of a gabled roof with a dormer window. The roof is covered in dark grey tiles. Three red rectangular boxes are drawn on the roof surface, highlighting gaps between the tiles. The dormer window has a white frame and is partially open. Below the roofline, a brick wall is visible.
P2	Gap into soffit box on northern elevation of two-storey section.	 A photograph showing the corner of a two-storey brick building. The upper part of the image shows the underside of the roof (soffit) and a wooden batten. There is a significant gap between the soffit and the brick wall. A brick wall is visible on the left, and a window is visible on the right. Some green foliage is growing from the gap.

Number	Description	Photograph
P3	Gaps in brickwork into open wall cavity.	
P4	Gap between roof support timbers and gable wall in two-storey roof space.	

Number	Description	Photograph
Building B3		
P5	Gaps into suspended ceiling cavity.	
P6	Example of approximately 100 scattered droppings within northern third-storey room.	



Appendix 3 – Careful Working Methods

The following careful approach to works must be implemented as a precautionary measure, to ensure that bats are not harmed during works:

- All contractors must remain vigilant for bats during works.
- All contractors must wear gloves during removal of roofing material.
- Roof tiles must be lifted vertically away, without using a sliding motion, and the underside checked for bats.
- All exposed areas must be carefully inspected by contractors for the presence of bats.

It is the client's responsibility to ensure that all contractors are aware of this precautionary approach to works.

If bats are found at any time during works then works must stop immediately and a bat licensed ecologist contacted on 01453 807188.

