

Site:	Cowdray Works Yard
Client:	Metis Homes
Job Number:	784 -A112595
Report Type(s):	Update Bat Emergence Letter Report to discharge Condition 7 of of planning (SDNP/21/04040/FUL)
File Location:	M:\Projects\784-A112595 Cowdry Work Yard\60 Project Output\61 Work in Progress\Update Letter Report 2024

INTRODUCTION

Tetra Tech were appointed by Metis Homes in 2019 to carry out Bat Emergence Surveys on the site known as Cowdray Works Yard which is located off the A272 Easebourne Lane in Easebourne, Midhurst and is centred at Ordnance Survey National Grid Reference SU 89424 22446 (Shown in figure 1). Bat emergence surveys of the buildings conducted by Pro vision Ecology in 2017 (Provision Ecology, 2018¹), identified a roost within building B8. An ecological appraisal was then conducted by WYG in 2019 (WYG, 2019²) confirming seven of the eight buildings to have bat roosting suitability (B4 having negligible suitability) with B8 being confirmed roost.

Upon conducting emergence/return surveys in 2019 on site, building B8 was confirmed to support roosting bats (common pipistrelles *Pipistrellus pipistrellus* and soprano pipistrelles *Pipistrellus pygmaeus*).

During the planning application, it was agreed with the LPA ecologist that an updated bat emergence survey was conducted on buildings B1, B2, B3, B5, B6 and B7 to confirm no roost are present to allow the application to be approved. An updated survey was carried out on the 29th of September 2021 under suitable weather conditions (no rain and light air, and a temperature of 13°C at the start). No bats were recorded roosting within any of these buildings on site and this information was provided to the LPA ecologists as requested.

Following the planning permission being granted by South Downs National Park Authority (SDNP/21/04040/FUL), Condition 7 states:

No works shall commence until an updated Bat Survey Report has been submitted to and approved in writing by the Local Planning Authority. This shall be an update to the submitted report by WYG dated January 2020 and letter dated 5 November 2021 and include emergence surveys, recommendations for avoiding disturbance to bats during works, provisions for

¹ Pro Vision Ecology, (2018), Phase II Bat, Badger and Reptile Report, Report on behalf of Cowdray Park Estate, Project No. 7417.

² WYG, (2019), Ecological Appraisal, Report on behalf of Metis Homes, Project No. A112595.

alternative roosting and hibernating during works and for the lifetime of the development including evidence to demonstrate integrated provisions of a minimum of 2 bat tubes into a minimum of 5 of the new dwellings.

Once approved, the recommendations shall be adhered to in full and integrated into the Construction Environmental Management Plan and used to inform the updated Biodiversity Net Gain Assessment and Biodiversity Management and Enhancement Plan required by Condition 20.

Reason: To ensure the development complies with the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended).

The purpose of this report is to present the results of the update bat emergence survey and provide avoidance and mitigation measures to discharge Condition 7 (SDNP/21/04040/FUL).

Building B8 is not located within the application boundary covered by the planning application (Appendix A), however due to its location appropriate mitigation to avoid disturbance to the roosts present have been included within this report.

METHODOLOGY

An updated bat survey was carried out in accordance with the Good Practice Guidelines (Collins, 2023³). A dusk emergence survey on the buildings took place in August 2023, starting half an hour before sunset and continuing for one and a half an hour after. Surveyor positions are shown in Figure 2. Surveyors recorded all bats emerging from and returning to the buildings.

In addition to the surveyor positions, night-vision cameras paired with additional lighting and acoustic bat detectors were used. Canon XA11, XA60 and XA65 video cameras mounted on tripods were used in combination with infrared Night Fox torches and floodlights to help illuminate the buildings where required. This equipment was set up ahead of the survey start time and the cameras were directed at any potential roost features (PRFs) present on the building. The cameras were switched on and set to begin recording video footage at the start of the survey and switched off at the end. A member of Tetra Tech staff was assigned to monitor the position, battery life and field of view of the cameras during the survey to ensure the equipment worked consistently throughout the recording period. The infra-red lighting equipment was adjusted where necessary to ensure proper illumination of any features on the buildings and thus provide clear footage of any bats recorded.

Following the survey, the recorded files were then processed using MotionMeerkat (Weinstein, 2015⁴) motion detection software to detect any movement within the video files. The output from

³ Collins, J. (ed.), (2023), Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, The Bat Conservation Trust: London.

⁴ Weinstein, B.G, (2015). MotionMeerkat. Publisher: Dr Ben Weinstein.

this was then reviewed to check any motion events picked up by the software and determine if bats were recorded emerging from or returning to the buildings.

LIMITATIONS

No seasonal constraints were identified during the nocturnal bat surveys. The optimal period to undertake bat surveys is between May and August, although surveys in April and September may aid in identifying pre-maternity gathering roosts or transitional roosts. The 2019 survey(s) were completed between July and early September which is inside the optimal survey window and are therefore compliant with the levels of survey effort required for these buildings. The update survey in 2021 was conducted in late September as agreed by the LPA ecologist. Bats were viewed commuting and foraging within the site and all other parameters were within survey guidelines therefore, this was not considered a limiting factor. The updated emergence survey detailed in the planning condition was undertaken in August 2023, also within the optimal timeframe and compliant with survey guidelines.

SURVEY RESULTS

Table 1 shows the weather conditions and timings for bat emergence and return surveys as well as update surveys.

Table 1: Bat Emergence and Return Survey Meta Data

Date of survey	Building Surveyed	Timings	Weather Start	Weather End
08.07.19 Dusk emergence	B1, B2	Start: 20:47 End: 22:47 Sunset: 21:17	Temperature: 18.7°C Cloud cover: 100% Precipitation: None Wind: 0	Temperature: 17.4°C Cloud cover: 100% Precipitation: None Wind: 0
10.07.19 Dusk emergence	B8, B3, B5, B6	Start: 20:46 End: 22:46 Sunset: 21:16	Temperature: 19.6°C Cloud cover: 80% Precipitation: None Wind: 0	Temperature: 18.0°C Cloud cover: 80% Precipitation: None Wind: 0
11.07.19 Dusk emergence	B7	Start: 20:45 End: 22:45 Sunrise: 21:15	Temperature: 23°C Cloud cover: 10% Precipitation: None Wind: 0	Temperature: 18°C Cloud cover: 60% Precipitation: None Wind: 0
02.08.19 Dawn return	B1, B8, B3, B7	Start: 03:59 End: 05:44 Sunset: 05:29	Temperature: 17.8°C Cloud cover: 60% Precipitation: None Wind: 1	Temperature: 16.9°C Cloud cover: 40% Precipitation: None Wind: 0
27.08.19 Dusk emergence	B1, B8	Start: 19:30 End: 21:30 Sunset: 20:00	Temperature: 24°C Cloud cover: 0% Precipitation: None Wind: 0	Temperature: 20.2°C Cloud cover: 0% Precipitation: None Wind: 0

Date of survey	Building Surveyed	Timings	Weather Start	Weather End
29.09.2021 Dusk Emergence	B1, B2, B3, B5, B6 and B7	Start: 18:16 End: 20:16 Sunset: 18:46	Temperature: 17°C Cloud cover: 0% Precipitation: None Wind: 1	Temperature: 10°C Cloud cover: 10% Precipitation: None Wind: 1
24.08.2023 Dusk Emergence	B1, B2, B3, B5, B6, B7 and B8	Start: 19:36 End: 21:36 Sunset: 20:06	Temperature: 19°C Cloud cover: 100% Precipitation: None Wind: 0	Temperature: 18°C Cloud cover: 0% Precipitation: None Wind: 0

Table 2 below details the findings of the bat surveys, with emergence / return locations shown on Figure 2 and 3.

Table 2: Bat Emergence and Return Survey Results for Buildings with no roost activity

Building surveyed	Date of surveys	Result	Species / roost type
B1	08.07.2019 02.08.2019 27.08.2019 29.09.2021 24.08.2023	No bats were recorded roosting within the buildings surveyed.	No Roosts identified
B2	08.07.2019 29.09.2021 24.08.2023	No bats were recorded roosting within the buildings surveyed.	No Roosts identified
B3	10.07.2019 02.08.2019 29.09.2021 24.08.2023	No bats were recorded roosting within the buildings surveyed.	No Roosts identified
B5	10.07.2019 29.09.2021 24.08.2023	No bats were recorded roosting within the buildings surveyed.	No Roosts identified
B6	10.07.2019 29.09.2021 24.08.2023	No bats were recorded roosting within the buildings surveyed.	No Roosts identified
B7	11.07.2019 02.08.2019	No bats were recorded roosting within the buildings surveyed.	No Roosts identified

Building surveyed	Date of surveys	Result	Species / roost type
	29.09.2021 24.08.2023		

Two species of bat (common and soprano pipistrelle) were recorded emerging and / or returning to the building on three occasions during surveys conducted in 2019. The update emergence survey conducted in August 2023 recorded a soprano pipistrelle roosting in B8. Table 3 below shows the historical results and update survey results of building B8 from all surveys.

Table 3: Bat Emergence and Return Survey Results for building B8

Building surveyed	Date of survey	Result	Species / roost type
B8	Dusk 10/07/2019	Two roost locations observed and a total of two bats emerged.	1 x common pipistrelle day roost 1 x Soprano pipistrelle day roost
	Dawn 02.08.2019	Three roost locations observed and a total of eleven bats returned (1 Common pipistrelle and 10 Soprano pipistrelle).	1 x Common pipistrelle day roost 2 x Soprano pipistrelle day roosts
	Dusk 27.08.2019	Three roosts observed and a total of four Common pipistrelle and two Soprano Pipistrelle	2 x Common pipistrelle day roosts 1 x Soprano pipistrelle day roost
	Dusk 24.08.2023	1 roost location observed with a total of two emerging Soprano pipistrelle	Soprano pipistrelle day roost

Summary of Results -

The bats recorded emerging and / or returning to building B8 were all noted along the southern aspect of the building from multiple access points within the stonework and from beneath the wooden fascia on the sloping roof section (Photograph 1 and 2).

Photograph 1: Stonework Below Roof Apex Southern Aspect of Building B8



Photograph 2: Southern Aspect of Building B8



SUMMARY OF RESULTS

Previous surveys and update surveys carried out on the site have not identified any bat roosts within buildings B1, B2, B3, B5, B6 and B7 within the application site. Common and soprano day roosts have been confirmed in building B8 however this building is not within the application site.

POTENTIAL IMPACTS AND MITIGATION STRATEGY

Building B8 which has been confirmed to support common and soprano pipistrelle days roosts is not located within the application boundary and the roosts present will not be directly impacted. A mitigation licence is therefore not required.

Due to the location of the building B8, there is the potential for construction works in the absence of mitigation to disturb the roosts present and therefore the following mitigation is required.

A toolbox talk will be provided to site contractors at the start of construction to detail the presence of the bat roost and clarify the mitigation requirements during works.

The following mitigation is required:

No additional lighting including security lighting will be located near building B8. Any lighting that is located within the application site must not be direct towards building B8.

Construction activities, including storage of materials must not be carried out within 5m of building B8.

Suitable Haras fencing / hording will be installed to provide an appropriate buffer to building B8.

Nighttime working must be restricted.

ENHANCEMENTS

Although the buildings within the application site do not contain bat roosts, enhancements are recommended.

Bat tubes will be installed within gable ends of 8 of the new dwellings, see Appendix B.

A diverse collection of native planting is included within the landscaping design within the Site. Structurally diverse vegetation and inclusion of native evening-blooming plants will attract insects which in turn will help to enhance the site for foraging bats.

The proposed SUDs draining features within the site will enhance the site for foraging bats.

Artificial lighting can have an adverse effect on bats and measures are recommended to avoid or reduce this impact. It is recommended that lighting with the development comprise LED lamps, with a low colour correlated temperature – preferably below 3500K (warm white). Lighting must be directed groundward to avoid upward light spillage, with hoods / shields as necessary. Light spill on boundary features to be used by commuting bats should be a maximum of 1 lux (ILP, 2018⁵).

CONCLUSION

An update bat emergence survey has been carried out on the buildings present within the site as well as building B8 which is located just outside the site boundary.

Appropriate mitigation and enhancement measures for bats have been included within the development.

With the details included within the report, South Downs National Park Authority have the information required to satisfy them that Condition 7 of planning consent SDNP/21/04040/FUL can be discharged.

⁵ ILP, (2018), Guidance note 8 Bats and artificial lighting in the UK, [online] Available at <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>, Accessed January 2020.

Document Control			
Revision:	1	Status:	Final
Date:	March 2024		
Prepared by: Ryan Pearson Assistant Ecologist	Checked by: John Simper MCIEEM Senior Ecologist	Approved By: Kevin Wood Associate Ecologist	
[Redacted]			
Details of revision:			

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Surveyor Locations

Figure 3 – 2023 Survey Results B8

Site Location Plan


Cowdray Works Yard, Easebourne

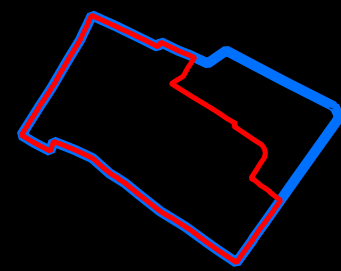
F

Metis Homes

Legend

 Site boundary

 Ownership boundary



Drawn by: CHRIS.DAWE

Figure No. 1

Checked by: KW

Revision No. B

Office: Southampton

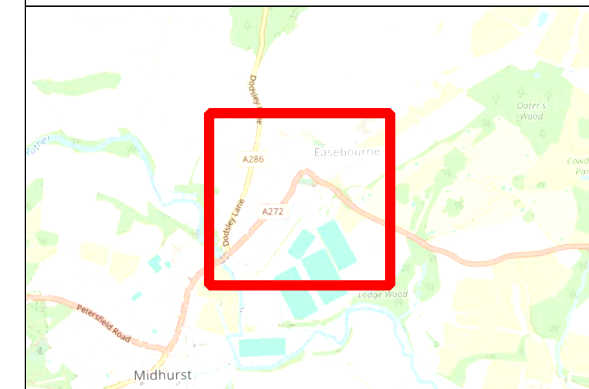
0 50 100 150 Meters

28 March 2024

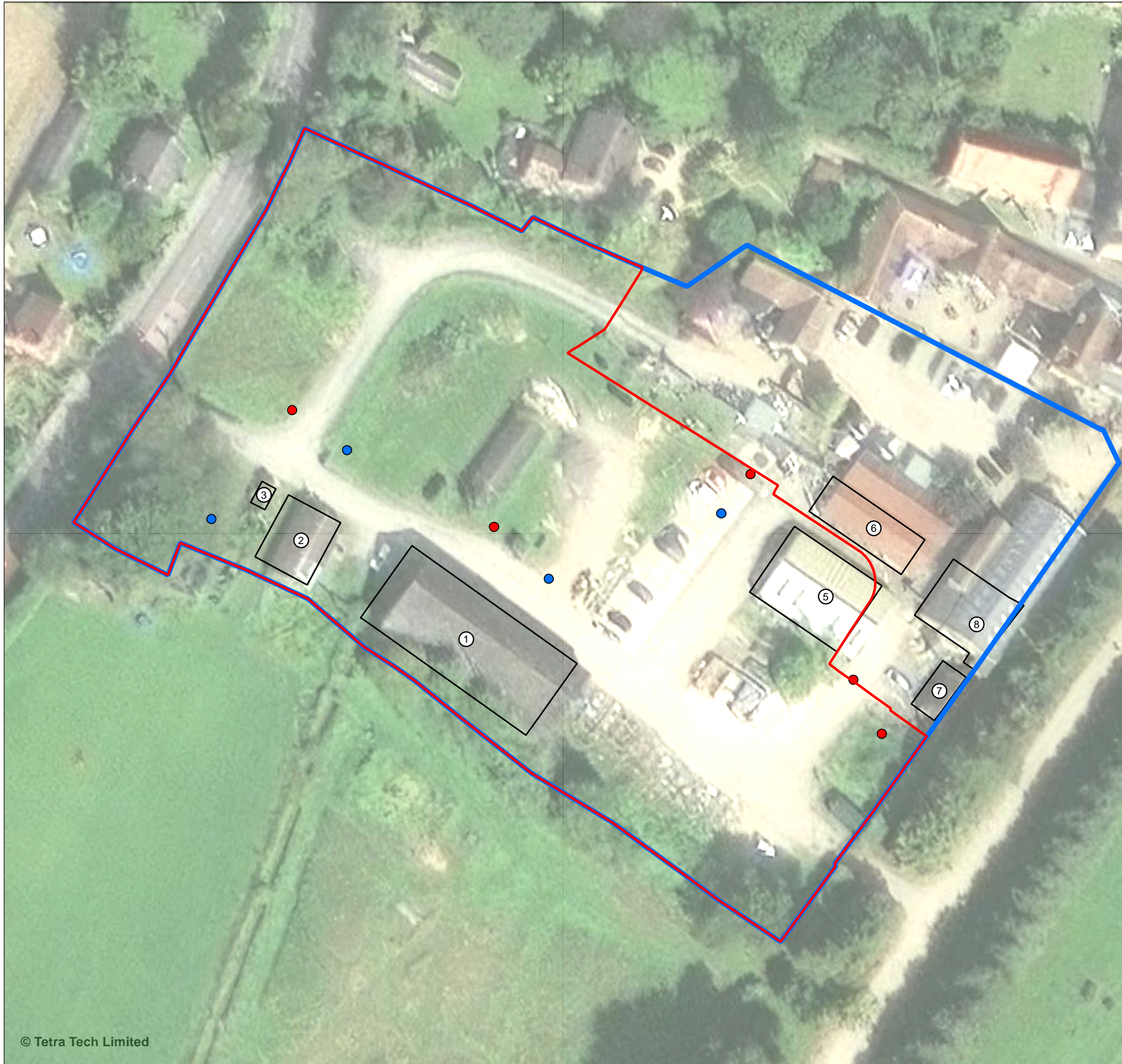
Scale 1:4,000 @A3

NGR: 489414E 122439N

© Crown Copyright All rights reserved. Licence number: 100019980



The Pavilion, 1st Floor
Botleigh Grange
Office Campus
Hedge End
Southampton
Hampshire, SO30 2AF



Surveyor Locations

Cowdray Works Yard, Easebourne

Metis Homes.

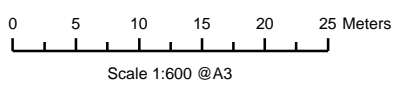
F

Legend

- Site boundary
- Ownership boundary
- Surveyor
- Camera

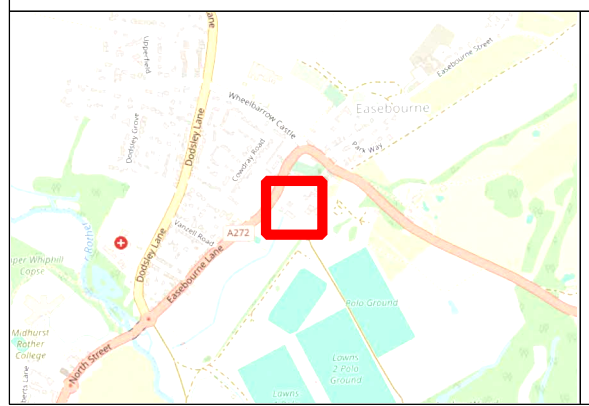
Drawn by: CHRIS.DAWE
 Checked by: KW
 Office: Southampton

Figure No. 2
 Revision No. B



28 March 2024
 NGR: 489414E 122439N

© Crown Copyright All rights reserved. Licence number: 100019980








The Pavilion, 1st Floor
 Botleigh Grange
 Office Campus
 Hedge End
 Southampton
 Hampshire, SO30 2AF

Surveyor Locations and Survey Results B8

Cowdray Works Yard, Easebourne

Metis Homes

Legend

-  Site boundary
-  Ownership boundary
-  Soprano pipistrelle emergence
-  Surveyor
-  Camera



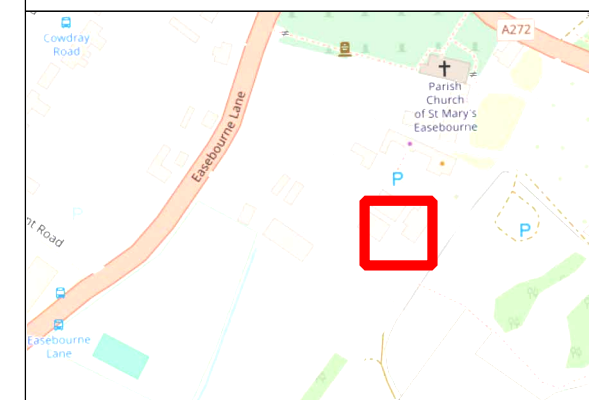
Drawn by: CHRIS.DAWE
 Checked by: KW
 Office: Southampton

Figure No. 3
 Revision No. B

0 1 2 3 4 5 Meters
 Scale 1:150 @A3

28 March 2024
 NGR: 489472E 122422N

© Crown Copyright All rights reserved. Licence number: 100019980



The Pavilion, 1st Floor
 Botleigh Grange
 Office Campus
 Hedge End
 Southampton
 Hampshire, SO30 2AF

Appendix A – Cowdray Works Yard Illustrative Site Plan



Notes:
 drawing except for planning purposes.
 All contractors must visit the site and be responsible for taking and checking Dimensions.
 All construction information should be taken from figured dimensions only.
 Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
 This drawing and the works depicted are the copyright of JTP.

This drawing is for planning purposes only. It is not intended to be used for construction purposes. Whilst all reasonable efforts are used to ensure drawings are accurate, JTP accept no responsibility or liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated above.

— Site Boundary

P06	16.03.23	Planning Re-submission	FZ	ABL
P05	20.10.22	Planning Re-submission	FZ	ABL
P04	08.04.22	Planning submission	FZ	CL
P03	04.03.22	Revised Access Arrangements	FZ	ABL
P02	02.03.22	Revised Access Arrangements	FZ	CI
P01	26.07.21	Planning Submission	LAB	CI

Rev	Date	Description	Drawn	Chkd
-----	------	-------------	-------	------

Drawing Status

PLANNING

Client

Metis Homes



JTP Studios
 Unit 5, The Rum Warehouse
 Pennington Street
 London, E1W 2AP
 +44 (0)20 7017 1780
 www.jtp.co.uk

Project

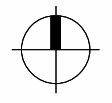
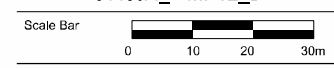
Easebourne

Drawing Title

**Cowdray Works Yard
 Illustrative Site Plan**

Scale @ A3 1:1250 Job Ref. 01486A

Drawing No. 01486A_MP02_B Revision P06



Appendix B – Bat box location plan



Notes:
 All contractors must visit the site and be responsible for taking and checking Dimensions.
 All construction information should be taken from figured dimensions only.
 Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
 This drawing and the works depicted are the copyright of JTP.
 This drawing is for planning purposes only. It is not intended to be used for construction purposes. Whilst all reasonable efforts are used to ensure drawings are accurate, JTP accept no responsibility or liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated above.

Key
 ● 2 x bat boxes

P08	16.03.23	Planning Re-submission	FZ	ABL
P07	26.10.22	Planning Re-submission	FZ	ABL
P06	09.08.22	Further revisions	C1	ABL
P05	16.07.22	Layout revisions to accommodate mix changes	ABL	C1
P04	08.04.22	Planning Submission	C1	C1
P03	03.04.22	Wall amended	FZ	ABL
P02	03.03.22	Revised Access Arrangements	C1	C1
P01	28.07.21	Planning Submission	LAB	C1

Rev | Date | Description | Drawn | Chkd
 Drawing Status
PLANNING
 Client
 Metis Homes

JTP Studios
 Unit 5, The Rum Warehouse
 Pennington Street
 London, E1W 2AP
 +44 (0)20 7017 1780
 www.jtp.co.uk

Project
 Easebourne
 Drawing Title
Cowdray Works Yard

Scale @ A1 1:500 Job Ref. 01486A
 Drawing No. 01486A_MP01_B Revision PCB
 Scale Bar
 0 6 10 15 20 25m