CAERLEON COMPREHENSIVE SCHOOL, NEWPORT

BAT EMERGENCE SURVEY REPORT

05TH DECEMBER 2024

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BAT EMERGENCE SURVEY REPORT

05.12.24

Issue	Revision	Stage	Date	Prepared by	Approved by	Signed
1		ISSUED	O5 DECEMBER 2024	Chrispian Snell BSc (Hons) MCIEEM		

Contents

1. SUMMARY

Ecology Wales was commissioned by Kew Planning to undertake bat emergence surveys at Caerleon Comprehensive School, Cold Bath Rd, Caerleon, Newport NP18 1NF. The site situated in the south west of Caerleon is proposed for demolition of a number of existing buildings, and construction of a new large sports and teaching facility building. The proposed works also include the removal of trees and scrub/shrubs.

The Preliminary Ecological Appraisal (PEA) undertaken in May 2024 (Ecology Wales, 2024) confirmed that tree and hedgerows were identified at all of the school boundaries. None of the boundary hedgerow or tree habitats are likely to be impacted upon by the proposals.

The internal and external buildings inspection survey undertaken identified evidence to suggest current or previous use by roosting bats within the buildings. The condition of the buildings including the roofs presented potential roosting opportunities for bats where bats could access the buildings interior. Overall, the buildings proposed for development was considered to be of between Low and High potential for roosting bats given the number of features identified, the habitat surrounding the site, good connectivity to non-urban habitats including the River Usk and the nature of the proposed development.

As the buildings were identified as Low, Moderate and High potential for roosting bats, between one and three dusk emergence / re-entry surveys were undertaken for each building in July/August/September 2024. The survey team of between 2 & 3 surveyors were led by Chrispian Snell BSc (Hons) (MCIEEM), an NRW bat licenced ecologist[1]. These emergence surveys identified a small Common Pipistrelle *Pipistrellus pygmaeus* summer day roost within building K.

[1] NRW Survey Licence: S092061/1

2. INTRODUCTION

Ecology Wales were commissioned by Kew Planning to undertake bat emergence surveys at Caerleon Comprehensive School, Cold Bath Rd, Caerleon, Newport NP18 1NF.

The site situated in the south west of Caerleon is proposed for demolition of a number of existing buildings, and construction of a new large sports and teaching facility building.

This report describes the findings of a number of bat emergence surveys undertaken in July/August/September 2024 and any constraints/opportunities associated with the proposed development. This report is to be read in conjunction with the Ecology Wales PEA Report, (Ecology Wales, *2024*).

PLATE 1. Building K where evidence of roosting bats was identified

3. METHODOLOGY

In order to establish the baseline ecological conditions on site and in the adjoining habitats, a combination of desk-based consultation and preliminary ecological appraisal survey were undertaken in May 2024. Following the initial buildings inspection, further bat emergence/re-entry surveys were recommended and undertaken in July/August/September 2024. The scope of survey work adhered to the guidelines published by the Bat Conservation Trust (2023) and BCT Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys Bat Conservation Trust, May 2022, as described below.

3.1 Bat Survey

The preliminary ecological appraisal survey identified buildings D3, A & G are considered to be of Low potential for roosting bats. Buildings D1, D2, & H are considered to be of Moderate potential to support roosting bats. Building K has a Confirmed bat roost.

Best practice guidance advise buildings of High bat roosting potential require three survey visits undertaken between May and September, with at least two undertaken between May and August to establish the presence / likely absence of roosting bats. Best practice guidance advise buildings of Moderate bat roosting potential require two survey visits undertaken between May and September, with at least one undertaken between May and August to establish the presence / likely absence of roosting bats. Best practice guidance advise buildings of Low bat roosting potential require one survey visit undertaken between May and August to establish the presence / likely absence of roosting bats. As per the May 2022 BCT Interim Guidance Note, suitable infrared and thermal imaging night vision aids was utilised on all required elevations during all 5 surveys.

3.1.1 Survey 1 – Dusk Emergence, 18/07/2024

The first dusk survey was undertaken on the 18th July 2024 led by bat licenced ecologist Chrispian Snell utilising 3 bat detectors, 4 infrared cameras and 1 thermal camera to ensure maximum coverage of the buildings (D3, K & A) (see bat detector and camera locations in Appendix 1). Weather conditions were considered no constraint to the survey effort, with no rain, low wind and a temperature of 22.5 ^{O}C recorded during the survey.

PLATE 2. Infrared lighting & Image during darkest time of survey on building K

The scope of work was based on best practice guidelines (*BCT, 2023*) and May 2022 BCT Interim Guidance Note. The dusk survey commenced observation 15 minutes before sunset (Sunset – 21:19) and ran for 90 minutes after sunset. Surveys were conducted using Echo Meter Touch Pro ultrasound detectors and suitable recording equipment. All calls were recorded and identified on sonogram analysis software.

PLATE 3. Thermal image during darkest time of survey on building D3

PLATE 4. Infrared lighting & Image during darkest time of survey on building D3

PLATE 5. Infrared lighting & Image during darkest time of survey on building A

PLATE 6. Thermal image during darkest time of survey on building A

3.1.2 Survey 2 – Dusk Emergence, 25/07/2024

The second dusk survey was undertaken on the 25th July 2024 led by Chrispian Snell utilising 4 bat detectors, 4 infrared cameras and 1 thermal camera to ensure maximum coverage of the buildings (see bat detector and camera locations in Appendix 1). Weather conditions were considered no constraint to the survey effort, with no rain, low wind and a temperature of 16 ^{O}C recorded during the survey.

PLATE 7. Thermal image during darkest time of survey on building H

The scope of work was based on best practice guidelines (*BCT, 2023*) and May 2022 BCT Interim Guidance Note. The dusk survey commenced observation 15 minutes before sunset (Sunset 21:10) and ran for 90 minutes after sunset. Surveys were conducted using Echo Meter Touch Pro ultrasound detectors and suitable recording equipment. All calls were recorded and identified on sonogram analysis software.

PLATE 8. Infrared lighting & Image during darkest time of survey on building G

PLATE 9. Infrared lighting & Image during darkest time of survey on building H

PLATE 10. Infrared lighting & Image during darkest time of survey on building H

PLATE 11. Infrared lighting & Image during darkest time of survey on building G

3.1.3 Survey 3 – Dusk Emergence, 16/08/2024

The third dusk survey was conducted on the 16th August 2024 led by Chrispian Snell utilising 4 bat detectors, 4 infrared and 1 thermal camera to ensure maximum coverage of the buildings (see bat detector and camera locations in Appendix 1). Weather conditions were considered no constraint to the survey effort, with no rain, low wind and a temperature of 15 ^{O}C recorded during the survey.

PLATE 12. Infrared lighting & Image during darkest time of survey on building D1

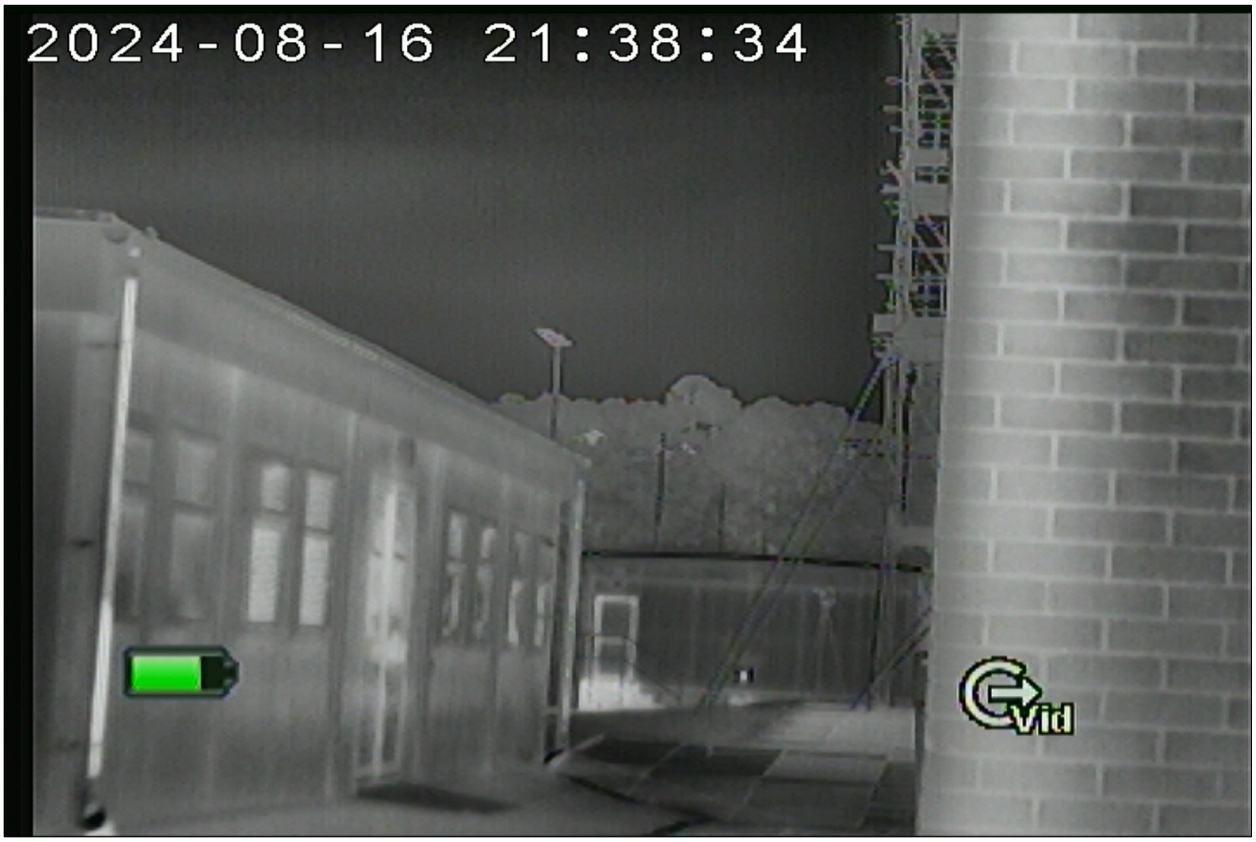
The scope of work was based on best practice guidelines (BCT, 2023) and May 2022 BCT Interim Guidance Note. The dusk survey commenced observation 15 minutes before sunset (Sunset – 20:31) and ran for 90 minutes after sunset. Surveys were conducted using Echo Meter Touch Pro ultrasound detectors and suitable recording equipment. All calls were recorded and identified on sonogram analysis software.

PLATE 13. Infrared lighting & Image during darkest time of survey on building D1

PLATE 14. Infrared lighting & Image during darkest time of survey on building D1

PLATE 15. Infrared lighting & Image during darkest time of survey on building D2

PLATE 16. Thermal Image during darkest time of survey on buildings D1 & D2



3.1.4 Survey 4 – Dusk Emergence, 21/08/2024

The fourth dusk survey was undertaken on the 21st August 2024 led by Chrispian Snell utilising 3 bat detectors, 3 infrared cameras and 1 thermal camera to ensure maximum coverage of the buildings (see bat detector and camera locations in Appendix 1). Weather conditions were considered no constraint to the survey effort, with no rain, low wind and a temperature of 17^{O}C recorded during the survey.

PLATE 17. Infrared lighting & Image during darkest time of survey on building H

The scope of work was based on best practice guidelines (*BCT, 2023*) and May 2022 BCT Interim Guidance Note. The dusk survey commenced observation 15 minutes before sunset (Sunset 20:21) and ran for 90 minutes after sunset. Surveys were conducted using Echo Meter Touch Pro ultrasound detectors and suitable recording equipment. All calls were recorded and identified on sonogram analysis software.

PLATE 18. Infrared lighting & Image during darkest time of survey on building K

PLATE 19. Infrared lighting & Image during darkest time of survey on building H

PLATE 20. Thermal image during darkest time of survey on building H

3.1.5 Survey 5 – Dusk Emergence, 17/09/2024

The fifth dusk survey was conducted on the 17th September 2024 led by Chrispian Snell utilising 5 bat detectors, 5 infrared and 1 thermal camera to ensure maximum coverage of the buildings (see bat detector and camera locations in Appendix 1). Weather conditions were considered no constraint to the survey effort, with no rain, low wind and a temperature of 14 ^{O}C recorded during the survey.

PLATE 21. Infrared lighting & Image during darkest time of survey on building D1

The scope of work was based on best practice guidelines (BCT, 2023) and May 2022 BCT Interim Guidance Note. The dusk survey commenced observation 15 minutes before sunset (Sunset – 19:20) and ran for 90 minutes after sunset. Surveys were conducted using Echo Meter Touch Pro ultrasound detectors and suitable recording equipment. All calls were recorded and identified on sonogram analysis software.

PLATE 22. Infrared lighting & Image during darkest time of survey on building D1

PLATE 23. Infrared lighting & Image during darkest time of survey on building D1

PLATE 24. Infrared lighting & Image during darkest time of survey on building D2

PLATE 25. Thermal Image during darkest time of survey on buildings D1 & D2

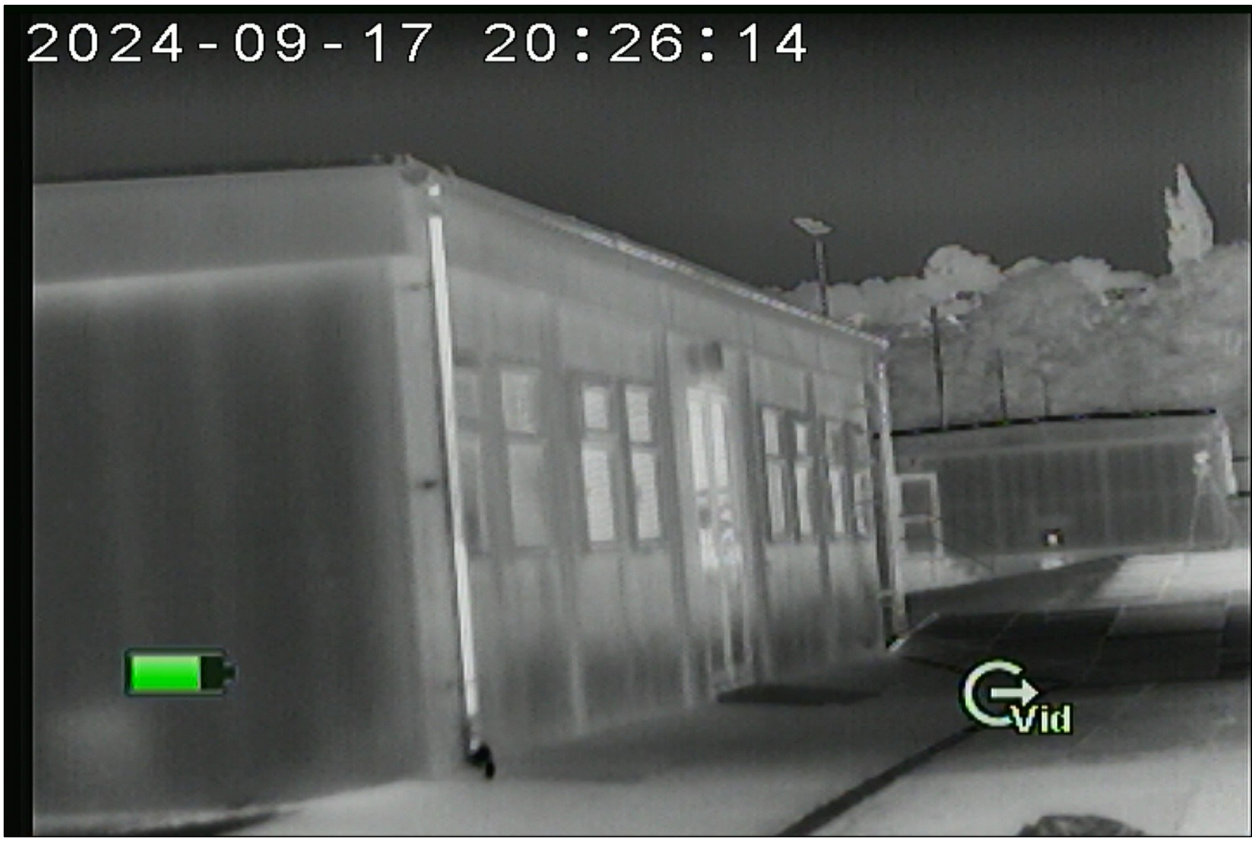


PLATE 26. Infrared lighting & Image during darkest time of survey on building K

Four Canon XA10 HD Professional infrared/night-vision camcorder, One Sony FDR-AX53 Ultra HD 4K infrared/night-vision camcorder, One Guide IR510 Nano N1 Thermal Imager Monocular, and additional Nightfox XB5 infrared torches all mounted on tripods were used to record observations. The cameras was setup to cover required buildings elevations for each survey.

The recording footage was also checked on a 65 inch Ultra HD 4K TV in a dark room by Chrispian Snell BSc (Hons) (MCIEEM), an NRW bat licenced ecologist[2] for emerging/re-entering bats following the surveys. All footage can be slowed down, speeded up, zoomed in or out, rewind and paused using Media Player Classic Home Cinema (64-bit) for Windows (MPC-HCx64).

[2] NRW Survey Licence: S092061/1

4. RESULTS

No bats were observed emerging from or re-entering the buildings during the first four emergence/re-entry surveys in July/August 2024. On the fifth dusk survey on 17th September 2024, one Common Pipistrelle bat was recorded emerging from a gap on the roof underside of building K, 8 minutes (19:28) after sunset (Sunset -19:20) (See photo Plate 1).

Foraging and commuting activity by mainly Common pipistrelle, Soprano Pipistrelle *Pipistrellus pygmaeus,* and very small numbers of Noctule *Nyctalus noctula* was identified during the surveys. Bat activity was predominantly associated with commuting overhead, and the adjacent trees and hedgerow.

5. LEGISLATION

The following international and national legislation pertaining to bats are considered of relevance to the site.

5.1 Legislation Pertaining to the Protection of Bats

Under Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) some bat species are listed as of Community Interest, the conservation of which requires designation of Special Areas of Conservation (SACs); Under Annex IV of the EC Habitats Directive all bat species are listed as of Community Interest, in need of strict protection. In Wales, the EC Habitats Directive has been transposed into law in 1994 and, following recent amendments set out in the Conservation of Habitats & Species Regulation 2010; to give bats, their breeding sites and resting places a high level of strict protection, making it an offence (subject to certain specific exceptions) to deliberately capture or kill/injure a bat, to damage or destroy a place used for shelter or protection or to deliberately disturb a bat in such a place.

Bats are also afforded protection within Wales under the Wildlife and Countryside Act 1981 (as amended); Countryside and Rights of Way Act 2000; and the Environment (Wales) Act 2016.

Case Law[3] has placed an onus on local planning authorities to satisfy 'three tests' under the Habitats Directive when determining applications that could affect European Protected Species. Essentially, these three tests are: i) that there is no satisfactory alternative; ii) that the proposed development is in the over-riding public interest (including those of a social or economic nature) and iii) the proposed development would not adversely affect the Favourable Conservation Status of the species locally.

[3] Wooley vs. East Cheshire (2009) and Morge vs. Hampshire County Council (2010)

6. CONCLUSION AND RECOMMENDATIONS

6.1 Bats

The dusk emergence / re-entry surveys were undertaken at an optimal time of year, weather and temperature conditions were in line with current bat survey guidelines *(BCT, 2023).* Bat activity was recorded on all five occasions, and one Common pipistrelle bat was observed emerging from under the roof underside on building K on 17th September 2024. As the building has a confirmed small Common pipistrelle summer roost, an NRW species development licence for work affecting bats or their resting places will be required.

The absence of bats is also very difficult to prove, as many bat species are itinerant in nature and will often make use of multiple roosts during the course of the active months (typically April to October). As such, the occasional use of other areas of the buildings as day roosting habitat by bats during the active months cannot be totally ruled out. A detailed precautionary working/demolition method statement is recommended (Appendix II).

Prior to commencement of demolition works of the buildings, x4 Beaumaris Woodstone Bat Box (or similar specification e.g. Schwegler 1FF) will be erected initially on nearby trees at a height of 3 metres, and then ideally on the south east elevation of new buildings at a height of no less than 3m, just under the eaves. These self cleaning bat boxes shall remain in situ as a biodiversity enhancement and as compensation for the loss of a confirmed crevice dwelling Common pipistrelle bat roost identified within building K. Bat bricks installed into the exterior walls can also be used at the gable ends of buildings, although bat boxes will still need to be erected on trees before works commence.

6.2 Nesting birds

As a suitably qualified bat licenced ecologist will be present during the roof strip works, the ecologist can offer advice regarding nesting birds. In England and Wales - all wild birds, their young, nests and eggs are protected under the Wildlife & Countryside Act 1981. It's an offence to: Damage or destroy the nest of any wild bird while it's in use or being built. Destroy or remove any egg of any wild bird.

7. REFERENCES

Ecology Wales (2024) Preliminary Ecological Appraisal Report. Caerleon Comprehensive School. June 2024.

Bat Conservation Trust (2023). Bat Surveys – Good Practice Guidelines. 4th Edition. Bat Conservation Trust, London.

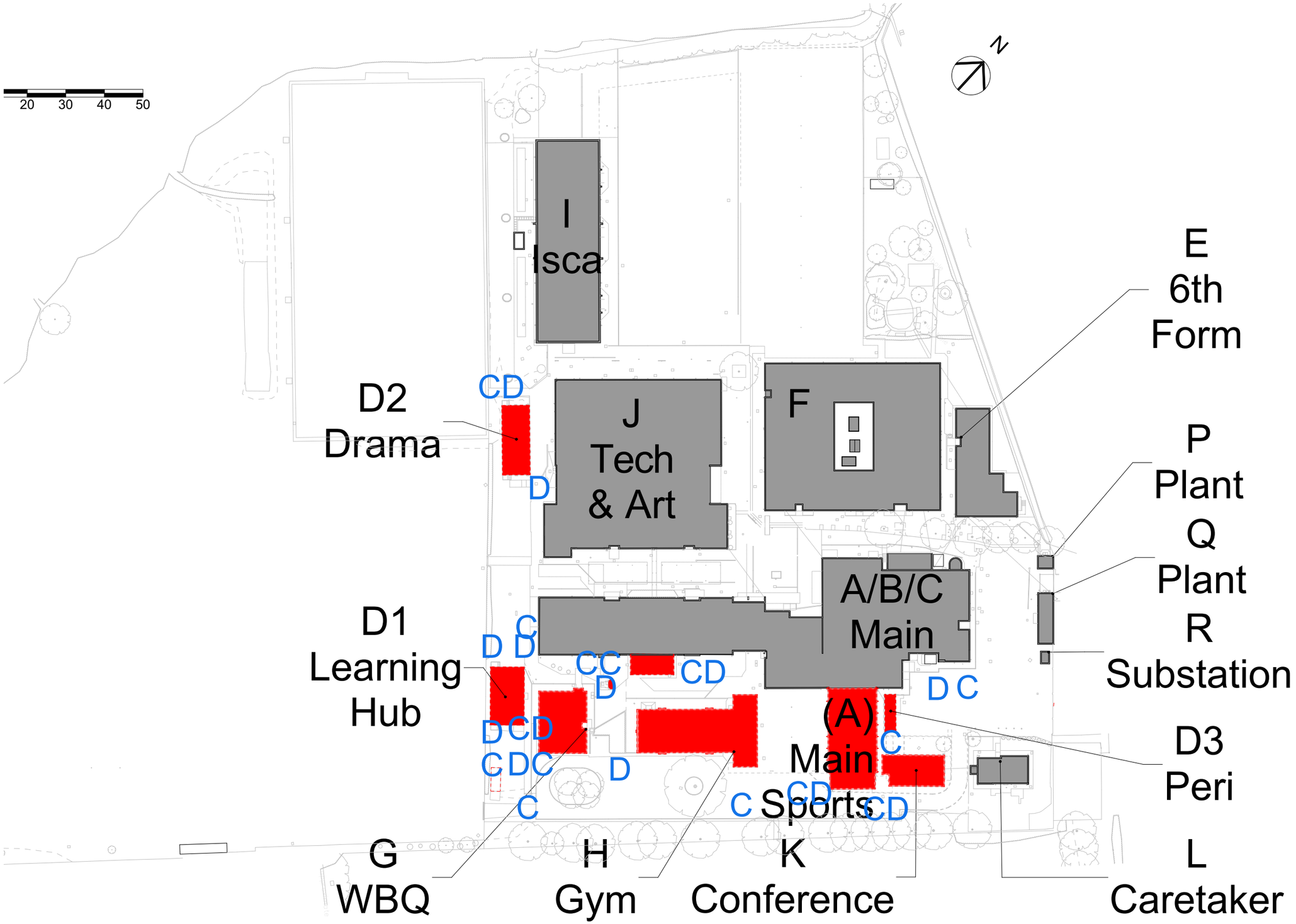
EUROPA. (2007). Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC; Final version, February 2007. http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

BCT Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys Bat Conservation Trust, May 2022.

APPENDIX I – SITE PLAN (CAMERA & BAT DETECTOR LOCATIONS)

Bat emergence surveys bat detector (D) & Camera (C) locations



Notes

Check all dimensions on site. Do not scale from this drawing
Report any discrepancies and omissions to HLM Architects
This Drawing is Copyright ©

Existing

To be Demolished

Main Block existing room numbering system:
A: Ground Floor
B: First Floor
C: Second Floor

Rev	Sbty	Description	Date	By	Chk
P04	P04	STAGE 2 ISSUE	05.06.2021	AMS	GW
P03	S3	SITE BOUNDARY UPDATED, BASED ON NN DRAWING	03.09.2020	AMS	GW
P02	S3	UPDATED FOR SITE VISIT	11.08.2020	AMS	GW
P01	S3	PRELIMINARY ISSUE FOR COMMENT	29.07.2020	AMS	GW

Revisions — Suitability

Project — P04

15-1135-01

Client: Ysgol Gyfun Caerllion Caerleon Comprehensive School

NEWPORT CITY COUNCIL CYNGOR DINAS CASNEWYDD

Newport norse Casnewydd

Ysgolion yr 21ain Ganrif
21st Century Schools

Llywodraeth Cymru
Welsh Government

Title

Site Block Plan - Existing

Drawing No. — Revision

CCS-HLM-00-00-DR-A-00001 P04

Scale @ A3	Drawn
1:1000	AMS
Date	**Checked**
05.06.2021	GW

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APPENDIX II – PRECAUTIONARY METHOD OF WORKING FOR BATS

1. This Method Statement shall be made available to any workers / contractors on site.
2. Prior to commencement of works, x4 Beaumaris Woodstone Bat Box (or similar specification e.g. Schwegler 1FF) will be erected firstly on nearby trees at a height of 3m, then when the buildings are constructed they will be erected on the south east elevation of the new buildings, just under the eaves. These self cleaning bat boxes shall remain in situ as a biodiversity enhancement and as compensation for the loss of confirmed crevice dwelling Common pipistrelle bat roost within building K.
3. All roof tiles, soffits, fascia, chimneys, felt, will be removed by hand carefully and methodically under the supervision of a bat licenced ecologist.
4. What to do if a bat or evidence of bats is discovered:

   If a bat or evidence of bats is identified during demolition, if the bat licenced ecologist is not present, works must stop and a bat licenced ecologist must be contacted immediately, who will advise further. As building K has a confirmed small Common pipistrelle summer roost, an NRW species development licence for work affecting bats or their resting places will be required before any building demolition works commence.

5. All workers / contractors on site will be informed of the procedure to follow, should a bat be unexpectedly found during works.