

Héronsbridge School

Hazel Dormouse (*Muscardinus avellanarius*) Survey
Report

Bridgend County Borough Council

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Prepared by	Checked by	Verified by	Approved by
Hannah McCabe Graduate Ecologist	KM ACIEEM Senior Ecologist	MB MCIEEM Associate Ecologist	LN CIEEM Associate Ecologist

Revision History

Revision	Revision date	Details	Authorised	Name	Position

Prepared for:

Bridgend County Borough Council

Prepared by:

AECOM Limited
5th Floor
5 Callaghan Square
Cardiff
CF10 5 BT
United Kingdom

aecom.com

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Executive Summary

AECOM Ltd (hereafter 'AECOM') was commissioned by Bridgend County Borough Council to undertake hazel dormouse (*Muscardinus avellanarius*) surveys of the land identified for the proposed construction of Heronsbridge School in Bridgend, South Wales (hereafter referred to as the 'Site'). The purpose of the survey and this report is to determine the presence or likely absence of hazel dormouse on the Site and to assess the ecological constraints to the Proposed Development associated with any hazel dormouse populations in connection with the proposed construction of the Heronsbridge School (hereafter referred to as the 'Proposed Development').

AECOM conducted a Preliminary Ecological Appraisal (PEA) in March 2023 to identify any potential for protected habitats and species. The Site comprises an arable field surrounded by hedgerows, and a treeline with dense scrub. The PEA (AECOM, 2023) identified a line of trees and dense/continuous scrub to the west of the Site which are suitable sub-optimal habitat for hazel dormouse. The adjacent Island Farm Prisoner of War (POW) Camp Site of Importance for Nature Conservation (SINC) is designated for 14.03 ha broadleaved semi-natural woodland with resident and breeding hazel dormouse (BCBC, 2011) and there are five other SINCs within 2 km designated for hazel dormouse, it was concluded that there is potential for hazel dormouse to use the sub-optimal habitat present within the Site and hence presence/ absence surveys for dormouse were recommended.

The deployment of 50 dormouse nest tubes within the hedgerows and broadleaved trees around the perimeter of the Site, was carried on 01 June 2023, and a subsequent four visit were undertaken to check the hazel dormouse nest tubes for signs of hazel dormouse presence between June and November 2023.

No evidence of hazel dormouse presence was recorded during the field surveys and at present, they are assumed likely absent from the habitats on Site. The Proposed Development can proceed without a European Protected Species Mitigation License (EPSML).

Due to the presence of dormouse locally, and that the habitat on Site remains suitable (sub-optimal) for dormouse there is a small risk of dormouse being present prior to works and a precautionary approach to any proposed vegetation clearance of suitable vegetation (hedgerows, scrub and trees) is recommended. It is recommended that a Precautionary Working Method (PWM), including a Phased cut during winter, is followed under a watching brief of a suitably experienced ecologist.

Enhancements to be included in the new scheme design have been made and include; Design in new green corridor connections, which connect through to the Island Farm POW SINC; Enhance existing retained green connections, and Installation of dormouse nest boxes within suitable habitat.

Should vegetation clearance work to facilitate the Proposed Development be delayed further than 12 months (CIEEM, 2019) after this hazel dormouse assessment was undertaken (i.e., works begin after November 2024), an update survey or assessment may be required as informed by a suitably experienced ecologist.

This executive summary is not a substitute for the full report, refer to the full text for the complete background.

1. Introduction

1.1 Background

AECOM Ltd (hereafter 'AECOM') was commissioned by Bridgend County Borough Council to undertake hazel dormouse (*Muscardinus avellanarius*) surveys to inform the proposed construction of Heronsbridge School in Bridgend (hereafter referred to as the 'Proposed Development') within a parcel of land in Bridgend, South Wales (hereafter referred to as the 'Site').

A Preliminary Ecological Appraisal (PEA) was carried out by two experienced AECOM ecologists in March 2023 to identify any potential protected habitats and species which may pose a constraint to the Proposed Development. The PEA identified that surveys for hazel dormouse were required at the Site.

This report outlines the methodology and results of hazel dormouse surveys undertaken in 2023. It is intended that the information in this report will be used to identify and assess the potential impact of the Proposed Development on hazel dormouse and inform any necessary mitigation and/or compensation measures. The information will also go towards supporting a planning application for the Proposed Development.

1.2 Site Location and Description

The Site is located on the southern outskirts of Bridgend, central grid reference SS 90179 78239.

The Site is dominated by arable land, with bare ground, improved grassland, semi-improved neutral grassland, ruderal vegetation, manure piles, scattered scrub and dense/continuous scrub also present. The Site boundary is bounded by fences, walls, line of trees and hedges. The Site is on the southern edge of Bridgend, with arable fields to the south.

1.3 Proposed Development

The Proposed Development is for a new build project to replace the existing Heronsbridge School which is currently located approximately 0.8 km northeast of the Site. The Proposed Development will use approximately 2.94 ha, out of the 4.20 ha allocated for it, and will accommodate 300 primary and secondary pupils. Option 7 of the potential Site layouts has been used for this assessment (page 19, Roberts Limbrick Architects, 2021). Option 7 for the Proposed Development includes:

- a two-storey main school complex containing shared facilities and secondary/sixth form provision, joined with a single-storey building containing primary/nursery provision to the west;
- an autism unit, separate but linked to the main school complex by a covered walkway to the northeast;
- a lagoon to function as rainwater attenuation in the west corner of the Site;
- a car park with 91 car spaces and eight minibus spaces to the east;
- a new road parallel to the eastern boundary of the Site, with a new road connection cut through the Site boundary from Technology Drive;
- two residential blocks placed to the southeast, screened from car park and road through planting of hedges and trees; and,
- a football pitch and Multi-use Games Area to the north.

A lighting plan has not been finalised.

1.4 Survey Objectives

The objectives of this study were to:

- identify any designated nature conservation sites within or in the vicinity of the Site boundary that have the potential to support hazel dormouse;
- identify any known records and/or populations of hazel dormouse in the vicinity of the Site;

- record and map evidence or hazel dormouse activity within the Site;
- provide an assessment of the presence and distribution of hazel dormouse within the Site;
- highlight any potential ecological constraints in respect to hazel dormouse; and,
- outline any further survey work or protected species licensing that may be required prior to the commencement of the Proposed Development.

1.5 Legislation and Policy

The hazel dormouse is a fully protected species under both United Kingdom and European Law, which is transposed into UK Law via the Habitats Regulations (2017, as amended). This is a brief summary of the legislation and is not to be regarded as a definitive legal opinion. When dealing with individual cases, the client is advised to consult the full text of the relevant legislation and obtain further legal advice.

The hazel dormouse was given partial protection under the Wildlife and Countryside Act (WCA) 1981 (as amended). Schedule 5 of this Act was amended in 1988 making it a fully protected species. Protection is also afforded by Annex IV of the EC Habitats Directive (Council Directive 92/43/EEC), making the hazel dormouse a European Protected Species (EPS). These two pieces of legislation operate in parallel, although there are some small differences in scope and wording.

If hazel dormice are found within the Site and their habitat is due to be disrupted due to the Proposed Development a European Protected Species Mitigation License (EPSML) will need to be applied for from the National Resources Wales (NRW) in order for any works to go ahead.

1.5.1 The Wildlife and Countryside Act 1981 (as amended)

The WCA 1981 transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (commonly referred to as the 'Bern Convention'). The 1981 Act has been amended several times, most recently by the Countryside and Rights of Way (CROW) Act 2000, which added 'or recklessly' to Section 9(4)(a) and (b). Hazel dormice are listed on Schedule 5 of the 1981 Act, and are therefore subject to the provisions of Section 9, which makes it an offence to:

- intentionally kill, injure or take a hazel dormouse;
- possess or control any live or dead specimen or anything derived from a hazel dormouse unless it can be shown to have been legally acquired;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a hazel dormouse, and;
- intentionally or recklessly disturb a hazel dormouse while it is occupying a structure or place which it uses for that purpose.

1.5.2 The Habitats Directive

Hazel dormouse is protected under Annex IV of the EC Habitats Directive (Council Directive, 92/43/EEC). This is implemented into UK Law under Section 41 of the Conservation of Habitats and Species Regulations 2017, which makes it an offence to:

- deliberately capture or kill a hazel dormouse;
- deliberately disturb a hazel dormouse;
- damage or destroy a breeding site or resting place of a hazel dormouse; and/or,
- keep, transport, sell or exchange or offer for sale or exchange a live or dead hazel dormouse or any part of a hazel dormouse.

1.5.3 Environment (Wales) Act 2016

Hazel Dormouse is a Section 7 priority species under the Environment (Wales) Act 2016. This means they are important for the purpose of maintaining and enhancing biodiversity and must be considered during development.

1.5.4 Local Planning Policy

The Planning Policy Wales (PPW; Welsh Government, 2021) sets out the planning policies for Wales and how these are expected to be applied by Local Authorities. Chapter 6 sets out the objectives for the environment and chapter 6.4 address biodiversity and ecological networks. The relevant measures in place to conserve landscape and biodiversity include those in relation to:

- statutory and non-statutory designations;
- maintaining and enhancing biodiversity;
- maintaining ecosystem resilience and connectivity of ecological networks; and,
- protection and consideration of protected species and habitats.

Local Development Plans (LDPs) must be produced by every Local Planning Authority in Wales. Any development proposal will be tested against the policies within the LDP. The LDPs follow the planning guidance provide in PPW, including biodiversity and natural heritage policies. These include protecting designated sites and other areas of importance for biodiversity conservation; safeguarding protected species and priority species, including those listed in local biodiversity action plans and retaining, creating, and enhancing features of importance for biodiversity conservation where appropriate.

Relevant local planning policies for Bridgend County Borough Council are detailed in the Bridgend County Borough Council Local Development Plan 2006 – 2021 (BCBC, 2013). Once finalised and adopted, the Replacement LDP 2018-2033 will replace the existing LDP as the Statutory Development Plan for the County Borough.

1.5.5 Best Practice

The hierarchy of mitigation promoted by CIEEM (2018) states the following principals in descending order of preference which underpin Ecological Impact Assessment (EcIA):

- avoidance - seek options that avoid harm to ecological features;
- mitigation - negative effects should be removed or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed;
- compensation - where there are significant residual negative ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures; and,
- enhancement - seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

Relating this directly to hazel dormouse, this should be interpreted as:

- avoid by adjusting spatial/temporal plans to avoid impacts, thereby maintaining hazel dormouse populations within their current distribution;
- mitigate by the provision of measures deployed to ensure no adverse effects such as habitat loss or harm; and,
- compensate by reinstating habitat either on or offsite and, if necessary, translocating the hazel dormice.

1.6 Quality Assurance

This site assessment and associated report were undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and Health and Safety management. All staff members are committed to establishing and maintaining our certification to the international standards BS EN ISO 9001:2015 and 14001:2015 and BS ISO 45001 2018. In addition, our IMS requires careful selection and monitoring of the performance of all sub consultants and contractors.

All AECOM Ecologists who worked on this project follow the Chartered Institute of Ecology and Environmental Management (CIEEM) code of professional conduct (CIEEM, 2022) when undertaking ecological work.

All AECOM Ecologists who completed the field work held or were accredited on an NRW dormouse licence.

2. Methodology

2.1 Desk-Based Study

The PEA (AECOM , 2023) prepared for the Site comprised a desk-study undertaken in March 2023 to review habitats and protected species records in the last ten years within a 2 km buffer of the Site. In relation to dormouse, this included:

- Nationally designated sites for hazel dormice, up to 2 km from the Site, and internationally designated sites for hazel dormice, up to 5 km from the Site, using the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk).
- Locally non statutory sites for hazel dormice, up to 2 km from the Site using the South East Wales Biodiversity Records Centre (SEWBRc).
- Hazel dormice records up to 2 km from the Site, using the SEWBRc;
- Previous reports – An Ecological Appraisal for Island Farm Tennis Centre, adjacent to the School Site, to assess the potential for protected species was completed by another ecological consultancy (ethos Environmental Planning, 2020 and 2022). This included an assessment of the proposed access road from Technology Drive, which forms part of the Heronsbridge school Proposed Development.

2.2 Field Survey – Presence / Likely Absence

Dormouse surveys were undertaken paying regard to standard best practice guidance (Bright *et al.*, 2006; Chanin and Woods, 2003) . A total of 50 nest survey tubes were installed on 01 June 2023, approximately 10 m apart, within lines of trees, hedgerows and dense scrub within and adjacent to the boundary of the Site (Figure 1).

The guidance documents consulted provide guidance on survey effort requirements, using an Index of Probability of finding hazel dormouse present in nest tubes in any one month. The Index of Probability is based on using 50 nest tubes as a standard. A copy of the Index of Probability scores is provided in Table 2-1.

Bright e.al, 2006 recommends that assumed absence of hazel dormouse should not be based on a survey effort score of less than 20. The survey effort score is calculated by adding the Index of Probability scores for the months in which the tubes were *in situ*, providing a minimum check of all tubes is undertaken at least every other month (Table 4-1).

Six survey visits with tubes deployed between May and November was proposed. Tubes were deployed in June and check on four visits between June and November (See Limitations). However this has not affected the Index of Probability Score or robustness of the survey. Inspection of each tube was undertaken by an NRW dormouse licenced ecologist and assistant. Any presence of hazel dormouse or field signs were recorded along with any evidence of other species using the nest tubes. Table 2-2 below presents the dates of each visit. All surveys were undertaken in suitable weather conditions.

As shown in Table 2-2, the search effort score achieved is 22, above the minimum recommended score of 20. As the minimum score has been achieved the survey provides a robust assessment of presence or likely absence of hazel dormouse within the Site.

Table 2-1 Index of Probability of finding Hazel Dormice present in Nest Tubes

Month	Index of Probability
April	1
May	4
June	4
July	2
August	5
September	7
October	2

Month	Index of Probability
November	2

Table 2-2 Dormouse Survey Dates and Index of Probability Score

Visit Number	Date	Baseline Index of Probability
Tubes installed	01 June 2023	4
1	27 July 2023	2
No survey visit	August	5
2	28 September 2023	7
3	26 October 2023	2
4	24 November 2023	2
Total		22

2.3 Limitations

The aim of a desk study is to help characterise the baseline context of a development and provide valuable background information that would not be captured by a single site survey alone. Information obtained from a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular species does not necessarily mean that the species do not occur in the Site. Likewise, the presence of records for particular species does not automatically mean that these still occur within the area of interest or are relevant in the context of the development. However, if assessed in conjunction with a survey, they can contribute to a robust ecological assessment of a site.

If the area for development or other details of this project are amended in the future, the study should be reviewed and revised as appropriate. It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason, and in accordance with current guidance, the existing survey data has a 'shelf-life' of and should only be relied on for a period of, one year from the date of survey. After this date (November 2024), update surveys are likely to be required and advice sought from an appropriately qualified ecologist to determine survey scope and methods.

Due to the small scale of the Site the nest tubes were not spaced out at the optimum 20 m as recommended in the Dormice Conservation Handbook (Bright *et al.*, 2006) there were closer together, more like 10 m.

On the first survey tube 34 could not be located/accessed and therefore was not inspected. This was inspected on subsequent visits. This is not considered a limitation, as any nest signs would have persisted between visits and due to the overall quantity of nest tubes deployed and monitored across the Site.

The August survey was not undertaken due to accessibility issues. This does not affect the Index of Probability Score or the robustness of the survey effort, as the tubes remained in situ. The hazel dormouse tubes were checked in September, and any nests would have been identified at this time.

There are no significant limitations to this survey or assessment.

3. Results

3.1 Desk-Based Study

Recent records and the designated habitats and features, in relation to hazel dormice within proximity to the Site are listed in Table 3-1.

Table 3-1 Desk Study Results

Designation / Feature	Description
Nationally and Internationally Designated Sites within 2 km	There are no Nationally or Internationally Designated Sites within 2km of the Site designated for hazel dormouse.
Locally Designated Sites within 2 km	<u>Island Farm POW Camp Site of Importance for Nature Conservation (SINC)</u> Distance and Direction: Adjacent to the west of the Site. Description: 14.03 ha broadleaved semi-natural woodland with resident and breeding hazel dormouse. (BCBC 2011) <u>Heronston House Meadow SINC</u> Distance and Direction: Approximately 0.5 km east of the Site, separated by industrial and residential areas of south Bridgend. Description: 2.78 ha with two separate meadow areas with overgrown hedgerows, wet areas and drainage ditches to the north field. Likely to provide foraging/ commuting habitat along field margins and over wet areas for bats and habitat suitable within hedgerows for hazel dormice. (BCBC, 2011). <u>Ewenny Moor SINC</u> Distance and Direction: Approximately 0.6 km southeast, connected to the Site by fields intersected by a railway line and minor roads. Description: 53.61 ha of river floodplain grazing marsh with improved grassland, marshy grassland, drainage ditches, riparian woodland and scrub. Potential habitat for hazel dormice within riparian woodland and scrub. (BCBC, 2011). <u>Craig-y-Parcau SINC</u> Distance and Direction: Approximately 0.95 km north, separated from the Site by south Bridgend (urban area) and A48. Description: Semi-natural woodland with an assemblage of indicator species for ancient woodlands. Habitat suitable, hazel dormice, (BCBC, 2011). <u>River Wood SINC</u> Distance and Direction: Approximately 1.2 km east, connected to the Site by fields intersected by a railway line and minor roads, though on opposite bank of the River Ewenny. Description: 1.75 ha semi-natural woodland with an assemblage of ancient woodland indicator species. Provides suitable habitat for hazel dormice. (BCBC, 2011). <u>Coed-y-Tyle SINC</u> Distance and Direction: Approximately 1.3 km northwest, separated by the River Ogmore, though New Inn Road runs through the SINC and travels over the river to the Site. Description: 3.95 ha semi-natural woodland with an assemblage of ancient woodland indicator species and some wet woodland areas. Habitat suitable for hazel dormice. (BCBC, 2011).
Priority Habitats within 500 m	The desk study identified two patches of lowland mixed deciduous woodland habitat within 500 m of the Site to the east and west. The PEA (AECOM 2023) states that sections of intact species-poor hedges were present along the northern boundary of the Site, which were noted to provide no connectivity for nesting and breeding hazel dormice as they backed onto private gardens.
Hazel Dormouse Records from the last 10 years within 2km	Returned no records of hazel dormouse within the Site or the surrounding habitats. There are historic records (over 10 years old) of hazel dormice located adjacent to the southeast boundary of the Site within Island Farm POW Camp SINC.
Previous Reports	The Island Farm Ecological Appraisal (ethos Environmental Planning, 2020) found seven records of hazel dormice within their data search between 2000 and 2015. <i>The woodland belt on the northern boundary comprised mature trees with a shrubby understorey with species known to be used by hazel dormice including hazel, hawthorn, blackthorn, sycamore and bramble. The</i>

Designation / Feature	Description
	woodland was connected to other suitable habitat in the wider environment, and it was concluded that the habitats on site held the potential to support hazel dormouse. The hedgerow on the eastern boundary was planted as part of the mitigation measures for the larger sports village development and comprised immature shrubby vegetation, lacking the structure required by hazel dormice. It was therefore assessed that this species was likely to be absent from this habitat.

3.2 Field Survey – Presence / Likely Absence

No hazel dormice or evidence of hazel dormouse was recorded during the field surveys.

Wood mouse (*Apodemus sylvaticus*) nests with feeding remains present were identified in October and November surveys, within a hazel dormouse nest tube deployed on Site (Appendix B, Photograph 1). A summary of the survey results is provided in Table 3-2.

Inconclusive mammal nests were found within nest tubes on 26 October and 23 November (Appendix B, Photograph 1). After peer review these were considered unlikely to be dormouse due to the structure of the nest material. The structure of this nest was partially disintegrated and damp, reducing the ability of surveyors to identify which other small mammal species had made it.

Table 3-2 Dormouse Field Survey Results

Visit Number	Date	Tube number	Results
1	27/07/2023	NIL	NIL
2	28/09/2023	NIL	NIL
3	26/10/2023	B39	Inconclusive small mammal nest
4	23/11/2023	B22	Wood mice nest
4	23/11/2023	B13	Wood mice nest
4	23/11/2023	B35	5 wood mice in a nest
4	23/11/2023	B37	4 wood mice in a nest (Appendix B Photograph 1)
4	23/11/2023	B39	Old wood mouse nest
4	23/11/2023	B40	Inconclusive small mammal nest

3.3 Conclusions and Site Assessment

No evidence of hazel dormouse presence was recorded during the field surveys and at present, they are assumed likely absent from the habitats on Site.

There are historic records (over 10 years old) of hazel dormice located adjacent to the southeast boundary of the Site within Island Farm POW Camp SINC. The surrounding habitats provide connections in the landscape, despite being subject to farming practices. Hazel dormice are typically found in very low densities over large areas and in optimal habitats. The mean density of hazel dormice per ha in spring is 4-10 adults and in hedgerows, this is 1-3 adults (Bright *et al.*, 2006). Given the proximity of historic dormouse records with connectivity to the Site and the continued suitability of the sub-optimal habitat to support dormouse, there remains a small risk that dormouse could move into this habitat in the near future.

Other small mammal evidence was recorded indicating the suitability of the Site for supporting small mammals other than hazel dormice. Five wood mouse nests were identified with five wood mice individuals recorded present within a nest. Given the lack of protection afforded to wood mice, their presence within the Site does not represent a constraint to the Proposed Development.

3.4 Validity of Assessment

Should vegetation clearance work to facilitate the Proposed Development be delayed further than 12 months after this hazel dormouse Site assessment was undertaken (i.e. works begin after November 2024), conditions on Site may have changed and an update survey may be required. An ecologist should be contacted for advice.

4. Recommendations for Mitigation

4.1 European Protected Species Mitigation License (EPSML)

No evidence of hazel dormouse presence was recorded during the field surveys and at present, they are assumed likely absent from the habitats on Site. Therefore the Proposed Development does not require a European Protected Species Mitigation License (EPSML) to proceed.

There remains a small risk that dormouse could move into this habitat in the near future due to the continued presence of sub-optimal habitat suitable for hazel dormouse and historical records within the area. Therefore, a precautionary approach for vegetation clearance is recommended to avoid any residual risk of killing or injury to dormouse, or risk of unlicensed habitat destruction. The recommended precautionary approach is outlined below.

4.2 Avoidance of Impacts through Retention of Habitat

Habitat suitable for hazel dormouse, including the tree lines and hedgerows, should be retained where ever possible within the Proposed Development.

If habitat retention is not possible any vegetation clearance or construction works that would result in disturbance to suitable hazel dormouse habitat should follow a PMW under the watching brief of an experienced ecologist and adopt a phased approach.

4.3 Avoidance of Impacts through Timing of Works

Vegetation clearance works should avoid hazel dormice breeding season (June to August). And adopt a precautionary approach during the hazel dormouse hibernation period (November-March, inclusive).

At this stage the construction methods and timetable for the Proposed Development are not finalised and planning permission has not been granted. It is understood that where possible the vegetation clearance works are to be carried out within the winter months to avoid bird nesting season. This falls within the hazel dormouse hibernation period (November-March, inclusive) and avoids their breeding season (June-August, inclusive).

Precautionary methods for vegetation clearance works in winter, to avoid impacts on ground-hibernating dormouse, are outline below. .

4.4 Precautionary Method of Working

Precautionary Working Method Statement (PWMS) should be produced and implemented during Site works. The PWMS should detail the following measures:

- **Timing of Works:** Vegetation clearance works should avoid hazel dormice breeding season (June to August). Adopt a precautionary approach during the hazel dormouse hibernation period (November-March, inclusive).
- **Informing the Workforce:** Site operatives to be informed by a 'Toolbox Talk' at the start of construction, detailing the ecological constraints, legislation, potential impacts, and responsibilities during works;
- **Limit Habitat Loss** - all vegetation clearance will be kept to the minimum required;
- **Ecological Clerk of Works (ECow)** - An experienced ecologist should be present on Site to hand-search the vegetation proposed for removal for signs of hazel dormice including hand searches for hibernating dormice and their nests on the ground. The ecologist will remain on site for all remaining vegetation removal, or until the risk is deemed negligible by the ecologist;
- **Phased Cut:** A two-step phased process of vegetation removal will be adopted to help limit potential disturbance and injury to hazel dormouse during their hibernation period (November-March, inclusive) during October and November in which they nest within vegetation on the ground.

- Phase 1: vegetation will be cleared to no lower than 300 mm above ground in winter. No vegetation will be cut to ground level during winter. The remaining vegetation will be hand-searched by an ecologist, if previous ground checks were limited by the taller vegetation.
- Phase 2: the remaining areas of ground- can be cleared, and soil stripping (where required) when hazel dormice are active (March-November, inclusive). Dormouse will be disused from the area by the previous clearance and will be nesting and active within the retained or surrounding scrub/tree canopy off the ground, reducing the risk of injury to dormouse during ground level clearance.
- If a hibernating dormouse is found within the working area during the hand searches, works will stop in that area, and it will be left undisturbed with a minimum 5 m buffer of vegetation which will be fenced off and left in situ to protect the dormouse and dormouse nest during the works. In addition to the vegetation buffer, connectivity to retained habitat will also be left to allow the dormouse to move to suitable retained habitat once it emerges from hibernation in the following spring.
- If hazel dormice or evidence of hazel dormice is found at any time during the works, then all works must cease until the methods for on-going clearance are re-assessed and approved by the ECoW. A licence from NRW may be required to proceed.

5. Recommendations for Enhancements

The following enhancements have been recommended for inclusion with the project design:

- Design in new green corridor connections, which connect through to the Island Farm POW SINC. Green corridor connections should be designed to be suitable for dormouse and should be designed to include understory/shrub planting (hedgerow style planting) as part of any liner tree planting, and this shrub layer will provide the connectivity needed for dormouse. A tree line alone would be of limited value for dormouse.
- Enhance existing retained green connections, by planting up gaps and/or additional front edge planting to provide a buffer to existing corridors and create extra width enhancing their future value to dormouse.
- Installation of dormouse nest boxes (woodcrete or similar long-lasting boxes) (minimum 3) within suitable well-connected hedgerows/trees to enhance local nesting opportunities. Boxes should be located away from potential human disturbance and away from any potential light spill.

6. References

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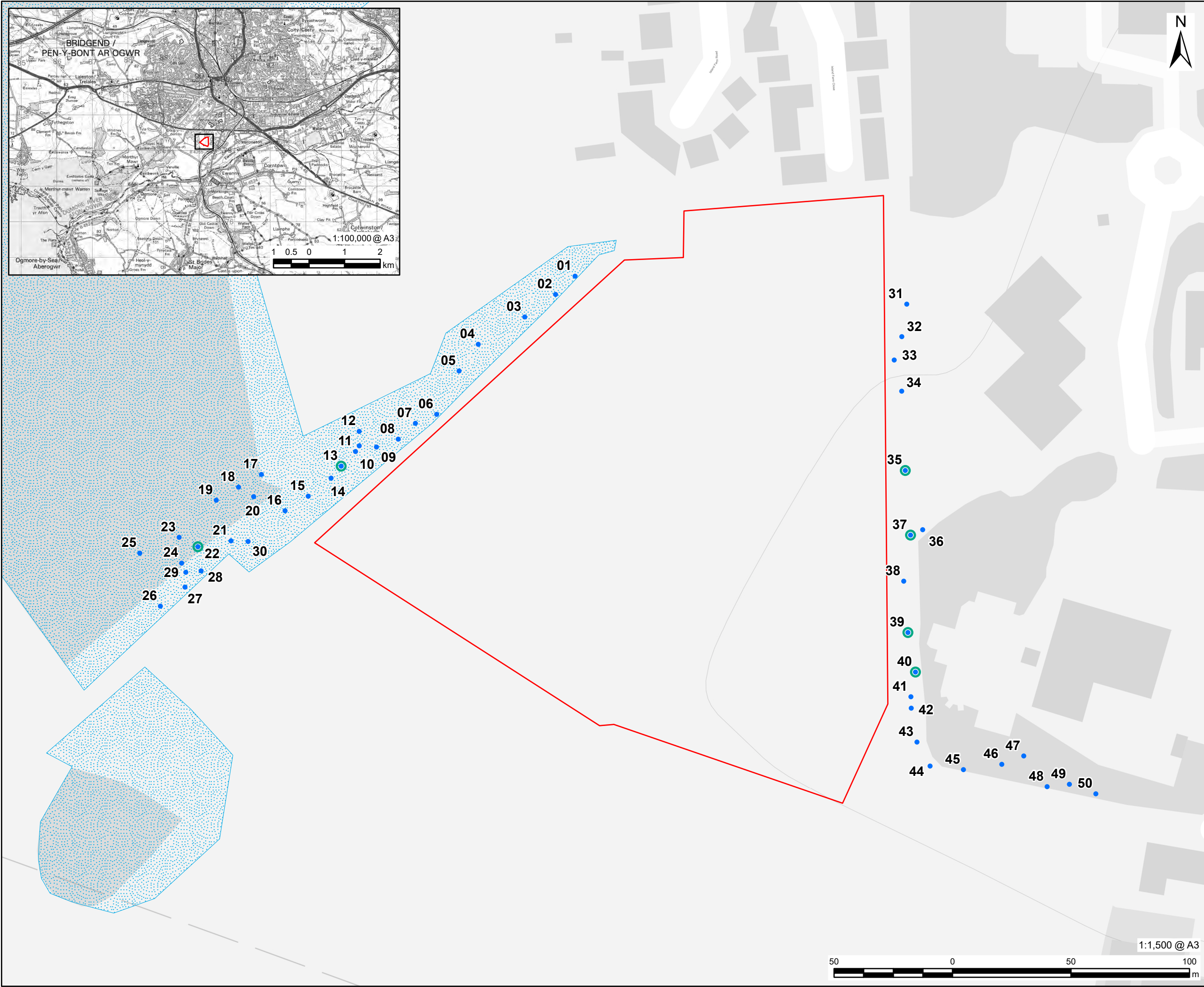
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Figure 1 – Dormouse Survey Results Map



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PROJECT

Heronsbridge School

CLIENT

Bridgend County Borough Council

CONSULTANT

AECOM Limited
 Floor 5
 5 Callaghan Square
 Cardiff, CF10 5BT
 www.aecom.com

LEGEND

- Site Boundary
- Tube
- Woodmice nest
- Island Farm POW Camp SINC

NOTES

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 2: Reproduced from Bridgend County Borough Council SINC data obtained on 02/01/2024.

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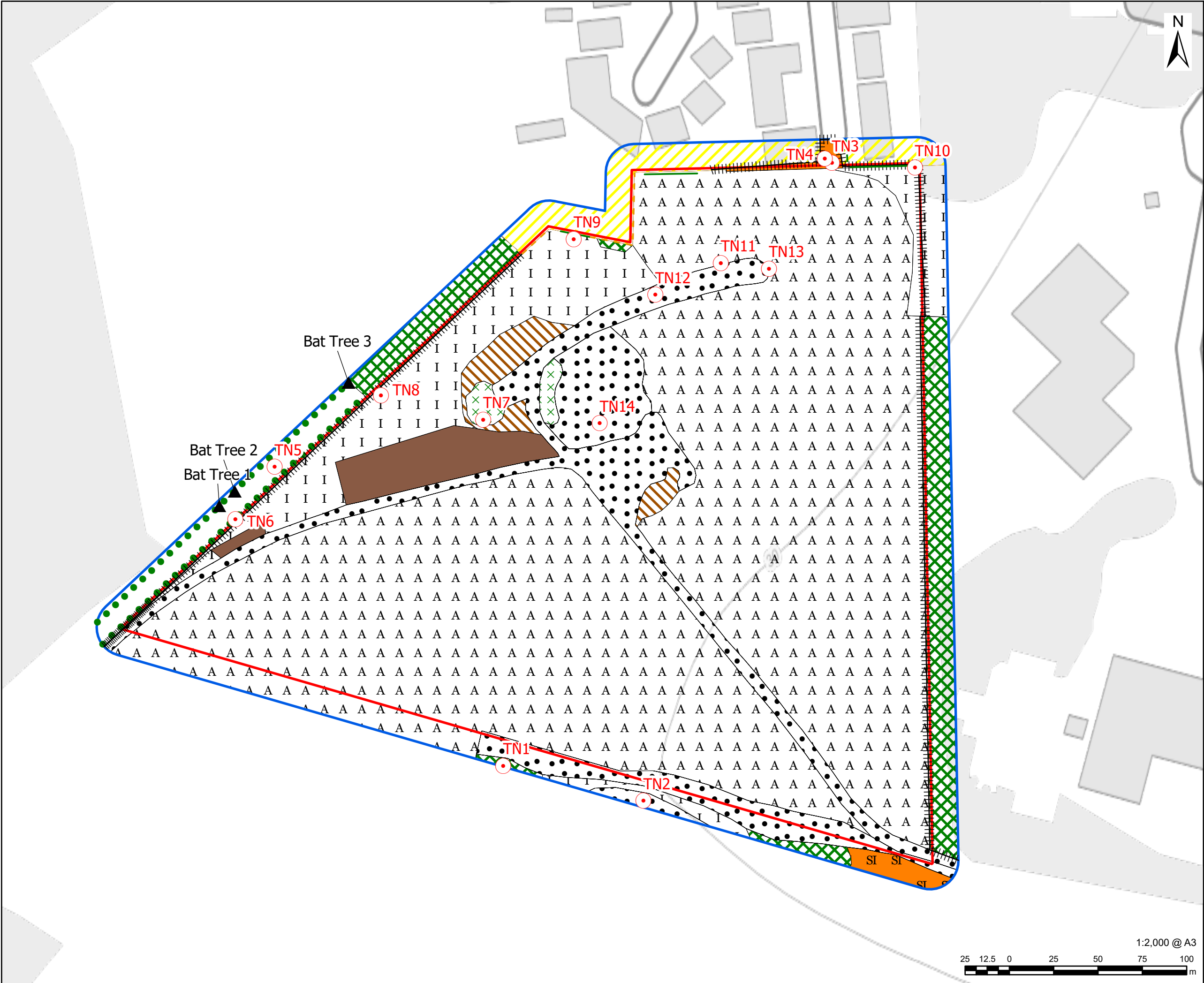
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Dormouse Survey Results Map

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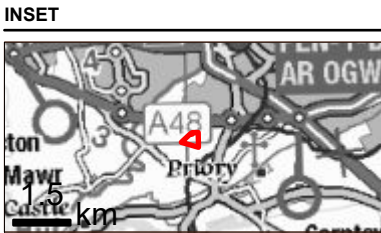
Figure 1

Figure 2 – Phase 1 Habitat Map



LEGEND

- Site boundary
- Zone of influence
- Area not accessible
- Bat tree
- Target note
- Broadleaved parkland/scattered trees
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Fence
- Wall
- Scrub - dense/continuous
- Scrub - scattered
- Neutral grassland - semi-improved
- Improved grassland
- Other tall herb and fern - ruderal
- Cultivated/disturbed land - arable
- Bare ground
- Manure Piles



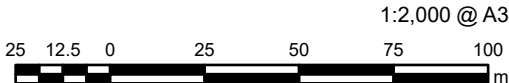
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PROJECT NUMBER
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FIGURE TITLE
Heronsbridge School Phase 1 Habitat Map

FIGURE NUMBER
Figure 1



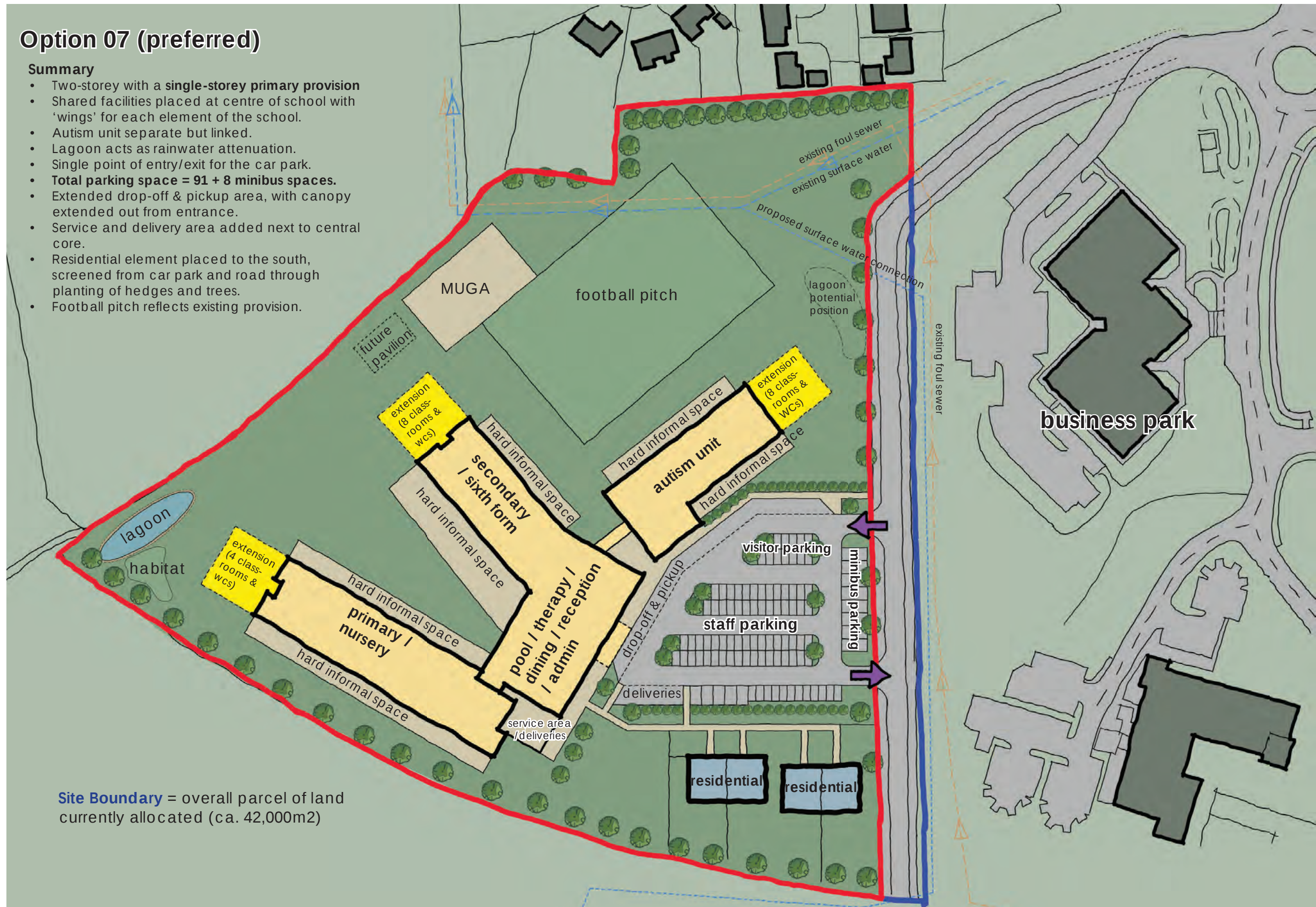
Appendix A Proposed Development Plans

03: Sketch Options

Option 07 (preferred)

Summary

- Two-storey with a **single-storey primary provision**
- Shared facilities placed at centre of school with 'wings' for each element of the school.
- Autism unit separate but linked.
- Lagoon acts as rainwater attenuation.
- Single point of entry/exit for the car park.
- **Total parking space = 91 + 8 minibus spaces.**
- Extended drop-off & pickup area, with canopy extended out from entrance.
- Service and delivery area added next to central core.
- Residential element placed to the south, screened from car park and road through planting of hedges and trees.
- Football pitch reflects existing provision.



Appendix B Photographs



Photograph 1 Wood mouse nest found within dormouse nest tube 22 in south of the Site. Loose nest structure.



Photograph 2: Inconclusive small mammal nest 26 October 2022

