



Ecological Mitigation, Enhancement and Management Plan

Village Bakery Ltd, Coed Aben Road, Wrexham Industrial Estate, Wrexham LL13 9UH

Trustees of Peel House Trust

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Industry Guidelines and Standards

This report has been written with due consideration to:

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

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

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1.0 Introduction

Arbtech Consulting Limited was instructed by Trustees of Peel House Trust to produce an Ecological Mitigation, Enhancement and Management Plan for Village Bakery Ltd, Coed Aben Road, Wrexham Industrial Estate, Wrexham LL13 9UH hereafter referred to as “the site”).

The plan was required to discharge a planning condition relating to application number P/2021/1189 with Wrexham Council for “erection of an industrial unit”, specifically condition 6, which reads as follows:

“Within three months of commencement of development a scheme of net biodiversity benefit shall be submitted to and approved in writing by the Local Planning Authority, to include timetable(s) for implementation of the scheme and a scheme of long term management and maintenance. The approved scheme shall thereafter be implemented in full in accordance with the approved timetable(s). The measures for biodiversity gain shall thereafter be permanently retained and management and maintained in accordance with the approved scheme of long term management and maintenance.”

Plans of the proposed development are provided in Appendix 1.

The aim of this plan is to outline mitigation measures required to minimise impacts on biodiversity as well as to outline habitat creation and enhancement opportunities and long-term management which will ensure that a net gain in biodiversity is achieved and maintained on the site, in accordance with the Planning Policy Wales (PPW).

This plan has been informed by a Preliminary Ecological Appraisal (“PEA”; Indigo Surveys Ltd, November 2021) and a GCN Mitigation Plan (Arbtech Consulting Ltd, February 2023).

2.0 Site Context and Survey Information

2.1 Site Location and Landscape Context

The site is located at National Grid Reference SJ 37600 49815 and has an area of approximately 0.1ha. The site consists of an industrial unit (The Village Bakery), with associated car parks and goods yard. The development area consists of the southern half of the site.

Currently, the site consists almost entirely of buildings and hard standing, with the only natural habitat being a narrow strip of closely-mown amenity grassland along the southern boundary, where the site borders Coed-Aben Road. The amenity grassland is illustrated in Figure 1 overleaf.

To the north, the site borders Erilas Black Wood, an area of ancient broadleaved woodland which has at least three ponds created in 2017 by The Village Bakery to provide breeding value for GCN, as part of the Wrexham Industrial Estate Living Landscape Project.

A site location plan is provided in Appendix 2.

2.2 Ecological Information

The PEA (Indigo Surveys Ltd, November 2021) concluded the following:

“The site was moderate in extent, comprising an industrial unit (The Village Bakery), with associated car parks and goods yard. Much of the plot was taken up by buildings and hard standing, with the remainder comprising small areas of close mown amenity grassland lawns. Fences enclosed the site from adjacent plots.

No rare vascular plants were found, and all species recorded were common and widespread.

During the site visit just one species of birds was observed, this a Species of Low Conservation Concern (RSPB Green list). No bird nesting opportunities/habitats were present within the survey area.

The buildings/units had negligible suitability for roosting and/or hibernating bats, whilst the site was considered to offer negligible value habitat for foraging bats (i.e. dominated by hard standing and buildings).

There were no signs or evidence of Badger Meles meles activity, whilst there were no suitable habitats for riparian mammals on the site itself.

There were no still water or other wetland features on the site, and as such there was negligible potential for amphibians.

The site offered negligible habitat for common reptiles, whilst the site also had poor connectivity to potential reptile habitats in the wider area (i.e. surrounded by industrial plots and roads).

Since much of the site was dominated by hard standing, it was concluded that there was no potential for significant invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan. Indeed, none were noted.

Care will be taken when carrying out earthworks, as small mammals could be present. Any small mammals disturbed or uncovered will either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.”

3.0 Construction Ecological Management Plan (CEMP)

Table 2: Mitigation Measures

Works	Specification
Persons Responsible and Lines of Communication	It is recommended that a Development Biodiversity Champion is selected for the construction phase of the development. The Biodiversity Champion should be someone with significant influence during construction, such as the contract or project manager. The Development Biodiversity Champion is responsible for ensuring all actions outlined in this Plan are implemented. Any queries with regards to the mitigation prescriptions should be addressed to the project ecologist and communication should be retained between the Development Biodiversity Champion and project ecologist or a suitably qualified Ecological Clerk of Works (ECoW) throughout the construction phase of the development where necessary to ensure the mitigation is applied and impacts to adjacent ecological receptors are effectively minimised. The project ecologist's contact details are located on the title page of this report. It is recommended that the Biodiversity Champion informs the project ecologist or ECoW of the commencement of construction works and provides updates where necessary.
Amphibian mitigation	Site clearance will be undertaken outside of the amphibian hibernation season (November to February) insofar as is possible. Night time working will be avoided. Before works commence, a toolbox talk will be given to contractors regarding the possible presence of amphibians, including GCN, at the site. Heras fencing will be erected around the working area to prevent encroachment into retained habitats. The construction zone will be kept clear of rubble piles and stored items to discourage amphibians from moving into the area. Debris and brash will be stored on pallets, in skips, or removed from the site, to prevent amphibians from utilising these areas. During construction, any ditches, holes or trenches must be covered at night, or ramps must be added so that animals do not get trapped. Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any common amphibians are found in the working area these should be moved by hand into the woodland that adjoins the site to the north. In the unlikely event that a GCN is identified, all works must cease and advice must be sought from a suitably qualified ecologist.
General Construction Activities	Heras fencing (or similar) will be installed around the perimeter of the construction zone to prevent any vehicle or construction encroachment onto habitats / species of ecological value. Any machinery used should be made safe or temporarily fenced off when not in use. Storage of construction materials will be kept to a minimum. Where materials must be stored, they will be restricted to inert objects and located on hardstanding away from hedgerows, ponds, badger sett. Materials will be stored on pallets to discourage animals from using them as shelter. Skips or similar containers may also be used in place of piles on the ground. Trenches or open excavations will be covered at the end of each working day, or include a means of escape such as a sloping ramp for any animals that may fall in. Any temporarily exposed open pipe systems or ducts will be capped at the end of each working day in such a way as to prevent animals from gaining access.
Lighting	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Lighting of the woodland to the north will be avoided. • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light.

	• Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.
Birds	Works to the building and vegetation clearance should be undertaken outside the core nesting period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the buildings and vegetation should be undertaken, by the project ecologist or ECoW, within 48 hours prior to the commencement of work. All active nests will need to be retained with a species-appropriate buffer until the young have fledged (species specific but typically 4-6 weeks).

4.0 Provision of New Landscaping and Species-Specific Enhancements

Table 3: Provision of New Landscaping and Species-Specific Enhancements

Works	Specification
Persons Responsible	The Biodiversity Champion will be responsible for the provision of the new landscaping and species-specific enhancements. The occupier of the proposed development (i.e. the landowner or managing agent) will be responsible for the management of these features post development.
Management Term	The management prescriptions outlined within this table must be implemented over a period of at least 30 years.
Wildflower grassland creation	Overview: Areas of wildflower grassland covering a combined area of ~200m² will be created on site, as shown in Appendix 3. Other planted areas around the buildings will consist of modified grassland/ low-level ground cover planting which will be restricted to native species. This is also shown in Appendix 3. Objectives: • To create a successful and species rich wildflower grassland that will provide habitat for pollinating invertebrate species, that will in turn, provide foraging opportunities for notable species groups including bats, birds, badgers, and hedgehogs. • Ensure a healthy species diverse sward is maintained; • Ensure that a natural appearance is retained by utilising a seed mix alongside allowing native species of local provenance to recolonise from the seedbank;

- Employ techniques that use organic fertilizers and minimise the use of chemicals wherever possible.

Creation Method:

- **Ground preparation**

The location of the proposed wildflower meadow creation currently comprises amenity grass.

For areas of ground currently covered by vegetation, any existing weeds should be removed through repeated cultivation and the land subsequently ploughed/ turned to bury all remaining vegetation. For areas of ground currently covered by hardstanding, the hard surface will need to be broken up and removed leaving exposed bare earth suitable for seeding. Once the land has been ploughed/ turned or cleared to bare earth, the soil should be rolled or stamped to produce a firm surface ready for seeding. It is noted that the underlying soil substrate is expected to contain a high clay content in places. Clay is generally unworkable when very wet or very dry and autumn sowings may therefore not be possible. It is often better to dig or plough the soil in the autumn, allow winter frosts to break down the clods, and prepare a seedbed in the spring.

- **Seeding**

To be undertaken in the spring between April and May. The following seed rates are recommended:

40 kg/ha of a wildflower and grass seed mix.

Inclusion of yellow rattle *Rhinanthus minor* in the seed mix will help suppress vigorous grass growth that may suppress the success of wildflowers within the sward.

- **Bedding in of seed:**

After sowing, seeds will be 'bedded' in by trampling or light rolling.

- **Seed mix:**

A combination of two seed mixes is proposed. Specifically, a 50/50 mix of Emorsgate General Purpose Seed Mix EM2 and Emorsgate Mixture for Clay Soils EM4 are proposed to be utilised. This combination of seed mixes will help create a minimum of 9 species per m² of grassland and retain a species composition consistent with the UKHabs definition of other neutral grassland. The proposed seed mix combination includes numerous grassland and wildflower species suitable for neutral and clay dominated soils. Notably, the species mix includes yellow rattle which is known to suppress dominant grass species which will allow existing grasses within the seed bank to colonise whilst preventing dominance and thus increasing species diversity per m². For exact specifications, please refer to: <https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/standard-general-purpose-meadow-mixture/> and <https://wildseed.co.uk/product/mixtures/complete-mixtures/meadow-mixtures-for-specific-soils/meadow-mixture-for-clay-soils/>

Management Prescriptions:**Table 3.2:** Wildflower meadow management prescriptions.

Management	When	Rationale
Cut meadow twice annually	Late March / early April and– late August/ early Sept	This ensures the meadow does not grow excessively long and become rank but allows wildflowers to set seed and invertebrates to breed. This will also allow a diverse sward of varying lengths to naturally occur in accordance with growth characteristics of each species. Cutting twice annually will also prevent encroachment of scrub and bracken.
Cut grass as to provide a heterogeneous habitat structure aiming to maintain at least 20% of grass <7cm and 20% >7cm. As such, each cutting phase must cut 20% of the area to ground level, 60% of the area to 15cm, and the remainder to 30cm. These areas must be rotated each year to maintain a diverse sward.	Late March / early April and– late August/ early Sept	To retain a diverse sward whilst limiting impacts to protected species potentially present at ground level and ensuring the natural germination of seeds.
Turn and dry the cut grass over 3-5 days before removing arisings off Site	Post cut	This allows the seeds to drop encouraging species diversity and invertebrates to relocate unharmed.
Do not apply chemical	At all times.	The use of chemical fertilisers

	fertilisers will encourage vigorous grasses and weeds to grow or cause large areas of bare ground due to inhospitable growing conditions,
Bat Boxes	Three bat boxes will be installed on the retained tree line on the new warehouse building. A third bat box will be installed on the converted building. Bat boxes specification: • The recommended bat boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are designed to require no maintenance and have a lifespan of 25 years plus. • 3x Beaumaris Bat Boxes (or similar alternative brand) will be installed on the building, as shown in Figure 1. • Bat boxes should be positioned 3-5m above ground level facing in a south, southeast, or southwest aspect with a clear flight path to and from the entrance, away from artificial light. Figure 1: Beaumaris Bat Box (image credit https://www.nhbs.com/beaumaris-woodstone-bat-box) Recommended Management: The proposed bat boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of bat boxes will increase the chances of occupation by roosting bats. However, it is recommended that the bat boxes are inspected annually for the first

	five years outside of the typical active season for bats (May to September inclusive) following installation. Bat boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.
Bird Boxes	Three bird boxes will be installed on the new warehouse building. <i>Bird box specification:</i> • The recommended bird boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are designed to require no maintenance and a lifespan of 25 years plus. • 3x Vivara Pro WoodStone Swift Nest Box (or a similar alternative brand) is proposed on the building, as shown in Figure 2. • Vivara Pro WoodStone Swift Nest Boxes should be positioned at the eaves of the building. A photograph of a concrete bird box, specifically a Vivara Pro WoodStone Swift Nest Box. The box is light grey, has a square base, and a roof that slopes upwards to the right. A circular entrance hole is located on the front face, slightly below the center. The box is shown against a plain white background. Figure 2: Vivara Pro WoodStone Swift Nest Box (image credit https://www.nhbs.com/woodstone-swift-nest-box) <i>Recommended Management:</i> The proposed bird boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of bird boxes will increase the chances of occupation by nesting birds. However, it is recommended that the bird boxes are inspected annually for the first five years outside of the typical nesting bird season (March to September inclusive) following installation. Bird boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.

[illegible]

 Application Boundary
 Ownership Boundary
 Wet Landscaping
 Parking (P) (A)
 Concrete Service Yard (P) (A)
 Tennis Court (P) (A)
 Plot of Plot Office Building

BOUNDARY TREATMENT KEY



Floor Schedule (Totals)			
Type	Description	Area	Height
FLOOR	First Floor	2,000 sq ft	10 ft
FLOOR	Second Floor	2,000 sq ft	10 ft
FLOOR	Third Floor	2,000 sq ft	10 ft

- A. ☐ indicate the information of the applicant has been known or has changed.
- B. ☐ know/learn the nature and project specific nature from the information in the project RFP. Should answer YES/NO.
- C. ☐ Should understand that the RFP is to be read and answered.
- D. ☐ The project controller is a technical and business manager under the contract and not a legal or legal regulator.
- E. ☐ Additional fees are imposed as a result of the use of the project RFP.
- F. ☐ Answer: Fully project RFP, and "Answer" is defined under contract document.
- G. ☐ Tell the contractor, "The project RFP is a technical, technical and financial contract and is not a contract for any other purpose, such as a partnership contract (including any condition and/or

1. Proposals or information contained on this drawing is to be used for "TENDERING" purposes and is NOT for procurement or associated construction works.
2. Design information indicated on this drawing is to be used solely for COORDINATION purposes.
3. Development proposals are to be read in conjunction with all referenced drawings and documents.
4. Soft Landscaping shown is indicative, refer to Landscape Analysis design for full details.
5. Any proposed levels are indicative and subject to change to suit Engineer.

P6	Coordinated Action Issues	AR	14/02/22	30
P5	Building Support Network	BF	18/02/22	30
P4	Building Options	BF	26/02/22	30
P3	Timeline Issues	BF	08/03/22	30
P2	Planning Issues (all types)	BL	06/03/22	30
P1	Planning Issues (Development)	BL	20/03/22	30
Ex.	Building Details	Design	Exhib	



Glenn
Vintage Bakery

Project:
Village Bakery
Wrotham Industrial Estate - V4

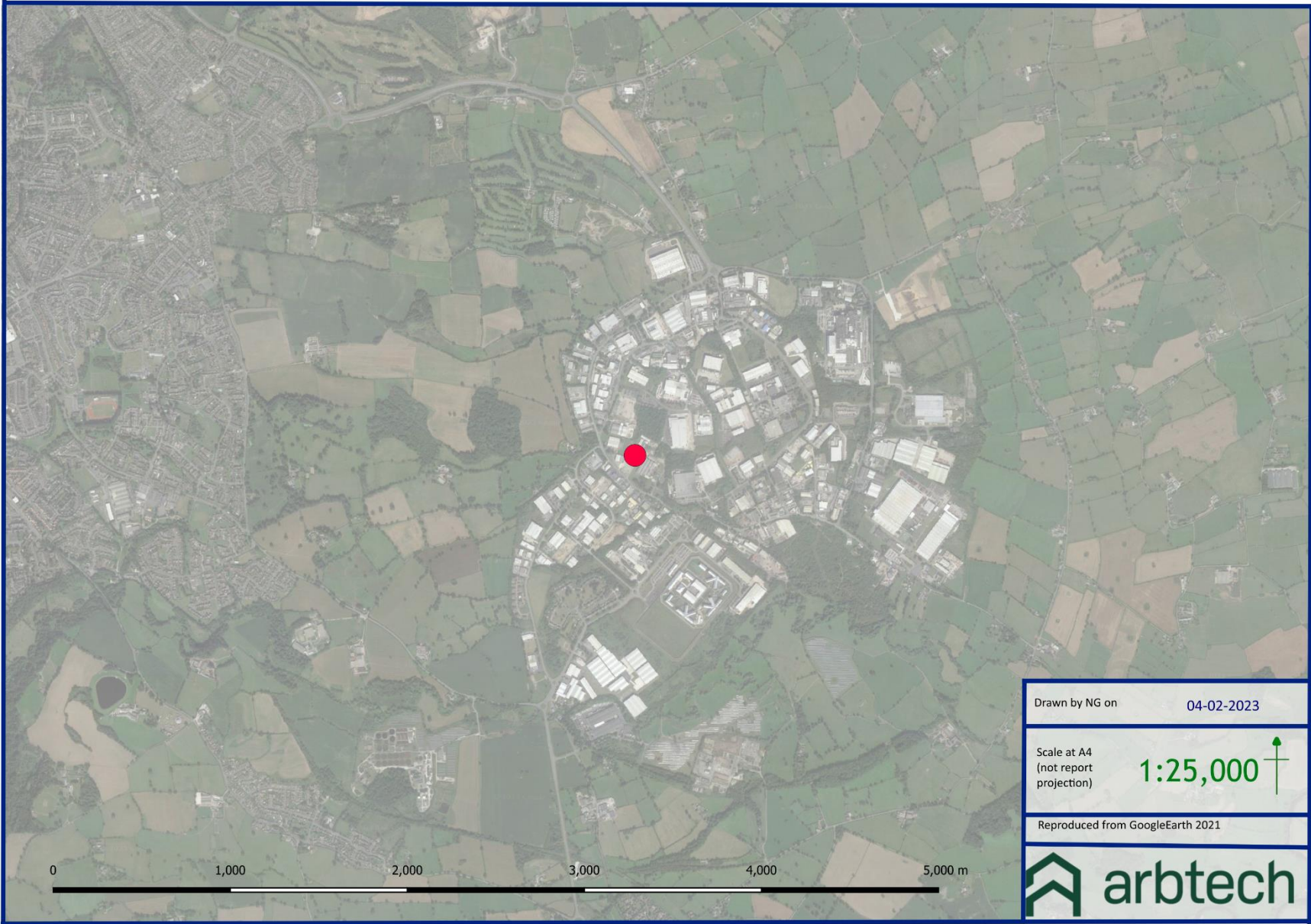
Hard/Soft Landscaping & Boundary Treatments

52 SUITABLE FOR INFORMATION

Drawn by	BB	Created	2025-01-01
Ci Job no.	21077	Scale	As indicated (if A)
Tag no.	21077-C4P-AV-XX-DR-A-0502	Rev.	P6

Coordination review to take place following tender stage. SE model is design intent only and requires full review by steel fabricator.

Appendix 2: Site Location Plan



Appendix 3: New Landscaping and Species-Specific Enhancements Plan

