



Former Clever Clowns Nursery, Greenbrow Road, Wythenshawe

Ecology and Biodiversity Net Gain Assessment

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1 Introduction

1.1 Background

Kingdom Ecology have carried out an Ecological Walkover, initial Bat Scoping and Biodiversity Net Gain Assessment of a disused former day nursery on behalf of Stockport Development Limited.

The report supports a full planning application submitted to Manchester City Council which seeks permission for:

“Demolition of the existing building, and the erection of a three-storey apartment block comprising 20 apartments, together with access, parking, landscaping, drainage, and all other associated works”.

This report should be read in conjunction with the wider planning submission.

The site comprises of the former nursery building and adjacent land. The site is located at the former Clever Clowns Nursery, Greenbrow Road, Wythenshawe, Manchester, M23 2UH (National Grid Reference SJ81058698).

The assessment has been carried out to identify any ecological constraints which should be considered during proposed works to redevelop the site and to allow an assessment as to whether the development will deliver a biodiversity net gain.

Field surveys were completed 1st December 2023. Surveys were led Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking habitat and protected species and habitat surveys as a professional ecological consultant with over twenty years' experience. Richard holds a Level 4 FISC and a Level 4 Bat Class Licence.

1.2 Purpose of Report

This report provides the findings of field surveys undertaken at the site. Surveys aimed to identify habitats and species which are either of importance in terms of their conservation value or are afforded statutory legal protection. The presence of such habitats or species would form a material consideration during the planning process and could pose a constraint to the redevelopment of the site.

Survey comprised of an initial ecological walkover survey of the site including a daytime assessment of the suitability of the affected building to support roosting bats.

Following a description of the survey findings and an evaluation of habitats at the site, the report goes on to make recommendations for further works, mitigation, and ecological enhancement measures where relevant.

A Biodiversity Metric Assessment for the site pre- and post-development has also been carried out to determine the level of habitat compensation required to allow the development to achieve a biodiversity net gain.

1.3 Protected Species Legislation

1.3.1 Bats

All British bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended) and through their inclusion in Schedule II of the Habitats Regulations 2010 which transpose 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”) which defines European protected species of animals.

British bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

Taken together, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is interpreted as “any structure or place, which any wild bat uses for shelter or protection.” (Bat Conservation Trust 2016¹). A bat roost is protected whether or not bats are present at the time.

All species of British bat are considered a European Protected Species (EPS). The Conservation of Habitat and Species Regulations (2010) provide derogation against certain offences which could potentially affect an EPS through the EPS Licensing system.

1.3.2 Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

¹ Bat Conservation Trust (2016) ‘Bat Surveys: Good Practice Guidelines 3rd Edition’

2 Field Survey Methods

2.1 Survey Aims and Objectives

The survey aim was to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Survey comprised of an ecological walkover survey, this included an assessment of habitats at the site in terms of their suitability to support any protected species including breeding birds and bats.

Species that are considered unlikely to be significantly affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment.

Survey also aimed to identify opportunities for ecological enhancement and to inform potential mitigation measures, if required, to ameliorate any negative impacts attributable to the proposed works.

2.2 Survey Methods

2.2.1 Ecological Walkover Survey

An Ecological Walkover of the site was undertaken on the 1st December 2023.

The aims of the walkover survey were to:

- identify areas or habitats that are of particular ecological interest for nature conservation and which require more detailed investigation;
- provide a broad botanical description of habitats present based upon UKHab classifications;
- provide additional information regarding incidental observations of protected species or non-native, invasive species;
- to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species (including badgers, bats and breeding birds).

A map of habitats recorded at the study site is shown in Figure 1. Typical habitats recorded at the site are also shown in photographs in the Appendix.

2.2.2 Daytime Bat Inspection

The building was assessed as to its suitability to support bats following standard methodologies prescribed in English Nature's *Bat Mitigation Guidelines* (Mitchell-Jones 2004)² and the Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* 4th Edition (BCT 2023)³.

Survey, comprising of an inspection of the interior and exterior of the building, was undertaken during daylight conditions using binoculars and a high-powered torch. The survey was undertaken during daylight hours on the 1st December 2023.

In addition to searching for evidence of an actual bat roost the survey also aimed to assess the suitability of the building to support bats and consequently the likelihood of a bat roost being present but with no obvious field signs.

Survey assessed the building's roost suitability by examining structural features and the surrounding habitat. Structural features that will influence the suitability of a building to support roosting bats include the presence of a roof void; access points into a building including gaps beneath barge boards, gaps under lead flashing, gaps within masonry, loose tiles etc, complexity of any roof void, daytime light levels in roof void etc.

Important habitat features surrounding the structures which could influence roost potential include: whether the structure is in a semi-rural or parkland location, proximity to a significant linear feature (e.g. watercourse, mature hedgerow, wooded lane) or an area of woodland etc.

Taking account of these architectural and habitat features, the building was assigned a level of roost suitability. This assessment considered roost suitability criteria as summarised in Table 1 below and taken from the Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* 4th Edition.

² Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines*. English Nature, Peterborough.

³ Bat Conservation Trust (2023) '*Bat Surveys: Good Practice Guidelines* 4th Edition'

Table 1- Bat Roost Suitability Criteria

<i>Suitability</i>	<i>Description of Potential Roosting Habitats</i>
<i>None</i>	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e., a complete absence of crevices/suitable shelter at all ground/underground levels.
<i>Negligible</i>	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion. Structure has Negligible habitat features likely to be used by roosting bats.
<i>Low</i>	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger number of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground of features seen with only very limited roosting potential.</p>
<i>Moderate</i>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, condition and surrounding habitat but unlikely to support a roost of high conservation status.
<i>High</i>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

3 Survey Results

3.1 Site Description

The Site comprises the former Clever Clowns Day Nursery which ceased operating in December 2022. The Site therefore lies vacant.

The existing building extends to two storeys in height with a pitched roof. It is constructed out of a red brick with a grey tiled roof. The building is sited towards the centre of the Site, with two existing access points and associated car parking areas, located on either side. To the rear of the Site comprises an area of astroturf, previously used by the Nursery for outdoor play space.

The Site is located to the north of Greenbrow Road within the suburb of Wythenshawe, located to south of Manchester City Centre. Habitats in the surrounding landscape principally comprise of residential housing with associated gardens of limited value for foraging bats.

There are areas of woodland and rough grassland located within open countryside approximately 150m to the south of the site. Fairywell Brook is located approximately 250m to the south of the site. These wider habitats are considered to offer 'high' value bat foraging habitat.

3.1.1 Habitat Description

In summary, habitats at the site comprise primarily of the main building and surrounding sealed tarmac, Astroturf and tightly fitted block paving. There are some patches of ornamental shrubbery and minor patches of vegetation around the perimeter of the site including some self-seeded young sycamore.

Habitats at the site are largely highly modified and of limited biodiversity value.

Habitats recorded at the study site are shown on Photographs and target noted on Figure 1 in the Appendix. Habitat descriptions are provided below in Table 2.

For the purposes of the follow-on Biodiversity Net Gain Assessment, condition assessments of relevant habitats have been undertaken. Summaries of the condition assessments are provided in Table 2.

Table 2- Habitat Descriptions

Target Note	Habitat Description
1	Ornamental shrubbery - There is an area of ornamental shrubbery located near the front entrance to the site located within a raised border. Shrubby includes cypress with Phormium. Condition Assessment- n/a
2	Ornamental shrubbery and Sealed Surface - There is an area of block paving extending to the front of the main building. There are further small patches of ornamental shrubbery at the front of the site including Wilson's honeysuckle and rose. There are also raised planters comprising of bare ground with some common weeds including hedge mustard, creeping thistle, broadleaved willowherb, ribwort plantain and dandelion.
3	Developed, sealed surface - Area of Astroturf with a thin band of modified grassland with some scattered ornamental shrubs including a young cherry tree. Grasses comprise of Yorkshire Fog with dandelion and common bent. The grassland was assessed as being in a 'poor' condition as it is species-poor supporting approximately five species per metre squared. There are some patches of willowherb which has colonised the Astroturf. There is a modern, garden shed building present which is constructed of tightly fitted wood panel with tightly fitted mineral felt roof. The shed is unsuitable for roosting bats.
4	Developed, sealed surface - Area of car park comprising of tarmac.
5	Artificial unvegetated, unsealed surface - There is area of unvegetated gravels with dumped fence panels, cut wood, and stored pallets. There are self-seeded sycamore trees at the western edge of this area comprising of one multi stemmed young sycamore, plus young sycamore saplings (less than 7 cm DBH). There is a fringe of ruderal vegetation including bramble and hedge bindweed around the perimeter of this area. With regards to the condition assessment, the young sycamore tree passes criteria B and D only (2 out of 6 criteria) therefore was assessed as being of 'poor' condition.

3.2 Protected Species

3.2.1 Bat Scoping Assessment

The building is a mid-late 20th century origin structure with pitched gabled roof clad in interlocking concrete tiles. The building has a flat roof extension to the front and rear clad in tightly fitted bitumen felt.

Internally, the building the ground and first floor rooms have plastered walls and ceilings and are of limited suitability for roosting bats.

The building has a loft space running above the upper floor rooms. The loft space is approximately 1.7m in height. The loft space is broadly T-shaped and is approximately 19m in length. Its internal face is lined with bitumen felt and insulated with old rock wool. There are occasional tears in the roof membrane which have been patched with modern breathable roof membrane. No obvious access points to the interior of the building for bats were identified. Old mouse droppings were found within the loft space.

No bat droppings or other bat field signs were found.

Externally, the building doesn't offer any obvious potential bat roosting features. The ridge and interlocking roof tiles are tightly fitted and in good condition. The soffits of the building are tightly fitted to the external brickwork and the gable verge mortar is intact with minor crevices which do not extend back into the roof structure to provide suitable bat roosting habitat.

Taking account of the location of the building and the absence of potential bat roosting features identified, the building was assessed as offering a '**negligible**' bat roosting potential.

3.2.2 Breeding Birds

The building does not offer any obvious suitable nesting habitat for breeding birds.

Vegetation at the site offers some potential bird nesting habitat within the cypress trees at Target Note 1 and within the young sycamore tree at Target Note 5.

3.2.3 Other Protected or Notable Species

It is considered unlikely that any other protected species would be present within the proposed development area.

4 Summary & Recommendations

4.1 Habitats

4.1.1 Summary and Recommendations

Kingdom Ecology have carried out an Ecological Survey and Bat Scoping Assessment of the former Clever Clowns day nursery located at Greenbrow Road, Wythenshawe.

Habitats recorded at the site comprise of primarily sealed, developed surfaces with some patches of ornamental shrubbery. Habitats at the site are not considered to be of any significant botanical or biodiversity importance.

Development proposals are to construct a new apartment block, with car parking and associated landscaping. The development will require the demolition of the building and will require the clearance of the site.

Recommendations to enhance the biodiversity value of the proposed development are provided in section 4.3. This includes the installation of bat and bird boxes.

With regards to Biodiversity Net Gain, section 4.4 of the report considers the baseline ecological value of the site and measures this against the ecological value of the proposed development in order to determine whether the proposals will result in a net gain in terms of their biodiversity value.

4.2 Protected Species

4.2.1 Bats

The daytime inspection did not identify any field signs indicative of roosting bats.

Furthermore, the building was found to offer a '**negligible**' bat roosting potential, with no obvious potential bat roosting features identified whatsoever. The building is also located in a highly urbanised location offering very limited suitable foraging habitat for bats. It is therefore considered to be very unlikely that the site would support roosting bats.

The building is also considered to be unsuitable for nesting birds with no cavities or other suitable nesting features identified.

Nevertheless, it is recommended that works progress in a careful manner. If any bats or bat field signs are encountered, works should immediately stop and further advice should be sought from a licensed bat ecologist.

4.2.2 Birds

The ornamental shrubbery and a young sycamore tree located at the site could support nesting birds during the breeding bird season.

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

It is therefore recommended that future development of the site including any vegetation clearance or management avoid taking place during the breeding bird season (March-September inclusive).

Where this is not possible, a check for breeding birds should be carried out immediately prior to the start of works by an appropriately qualified ecologist.

If during works any nesting birds are found, works should immediately stop and further advice should be sought from an appropriately qualified ecologist.

4.3 Ecological Enhancements

It is recommended that opportunities to enhance the ecological value of the development area are taken.

4.3.1 Bat and Bird Boxes

The proposed development should include provision for roosting bats and breeding birds. This can be achieved through the installation of bat boxes and bird boxes at the site.

It is recommended that 2 x bat boxes (model Habibat 003 or similar) are built into the proposed apartment building.

In addition, it is recommended that 4 x swift nest boxes (model Habibat Swift Nest Box or Similar) are also installed into the structure of the proposed building.

The bat and bird boxes should be located at a minimum height of 5 m and located to avoid any light spill onto the swift/bat box entrances.

4.3.2 Plants for Pollinators and Birds

The development proposals should also aim to maximise the biodiversity of landscaping proposals at the site. Four new trees are proposed as part of the developments.

It is recommended that new planting includes species which can provide nectar sources for insects and berries/fruits for invertebrates and birds.

The following small/medium sized tree species are recommended as they offer suitable foraging opportunities to various native wildlife (including birds and invertebrates): rowan, wild cherry, crab apple, silver birch, holly, and willow.

4.4 Biodiversity Net Gain

4.4.1 Proposals and Biodiversity Recommendations Overview

The proposed development works are shown on Figure 2. The development will comprise of the construction of a new apartment block with associated parking and landscaping. Landscaping will include new lengths of ornamental hedgerow around the perimeter of the site; areas of ornamental shrubbery; new strips of grassland lawn and the planting of four new trees.

4.4.2 Biodiversity Metric Calculation Results

Based upon the assessments of the existing on-site habitats and the development proposals, the relative biodiversity units at the site before and after the development's completion have been calculated following methodologies and using tools provided within the Natural England Biodiversity Metric Calculator Version 4.0.

A summary table of these calculations is provided in the Appendix. The full Biodiversity Metric Calculation Tool Spreadsheet for the site has also been submitted. Relevant condition sheets for habitats are provided in the Appendix.

The baseline biodiversity units (i.e. the site's pre-development condition) has been calculated at 0.04 Habitat Units and zero Hedgerow Units.

The on-site biodiversity units after the completion of development has been calculated at 0.09 Habitat Units and 0.11 Hedgerow Units.

The development will result in a biodiversity net gain of 0.04 Habitat Units representing a 106.35% biodiversity net gain.

Other biodiversity features have been recommended and which are not accounted for within the metric calculation. These measures include the installation of bat and bird boxes within the proposed buildings.

5 Appendix

Photograph 1- East Face of the Building



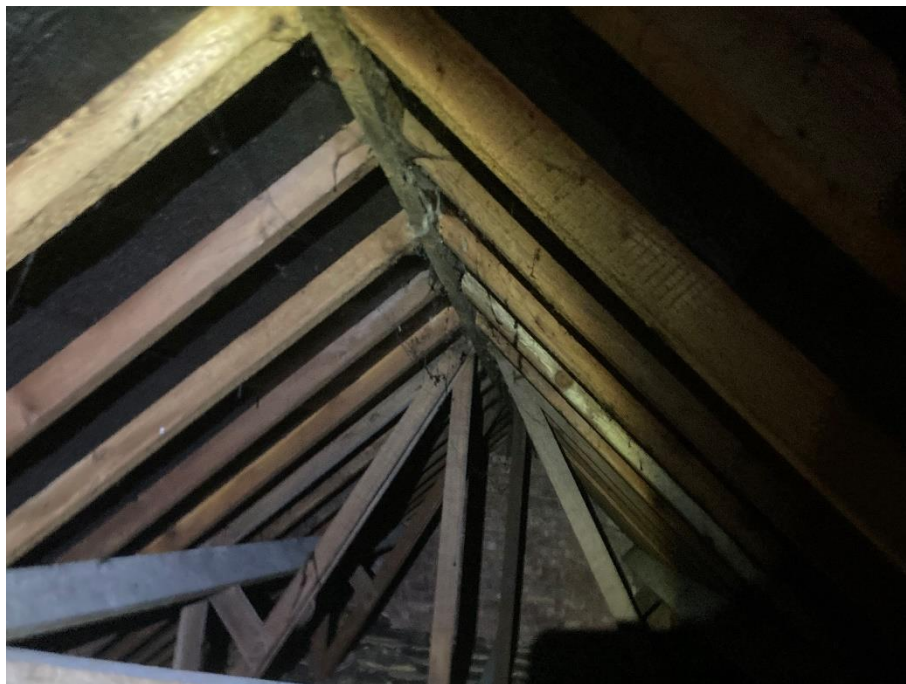
Photograph 2 - South Facing Gable of the Building



Photograph 3 - West Facing Gable of the Building



Photograph 4 - Loft space of the Building



Photograph 5 - Rear garden area with astroturf (Target Note 3)



Photograph 6 - Car park area with tarmac at Target Note 4



Photograph 7 – Area of Ornamental Shrubbery habitats (Target Note 1)



Photograph 8 – Habitats at Target Note 5 including young sycamore



Table 1- Biodiversity Net Gain Summary

On-site baseline	Habitat units	0.04	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.09	
	Hedgerow units	0.11	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	0.04	106.35%
	Hedgerow units	0.11	N/A
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.04	
	Hedgerow units	0.11	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.04	
	Hedgerow units	0.11	
	Watercourse units	0.00	
Total net % change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	106.35%	0 baseline
	Hedgerow units	N/A	
	Watercourse units	0.00%	

FIGURE1 - Baseline Habitats



KEY

-  Red Line Boundary
-  Fence
-  Building
-  Artificial unvegetated, unsealed surface
-  Bramble scrub
-  Developed land; sealed surface
-  Introduced shrub
-  Modified grassland
-  Existing Small Urban Tree

**FIGURE 2 -
Proposed Habitats**



KEY

-  Red Line Boundary
-  Proposed Small Urban Tree
-  Native hedgerow
-  Building Proposed
-  Developed land; sealed surface
-  Introduced shrub
-  Modified grassland