

Edenfield Road

784-B049612

Bat Survey Report

Stonebond Properties (Manchester) Ltd

August 2023

**Document prepared on behalf of Tetra Tech Environment Planning Transport Limited.
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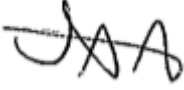
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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
BCT	Bat Conservation Trust
CEcol	Chartered Ecologist
CIEEM	Chartered Institute of Ecology & Environmental Management
ECow	Ecological Clerk of Works
EPS	European Protected Species
EPSML	European Protect Species Mitigation Licence
HAP	Habitat Action Plan
IR	Infrared (camera)
LBAP	Local Biodiversity Action Plan
LPA	Local Planning Authority
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
SAP	Species Action Plan

EXECUTIVE SUMMARY

Contents	Summary
Site Location	Tenterhouse Mill, Greenbooth Road, Norden, Rochdale, OL12 7TD. Grid Reference: SD 85690 14765
Proposals	The proposals include redevelopment of the site to provide residential development with associated infrastructure and landscaping, following planning permission. This will entail demolition of some existing buildings and walls, with renovation to other structures, plus vegetation clearance.
Scope of this Survey(s)	Presence/likely absence surveys for roosting bats.
Results and Evaluation	Although there were constraints to the surveys two common pipistrelle <i>Pipistrellus pipistrellus</i> day roosts were identified: B1 and Tree 1. Both roosts will be lost to facilitate works. The roost in Tree 1 was identified incidentally. An EPSL is required to permit works. No other roosts were identified, however full suite of surveys was not possible to be undertaken safely. Therefore, precautionary working methods are required to facilitate proposals. A summary of roost status and recommendations is shown in the table below.

	Building or structure	Status	Hibernation	Recommendations
	B1	Roost	No	Common pipistrelle day roosts – Mitigation licence required using Licensing Policy 4. Works to proceed under mitigation strategy and ideally avoid May - August inclusive
	Tree 1	Roost	No	
	B2	Moderate	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
	B3	Low	No	Proceed under precautionary working methods
	B4	Moderate	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
	B5	Low	Hibernation potential	Works must avoid the peak hibernation period - November and February inclusive. Any direct impacts to the hibernation features must be undertaken under precautionary working methods and compensated with one hibernation bat box.
	B6	Low	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
	W1	Low	No	Proceed under precautionary working methods
	W3	Low	No	Proceed under precautionary working methods
	Bridge 1	Moderate	Hibernation potential	Works must avoid the peak hibernation period - November and February inclusive. Any direct impacts to the hibernation features must be undertaken under precautionary working methods and compensated with one hibernation bat box.
Recommendations	An EPSL is required from Natural England to permit works to B1 and Tree 1, applying Licensing Policy 4. A total of five bat boxes (Schwegler 2F or equivalent) must be installed as compensation (2 under the bat licence). Timing restrictions apply to building B5 and the bridge due to hibernation suitability. Compensation may be required if potential hibernation features are lost. An additional five bat boxes within the site will enhance the site for bats. Recommendations for planting to enhance the site for bats is provided, particularly round the brook.			

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by Stonebond Properties (Manchester) Ltd in July 2023 to undertake bat presence / likely absence surveys and where required, bat roost characterisation surveys of a number of buildings and structures located off Endfield Road, Norden, Rochdale hereafter referred to as “the site”.

This survey was requested in order to support an outline planning application and has been prepared by Harriet Lowery BSc (Hons) and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION

The site is located at Tenterhouse Mill, Greenbooth Road in Norden, Rochdale and is centred at Ordnance Survey National Grid Reference SD 85690 14765 – see Figure 1.

It comprises former mill buildings which have fallen into disrepair and unmanaged areas of hardstanding colonised by vegetation as well as mature trees and woodland. Naden Brook runs along the west and southwest site boundary.

The wider landscape provides broadleaved woodland (including semi-natural and ancient), grassland, wetland and several reservoirs within 5 km of the site. Surrounding agricultural field boundaries including hedges provide commuting features. Doctor Dam, Greenbooth Reservoir and Naden Brook within 500m of the site provide value as foraging features.

1.3 DEVELOPMENT PROPOSALS

The proposals include the redevelopment of the site to provide residential development of 49 units with associated infrastructure and landscaping. This will entail demolition of B1, B2, B3, B4 and B6 and potential future structural repairs to B5, Bridge 1 and Walls 1-3. There will be vegetation and tree removal, including Tree 1, within the Development [green line] Boundary on Existing Building Layout SBM-001-EB01 (Stonebond Properties (Manchester) Ltd, 2023. See Appendix C).

1.4 PURPOSE OF THE REPORT

The purpose of this report is to:

- Determine if roosting bats are present on site.
- Determine if any potential impacts on bats are likely to arise from the development.
- Identify if any additional surveys are required to inform this assessment.
- Outline strategies to avoid/mitigate/compensate for any likely impacts on bats.
- Inform an EPSL license application.

The details of this report will remain valid until July 2024 after which the validity of this assessment should be reviewed to determine whether further updates are necessary.

The recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

A Preliminary Ecological Appraisal was conducted by E3P in 2023 (E3P, 2023) which included a desk study and site survey.

2.2 DESK STUDY

In addition to the desk study present in the Ecological Appraisal (E3P, 2023) a 5 km for search for EPSL licenses was conducted in July 2023.

2.3 FIELD SURVEYS

2.3.1 Biosecurity

All surveys were conducted in accordance with Tetra Tech Biosecurity Policy (Tetra Tech, 2023).

2.3.2 Presence/Absence Surveys

This report details the results of one dusk emergence survey of B1, B2, B5 and Bridge 1 as well as one dusk survey on B3, B4 and B6. The building/structure locations and references are provided in Figure 1.

As per Bat Conservation Trust Guidelines (Collins, 2016) the first dusk survey began at least 15 minutes prior to sunset and continued for 1.5hrs after sunset. The second dusk began 15 minutes prior to sunset and continued for 52 mins after sunset, finishing 30 mins earlier (see Limitations). Standard survey effort as per the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition (Collins, 2016) could not be followed fully on the second visit to the site (Survey Visit 1 of B3, B4 & B6) due to significant health and safety concerns.

Surveyor positions and IR locations are shown in Figure 2. Surveyors' details, dates and weather conditions are detailed in Table 1 below.

Table 1: Weather conditions for bat emergence/re-entry surveys.

Date of survey	Sunrise	Start (S)	Finish (F)	Temperature (°C) S/F	Rain S/F	Wind speed (Beaufort scale) S/F	Cloud cover (Oktas) S/F
10/07/2023	21:36	21:21	23:06	17/16	0/0	2/2	6/3
Surveyor names and survey licence number where applicable				Survey lead: Jade Armstrong Project Ecologist (NE Class 1 bat survey licence reference number 2018-37885-CLS-CLS) Assisted by: Gareth Parry Senior Ecologist (NE Class 2 bat survey licence reference number 2018-35942-CLS-CLS) Harriet Lowery Consultant Ecologist Carlos Dolado-Hollyman Assistant Ecologist Ashleigh Toomey Graduate Ecologist Richard West-Cross Field Ecologist Reid Cowell Field Ecologist Charlie Baker Field Ecologist Christopher Duff Field Ecologist Vienna McIntosh Field Ecologist Paolo Arias Field Ecologist			
12/07/2023	21:34	21:19	22:26	16/14	1/1	50/50	0/0
Surveyor names and survey licence number where applicable				Survey lead: Jade Armstrong (NE Class 1 bat survey licence reference number 2018-37885-CLS-CLS) Assisted by: Gareth Parry (NE Class 2 bat survey licence reference number 2018-35942-CLS-CLS) Harriet Lowery Consultant Ecologist Ashleigh Toomey Graduate Ecologist Christopher Duff Field Ecologist Paolo Arias Field Ecologist Brad Bannister Field Ecologist			

Night Visual Aids in the form of infra-red cameras (and associated infra-red lights) were used: one vantage point of B1 and another on Bridge 1, in line with BCT Interim Guidance Note (BCT, May 2022). The cameras used were Canon XA40 infrared camera with additional infrared illuminator lights. Footage analysis by Motion Meerkat (Weinstein, 2015) was used to identify motion events which were subsequently analysed manually. The following settings were used: Background variation 3; organism speed 3; minimum object size 0.01% (parameters were tested against known activity before analysis). The subsequent images were reviewed and cross referenced with time of the movement to the sound files obtained by the Anabat Swift bat detectors which accompanied each IR camera.

Bat calls were analysed where necessary, by Consultant Ecologists Harriet Lowery and Katarina Caine using Bat Explorer software (Version 2.2) and AnalookW. IR camera data was analysed by Gareth Parry using Motion Meerkat software (Version 2.0.5).

Surveyors used Elekon Batlogger M and M2 detectors. These detectors use a broad-spectrum microphone and use a heterodyne mode to make bat calls audible while recording full spectrum data for subsequent analysis. All bat activity heard and / or seen was noted by surveyors including time of observation.

2.4 LIMITATIONS

A dusk survey (Survey Visit 1 of B3, B4 & B6) was abandoned 30 minutes earlier than the planned finish time due to threatening and anti-social behaviour by members of the public with firearms. No surveys were carried out on walls W1 or W3 as the site was then considered unsafe to attend during unsocial hours (i.e. night time or early morning). This is considered a significant limitation to the collection of survey data and as such precautionary working methods are recommended in order for works to be undertaken on any structure that was not confirmed as a roost.

B1 was identified as a roost on the first visit, however it was not possible to safely undertake Visit 2 or 3 due to the safety concerns detailed above. A licence must be obtained from Natural England with the application of Licensing Policy 4, in order for works to proceed to this building. Licensing Policy 4 can be applied when:

- Costs or delays associated with carrying out standard survey requirements would be disproportionate to the additional certainty that it would bring;
- Ecological impacts of development can be predicted with sufficient certainty; and
- Mitigation or compensation will ensure that the licensed activity does not detrimentally affect the conservation status of the local population of any EPS.

The costs in this instance to safely proceed with sufficient security detail, is considered disproportionate to the impacts on a roost which is of a common, widespread species and is likely to be of low conservation significance (as a day roost). Due to geographical area, suitability of the building B1 and the species identified roosting (common pipistrelle) the impacts (loss of one day roost) can be predicted with sufficient certainty and mitigation and compensation can be implemented to maintain Favourable Conservation Status.

Vegetation including buddleia obscured visibility to some potential roosting features on B1, B2 and B4. B5 was located within the woodland, and the dense canopy resulted in significant visibility constraints.

Although Asbestos Containing Material and areas of broken glass were observed on the ground within the survey area, it was possible to gain access to the buildings safely through avoidance of these areas.

Bridge 1 could only be accessed safely from one bankside and therefore only one aspect of the bridge was subject to an IR camera. This is considered a significant limitation as the western façade of the bridge could not be surveyed and precautionary working methods are recommended for any renovation works to the bridge.

The optimal period to undertake bat presence/likely absence surveys is between May and August and the surveys that could be completed were undertaken in this period in suitable weather conditions.

The surveys were completed with the assistance of bat detectors. All survey techniques are subject to bias, and bat detector surveys may under-record species with weak echolocation calls, such as brown long-eared bats. However, these biases were considered when interpreting the results. (It is also of note that Batloggers are very effective at picking up quiet calls from brown long-eared bats). Some bat calls are variable dependent on the habitats they fly in and on their activity (commuting, foraging, social interaction, etc) and extremely similar between species. In these cases, it is accepted that species are identified to genus level or group level (e.g. *Myotis*, *Myotis* / *Plecotus* and *Nyctalus* / *Eptesicus*) (Collins, 2016). Where call parameters are inconclusive the species has been labelled as 'unknown'. This allows the dataset to be interpreted accurately and transparently.

3.0 BASELINE CONDITIONS

3.1 HISTORIC SURVEYS

An updated Preliminary Ecological Appraisal was conducted in March 2023 by E3P consultants (E3P, 2023), which identified six buildings and three walls as having potential to support roosting bats, including one building with hibernation potential, as well as a bridge with roosting and hibernation potential. The location of all buildings and structures can be seen on Figure 1. Buildings B1, B3 and B6 as well as walls W1, W2 and W3 were assessed as having Low bat roosting potential and buildings B2, B4, B5 were assessed as having Moderate roosting potential. B5 and the Bridge were assessed as having hibernation potential. Results are summarized in Table 2 below.

Table 2 :Bat roosting potential results from Preliminary Ecological Appraisal (E3P, 2023).

Building or structure reference	Bat Suitability Categorisation
B1	Low
B2	Moderate
B3	Low
B4	Moderate
B5	Moderate & Hibernation suitability
B6	Low
B7	Negligible
W1	Low
W2	Low
W3	Low
W4	Negligible
Bridge 1	Moderate & Hibernation suitability
All trees	Negligible

Internal inspections were not conducted due to their poor state of repair. W2 was not considered as impacted by the current plans and therefore did not require survey.

3.2 DESK STUDY

MAGIC returned 6 EPSMLs granted for bats within a 5 km radius of the site boundary as show in Table 3 below, all licences were over 4km away.

Table 3 : Bat EPSMLs granted within 5km of the site boundary

Reference	Species*	Licensable Actions
2015-8047-EPS-MIT	Common pipistrelle <i>Pipistrelle pipistrellus</i> , Daubenton's <i>Myotis daubentonii</i> , Soprano pipistrelle <i>Pipistrelle pygmaeus</i>	Destruction of a resting place
2016-19740-EPS-MIT-1	Common pipistrelle	Destruction of a resting place
2016-19740-EPS-MIT-2	Common pipistrelle	Destruction of a resting place
EPSM2009-709	Common pipistrelle	Destruction of a resting place
EPSM2011-2750	Common pipistrelle, Soprano pipistrelle	Destruction of a resting place
EPSM2010-2617	Common pipistrelle	Destruction of a resting place
2015-8047-EPS-MIT	Common pipistrelle, Daubenton's, Soprano pipistrelle	Destruction of a resting place

3.3 FIELD SURVEYS

3.3.1 Presence/Absence surveys - Roosting summary

From the data collected during the assessments, two roosts were recorded on the site. The first was from B1 which was a common pipistrelle roost (two individuals) identified emerging from the flashing on the southwest gable. A second common pipistrelle roost (four individuals) was incidentally observed emerging from a tree adjacent to B6. We have assigned this tree as Tree 1. Roosts from all survey visits are summarised in Table 4 below and shown on Figure 3.

Table 4: Roosting summary

Date and time	Location	Species and number of bats	Roost location	Roost access point	Dimensions of roost	Photograph (Roost access points circled in yellow)
10/07/2023 at 21:41 and 22:11	B1	2 common pipistrelle	Southwest aspect (What3Words location: balloons.talkative.covers)	Gaps in the flashing	5-10cm access hole	

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Date and time	Location	Species and number of bats	Roost location	Roost access point	Dimensions of roost	Photograph (Roost access points circled in yellow)
12/07/2023 at 21:28, 21:29, 21:30 and 21:42	Tree 1 near B6	4 common pipistrelle	Frost crack in Sycamore <i>Acer pseudoplatanus</i> (What3Words army.deed.galloping)	Entrance approximately 4m above ground level (agl) at the top of the frost crack feature.	Feature extends approximately 50cm internally into the stem of the tree. Dimensions of the entrance is approximately 15cm high by 15cm wide.	

3.3.2 Species assemblage and activity

10/07/2023

B1- Survey Visit 1

The first bat recorded was a common pipistrelle at 21:25 (11 minutes before sunset), this bat was observed commuting. Bat activity including foraging and commuting was observed intermittently throughout the survey by common pipistrelle and soprano pipistrelles *Pipistrellus pygmaeus* and by at least 4 individual bats. Bat flight paths in all directions were observed. The IR camera which was placed on the northeast façade of the building recorded foraging behaviour of common pipistrelles.

A roost was observed as detailed in Table 4 above.

B2- Survey Visit 1

The first bat recorded was a common pipistrelle at 21:41 (5 minutes after sunset), this bat was observed commuting. Bat activity including foraging and commuting was observed intermittently throughout the survey by common pipistrelle and by at least 4 individual bats. A soprano pipistrelle also passed at 21:55. Bat flight paths were observed in all directions.

B5- Survey Visit 1

The first bat recorded was a common pipistrelle at 21:34 (2 minutes before sunset). Bat calls were recorded intermittently throughout the survey by common pipistrelle and soprano pipistrelle and occasional *Myotis sp.* Due to visibility constraints, no flight paths were observed.

Bridge- Survey Visit 1

The IR camera observed foraging behaviour of common pipistrelle but no roosting behaviour.

12/07/2023

B3- Survey Visit 1

The first bat recorded was a Common pipistrelle at 21:28 (6 minutes before sunset). Bat calls were recorded intermittently throughout the survey by Common pipistrelle and occasional Soprano pipistrelle with flight paths observed east to west and south.

B4- Survey Visit 1

The first bat recorded was a Common pipistrelle at 22:06 (32 minutes after sunset). Bat calls were recorded intermittently throughout the survey by Common and Soprano pipistrelles which were heard not seen.

B6- Survey Visit 1

The first bat recorded was a Common pipistrelle at 21:28 (6 minutes after sunset) seen emerging from a nearby tree. Bat activity including foraging and commuting was observed intermittently throughout the

survey by Common and occasional Soprano pipistrelles and by up to 4 individual bats. Flight paths observed east to west and south.

Tree 1 – Incidental sighting

A roost was observed as detailed in Table 4.

Subsequent sound analysis did not identify any additional species during the survey.

4.0 DISCUSSION

4.1 ROOSTS

B1 was identified as a bat roost on survey visit 1 with 2 common pipistrelle bats emerging. It was not considered safe to proceed with two additional bat survey visits to compile roost characteristics. However, due to the condition of the building, its suitability for bats and the surrounding area as well as bat activity recorded elsewhere it is considered that B1 supports a common pipistrelle day roost.

Tree 1 was incidentally identified as a bat roost on survey visit 1 of B6. This tree had not previously been identified as providing bat roost suitability in the previous assessment (all trees categorised as negligible). As with B1, it was not considered safe to proceed with two additional bat survey visits to compile roost characteristics of Tree 1. However, due to the feature on the tree and the surrounding area as well as bat activity recorded elsewhere it is considered that Tree 1 also supports a common pipistrelle day roost.

4.2 IMPACTS

Following the field survey, roosting bats have been confirmed as being present in B1 and T1 which are to be demolished/felled. Without appropriate mitigation, proposed future works based on Existing Building Layout SBM-001-EB01 (Stonebond Properties (Manchester) Ltd, 2023) are likely to have the following impacts on two day roosts for common pipistrelle:

- Disturbance of bats when roosting;
- Killing or injury; and
- Destruction of two bat roosts

Demolition and re-development of the site under current plans would therefore contravene relevant wildlife legislation and a European Protected Species Licence (EPSL) from Natural England is required in order for the proposed works to proceed with regards to B1 and Tree 1 (both common pipistrelle day roosts).

A summary of impacts is shown in Table 5 below.

Table 5: Summary of impacts on roosting and potential roosting and hibernation features

Building or structure reference	Bat Suitability Categorisation	Proposed works	Impacts
B1	Confirmed roost	Demolition	Loss of roosting features
B2	Moderate	Demolition	Loss of Potential Roosting Features
B3	Low	Demolition	Loss of Potential Roosting Features

B4	Moderate	Demolition	Loss of Potential Roosting Features
B5	Moderate & Hibernation suitability	Retained with potential remedial works	Loss of Potential Roosting Features and hibernation features if remedial works undertaken
B6	Low	Demolition	Loss of Potential Roosting Features
B7	Negligible	Retained	No expected impact
W1	Low	Retained with potential remedial works	Loss of Potential Roosting Features if remedial works undertaken
W2	Low	Retained	No expected impact
W3	Low	Retained with potential remedial works	Loss of Potential Roosting Features if remedial works undertaken
W4	Negligible	Demolition	No expected impact
Bridge 1	Moderate & Hibernation suitability	Retained with potential remedial works	Loss of Potential Roosting Features and hibernation features if remedial works undertaken
Tree 1	Confirmed roost	Felling	Loss of roosting feature

4.2.1 Loss of Connectivity

No significant loss of connectivity is considered due to the retention of the majority of the wooded areas throughout the site. The brooks on site provide good foraging opportunities, which may be impacted by additional road lighting adjacent. Recommendations regarding lighting were covered in the Preliminary Ecological Appraisal (E3P, 2023).

4.2.2 Construction-phase Disturbance

B5 and Bridge 1 have hibernation suitability which may be lost if remedial works are undertaken which result in a loss of hibernation features such as re-pointing. If hibernation features are due to be lost, works must proceed using Precautionary Working methods (see 4.3.4). Construction works causing indirect impacts of noise, illumination or vibration to the western aspect of B5 and Bridge 1 may disturb hibernating bats.

4.2.3 Operational-phase Disturbance

During the operational phase there will be increased residential presence near the retained structures and indirect impacts from illumination on bats. An increase in cats on site can increase predation upon bats.

4.3 MITIGATION AND COMPENSATION

4.3.1 Roosts

As adverse effects on bats are anticipated, mitigation and compensation will be required to avoid an offence under Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species Regulations 2017 (as amended). In addition to this, Greater Manchester Biodiversity Action Plan has a Species Action Plan for bats. This includes the objectives:

‘Maintain the distribution and range of bat populations and habitats in Greater Manchester and prevent further losses and fragmentation; and

Increase the distribution and abundance of bats and suitable habitats in Greater Manchester without reducing the area of other valuable habitats and species’.

The mitigation hierarchy principles are:

- Avoidance – to avoid adverse effects as far as possible by designing out or using preventative measures during the construction process thus resulting in an environmental effect of neutral significance.
- Reduction – to minimise adverse effects as far as possible.
- Compensation – involves measures of the same value to off-set the impact.

B1 and Tree 1 support bat roosts of based on the likely type of roosts (common pipistrelle day roost) potential impact can be sufficiently predicted. The roosts are both considered common pipistrelle day roosts, supporting a common, widespread species with low numbers (up to 4 bats). Applying Natural England Licensing Policy 4 there is sufficient data to proceed with a mitigation licence to destroy B1 and Tree 1, provide compensation through the provision of two bat boxes and maintain Favourable Conservation Status.

No works to B1 or Tree 1 can take place which may result in a breach in the legislation until a derogation licence has been obtained from Natural England. Day roosts can be used throughout the bat active season (generally between April – September, inclusive) as traditional resting sites during the day. Males and non-breeding females will roost alone or in small groups. Bats may use a selection of day roosts on a regular basis switching between them daily or conversely occupying the same one for weeks at a time.

The roost is not considered a maternity roost due to the low numbers of bats observed utilising the building, lack of social calls and a lack of indicative maternity behaviours.

Derogation Tests

The species protection provisions of the Habitats Directive, as implemented by the Conservation of Habitats and Species Regulations 2017 (as amended) contain three “derogation tests” which should be applied by the LPA prior to granting planning permission and by Natural England when deciding whether to grant a licence to a person carrying out an activity that would harm an EPS, such as bats. For

development activities this licence is normally obtained after planning permission has been obtained. The three tests are that:

- The activity to be licensed must be for imperative reasons of overriding public interest (or for public health and safety);
- There must be no satisfactory alternative; and
- The favourable conservation status of the species must be maintained.

A standard EPSML or Bat Earned Recognition (BER) Class Licence is required from Natural England to allow works to continue lawfully. It is solely at the discretion of Natural England if a licence can be granted for a site. Once an application for a licence has been submitted to Natural England it can take up to 60 working days for Natural England to provide a decision for a standard EPSML or 15 working days for BER Site Registration. Natural England can request additional information in support of an application which will then alter the decision deadline.

4.3.2 Licence Mitigation Strategy

The mitigation strategy to inform the licence application is detailed below:

- Prior to the commencement of any works, one bat box (Schwegler 2F or equivalent) must be installed on a suitable retained tree to act as a release site for any captured bats.
- A toolbox talk will be given to contractors prior to works on B1 or Tree 1 to include information on the bats roosting on site; their legally protected status; working methods to be adhered to; bat signs; and the appropriate course of action if bats are found during works. This will also be clearly shown on the contractors site compound notice board with contact information for the ecologist.
- A pre-works inspection by a Level 2 (or above) bat class licensed ecologist will be undertaken of the roosting features, by MEWP, scaffold or roped access for Tree 1. Any bats found will be captured and translocated to the alternative roosting provision installed prior to work commencing.
- Tree 1 and B1 will be subject to temporary exclusion measures, in which a device is installed over the roosting feature and left in place for at least 5 consecutive days (of suitable weather) and then removed by the licensed bat ecologist. The features will then be soft blocked ahead of works.
- The removal of roosting felt on B1 and destructive search of other roosting areas will be supervised by the Named Ecologist/ER Consultant or Accredited Agent. Any captured bats will be safely translocated.
- The felling of Tree 1 using appropriate method (soft fell or sectional fell) will be supervised by the Named Ecologist/ER Consultant or Accredited Agent. Any captured bats will be safely translocated.

Loss of confirmed roosts in B1 and Tree 1 will be compensated through two bat boxes placed on retained trees. The bat box installed as release site will be retained as compensation and one additional bat box (Schwegler 2F or equivalent) will be installed as compensation of the two lost roosts. The two bat boxes (Schwegler 2F or equivalent) are to be retained for at least five years. If there is any visible damage to the

boxes during this time a Natural England level 2 or above licensed bat ecologist should be consulted on the best method of repair or replacement.

No monitoring is required under the current plans and recommendations due to the low conservation status of the roosts. Should these be subject to change, monitoring may be required.

4.3.3 Non-Roost Buildings /Structures

Hibernation suitability

Any works on the western aspect of B5 or Bridge 1 must be undertaken outside of peak hibernation period - November to February inclusive. Works adjacent include those causing high levels of noise and vibration and may include but are not limited to road laying and tree felling.

If any re-pointing of hibernation features is required, this must be undertaken outside of the hibernation period, under the supervision of a licensed bat ecologist who will initially inspect the features using an endoscope and soft block fully inspected features as appropriate. One hibernation bat box must be installed on a suitable retained tree or building if hibernation features are to be lost.

Other structures/buildings

Due to the constraints and lack of full suite of surveys, precautionary working methods are required for those buildings and structures which will be impacted: B2, B3, B4, B5, B6, Bridge and Walls 1 and 3. See below for details.

Loss of roosting features suitable for bats on B2, B4 and B6 must be compensated through three bat boxes (Schwegler 2F, or equivalent, available at [2F Schwegler Bat Box \(General Purpose\) | NHBS Practical Conservation Equipment](#). Dimensions: Height: 33cm x Diameter: 16cm, Weight: 4kg) installed on a retained tree.

4.3.4 Precautionary working methods

- Toolbox delivered to all contractors by a licensed bat ecologist.
- Pre-inspection of potential roosting features on the building/structure prior to works.
- Demolition or renovation works to roosting features of higher risk is undertaken under the supervision of licensed bat ecologist (at their discretion).
- Once the bat ecologist is satisfied, mechanical demolition can proceed.
- If security lighting is necessary, lights triggered by motion sensors should be used and their coverage should be kept to a minimum (e.g. through use of lighting cowls).

4.4 ENHANCEMENT

It is a requirement of the NPPF to provide enhancements for biodiversity as part of development. The following measures are proposed in order to enhance the site for bats:

To provide an enhancement for roosting bats it is recommended a minimum of five general purpose bat box (such as Schwegler 2F bat box or equivalent) are installed on retained trees with the location agreed with the project ecologist prior to installation.

Bat friendly planting is recommended around the site, particularly around the brooks and restoring tree coverage around the access track. More detail on species and planting for bats can be found in Bat Conservation Trust Landscape and urban design for bats and biodiversity (Gunnell, Grant, & Williams, 2012) which can be accessed at <https://www.bats.org.uk/our-work/landscapes-for-bats/landscape-and-urban-design>. See Appendix D for bat friendly plant species. Native planting is always favoured in semi-natural areas whereas non-native planting may be appropriate in enclosed amenity areas.

5.0 CONCLUSION

A protected species mitigation license is required to permit works to B1 and Tree 1. A bat licence can only be applied and secured once planning permission granted.

Table 6 provides a summary of the mitigation, compensation required per structure.

Table 6: Summary of recommendations

Building or structure	Status	Hibernation	Recommendations
B1	Roost	No	Common pipistrelle day roosts – Mitigation licence required using Licensing Policy 4. Works to proceed under mitigation strategy and ideally avoid May - August inclusive
Tree 1	Roost	No	
B2	Moderate	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
B3	Low	No	Proceed under precautionary working methods
B4	Moderate	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
B5	Low	Hibernation potential	Works must avoid the peak hibernation period - November and February inclusive. Any direct impacts to the hibernation features must be undertaken under precautionary working methods and compensated with one hibernation bat box.
B6	Low	No	Proceed under precautionary working methods. Loss of this building requires compensation of one bat box.
W1	Low	No	Proceed under precautionary working methods
W3	Low	No	Proceed under precautionary working methods
Bridge 1	Moderate	Hibernation potential	Works must avoid the peak hibernation period - November and February inclusive. Any direct impacts to the hibernation features must be undertaken under precautionary working methods and compensated with one hibernation bat box.

6.0 REFERENCES

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

Collins, J. (ed.), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, The Bat Conservation Trust: London.

E3P (2023) Preliminary Ecological Appraisal Report. Greenbooth Road, Norden

English Nature (2004). Bat Mitigation Guidelines, January 2004.

Gunnell, K., Grant, G. and Williams, C. 2012. Landscape and urban design for bats and biodiversity. Bat Conservation Trust

Tetra Tech Biosecurity Policy (July, 2023) – Internal document. Details available upon request

Weinstein, B. (2015), MotionMeerkat: integrating motion video detection and ecological monitoring

FIGURES

FIGURE 1: SITE LOCATION

FIGURE 2: VANTAGE POINTS

FIGURE 3: BAT SURVEY RESULTS



Site Location Plan

Edenfield Road, Norden

Stonebond Ltd



Legend

- Site boundary
- Buildings
- Walls

Notes:

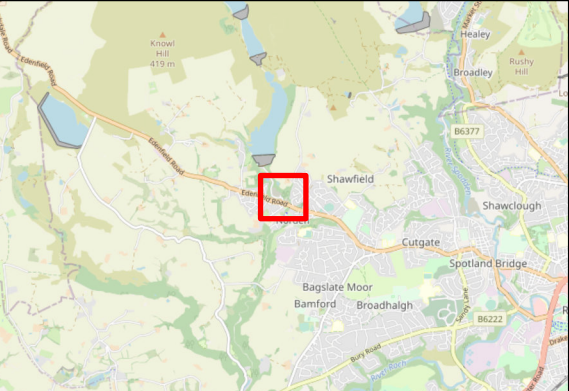
Drawn by: ROSIE.DURHAM
Checked by: HL
Office: Southampton

Figure No. 1
Revision No. A
28 July 2023

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Scale 1:2,000 @A3

British National Grid
NGR: 385790E 414702N

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Office Campus
Hedge End
Southampton
Hampshire, SO30 2AF



Vantage Points

Edenfield Road, Norden

Stonebond Ltd



Legend

Site boundary

Buildings

Surveyor Position

B1

B2

B3

B4

B5

B6

Bridge

IR Camera

B1

Bridge

Notes:

Drawn by: ROSIE.DURHAM

Checked by: JA

Office: Southampton

Figure No. 2

Revision No. A

28 July 2023

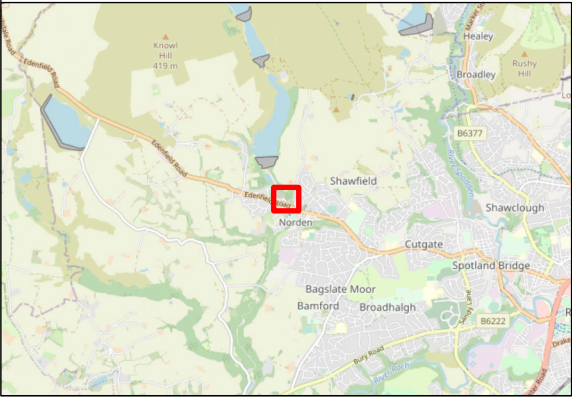
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British National Grid

NGR: 385790E 414702N

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Hampshire, SO30 2AF



Bat Survey Results

Edenfield Road, Norden

Stonebond Ltd



Legend

- Site boundary
- Buildings
- Flight line
- Tree

Notes:

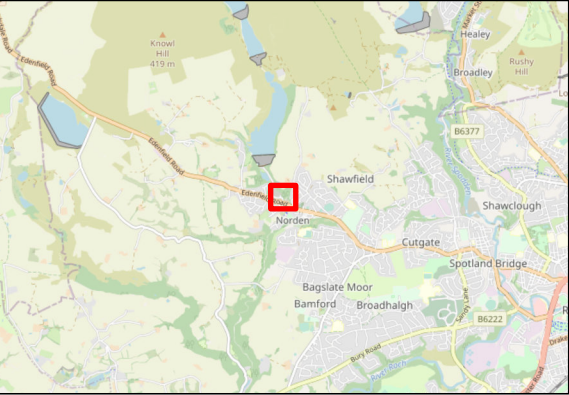
Drawn by: ROSIE.DURHAM
Checked by: HL
Office: Southampton

Figure No. 3
Revision No. A
28 July 2023

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Scale 1:1,100 @A3

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APPENDICES

APPENDIX A: REPORT CONDITIONS
APPENDIX B: PLANNING POLICY & LEGISLATION
APPENDIX C: EXISTING SITE LAYOUT
APPENDIX D: BAT FRIENDLY PLANTING

APPENDIX A: REPORT CONDITIONS

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B: PLANNING POLICY & LEGISLATION

Conservation of Habitats and Species Regulations 2017 (as amended)

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/uksi/2018/1307/note/made>

The 2019 amendments related to the EU exit. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change – see here for full details:

<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

The Regulations make it an offence to deliberately capture, kill, disturb or trade bats (including dead animals).

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. Since it was first introduced, the Act has been amended several times. All bats are protected through inclusion under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and benefit from various levels of protection. This legislation makes it an offence to:

- Intentionally or recklessly kill or injure these animals; and
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisement to buy or sell individual reptiles.

All are also listed under Schedule 5 Section 9.4b and 9.4c which makes it an offence to:

- Intentionally disturb while occupying a structure or place used for shelter or protection; and
- Obstruct access to such a site.

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Seven species of bat are listed under Section 41 of the NERC Act 2006; soprano pipistrelle, brown long-eared bat, greater horseshoe bat, lesser horseshoe bat, barbastelle, Bechstein's bat and noctule.

National Planning Policy Framework

A revised NPPF was issued on 20th July 2021 (Ministry of Housing Communities and Local Government, 2021) and currently supplements government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 180 then goes on to confirm that: When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Local Biodiversity Action Plan (LBAP)

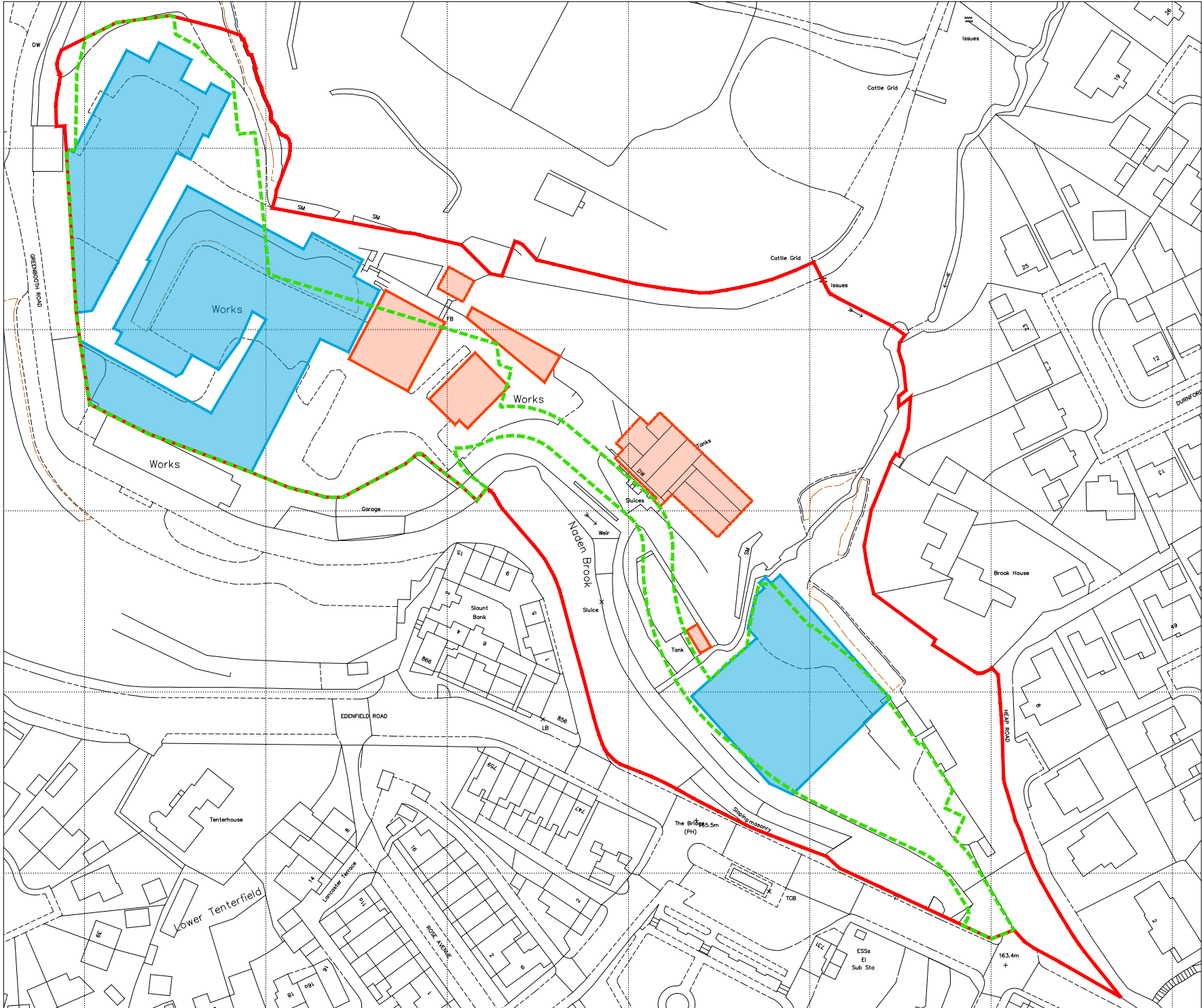
Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level) and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision-making process.

Greater Manchester Biodiversity Action Plan has a Species Action Plan for bats. This includes the objectives:

Maintain the distribution and range of bat populations and habitats in Greater Manchester and prevent further losses and fragmentation; and Increase the distribution and abundance of bats and suitable habitats in Greater Manchester without reducing the area of other valuable habitats and species

APPENDIX C: EXISTING SITE LAYOUT



- Legend
- Site boundary
 - Development boundary
 - Existing Buildings on-site
 - Existing Buildings on-site (Demolish)
 - Previous Buildings (demolished)

Rev	Date	Comments	By

Stonebond.

Stonebond Properties (Manchester)Ltd
Registered Office:
Suite 5, Egerton House
Towers Business Park
Wilmslow Rd
Didsbury, M20 2DX



site:	Edenfield Rd Norden Rochdale
title:	Existing Building Layout
scale: B1:	1:500
date:	Jun 23
drawing no:	SBM-001-EB01
sheet no:	Sheet 1 of 1
drawn by:	SMc
checked:	
revision:	

APPENDIX D: BAT FRIENDLY PLANTING

Bat friendly plant species as per Bat Conservation Trust Landscape and urban design for bats and biodiversity (Gunnell, Grant, & Williams, 2012) which can be accessed at <https://www.bats.org.uk/our-work/landscapes-for-bats/landscape-and-urban-design>

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive Green Roofs	Living walls	Rain gardens	Hedges /Trees	Beds /Borders
Acer campestre	Field maple	N	T/S	C	Any	Sun/shade				Y	
Acer platanoides	Norway maple		T	S	Well drained / alkaline	Sun/shade				Y	
Acer saccharum	Sugar maple		T	S	Any	Sun/shade				Y	
Achillea millefolium	Yarrow	N	HP	C,F	Well drained	Sun	Y				
Ajuga reptans	Bugle	N	HP	C,F	Any	Sun/shade	Y		Y		
Anthyllis vulneraria	Kidney vetch	N	HP	F	Well drained	Sun	Y				
Aubrieta deltoidea	Aubrieta		H	F	Well drained	Sun/shade		Y			
Betula pendula	Silver birch	N	T	C	Sandy/Acid	Sun				Y	
Cardamine pratensis	Cuckoo-flower	N	HP	F	Moist	Sun/shade			Y		Y
Carpinus betulus	Hornbeam	N	T	C	Clay	Sun				Y	
Centaurea nigra	Common knapweed	N	HP	C,F	Dry, not acid	Sun	Y				Y
Centranthus ruber	Red valerian		HP	F	Well drained / alkaline	Sun	Y				Y
Clematis vitalba	Old man's beard	N	C	F	Well drained / alkaline	Sun				Y	
Corylus avellana	Hazel	N	S	C	Any dry	Sun/shade		Y		Y	
Crataegus monogyna	Hawthorn	N	S	S,C	Any	Sun/shade				Y	
Daucus carota	Wild carrot	N	Bi	S,C,F	Any	Sun	Y				Y
Dianthus spp.	Pinks	N	A-Bi	F	Well drained	Sun	Y	Y			Y
Digitalis purpurea	Foxglove	N	Bi	C	Well drained	Shade / partial shade				Y	Y
Erica cinerea	Bell heather	N	S	F	Sandy	Full sun					Y
Erysimum cheiri	Wallflower		Bi-P	F	Well drained	Sun		Y			
Eupatorium cannabinum	Hemp agrimony	N	H	F	Moist	Sun/shade			Y		Y
Fagus sylvatica	Beech	N	T	C,R	Well drained alkaline	Sun/shade				Y	
Foeniculum vulgare	Fennel		H	F	Well drained	Sun					Y
Fraxinus excelsior	Common ash	N	T	C,R	Any	Sun/shade				Y	
Hebe spp.	Hebe species		S	F	Well drained	Sun/shade				Y	Y
Hedera helix	Ivy	N	C	F,C	Any	Sun/shade		Y	Y	Y	Y
Hesperis matronalis	Sweet rocket		H	F	Well drained / dry	Sun/shade					Y
Hyacinthoides non-scripta	Bluebell	N	B	F	Loam	Shade/ partial shade		Y		Y	Y
Ilex aquifolium	Holly	N	T	C	Any	Sun/shade				Y	
Jasminum officinale	Common jasmine		C	F	Well drained	Sun		Y			Y
Lavandula spp.	Lavender species		S	F	Well drained / sandy	Sun		Y			Y
Linaria vulgaris	Toadflax	N	HP	C	Well drained /alkaline	Sun	Y				Y
Lonicera periclymenum	Honeysuckle	N	C	F	Well drained	Sun		Y		Y	
Lotus corniculatus	Bird's foot trefoil	N	HP	F	Well drained /dry	Sun	Y				Y

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive Green Roofs	Living walls	Rain gardens	Hedges /Trees	Beds /Borders
Lunaria annua	Honesty		Bi	F	Any	Sun/ partial shade	Y				Y
Malus spp.	Apple		T	C	Any	Sun				Y	Y
Matthiola longipetala	Night-scented stock		A	F	Well drained /moist	Sun			Y		Y
Myosotis spp	Forget-me-not species	N	A	F	Any	Sun	Y	Y			Y
Nicotiana glauca	Ornamental tobacco		A	F	Well drained /moist	Sun/ partial shade			Y		Y
Oenothera spp.	Evening primrose species		Bi	F	Well drained /dry	Sun	Y				Y
Origanum vulgare	Marjoram	N	HP	F	Well drained /dry	Sun	Y	Y			Y
Populus alba	White poplar	N	T	C	Clay loam	Sun				Y	
Primula veris	Cowslip	N	HP	F	Well drained /moist	Sun/ partial shade	Y				Y
Primula vulgaris	Primrose	N	HP	F	Moist	Partial shade	Y	Y		Y	Y
Prunus avium	Wild cherry	N	T	C	Any	Sun				Y	Y
Prunus domestica	Plum		T	C	Well drained /moist	Sun				Y	Y
Prunus spinosa	Blackthorn	N	S	C	Any	Sun/ partial shade				Y	
Quercus petraea	Sessile oak	N	T	C,R	Sandy loam	Sun/shade				Y	
Quercus robur	Common oak	N	T	C,R	Clay loam	Sun/shade				Y	
Rosa canina	Dog rose	N	S	C	Any	Sun			Y	Y	Y
Salix spp.	Willow species	N	S	S,C	Moist	Sun/shade			Y	Y	
Sambucus nigra	Elder	N	T	C	Clay loam	Sun				Y	
Saponaria officinalis	Soapwort	N	HP	F	Any	Sun					Y
Saxifraga oppositifolia	Saxifrage	N	HP	C	Well drained	Sun	Y	Y			Y
Scabiosa columbaria	Small scabious	N	HP	F	Well drained /alkaline	Sun	Y				Y
Sedum spectabile	Ice plant		HP	F	Well drained /dry	Sun	Y				Y
Silene dioecia	Red campion	N	HP	F	Any	Shade/ partial shade		Y	Y	Y	Y
Sorbus aucuparia	Rowan	N	T	C	Well drained	Sun				Y	
Stachys lanata	Lamb's ears		HP	F	Well drained /dry	Sun	Y				Y
Symphytum spp.	Michaelmas daisies		HP	F	Any	Sun					Y
Tagetes patula	French marigold		A	F	Well drained /moist	Sun					Y
Thymus serpyllum	Creeping thyme	N	HP/S	F	Well drained /dry	Sun	Y	Y			Y

Tilia x europaea	Common lime		T	C	Any	Sun/shade				Y	
Trifolium spp.	Clover species	N	H	F	Any	Sun	Y				Y
Valeriana spp.	Valerian species	N	HP	F	Moist	Sun/ partial shade			Y		Y
Verbascum spp	Mulleins	N	Bi,HP	C	Well drained	Sun	Y				Y
Verbena bonariensis	Verbena		HP	F	Well drained /moist	Sun					Y
Viburnum lantana	Wayfaring tree	N	S	C	Any	Sun/shade				Y	Y
Viburnum opulus	Guelder rose	N	S	C	Moist	Sun/shade			Y	Y	
Viola tricolor	Pansy	N	A	F	Well drained /moist		Y	Y			Y

Type

HP - Herbaceous perennial **T** - Tree **A** - Annual
Bi - Biennial **S** - Shrub **B** - Bulb
BiP - Biennial perennial **H** - Herb **C** - Creeper/ climber

Benefit

C - Moth caterpillar food plant
S - Sap sucking insects (eg whiteflies)
F - Flowers attract adult moths
R - Good roost potential