Biodiversity Enhancement and Management Plan

30 Market Street, Huddersfield, HD1 2HG

Status	Issue	Name	Date
Final	1	Nicole Gullan BSc (Hons) MRSB TechArborA, Senior Ecological and Arboricultural Consultant	27/05/2024

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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)

Contents

1.0 Introduction

Arbtech Consulting Ltd. was commissioned to produce a Biodiversity Enhancement and Management Plan (BEMP) for Brighouse Market and Brighouse Town Centre, Brighouse, West Yorkshire HD6 1AQ (hereafter referred to as "the site".

The BEMP is informed by a Preliminary Ecological Appraisal and Preliminary Roost Assessment ("PEA/PRA"; Arbtech Consulting Ltd, February 2024) and was produced in conjunction with a Construction Ecological Management Plan ("CEMP"; Arbtech, May 2024).

The CEMP is required to discharge a planning condition relating to planning application number 2023/62/93113 under Kirklees Council:

8. No development shall commence until a Biodiversity Enhancement and Management Plan (BEMP) has been submitted to and approved in writing by the local authority. The plan shall demonstrate how a rooftop garden is to be incorporated into the design, along with details on provisions for roosting bats and nesting birds and shall include the following:

a. Description and evaluation of features to be managed and enhanced;

b. Extent and location/area of proposed enhancement works on appropriate scale maps and plans;

c. Ecological trends and constraints on site that might influence management;

d. Aims and Objectives of management;

e. Appropriate management Actions for achieving Aims and Objectives;

f. An annual work programme

g. Details of the management body or organisation responsible for implementation of the BEMP;

h. Ongoing monitoring programme and remedial measures; and

i. The BEMP will be reviewed and updated every 5 years and implemented for a minimum of 30 years

The BEMP shall include details of the legal and funding mechanisms by which the long-term implementation of the BEMP will be secured by the developer with the management body responsible for its delivery. The BEMP shall also set out (where the results from the monitoring show that the Aims and Objectives of the BEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved BEMP. The approved BEMP will be implemented in accordance with the approved details.

Reason: In order to ensure the development provides ecological enhancement and creation measures sufficient to provide a biodiversity net gain in accordance with Policy LP30 of the Kirklees Local Plan and the National Planning Policy Framework. This pre-commencement condition is necessary to ensure details relating to the required biodiversity net gain are devised and agreed at an appropriate stage of the development process.

1.2 Project Description

The development proposals are as follows: “change of use and alterations to form student living accommodation with ancillary concierge and communal facilities including roof extension and roof terrace”.

1.3 Site Description and Context

The site is located at National Grid Reference SE 14300 16549 and has an area of approximately 0.1ha comprising one on-site building and hardstanding. The site lies in the centre of Huddersfield. It is surrounded by built-up areas with some grassland and a few trees/tree lines in the nearby vicinity of the site. Gledholt Wood is located ~900m west of the site boundary. The wider landscape comprises scattered small and moderate-sized settlements (e.g., Halifax, Brighouse, and Dewsbury), with the larger settlement of Leeds to the northeast of the site. The Peak District National Park lies south of the site.

A site location plan is provided in Appendix 1 and the existing and proposed plans are shown in Appendices 2 and 3.

1.4 Scope of the Report

The information in Section 2 of this report provides a description and evaluation of the new features (green roof, bat and bird boxes) and details any relevant constraints, aims and management objectives, details of maintenance, monitoring and responsible bodies. Plans and maps are provided in the appendices.

This report will be updated every 5 years and implemented for a minimum of 30 years.

2.0 Biodiversity Enhancement and Management Plan (BEMP)

2.1 Existing Ecological Constraints

The site currently comprises buildings and hard standing. The Ecological Statement (C49 Architecture Ltd, no date) suggested that precautionary measures are implemented to protect nesting birds who may be present on adjacent sites. The precautionary measures to be followed have been detailed in the CEMP (Arbtech, May 2024).

2.2 Ecological Enhancements

Table 1: New Landscaping and Species-Specific Enhancements

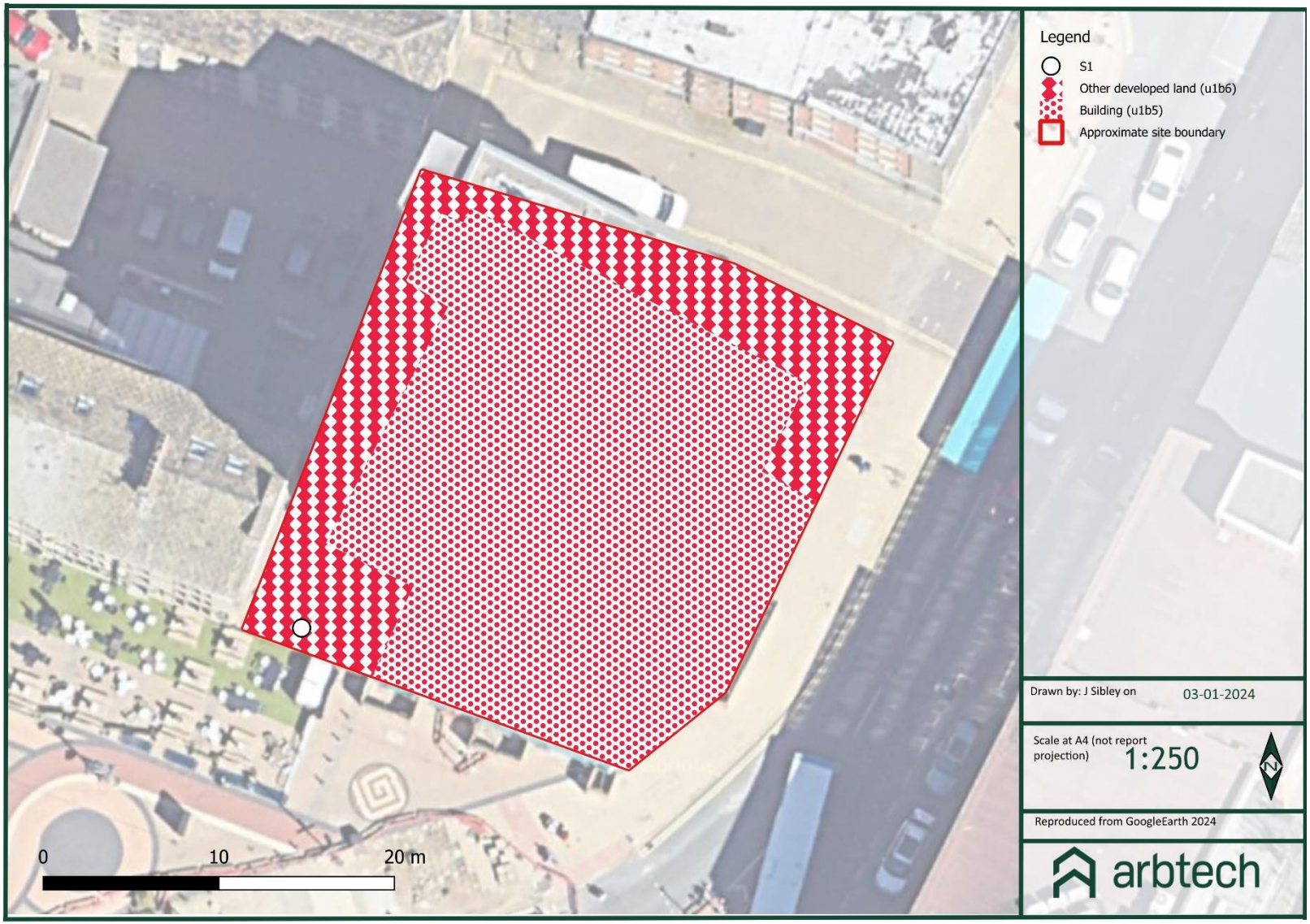
Works	Specification
Persons Responsible	The Biodiversity Champion (please refer to the CEMP; Arbtech, May 2024) will be responsible for the provision of the new landscaping and species-specific enhancements. The managing agent of the proposed development will be responsible for the management of these features post development. The developer is responsible for the funding of the enhancements.
Management Term	The management prescriptions outlined within this table must be implemented over a period of at least 30 years.
Site Visit and Reporting	The ECoW will make a final site check and sign off once the landscaping and installation of species-specific enhancements are complete.
Green Roof	An extensive green roof will be installed to provide additional ecological value for invertebrates and other taxa. This type of green roof uses wildflowers and sedum and supports a greater range of wildlife. The location of the green roof is illustrated in **Appendix 4**. ***Installation*** -Consult structural engineer or architect as to the capacity of buildings to host a green roof. This will typically weigh from 60-150kg per square metre depending on its mode of construction and will increase when rain or snow saturated. - Either a flat or a pitched roof will be suitable. Pitched slopes are suitable up to 10°. Anything over 20° will require a frame to prevent slipping. -Add a waterproof lining over existing roofing felt (e.g. pond liner). This can be protected during installation using a fleece liner. ***Flat roofs*** -For flat roofs or those up to 5°, a 10mm layer of pea gravel will be required over the protective fleece. This will ensure free drainage.

	Installation -Waterproofing and a frame will need to be built as with an extensive green roof (in the case of flat roofs, a lip with drainage gaps could be built around the roof to hold the substrate). -A layer of biodiverse substrate will be installed, which contains a mixture of gravels ranging from pebble grade to fines. Waste materials from the development can be added to this, as can rocks and logs to create enhanced structural heterogeneity. -It is important to ensure drainage is well designed to prevent future issues with pooling water. -It will be seeded with a neutral grassland mix. -This will be augmented by windblown seeds. This can be installed by the contractor or specialist companies such as Bauder and Sempergreen may be used. More information is available at their websites; https://www.bauder.co.uk. https://www.sempergreen.com/en/solutions/green-roofs/types/lightweight-flat-green-roof ***Maintenance and Monitoring:*** Maintenance is required twice a year to ensure drainage is cleared, plants are watered if required and dead plants are replaced. Maintenance needs can be reduced by selecting species which self-seed prolifically and are adapted to dry environments. Whilst more expensive, installation be a specialist company will reduce long term maintenance costs due to their use of maintenance reducing technology and construction methodology and will ensure construction meets any relevant building regulations. The green roof will be inspected twice annually for the first 30 years, to ensure that it is flourishing; if it is not, and unvegetated areas remain, a suitably qualified ecologist will be contacted to advise on remedial measures that will need to be implemented within a year and monitoring will continue.
Bat Boxes	Two bat boxes will be installed onto the developed building as shown on the plan in **Appendix 4.** Details of the bat boxes to be installed are as follows: ***Bat Boxes to be installed onto the developed building*** • The bat boxes will be constructed of woodcrete/woodstone. Boxes of this construction are known to require minimal maintenance and have a lifespan of 25 years plus.

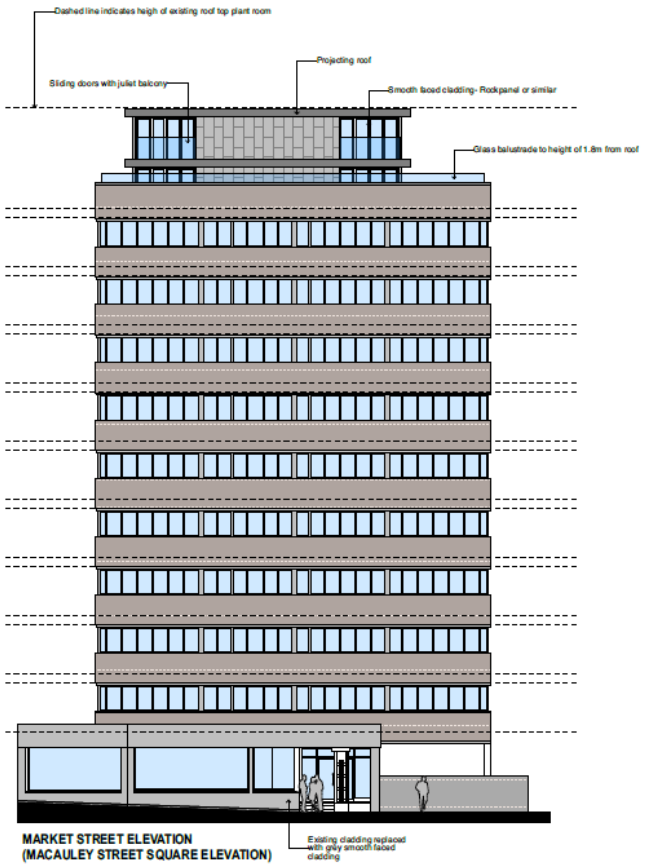
	• 2 No. Beaumaris WoodStone Bat Boxes (or similar) will be installed onto the developed building. This bat box type is suitable for integration into a range of building types including brick walls, timber cladding, and stone and are suitable to support a range of species including common pipistrelles *Pipistrellus pipistrellus* and soprano pipistrelles *Pipistrellus pygmaeus* which are likely to be present in the local area. • The bat boxes will be positioned 3-5m above ground level, higher where necessary, on the south elevation, with a clear flight path to and from the entrance. The bat boxes will not be positioned directly above any windows and should be unlit by and away from or high above artificial light (as far as possible, given the urban nature of the site). ***Maintenance and Monitoring:*** 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, the bat boxes will be inspected annually for the first 30 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	Two bird boxes will be installed onto the developed building as shown in **Appendix 4.** Details of the bird boxes to be installed are as follows: ***Bird boxes to be integrated into the façade of new building*** • The bird boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are known to have minimal maintenance and have a lifespan of 25 years plus. • 2No. Vivara Pro WoodStone House Sparrow Nest Boxes (or similar) will be installed into the façade of the developed building. This bird box type is designed to provide enhanced nesting opportunities for house sparrow *Passer domesticus.* House sparrows are priority species listed on Section 41 of the NERC Act (see **Appendix 3**). • The bird boxes will be positioned approximately 3m above ground level facing east. ***Maintenance and Monitoring:*** The proposed bird boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of boxes will increase the chances of occupation by nesting birds. However, the bird boxes will be inspected annually for the first 30 years outside of the typical active season for nesting birds (March to August inclusive) following installation. Boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.

Appendix 1: Site Location Plan (Arbtech, January 2024)

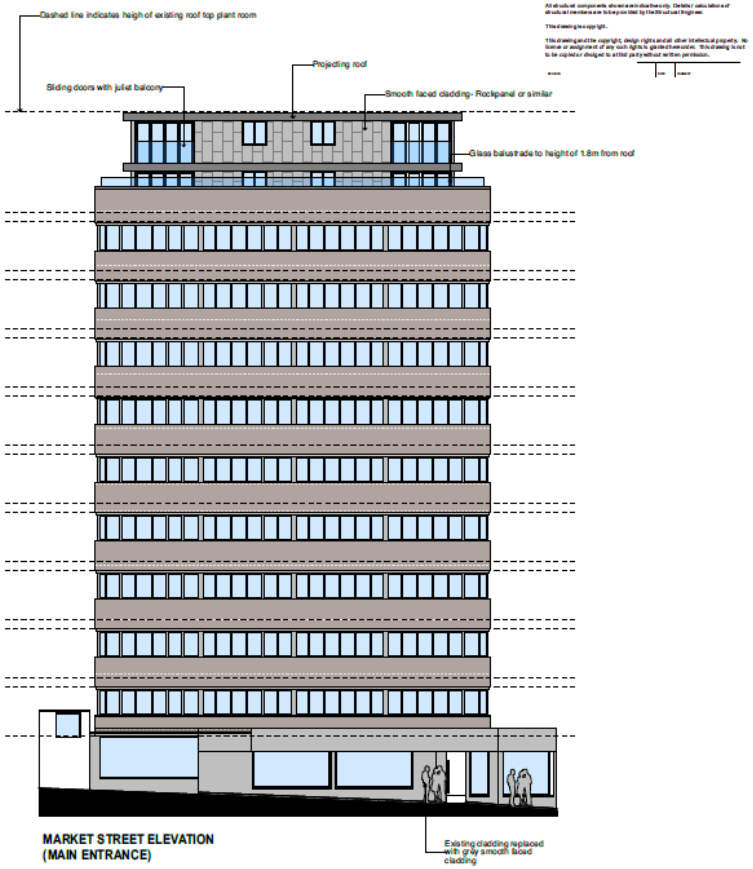
Appendix 2: Existing Habitat Plan (Arbtech, January 2024)



Appendix 3: Proposed Development Plan (C49 Architecture, September 2023)



MARKET STREET ELEVATION
(MACAULEY STREET SQUARE ELEVATION)



MARKET STREET ELEVATION
(MAIN ENTRANCE)

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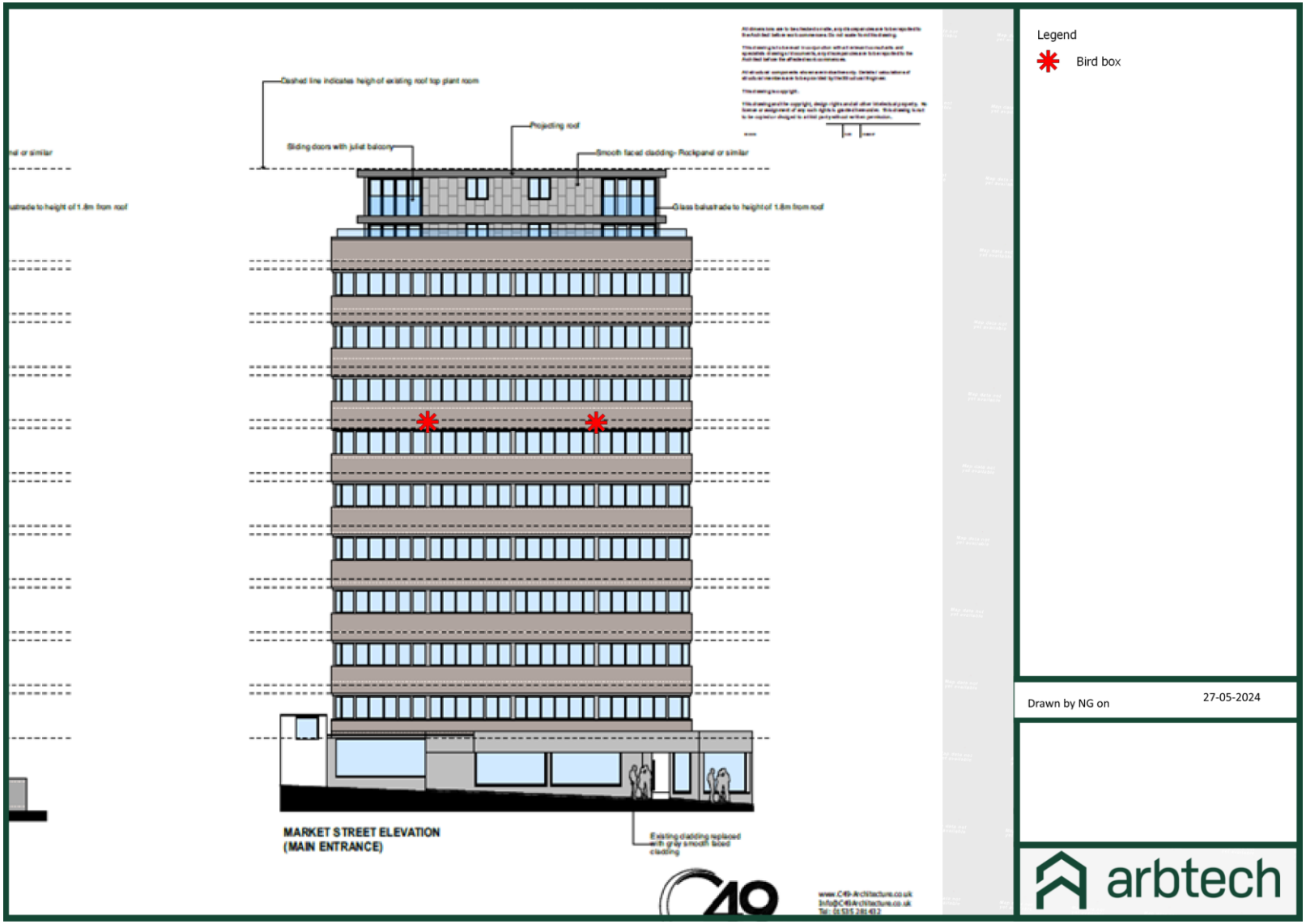
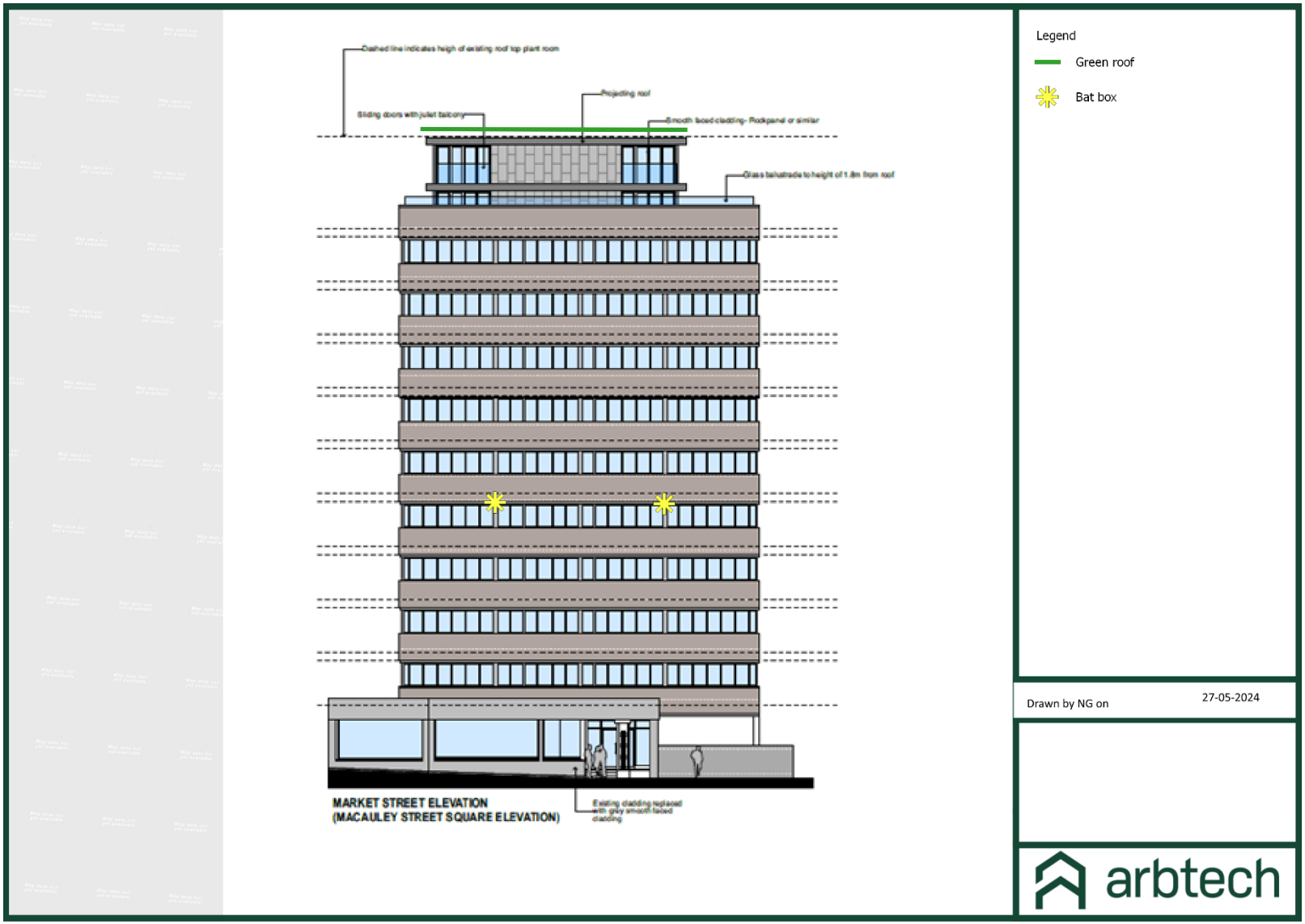
Tel: 01535 281432

C49 ARCHITECTURE

CLIENT DETAILS	DRAWING No	REVISION
MARKET STREET HUDDERSFIELD	NTL PL 030	
DRAWING INFO	**SCALE**	**DATE** / **DRAWN BY**
Elevation as Proposed	1:100	28/09/2023 / JH

Appendix 4: Proposed Ecological Enhancement Plans (Arbtech, May 2024)




Dashed line indicates heigh of existing roof top plant room
Projecting roof
Sliding doors with juliet balcony
Smooth faced cladding- Rockpanel or similar
Glass balustrade to height of 1.8m from roof
MARKET STREET ELEVATION
(MACAULEY STREET SQUARE ELEVATION)
Existing cladding replaced with grey smooth faced cladding
Legend
Green roof
Bat box
Drawn by NG on
27-05-2024
arbtech