

Shipyards, Water Street, Manchester M3 4JQ

LICENSED BAT SURVEY AND ECOLOGICAL ASSESSMENT

[ERAP (Consultant Ecologists) Ltd ref: 2022-350]

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SUMMARY

Introduction and Scope

- i. ERAP (Consultant Ecologists) Ltd was commissioned to carry out an ecological survey and assessment of the Shipyard building on the corner of Water Street and New Quay Street, Manchester M3 4JQ. The assessment was requested to inform a planning application proposing the redevelopment of the building for retail use.
- ii. This report presents the results of a desktop study and data search, an extended Phase 1 Habitat Survey and a licensed daylight bat survey and assessment carried out in December 2022. The scope of survey undertaken is appropriate to identify potential ecological constraints and the remit of mitigation required in relation to the redevelopment proposals.

Results of Survey and Assessment

- iii. The site is located in Manchester city centre and comprises the Shipyard building only. The building is bordered by New Quay Street to the north-east and by Water Street to the south-east. A car park and a hotel building are present to the south-west and the River Irwell meets the north-western site boundary.
- iv. In the presence of the implementation of measures to protect the water quality and habitat connectivity function at the River Irwell (as described in **Section 5.3**), the redevelopment proposals will have no adverse direct or indirect effect on statutory or non-statutory designated sites for nature conservation.
- v. Vegetation is limited to occasional young shrubs of self-seeded Butterfly-bush and Silver Birch at the yard to the west of the building and scattered shrubs of Butterfly-bush along the stone retaining wall at the river bank boundary. No Priority Habitat or semi-natural habitats will be affected by the proposals. No invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.
- vi. No evidence of the current or previous use of the Shipyard building by roosting bats was detected. The building is assessed to be of 'negligible' suitability for use by roosting bats; no further bat surveys are required to inform the redevelopment.
- vii. Inappropriate use of artificial lighting around the exterior (particularly the riverside / north-western elevation) of the building may have an adverse effect on use of the off-site river corridor site by foraging bats and other wildlife. Guidance to avoid a significant impact is provided at **Section 5.2**.
- viii. Mandatory measures to be applied to ensure the protection of nesting birds during and prior to the site preparation works are described at **Section 5.3**.
- ix. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

Recommendations

- x. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.

Conclusion

- xi. It is concluded that the redevelopment proposals are feasible and acceptable in accordance with relevant planning policy. The redevelopment proposals can be achieved with no adverse effect on designated sites for nature conservation and Priority Habitat. Appropriate survey and assessed has been carried out to reasonably discount adverse effects on roosting bats. Measures to protect wildlife and existing off-site habitats and to enhance the site for biodiversity are feasible and will be secured as part of the works to achieve compliance with wildlife legislation, the NPPF, local planning policy and best practice.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Crowther Turnbull Booth to carry out an ecological survey and assessment of the Shipyard building on the corner of Water Street and New Quay Street, Manchester M3 4JQ (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SJ 83117 98184. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested to inform a planning application proposing to “*re-purpose the former warehouse into an eclectic and curated destination that complements the wider St. John’s Masterplan, by encouraging a mix of artisan vendors and rolling smaller stalls.*”

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken December 2022 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
 - An Extended Phase 1 Habitat Survey and assessment;
 - A licensed daylight bat survey of the building and an assessment of its suitability to support roosting bat species at any time of year;
 - Survey and assessment of the habitats for use by nesting birds including species listed on Schedule 1 of the *Wildlife and Countryside Act 1981* (as amended) and Priority Species;
 - Survey and assessment of all habitats for relevant statutorily protected species¹;
 - Provision of guidance in accordance with wildlife legislation, *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016), and best practice in relation to the proposed works;
 - Identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any construction activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
 - Environment Agency Main River Map* (Environment Agency, 2023);
 - Greater Manchester Local Record Centre (GMLRC) (a request was made for bat records only); and

¹ In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. Given the city centre location of this site the need for surveys for protected species such as great crested newt, badger and reptile species can be reasonably discounted.

- d. Greater Manchester Biodiversity Action Plan (BAP).

2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM on 22nd December 2022. The weather was dry with sunny intervals, calm (Beaufort scale 0) and an air temperature of 8°C.
- 2.2.2 A habitat and vegetation map was prepared for the site and the immediate surrounding area (refer to **Figure 2**). The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.4 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length is appropriate.
- 2.2.5 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.6 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Daylight Licensed Bat Survey and Assessment

Surveyor

- 2.3.1 The daylight licensed bat survey and assessment was carried out by Victoria Burrows (Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-10390-CLS-CLS). Victoria's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Guidelines

- 2.3.2 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016). Where deviation from the guidelines was considered to be appropriate and proportionate, supporting rationale and evidence used to inform the assessment and decisions are presented in this report.

Habitat Assessment for Commuting / Foraging Bats

- 2.3.3 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples, presented below.

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Commuting Habitat	Foraging Habitat
Negligible	Negligible habitat features on site likely to be used by commuting bats.	Negligible habitat features on site likely to be used by foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.	Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Habitats close to and connected to known roosts.	High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Habitats close to and connected to known roosts.

Daylight Survey: Building

- 2.3.4 Inspection and assessment of the external surfaces, walls and roof of the building were carried out to find potential bat roosting habitat or accesses into crevices or areas where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were carried out.
- 2.3.5 Where required, ladders were used to gain closer inspections of specific features at the building.
- 2.3.6 The internal survey involved an examination of the accessible areas to find roosting bats or evidence of previous use of the building by bats such as droppings and prey remains.
- 2.3.7 The suitability of the building for use by roosting bats has been assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016), taking into account any presence of gaps suitable for access by bats, features suitable for use by roosting bats within the building (including crevice dwelling species and species which can roost in the open in roof voids), and the suitability of the surrounding habitats for use by foraging and commuting bats.

Daylight Survey: Shrubs

- 2.3.8 Shrubs within the site (as annotated on **Figure 2**) were assessed from the ground using binoculars and a high-powered torch. Each shrub was searched for the presence of features with suitability for use by roosting bats, as described, but not limited to, the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.

- 2.3.9 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).
- 2.3.10 The requirement for further presence / absence surveys at each shrub was then considered.

Equipment

- 2.3.11 A list of equipment used / available for use is provided below.

Table 2.2: Survey Equipment Used / Available for Use During Daylight Bat Survey

Ladders
LED Lenser P14 torch
Canon Ixus digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Endoscope CA-300

2.4 Other Relevant Protected Species and Animal Life

Bird Species

- 2.4.1 Bird species observed and heard during the survey were recorded.
- 2.4.2 Habitats at the building and surrounds and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.
- 2.4.3 The building was searched for evidence of previous use by nesting birds and the building was assessed for its suitability for use by nesting birds, particularly species typically associated with the built environment such as house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), swallow (*Hirundo rustica*), house martin (*Delichon urbicum*) and swift (*Apus apus*).

Otter

- 2.4.4 Given the proximity of the site to the River Irwell, the habitats within and at the boundary of the river were assessed for their suitability for use by otter.
- 2.4.5 The habitat assessment was carried out with reference to the species habitat requirements and preferences as detailed in *Ecology of the European Otter. Conserving Natura 2000 Rivers, Ecology Series 10* (Chanin, 2003).

2.5 Survey and Reporting Limitations

- 2.5.1 Access to examine the bank of the River Irwell adjacent to the site was restricted to an examination from the road bridge crossing of the river at New Quay Street. Based on the conditions present (refer to **Section 3.4**) it is advised that the extent of survey is appropriate to inform the proposals and planning application.
- 2.5.2 December is not an appropriate time of year to carry out surveys for the search and identification of aquatic vegetation associated with the adjacent riparian habitats. As the works will not affect the river habitats directly and the building height will not be altered (which may increase shading) it is advised that this is not a limitation on the overall intended scope of the ecological survey.
- 2.5.3 The daylight licensed bat survey was carried out in the winter months when bats are not typically active and field signs such as droppings left in exposed locations are likely to have weathered away. Due to the conditions at the building (as described in **Section 3.3**) it is advised that the time of year the survey was carried out is not a limitation.
- 2.5.4 No other survey limitations were experienced.
- 2.5.5 All measurements within this report are approximate only, and have been estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.6 Evaluation Methods

- 2.6.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977). These are size (extent), diversity,

naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.

- 2.6.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.6.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.6.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site and adjacent land have no statutory designation for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for the following designated sites:
 - a. Hollinwood Branch SSSI located 8 kilometres east of the site and designated for providing an example of a mesotrophic standing water system in Greater Manchester and Merseyside;
 - b. Rochdale Canal SSSI located 6.5 kilometres north-east of the site and designated for its diversity of submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce Special Area of Conservation (SAC) species Floating Water Plantain (*Luronium natans*); and
 - c. Rochdale Canal SAC located 6.5 kilometres north-east of the site and designated for the presence of Floating Water-Plantain.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2022):
 - a. Livestock and poultry units with floorspace greater than 500m², slurry lagoons and digestate stores greater than 4000m²; and
 - b. General combustion processes greater than 50 megawatts energy input including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works and other incineration / combustion.
- 3.1.4 It is considered that the proposals do not meet the criteria which would require the local planning authority to consult with Natural England in relation to likely risks to the statutory designated sites and their features of interest as a consequence of the proposed development.

Non-statutory Designated Sites for Nature Conservation

- 3.1.5 The site and adjacent land have no non-statutory designation for nature conservation (termed Sites of Biological Importance or 'SBI' in Greater Manchester).
- 3.1.6 Three non-statutory sites for designation lies within 2 kilometres of the site as summarised below.

Table 3.1: SBI within 2 Kilometres of the Site

SBI Name	Distance and Direction from site	Reasons for Designation
River Irwell	750 metres north-west	(Br6)
Rochdale Canal	1576 metres east	Canal (Fw3); Floating water Plantain (gsg1)
Ashton Canal (West)	1682 metres east	Canal (Fw3)

- 3.1.7 The presence of the non-statutory designated sites within 2 kilometres of the site is considered at **Section 4.2**.

Environment Agency Main River

- 3.1.8 The section of River Irwell located to the north of the site is not identified as an Environment Agency Main River (Environment Agency, 2023).

Priority Habitats Inventory

- 3.1.9 The Priority Habitats Inventory² was checked via MAGiC Maps. No Priority Habitats are identified on the site or on adjacent land. The site does not fall within a Network Expansion Zone.

Review of Bat Records Supplied by GMLRC

- 3.1.10 Reported records of bat species for a 2 kilometre radius of the site are summarised below.

² A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Table 3.2: Records of Bat Species Within a 2 Kilometre Radius of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Bat species	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): EPS, WCAs5, PS and GMBAP. 9 records, dated between 2006 and 2019. The closest record is 270 metres to the south-west of the site, and from 2012.
	Brown long-eared bat (<i>Plecotus auritus</i>): EPS, WCAs5, PS and GMBAP. 1 record from 2013, located 280 metres to the north-east of the site.
	Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS and GMBAP. 1 record from 2020, located 1860 metres to the east of the site.
	Bat spp. (<i>Chiroptera</i> sp.): EPS, WCAs5 and GMBAP. 10 records, dated between 2013 and 2014. The closest record is 340 metres to the south-west of the site, and from 2013.
	Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS, WCAs5 and GMBAP. 166 records, dated between 1994 and 2020. The closest record is 40 metres to the north of the site, and from 2010.
	Daubenton's bat (<i>Myotis daubentonii</i>): EPS, WCAs5 and GMBAP. 3 records, dated between 2004 and 2019. The closest record is 320 metres to the south-west of the site, and from 2004.
	Myotis spp. (<i>Myotis</i> sp.): EPS, WCAs5 and GMBAP. 2 records, dated 2013 and 2015. The closest record is 1140 metres to the north-west of the site, and from 2013.
	Pipistrelle sp. (<i>Pipistrellus</i> sp.): EPS, WCAs5 and GMBAP. 45 records, dated between 1994 and 2019. The closest record is 5 metres to the north-west of the site, and from 2012.
¹ Key to Designation Codes: EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> . WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended). PS = Priority Species listed under Section 41 of the NERC Act 2006. GMBAP = Species listed on the Greater Manchester Biodiversity Action Plan	

- 3.1.11 The presence of these protected and notable species within the wider area has been taken into account throughout this report.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The site is located in Manchester city centre and comprises the Shipyard building (refer to **Photo 1**). The building is bordered by New Quay Street to the north-east and by Water Street to the south-east. A hard-standing car park and a hotel building are present to the south-west and the River Irwell meets the north-western site boundary.
- 3.2.2 Refer to **Photos 2** and **9**. Vegetation is limited to occasional young shrubs of self-seeded Butterfly-bush (*Buddleia davidii*) and Silver Birch (*Betula pendula*) at the yard to the west of the building and scattered shrubs of Butterfly-bush along the stone lined river bank boundary.
- 3.2.3 Habitats at the site are described by the UKHab as u1b5 buildings and u1b6 other developed land with the secondary code 17 ruderal / ephemeral.
- 3.2.4 A Phase 1 Habitat Survey map is appended at **Figure 2**. Photographs are appended at **Table 8.1**.

Invasive Plant Species

- 3.2.5 No Japanese Knotweed or other invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.

3.3 Daylight Licensed Bat Survey and Assessment

Habitat Assessment for Commuting and Foraging Bats

- 3.3.1 The location of the building within the city centre environment with artificial lighting and negligible vegetation cover is assessed to be of 'negligible' suitability for use by foraging and commuting bats.

- 3.3.2 The River Irwell corridor to the north of the site provides a corridor through the city centre and will provide a source of invertebrate prey for the attraction of foraging bat species that are typically less sensitive to the existing artificial illumination along the river corridor such as *Pipistrellus* species. Use of the river by foraging bats is taken into consideration in the assessment at **Section 4.4** and the guidance in **Section 5.2** of this report.

Daylight Survey: Building

- 3.3.3 Refer to **Photos 1 to 21**. The Shipyard building is a steel and timber-framed brick and concrete panel construction with three pitched roofs covered with an unlined corrugated sheet material. Vertical timber planks have been installed at the south-western elevation and part of the north-western elevation. The building is split over two levels comprising a 'street level' that is open to the underside of the roof covering and an 'undercroft' area used for car parking.
- 3.3.4 The open sides to the north-west and south-west and the skylights in the roof create a light internal area at the street level of the building. The undercroft area is artificially lit and has a concrete slab ceiling with brick and concrete panel elevation walls that have been sprayed with concrete cement.
- 3.3.5 Examination of the external elevations confirmed that the brick walls are well-pointed; no gaps or opportunities suitable for bat access were detected. No gaps suitable for bat access were found around the doorways and timber window frames. No gaps are present at the window sills and lintels. A joint between two sections of brickworks was examined (refer to **Photo 8**); the crevice does not extend deep enough to provide an opportunity for use by roosting bats.
- 3.3.6 The lower row of window apertures on the south-eastern elevation are covered with timber boards; the boards are tightly sealed and provide no opportunity for bat access.
- 3.3.7 The internal examination of the building confirmed that the brick walls are well-pointed with no crevices or opportunities for bat access. The timber roof trusses appear to be tightly bolted; no gaps between the mortise joints were found.
- 3.3.8 No expansion joins in the concrete slab ceiling with suitability for bat access were found.
- 3.3.9 No bats or evidence of use of the building by roosting bats or features with suitability for use by roosting bats were detected at the Shipyard building.
- 3.3.10 Refer to **Photos 19 and 20**. Two off-site store rooms that can be accessed from the north-eastern edge of the undercroft level and extend beneath New Quay Street were examined for completeness as the doorways were open and the absence of artificial lighting when compared with the lighting in the undercroft area creates a dark void. The rooms have a metal ceiling (the underarch of the road bridge approach) and brick walls. No bats or evidence of use by roosting bats was detected. No cracks or crevices suitable for use by roosting bats were detected inside the store rooms.
- 3.3.11 The building is assessed to be of 'negligible' suitability for use by roosting bats at all times of year. Best practice precautionary guidance to be applied during the redevelopment works is described at **Section 5.3**.

Daylight Survey: Shrubs

- 3.3.12 None of the shrubs within the site (as illustrated on **Figure 2**) support features with suitability for use by roosting bats; all are assessed to be of 'negligible' suitability.
- 3.3.13 The stone and concrete retaining wall along the River Irwell (described below and at **Photo 21**) may provide cracks and crevices with suitability for use by roosting bats; it is understood that the wall will not be directly affected by the proposals.

3.4 Animal Life

Bird Species

- 3.4.1 A low number of feral pigeon (*Columba livia domestica*) were recorded roosting in the building. Opportunities for use of the building by nesting feral pigeon is considered to be limited by the absence of ledges and alcoves and other features typically selected by pigeon for nesting on.
- 3.4.2 No evidence of use of the building by other nesting birds was detected.

Otter

- 3.4.3 Refer to **Photo 21**. The river bank adjacent to the building is lined with a vertical concrete and stone block retaining wall that has been colonised by self-seeded Butterfly-bush shrubs. Due to the solid and continuous structure of hard materials, no opportunities for use by otter as a holt site or for lying up / resting were detected.
- 3.4.4 The range of otter in the Greater Manchester area is expanding and the guidance and best practice measures outlined in **Section 5.2** are of relevance for the long-term protection of the river corridor and its wildlife corridor function in the city centre.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 As detailed in the *Design and Access Statement* (3D REID, 2022) the proposals comprise:
 - a. Retention of the existing structure, roof form and façade to Water Street;
 - b. Creation of new mezzanine levels and associated terraces to the riverside / waterfront; and
 - c. Installation of access points to the building from Quay Street and Water Street.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 The proximity of the site to the River Irwell and the hydrological connectivity to the section of the river designated as an SBI (750 metres away) is recognised. In the presence of the mandatory and best practice measures to be secured via a Construction Environment Management Plan (CEMP) or similar, as outlined in **Section 5.3**, it is advised that appropriate mitigation to avoid adverse effects on non-statutory designated site is achieved.
- 4.2.2 In consideration of the distance between the site and any statutory and other non-statutory designated sites for nature conservation it is advised that the redevelopment works will have no direct or indirect effect on any other designated sites for nature conservation.

4.3 Vegetation and Habitats

- 4.3.1 No Priority Habitat or semi-natural habitats are present in the site or will be affected by the proposals.
- 4.3.2 No rare plant species were detected. No invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected in the site / construction zone of the redevelopment proposals.

4.4 Protected Species and Other Wildlife

Bat Species

- 4.4.1 No evidence of current or previous use of the Shipyard building by roosting bats was detected during the daylight licensed survey carried out in December 2022.
- 4.4.2 In accordance with the results of the surveys and assessment it is considered that appropriate and proportionate survey effort has been carried out to determine the likely bat roost status at the site and to demonstrate compliance with the survey guidelines, particularly paragraph 5.2.9 of the *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). No further bat surveys are required to inform the planning application.
- 4.4.3 Inappropriate use of artificial lighting around the exterior (particularly the riverside / north-western elevation) of the new building may have an adverse effect on use of the off-site river corridor site by foraging bats and other wildlife and guidance to avoid a significant impact is provided at **Section 5.2**.

Other Protected Species and Animal Life

- 4.4.4 Mandatory measures to be applied to ensure the protection of nesting birds during and prior to the site preparation works are described at **Section 5.3**.
- 4.4.5 Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 The recommendations described below aim to ensure that the proposals are implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021), local planning policy and best practice.

5.2 Guidance in Relation to Site Design / Detailed Specification and Ecological Enhancement

Lighting

- 5.2.1 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the River Irwell corridor as lighting overspill may deter use by wildlife such as foraging bats and the passage of otter.
- 5.2.2 The lighting scheme will be designed with reference to current guidance, namely:
 - a. *Guidance Note 8: Bats and Artificial Lighting in the UK* (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and
 - b. *Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

Ecological Enhancement

- 5.2.3 Owing to the re-purposing of an existing building the opportunities to enhance the site for wildlife likely to be present / attracted to the city centre environment are limited.
- 5.2.4 However, it is advised that the installation of two bat boxes with an open base on the retaining wall at the River Irwell is appropriate and proportionate to the proposals. A suitable box specification that requires no future maintenance is detailed at **Insert 1** below.



Insert 1: Greenwood Ecohabitat's single crevice bat box
(available from <https://www.greenwoodsecohabitats.co.uk/shop>)

5.3 Construction Environment Management Plan (CEMP) for Biodiversity

Introduction

- 5.3.1 To inform the site preparation and construction activities it is recommended that a Construction Environment Management Plan (CEMP) for Biodiversity is prepared and implemented. The CEMP for Biodiversity will describe the following actions / measures:

Dust Suppression, Incidents and Accidents

- 5.3.2 The risk of adverse effects on retained on and off-site vegetation, habitats and wildlife as a result of dust, spills and leaks will be minimised by the application of best practice measures and appropriate environmental controls such as dust suppression, appropriate storage of chemicals and fuel, presence of spill kits and appropriate training of on-site personnel.

Protection of Water Quality

- 5.3.3 Water quality at the River Irwell must be protected during the construction operations through the implementation of best practice. In the absence of any updated guidance, the following Pollution Prevention Guidelines (PPG) will be adhered to:
- a. PPG1: Basic good environmental practices (Environment Agency, 2013);
 - b. PPG5: Works in, near or over watercourses (Environment Agency, 2014);
 - c. PPG6: Construction and demolition sites (Environment Agency, 2012); and
 - d. PPG7: Operating refuelling sites (Environment Agency, 2011).

Invasive Plant Species and Biosecurity

- 5.3.4 To minimise the risk of introduction of other invasive species to the site all machinery / plant to be brought to the site must be clean. Wheels / tracks of machinery / plant must have been pressure washed before use at the site. No excessive remnant soil or plant material from other sites must be present on the machinery / plant or in the tyre treads as this may increase the risk of spread of non-native and invasive plant species e.g. Japanese Knotweed (*Fallopia japonica*) and Giant Hogweed (*Heracleum mantegazzianum*).

Nesting Birds

- 5.3.5 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. Based on the results of the ecological survey the risk of the presence of nesting birds is assessed to be low. If breeding birds are detected the ecologist should be contacted and guidance in relation to the

protection of the nesting birds in conjunction with the scheduled works will be issued. This may involve cordoning off an area of the site until the young birds have fledged.

Detection of a Bat

- 5.3.6 If at any time during the works a bat is discovered or suspected all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd (01772 750502) or the Bat Conservation Trust must be contacted for further guidance.

6.0 CONCLUSION

- 6.1 It is concluded that the redevelopment proposals are feasible and acceptable in accordance with relevant planning policy. The redevelopment proposals can be achieved with no adverse effect on designated sites for nature conservation and Priority Habitat. Appropriate survey and assessed has been carried out to reasonably discount adverse effects on roosting bats. Measures to protect wildlife and existing off-site habitats and to enhance the site for biodiversity are feasible and will be secured as part of the works to achieve compliance with wildlife legislation, the NPPF, local planning policy and best practice.

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8.0 APPENDIX: TABLES AND FIGURES

Table 8.1: Photographs



Photo 1: South-eastern and north-eastern elevations of the Shipyard building



Photo 2: South-eastern elevation at Water Street

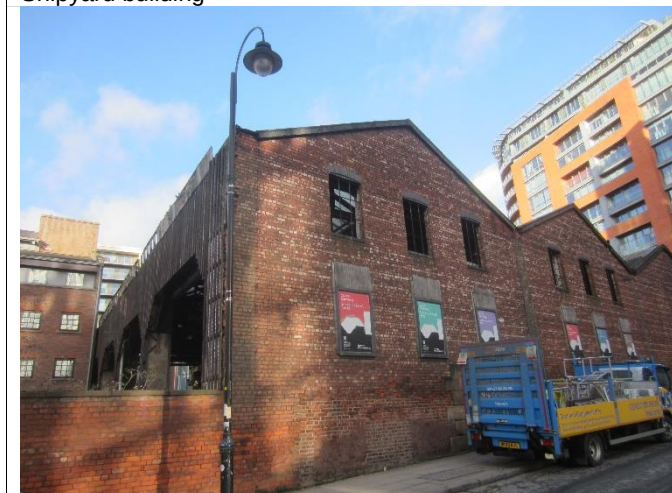


Photo 3: South-western and south-eastern elevations



Photo 4: South-eastern elevation at Water Street



Photo 5: South-eastern elevation showing street level and undercroft



Photo 6: North-eastern elevation at New Quay Street



Photo 7: Window apertures



Photo 8: Gap in the brickwork; not suitable for bat access



Photo 9: Butterfly bush along the River Irwell boundary



Photo 10: Internal brickwork



Photo 11: Steel and timber frame supporting corrugated sheet covered roof



Photo 12: Interior of the Shipyard building

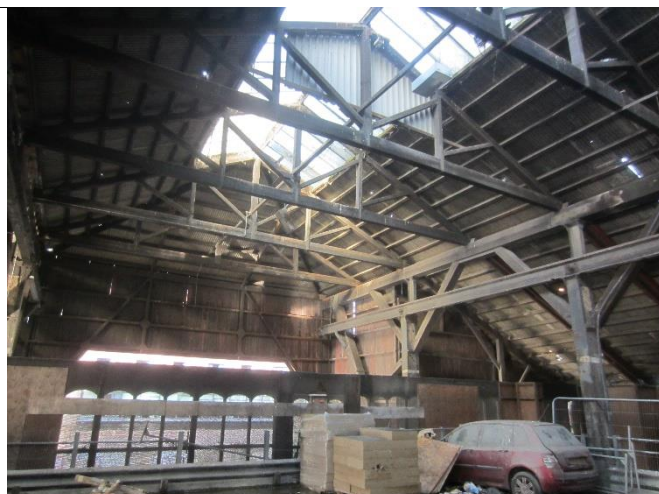


Photo 13: Interior of the Shipyard building showing the light conditions



Photo 14: Undercroft area

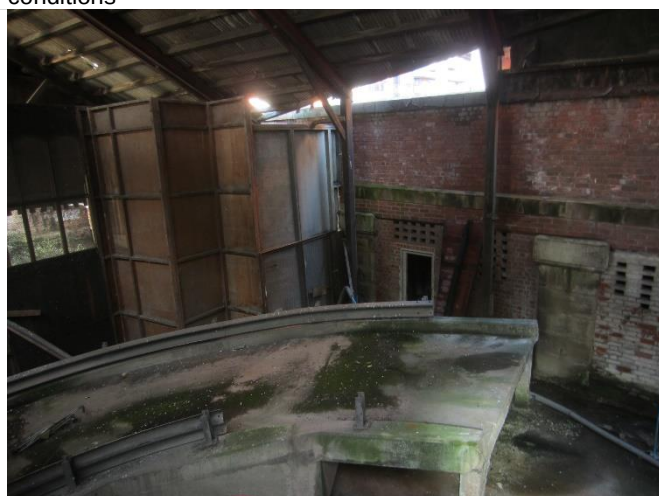


Photo 15: Undercroft area



Photo 16: Steel and timber frame supporting corrugated sheet covered roof



Photo 17: Steel and concrete at the ceiling of the undercroft



Photo 18: Steel and concrete at the ceiling of the undercroft



Photo 19: Well pointed brick walls and steel roof at off-site stores beneath New Quay Street



Photo 20: Well-pointed brick walls and steel roof at off-site stores beneath New Quay Street

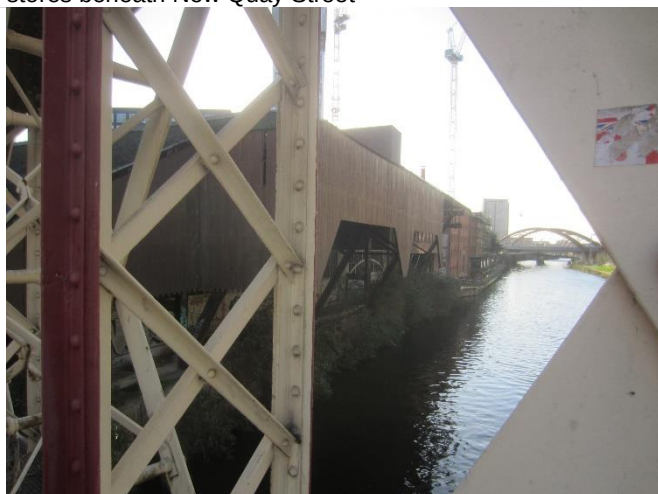


Photo 21: View of the bank of the River Irwell and the north-western elevation of the Shipyard building from the bridge at New Quay Street

Figure 1: Aerial Image of the Site and Surrounds



Figure 2: Phase 1 Habitat and Vegetation Map

