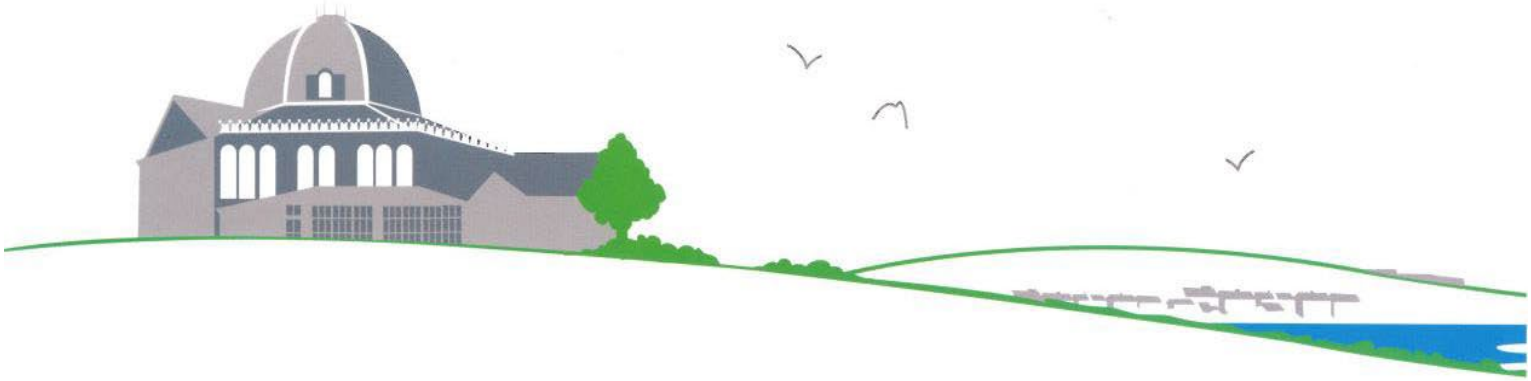
Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

ANCOATS MANCHESTER LIMITED

LAYSTALL STREET, MANCHESTER

EXTENDED PHASE 1 HABITAT SURVEY



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EXTENDED PHASE 1 HABITAT SURVEY

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November 2022

This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed:_____

Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

CONTENTS

Page

1. INTRODUCTION 1

Site Description 1

Legislative Context 1

Invasive Species 3

Aims of Report 3

2. METHODS 4

Desk Study 4

Extended Phase 1 Habitat Survey 4

Limitations 4

3. RESULTS 5

Desk Study 5

Statutory Designated Sites 5

European Sites 5

Sites of Special Scientific Interest 5

Other Protected Sites 5

Non-Statutory Designated Sites 5

Priority Habitats 6

Protected and Notable Species 6

Granted European Protected Species Applications 6

Bats 7

Badger and Hedgehog 7

Otter and Water Vole 7

Birds 7

Amphibians and Reptiles 8

Terrestrial Invertebrates 8

White-clawed Crayfish and Notable Fish 9

Notable Plant Species 9

Extended Phase 1 Habitat Survey 9

Main Habitats Present 9

Hardstanding 9

Ephemeral/Short Perennial Vegetation 9

Protected Species 9

Black Redstart 9
Bats 10
Invasive non-native species 10
4. DISCUSSION AND RECOMMENDATIONS 11
Designated Sites 11
Habitats 11
Protected Species 11
Bats 11
Breeding Birds 11
Biodiversity Enhancement Opportunities 11
5. REFERENCES 12
6. ABBREVIATIONS 13

TABLES

1 Bat European Protected Species Licences 6
2 Bat Roost Records 7
3 Bird Species Records Returned from Data Search 8

FIGURE

1 Phase 1 Habitats Map

APPENDICES

1 Botanical Species List
2 Photographs

1. INTRODUCTION

1.1 Penny Anderson Associates Ltd (PAA) was commissioned in September 2022 to undertake an extended Phase 1 habitat survey on an area of land at Laystall Street, Manchester hereafter referred to as the 'site'. The site is centred on grid reference SJ85049830.

1.2 The report has been requested to accompany a planning application for re-development of the site.

Site Description

1.3 The plot at Laystall Street is an urban city centre site comprising concrete and hardstanding with small patches of ephemeral/short perennial vegetation around the edges of the hardstanding. The wider surrounding land use is primarily urban development comprising roads, offices and residential buildings.

1.4 The site is bounded by Laystall Street to the north, Great Ancoats Street to the east, vacant land to the south and an aparthotel to the west.

Legislative Context

1.5 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended).

1.6 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CRoW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).

1.7 At the national level, Biodiversity 2020 (Defra 2011) forms England's national biodiversity strategy. Building on the Natural Environment White Paper published in 2011, this provides a means of delivering the UK's commitments to maintaining and protecting biodiversity. Under Biodiversity 2020, the Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England as listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006 (amended).

1.8 More recently, the Environment Act 2021 further supports this commitment to, and strengthens the legislation in respect of, maintaining and also enhancing biodiversity in England, and Part 6 Nature and Biodiversity includes the following key areas:

- Strengthened biodiversity duty for public authorities in England;
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures; and
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature.

1.9 Finally, the National Planning Policy Framework (NPPF 2021) provides guidance for local authorities on the content of the Local Plans and is a material consideration in determining planning applications. Briefly, with an overall focus on sustainable development, the NPPF states that developments should aim to engender positive outcomes for habitats and biodiversity, with a particular focus on the maintenance and creation of ecological networks.

1.10 The NPPF identifies the following principals that should be applied by local planning authorities when determining planning applications:

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 on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI;

c. Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

d. Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

1.11 The NPPF states that the planning system should contribute to and enhance the natural environment through a range of actions, including:

- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils;
- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services; and
- Minimising impacts on biodiversity and providing net gains for biodiversity including establishing coherent ecological networks that are more resilient to current and future pressures.

1.12 To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

1.13 In terms of local policies, Manchester's Local Development Framework Core Strategy Development Plan Document (MCC 2012) presents Core Strategy EN15 Biodiversity and Geological Conservation, which states that the '*Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City'* and further directs that development should '*identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially*

valuable habitat areas where appropriate'. Several documents are referenced as part of this policy including the Manchester Biodiversity Strategy and the Green Infrastructure Framework for Greater Manchester.

Invasive Species

1.14 Certain non-native species that have been introduced into the UK are regarded as being a threat to native biodiversity. Legislative measures have, therefore, been put in place to prevent the spread of these invasive species in the wild.

1.15 Under section 14 of the WCA, 1981 (as amended), it is illegal to introduce plants listed under Part II of Schedule 9 of the WCA into the wild or sell these species. Offences include causing the spread of viable plant material or neglecting to contain or appropriately manage non-native species.

1.16 Commonly introduced Schedule 9 species include non-native cotoneaster species, specifically, small-leaved cotoneaster[1] (*Cotoneaster microphylla*) and wall cotoneaster (*C. horizontalis*), Himalayan balsam (*Impatiens glandulifera*) and Japanese knotweed (*Reynoutria japonica*).

Aims of Report

1.17 The aim of this report is to provide an up-to-date assessment of the ecological features on the site, identify any ecological constraints relevant to the proposed development and make recommendations on further survey work and/or mitigation and compensation where considered necessary.

[1] *Botanical species names follow Stace 2019*

2. METHODS

Desk Study

2.1 A request for details of protected and notable species and locally designated sites within 1km of the centre of the site was made to Greater Manchester Ecology Unit (GMEU) with data returned in October 2022. Additionally, the Multi-Agency Geographic Information for the Countryside (MAGIC[2]) website was consulted for details of statutory designated and European sites within a 5km search area from the centre of the site and within 2km for nationally important designated sites. Details of Priority Habitats within a 1km search area from the centre of the site are also reported.

2.2 It is important to note that the desk study results provide an indication of the species present in and around the site and do not confirm current presence or absence of any particular species. Protected species are often under-recorded in county wildlife databases.

Extended Phase 1 Habitat Survey

2.3 The survey was conducted on 29th September 2022 by Assistant Ecologist, Stephen Griffith[3] under mild, dry conditions with good visibility.

2.4 The Phase 1 habitat survey was carried out by a suitably experienced surveyor and the survey methodology was based on guidance set out in the *Handbook for Phase 1 Habitat Survey* (JNCC[4] 2010). The broad habitat types were mapped, with each habitat type coded according to the standard JNCC Phase 1 habitat survey procedure.

2.5 In addition, plant species lists were collated for habitats across the area delineated for the survey. Each plant species was assigned abundance codes within each habitat. This was done using the 'DAFOR' scale (where: D = dominant; A = abundant; F = frequent; O = occasional; R = rare), which provides an indication of the relative abundance of each plant species present within a particular habitat. The plant species present within the site are listed in Appendix 1, which shows both common and scientific names according to Stace (2019). Common names only are referred to in the text.

2.6 The survey was 'extended' following the approach set out in the Institute of Environmental Assessment (1995) and CIEEM (2017) to include an assessment of the potential for/presence of protected species.

Limitations

2.7 The site was fully accessible at the time of the survey and carried out at an appropriate time of year for this type of survey, and there were no significant constraints.

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[2] *www.magic.defra.gov.uk/MagicMap.aspx (last accessed 05/09/2022)*

[3] *Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM)*

[4] *Joint Nature Conservation Committee*

3. RESULTS

Desk Study

3.1 The desk study utilised data obtained from GMEU in October 2022, searching within a 1km radius of the site centre. The MAGIC search engine was also used to obtain additional data on European Protected Species (EPS) licences, as well as Statutory designated sites and Priority Habitats.

Statutory Designated Sites

European Sites

3.2 European protected sites include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar wetland sites, possible SAC, potential SPA and proposed Ramsar sites.

3.3 Rochdale Canal SAC was present within the search area, located approximately 4.8km north-east of the site boundary. Rochdale Canal SAC is designated for:

- Annex II species that are a primary reason for selection of this site: **1831 Floating water-plantain** (*Luronium natans)* Rochdale Canal supports a significant population of **floating water-plantain** in a botanically diverse water plant community, which also maintains a wide range of pondweeds (*Potamogeton* spp.) The canal has predominantly mesotrophic water. This population of *Luronium* is representative of the formerly more widespread canal populations of north-west England.

Sites of Special Scientific Interest

3.4 SSSI represent a selection of this country's best wildlife and geological sites and cover approximately 7% of the terrestrial area of the country (with over 4,000 separate sites in England). No SSSI are located within the 2km search area, however, the site does fall within the Impact Risk Zone[5] (IRZ) of Rochdale Canal SSSI. The Rochdale Canal SSSI, located 4.8km north-east of the site boundary, contains important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species floating water plantain. The site also supports a diverse assemblage of aquatic flora, notably its assemblage of pondweeds; the nine species of which found in the canal represent a balanced community, which reflects the quality of water.

Other Protected Sites

3.5 No National or Local Nature Reserves were identified within the 2km search area.

Non-Statutory Designated Sites

3.6 Two Sites of Biological Importance (SBI) were identified within the 1km search area:

- Ashton Canal (West) (200m S of site boundary): The canal is an important wildlife corridor linking Ashton with Manchester via Openshaw and provides an important accessible natural greenspace in an otherwise urban landscape. Both floating water-plantain and

[5] *The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.*

grasswrack pondweed (*Potamogeton crompressus*) are UK Priority Biodiversity Species and have been recorded here; and

- Rochdale Canal: Stott's Lane to Ducie Street Basin (150m NW of site boundary) Statutory designations such as the Rochdale Canal SAC and the Rochdale Canal SSSI apply to the Oldham and Rochdale sections only. Floating, emergent and marginal flora occurs along the Manchester section of the canal. This includes occasional emergent stands of bulrush (*Typha latifolia*), common reed (*Phragmites australis*), yellow iris (*Iris pseudacorus*) and purple-loosestrife (*Lythrum salicaria*). Marginal species also include occasional hard rush (*Juncus inflexus*), great willowherb (*Epilobium hirsutum*), hoary willowherb (*Epilobium parviflorum*), gypsywort (*Lycopus europaeus)* and water forget-me-not (*Myosotis scorpioides*). A small harbour connecting the Ashton canal and Rochdale canal, named the New Islington Marina, supports large shoals of perch and roach of various age classes, indicating this is now an important nursery for coarse fish. Water vole (*Arvicola amphibius*) and white-clawed crayfish (*Austropotamobius pallipes*) are known to be present in other sections of the canal.

Priority Habitats

3.7 Four areas of Priority Habitat Open Mosaic Habitats on Previously Developed Land were identified within the 1km search area. The closest of the areas lies 170m north-east of the site boundary at the New Islington marina.

3.8 Eighteen areas of Priority Habitat Deciduous Woodland were identified within the 1km search area. All of these areas are present along the River Medlock, with the closest record 800m west of the site boundary.

Protected and Notable Species

Granted European Protected Species Applications

3.9 Nine granted EPS licence applications for bats were returned within the 1km search area on MAGIC. Eight were granted for common pipistrelle (*Pipistrellus pipistrellus*), with one granted for common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*) roosts, Table 1 shows the location and date of each licence granted.

3.10 There are no records for licences relating to other EPS within the search area.

Table 1 Bat European Protected Species Licences

Species	Licence to Allow	Date Licence Granted	Date Licence Expires	Distance from Site Boundary
Common pipistrelle and soprano pipistrelle	Destruction of resting place	2014	2017	620m SW
Common pipistrelle	Destruction of resting place	2018	2040	920m W
Common pipistrelle	Destruction of resting place	2017	2023	940m NW
Common pipistrelle	Destruction of resting place	2013	2015	450 NW
Common pipistrelle	Destruction of resting place	2019	2021	720m S

Species	Licence to Allow	Date Licence Granted	Date Licence Expires	Distance from Site Boundary
Common pipistrelle	Destruction of resting place	2021	2022	830m S
Common pipistrelle	Destruction of resting place	2015	2020	280m N
Common pipistrelle	Destruction of resting place	2016	2018	400 NW
Common pipistrelle	Destruction of breeding and resting site	2020	2031	650m E

Bats

3.11 There were records for 23 bat roosts in the 1km search area within the GMEU dataset. Table 2 shows the number of roost records of each bat species recorded in the 1km search zone and the proximity to the site of the closest record for each species.

3.12 In addition, numerous records were returned for signs/sightings of bats (away from a roost) within the 1km search area; these recordings were for common pipistrelle (30 records), pipistrelle species (five records), soprano pipistrelle (one record) and noctule (one record). A number of these records report foraging activity on Laystall street, with the closest record to the site for a noctule (*Nyctalus noctule*), located 1000m south-west of the site boundary.

Table 2 Bat Roost Records

Common Name	Scientific Name	No. of Records	Closest Record (approximate distance and direction from site boundary)
Common pipistrelle	*Pipstrellus pipistrellus*	12	100m SW
Myotis species	*Myotis sp.*	1	580m S
Pipistrelle species	*Pipistrellus sp.*	9	350m W
Soprano pipistrelle	*Pipistrellus pygmaeus*	1	530m SW

Badger and Hedgehog

3.13 One record for signs of badger (*Meles meles*) was identified within the 1km search area. This record is located over 500m from the site boundary. No records of badger setts were returned by the data search.

3.14 One record for hedgehog (*Erinaceus europaeus*) was identified within the 1km search area, the closest record to the site boundary dates from 2020 and is located 250m south-west of the site boundary.

Otter and Water Vole

3.15 No records for otter (*Lutra lutra*) or water vole were identified within the 1km search area.

Birds

3.16 A small number Schedule 1 species, including peregrine (*Falco peregrinus*), kingfisher (*Alcedo atthis*), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*), were recorded within the 1km search area but due to the confidentiality of this data, these results are not presented in detail in this report.

3.1 In addition, the presence of black redstart, a Schedule 1 species, is known within the City Centre and the site lies within the black redstart Priority Area for Greater Manchester (Jones 2009).

3.2 All other protected and notable bird species records within the 1km search area are listed in Table 3, along with their conservation status. They comprise species typical of urban locations, parks and gardens.

Table 3 Bird Species Records Returned from Data Search

Common Name	Scientific Name	Amber[6] Listed	Red Listed	Section 41 Priority Species[7]
Bullfinch	*Pyrrhula pyrrhula*	x		x
Dunnock	*Prunella modularis*	x		x
Greenfinch	*Carduelis chloris*		x	
Grey wagtail	*Motacilla cinerea*	x		
House sparrow	*Passer domesticus*		x	x
Lesser black-backed gull	*Larus fuscus*			
Mallard	*Anas platyrhynchos*	x		
Mistle thrush	*Turdus viscivorus*		x	
Pink footed goose	*Anser brachyrhynchus*	x		
Song thrush	*Turdus philomelos*	x		x
Sparrowhawk	*Accipiter nisus*	x		
Starling	*Sturnus vulgaris*		x	x
Woodpigeon	*Columba palumbus*	x		
Wren	*Troglodytes troglodytes*	x		

Amphibians and Reptiles

3.3 No great crested newt (*Triturus cristatus,* GCN*)* records were returned within the 1km search area. Consultation with MAGIC also revealed no known locations with confirmed presence of GCN within 1km of the central grid reference.

3.4 The Rochdale and Ashton canals run past the site to the north and south respectively. However, an Ordnance Survey map search confirmed no ponds were present within 500m of the site boundary.

3.5 No records for other amphibians or reptiles were returned in the 1km search area.

Terrestrial Invertebrates

3.6 One record for the Section 41 moth species cinnabar moth (*Tyria jacobaeae*) was returned from the 1km data search. The record is located 300m west of the site boundary and dates from 2017.

[6] *The UK's birds can be split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green (Stanbury et al 2021).*

[7] *Species of Principal Importance under Section 41 of the NERC Act 2006.*

White-clawed Crayfish and Notable Fish

3.7 No records of white-clawed crayfish or notable fish species were identified within the 1km search area.

Notable Plant Species

3.8 One record for the notable plant species bee orchid (*Ophrys apifera*) was returned from the 1km data search. This record was located 150m north-west of the site boundary.

3.9 One record for the notable plant species floating water plantain was returned from the 1km data search. This record was located 570m east of the site boundary.

Extended Phase 1 Habitat Survey

3.10 Figure 1 presents the habitat map of the site at Laystall street. Botanical species lists for the habitats on site are presented in Appendix 1 with illustrative photographs in Appendix 2.

Main Habitats Present

3.11 The site is dominated by hardstanding (Photograph 1, Appendix 1). There are small patches of ephemeral/short perennial vegetation scattered around the edges of the site. Heras fencing borders the site, with an aparthotel located immediately to the west.

Hardstanding

3.12 The site is dominated by hardstanding (including concrete and asphalt). These areas support very little vegetation either because of recent use (for example heavy machinery) or due to the relatively intact nature of the hardstanding.

3.13 The neighbouring building to the west is currently in use as an aparthotel (Photograph 2). The brickwork is in very good condition and there are no gaps, crevices or other features that could potentially support roosting bats or enable access into the interior of the structure. There was no evidence of nesting birds using the structure and no sheltered ledges/gaps where nests might be built

Ephemeral/Short Perennial Vegetation

3.14 Patches of ephemeral/short perennial vegetation are scattered around the edges of the site (Photograph 3). Ryegrass species was frequent, with occasional forbs including broad-leaved dock, aster species, dandelion, daisy, hogweed, and white clover. Rarely occurring species present comprised butterfly-bush, rosebay willowherb and greater burdock.

Protected Species

3.15 The site is isolated from any larger areas of natural or semi-natural habitat. Due to the lack of shelter or suitable habitat for protected species, it was concluded that the only species relevant to this assessment are foraging bats and foraging black redstart.

Black Redstart

3.16 The suitability of the site for black redstarts is considered to be very limited due to the dominance of intact hardstanding and the frequently disturbed nature of the site (the area appeared to be in use for storage for construction materials with active heavy machinery at time of survey). Occasional use of the site by small numbers of foraging black redstarts cannot be ruled out, but it is unlikely to form an important forage resource for this species.

Bats

3.17 The site contains no potential tree roost sites for bats as there are no mature or larger trees on or adjacent to the site. There are no buildings on the site suitable for use by roosting bats.

3.18 The hardstanding provides no significant foraging habitat for bats. Street lighting, together with the lack of vegetation and connectivity to other semi-natural habitats, significantly diminishes its potential for bat foraging.

3.19 The GMEU data search revealed that the site is 100m from the closest known bat roost, which is a single non-breeding summer roost for common pipistrelle, dating from 2020, situated on Laystall Street. Development of the site is unlikely to significantly impact upon the local population of bats due to the lack of any suitable roost features, lack of foraging habitat and lack of connectivity with other nearby suitable habitats or roost sites.

Invasive non-native species

3.20 No evidence of invasive non-native plants was recorded on day of survey.

4. DISCUSSION AND RECOMMENDATIONS

Designated Sites

4.1 The site contains no statutory or non-statutory nature conservation sites. There are no designated sites within 1km of the site boundary and those situated further afield are considered unlikely to be impacted by the proposed development due to distance and lack of habitat connectivity

Habitats

4.2 The habitats and plant species recorded within the site are widespread and common throughout Greater Manchester and the UK. None of the plant species recorded within the site are either Nationally Scarce or Nationally Rare (Hill *et al.* 2004) or of any other conservation significance (Cheffings and Farrell 2005, as amended; Stroh *et al*. 2014).

Protected Species

Bats

4.3 The site provides no significant area of foraging habitat and is unlikely to be used by foraging bats. No potential roost features were identified on the site. The proposed development is, therefore, predicted to have a negligible impact on the conservation status of bats within the local area and Greater Manchester.

Breeding Birds

4.4 The site is considered to provide a limited foraging resource only for local populations of birds due to the lack of semi-natural habitat and lack of connectivity with other suitable nearby habitats.

4.5 The site holds only very limited foraging potential for black redstart and is unlikely, therefore, to form a key part of the foraging habitat for any local populations of black redstart.

Biodiversity Enhancement Opportunities

4.6 The site is currently of limited ecological value and development presents an opportunity to increase biodiversity. Potential enhancement measures comprise:

- Use of British native or pollinator-friendly tree, shrub and herbaceous species in any landscape planting, for example, inclusion of species that provide nectar for invertebrates or berries to provide a food source for birds;
- Inclusion of integrated bat roost features such as bat bricks or bat tubes to increase opportunities for roosting bats, coupled with a suitable lighting strategy to avoid unnecessary lighting of roost features.
- Including a green/brown roof design would enhance/expand forage opportunities for any local populations of black redstart, if the design allows.

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6. ABBREVIATIONS

CIEEM Chartered Institute of Ecology and Environmental Management

CRoW Countryside Rights of Way

EPS European Protected Species

EU European Union

GCN Great Crested Newt

GMEU Greater Manchester Ecology Unit

IRZ Impact Risk Zone(s)

JNCC Joint Nature Conservation Committee

MAGIC Multi-Agency Geographic Information for the Countryside

NERC Natural Environment and Rural Communities

NPPF National Planning Policy Framework

PAA Penny Anderson Associates Ltd

SAC Special Area(s) of Conservation

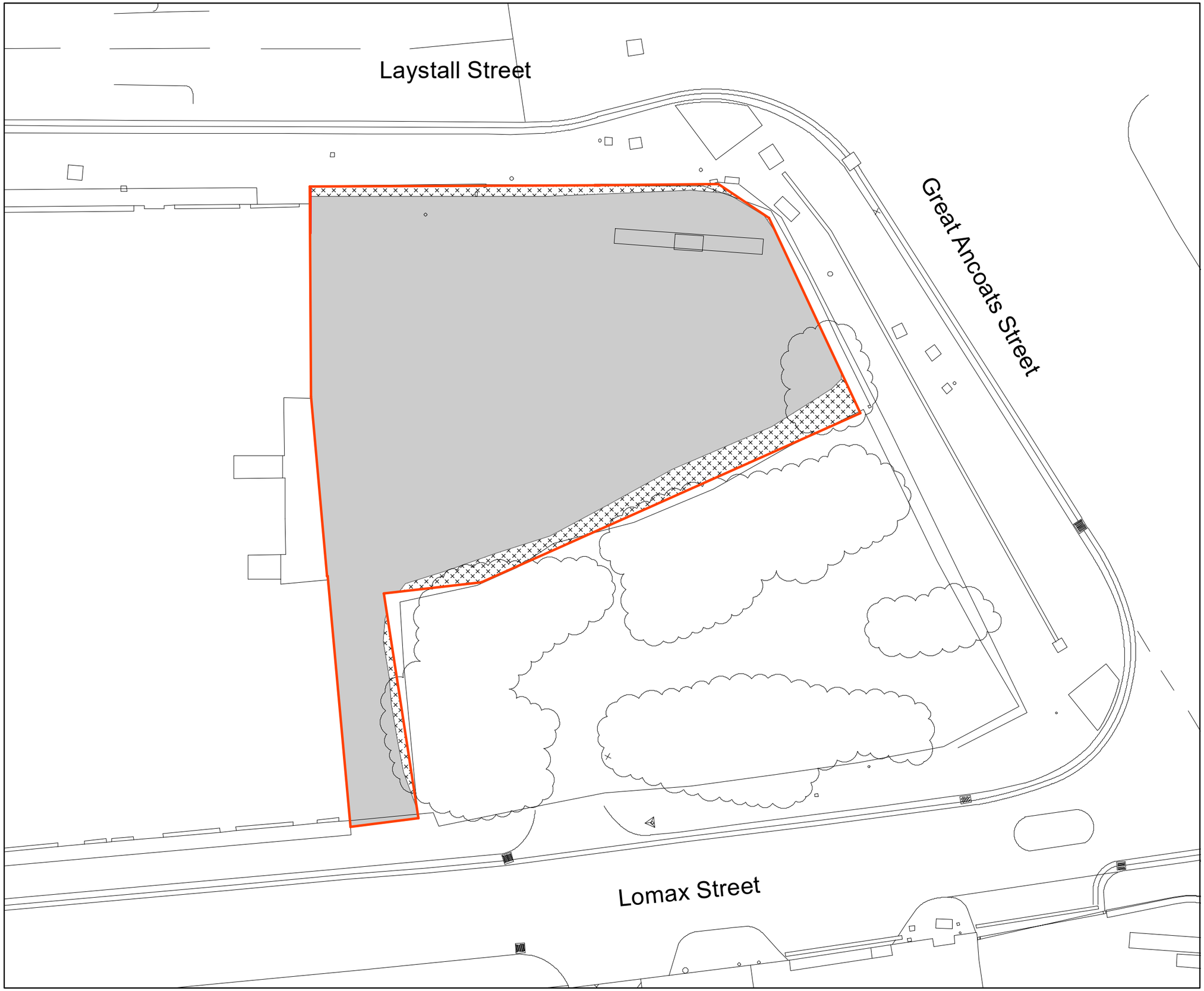
SBI Site(s) of Biological Importance

SPA Special Protection Area

SSSI Sites of Special Scientific Interest

WCA Wildlife and Countryside Act

FIGURE



Legend

Site boundary

Habitat

Short perennial vegetation

Hardstanding

N

ISO A3

Metres

0 1 2 4 6

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Project Name: Laystall Street, Manchester

Discipline: Ecology

Title:

Phase 1 Habitats Map

Scale	1:150	Drawing No.	Figure 1
Drawn By	CC	Originator	SG	Date	09/11/2022
PAA Ref. G:\ANMA01_Laystall_St_Manchester\Maps\		Revision	1.0

Figure 1 - Phase 1 Habitats - Laystall St Manchester - ANMA01 CC 221013.mxd

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APPENDICES

APPENDIX 1

Botanical Species List

Appendix 1 Botanical Species List

Common Name	Scientific Name	Ephemeral/ Short Perennial
Woody Species		
Butterfly-bush	*Buddleja davidii*	R
Herbs, Grasses and Mosses		
Aster species	*Aster sp.*	O
Broad-leaved dock	*Rumex obtusifolius*	O
Daisy	*Bellis perennis*	O
Dandelion	*Taraxacum officinale*	O
Greater burdock	*Arctium lappa*	R
Hogweed	*Heracleum sphondylium*	O
Rosebay willowherb	*Chamaenerion angustifolium*	R
Ryegrass species	*Lolium sp.*	F
White clover	*Trifolium repens*	O

KEY

D - Dominant
A - Abundant
F - Frequent
O - Occasional
R - Rare
L - Locally

APPENDIX 2

Photographs

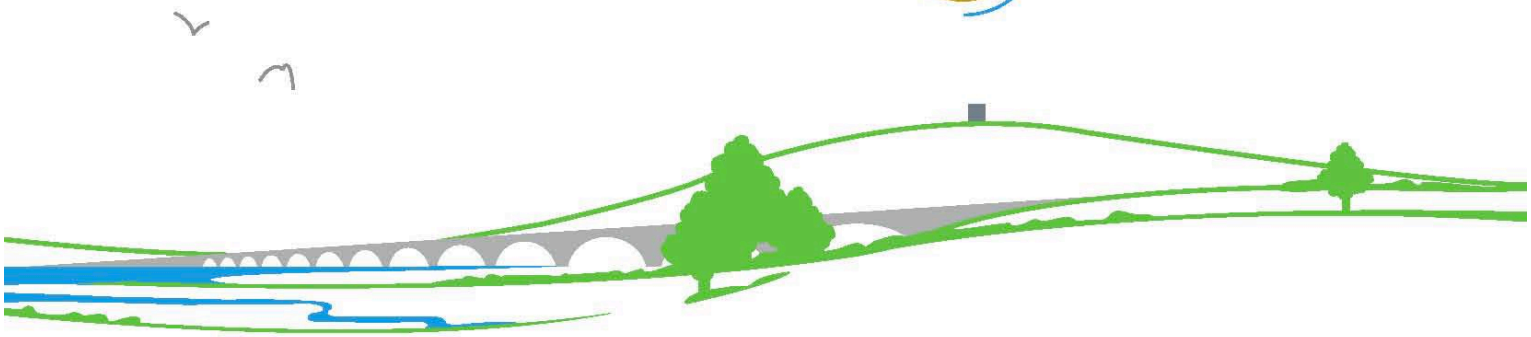
Photograph 1
Hardstanding

Photograph 2
Neighbouring aparthotel building to the west

Photograph 3
Short ephemeral perennial species at site edge

Penny Anderson Associates Ltd

CONSULTANT ECOLOGISTS



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