



ECOLOGY ASSESSMENT REPORT

WHITEFIELD FIRE STATION

CONFIDENTIAL REPORT

NOVEMBER 2022

Ecology Assessment Report

Whitefield Fire Station

CONFIDENTIAL REPORT

A report for

**Greater Manchester Combined Authorities
Greater Manchester Fire and Rescue Service**

Report by



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1. INTRODUCTION

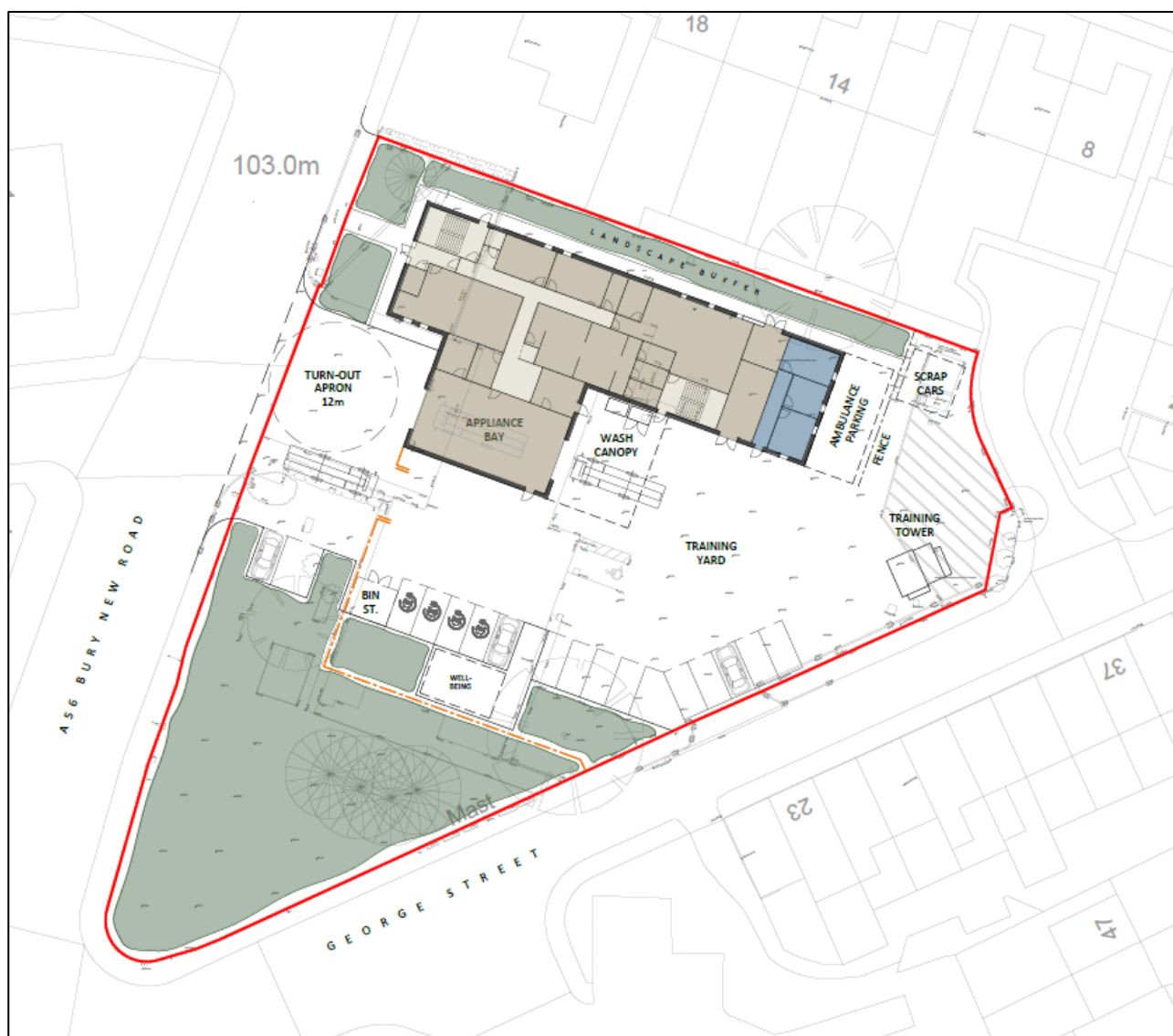
1.1 REASON FOR SURVEY

PENNINE ecological have been commissioned by Greater Manchester Combined Authorities (GMCA) to undertake a preliminary ecological assessment of Whitefield Fire Station, Bury, Greater Manchester.

The appraisal is required due to proposals to redesign and renovate the existing fire station. The build would result in the demolition of the existing fire station and construction of a new building. The proposed site plan is provided below.

NOTE - This report contains detailed information on sensitive species, therefore this report should be treated as confidential and not for public inspection.

Figure 1: Proposed development option (Plan drawn by Bradshaw Gass & Hope – dwg no. 1978.35.4203 Rev 3. Aug 2022)



A biodiversity survey and report has been requested as part of the aspirations for the development to achieve BREEAM accreditation.

This report provides the baseline ecology data which will be used to inform the scheme design and to addresses all potential ecological impacts which may arise from the proposals. This includes;

- UKHabs assessment and evaluation.
- Badger survey and evaluation.
- Preliminary bat roost assessment of the existing buildings and site evaluation.
- Potential breeding bird issues associated with the site and evaluation.
- Great crested newt assessment and evaluation.
- Any other protected or notable species potentially present within the site.

1.2 SITE LOCATION

The site is Whitefield Fire Station Bury New Road, Manchester, M45 7SY. The site includes the existing fire station building as well as the surrounding training yard and landscaped area adjoining Bury New Road. The sites central National Grid Reference is NGR: SD 8048 0647.

The site has been operating as a fire station since around 1964 and the station was taken over by Greater Manchester County Fire Service in 1974 (Bury Times, 2020). Historical aerial imagery indicates that the site layout has remained consistent since at least 2000.

2. METHODOLOGY

2.1 DESK SURVEY

A desk study data search was undertaken by Greater Manchester Ecology Unit (GMEU) on 24/11/2022.

The desk study search Zone of Influence (Zoi) includes; protected habitats and species within 500m of the site as well as non-statutory designated sites within 500m of the site. The Multi Agency Geographical Information Centre www.magic.gov.uk was referred to in respect of statutory sites (up to 2km), GCN licence returns, and European Protected Species Licences (EPSL) issued in respect of GCN, bats and otters (up to 500m).

In addition, Pennine Ecological's dataset was referenced which contains extensive records of species and habitats generated from surveys undertaken since the company's formation in 1996.

2.2 HABITAT SURVEY

A UK Habitat Classification (UKHabs) survey (UKHab Ltd, 2020) of the habitats within the red line boundary was undertaken on 08/11/2022. The site's habitats were mapped, and vascular plant species were recorded and given a DAFOR ((Dominant (D), Abundant (A), Frequent (F), Occasional (O), Rare(R)) score. Each habitat was given a condition score (Natural England, 2022). Secondary codes have been applied where required to describe the primary habitats. Habitats have been mapped using the fine-scale minimum mapping unit.

The Zoi in relation to habitats is considered to be the development site only.

2.3 PROTECTED SPECIES SURVEYS

2.3.1 Badger Survey

A badger survey was undertaken of the site and up to 50m from the site boundary (Zoi) and followed standard survey guidance (Harris et al., 1989, and Roper, 2010). The badger survey used standard techniques for establishing the use of the site by badger, and includes searches for evidence of badgers including:

- Setts.
- Pathways.
- Footprints.
- Latrines.
- Foraging areas.
- Scratching posts.
- Boundary searches for runs, pathways, and latrines.

2.3.2 Preliminary Bat Roost Assessment

The preliminary bat roost assessment (PRA) was undertaken on the 08/11/2022 following the methodology outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) Collins, J. Bat Conservation Trust (2016). The PRA involved an external and internal (where access was possible) inspection of the buildings affected by the proposals. Trees within the site boundary were also inspected from ground level for potential roost features.

An assessment of the habitat in relation to bats was also completed for the site.

The Zol in relation to bats is considered to be the development site only.

2.3.3 Breeding Bird Assessment

The site was assessed for its potential to support breeding birds. This included identifying any evidence of historic nesting within the site (primarily within trees). Any bird activity within the site was recorded whilst undertaking the site survey.

The Zol in relation to birds is considered to be the development site only.

2.3.4 Great Crested Newt Assessment

The site was evaluated by means of desk study and the surveyor's specialist knowledge of the species, in particular its terrestrial habits and breeding requirements.

The Zol in relation to GCN is considered to be the development site and up to 250m from the development site.

2.4 SURVEYOR EXPERIENCE

The surveys and subsequent assessments have been undertaken by Patrick Leatham who is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Patrick has been working as an ecological consultant for 10 years and is highly experienced in undertaking preliminary ecological appraisals.

2.5 SURVEY CONSTRAINTS

The site survey was conducted on 08/11/2022. Although the survey has been undertaken outside of the optimal time for habitat surveys, due to the nature of the habitats on site, all habitats were accurately identified and the condition of these habitats could be reasonably evaluated. Therefore there are no constraints to the survey.

3. RESULTS

3.1 DESK STUDY

3.1.1 Statutory Sites

There are no statutory sites within the development site boundary or within 2km of the site boundary.

3.1.2 Non-Statutory Sites

There are no known Sites of Biological Interest (SBI) within the development site boundary. Sailor's Brow and Springwater Park (SBI) is located approximately 370m north-west of the development site.

3.1.3 Protected Species Data

There are no protected or notable species records within the site. A number of protected species records have been provided within 500m of the site and are summarised below. The locations are shown in Map 2, Appendix A.

(i) Badger

There are no badger setts within 500m of the site. Three records of badger sightings have been recorded at Nipper Lane Allotments, approximately 400m north west of the site. There is no ecological connectivity between the site and these records.

(ii) Bats

There are no bat records within the site. There are at least 19 separate bat records within 500m of the site. This includes eight bat roosts. The nearest roost to the site to the immediate south, within a house on George Street, however this roost record dates back 22 years (June 2000).

(iii) Great Crested Newts

A single sighting of a GCN was recorded on Nipper Lane Allotments in 2013. There is no ecological connectivity between the site and these records.

(iv) Other Species

Other species recorded within 500m include common toad and cinnabar moth. There are also 23 records of eight bird species including; herring gull, house sparrow, lapwing, lesser redpoll, linnet, reed bunting, song thrush and starling. All these species were recorded at least 350m north west of the site around Sailor's Brow & Springwater Park SBI.

3.2 HABITAT SURVEY

3.2.1 Habitats Present

UKHabs Primary Code	UKHabs Secondary Code	UKHabs Definition	Habitat Condition
g4	(66)	Modified grassland (frequently mown)	Poor

UKHabs Primary Code	UKHabs Secondary Code	UKHabs Definition	Habitat Condition
u	(1160)	Introduced shrub	N/A
u	(1171)	Mature tree	N/A
u1b5	-	Developed land; building	N/A
u1b6	-	Developed land; tarmac	N/A

3.2.2 General Description

The site is an active fire station and comprises primarily the fire station buildings and tarmac training yard. An area of landscaped habitat is located in the south section of the site and abuts Bury New Road / George Street. The landscaped habitat includes a row of mature *leylandii* trees near to the fire station entrance, a mature Italian alder, modified grassland (frequently mown amenity grassland) and a number of raised flower beds and semi-mature individual trees. The site is deprived of any semi-natural habitats.

3.3 PROTECTED SPECIES SURVEYS

3.3.1 Badger Survey

(i) Setts

The survey found no setts on site or within 50m of the site.

(i) Foraging Signs and Pathways

No sign of badger activity was found on site or within 50m of the site. Therefore it can be concluded that the species is not using this area for foraging or commuting.

(ii) Boundary Search

All of the boundaries of the site were walked and examined for potential runs, pathways, and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any activity signs indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

3.3.2 Preliminary Bat Roost Assessment

(i) Building Assessment

The proposal site includes the main fire station building. The building varies in structural formation and this has been detailed in the description below. There is a training tower which is adjoined to the main fire building. A small shed which is used for storage is also located within the training yard. All buildings were assessed for bat roosting potential as well as a number of trees within the site. The trees were all assessed from ground level for bat roost potential. The buildings and trees are shown on Map 1, Appendix A.

Building 1 Main fire station building

The building is made up of three sections that are all adjoined. The first section (Building 1a) is the office / communal building. The building is a single storey, flat roof building. The walls are brick and partly cladded

with plastic. The building is in good structural condition and there are no obvious gaps suitable for use by bats.

Building 1b is the fire engine parking unit. This is a breeze block building with an (assumed) corrugated metal sheeting roof. The roof is finished with wooden soffits. Again this building is tightly sealed and there are no obvious gaps suitable for use by bats. What's more, this section is a very simple frame structure with no internal roof voids or cavities.

Building 1c is an office / communal area and is of the same structure as Building 1a. Again this section of building is in good structural condition and no suitable potential roost features are present.

Building 1 is considered to possess '**Negligible**' bat roost potential.

Building 2 – Training tower

The training tower is built from brick and is open. There are no obvious gaps suitable for use by bats. Furthermore, this building is likely to be subject to frequent disturbance from fire training drills which would reduce the suitability of the tower to be used by bats.

Building 2 is considered to possess '**Negligible**' bat roost potential.

Building 3 – Storage shed

The storage shed located in the training yard is a concrete shed with a metal sheet roof. The roof is finished with wooden soffits. The shed is a very simple structure and is absent of any suitable cavities which could be used by bats.

Building 3 is considered to possess '**Negligible**' bat roost potential.

(ii) Tree assessment

All trees on site are semi-mature or immature and have no suitable roosting cavities. All trees are considered to possess '**Negligible**' bat roost potential.

(iii) Bat Habitat Suitability

The habitats present on site offer limited opportunities for bat foraging and commuting as the site primarily consists of a heavily security lit concrete area. Beyond the site boundary, the area is dominated by residential dwellings and busy roads with associated light pollution.

Overall the site and the immediate area is considered to be highly unsuitable for bats.

3.3.3 Breeding Bird Assessment

No evidence of current or historic bird nesting was recorded within the site. Generally the site offers very limited opportunities for bird nesting. The line of mature leylandii trees offers the only suitable nesting habitat. However the trees are surrounded by busy roads and urban environments and the anticipated disturbance levels locally are likely to reduce the suitability for use by birds.

Overall the site is considered to be of low suitability for birds.

3.3.4 Great Crested Newt Assessment

No ponds are present on site or within 500m of the site. Therefore GCN are considered to be absent from the site and locally.

4. ECOLOGICAL EVALUATION & RECOMMENDATIONS

The following section evaluates the site in relation to statutory/non-statutory sites, protected species and species/habitats listed under the NERC Act (2006) Section 41; Species/Habitats of Principal Importance in England.

No ecological initiatives have been identified within the Zol and no environmental initiatives within the fire service are known.

4.1 DESK STUDY

4.1.1 Statutory Designated Sites

There are no statutory sites within the site or within 2km of the site.

The Natural England Impact Risk Zone (IRZ) tool¹ has been reviewed and consultation with Natural England is not required for a development of this scale and nature.

Recommendations: Statutory Designated Sites

There are no direct or indirect risks to statutory sites. No further survey or assessment is required.

4.1.2 Non-statutory Designated Sites

Sailor's Brow & Springwater Park SBI is located 370m north west of the site. Between the development site and SBI there is an expanse of residential dwellings and associated roads. There is a distinct absence of any ecological connectivity between the site and the SBI.

Recommendations: Non-statutory Designated Sites

There are no direct or indirect risks to non-statutory sites. No further survey or assessment is required.

4.2 HABITATS

The habitats on site are primarily of very low or low distinctiveness and in poor condition (Natural England, 2022).

The habitats on site are considered to be of 'site' value only.

Two trees will be lost as part of the development and one ornamental hedgerow will be removed. All other habitats on site are of very low distinctiveness (i.e. buildings and tarmac).

Recommendations: Habitats

Direct risks are confined to the loss of two trees (mature Italian alder and a monkey puzzle tree). There are no indirect risks to habitats from the proposals.

The two trees to be lost are non-native species and provide limited ecological value due to the location of these trees (within a heavily urbanised environment and isolated from any other trees and green space). The proposals will include planting of native tree species on a 2:1 ratio. The proposals also include the planting of a landscape buffer along the northern boundary of the site. Additional landscaping would generate a minor increase in greenspace across the site overall and contribute to a BNG.

¹ GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to statutorily designated sites

The remaining habitats on site are of 'very low' distinctiveness habitats and there are considered to be no risks to any habitats of ecological value.

Habitats of 'very low' distinctiveness do not require specific compensation to ensure an overall biodiversity net gain (BNG) is achieved from the development (Panks et al., 2022). As the development will only affect buildings and tarmac, a BNG assessment through the use of the biodiversity metric (v3.1) is not necessary for this application.

4.3 BADGER

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett.

No evidence of badger has been recorded within the site and the surrounding area and badger are considered to be absent from the local area.

Recommendations: Badgers

There are no direct or indirect risks to badgers from the proposals. There are no requirements for further surveys.

4.4 BATS

Bats are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

The desk study records indicate a number of bat roosts nearby, however most of these are at least 20 years old and the site does not provide any suitable habitat for bats to use. Therefore there is considered to be no ecological connectivity between these potential roost sites and the development site.

The buildings and trees on site are considered to possess negligible bat roost potential. The habitats on site are primarily hard standing and amenity grassland and are of limited value for bats.

The site is considered to be of 'site' value for bats.

Recommendations: Bats

There are no direct or indirect risks to bats from the proposals. There are no requirements for any further surveys.

It is recommended that a minimum of two bat boxes are erected on the new building or retained trees within the site. These bat boxes should ideally be positioned on an eastern elevation and away from well-lit areas (i.e. away from security lighting). These enhancement measures would contribute to achieving an overall biodiversity net gain for this proposal.

4.5 BIRDS

All breeding birds (with only minor exceptions) are offered various levels of protection under the Wildlife and Countryside Act (1981) as amended.

There are limited nesting opportunities within the site as vegetation is well maintained and the buildings offer no suitable nesting features. The row of Leyland cypress offer some localised nesting provisions; these trees are popular with pigeon. The remainder of the site is heavily disturbed and is considered sub-optimal for bird nesting.

The site is considered to be of 'site' value for bats.

Recommendations: Birds

There are no direct or indirect risks to birds from the proposals. There are no requirements for further survey.

It is recommended as part of the scheme design; bird nesting provisions are incorporated. A minimum of two nest boxes should be erected upon retained trees. These enhancement measures would contribute to achieving an overall biodiversity net gain for this proposal.

4.6 GREAT CRESTED NEWTS

Great crested newts are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

One record of GCN was provided within Nippers Lane Allotments, approximately 400m north west of the site. There is no ecological connectivity between this record and the development site due to extensive residential dwellings and associated roads.

No ponds are present on site or within 500m of the site and the species is considered absent from the development site and locally.

Recommendations: GCN

There are no direct or indirect risks to GCN from the proposals There are no requirements for further survey.

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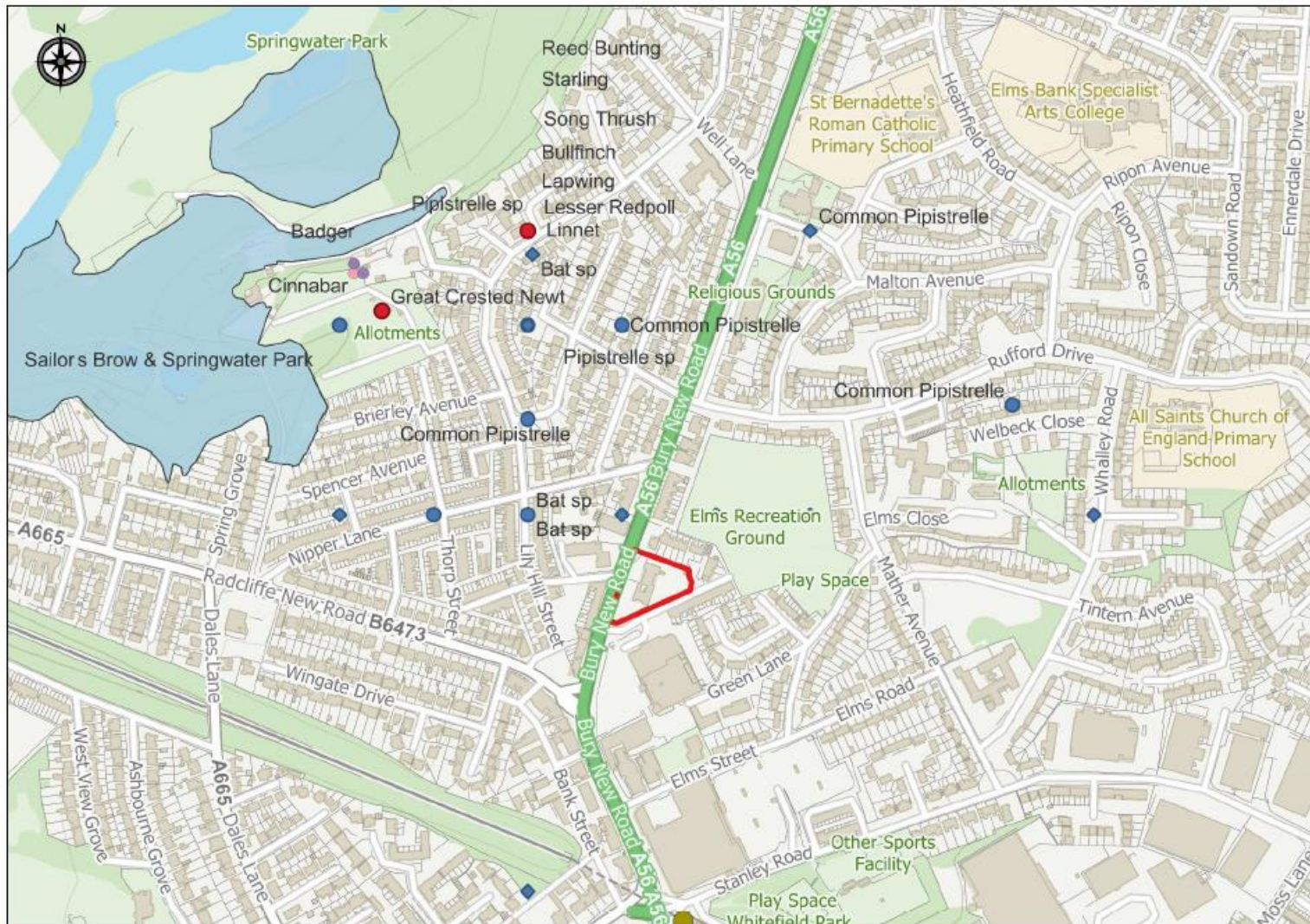
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Appendix A: Maps



Ecology Assessment Report
- Whitefield Fire Station -



Site Ref: Whitefield Fire Station, Bury		
Map 2: Desk Study Data		
Client: Greater Manchester Combined Authorities	Study Date: 24/11/2022	Scale: Not To Scale

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Desk Study Data Symbolology:

- Bat Roosts
- Bat Signs
- European Protected Species
- Badger Signs
- NERC S41 Species

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Appendix B: Site Photographs



Photograph 1: Overview of the south section of the site, taken from the southern boundary.



Photograph 3: Landscaped areas in the southwestern section of the site. Young rowan tree.



Photograph 2: View looking north along the western boundary of the site.



Photograph 4: Front of fire station looking to north west corner of the site.



Photograph 5: View looking along northern boundary of the site. North elevation of Building 1.



Photograph 7: Overview of the training yard with the training tower in the background.



Photograph 6: Overview of the training yard which occupies most of the eastern section of the site.



Photograph 8: Training yard looking south along the eastern site boundary.



Photograph 9: Building 3 is a storage shed within the training yard. Negligible bat roost potential.



Photograph 11: Close up view of Building 1b and 1c in good structural condition. Negligible bat roost potential.



Photograph 10: Building 1, a flat roof single storey brick building. Negligible bat roost potential.