

Rochdale Station Square (20/01551/FUL)

Discharge Condition 12

March 2025

Version Control

Revision No.	Date Issued	Reviewed	Authorised
0	05/03/25	HN	RJ

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Ecology Survey & Assessment – Greater Manchester Ecology Unit

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Rochdale Station Square – Landscaping General Arrangement

1 Introduction

Rochdale Station Square is a new public realm scheme outside the northern entrance of the railway station which will provide a new gateway to the town and a catalyst to the regeneration of the Station Area. Arcadis have been appointed as to progress the scheme from the concept within the permission through to Detail Design, with construction programmed to commence within the first quarter of 2025.

Planning permission (20/01551/FUL) was granted in July 2023, subject to conditions, which the Arcadis team are currently in the process of seeking to discharge.

1.1 Purpose of Report

The purpose of this report is to address the requirements of Condition 12 (Biodiversity Enhancement) of the planning permission and seek permission from the Local Planning Authority to discharge this condition. This report will demonstrate how RSSq provides an enhancement to local biodiversity, with specific reference to the recommendations set out in Section 4 of the 'Ecology Survey and Assessment' contained in Appendix A.

1.2 Requirements of Condition 07

Condition 12 of planning permission 24/01551/FUL states:

Prior to commencement of development, details of measures to achieve biodiversity enhancements as part of the approved development, in accordance with the recommendations (Section 4) of the Ecology Survey and Assessment, shall be submitted to and approved in writing by the Local Planning Authority. The development shall be undertaken in accordance with the approved details.

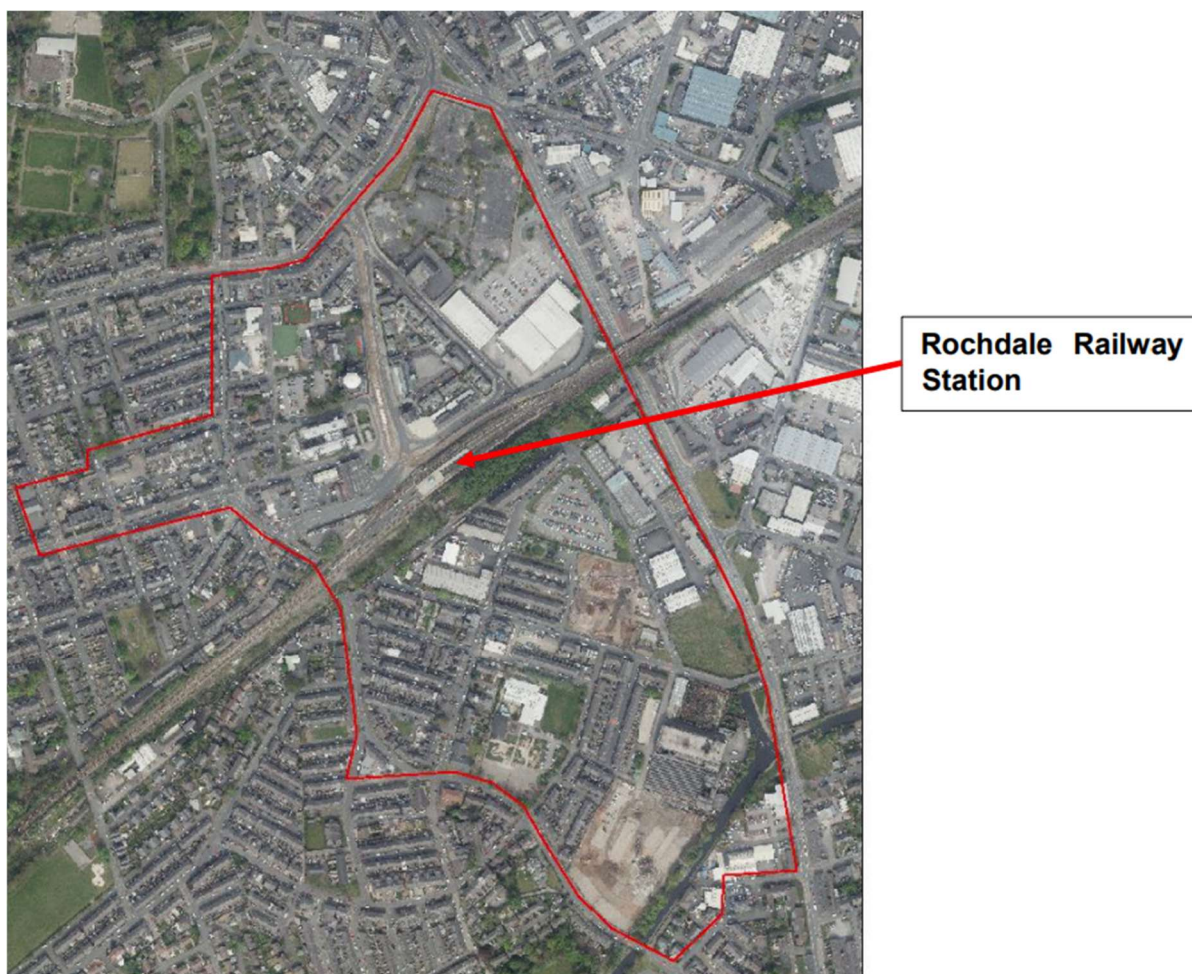
2 Biodiversity Betterment

2.1 Current Biodiversity

The current level of biodiversity around the Rochdale railway station was undertaken by The Greater Manchester Ecology Unit, based within Tameside Council, and reported in 'Ecology Survey and Assessment'. A copy of their report is contained in Appendix A.

Figure 1 shows the extent of the study area, which extends a significant distance south of the application area to encompass the broader Rochdale Station Area Masterplan.

Figure 1 – Extent of Ecological Survey and Assessment



The following is a summary of their findings for the application area from Section 3.2.4 of the study states:

“The study area is dominated by built infrastructure, a mix of dense residential development, commercial and industrial buildings, public buildings, places of worship, roads, railways and tram lines.

There are some street trees interspersed through the urban fabric (notably around the relatively new Metrolink stops) but generally tree cover is scarce. There are no specially protected trees (that is, trees protected by a Tree Protection Order) within the study area and none appear to meet the criteria for special protection.

Some of the buildings (particularly the older commercial and industrial buildings) have some potential to support bats and nesting birds.

The only species recorded during field surveys in the urban fabric were house sparrows, feral pigeons, starlings and pied wagtails. House sparrows and starlings are Priority species for conservation.”

2.2 Recommendations

The following recommendations that are relevant to the application site are as follows:

1. Planting trees to support bats.
2. Provide opportunities for bird nesting.
3. Introduction of a variety of green infrastructure to support wildlife, such as:
 - a) Temporal niche differentiation to provide food and shelter throughout the year.
 - b) Wide range of food sources by planting wide range of species of plants.
 - c) Habitats that function at different scales.
 - d) Provide artificial shelters and nesting places.
 - e) Different shade environments from full sun to heavy shade.

2.3 Biodiversity Betterment Measures

This section summaries the measures and features of RSSq that respond to the recommendations.

1. Planting Trees to Support Bats

Tree planting is a key feature of RSSq with individual and groups of trees proposed withing the main body of the square and along the existing roads such as Lower Tweedale Street and Station Road (west). Figure 2 shows the location of tree planting across the scheme with a larger plan provided in Appendix B.

Figure 2 – Location of Trees within RSSq



A total of 47 trees are to be planted across the scheme with a net-gain of 27 trees¹ which include the tree species, by location, set out in Table 1.

Table 1 – Tree Species by Location with Application Area

Public Square Trees		
Plant Group	Botanical Name	Common Name
Conifer	Ginkgo biloba (male)	Maidenhair Tree
Tree	Liquidambar styraciflua 'Worplesdon'	Sweet Gum 'Worplesdon'
Tree	Malus 'Evereste'	Crab Apple 'Evereste'
Side Street Trees		
Plant Group	Botanical Name	Common Name
Tree	Amelanchier x grandiflora 'Robin Hill'	Snowy Mespilus 'Robin Hill'
Tree	Carpinus betulus 'Fastigiata'	Fastigate Hornbeam
Tree	Koelreuteria paniculata	Golden Rain Tree
Raingarden Trees		
Plant Group	Botanical Name	Common Name
Tree	Betula nigra	River Birch

2. Providing Opportunities for Bird Nesting

As already noted, the scheme is to provide a net-increase in the number and variety of species of trees that would provide nesting opportunities for small birds.

3. Introduction of a Variety of Green Infrastructure to Support Wildlife

a) Temporal Niche Differentiation

The planting scheme for RSSq has sought to provide a selection of tree and ground cover planting that is evergreen or seasonal so that there is not only a visual interest throughout the year, but resources available for food / habitat, directly and indirectly.

b) Wide Range of Food Sources

The introduction of additional and increased variety of trees and ground planting will assist in provide increasing the opportunities for food, whether that is as direct sources or attracting other species that can be fed upon. For example, the plants and a selection of the trees will attract small insects and pollinators upon which small birds and bats may feed, supporting existing populations and providing the opportunity for them to expand.

c) Habitats that Function at Different Scales

The habitats that are proposed to be provided across RSSq are on the smaller scale given the nature of the scheme being a pedestrian focused adjacent to a busy transport interchange the potential habitats that are created are on the smaller scale. These include individual trees for birds, through to the low-level planting areas located within the bench planters, rain gardens and low-level planting on the corner of Maclure Road and Station Road (east).

The tree planting, particularly the main concentration running north-south through the pedestrianised area, provide a concentration of trees that will provide dappled shade throughout the day.

d) Nesting Places and Artificial Shelters

As previously noted, the scheme is to provide a net-increase in the number and variety of species of trees that would provide nesting opportunities for small birds.

e) Different Shade Environments

The scheme is a mixture of wide-open public realm (hard and soft landscaping) with large areas open to sunlight through daylight hours, but especially in the summer. There will also be pockets of shade created

¹ This is based on a total number of trees within the public highway and publicly accessible area to the front of Nye Bevan House surveyed by WSP in October 2022.

by the tree planting and street furniture, to a lesser extent. In addition to the soft and hard landscaping the adjacent buildings, existing and proposed, will create moving shade throughout the hours of daylight.

Appendix A

Ecology Survey & Assessment – Greater Manchester Ecology Unit

ECOLOGY SURVEY AND ASSESSMENT

Land around Rochdale Railway Station, Rochdale



Photo courtesy of Adrian Dancy



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For

Rochdale Development Agency

January 2021

Quality Management

Job Number	GMEU 09/2020/ROCHDALE STATION MASTERPLANNING		
Project	ROCHDALE STATION MASTERPLANNING		
Document Title	ECOLOGY SURVEY AND ASSESSMENT, LAND AROUND ROCHDALE STATION		
File Reference	S:\JOBFILES\Rochdale Station\Dec20		
Version Date	06/01/2021	Revision	01
Prepared By	Derek Richardson	Signature	DR
Checked By	Teresa Hughes	Signature	TRH
Authorised by			

Summary

An Ecology survey and assessment was commissioned by Rochdale Development Agency for land adjacent to Rochdale Railway Station in Rochdale to inform proposals to redevelop the area. This is a report of the survey and assessment.

The area, although large, is very urbanised and natural and semi-natural habitats are scarce, although some features of substantive biodiversity value are present.

There is a significant area of established, closed-canopy linear secondary broadleaved woodland at the railway station itself which is of high local ecological value. It is recommended that this woodland is retained and enhanced as part of any redevelopment proposals. Other than this area of woodland there is little in the way of tree cover in the study area.

The Rochdale Canal, a Special Area of Conservation and a Site of Special Scientific Interest, is located at the southern boundary of the study area. The Canal is of very high ecological value because it supports internationally important aquatic plant communities. It is recommended that the Canal is protected from harm during any planned large-scale development of the area. Developments which may affect the Canal will need to be subject more detailed ecological appraisals and formal assessments.

Notable species records in the area are rare, although there are some records of foraging bats and nesting birds. Peregrine falcons have been recorded over the area. Bat surveys of some buildings within the study area will be required before any planned demolitions commence, whether this is via permitted development or development requiring planning permissions.

Recommendations are made for enhancing existing ecological assets and for introducing new habitats into the study area.

1 Introduction

1.1 Reason for survey

A large area of land in central Rochdale around the railway station is being considered for possible large-scale regeneration, improvement and development (figures 1 and 2 below). The area is heavily urbanised and natural and semi-natural habitats are scarce but there are some important local ecological assets and there are opportunities to enhance the area for nature conservation.

Ecology surveys are required to inform development proposals and to ensure that no wildlife legislation is contravened by any planned regeneration of the area. In particular, redevelopment will likely involve demolitions of existing buildings and structures in the area and some of these buildings and structures have the potential to support bats and nesting birds.

The internationally designated Rochdale Canal lies close to the southern boundary of the study area. The canal will require detailed consideration under the terms of the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019 if any development comes forward which could affect the Canal.

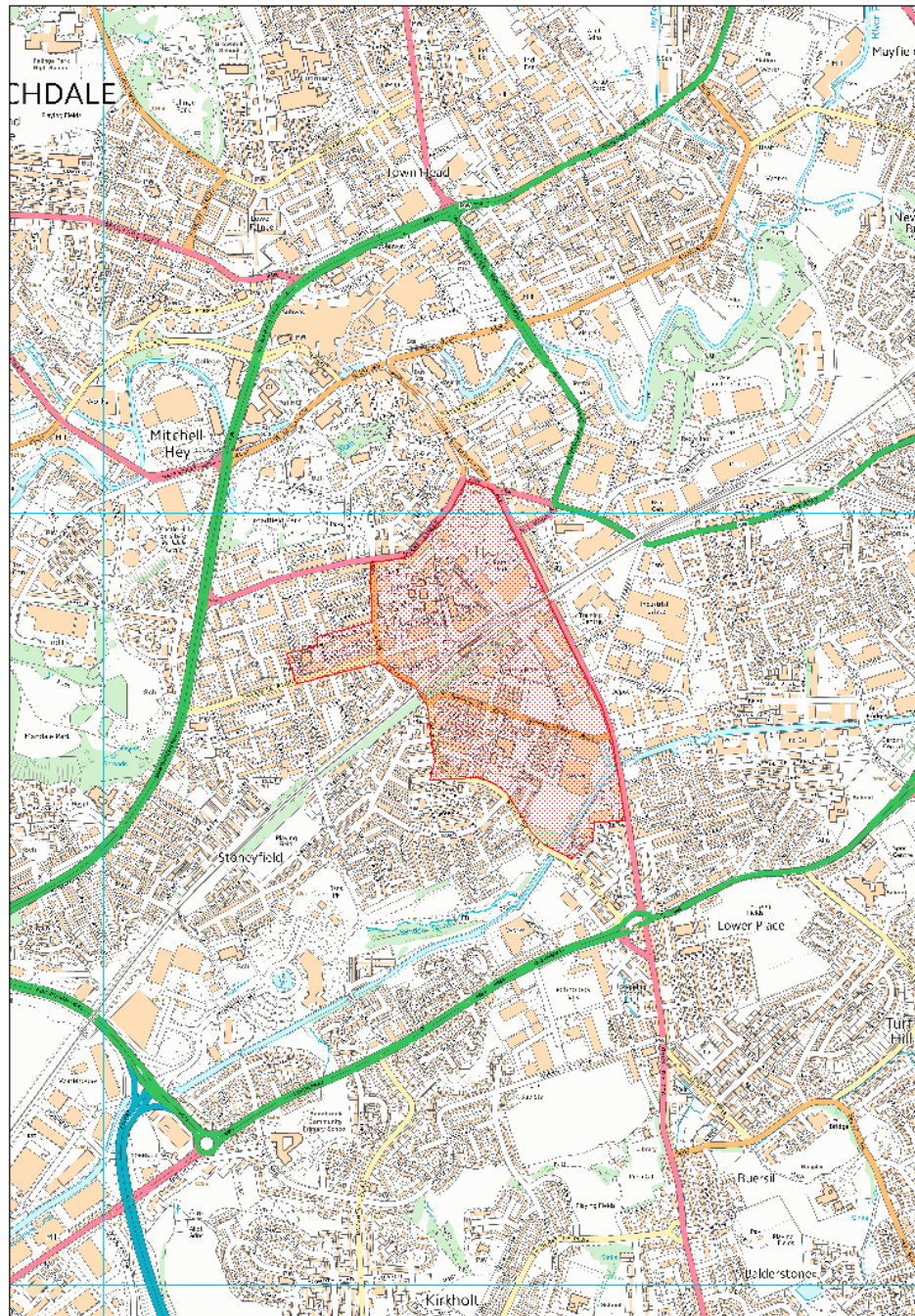


Fig 1 – Location and extent of the study area (red hatch)

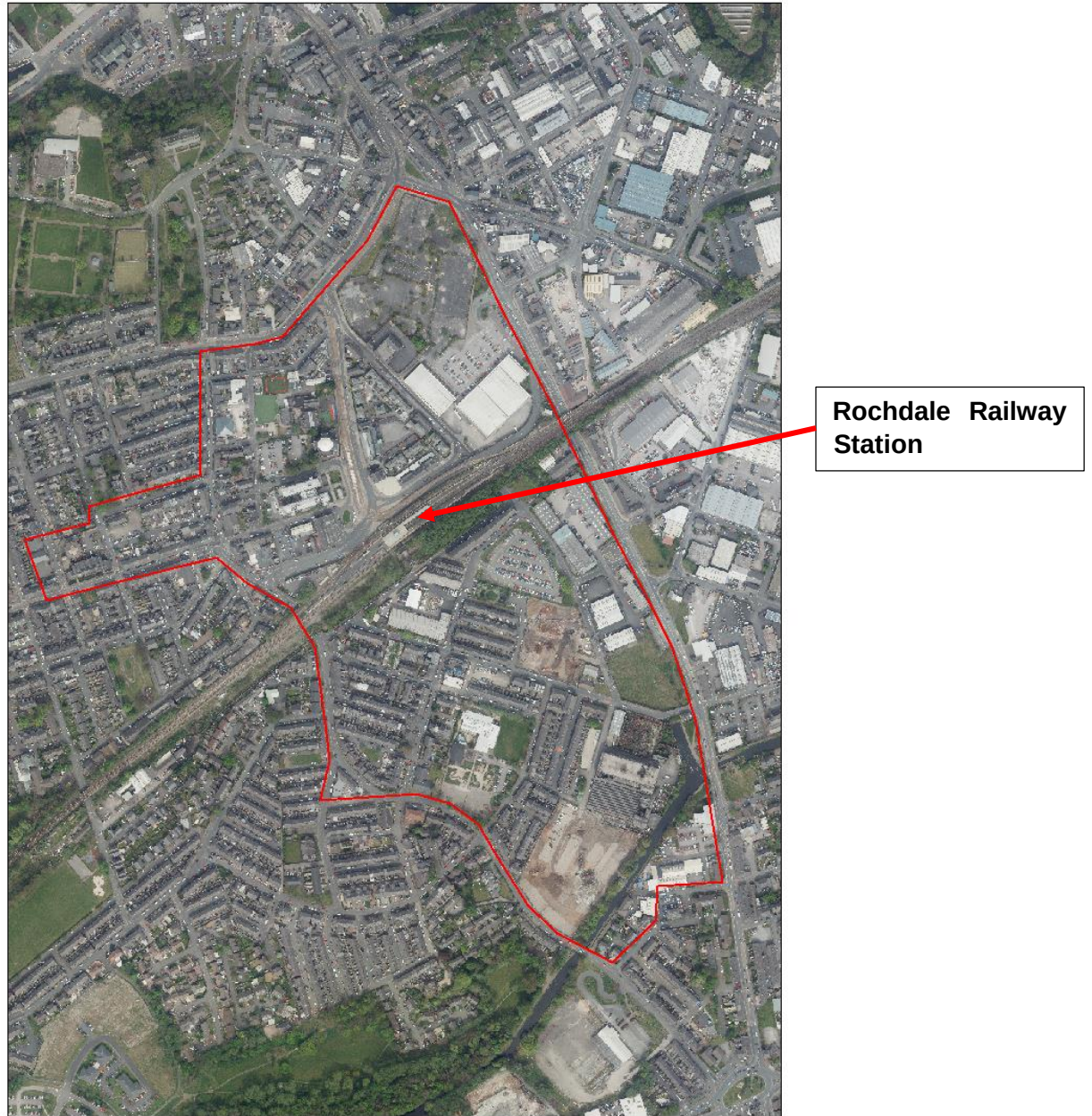


Fig 2 – Aerial view of the study area

1.2 AIMS

The primary purpose of this appraisal is to provide a baseline of all ecological considerations relating to any future redevelopment proposals for the area. This will include the identification of any potential ecological constraints. The secondary aim is to provide recommendations for potential ecological enhancements to improve the biodiversity status of the area.

1.3 METHODOLOGY

Surveys involved –

- Collation and Review of any existing ecological information concerning the study area. Data sources for this desk-top review included –
 - Multi-Agency Geographic Information for the Countryside (MAGIC)
 - Ordnance survey mapping
 - Aerial photography
 - Information obtained from the Greater Manchester Local Biological Records Centre (GMLRC)
- Site visits and appraisals undertaken by suitably qualified and experienced ecologists in November and December 2020. Given the predominantly urban character of the area a conventional Phase 1 habitat mapping exercise was not carried out, but significant ecological features were identified and mapped.

1.4 Survey Limitations

Site surveys were carried out in November and December of 2020. This time of year is not optimal for carrying out ecological surveys because many species will not be evident in mid-winter. However, given the overall urban character of the area and a known lack of ecological interests in many parts of the study area this is not regarded as a significant survey constraint.

Some parts of the study area were not able to be directly accessed either because they were private lane or because of health and safety concerns.

The scope of the surveys and assessments did not involve close inspection of all of the buildings and structures in the study area to assess their potential to support bats because the impact of possible development on individual buildings in the area is as yet unknown, making detailed survey premature. In addition, Bats are inactive in November and December and therefore area-wide bat activity surveys were not possible.

2 RELEVANT LEGISLATION AND PLANNING POLICY

The following legislation relates to species and habitats that could potentially occur in association with the Site:

- The Conservation of Habitats and Species Regulations 2019 (as Amended) (EU Exit), sometimes referred to as the Habitats Regulations. Particularly relevant to the need to protect the Rochdale Canal
- The Wildlife and Countryside Act 1981 (as amended). Particularly relevant to the need to protect roosting bats and nesting birds.

Consideration has also been given in this report to relevant National and Local Planning Policy as summarised below.

The National Planning Policy Framework (NPPF) guides Local Planning Authorities (LPAs) when developing their planning policies and considering planning applications affecting protected habitats, sites and species. In respect of the natural environment, the NPPF states that

“... the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;*
- recognising the wider benefits of ecosystems services; and*
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government’s commitment to halt the overall decline in biodiversity*

Through the NPPF and Section 40 of the Natural Environment and Rural Communities Act 2006, Local Authorities have a duty to consider habitats and species listed as being of principal importance for nature conservation in England on Section 41 (S41) of the Act when considering planned development. In addition, the biodiversity duty of local planning authorities also covers species and habitats listed in local biodiversity action plans, sometimes referred to as Notable Species.

The NPPF and national plans and strategies for nature conservation increasingly stress the need for improving the natural environment and the need for achieving a Net Gain in biodiversity. The need to ensure that there is a Net Gain in Biodiversity is expected to become a statutory requirement under the terms of the Environment Act (2021) early in 2021.

2.1 Bats and Nesting Birds

One of the main ecological considerations relevant to the study area relating to species is the potential of the area to support bats and nesting birds and the need for any redevelopment proposals to avoid harm to bats and nesting birds.

Legal protection offered to bats

All species of bats found in the UK receive a high level of legal protection under the terms of the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2019 (as Amended). In summary, it is an offence –

- To kill, injure or take any wild bat
- To damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection (known as a roost). Since bats are mobile in their habits and can use different places for shelter depending on the time of year this is taken to mean all identified bat roosts, whether bats are present in the roost or not.
- To disturb any wild bat while it is occupying a structure or place used for protection

It is possible to obtain licences for activities affecting bats that would otherwise be in breach of the law. In the case of development works (including building demolition) a licence can be issued under the terms of the Conservation of Habitats and Species Regulations 2019 (as Amended).

2.2 Legal protection offered to nesting birds

In the UK all nesting birds, their eggs and young are protected under the terms of the Wildlife and Countryside Act 1981 (as amended).

For some species and in certain circumstances it is possible to obtain Licenses from Natural England to derogate from the terms of the legislation protecting nesting birds.

2.3 Bats and buildings

Bats often use buildings as roosting sites because they provide a choice of safe, dry places. Buildings can provide a range of potential roost sites, e.g.

- Behind tiles or weatherboarding
- In cavity wall spaces
- In crevices between wall spaces and roofs
- Under soffit boards
- In roof spaces

Bats are mobile in their habits and can occupy a range of different roosting sites depending on the time of year and the stage of their life cycle. They can move significant distances between roosting sites and can therefore be found in urban areas at some distance from optimal feeding sites.

The most obvious use of buildings by bats is between May and August when the pregnant females gather in maternity roosts to give birth and raise their young. Although females and

young often remain at one roost site all summer, they are sometimes known to move and can change roosting sites if conditions become unsuitable. Although some bats (e.g. brown long-eared bats) occupy the same roosting sites throughout the year, most summer colonies will have dispersed by the autumn. Temporary roost sites can then be occupied in the autumn before bats then move again into hibernation roosts for the winter. Hibernation roosts are often used by single or small numbers of bats and can be very difficult to detect.

Many buildings in areas supporting good feeding habitat can be used as temporary night roosts or feeding perches.

Since bats move roosting sites and can be difficult to detect directly the key identification feature to identify the presence of bats is droppings. Sometimes droppings are found on the outside of buildings. Otherwise droppings found in loft spaces or around chimneys or gable ends can be typical of bats. Other features used to identify the presence of bats include:

- Characteristic odour
- 'Chittering' by bats, usually in warm summer weather or when bats are active at dusk and are about to leave the roost
- Staining around possible access points

Any survey for bats should include a desk-top survey for any existing records of bats close to the building being inspected and an assessment of the quality of the habitat surrounding the building. Since very many types of building can support bats, one of the best indicators of the possible presence of bats in a building is the presence of good feeding habitat for bats nearby.

It should be noted that the species of bat most commonly associated with buildings in urban areas of Rochdale is the Pipistrelle and that Pipistrelles, in spite of their protected status, remain relatively common the UK (estimated population is 2.5 million). It should be noted that two species of Pipistrelle bat occur in Rochdale, Common Pipistrelles and Soprano Pipistrelles.

3 Results

3.1 Desktop findings

3.1.1 Statutory Designated Sites

There is only one designated nature conservation site in, or within 1km of, the study area. This is the Rochdale Canal Special Area of Conservation / Site of Special Scientific Interest.

The Rochdale Canal is designated because it supports internationally important aquatic plant communities. Harm to these aquatic plants can be caused by –

- Water and Air Pollution
- Shading
- Excessive boat movements
- De-watering the Canal
- Use of herbicides in or close to the Canal

Any development within 50-100m of the Canal must take care to avoid any of the above impacts.

Development which could be considered to have the potential to cause any of the above effects will need to be subject to detailed Appropriate Assessment, with mitigation put forward to avoid any possible harm to the special interest of the designated site.



**Fig 3 Rochdale Canal
SAC/SSSI (outlined in
blue)**

3.1.2 Priority Habitats

The only area of Priority Habitat (for conservation) identified in the study area through available desktop data is the area of established lowland broadleaved woodland at the railway station (Fig 4). The woodland would appear to have developed naturally on an abandoned part of the rail network.



Fig 4 Location and extent of broadleaved woodland at the railway station

3.1.3 Protected and Priority Species

The following protected and priority species have been recorded in the study area, all of them in relatively small numbers –

- Common Pipistrelle bats (carries a high level of legal protection)
- Starling
- House Sparrow
- Peregrine Falcon (carried a high level of legal protection)
- Lesser Redpoll
- Song Thrush
- Kingfisher (along the Canal)

The Peregrines nest on Rochdale Town Hall but feed over the study area, most likely on feral pigeons.



Fig 5 Peregrines at Rochdale Town Hall (*photo courtesy of Adrian Dancy*)

3.2 Results of Field Survey

There are few areas of semi-natural habitat within the study area, otherwise dominated by buildings (a mix of residential, public buildings and commercial premises) and associated urban infrastructure, including railway lines, tram lines and roads.

Important habitats which are present include –

3.2.1 Broadleaved Woodland

The largest (approx. 0.9 ha) and most important area of semi-natural habitat within the study area is a linear block of self-set Broadleaved woodland at the station which appears to have developed on a raised, abandoned and disused rail line. Access was restricted to parts of this area of woodland because of health and safety concerns. It is not generally publicly accessible, although visually it is an obvious and prominent landscape feature of the area, particularly for users of the railway and the station.

The woodland forms part of the main railway corridor running through urban Rochdale and connecting the urban centres with open countryside to the north and south. Parts of the corridor are greener than others and the corridor is fragmented in places, but nevertheless birds in particular will be able to move along the rail lines making them an important feature for landscape connectivity and the woodland at the railway station an important area of habitat in a wider corridor.



Figs 6 and 7 The Woodland at the railway station (Dec 2020)



Fig 8 Woodland at the station in summer 2020 (photo from Google)

The woodland is dominated by Birch (*Betula pendula* and *Betula pubescens*), Willows (*Salix* sp), Sycamore (*Acer pseudoplatanus*) and Poplars (*Populus* sp), apparently self-seeded but well established. Tree species are typical woodland pioneer species often found growing on poor soils on previously developed land. They are the first trees to arrive when a bare site is being colonised by woodland, often followed by slower growing, more high forest trees such as oak. The tree cover is dense, with a closed canopy.

The raised character of the woodland makes it a very prominent feature of the area. In spite of being surrounded by dense urban development the woodland is very visible.

It was not an appropriate time of year to properly assess field and ground layer vegetation in the woodland. *Rubus fruticosus* was present, a good habitat for nesting and foraging birds.

It was not an appropriate time of year to identify the value of the woodland for breeding birds, but Birds seen or heard associated with the woodland during surveys included –

- Blackbird
- Robin
- Great Tit
- Woodpigeon
- Long-tailed Tit
- Wren

3.2.2 The Rochdale Canal

The stretch of Canal within the study area is relatively short (some 350m) but it is known to support the rare plant Floating water plantain (*Luronium natans*) and a row of mature broadleaved trees (mostly Sycamore) along the northern Canal bank. The canal represents a wildlife corridor through the study area linking the site to areas of open countryside and will be used by birds, mammals and invertebrates.

3.2.3 Improved Neutral Grassland

The only other areas of significant greenspace in (or very close to) the study area were two areas of improved (modified) neutral grassland along the A671 (figs 9 and 10). These areas had the character of landscaped sites which had been previously developed. Plant species present were not diverse, dominated by coarse grasses, although not all flowering species will be evident in the winter months.

It is understood that both of these areas are the subject of current development proposals and therefore are unlikely to be available for enhancement.



Fig 9 Location and extent of areas of open improved grassland in the study area



Fig 10 Typical view of area of improved grassland
(photo from Google 2019)

3.2.4 Urban Built Infrastructure

The study area is dominated by built infrastructure (Figs 11 and 12), a mix of dense residential development, commercial and industrial buildings, public buildings, places of worship, roads, railways and tram lines.

There are some street trees interspersed through the urban fabric (notably around the relatively new Metrolink stops) but generally tree cover is scarce. There are no specially protected trees (that is, trees protected by a Tree Protection Order) within the study area and none appear to meet the criteria for special protection.

Some of the buildings (particularly the older commercial and industrial buildings) have some potential to support bats and nesting birds.



Fig 11 Typical view of urban infrastructure close to the station



Fig 12 Typical dense residential development within the study area

The only species recorded during field surveys in the urban fabric were house sparrows, feral pigeons, starlings and pied wagtails. House sparrows and starlings are Priority species for conservation.

4 Conclusions, Implications and Recommendations

There are few ecological constraints to the redevelopment of the area. The most important constraints which are present include –

- Presence of the Rochdale Canal (designated site)
- Broadleaved Woodland (Priority habitat)
- Roosting Bats (legally protected)
- Nesting Birds (legally protected)

Further ecological surveys which will be required to inform detailed development proposals include –

- Surveys of some buildings for bats
- Survey of woodland block at the station in May-June when most plants will be evident and breeding bird surveys are able to be carried out
- Survey of the Canal for aquatic plants (if the Canal is to be affected by development)

4.1 The Rochdale Canal

Harmful impacts on the Rochdale Canal must be avoided or mitigated during any large-scale redevelopment of the area. Particular care must be taken to avoid pollution or shading of the Canal.

Any development proposals which may affect the Canal must be Screened and Assessed for their potential impacts on the Canal.

4.2 Habitats

The Broadleaved woodland block at the station should be retained, protected and enhanced. The use of the area as a publicly accessible local linear park is very much encouraged and supported. A park here would be a very valuable local public asset.

The woodland could be enhanced for nature by –

- Introducing woodland wildflower planting
- Carefully planned tree thinning to favour the best tree specimens and encourage plant diversity in the woodland field and ground layers
- Introducing bird nesting boxes
- Introducing and maintaining bird feeding stations (which would need to be regularly maintained)

4.3 Species

4.3.1 Bats

Given the lack of suitable foraging habitat to support bats in the area and the lack of records of bats in the vicinity it seems unlikely that the area would support important bat roosts. Nevertheless, all UK bats and their resting sites are legally protected and therefore **any buildings scheduled for demolition as part of redevelopment proposals should be individually assessed for their potential to support bats. If bats are found to be present measures must be taken to avoid any possible harm to bats and steps should be taken to provide new bat roosting locations.**

Bats can be helped by introducing new tree planting into the area and, if possible, new areas of open and standing water.

4.3.2 Nesting Birds

Nesting birds their eggs and young are legally protected under the terms of the Wildlife and Countryside Act 1981 (as amended). There is some potential for buildings in the study area to support small numbers of nesting birds. If any buildings are to be demolished to facilitate planned redevelopments checks should first be made for nesting birds and harm to active nests avoided.

Although there are few buildings within the study area considered to be suitable for supporting nesting Peregrines there are some (e.g. multi-story public and commercial buildings). This should be borne in mind when assessing buildings for nesting birds.

New provision for nesting birds should be provided by installing a range of bird nesting opportunities in suitable places.

4.3.3 Improving the wildlife value of the study area

Currently the study area is lacking in areas of greenspace and habitats which could support wildlife. The introduction of new green infrastructure and new habitats would be challenging in this 'deep urban' framework but would have benefits not just for wildlife but for the overall character of the area and for the delivery of other ecosystem services. For example, tree planting can reduce air pollution effects, mitigate noise, reduce surface water flooding, provide wildlife habitats, improve landscapes and mitigate the effects of climate change.

Improving the natural environment can improve mental health and wellbeing for local people.

To improve the wildlife value of urban areas the overall aim should be to increase *niche differentiation*.

Niche differentiation is the process by which competing species use the environment differently in a way that helps them to coexist. In practice it means creating as many

different types of environment as possible. It would be useful to prepare a Green Infrastructure Parameters Plan as part of the Masterplanning process for the area which could expand on the suggestions presented here.

It can involve -

- Creating temporal niche differentiation – habitats which provide food and shelter for species throughout the year
- Creating a wide range of available food sources by planting a wide range of different plant species
- Creating habitats which function at a range of different scales, from large-scale green roofs to small planting beds at ground level
- Creating artificial shelters and nesting places such as bird nesting boxes, invertebrate habitats and bat roosting boxes
- Creating a range of different water environments, from ponds and ditches to sustainable urban drainage systems.
- Creating a range of different shade environments, from full sun to heavy shade

4.3.4 Suggestions for greenspace enhancement include –



Street Tree Planting



Landscaping schemes complementing built development, in particular to provide green corridors and linkages.



Green Roofs (this is on Manchester Town Hall)



**Sustainable Urban
Drainage Systems**



Bird nesting provision



**Green Walls (this one is
in Manchester City
Centre)**



**Bat roosting
provision**

END

APPENDIX ONE – DETAILS OF ROCHDALE CANAL DESIGNATED SITE

Rochdale Canal SAC

Description of the Rochdale Canal SAC

The Rochdale Canal SAC extends approximately 20 km from Littleborough at Ben Healey Bridge to Failsworth, passing through urban and industrialised parts of the Metropolitan Boroughs of Rochdale and Oldham and the intervening areas of agricultural land (mostly pasture). Water supplied to the Rochdale Canal in part arises from the Pennines. This water is acidic and relatively low in nutrients, while water from other sources is mostly high in nutrients. The aquatic flora of the canal is thus indicative of a mesotrophic waterbody (i.e. is moderately nutrient-rich) although there is evidence of some local enrichment. The canal continues through Failsworth and terminates at Castlefield in Manchester City, although this section of the canal is not included within the SAC.

Primary reason for designation of the Rochdale Canal as a European protected site

The Rochdale Canal supports a significant population of **floating water-plantain (*Luronium natans*)** in a botanically diverse waterplant community which also holds 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, although the Rochdale Canal supports unusually dense populations of the plant.

The Site Conservation Objectives for the Rochdale Canal are to –

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring

- The extent and distribution of the habitats of qualifying species
- The structure and function of the habitats of qualifying species
- The supporting processes on which the habitats of qualifying species rely
- The populations of the qualifying species, and
- The distribution of the qualifying species within the site.

The main qualifying feature for the site is the presence of Floating water-plantain.

Floating water-plantain; description and ecological characteristics

Floating water-plantain (*Luronium natans*) occurs in a range of freshwater situations, including nutrient-poor lakes in the uplands (mainly referable to 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*) and slowly-flowing lowland rivers, pools, ditches and canals that are moderately nutrient-rich.

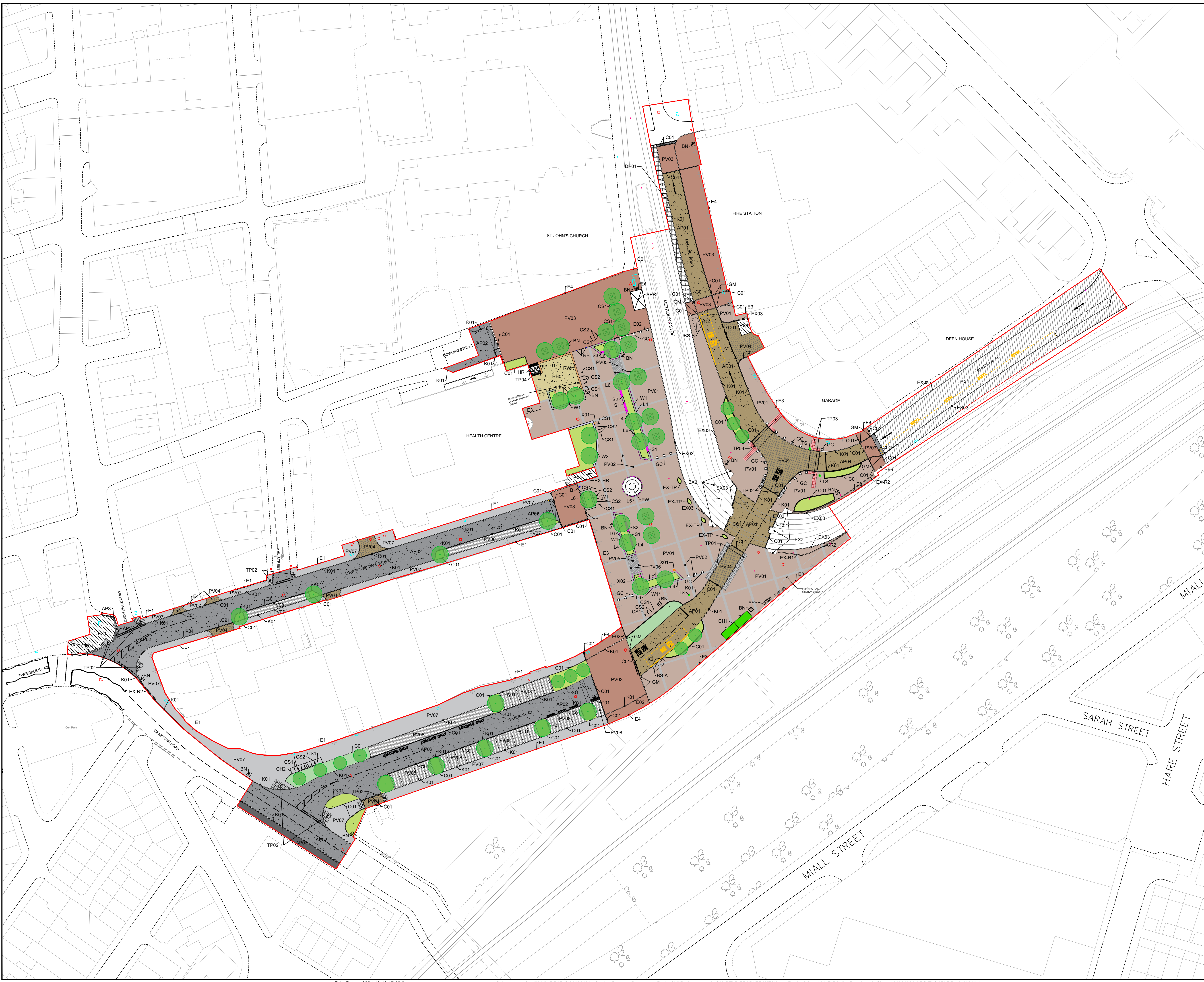
Luronium natans occurs as two forms: in shallow water with floating oval leaves, and in deep water with submerged rosettes of narrow leaves. The plant thrives best in open situations with a moderate degree of disturbance, where the growth of emergent vegetation is held in check. Populations fluctuate greatly in size, often increasing when water levels drop to expose the bottom of the water body. Populations fluctuate from year to year, and at many sites records of *L. natans* have been infrequent, suggesting that only small populations occur, in some cases possibly as transitory colonists of the habitat. Populations tend to be more stable at natural sites than artificial ones, but approximately half of recent (post-1980) records are from canals and similar artificial habitats. Its habitat in rivers has been greatly reduced by channel-straightening, dredging and pollution, especially in lowland situations.

The operations that may damage the special interest of the SAC which have to be considered include:

- Application of pesticides
- Dredging
- Drainage, both within and outside the boundaries of the site
- Construction or removal of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks or the laying or removal of pipelines and cables
- Erection of permanent structures next to the Canal (shading)
- Diffuse air pollution
- Diffuse water pollution
- Increased boat movements (recreation)
- Climate change

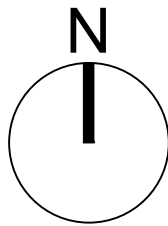
Appendix B

Rochdale Station Square – Landscaping General Arrangement



- NOTE:**
- Design has not been coordinated with the following disciplines: Lighting, Drainage, CCTV, Traffic Signals and HVM.
 - Do not scale from this drawing.
 - This drawing must be read in conjunction with other relevant drawings.
 - Contractor must report any discrepancies prior to execution of any works.
 - This document should not be relied on or used in circumstances other than those for which it was prepared and for which Arcadis was commissioned. Arcadis accepts no responsibility for this document to any other party other than the party by whom it was commissioned. Always work to noted dimensions. All dimensions are in millimeters unless otherwise stated.
 - The dimensions of all materials must be checked on site before being laid out.
 - This drawing must be read with the relevant specification clauses and detail drawings.
 - Refer to NBS Landscape Specification - 30220231-ARC-ELS-XX-DR-LA-00001 Overall Key
 - Refer to Addendum to Appendix 11/1 - 30220231-ARC-ELS-XX-TS-LA-00002
 - Refer to Furniture Schedule - 30220231-ARC-ELS-XX-TS-LA-00003
 - Refer to Planting Schedule - 30220231-ARC-ELS-XX-TS-LA-00004
 - Refer to Lighting Schedule - 30220231-ARC-ELS-XX-TS-LA-00005
 - Refer to drawings:
 - 30220231-ARC-ELS-XX-DR-LA-00001 Overall Key
 - 30220231-ARC-ELS-XX-DR-LA-00010 Overall General Arrangement
 - 30220231-ARC-ELS-XX-DR-LA-00040-3 Hard Landscape Plans
 - 30220231-ARC-ELS-XX-DR-LA-00050-3 Soft Landscape Plans
 - 30220231-ARC-ELS-XX-DR-LA-00060-3 Street Furniture Plans
 - 30220231-ARC-ELS-XX-DR-LA-10001-9 Hard Landscape Details
 - 30220231-ARC-ELS-XX-DR-LA-20001-4 Soft Landscape Details
 - 30220231-ARC-ELS-XX-DR-LA-30001-11 Street Furniture Details
 - For road markings, refer to drawings:
 - 30220231-ARC-HMK-ZZ-DR-HE-10001
 - 30220231-ARC-HMK-ZZ-DR-HE-10002
 - 30220231-ARC-HMK-ZZ-DR-HE-10003
 - 30220231-ARC-HMK-ZZ-DR-HE-10004
 - For site clearance refer to drawing - DRAFT/1/200/001

DRAFT



SCALE 0 5 10 15 20 25 30 35 40
1:500

Rev	Date	Description	Prod.	Chk.	Rev.	App.
S02.3	19.12.24	Draft for Information	RS	AS	BW	BF
S02.2	19.12.24	Draft for Information	RS	AS	BW	BF
F01	06.12.24	First Issue - For Information	RS	AS	BW	BF
P01.2	16.11.24	DRAFT	RS	AS	BW	BF
P01.1	10.10.24	DRAFT	RS	AS	BW	BF



Project: **ROCHDALE STATION SQUARE**

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Overall Scheme General Arrangement

Designed:	Signed:	Date:
LMU Arcadis	RS	19.12.24
Produced:	AS	19.12.24
Checked:	AS	19.12.24
Reviewed:	BW	19.12.24
Approved:	BF	19.12.24
Design Stage:	RIBA 4	
Original Size:	A1	Grid: OS Datum: AOD
Suitability Code:	S1	Scale: 1:500 Project Number: 30220231

For Information	
Not suitable for construction	
Drawing Number: 30220231 - ARC - ELS - XX - DR - LA - 00010	Revision: S02.3

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