

**Mayfield Phase 1B**  
**Biodiversity Net Gain Assessment Report**

**0062001**

18 December 2024

Revision P01

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author                    **Kathryn Weir**

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date                      **18/12/2024**

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approved                **Aaron Grainger**

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signature                *Aaron Grainger*

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date                      **19/12/2024**

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# 1 Introduction

## 1.1 Site Background

Buro Happold has been appointed, on behalf of Landsec Limited, to provide ecology consultancy services in support of a full planning application for the development of Plot J and Plot K (hereafter referred to as the 'proposed development'), as part of Phase 1B, at Mayfield (hereafter referred to as the 'site').

The site is situated in Manchester City, a dense urban setting surrounded by built infrastructure, residential homes, and transport facilities. Mayfield Phase 1B is part of the wider Mayfield Strategic Regional Framework (SRF) and is located adjacent to the north of the Mancunian Way, south of Mayfield Park, west of Hoyle Street and to the east of Mayfield Phase 1A. Manchester Piccadilly rail station is found to the north of Mayfield Park and the River Medlock flows east to west through the centre of Mayfield Park (Figure 1-1).

The site comprises previously developed land, which has been largely cleared of infrastructure and vegetation following the demolition of a former logistics warehouse and vehicular compound in 2019. Following the demolition of those structures, the site was used as a site compound for materials and vehicles during the construction of Mayfield Park. Since the completion of the park, the site has remained vacant and unused.

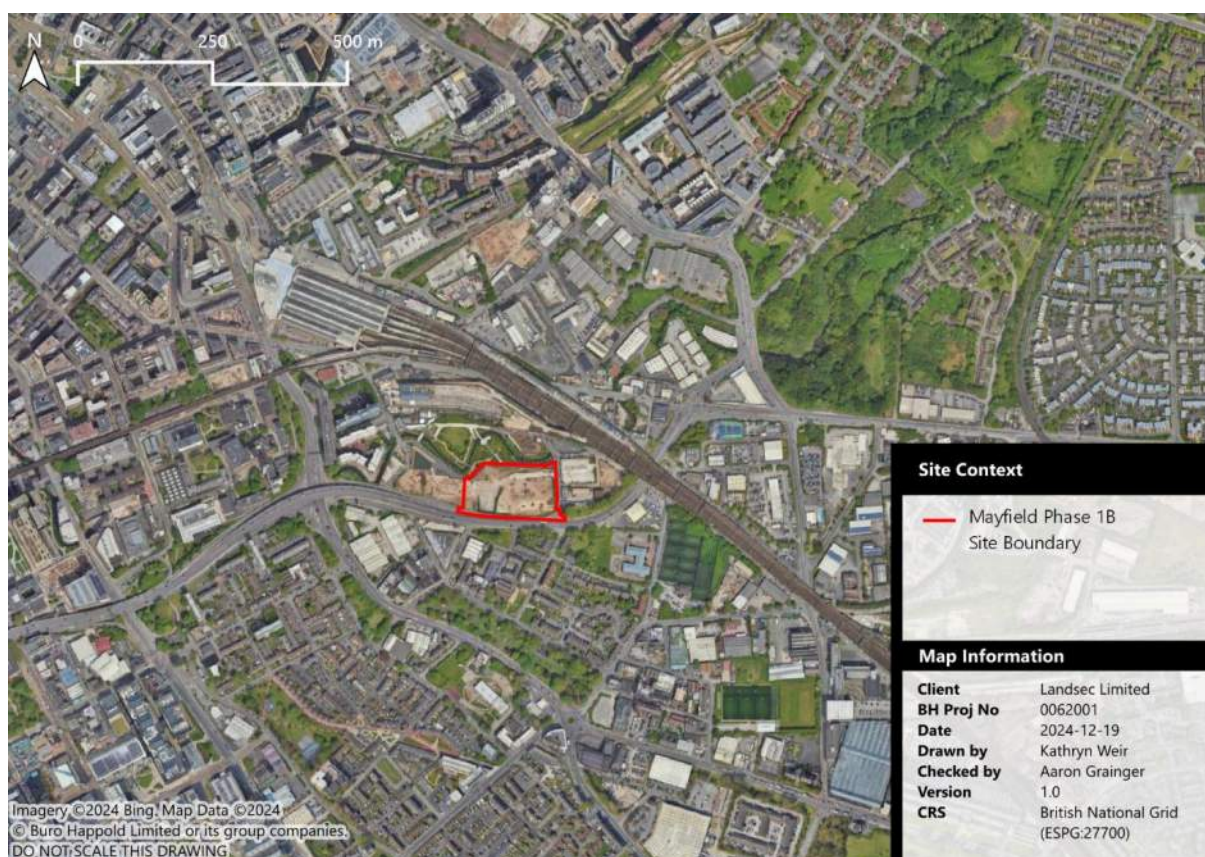


Figure 1-1 Location of the site within the wider landscape.

## 1.2 Site Proposal

The proposed development is as follows:

*“Phased redevelopment of Mayfield Phase 1b, comprising site remediation and reprofiling followed by the erection of two residential blocks (Use Class C3) comprising 883 residential units contained within four buildings ranging from 9 storeys to 28 storeys in height, alongside ground and first floor commercial, community and leisure space comprising restaurant and / or retail units (Use Class E(b) and/or E(a)) together with highway works, access, servicing, rooftop plant, along with delivery of associated public realm and associated works for each relevant phase.”*

The proposed development will be phased with phase 1 involving the development of Plot J plus public realm, and phase 2 involving the development of Plot K plus public realm and estate road. The indicative start and completion of phase 1 on site is 2026 to 2029 respectively, and for phase 2 on site is 2026 to 2030 respectively.

## 1.3 Aims and objectives

Biodiversity Net Gain (BNG) is embedded in the National Planning Policy Framework (NPPF). The Environment Act was adopted in 2021, and since the 12<sup>th</sup> February 2024 with the formal amendments to the Town and Country Planning Act 1990, new developments are required to reach a mandatory 10% gain in biodiversity units' post-development.

As such, this report aims to:

- Present the baseline habitat value of the development site, based on previous ecological habitat surveys;
- Present the habitat value of the proposed landscaping incorporated into the post-development design; and
- Present the overall net habitat value change in both habitat units and a percent change.

## 2 Methodology

The Natural England Statutory Biodiversity Metric (Natural England, 2023) was used to assess the net change in biodiversity. It is designed to provide a quantitative approach to assessing the changes in biodiversity value brought about by development or changes in land management. It is a habitat-based approach and uses the attributes of a habitat to provide a biodiversity value based on components such as distinctiveness, condition and strategic significance of the existing habitat, as well as time to establish and difficulty of creation for proposed habitats.

The following documents have been used to prepare the BNG calculations and can be viewed in Appendix A to E:

- Mayfield Phase 1B Landscape General Arrangement Plan (Studio Egret West, 2024)
- Mayfield Phase 1B Plot J Roof Plan – 123R GA Plan (Shedkm, 2024)
- Mayfield Phase 1B Plot K Roof Plan – Level 28 Roof Plan (Studio Egret West, 2024)
- Landscape Planting Strategy (Studio Egret West, 2024)
- Mayfield, Manchester Ecological Assessment (2019)

### 2.1 Pre-development habitat baseline approach

The baseline BNG calculations, as outlined in Section 3.1, provide a numerical habitat value which indicates the existing value of the habitats present on the site based on the identified habitat types and their condition score as assessed by experienced ecologists.

The habitats and buildings present on site at the time of the Phase 1 habitat survey (2019) were cleared and demolished in 2021, only a retaining wall remains from then. In accordance with the Town and Country Planning Act 1990 any degradation of the onsite habitats which has taken place on the land between 30 January 2020 and the date of planning application submission (as the relevant date) states:

*'the biodiversity pre-development value of the onsite habitat should be calculated as the biodiversity value of the habitat on the date immediately before the carrying out of these degradation activities. The relevant date should therefore be set as a date immediately before these activities.'*

Therefore, the 2019 data is the baseline used for the BNG assessment. Figures 2-1 and 2-2 show the habitats recorded at baseline in 2019 and 2024, respectively.

Buro Happold commenced the required ecology surveys on the site in December 2016, with multiple Extended Phase 1 habitats surveys undertaken (2017, updated in 2019) and a UKHab survey (2024) to assess the ecological value of the site and to support the production of an Ecology Chapter (Chapter 12, Buro Happold 2024) of the Environmental Statement submitted alongside this report in support of the planning application.

The habitats were mapped using QGIS software. The areas of each habitat were then extracted and inputted into the baseline worksheets of the metric. A summary of the habitats identified on-site in 2019, and description of their condition are provided in Section 3.1 of this report.



Figure 2-1 2019 baseline habitat survey of Phase 1b site.

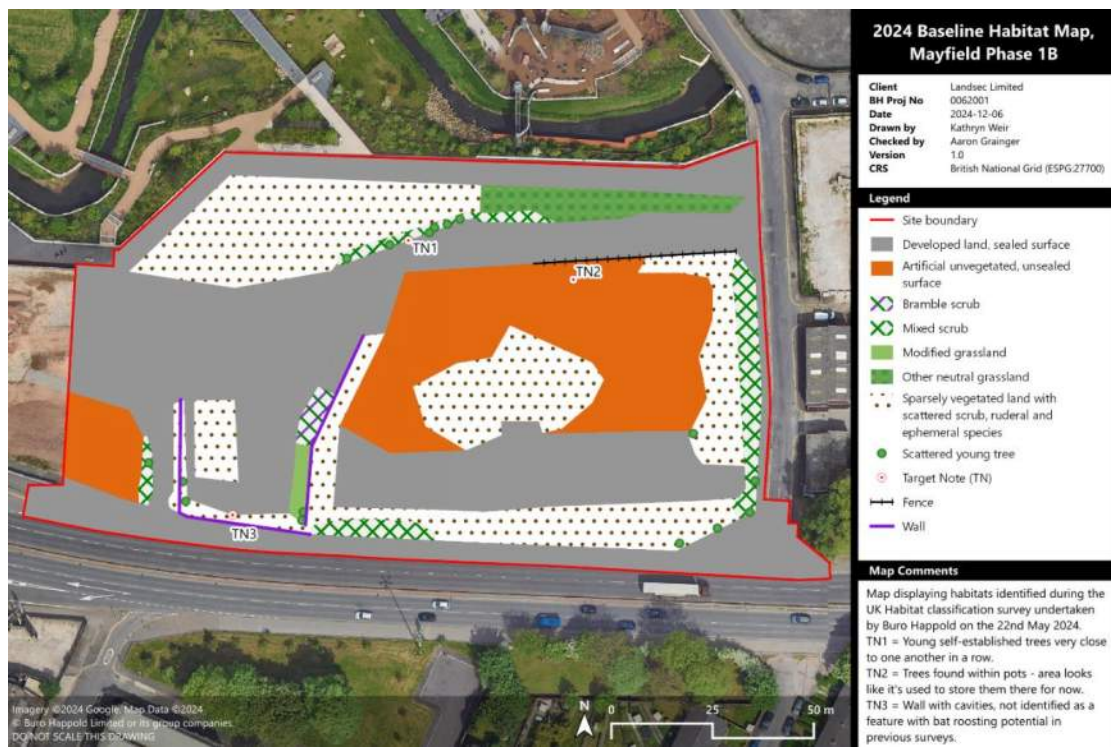


Figure 2-2 2024 Baseline habitat survey of Phase 1b site.

## 2.2 Post-development habitat approach

The post-development biodiversity net gain calculations, as outlined in Section 3.2, provide a proposed numerical habitat value based on the designed areas and targeted planting types designed into the development.

Post development landscaping has been developed through ongoing workshops and consultations within the design team in order to best support the development in minimising loss and supporting the proposed development to a biodiversity net gain. Key team members forming these discussions included the project ecologist, architect, and landscape architect to represent the most realistic and achievable post-development habitat types on site.

New landscaping across the site seeks to create habitats with biodiversity value across the site. The landscaping vision involves extending the biodiverse Mayfield Park concept further south towards the Mancunian Way. Building on the Park's success, the phase 1B site's landscaping was designed to compliment the existing features of the park, extending the ecological narrative throughout the proposed development.

Proposed soft landscaping across the post-development site has been developed by Egret West and is detailed in the plans identified in Table 3-2. These plans do not utilise UK Habitat Classification System or Biodiversity Metric habitat terminology, and so these have been adapted to what is considered to be the most appropriate equivalent habitats in this case. How these habitats have been adapted, and the condition score decided on, is provided in Section 3.2.

### 3 Biodiversity Net Gain Results

#### 3.1 Pre-development biodiversity value

##### 3.1.1 Habitat Classifications

Due to the site being situated on previously developed land, the 2019 phase 1 habitat survey found that the site predominantly comprised very low and low ecologically distinctive habitats with one parcel of medium distinctive habitat, broadleaved woodland.

The habitats present on site in 2019, their condition and respective BNG metric terminology are summarised in Table 3-1.

**Table 3-1 Recorded 2019 habitat types, condition, and the equivalent metric category.**

| Phase 1 Habitat      | Condition           | Definition                                                                                                                                                                                                                                                                                                     | Natural England BNG Metric Habitat equivalent and justification |
|----------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Hardstanding         | NA - Other          | Areas of developed, sealed surfaces, predominantly found on the western side and north-eastern side of site.                                                                                                                                                                                                   | Developed land, sealed surface                                  |
| Spoil                | NA - Other          | Spoil previously piled on site during the development of Mayfield Park.                                                                                                                                                                                                                                        | Artificial unvegetated, unsealed surface                        |
| Tall ruderal         | Poor to Fairly Poor | Parcels of land dominated by common tall ruderal plant species. Typical habitat and species associated with previously developed land left derelict or vacant. The vegetation composition is not species-rich and consists of common and widespread species. The majority of this habitat was cleared in 2021. | Sparsely vegetated land – ruderal/ ephemeral                    |
| Broadleaved woodland | Poor                | Parcel of broadleaved woodland cleared in 2021.                                                                                                                                                                                                                                                                | Other woodland; broadleaved                                     |
| Buildings            | NA - Other          | Existing buildings on site, demolished in 2021.                                                                                                                                                                                                                                                                | Developed land, sealed surface                                  |
| Amenity grassland    | Poor                | Species-poor grassland parcel located on the west side of site.                                                                                                                                                                                                                                                | Modified grassland                                              |

### 3.1.2 Baseline Biodiversity Value

#### 3.1.2.1 Habitat Units

A summary table of the calculations, habitat types and areas, strategic significance, and condition scores of the existing habitats on-site before development are provided in Table 3-2. All habitats have been allocated a low strategic significance as they are not a notable habitat nor lie within a designated ecologically significant area. Full calculations are provided in the Biodiversity Metric calculator submitted alongside this report.

**Table 3-2 Pre-development on-site habitat value**

| Habitat type                                                                             | Area (ha)   | Distinctiveness | Condition Score   | Strategic significance | Habitat units |
|------------------------------------------------------------------------------------------|-------------|-----------------|-------------------|------------------------|---------------|
| Modified grassland                                                                       | 0.02        | Low (2)         | Poor (1)          | 1                      | 0.04          |
| Developed land, sealed surface                                                           | 0.079       | Very low (0)    | N/A (0)           | 1                      | 0             |
| Developed land, sealed surface                                                           | 0.016       | Very low (0)    | N/A (0)           | 1                      | 0             |
| Developed land, sealed surface                                                           | 0.004       | Very low (0)    | N/A (0)           | 1                      | 0             |
| Ruderal/ ephemeral                                                                       | 0.084       | Low (2)         | Poor (1)          | 1                      | 0.17          |
| Developed land, sealed surface                                                           | 0.664       | Very low (0)    | N/A (0)           | 1                      | 0             |
| Other woodland; broadleaved                                                              | 0.105       | Medium (4)      | Fairly poor (1.5) | 1                      | 0.63          |
| Ruderal/ ephemeral                                                                       | 0.029       | Low (2)         | Fairly poor (1.5) | 1                      | 0.09          |
| Ruderal/ ephemeral                                                                       | 0.034       | Low (2)         | Fairly poor (1.5) | 1                      | 0.10          |
| Ruderal/ ephemeral                                                                       | 0.003       | Low (2)         | Fairly poor (1.5) | 1                      | 0.01          |
| Ruderal/ ephemeral                                                                       | 0.05        | Low (2)         | Fairly poor (1.5) | 1                      | 0.15          |
| Artificial unvegetated, unsealed surface                                                 | 0.549       | Very low (0)    | N/A (0)           | 1                      | 0             |
| Ruderal/ ephemeral                                                                       | 0.027       | Low (2)         | Fairly poor (1.5) | 1                      | 0.08          |
| <b>Total habitat area (including individual trees which overlap with other habitats)</b> | <b>1.66</b> |                 |                   |                        |               |
| <b>Total site area (excluding area of individual trees)</b>                              | <b>1.66</b> |                 |                   |                        |               |
| <b>Total habitat unit value of the site</b>                                              |             |                 |                   |                        | <b>1.27</b>   |

As assessed using the Statutory Biodiversity Metric, the on-site baseline habitat value is **1.27** habitat units.

In order for the development to deliver a 10% net gain for biodiversity associated with habitats, the post-development landscaping across the site would need to provide **+1.39** habitat units.

### 3.2 Post-development biodiversity value

The proposals for the site have been developed with reference to the BNG hierarchy which is central to the BNG process. Due to the site being cleared in advance of the application, it was not possible to retain or enhance the habitats present as represented in the 2019 baseline. The post-development scenario is focused on the creation of ecologically valuable habitats as part of the landscaping proposals.

### 3.2.1 Proposed habitats

The proposed habitats incorporate a variety of ornamental planting as well as biodiverse habitat creation beneficial for wildlife. The translation of the habitats from landscaping type to UK Habitats Classification System habitat type equivalent that applies to the Biodiversity Metric is summarised in Table 3-3. Appendix A displays the post-development landscaping plans.

**Table 3-3 Landscape types to UK Habitat Biodiversity Metric justification**

| Proposed landscaping/ development                                  | UK Habitat/ BNG Metric equivalent | Justification                                                                              |
|--------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------|
| Planting type 01 – herbaceous, ornamental grass and shrub planting | Introduced shrub                  | Species comprising mostly ornamental and non-native species.                               |
| Planting type 02 – Herbaceous planting with rain garden build up   | Rain garden                       | Species associated with rain gardens.                                                      |
| Water channel – natural stone riverbed                             | Ornamental lake or pond           | Small landscaped ornamental riverbed.                                                      |
| Wildflower meadow buffer                                           | Other neutral grassland           | Species-rich grassland section with a range of native and pollinator friendly wildflowers. |
| Tree planting                                                      | Urban tree                        | Trees planted in urban setting.                                                            |
| Podium planting green roof                                         | Other green roof                  | Ornamental species planted within podium areas.                                            |
| Biodiverse green roof                                              | Biodiverse green roof             | Green roof designed for biodiversity.                                                      |
| Buildings and associated hardstanding                              | Developed land, sealed surface    | Building and hardstanding including footpaths, roads, patios.                              |

### 3.2.2 Overall post-development habitats

Accounting for the habitat types proposed to be created on-site, it is calculated that the post-development habitat creation will deliver 2.74 habitat units. Table 3-4 provides summary of the post-development habitats, including area, distinctiveness, condition, strategic significance, temporal risk, difficulty of creation and the resulting habitat units.

**Table 3-4 Post-development on-site habitat creation value**

| Habitat type                   | Area on site (ha) | Distinctiveness | Condition | Strategic significance | Temporal risk | Difficulty of creation & restoration |  | Post-D habitat units |
|--------------------------------|-------------------|-----------------|-----------|------------------------|---------------|--------------------------------------|--|----------------------|
| Developed land, sealed surface | 0.273             | Very low (0)    | N/A (0)   | 1                      | 1.000         | 1                                    |  | 0                    |
| Developed land, sealed surface | 0.677             | Very low (0)    | N/A (0)   | 1                      | 1.000         | 1                                    |  | 0                    |
| Introduced shrub               | 0.047             | Low (2)         | N/A (1)   | 1                      | 0.965         | 1                                    |  | 0.09                 |
| Rain garden                    | 0.251             | Low (2)         | Poor (1)  | 1                      | 0.965         | 1                                    |  | 0.48                 |
| Ornamental lake or pond        | 0.009             | Low (2)         | Poor (1)  | 1                      | 0.965         | 1                                    |  | 0.02                 |
| Urban tree                     | 0.3542            | Medium (4)      | Poor (1)  | 1                      | 0.700         | 1                                    |  | 0.99                 |

|                         |       |            |          |   |       |      |                |             |
|-------------------------|-------|------------|----------|---|-------|------|----------------|-------------|
| Other neutral grassland | 0.116 | Medium (4) | Poor (1) | 1 | 0.931 | 1    |                | 0.43        |
| Biodiverse green roof   | 0.234 | Medium (4) | Poor (1) | 1 | 0.965 | 0.67 |                | 0.61        |
| Other green roof        | 0.059 | Low (2)    | NA (1)   | 1 | 0.965 | 1    |                | 0.11        |
|                         |       |            |          |   |       |      | <b>Total =</b> | <b>2.74</b> |

### 3.3 Change in biodiversity units

Based on the calculations summarised in Table 3-5, the total change in biodiversity units equates to +1.47, equivalent to a change of 115.93% in biodiversity value.

**Table 3-5 Change in biodiversity (habitat) units.**

| Post-development biodiversity units |       | Pre-development biodiversity units |   | Change in biodiversity units |
|-------------------------------------|-------|------------------------------------|---|------------------------------|
| 2.74                                | Minus | 1.27                               | = | 1.47                         |

### 3.4 Trading rules

Although the site is demonstrating a significant increase in biodiversity, the trading rules are not fully satisfied due to the loss of 0.105 ha of broadleaved woodland equating to 0.63 habitat units. To satisfy the trading rules, the same broad habitat (woodland) or habitat of higher distinctiveness needs to be created to produce 0.63 units. However, due to the limited potential to create a parcel of woodland equating to 0.189 ha on-site, an alternative method will be procured in order to satisfy the trading rules which will be agreed during the determination phase of the application. The options include:

1. Sourcing 0.63 woodland units (or habitat of higher distinctiveness) from a third-party provider; or
2. Creating 0.189 ha of woodland within a different area of the SRF.

With the additional units sourced to satisfy the trading rules, the BNG score post-development will record a higher final score than 115.93%.

## 4 Conclusion

In conclusion, the results for the biodiversity net gain calculations identify that the proposed development will result in a 115.93% net gain for habitats.

In addition, to satisfy the trading rules and compensate for the loss of woodland habitat on site, the same broad habitat (woodland) or habitat of higher distinctiveness needs to be created. Due to the sites constraints for adding a parcel of woodland that would need to equate to 0.189 ha of woodland, an alternative method will be procured in order to satisfy the trading rules which will be agreed during the determination phase of the application. The options include:

1. Sourcing 0.63 woodland units (or habitat of higher distinctiveness) from a third-party provider; or
2. Creating 0.189 ha of woodland within a different area of the SRF.

As discussed within the Ecology Chapter of the ES (Chapter 12), the development design has worked to incorporate mitigation measures for bats and birds within the site which are additional to the net gain value captured within the Biodiversity Metric. Habitat features for wildlife are also being proposed as part of the landscaping strategy of the site including bat roosting boxes, black redstart nesting boxes, swift nesting boxes and invertebrate hotels/ deadwood piles, which are not accounted for within the Biodiversity Metric but are beneficial for the local wildlife and the community.

Habitats created on site should be maintained for at least 30 years post development to satisfy the conditions for BNG in the Environment Act 2021, as well as best practice guidelines. This should be secured through a habitat management and monitoring plan controlled through a planning condition.

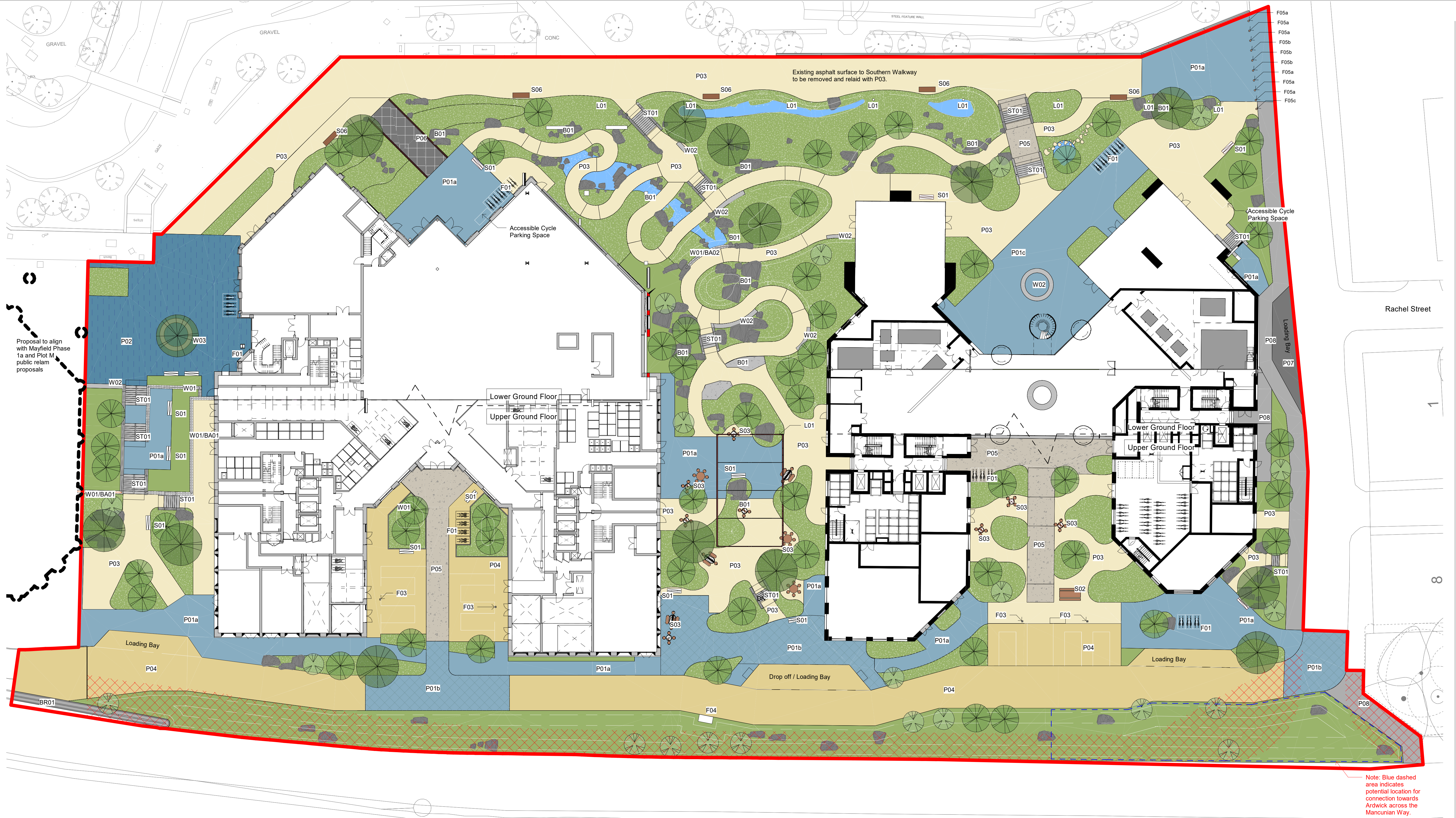
## 5 References

- CIEEM (2018) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- DEFRA (February 2024, updated July 2024) The Statutory Biodiversity Metric User Guide Date.
- Environment Act 2021 Available from: <https://www.legislation.gov.uk/ukpga/2021/30/contents>.
- National Planning Policy Framework (2023) Available from: National Planning Policy Framework - GOV.UK ([www.gov.uk](http://www.gov.uk));
- Natural England (2024) The Statutory Metric.
- UKHAB Ltd (2023) The UK Habitat Classification User Manual, version 2.0.

## 6 List of Appendices

| Reference  | Title                                                                             |
|------------|-----------------------------------------------------------------------------------|
| Appendix A | Mayfield Phase 1B Landscape General Arrangement Plan (Studio Egret West, 2024)    |
| Appendix B | Mayfield Phase 1B Plot J Roof Plan – 123R GA Plan (Shedkm, 2024)                  |
| Appendix C | Mayfield Phase 1B Plot K Roof Plan – Level 28 Roof Plan (Studio Egret West, 2024) |
| Appendix D | Landscape Planting Strategy (Studio Egret West, 2024)                             |
| Appendix E | Mayfield, Manchester Ecological Assessment (Penny Anderson Associates, 2019)      |
| Appendix F | Statutory Biodiversity Metric Calculator                                          |
| Appendix G | Planning policy and legislation                                                   |

**Appendix A Mayfield Phase 1B Landscape General  
Arrangement Plan (Studio Egret West, 2024)**



**Key**

For Level information refer to drawing 198\_MAY-SEW-SW1-1000-DR-L-000002

Planning Application Boundary

**Paving Types**

**P01** Paving Type 01  
Description: Proposed Clay Paving Bricks (to match Mayfield Park)  
Finish: Diamond chequerboard pattern  
Colour: Staffordshire blue  
P01a - Pedestrian and Light vehicle maintenance loading  
P01b - Vehicular Loading  
P01c - Permeable jointing (To civil engineer specification)

**P02** Paving Type 02  
Description: Proposed Clay Paving Bricks  
Finish: Smooth pattern  
Colour: Staffordshire blue  
Allow for vehicular loading  
UK sourced.

**P03** Paving Type 03  
Description: Resin Bound Gravel  
Colour: Hard (to match Mayfield Park)  
Permeable and non-permeable subject to ground conditions.  
UK sourced.

**P04** Paving Type 04  
Description: Asphalt road surface  
Colour: Buff  
Allow for vehicular loading.  
UK sourced.

**P05** Paving Type 05  
Description: In situ reinforced concrete surface (to match Mayfield Park)  
Aggregate: UK sourced.  
Finish: Mixed tone aggregate with Staffordshire pink to match Mayfield Park  
Allow for vehicular loading

**P06** Paving Type 06  
Description: Steel Grating Walkway (to match Mayfield Park)  
Finish: Pressure-treated steel grating  
Allowance: Weathered steel upstand (150mm)

**P07** Paving Type 07  
Description: Temporary asphalt road surface (to match Mayfield Park)  
Finish: Asphalt with stone chippings (pink/red)  
Allow for vehicular loading  
UK sourced.

**P08** Paving Type 08  
Description: Temporary Pavement  
Finish: Asphalt  
Allow for pedestrian loading

**Seating Types**

**S01** Seating Type 01  
Description: Large Timber Bench  
Product: Drifter Bench  
Material: Treated upcycled hardwood timber with metal fixings (to match Mayfield Park)  
Supplier: Streetlife  
Dimensions: 500mm x 2000mm  
Accessories: 1200mm backrest, armrest and lighting to underside

**S02** Seating Type 02  
Description: Large Picnic Bench  
Product: Drifter  
Material: Treated upcycled hardwood timber with metal fixings (to match Mayfield Park)  
Supplier: Streetlife  
Dimensions: 500mm x 3000mm  
Accessories: 3 beam table (840mm) x 3000mm length

**S03** Seating Type 03  
Description: Table and Chair Set  
Product: Grid by rimble (LB244) LB260, LB280  
Material: Powder coated steel

**S06** Seating Type 06  
Description: Relocated existing bench

**Boulders**

**B01** Boulder Type 01  
Description: Proposed Boulders (to match Mayfield Park)  
Size: Varies (500mm-2500mm)  
Locally sourced  
Allowance: Allow for 5-10% of boulders to have flat top (stepping boulders)

**Steps**

**ST01** Step Type 01  
Description: In-situ concrete steps  
Finish: Variety of concrete finishes to differentiate levels (to match Mayfield Park)  
Accessories: 150mm risers x 280mm treads  
Supplier: Streetlife  
Dimensions: 150mm x 280mm  
Accessories: Allowance for handrails elsewhere and for integrated rising visibility detail to match Mayfield Park.

**Street Furniture**

**F01** Furniture Type 01  
Description: Proposed Cycle Stands (to match Mayfield Park)  
Product: Cor-Ten Bicycle Racks  
Supplier: Streetlife

**F02** Furniture Type 02  
Description: Lighting columns to be retained

**F03** Furniture Type 03  
Description: Charging pedestal  
Product: To MEP specification  
Allowance: Clearance zone around charger to comply with accessible parking bay standards.

**F04** Furniture Type 04  
Description: Reorder Pillar  
Specification to Mechanical Engineer

**F05** Furniture Type 05  
Description: Bollards  
F05a - Existing Static Bollard  
F05b - Existing retractable Bollard  
F05c - Proposed Static Bollard (to match F05a)

**Walls and Balustrades**

**W01** Wall Type 01  
Description: In-situ concrete wall  
Finish: Polished horizontal face and exposed aggregate vertical face  
Allowance: 1100mm high powder-coated steel and mesh balustrade to match Mayfield Park  
Supplier: Streetlife  
Dimensions: 1100mm x 600mm  
Accessories: Allowance for handrails elsewhere and for integrated rising visibility detail to match Mayfield Park.

**W02** Wall Type 02  
Description: In-situ concrete wall  
Finish: Polished horizontal face and exposed aggregate vertical face  
Height: Min 450mm - 600mm  
Inclusion of finial seating and armrests

**BA01** Balustrade Type 01  
Description: Proposed slatted metal balustrade  
Height: 1100mm  
Allowance: Balustrade to achieve 50% porosity.

**BA02** Balustrade Type 02  
Description: Proposed balustrade to match Mayfield Park  
Height: 1100mm

**BR01** Barrier Type 01  
Description: Highway Crash Barrier  
To highways engineer specification

**Soft Landscape**

**Planting Type 01**  
Description: Herbaceous, ornamental grass and shrub planting.  
Material: Herbaceous perennials and ornamental grasses  
Density: 9 per 1sqm (average)  
Pot Size: 10cm-20cm pots  
Soil Depth: 400mm

**Planting Type 02**  
Description: Herbaceous planting with rain garden build-up  
Material: Natural stone cobbles and boulders  
Build up to engineers detail.  
Density: 9 per 1sqm (average)  
Pot Size: 10cm-20cm pots  
Soil Depth: Min 450mm

**Tree Planting**  
Semi-Mature Tree  
Size: Varied  
Small: 30-40cm Girth/Multistem  
Medium: 40-50cm Girth  
Large: 60cm Girth  
Filing: Underground geyed  
Accessories: Rootbar protection system  
Soil depth: 1200 - 1400mm with 200mm drainage layer  
Target soil volume per tree: 20m<sup>3</sup>  
- An allowance for a root cell system will be required for all trees planted in hard landscape.

**Structures**

**L01** Landscape Structure Type 01  
Description: Reclaimed Depot Structure  
Dimensions: 1800' following further site investigation  
Foundations and structural build up to engineers detail.

**Water Channel**  
Description: Natural Stone 'River Bed'  
Material: Natural stone cobbles and boulders  
Build up to engineers detail.  
Rigidly bed  
UK Sourced

**General Notes**

No implied licence exists. This drawing should not be used to calculate areas for the purposes of valuation.  
Do not scale this drawing for construction purposes. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility.  
All work must comply with relevant British Standards and Building Regulations requirements. Drawing errors and omissions to be reported to the architect.

**Notes**

Outstanding coordination items:  
Accessible parking bay quantity reduction from 9 - 7 bays. Civic to confirm with MCC.  
Plant replacement strategy to Plot J substations.

**Key Plan**

Area indicates MCC Highway Pavement  
Current proposals assume the below utilities and services are to be retained. Tree planting subject to approvals from utility providers.

**For Information**

|               |                               |
|---------------|-------------------------------|
| Project No.   | 0198_MAY                      |
| Project Name  | Mayfield Phase 1b             |
| Drawing Title | Landscape General Arrangement |
| Client        | LandsecU+I                    |
| Scale @A1     | As indicated                  |
| Date          | 24/05/24                      |
| Drawn by      | TH                            |
| Checked by    | SEW                           |

**Rev**

| Rev | Date     | Reason                        | Chk |
|-----|----------|-------------------------------|-----|
| 6   | 19/11/24 | STAGE 2B Design Freeze Update | SEW |
| 7   | 11/11/24 | For information SEW           |     |
| 6   | 06/11/24 | For information SEW           |     |
| 5   | 01/11/24 | STAGE 2B design freeze        | SEW |
| 4   | 22/10/24 | For information SEW           |     |
| 3   | 27/09/24 | For information SEW           |     |

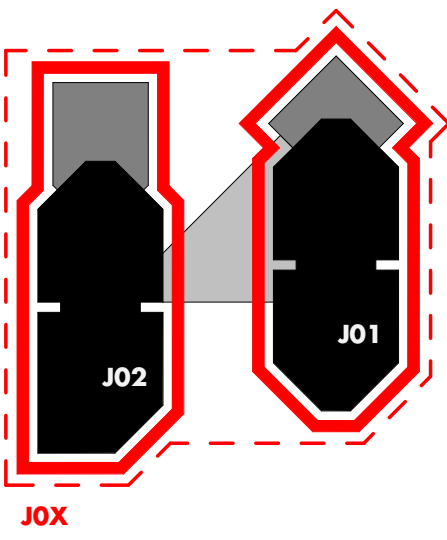
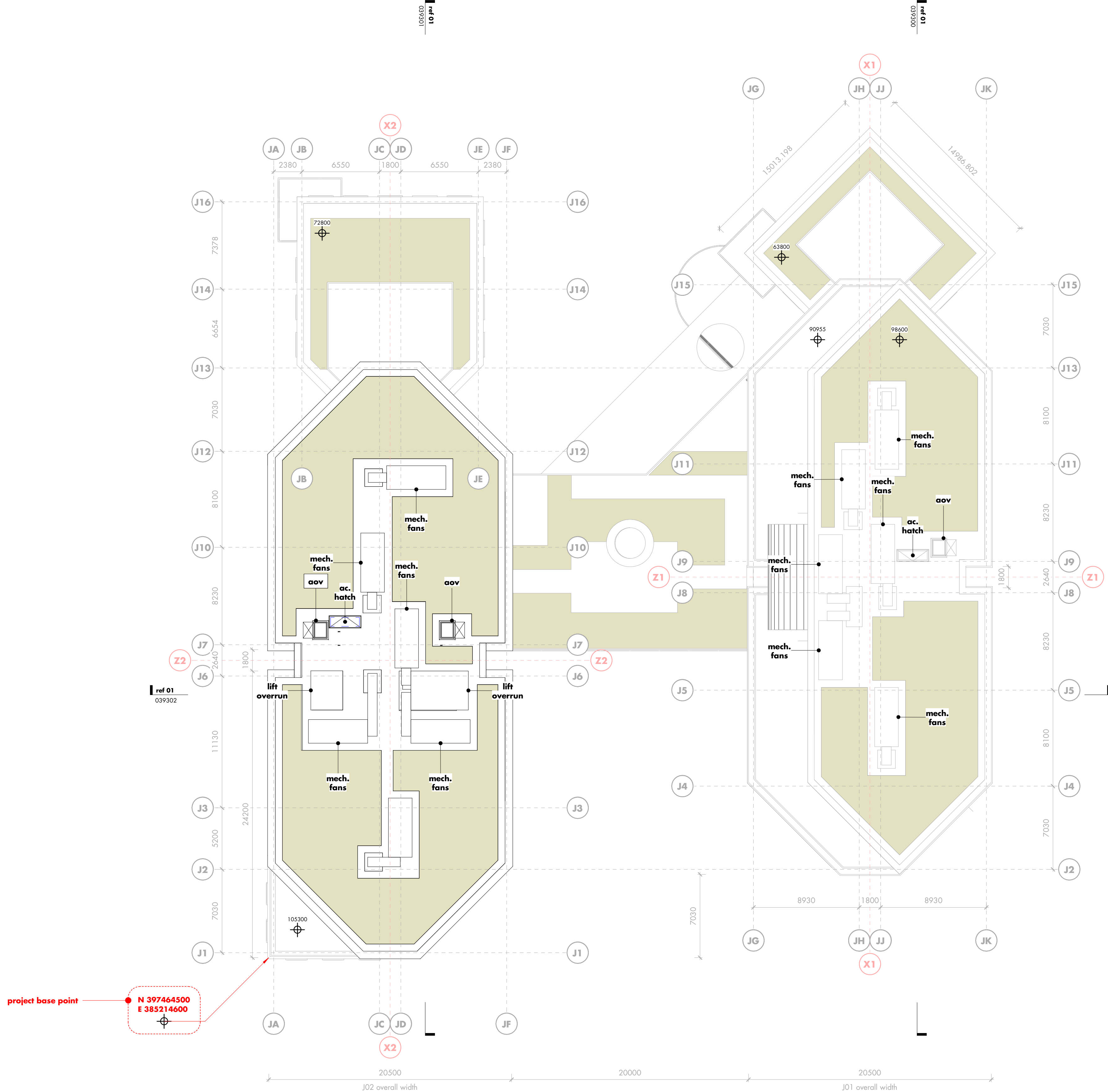
**Drawing Number**

|                                   |   |
|-----------------------------------|---|
| 0198_MAY-SEW-SW1-1000-DR-L-000001 | 8 |
|-----------------------------------|---|

**Studio Egret West**  
3 Brewhouse Yard  
London, EC2V 4JQ  
hello@egretwest.com  
+44 (0) 20 7549 1730

Note: Blue dashed area indicates potential location for connection towards Ardwick across the Mancunian Way.

## **Appendix B Mayfield Phase 1B Plot J Roof Plan – 123R GA Plan**



**notes**  
• sew work in progress landscape context shown for graphical use only

**consultant references**  
for structure refer to civic engineers drawings + specification  
for MEPH refer to arcadis drawings + specifications  
for fire performance refer to jensen hughes strategy report  
for acoustic refer to wsp drawings + specification  
for landscape refer to studio egret west drawings + specification

**drawing references**  
SKM GA's  
- plans 039100s  
- elevations 039200s  
- sections 039300s  
SKM enlarged GA's  
- plans 201100s

|        |                             |          |        |                   |
|--------|-----------------------------|----------|--------|-------------------|
| P01.06 | DAS draft issue             | 12.12.24 | RG     | HM                |
| P01.05 | DAS draft issue             | 29.11.24 | RG     | HM                |
| P01.04 | EIA release                 | 18.11.24 | RG     | HM                |
| P01.03 | GA freeze - additional info | 08.11.24 | RG     | HM                |
| P01.02 | GA freeze                   | 31.10.24 | RG     | HM                |
| P01.01 | EIA early release           | 17.10.24 | RG     | HM                |
| rev    | • description               |          | issued | • drawn • checked |

|                          |                                            |
|--------------------------|--------------------------------------------|
| status                   | stage 2                                    |
| shedkm                   | +44 (0)151 709 8211<br>+44 (0)207 253 8881 |
| project                  | Mayfield Park                              |
| shedkm project reference | 2325                                       |
| client                   | LandsecU+I                                 |
| dwg no.                  | 0200_MAY-SKMJOX-123R-DR-A-039123_P01.06    |
| scale                    | 1 : 200@A1                                 |
| drawing title            | 123R GA plan                               |

do not scale from this drawing • drawing to be printed in colour • all dimensions are to be checked on site prior to work commencing • any discrepancy found between information given on this drawing and that given elsewhere or recorded on site shall be notified immediately to the project architect in writing

0 20 m

## **Appendix C Mayfield Phase 1B Plot K Roof Plan - Level 28 Roof Plan (Studio Egret West, 2024)**

no implied licence exists. This drawing should not be used to calculate areas for the purposes of valuation.

Do not scale this drawing for construction purposes. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility.

All work must comply with relevant British Standards and Building Regulations requirements. Drawing errors and omissions to be reported to the architect.

**DRAFT** 



Project No. 0199-MAY

yfield Phase 1b

Level 28 - Roof Plan

ale ③A1 1:200

awn by MY/MI/LK

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

## **Appendix D Landscape Planting Strategy (Studio Egret West, 2024)**

# Planting strategy

## Planting inspired by the Peak district

### Inspired by natural geomorphology

The Mayfield Phase 1B site, set on a slope overlooking Mayfield Park and the Medlock River, draws inspiration from the natural landscapes of the Peak District, known for its plateaus, slopes, and valleys. Our site, situated on the flank side of the valley, is influenced by these natural planting characters.

This principle is exaggerated in the diagram to the right, highlighting how the slope and plateau respond to the sites positioning adjacent to Mayfield Park.

Planting along the dry riverbed is intentionally sparse, offering open views toward Mayfield Park. Moving further away, the planting becomes denser, creating a natural frame for the view. At the summit, the 'plateau' showcases a heathland-inspired aesthetic, with hardy upland vegetation thriving in the sunlit, south-facing aspect.

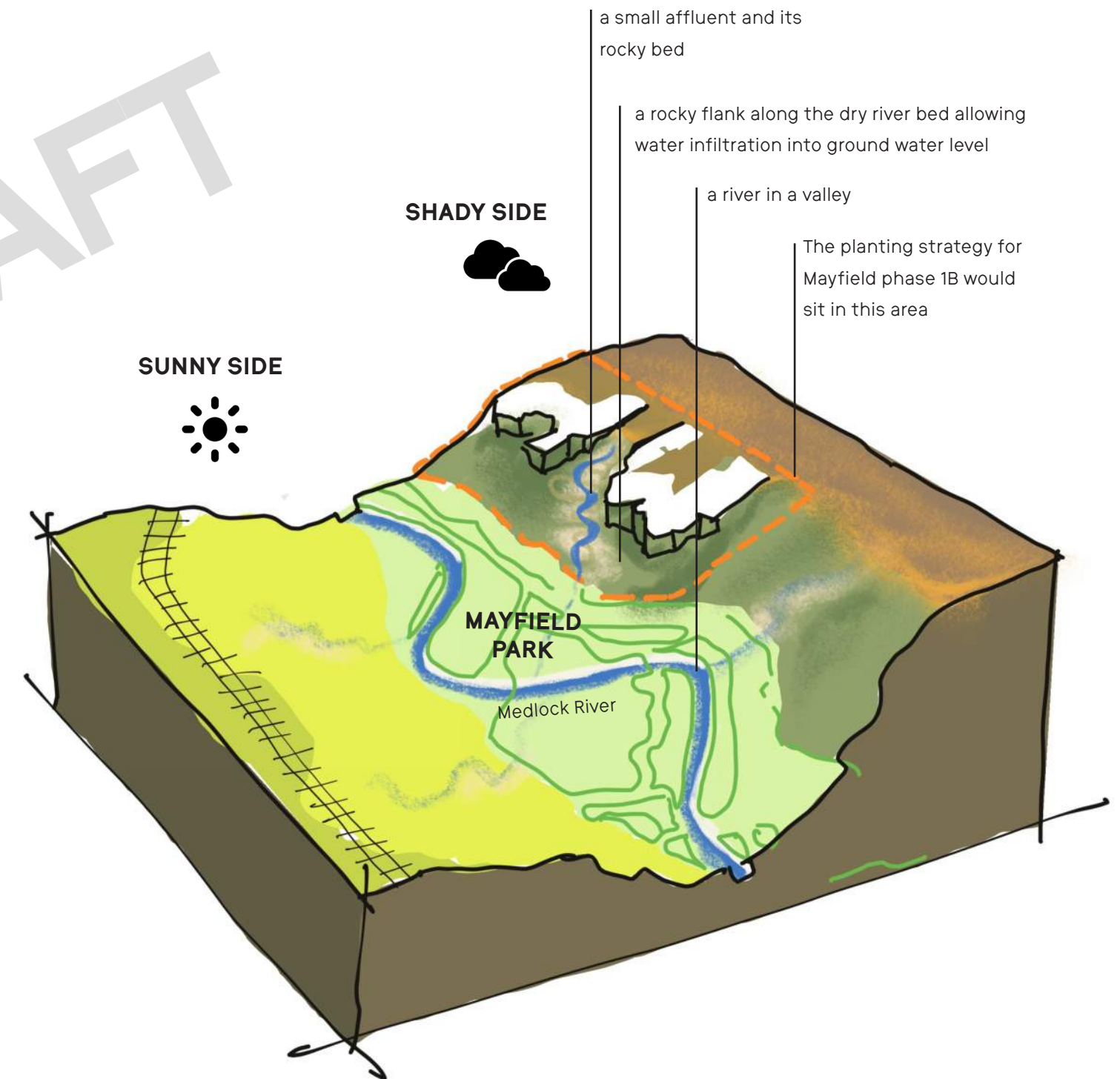


Diagram showing basic principle of slopes, valley and basin in a natural landscape



# Creating a shade tolerant planting scheme

Unlike the sunlit, open rockeries typical of Mediterranean landscapes, this approach is adapted to a shadier context, creating a cooler, more layered planting environment.

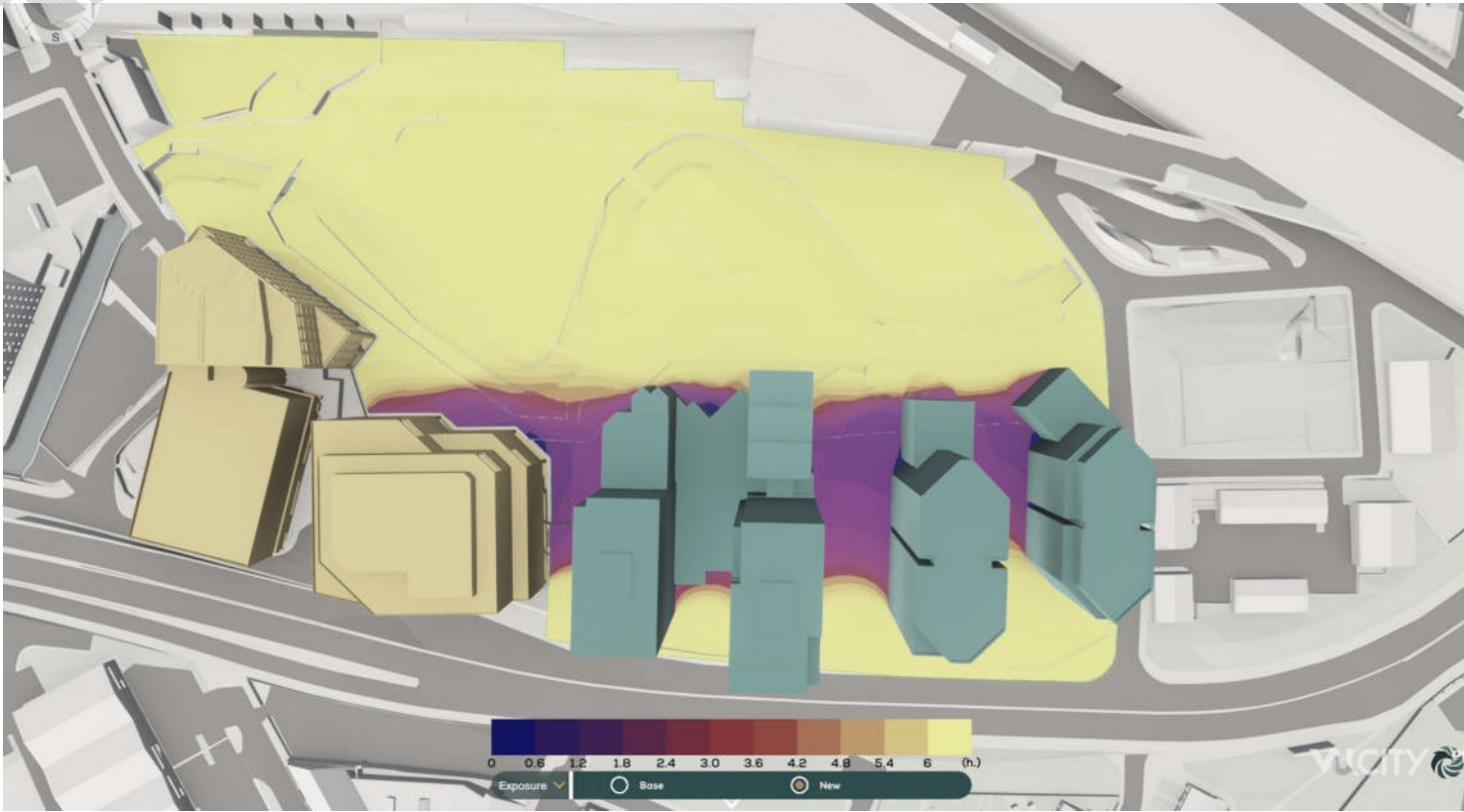
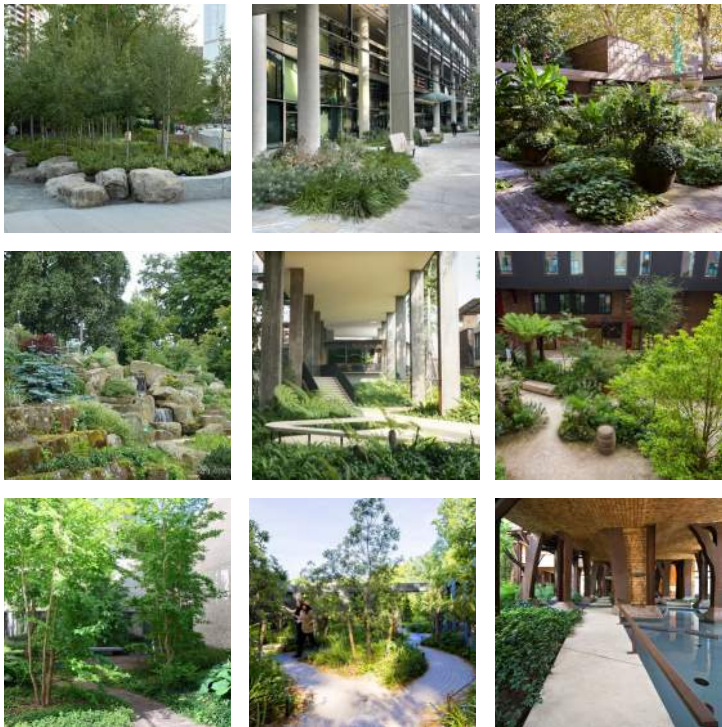
This enhances the park’s existing habitats by introducing a distinct character, enriching the diverse tapestry of planting styles throughout the space. The new planting scheme brings a fresh dimension to the park, offering a year-round lushness that adds depth and vibrancy not previously present.



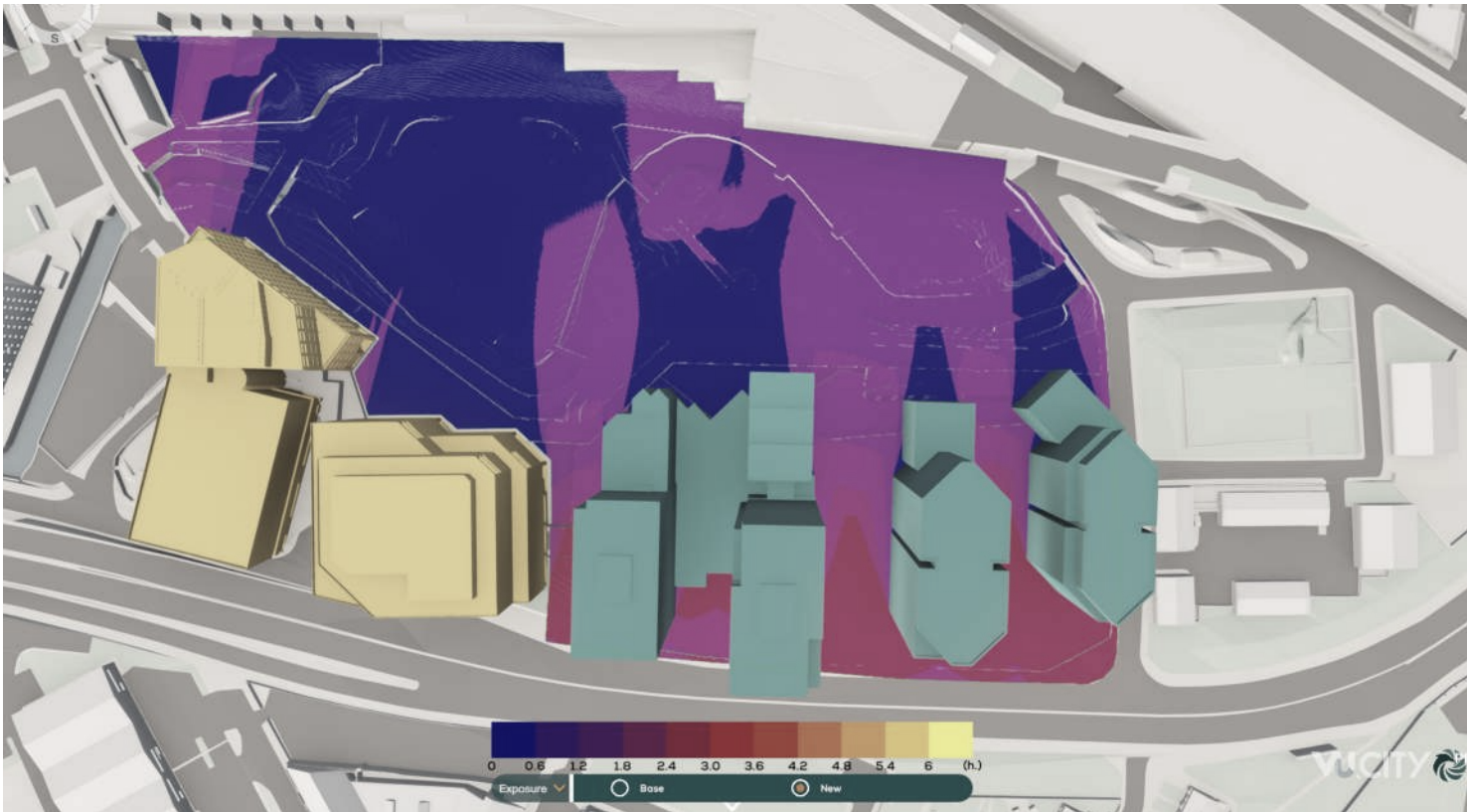
Transition from sun loving perennial to shade tolerant evergreen species



The Park's tapestry of planting characters extents south

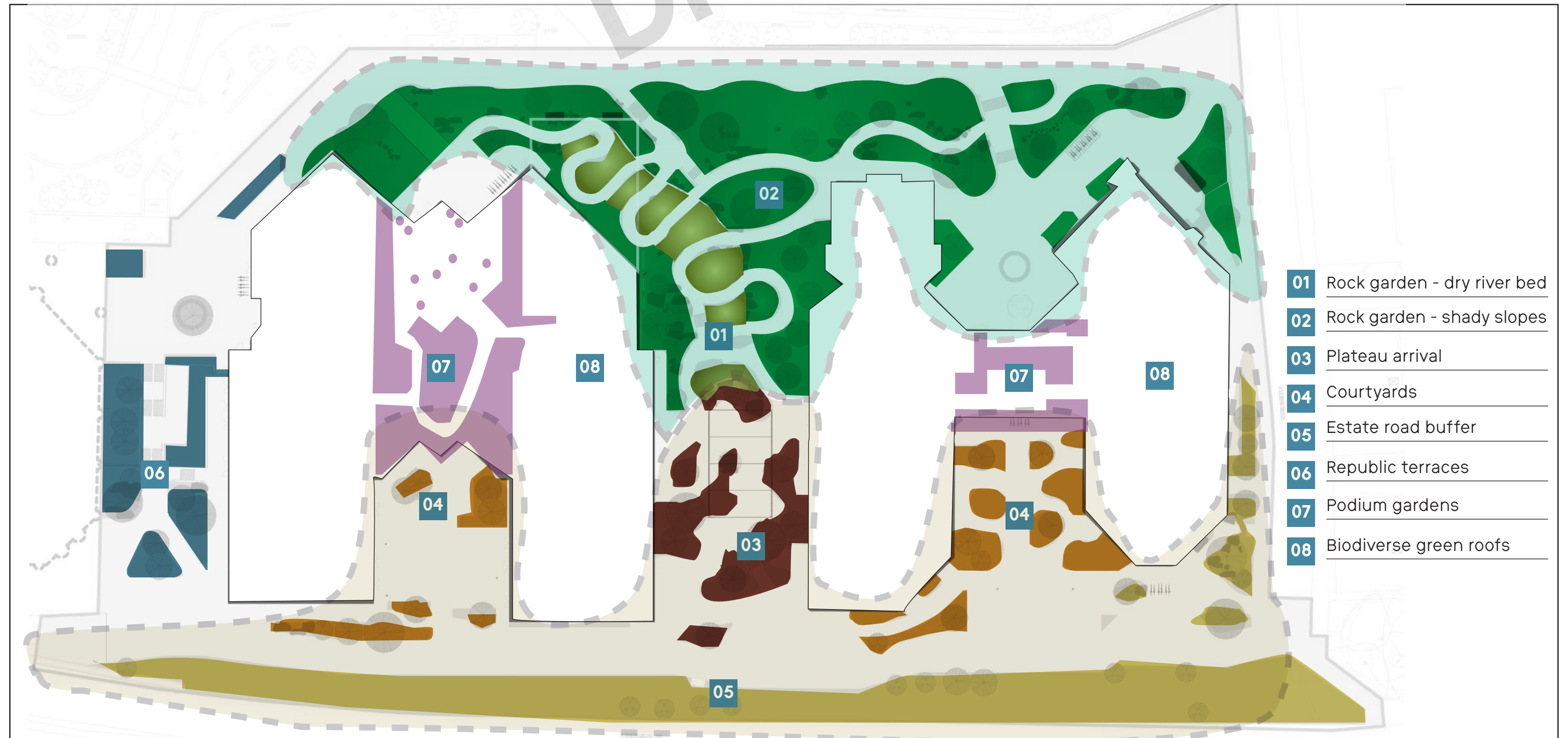


Illustrative exposure on the 21st of June



Illustrative exposure on the 21st of December

## Planting characters



# Indicative proposed plant list per character



Rock garden -  
dry river bed

Sesleria autumnalis  
Persicaria x fennica 'Johanniswolke'  
Thalictrum 'Black Stockings'  
Phlomis tuberosa  
Campanula glomerata 'Alba'  
bergenia stracheyi brahms  
Monarda bradburiana  
helleborus argutifolius  
Polystichum Setiferum Proliferum  
Geranium macrorrhizum



Rock garden -  
shady slopes

Southern Walkway Rain Garden  
  
Hosta 'Snowden'  
Pachyphragma macrophyllum  
Polystichum aculeatum  
liriope muscari  
Primula japonica 'Apple Blossom'  
Digitalis x mertonensis  
Blechnum spicant  
Cyclamen coum  
Polystichum setiferum  
epimedium rubrum  
Aruncus aethusifolius  
Geranium macrorrhizum 'Album'

Undercroft and Plot J arrival

Polystichum polyblepharum  
Dryopteris 'Cristata' (The King)  
Dryopteris wallichiana  
Athyrium Felix -femina  
Asplenium scolopendrium 'Cristatum'  
Polystichum setiferum  
Polystichum setiferum 'Congestum'  
Polystichum Setiferum Proliferum

Shrubs

Cornus sanguinea  
Pieris purity



Plateau arrival

Calluna vulgaris  
Ulex europaeus 'Flore Pleno'  
Armeria maritima  
Erica Carnea  
Molinia caerulea windspiel  
Dianthus arearius  
Polystichum setiferum  
Achillea millefolium 'Kirschkönigin'  
Thymus praecox  
Nassella tenuissima  
Antennaria dioica borealis



Courtyards

Pseudodictamnus acetabulosus  
Santonlina chamaecyparissus  
Helichrysum italicum  
Salvia officinalis  
Geranium macrorrhizum 'Album'  
Cistus creticus  
Stachys Silver Carpet  
Artemisia 'Powis Castle'  
Aruncus aethusifolius  
Papaver orientale Pinnacle Pink  
Epimedium rubrum  
Crambe maritima



Estate road buffer

Prunus spinosa  
Sorbus aucuparia  
Leucanthemum vulgare  
Glebionis segetum  
Rosa canina  
Crataegus monogyna  
Viburnum lantana  
Lychnis flos-cuculi  
Echium vulgare  
Serratula tinctoria var. seoanei  
Centaurea nigra  
Primula vulgaris



Republic terrace

Pinus mugo  
Viburnum opulus 'Compactum'  
Calamagrostis x acutiflora 'Karl  
Foerster'Serratula tinctoria var.  
seoanei  
Crambe maritima  
Artemisia 'Powis Castle'  
Myrtus communis  
Stipa tenuissima  
Deschampsia cespitosa  
Helichrysum italicum  
Hylotelephium telephium  
(Atropurpureum Group)  
Serratula tinctoria var. seoanei  
Juniperus squamata 'Blue star'



Podium gardens

Viburnum plicatum 'Pink Beauty'  
Sedum spectabile  
Daphne 'Pink Fragrance'  
Jasminum nodifolium  
Saxifragia urbium  
Achillea millefolium 'Milk rock rose'  
Pittosporum tenuifolium cratus  
Astrantia major Ruby Wedding  
Thymus serphylus  
Rosmarinus officinalis  
Viola labradorica purpurea



Biodiverse green  
roofs

Anthemis tinctoria  
Achillea millefolium  
Campanula rotundifolia  
Daucus carota  
Echinacea purpurea  
Pilosella aurantiaca  
Alyssum saxatile  
Linum perene  
Origanum vulgare  
Sedum reflexum  
Sedum acre

# Indicative proposed tree planting

- 01

Rock garden - dry river bed

Corylus avellana  
Salix rosmarinifolia
- 02

Rock garden - shady slopes

Sambucus Nigra  
Corylus avalana  
Sorbus aria  
Salix caprea  
Liquidambar  
Tilia cordata  
Sciadopitys verticillata  
Mahonia x media  
Salix rosmarinifolia  
Acer miyabei  
Pinus nigra  
Pinus Heldrechii
- 03

Plateau arrival

Prunus serrula  
Pinus nigra  
Hippophae rhamnoides  
Sambucus Nigra  
Cornus sanguinea
- 04

Courtyards

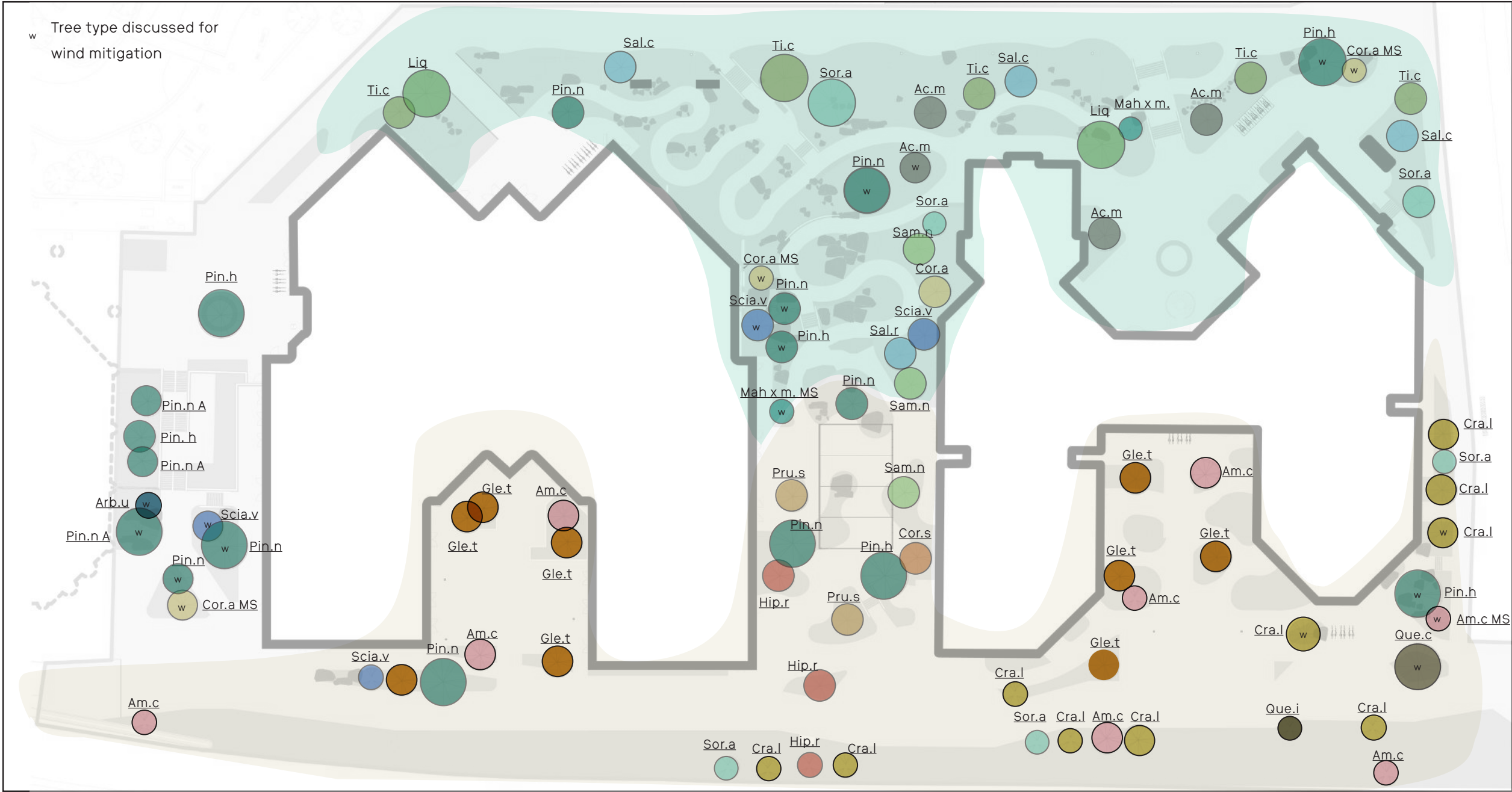
Gleditsia triacanthos  
Amelanchier arborea
- 05

Estate road buffer

Crataegus laeviegata  
Amelanchier arborea  
Sorbus aria  
Quercus cerris
- 06

Republic terrace

Pinus nigra 'Austriaca'  
Pinus Heldrechii  
Arbutus unedo  
Sciadopitys verticillata



- 07

Podium gardens

Prunus subhirtella  
'Fukubana'  
Pyrus calleryana  
'Chanticleer'  
Malus 'Butterball'
- 08

Biodiverse green roofs

No trees

# Indicative proposed tree planting

- low tolerance to shade    💧 low drought tolerant    ○ low flood tolerance    ● evergreen  
◐ medium shade tolerance    💧 medium drought tolerance    ◐ medium flood tolerance  
◑ high tolerance to shade    💧 high drought tolerance    ◑ high flood tolerance



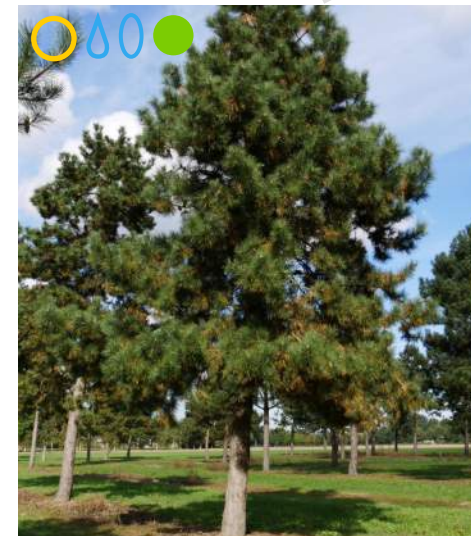
Liquidambar styraciflua



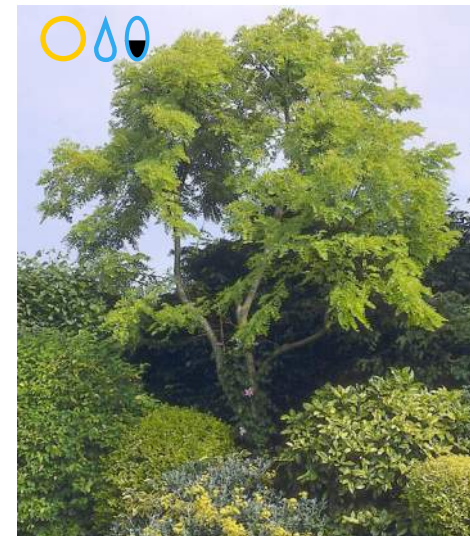
Tilia cordata



Quercus cerris



Pinus nigra



Gleditsia triacanthos



Arbutus undedo



Sorbus aria



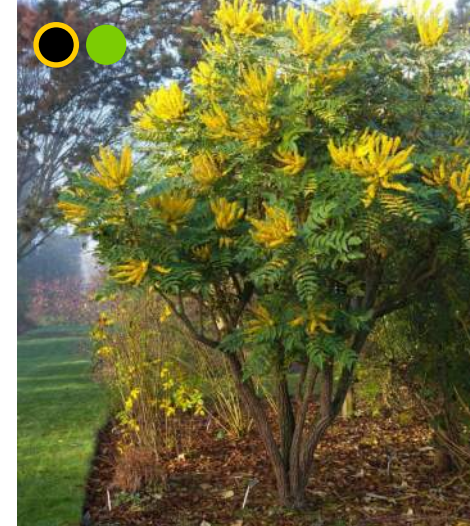
Coryllus avelana



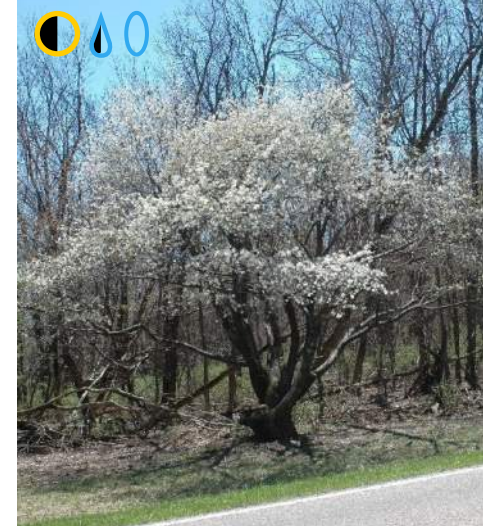
Sambucus nigra



Acer miyabei



Mahonia x media



Amelanchier arborea



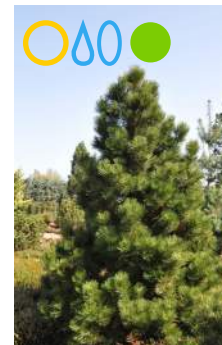
Prunus serrula



Hippophae  
rhamnoides



Sciadopitys  
verticillata



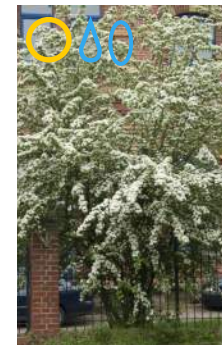
Pinus heldreichii



Salix rosmarinifolia



Salix caprea



Crataegus  
laevigata



Cornus sanguinea

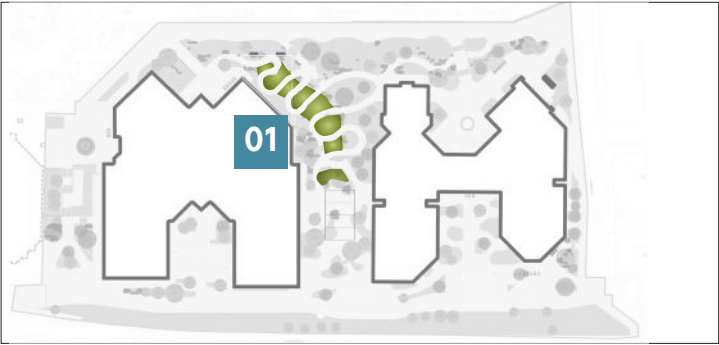


Pieris purity

# Rock garden - dry river bed

The central dry river bed planting design draws inspiration from natural landscape features, where resilient shade- and drought-tolerant species thrive among boulders and crevices. These plants are selected for their ability to adapt to fluctuating moisture levels and limited light conditions.. The following diagram explains the dissipation of rocks as you get further away from the centre of the ‘river bed’. The limited use of shrubs/trees in this central area champions views towards the park.

Below are examples of species that could be included in this planting character...



Sesleria autumnalis



Persicaria x fennica 'Johanniswolke'



Thalictrum 'Black Stockings'



Phlomis tuberosa



Campanula glomerata 'Alba'



Bergenia stracheyi brahms



Monarda bradburiana



Helleborus argutifolius



Polystichum setiferum proliferum



Geranium macrorrhizum

## Rock garden - shady slopes

### Inspired from peak district hillsides

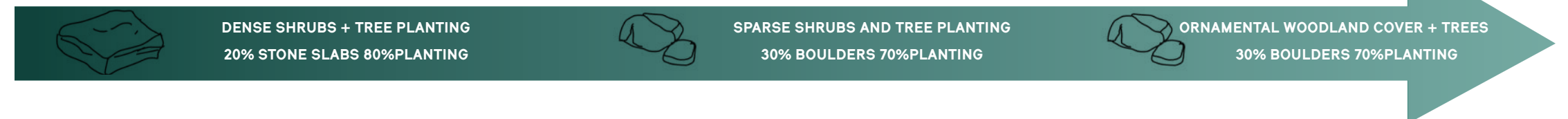
The slopes will be treated as a unified planting character, but with variations to the planting structure. The overall planting character is one of shade tolerant, leafy, year round structure, however the distribution of herbaceous planting, shrubs and trees varies across the area. See how the planting structure varies across the beds:

a. Shrubby Valley: Ornamental shade tolerant perennials and trees with clear stems sit towards the dry river bed. This is a transitional zone.

b. Woodland Valley: Towards the buildings, the intensity of shrub and tree planting builds, whilst providing a rich evergreen understorey.

c. Undercroft Area: Features a dense monoculture of evergreen, drought-tolerant ferns, with pockets of moisture to sustain them. This area will adopt a striking, minimalist aesthetic.

d. Southern Walkway Rain Gardens: The rain garden along the southern walkway will have a collate and infiltrate water, the planting will be shade and drought tolerant. The structure will be a mix of shrubs, trees and herbaceous planting, allowing interaction and play amongst the stepping stones.



Hosta 'Snowden'



Aruncus aethusifolius



Digitalis x mertonensis Cyclamen coum



Liriope muscari

Plateau arrival

Inspired from peak district plateau

The proposed planting takes inspiration from heathland ecosystems, reinterpreted for an urban context to create a low-maintenance, biodiverse, and visually distinctive landscape. The design features a mosaic of hardy, drought-tolerant species such as grasses, heathers, and low shrubs, interspersed with wildflowers to introduce seasonal color and support pollinators. This planting strategy replicates the open, textured character of heathlands while integrating seamlessly into the urban environment, offering a resilient and ecologically rich landscape that thrives in poor, well-drained soils.

Indicative plant list:

- Calluna vulgaris
- Ulex europaeus 'Flore Pleno'
- Armeria maritima
- Erica Carnea
- Molinia caerulea windspiel
- Dianthus arearius
- Polystichum setiferum
- Achillea millefolium 'Kirschkönigin'
- Thymus praecox
- Nassella tenuissima
- Antennaria dioica borealis



Calluna vulgaris



Ulex europaeus 'Flore Pleno'



Armeria maritima



Achillea millefolium 'Kirschkönigin'



Thymus praecox



Erica Carnea



Molinia caerulea windspiel



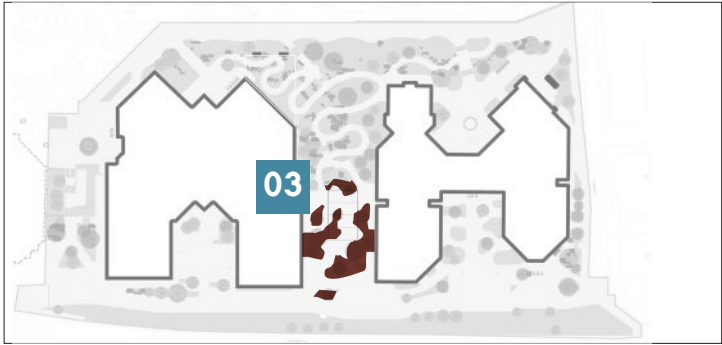
Polystichum setiferum



Nassella tenuissima



Antennaria dioica borealis



# Courtyards

## Inspired from a brown field

Drawing inspiration from the resilient colonizing species found on brownfield sites, the south-facing courtyards will feature a herbaceous and ornamental planting palette. Drought-tolerant species will emerge from a gravel mulch base, as did brownfield species in times gone by. The design will emphasize low-maintenance, flowering perennials, grasses, and textured foliage to provide a silvery and dynamic aesthetic. Scent will play a key part in the species choice, to ensure residents and guests can sit amongst the planting. This approach combines naturalistic and ornamental cues, providing a welcoming arrival into the plots lobby spaces.

### Indicative plant list:

Pseudodictamnus acetabulosus  
 Santonlina chamaecyparissus  
 Helichrysum italicum  
 Salvia officinalis  
 Geranium macrorrhizum 'Album'  
 Cistus creticus  
 Stachys Silver Carpet  
 Artemisia 'Powis Castle'  
 Aruncus aethusifolius  
 Papaver orientale Pinnacle Pink  
 Epimedium rubrum  
 Crambe maritima



Pseudodictamnus acetabulosus



Helichrysum italicum



Cistus creticus



Papaver orientale Pinnacle Pink



Crambe maritima



Santonlina chamaecyparissus



Salvia officinalis



Geranium macrorrhizum 'Album'



Stachys Silver Carpet



Artemisia 'Powis Castle'

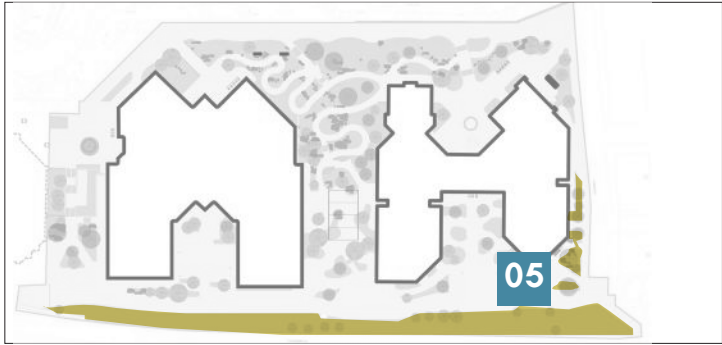


## Estate road buffer

Native wildflowers, shrubs, and hedges are proposed to create a biodiverse habitat corridor along the length of the Estate Road. Designed for low maintenance, the planting will be managed by the Mayfield Estate team, providing ecological value while enhancing the natural character of the area.)

Indicative plant list:

- Prunus spinosa
- Sorbus aucuparia
- Leucanthemum vulgare
- Glebionis segetum
- Rosa canina
- Crataegus monogyna
- Viburnum lantana
- Lychnis flos-cuculi
- Echium vulgare
- Serratula tinctoria var. seoanei
- Centaurea nigra
- Primula vulgaris



Prunus spinosa



Sorbus aucuparia



Leucanthemum vulgare



Glebionis segetum



Rosa canina



Crataegus monogyna



Viburnum lantana



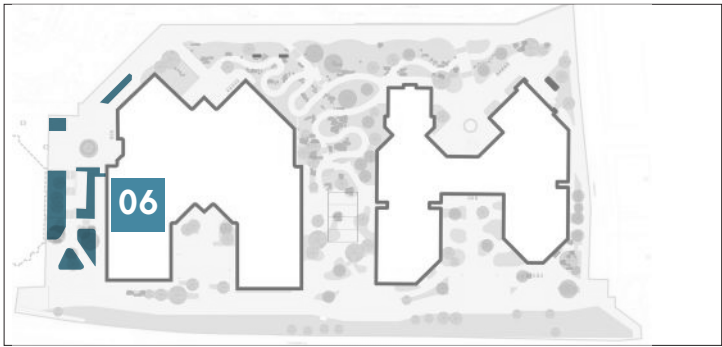
Lychnis flos-cuculi



Echium vulgare



Serratula tinctoria var. seoanei



## Republic terraces

### Based on the mature pine as a feature

- Expanding the southern ledge between the plots.
- Mediterranean-style pines, decorative grasses, and shrubs in a herbaceous arrangement.
- Evergreen trees including Arbutus, Pine, Myrtle, Juniper and Pinus mugo to mitigate wind
- Ornamental design to enhance the arrival area.
- Express the rock escarpment to accompany level changes

Indicative plant list:

Pinus mugo  
Viburnum opulus 'Compactum'  
Calamagrostis x acutiflora 'Karl Foerster'  
Serratula tinctoria var. seoanei  
Crambe maritima  
Artemisia 'Powis Castle'  
Myrtus communis  
Stipa tenuissima  
Deschampsia cespitosa  
Helichrysum italicum  
Hylotelephium telephium (Atropurpureum Group)  
Serratula tinctoria var. seoanei  
Juniperus squamata 'Blue star'



Pinus mugo



Viburnum opulus 'Compactum'



Calamagrostis x acutiflora 'Karl



Delosperma cooperi



Crambe maritima



Myrtus communis



Stipa tenuissima



Deschampsia cespitosa



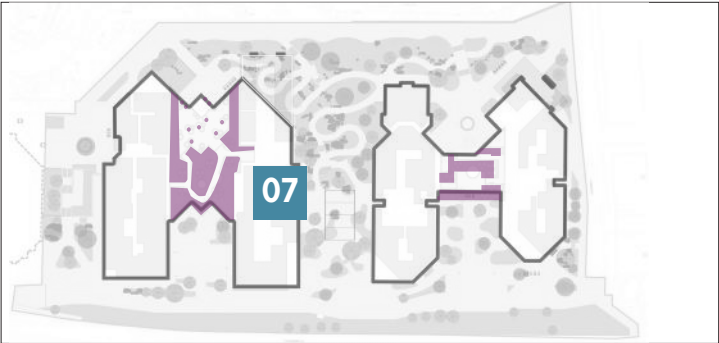
Serratula tinctoria var. seoanei



Helichrysum italicum



Hylotelephium telephium (Atropurpureum Group)



Podium gardens

Using pink blossom species,  
mixing plants for shade and  
sun

XX

- Indicative plant list:
- Viburnum plicatum 'Pink Beauty'
  - Sedum spectabile
  - Daphne 'Pink Fragrance'
  - Jasminum nodifolium
  - Saxifragia urbium
  - Achillea millefolium 'Milk rock rose'
  - Pittosporum tenuifolium cratus
  - Astrantia major Ruby Wedding
  - Thymus serpyllus
  - Rosmarinus officinalis
  - Viola labradorica purpurea



Viburnum plicatum 'Pink Beauty'



Sedum spectabile



Daphne 'Pink Fragrance'



Jasminum nodifolium



Saxifragia urbium



Achillea  
millefolium 'Milk  
rock rose'



Pittosporum tenuifolium cratus



Astrantia major  
Ruby Wedding



Thymus serpyllus



Rosmarinus officinalis



Viola labradorica  
purpurea

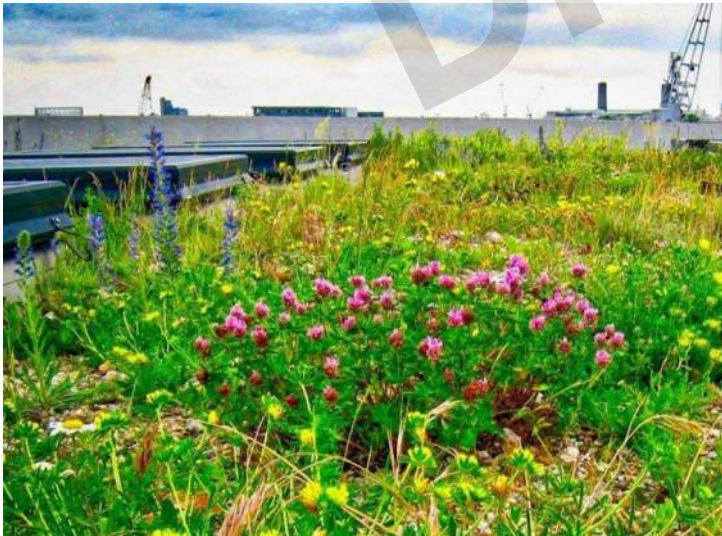
Biodiverse green roof

To attract native wildlife

XX

Indicative plant list:

- Anthemis tinctoria
- Achillea millefolium
- Campanula rotundifolia
- Daucus carota
- Echinacea purpurea
- Pilosella aurantiaca
- Alyssum saxatile
- Linum perene
- Origanum vulgare
- Sedum reflexum
- Sedum acre



Anthemis tinctoria



Achillea millefolium



Campanula rotundifolia



Daucus carota



Echinacea purpurea



Pilosella aurantiaca



Alyssum saxatile



Linum perene



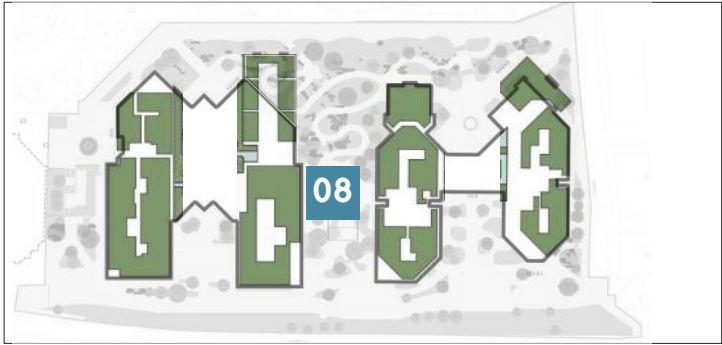
Origanum vulgare



Sedum reflexum



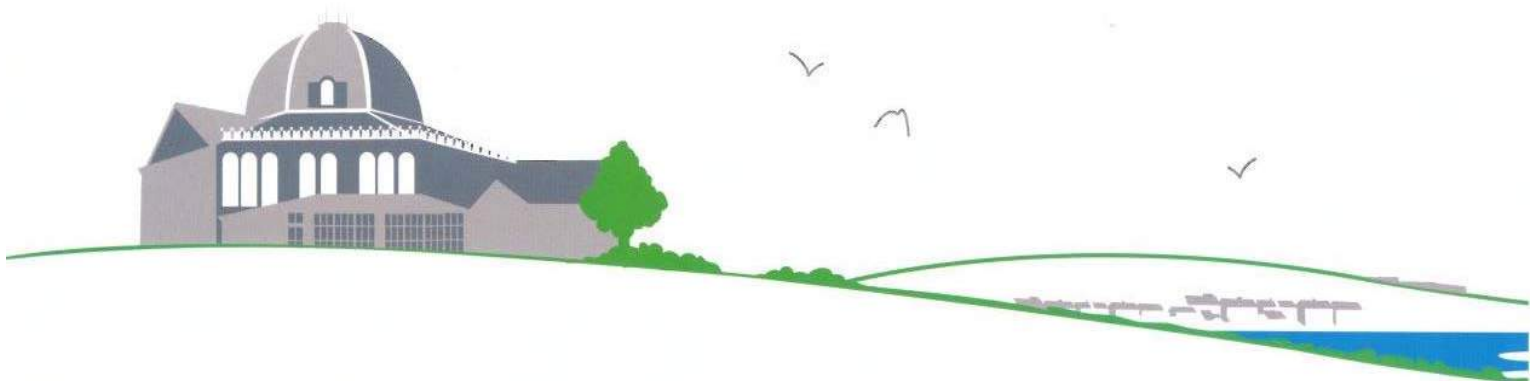
Sedum acre



## **Appendix E Mayfield, Manchester Ecological Assessment (Penny Anderson Associates)**



BUROHAPPOLD ENGINEERING  
MAYFIELD, MANCHESTER  
ECOLOGICAL ASSESSMENT



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# **BUROHAPPOLD ENGINEERING**

## **MAYFIELD, MANCHESTER**

### **ECOLOGICAL ASSESSMENT**

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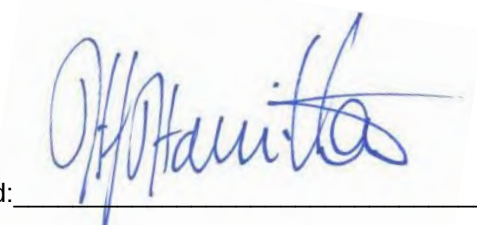
Penny Anderson Associates Limited  
'Park Lea'  
60 Park Road  
Buxton  
Derbyshire  
SK17 6SN

Project Manager  
Gerard Hawley BA (Hons), MSc, DipPSE (Dist), MCIEEM

Authors  
Gerard Hawley  
Helen Hamilton BSc (Hons), MSc, MCIEEM, CEnv

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

Signed: 

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- 1 Relevant Protected Species Summary Legislation
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# 1. INTRODUCTION

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## Background

- 1.1 Penny Anderson Associates Ltd (PAA) was commissioned by BuroHappold Engineering to carry out an ecological assessment of a site in central Manchester at and immediately around the former Mayfield Station complex (hereafter referred to as the 'site').
- 1.2 The site is proposed for re-development, including demolition of the majority of existing structures on the site, refurbishment of some of the older remedial works, and modification of the retaining walls along the River Medlock.
- 1.3 This report details the results of a desk study and site survey in February 2019. This was carried out to update an earlier survey in November 2016 (results reported in PAA 2017a) and determine if any significant habitat changes have occurred that would change the assessment of the ecological value of habitats.

## Site Description

- 1.4 The site boundary includes an area approximately 9.1ha, comprising a series of buildings that are predominantly commercial or light industrial units and associated areas of hard and soft landscaping.
- 1.5 The site is surrounded on all sides by dense urban development, with tall buildings and busy roads. Manchester Piccadilly rail station is immediately to the north, and the River Medlock flows east to west through the centre of the site.

## Legislative Context

- 1.6 The text below provides a brief summary of the legislation in relation to the species or species group in England and Wales. The original Acts, Regulations and any amendments should be referred to for the precise wording.
- 1.7 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; further details can be obtained from the Joint Nature Conservation Committee (JNCC) web site at [www.jncc.defra.gov.uk](http://www.jncc.defra.gov.uk).
- 1.8 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).
- 1.9 At the national level, the UK Post-2010 Biodiversity Framework published in 2012 is the Government's response to the Convention on Biological Diversity (2010). It describes the UK's biological resources, commits a detailed plan for the protection of these resources within the UK's devolved framework across England, Wales, Scotland and Northern Ireland. The document identifies future priorities for nature conservation and adopts a more strategic approach, including ecosystem services and sustainability alongside biodiversity. Despite

administrative changes following devolution, there is still an underlying objective of protecting and enhancing a range of priority species and habitats, often still based on the objectives and classifications of the original UK Biodiversity Action Plan. Biodiversity 2020 is England's national biodiversity strategy. Building on the Natural Environment White Paper published in 2011, this provides a means of delivering the international and EU commitments to biodiversity. Under Biodiversity 2020, Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006.

1.10 Finally, the National Planning Policy Framework (NPPF), updated 2019, 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. Furthermore, the NPPF also states that any planning proposals for which significant negative impacts on biodiversity cannot be avoided, mitigated or compensated for should be refused. 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.

1.11 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.

## Invasive Species

1.12 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.

1.13 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.

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

## ***Protected Species***

- 1.15 Details of the protected species legislation relevant to this report can be found in Appendix 1.

## 2. METHODS

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### Desk Study

- 2.1 The desk study consisted of a consultation exercise to gather local and site-specific ecological information, the data from which, along with survey results, was used to assess the potential likely effect of the proposed development on habitats and protected species at the site and the surrounding areas.
- 2.2 A request for records of protected and notable species and wildlife sites within 2km of the centre of the site was made to Greater Manchester Ecology Unit (GMEU) in February 2019.
- 2.3 It is important to note that the desk study results provide an indication of the species present in and around the site, but do not confirm current presence or absence of any particular species. Protected species are often under-recorded in county wildlife databases.

### Phase 1 Habitat Survey

- 2.4 The update habitat survey was undertaken by Principal Ecologist Helen Hamilton (MCIEEM)<sup>1</sup> and Principal Scientist Gerard Hawley (MCIEEM) on 14<sup>th</sup> February 2019.
- 2.5 This survey reviewed the findings of the earlier Phase 1 habitat survey completed in 2016, which followed standard methods as set out in the *Handbook for Phase 1 Habitat Survey* (JNCC 2010) for classifying and mapping British habitats based on the identification of individual plant species. The plant species recorded in 2016 within the site and their relative abundances at that time are listed in Appendix 2, which shows both common and scientific names according to Stace (2010); common names only are referred to in the text.

### Protected Species Assessment

- 2.6 The survey included an update assessment for the presence or potential presence of protected species, noting any areas of suitable habitat, along with the location and type of any incidental field signs of protected species.

### Limitations

- 2.7 The habitat survey was undertaken in February, which is outside of the recommended Phase 1 habitat survey period of March to October. Some plant species and habitats are less readily identifiable in the winter period. Furthermore, as stated earlier, some areas had been cleared and less vegetation remained to be identified. However, the nature of the habitats was such that sufficient data were collected and the results of this update survey are considered tenable.

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<sup>1</sup> Full member of the Chartered Institute of Ecology and Environmental Management.

### 3. RESULTS

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#### Desk Study

- 3.1 Desk study data for designated sites, habitats and species are described in further detail under the sub-headings below, with maps to illustrate locations of various features provided in Appendix 3.

#### **Statutory Protected Sites**

##### **Special Area of Conservation**

- 3.2 Special Areas of Conservation (SACs) are protected sites with strict conservation protection, designated under Article 3 of the European Commission Habitats Directive.
- 3.3 There are no SACs in the 2km search area for the site. However, certain stretches of the Rochdale Canal, which is approximately 500m to the north of the site, have been designated a SAC and Site of Special Scientific Interest (SSSI) because they support the European Protected Species floating water plantain (*Luronium natans*)<sup>2</sup>. The canal also has a population of white-clawed crayfish (*Austropotamobius pallipes*), which has some legal protection and American pondweed (*Potamogeton epihydrus*), which is a red data book species<sup>3</sup>. Furthermore, sections of the Ashton Canal to the north of the site have floating water plantain and the nationally scarce grasswrack pondweed (*Potamogeton compressus*), both of which are UK Biodiversity Priority Species (detailed in Map 2 of the desk study data, but not attached in Appendix 3 as it is not for release into the public domain).

##### **Sites of Special Scientific Interest**

- 3.4 Sites of Special Scientific Interest are statutory sites designated to support species of plants and animals that find it more difficult to survive in the wider environment. They 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).
- 3.5 There are no SSSI in the search zone for the site, although please note paragraph 3.3 above.

#### **Non-Statutory Protected Sites**

##### **Site of Biological Interest**

- 3.6 A Site of Biological Interest (SBI) has no legal protection, but does receive some protection through different policies and must be taken into consideration by the planning authority when planning applications affect the site. SBIs are assigned one of three grades:
- Grade A SBIs are of county or regional importance (assumes a presumption against development);

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<sup>2</sup> Floating water-plantain is protected under Schedule 8 of the WCA 1981. It is also protected under the European Communities Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora - the Habitats Directive and is a S41 priority species..

<sup>3</sup> The IUCN Red List of Threatened Species (also known as the IUCN Red List or Red Data List) is an inventory of the global conservation status of biological species.

- Grade B SBIs are those of district importance; and
- Grade C SBIs are those of local importance.

3.7 Rochdale Canal, Stott's Lane - Ducie Street Basin and Ashton Canal approximately 500m to the north are both Grade A SBIs. As stated earlier, the Rochdale Canal supports regionally important aquatic habitat and species, including internationally important populations of floating water plantain, and the Ashton Canal is recognised as important for its submerged aquatic flora including glass-wrack pondweed (refer to Appendix 3, Map 1).

### Regionally Important Geological and Geomorphological Sites (RIGS)

- 3.8 Regionally Important Geological and Geomorphological Sites (RIGS) are locally designated sites of local, regional and national importance for geodiversity and protect important Earth Science and landscape features. They are conserved and protected from development as a material consideration through the planning system.
- 3.9 There are no RIGS within the search zone for the site.

### Protected and Notable Species

#### Badgers (*Meles meles*)

- 3.10 There are records of unspecified badger signs within the 2km search area and a sett. The closest records were approximately 850m from the perimeter of the site. Please note that information relating to badgers and their setts is confidential and the map provided by GMEU showing the location of the signs and sett is not included in Appendix 3 for this reason.

#### Bats

- 3.11 Table 1 shows the number of each species of bat recorded in the search zone and the proximity to the site of the closest roost for each. The most recorded species in the area are common pipistrelle (*Pipistrellus pipistrellus*) and unspecified pipistrelle species (*Pipistrellus* sp.), and a pipistrelle roost is the closest roost to the site (refer to Appendix 3, Maps 4a and 4b).

**Table 1 Bat Records Provided by GMEU**

| Species             |                                  | No. Roosts | Closest Record of Roost (m) | No. other Signs | Closest Record of Sign (m) |
|---------------------|----------------------------------|------------|-----------------------------|-----------------|----------------------------|
| Common Name         | Latin Name                       |            |                             |                 |                            |
| Common pipistrelle  | <i>Pipistrellus pipistrellus</i> | 20         | 650                         | 28              | 290                        |
| Daubenton's bat     | <i>Myotis daubentonii</i>        | 1          | 1950                        | 1               | 1500                       |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i>     | 2          | 370                         | 2               | 1100                       |
| Pipistrelle species | <i>Pipistrellus</i> sp.          | 20         | On site                     | 79              | 10                         |
| Bat species         | <i>Chiroptera</i> sp.            | 0          | n/a                         | 6               | 80                         |

- 3.12 The majority of the records returned are for pipistrelle species. There are two native species - common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*). The common pipistrelle is one of the UK's most common bat species, found in a wide range of habitats including suburban and urban habitats. Soprano pipistrelle is also widely distributed across the UK. One of the soprano pipistrelle records is close to the Rochdale Canal and one is close to the River Irwell, which is consistent with its preferred feeding habitat by water and on the invertebrates it attracts. Where the distinction between the two species has not been made, they are recorded as pipistrelle species. Daubenton's bat (*Myotis daubentonii*) characteristically flies and

forages over water, and the record for a roost and a sign are close to the River Irwell to the north of the site.

- 3.13 There are records for pipistrelle roosts within the site, in the old station (grid reference SJ 8503 9768) and immediately to the west and north-west of the site.

## Section 41 Species

- 3.14 Some of the rarest and most threatened species are listed under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act as Species of Principal Importance. The Government's Biodiversity 2020 strategy has an ambition to ensure that by 2020 there will be an overall improvement in the status of wildlife and no further extinctions of known threatened species. To achieve this, a range of actions have been identified to help in the recovery of S41 species.

### West European Hedgehog (*Erinaceus europaeus*)

- 3.15 West European hedgehog is classed as a Species of Principal Importance under Section 41 of the NERC Act 2006. Surveys in urban and rural areas indicate falling numbers of hedgehog.
- 3.16 There are five records for hedgehog in the search area, the closest being approximately 550m to the south-west of the site, close to the Mancunian Way (refer to Appendix 3 Map 5).

### Birds

- 3.17 The majority of S41 species returned are for birds. These are listed in Table 2, along with their conservation status, and the distribution is illustrated on Map 5 in Appendix 3.

**Table 2 Bird Species of Principal Importance Records from GMEU**

| Common Name          | Scientific Name               | Number Recorded | Amber | Red | Sch 1 |
|----------------------|-------------------------------|-----------------|-------|-----|-------|
| Black redstart       | <i>Phoenicurus ochruros</i>   | 24              |       | x   | x     |
| Bullfinch            | <i>Pyrrhula pyrrhula</i>      | 6               | x     |     |       |
| Common starling      | <i>Sturnus vulgaris</i>       | 11              |       | x   |       |
| Dunnock              | <i>Prunella modularis</i>     | 29              | x     |     |       |
| Herring gull         | <i>Larus canus</i>            | 1               |       | x   |       |
| House sparrow        | <i>Passer domesticus</i>      | 15              |       | x   |       |
| Kingfisher           | <i>Alcedo atthis</i>          | 14              | x     |     | x     |
| Lapwing              | <i>Vanellus vanellus</i>      | 6               |       | x   |       |
| Lesser redpoll       | <i>Carduelis cabaret</i>      | 2               |       | x   |       |
| Linnet               | <i>Carduelis cannabina</i>    | 2               |       | x   |       |
| Little ringed plover | <i>Charadrius dubius</i>      | 6               |       |     | x     |
| Peregrine falcon     | <i>Falco peregrinus</i>       | 12              |       |     | x     |
| Song thrush          | <i>Turdus philomelos</i>      | 12              |       | x   |       |
| Spotted flycatcher   | <i>Muscicapa striata</i>      | 1               |       | x   |       |
| Twite                | <i>Carduelis flavirostris</i> | 1               |       | x   |       |
| Yellow wagtail       | <i>Motacilla flava</i>        | 1               |       | x   |       |

- 3.18 Please note that the number of records does not necessarily indicate the population size. Rarer species tend to attract the attention of recorders and some of the more common species may not be included in counts.
- 3.19 The Red and Amber conservation status assessment (Eaton *et al.* 2015) is based on a number of criteria: historical decline, trends in population and range, rarity, localised distribution and international importance. Nevertheless, some species remain relatively common, such as the common starling<sup>4</sup>, dunnock and house sparrow. Species are Red listed because of a 50% decline in their population.
- 3.20 Schedule 1 species are protected under the WCA 1981 as amended by the Environmental Protection Act 1990. It is an offence to intentionally disturb any of these species during the breeding season without a valid licence. The Schedule 1 species recorded include black redstart, kingfisher, little ringed plover and peregrine falcon. Please note the location of records for these species is provided, but records are not to be placed within the public domain.
- 3.21 A section of the site falls within the Black Redstart Priority Area. This identifies an area in central Manchester where the black redstart has been recorded. This species is a rare breeder, passage migrant and winter visitor with a small population concentrated in London and the West Midlands. There are also records of black redstarts attempting to breed in the Piccadilly Basin area of Greater Manchester. A Species Action Plan (Greater Manchester Biodiversity Project 2009) aims to maintain a breeding population in Greater Manchester.
- 3.22 There are 14 records of kingfisher in the search area. Kingfisher is found by still and slow-flowing water, such as canals and rivers, and they nest in holes tunnelled into earth banks.
- 3.23 The peregrine falcon faced extinction in the UK in the 1960s largely as a result of pesticides. However, they have made a rapid comeback and many now nest on high buildings in city centres. There are 12 records for peregrine falcon within the search area.
- 3.24 There are six records for little ringed plover. Little ringed plover first bred in the UK in 1938. They are summer visitors and breed in un-vegetated man-made habitats such as industrial and post-industrial land, gravel pits and shingle river banks.

### **Invertebrates**

- 3.25 Eight unspecified moth species are recorded.

### **Other Protected Species**

- 3.26 No records were returned for other protected species e.g. otter (*Lutra lutra*), reptiles or amphibians.

## **Phase 1 Habitat Update Survey**

### **Main Habitat Types Present**

- 3.27 The site chiefly comprises the following habitats, as shown on the Extended Phase 1 habitat map 2019 (Figure 1). There have been no significant changes in habitat, which can be categorised as the following:
- built structures and hardstanding;

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<sup>4</sup> Please see Appendix 3 and Table 2 for scientific names of species – common names are used in the text.

- spoil;
- ephemeral short perennial vegetation;
- scattered broadleaved trees;
- tall ruderal
- scattered scrub;
- semi-improved neutral grassland;
- introduced shrub;
- amenity grassland;
- broadleaved semi-natural woodland; and
- running water (River Medlock).

3.28 A selection of illustrative photographs of the site is presented in Appendix 4.

3.29 The site is broadly separated into three main areas. The northern boundary is occupied by a former railway station building, platform and associated track bed. This area is at a raised level compared to the rest of the site. Immediately to the south of the former railway station complex is an area known as Colourgates Yard, which is at street level. The remainder of the site is a complex of buildings, mainly warehouses.

### ***Built Structures and Hardstanding***

3.30 A large proportion of the site is flat hardstanding. In the northern section, this reflects the site's former use as a railway station. Throughout the remainder of the site there are roads, pavements and car parks (Plate 1).

3.31 The site has a number of built structures of varying ages and styles. For ease of reference, these have been numbered B1, B2, B3 etc. as illustrated on Figure 1: Phase 1 Habitat Plan 2019. At the time of the update survey 2019 buildings B7a and B7b were being demolished. A new building B27 now stands in an area of what was semi-improved neutral grassland at the east of the site. This is now surrounded by hardstanding with small areas partially covered in wood chippings (Plates 2 and 3).

### ***Spoil***

3.32 Towards the south-eastern corner of the site is an aggregate recycling yard, which is in constant use, and consequently no vegetation is present on the spoil mounds.

### ***Ephemeral Short Perennial Vegetation***

3.33 Throughout the site, small patches of ephemeral short perennial vegetation have developed within gaps and crevices in the hardstanding. The vegetation is most extensive where surfaces have fallen into disrepair.

3.34 The vegetation is not dominated by any particular species, instead comprising a mixture of mostly low-growing species such as willowherb, mugwort and Michaelmas-daisy. The vegetation consists entirely of widespread and common species that are typically found in urban and wasteland habitats (Plate 4).

### ***Scattered Broadleaved Trees***

- 3.35 A number of scattered broadleaved trees were present in 2016, ranging from immature to mature and comprising a variety of species including ash, sycamore and willow. These are mostly self-seeded. Mature trees also occur along the south-eastern boundary with the Mancunian Way, where they remain today as a row of planted poplars. They are approximately 15m in height and appear to be in good condition. Another area of planted trees occurs at the far western end of the site, associated with a small amenity area.
- 3.36 The River Medlock runs through the centre of the site and the edges of the river corridor were lined with a range of tree species, including ash, sycamore and elder. However, at the time of the 2019 survey these trees had been felled (Plate 5).

### ***Tall Ruderal Vegetation***

- 3.37 In 2016, scattered mainly throughout the southern section of the site, were areas of tall ruderal vegetation that had developed in areas not in use or not managed for some time. In 2019, some of these areas were found to have been cleared recently (Plate 6).
- 3.38 Tall ruderal vegetation remains within Colourgates Yard, immediately south of the former railway station complex (Plates 7a and 7b). The vegetation is not dominated by any particular species and includes common nettle, creeping thistle and rosebay willowherb. The vegetation composition is not species-rich and consists of common and widespread species.
- 3.39 Some areas of tall ruderal vegetation, especially along the River Medlock corridor, were found to have been cleared in winter 2019, in preparation for the forthcoming site clearance and building demolition.

### ***Scattered Scrub***

- 3.40 There are small patches of scattered scrub throughout the site, associated with areas of tall ruderal vegetation. Bramble is a common ground flora component of these patches.

### ***Semi-improved Neutral Grassland***

- 3.41 Within the northern section of the site small patches of semi-improved neutral grassland are present, mainly located on the ballast between the old station platforms where the railway lines ran. The most dominant grass is creeping bent, with Yorkshire fog locally abundant and cock's-foot locally occasional. There were a variety of forbs present, including dandelion, creeping buttercup, colt's-foot and evening primrose, some of which suggest that the grassland was a succession habitat from ephemeral short perennial vegetation. The grassland is not species-rich. More recently there has been an increase in scrub with colonisation by butterfly bush and birch (Plate 8). In 2016, southern marsh orchids were recorded in this habitat on the former Mayfield station.

### ***Introduced Shrub***

- 3.42 Throughout the site butterfly-bush occurs frequently. It has established within gaps in the hardstanding surface, resulting in a scattered occurrence across the entire site, including the former railway platform. It is also present within gaps in the mortar of walls and buildings. It frequently occurs within other semi-natural habitat types, including the edges of the river corridor.
- 3.43 There are a small number of amenity planting areas, associated with the buildings in the southern section of the site, dominated by non-native shrubs comprising cherry laurel and Oregon-grape.

### **Amenity Grassland**

- 3.44 There are a small number of blocks of amenity grassland within the southern and north-western parts of the site. These formal landscaping areas are associated with roadside areas, and are generally managed by mowing. The species composition is poor and typical of sown grasslands, with perennial rye-grass abundant and few forbs present.

### **Semi-Natural Broadleaved Woodland**

- 3.45 Within the former railway station complex, the southern edge of the platform supports self-colonised young birch woodland. The trees are of a similar age and height. There is very little understorey, with some bramble present (Plate 9).
- 3.46 Areas of habitat containing trees along the River Medlock were found to have been cleared in winter 2019, in preparation for the forthcoming site clearance and building demolition.

### **Running Water**

- 3.47 The River Medlock runs through the centre of the site. A detailed fluvial audit and Phase 1 habitat survey was carried out in 2017 (PAA 2017b) and the 2019 survey found little had changed. It is incised, heavily engineered and contained by high vertical brick and stone sides. The riparian corridor vegetation is dominated by the invasive non-native species Japanese knotweed and Himalayan balsam. There is no in-channel aquatic vegetation (Plate 10).

### **Invasive Non-native Species**

- 3.48 Four species listed on Schedule 9 are present within the site: Japanese knotweed, Himalayan balsam, wall cotoneaster and Himalayan cotoneaster.
- 3.49 Japanese knotweed is present on the silt banks of the River Medlock in a number of locations. The extent has been mapped as part of the river corridor survey (PAA 2017) (Plate 11). Japanese knotweed was not found to be present in any area of the site outside of the river channel.
- 3.50 Himalayan balsam was observed in a variety of locations within Colourgates Yard, including the top of the river corridor. There was also an individual plant growing within a gap in the hardstanding at the north-western corner of B3. Himalayan balsam has colonised bank sections along the river channel.
- 3.51 Three individual plants of wall cotoneaster are located towards the southern edge of the former railway platform. Two further cotoneaster plants are located in two separate locations within the southern section of the site. The exact species could not be confirmed as there are many similar species of cotoneaster, and both flowers and fruits are required for positive identification. However, the species within the hedgerow is likely to be Himalayan cotoneaster, which is a Schedule 9 species.

### **Protected Species Assessment**

- 3.52 The potential of habitats on site to support protected or notable species are set out below.

### **Birds**

- 3.53 The site visit was carried out at a time of year when bird activity is generally low and summer visitors are absent. A small number of birds were recorded including feral pigeon (*Columba livia*), blue tit (*Cyanistes caeruleus*), common starling (Greater Manchester Biodiversity Project, 2008), European robin (*Erithacus rubecula*) and carrion crow (*Corvus corone*)

- 3.54 A black redstart and breeding bird survey was carried out in 2017 (PAA 2017c) and a total of 11 bird species were confirmed as breeding across the site. This did not include black redstart. The species recorded are listed in Table 3.

**Table 3 Birds Confirmed as Breeding 2017**

| Common Name      | Scientific Name                |
|------------------|--------------------------------|
| Blackcap         | <i>Sylvia atricapilla</i>      |
| Chaffinch        | <i>Fringilla coelebs</i>       |
| Common blackbird | <i>Turdus merula</i>           |
| Common bullfinch | <i>Pyrrhula pyrrhula</i>       |
| Dunnock          | <i>Prunella modularis</i>      |
| European robin   | <i>Erithacus rubecula</i>      |
| Feral pigeon     | <i>Columba livia domestica</i> |
| Great tit        | <i>Parus major</i>             |
| White wagtail    | <i>Motacilla alba</i>          |
| Willow warbler   | <i>Phylloscopus trochilus</i>  |
| Winter wren      | <i>Troglodytes troglodytes</i> |

- 3.55 Since 2017 the site has been cleared of mature trees, areas of scrub and tall ruderal vegetation. This will likely have the effect of significantly reducing foraging habitat and the number of potential breeding sites and there is an expectation that fewer species will breed this year.
- 3.56 The site partially falls within the Black Redstart Priority Area (Greater Manchester Biodiversity Project, 2008) where this species has been recorded and is known to breed. No evidence of presence and breeding was recorded in 2017.
- 3.57 Manchester Birding Forum (2019) has recorded black redstart singing, feeding and showing in other areas of the city centre indicating breeding. However, sightings have been concentrated around the Town Hall and Deansgate that lie to the west of the site.

## **Bats**

- 3.58 A comprehensive range of bat surveys has been completed at the site, and non-breeding summer common pipistrelle roosts have been confirmed in B1, B2, and culvert B24. The details of survey methods and results are presented in a number of reports, including PAA 2017 and PAA 2019.

## **Other Protected Species**

- 3.59 No signs of badger were observed during the survey, and habitats were poor for this species.
- 3.60 No signs of water vole (*Arvicola amphibius*) or otter were found using the River Medlock. This is consistent with the findings of earlier surveys. The water quality and known incidents of very high flow conditions make the habitat unsuitable for water vole.
- 3.61 The water quality and known incidents of very high flow conditions also make the habitat unsuitable for white-clawed crayfish and there are no records of its presence.

- 3.62 Brownfield sites in urban areas can sometimes provide suitable habitat for reptiles. The semi-natural habitats surrounding the former railway station complex, including Colourgates Yard immediately to the south, ostensibly provide some habitats suitable for reptiles for foraging and also potential refuge and hibernacula features. However, given the isolation by urban development, it is considered highly unlikely that reptiles are present within the site.
- 3.63 There are no records of great crested newt (GCN) within 2km of the site. There are no suitable breeding ponds within or near to the site, which is isolated by urban development and the river that present a significant barrier to GCN dispersal. It is therefore considered highly unlikely that the site supports GCN.

## 4. EVALUATION

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- 4.1 A primary aim of the survey was to determine if there had been significant changes in habitats and their biodiversity value. The general conclusion is that the habitats are fundamentally the same, but with the start of enabling works there has been a moderate decrease in value. However, this situation is common to re-development and with good landscaping design there is a potential for overall longer-term biodiversity gain.

### Designated Sites

- 4.2 The desk study identified a number of protected sites within the search area, which had not changed from 2016. These are considered to be sufficiently distant and isolated from the site not to be impacted by the development proposals.

### Habitats and Botanical Interest

- 4.3 The original Phase 1 habitat survey highlighted no areas of habitat of nature conservation interest on site and this remains the case. The site does not support species-rich habitats.
- 4.4 Earlier surveys of the site in 2009 (BuroHappold 2009), 2010 (BuroHappold 2010) and recorded in 2016 (PAA 2017a) identified a colony of southern marsh orchid (*Dactylorhiza praetermissa*) growing on ballast substrate between the old platforms. It is likely that they are still present but would not be identifiable in the winter months. The birch and scrub encroachment may reduce the habitat suitability and although orchids are prized for their appearance they are not afforded special protection.

### Protected Species

#### **Birds**

- 4.5 The semi-natural habitats and some of the buildings provide suitable foraging and nesting habitat for a range of bird species. However, with the start of enabling works and vegetation clearance the habitat value has decreased and is less likely to support the number and range of bird species as before.

#### **Otter and Water Vole**

- 4.6 Although there is some (albeit limited) shelter for otter, the poor water quality, lack of fish and noisy urban context means the river and riparian corridor provide very poor habitat for otter to become resident. Similarly, pollution, water flow ranges and unsuitable boundary materials for burrowing make the habitat for water vole extremely poor.

#### **Bats**

- 4.7 Summer non-breeding roosts have been identified and building demolition or refurbishment could result in disturbance or loss of the roost(s), as well as presenting a risk of causing harm to individual bats, all of which would be an offence under current wildlife legislation. Works that have the potential to impact on bats is being licensed and mitigation to provide alternative roosts provided. Day-lighting of culverts is proposed as part of the re-development and careful landscaping design, the appropriate selection of native plant species and naturalisation of the river corridor have the potential to improve the overall habitat quality for bats and other wildlife. Sensitive lighting design to avoid over-illumination of the site and particularly the river corridor should create in the longer-term an improved environment for bats.

### ***Other Protected/Notable Species***

- 4.8 Due to a lack of suitable habitat and/or isolation from other potential habitats, no other protected species are anticipated to be affected by the proposals.

## 5. RECOMMENDATIONS

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### **Birds**

- 5.1 Where possible, site clearance should continue to be undertaken during the period October to February inclusive to avoid the bird nesting season. Prior to any clearance of potential nesting habitat at other times of the year, a check for nests should be made by a suitably experienced ecologist no more than 48hrs in advance of clearance. Any active nests will need to be left *in situ* and undisturbed until the young have fledged, which may be a period of several weeks.

### **Protected Species and Habitats**

- 5.2 Additional surveys or special measures for protected species are not considered necessary.

### **Invasive Non-native Species**

- 5.3 It is recommended that a programme is introduced for the safe removal and disposal of Japanese knotweed, Himalayan balsam and cotoneaster as they are invasive Schedule 9 species. Similarly, if any other invasive, non-native species colonise the site, appropriate control and eradication measures to prevent spread of the species would need to be implemented.

## 6. REFERENCES AND ABBREVIATIONS

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## 7. ABBREVIATIONS

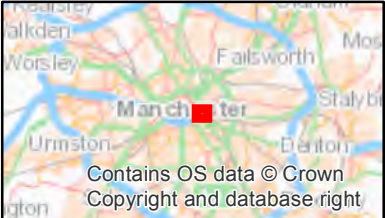
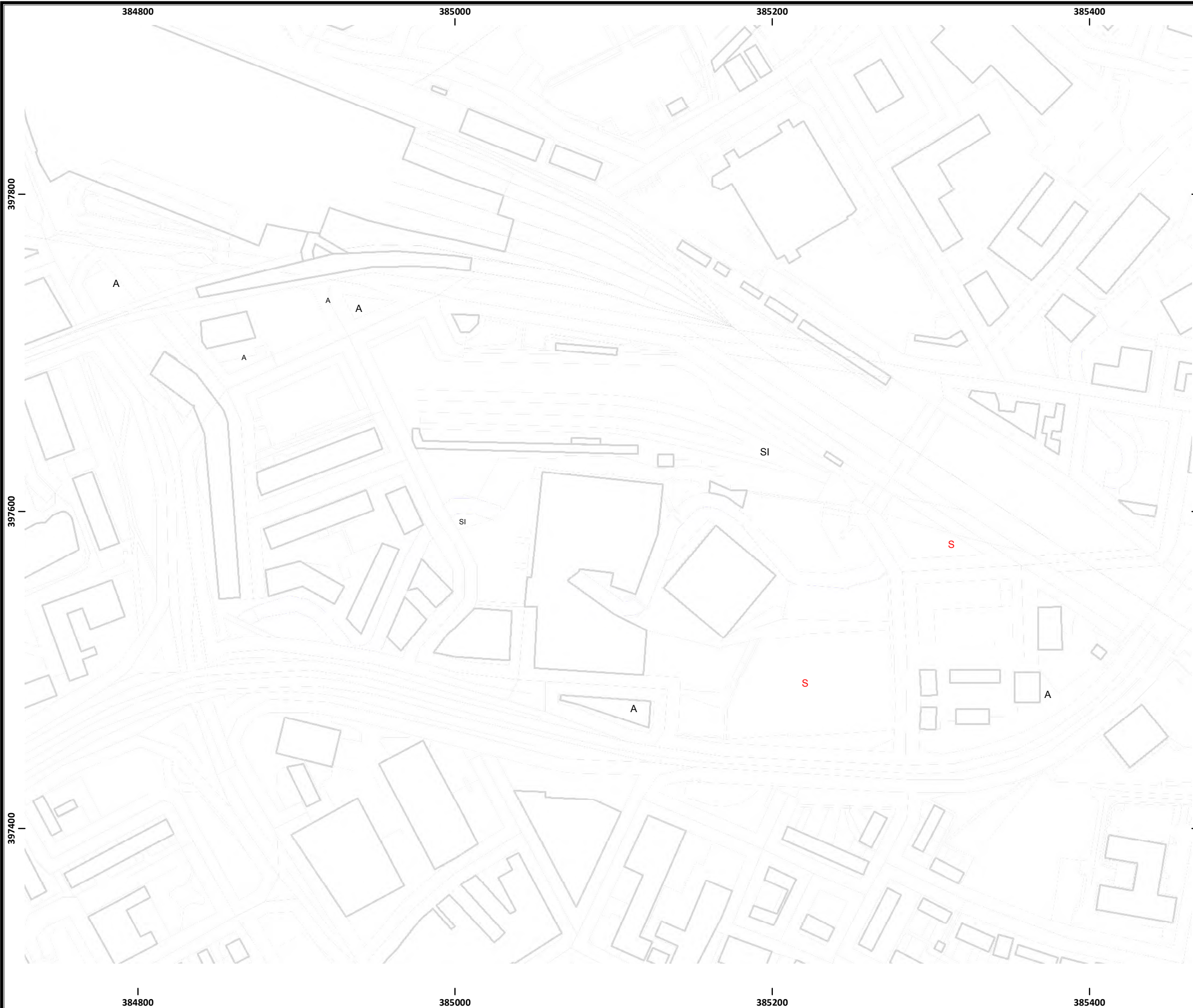
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|      |                                                        |
|------|--------------------------------------------------------|
| BAP  | Biodiversity Action Plan                               |
| CRoW | Countryside and Rights of Way                          |
| GMEU | Greater Manchester Ecology Unit                        |
| EU   | European Union                                         |
| JNCC | Joint Nature Conservation Committee                    |
| NERC | Natural Environment and Rural Communities              |
| NPPF | National Planning Policy Framework                     |
| PAA  | Penny Anderson Associates Ltd                          |
| RIGS | Regionally Important Geological and Geographical Sites |
| SAC  | Special Area of Conservation                           |
| SBI  | Site of Biological Importance                          |
| SSSI | Site of Special Scientific Interest                    |
| WCA  | Wildlife and Countryside Act                           |

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FIGURE

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**Legend**

Site boundary

**Habitat**

Broadleaved woodland - semi-natural

Broadleaved woodland - recently cleared

Scattered scrub

Neutral grassland - semi-improved

Tall ruderal

Tall ruderal - recently cleared

Running water

Spoil

Amenity grassland

Ephemeral/short perennial

Introduced shrub

Building

Hardstanding

Culvert

Building below other features

Fenceline

Wall

Broadleaved scattered trees

Ephemeral/short perennial - scattered

Introduced shrub - scattered

British National Grid  
Projection: Transverse Mercator  
False Easting: 400000.000000  
False Northing: 100000.000000  
Central Meridian: -2.000000  
Scale Factor: 0.999601  
Latitude Of Origin: 49.000000

ISO A3



Penny Anderson Associates Ltd,  
Parklea, 60 Park Road,  
Buxton, Derbyshire, SK17 6SN.  
Telephone 01298 27086

Penny Anderson Associates Ltd  
CONSULTANT ECOLOGISTS

Title:

**PHASE 1  
HABITAT MAP  
2019**

|              |  |                                     |                              |          |          |
|--------------|--|-------------------------------------|------------------------------|----------|----------|
| Project Name |  |                                     | Mayfield Station, Manchester |          |          |
| Discipline   |  |                                     | Ecology                      |          |          |
| Scale        |  | 1:2,250                             | Drawing No.                  |          | Figure 1 |
| Drawn By     |  | MDM                                 | Originator                   | GJH      | Date     |
| PAA Ref.     |  | G:\BUHA01_1_Mayfield_Picadilly\Maps |                              | Revision | A        |

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# APPENDICES

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# APPENDIX 1

## **Relevant Protected Species Summary Legislation**

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## SUMMARY OF THE LEGISLATION RELATING TO BATS

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All wild species of bat are protected under the Wildlife and Countryside Act (WCA) 1981, which has also been amended by later legislation, including the Countryside and Rights of Way (CROW) Act 2000 and the Conservation of Habitats and Species Regulations 2017, and this legislation is applicable to England and Wales. Bats are listed on Schedule 5 of the WCA and are therefore subject to some the provisions of Section 9 which, with the amendments, make it an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection (S9:4b).
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat (S9:4c).

There are additional offences in relation to buying and selling (S9:5) any live or dead animal of this species or anything derived from them.

Bat species are also listed under Annexes IIa and IVa of the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the 'Habitats Directive'. Inclusion on Annex IVa means they are consequently identified as European Protected Species (EPS) and protected under the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 state that a person commits an offence if they:

- (a) deliberately capture, injure or kill any wild animal of a European protected species,
- (b) deliberately disturb wild animals of any such species, in such a way as –
  - (i) to impair their ability to survive, to breed or reproduce, or to rear their young, or
  - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or
  - (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- (c) deliberately take or destroy the eggs of such an animal, or
- (d) damage or destroy a breeding site or resting place of such an animal.

Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether the animal is in occupation or not, and protection extends to all life stages of the animal in question. There are additional offences relating to possession, control and sale of a live or dead bat or part of such an animal.

In addition, seven native British bat species, including the soprano pipistrelle (*Pipistrellus pygmaeus*) and the brown long-eared bat (*Plecotus auritus*), that are frequently found in buildings, are listed as a 'Priority Species' under the 2011 biodiversity strategy for England, *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, under the 2012 UK Post-2010 UK Biodiversity Framework. These Priority Species are also referred to as 'species of principal importance' for the conservation of biodiversity in England and Wales within Section 74 of the CROW Act 2000, and Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006.

Section 15 of the National Planning Policy Framework (NPPF 2018) states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. The NPPF also includes the requirement to contribute to the Government's commitment to halt the overall decline in biodiversity and to promote the reservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets. Reference is made to Circular 06/2005 *Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System* in respect of statutory obligations for biodiversity and geodiversity conservation.

Local authorities in England are required to ensure that where significant harm resulting from development cannot be avoided (through locating on alternative sites with less harmful impacts),

adequately mitigated, or, as a last resort, compensated for, planning permission is refused. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

*Please note: the above text provides a brief summary of the legislation in relation to bats in England and Wales and the original Acts, Regulations and any amendments should be referred to for the precise wording.*

## SUMMARY OF THE LEGISLATION RELATING TO BREEDING BIRDS

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All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CROW) Act 2000. This legislation applies in England and Wales.

Part 1 (Section 1:1) of the WCA states that:

'If any person intentionally,

- (a) kills, injures or takes any wild bird;
- (b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- (c) takes or destroys an egg of any wild bird,

he shall be guilty of an offence.'

Part 1 (Section 1:5) of the WCA (amended by the CROW Act 2000) refers to specific birds listed on Schedule 1 of the WCA, and states that:

'If any person intentionally or recklessly,

- (a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- (b) disturbs dependent young of such a bird,

he shall be guilty of an offence and liable to a special penalty.'

Schedule 1 includes birds such as barn owl (*Tyto alba*), black redstart (*Phoenicurus ochruros*), wood lark (*Lullula arborea*) and Cetti's warbler (*Cettia cetti*). Please refer to the WCA for a complete list of Schedule 1 species.

Some provisions are made to allow the killing and taking of certain species under certain circumstances, as follows:

- Birds listed on Schedule 2 (Part 1) of the Act may be taken or killed outside of the 'close season' for each individual species (the 'close season' is defined by the Act). This includes various wild duck and geese species.
- Birds listed on Schedule 2 (Part 2) of the Act may be killed or taken by authorised persons at all times. This includes species such as carrion crow (*Corvus corone*), black-billed magpie (*Pica pica*), feral pigeon (*Columba livia*) and greater Canada goose (*Branta canadensis*). An 'authorised person' is defined as a person who has written authorisation to undertake the act from the relevant statutory authority. The written authority is in the form of a licence, either a general licence which covers a number of the more typical 'pest' species, or an individual licence for other individual species. In England these licences are issued by Natural England and in Wales by the Welsh Assembly Government.

*Please note: the above text provides a brief summary of the legislation in relation to breeding birds in England and Wales and the original Act and any amendments should be referred to for the precise wording.*

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## APPENDIX 2

### **Species List**

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## Appendix 2 Plant Species Recorded on the Application Site

| Common Name              | Latin Name                                            | Habitat Type with Phase 1 Codes  |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
|--------------------------|-------------------------------------------------------|----------------------------------|------------------------------------|---------------------|------------------------|----------------------------------------|-------------------------------------------------------|--------------------------|--------------------------------------------|-------------------|
|                          |                                                       | Ephemeral/Short Perennial (J1.3) | Broadleaved Scattered Trees (A3.1) | Tall Ruderal (C3.1) | Scattered Scrub (A2.2) | Semi-improved Neutral Grassland (B2.2) | Introduced Shrub - Scattered/ Amenity planting (J1.4) | Amenity Grassland (J1.2) | Broadleaved Semi-natural Woodland (A1.1.1) | Hedgerow (J2.1.2) |
| Trees and Shrubs         |                                                       |                                  |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Alder                    | <i>Alnus glutinosa</i>                                |                                  | R                                  |                     |                        |                                        |                                                       |                          |                                            |                   |
| An apple                 | <i>Malus</i> sp.                                      |                                  | R                                  |                     |                        |                                        |                                                       |                          |                                            |                   |
| Ash                      | <i>Fraxinus excelsior</i>                             |                                  | F                                  |                     |                        |                                        |                                                       |                          | O - F                                      |                   |
| Birch species            | <i>Betula</i> sp.                                     |                                  |                                    |                     |                        |                                        |                                                       |                          | LF                                         |                   |
| Broom                    | <i>Cytisus scoparius</i>                              |                                  |                                    | R                   |                        |                                        |                                                       |                          |                                            |                   |
| Butterfly bush           | <i>Buddleja davidii</i>                               |                                  |                                    |                     |                        |                                        | D                                                     |                          | R - LO                                     |                   |
| Cherry laurel            | <i>Prunus laurocerasus</i>                            |                                  |                                    |                     |                        |                                        | LO                                                    |                          |                                            | D                 |
| Cherry species           | <i>Prunus</i> sp.                                     |                                  | R                                  |                     |                        |                                        |                                                       |                          | R                                          |                   |
| Dogwood                  | <i>Cornus sanguinea</i>                               |                                  |                                    |                     |                        |                                        |                                                       |                          | LO                                         |                   |
| Elder                    | <i>Sambucus nigra</i>                                 |                                  | O - LD                             |                     |                        |                                        |                                                       |                          |                                            |                   |
| Holly                    | <i>Ilex aquifolium</i>                                |                                  |                                    |                     |                        |                                        |                                                       |                          | R                                          |                   |
| Poplar species           | <i>Populus</i> sp.                                    |                                  | LO - LF                            |                     |                        |                                        |                                                       |                          |                                            |                   |
| Silver birch             | <i>Betula pendula</i>                                 |                                  |                                    |                     |                        |                                        |                                                       |                          | A - LD                                     |                   |
| Swedish whitebeam        | <i>Sorbus intermedia</i> agg.                         |                                  | R                                  |                     |                        |                                        |                                                       |                          |                                            |                   |
| Sycamore                 | <i>Acer pseudoplatanus</i>                            |                                  | O - F                              |                     |                        |                                        |                                                       |                          | O - F                                      |                   |
| Willow sp.               | <i>Salix</i> sp.                                      |                                  | R - O                              |                     |                        |                                        |                                                       |                          | R                                          |                   |
| Herbs, Grasses and Ferns |                                                       |                                  |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Annual meadow-grass      | <i>Poa annua</i>                                      |                                  |                                    |                     |                        | R                                      |                                                       |                          |                                            |                   |
| Black medick             | <i>Medicago lupulina</i>                              |                                  |                                    |                     |                        |                                        |                                                       | LF                       |                                            |                   |
| Bracken                  | <i>Pteridium aquilinum</i>                            |                                  |                                    | LR                  |                        |                                        |                                                       |                          |                                            |                   |
| Bramble                  | <i>Rubus fruticosus</i> agg.                          | O                                |                                    | O - LF              | D                      | LO                                     | LF                                                    |                          | LD                                         |                   |
| Canadian fleabane        | <i>Conyza canadensis</i>                              | O - F                            |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Cleavers                 | <i>Galium aparine</i>                                 |                                  |                                    | LO                  |                        |                                        |                                                       |                          |                                            |                   |
| Cock's-foot              | <i>Dactylis glomerata</i>                             |                                  |                                    |                     |                        | R - LO                                 |                                                       |                          |                                            |                   |
| Colt's-foot              | <i>Tussilago farfara</i>                              |                                  |                                    |                     |                        | R                                      |                                                       |                          |                                            |                   |
| Common bent              | <i>Agrostis capillaris</i>                            | F                                |                                    |                     |                        |                                        |                                                       | O                        |                                            |                   |
| Common cat's-ear         | <i>Hypochaeris radicata</i>                           |                                  |                                    |                     |                        | O-F                                    |                                                       |                          |                                            |                   |
| Common centaury          | <i>Centaureum erythraea</i>                           |                                  |                                    |                     |                        | O-F                                    |                                                       |                          |                                            |                   |
| Common figwort           | <i>Scrophularia nodosa</i>                            | R                                |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Common mouse-ear         | <i>Cerastium fontanum</i>                             | R                                |                                    |                     |                        |                                        |                                                       | R - O                    |                                            |                   |
| Common nettle            | <i>Urtica dioica</i>                                  | F                                |                                    | O - LD              |                        |                                        |                                                       |                          |                                            |                   |
| Common ragwort           | <i>Senecio jacobaea</i>                               | O - F                            |                                    |                     |                        | O                                      |                                                       | R - O                    |                                            |                   |
| Cotoneaster species      | <i>Cotoneaster</i> sp. cf <i>Cotoneaster simonsii</i> |                                  |                                    | R                   |                        |                                        | R                                                     |                          |                                            |                   |
| Cow parsley              | <i>Anthriscus sylvestris</i>                          |                                  |                                    | R                   |                        |                                        |                                                       |                          |                                            |                   |
| Crane's-bill species     | <i>Geranium</i> sp.                                   |                                  |                                    |                     |                        |                                        |                                                       | R                        |                                            |                   |
| Creeping bent            | <i>Agrostis stolonifera</i>                           |                                  |                                    |                     |                        | F - LD                                 |                                                       |                          |                                            |                   |
| Creeping buttercup       | <i>Ranunculus repens</i>                              | R                                |                                    |                     |                        | O                                      |                                                       | O                        |                                            |                   |
| Creeping cinquefoil      | <i>Potentilla reptans</i>                             | O-F                              |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Creeping thistle         | <i>Cirsium arvense</i>                                | R                                |                                    | O - F               |                        |                                        |                                                       |                          |                                            |                   |
| Dandelion                | <i>Taraxacum officinale</i> agg.                      | O - F                            |                                    |                     |                        | O                                      |                                                       | O - F                    |                                            |                   |
| Dock species             | <i>Rumex</i> sp.                                      | O                                |                                    | R                   |                        | R                                      |                                                       | R                        |                                            |                   |
| Evening primrose species | <i>Oenothera</i> sp.                                  |                                  |                                    |                     |                        | R                                      |                                                       |                          |                                            |                   |
| Eyebright                | <i>Euphrasia nemorosa</i>                             |                                  |                                    |                     |                        | O-F                                    |                                                       |                          |                                            |                   |
| Fern species             | <i>Dryopteris</i> sp.                                 |                                  |                                    | O - LF              |                        |                                        |                                                       |                          |                                            |                   |
| Field horsetail          | <i>Equisetum arvense</i>                              |                                  |                                    |                     |                        | O                                      |                                                       |                          |                                            |                   |
| Garden lady's-mantle     | <i>Alchemilla mollis</i>                              |                                  |                                    |                     |                        | LR                                     |                                                       |                          |                                            |                   |
| Garlic mustard           | <i>Alliaria petiolata</i>                             | R                                |                                    | R                   |                        |                                        |                                                       |                          |                                            |                   |
| Goat's-beard             | <i>Tragopogon pratensis</i>                           | O-F                              |                                    |                     |                        | O-F                                    |                                                       |                          |                                            |                   |
| Goldenrod                | <i>Solidago virgaurea</i>                             |                                  |                                    | O - F               |                        | R                                      |                                                       |                          |                                            |                   |
| Greater plantain         | <i>Plantago major</i>                                 | O                                |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Groundsel                | <i>Senecio vulgaris</i>                               | R - O                            |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Hart's-tongue            | <i>Asplenium scolopendrium</i>                        | R                                |                                    |                     |                        |                                        |                                                       |                          |                                            |                   |
| Hawkweed species         | <i>Hieracium</i> sp.                                  |                                  |                                    |                     |                        | O-F                                    |                                                       |                          |                                            |                   |
| Hedge bindweed           | <i>Calystegia sepium</i>                              |                                  |                                    | LR                  |                        |                                        |                                                       |                          |                                            |                   |

## Appendix 2 Plant Species Recorded on the Application Site

| Common Name               | Latin Name                       | Habitat Type with Phase 1 Codes     |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
|---------------------------|----------------------------------|-------------------------------------|------------------------------------------|------------------------|------------------------------|----------------------------------------------|-------------------------------------------------------------|--------------------------------|---------------------------------------------------|----------------------|
|                           |                                  | Ephemeral/Short<br>Perennial (J1.3) | Broadleaved<br>Scattered Trees<br>(A3.1) | Tall Ruderal<br>(C3.1) | Scattered<br>Scrub<br>(A2.2) | Semi-improved<br>Neutral Grassland<br>(B2.2) | Introduced Shrub -<br>Scattered/ Amenity<br>planting (J1.4) | Amenity<br>Grassland<br>(J1.2) | Broadleaved Semi-<br>natural Woodland<br>(A1.1.1) | Hedgerow<br>(J2.1.2) |
| Hedge mustard             | <i>Sisymbrium officinale</i>     | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Hemp agrimony             | <i>Eupatorium cannabinum</i>     |                                     |                                          | O-F                    | O-F                          |                                              |                                                             |                                |                                                   |                      |
| Herb-Robert               | <i>Geranium robertianum</i>      | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Himalayan balsam          | <i>Impatiens glandulifera</i>    |                                     |                                          |                        |                              | LO                                           |                                                             |                                |                                                   |                      |
| Hogweed                   | <i>Heracleum sphondylium</i>     |                                     |                                          | LO                     |                              |                                              |                                                             |                                |                                                   |                      |
| Ivy                       | <i>Hedera helix</i>              | LO                                  |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Knotgrass                 | <i>Polygonum aviculare</i>       | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Maidenhair spleenwort     | <i>Asplenium trichomanes</i>     | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Michaelmas-daisy species  | <i>Aster novi-belgii</i> agg.    | O - F                               |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Mugwort                   | <i>Artemisia vulgaris</i>        | F - LA                              |                                          | O                      |                              | O                                            |                                                             |                                |                                                   |                      |
| Nipplewort                | <i>Lapsana communis</i>          | R - O                               |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Oregon-grape              | <i>Mahonia aquifolium</i>        |                                     |                                          |                        |                              |                                              | LA                                                          |                                |                                                   |                      |
| Oxford ragwort            | <i>Senecio squalidus</i>         |                                     |                                          |                        |                              | R                                            |                                                             |                                |                                                   |                      |
| Pendulous sedge           | <i>Carex pendula</i>             | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Perennial rye-grass       | <i>Lolium perenne</i>            |                                     |                                          |                        |                              |                                              |                                                             | A                              |                                                   |                      |
| Perennial sow-thistle     | <i>Sonchus arvensis</i>          | O-F                                 |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Perforate St. John's wort | <i>Hypericum perforatum</i>      |                                     |                                          |                        |                              | R                                            |                                                             |                                |                                                   |                      |
| Polypody species          | <i>Polypodium</i> sp.            | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Red clover                | <i>Trifolium pratense</i>        | R                                   |                                          |                        |                              | R                                            |                                                             | R                              |                                                   |                      |
| Red fescue                | <i>Festuca rubra</i>             | O                                   |                                          |                        |                              |                                              |                                                             | O                              |                                                   |                      |
| Redshank                  | <i>Persicaria maculosa</i>       | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Ribwort plantain          | <i>Plantago lanceolata</i>       |                                     |                                          |                        |                              | O                                            |                                                             | R                              |                                                   |                      |
| Rosebay willowherb        | <i>Chamerion angustifolium</i>   |                                     |                                          | O - F                  |                              |                                              |                                                             |                                |                                                   |                      |
| Scentless mayweed         | <i>Tripleurospermum inodorum</i> | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Shepherd's-purse          | <i>Capsella bursa-pastoris</i>   | R                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Smooth sow-thistle        | <i>Sonchus oleraceus</i>         | O                                   |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Soft-rush                 | <i>Juncus effusus</i>            |                                     |                                          |                        |                              | LR                                           |                                                             |                                |                                                   |                      |
| Southern marsh-orchid     | <i>Dactylorhiza praetermissa</i> | LF                                  |                                          |                        |                              |                                              |                                                             |                                |                                                   |                      |
| Spear thistle             | <i>Cirsium vulgare</i>           | LR                                  |                                          | LO                     |                              |                                              |                                                             |                                |                                                   |                      |
| Tufted hair-grass         | <i>Deschampsia caespitosa</i>    |                                     |                                          |                        |                              | LR                                           |                                                             |                                |                                                   |                      |
| Vetch species             | <i>Vicia</i> sp.                 |                                     |                                          |                        |                              | R                                            |                                                             | LR                             |                                                   |                      |
| Wall cotoneaster          | <i>Cotoneaster horizontalis</i>  |                                     |                                          |                        |                              |                                              |                                                             |                                | LR                                                |                      |
| Wavy bitter-cress         | <i>Cardamine flexuosa</i>        | R - O                               |                                          |                        |                              | LF                                           |                                                             |                                |                                                   |                      |
| White clover              | <i>Trifolium repens</i>          |                                     |                                          |                        |                              | O                                            |                                                             | LF                             |                                                   |                      |
| Willowherb species        | <i>Epilobium</i> sp.(annual)     | F                                   |                                          | O - F                  |                              | R                                            |                                                             | R                              |                                                   |                      |
| Yorkshire fog             | <i>Holcus lanatus</i>            |                                     |                                          |                        |                              | O - LA                                       |                                                             | R                              |                                                   |                      |

### Key

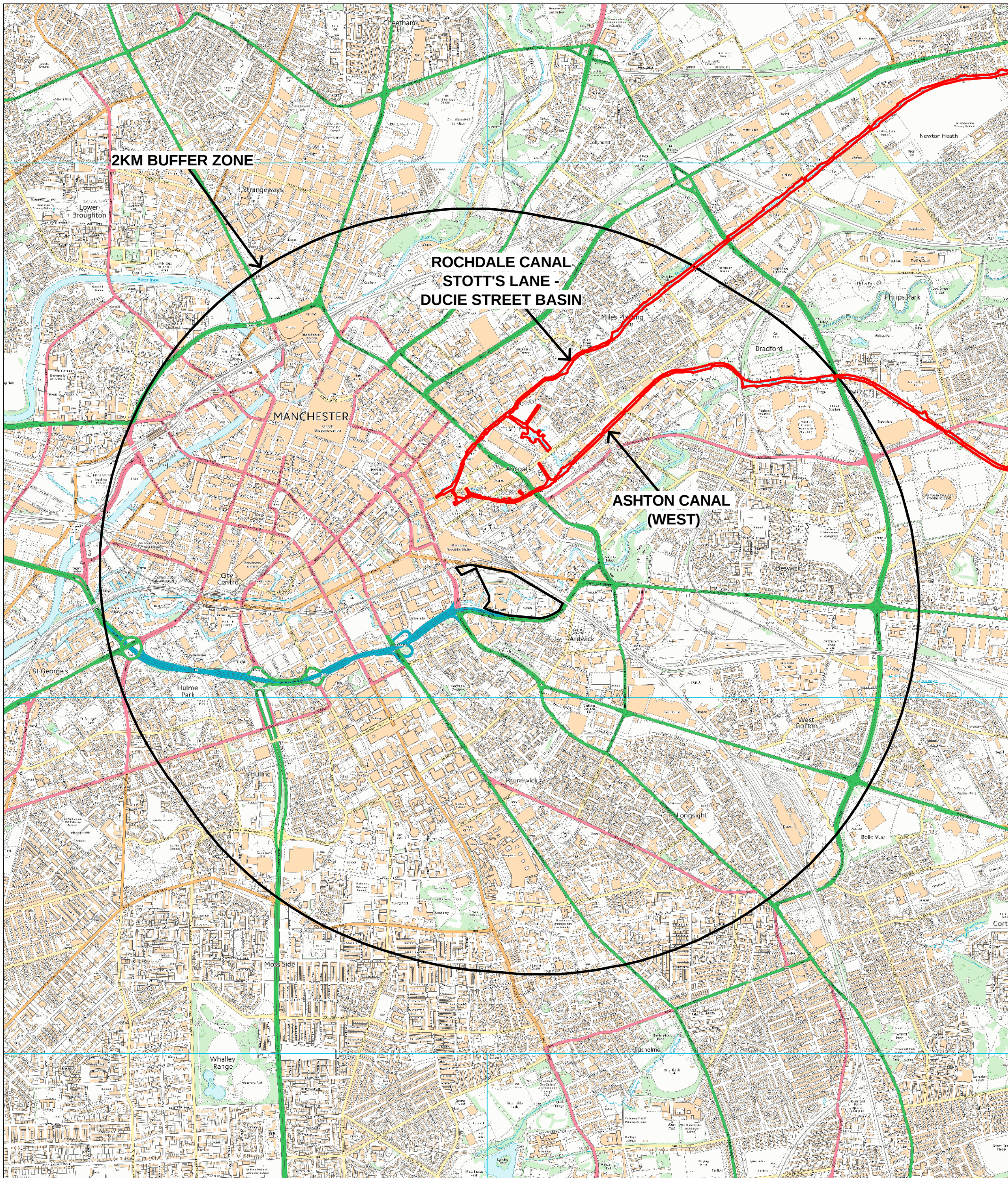
D = dominant  
 A = abundant  
 F = frequent  
 O = occasional  
 R = rare  
 L = locally

---

## APPENDIX 3

### **Desk Study Data**

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**KEY**

SITE OF BIOLOGICAL IMPORTANCE

 SBI BOUNDARY

GREATER MANCHESTER ECOLOGY UNIT  
ECOLOGICAL SEARCH - SJ 851 975  
MAYFIELD - MAP 1

SCALE 1:20,000

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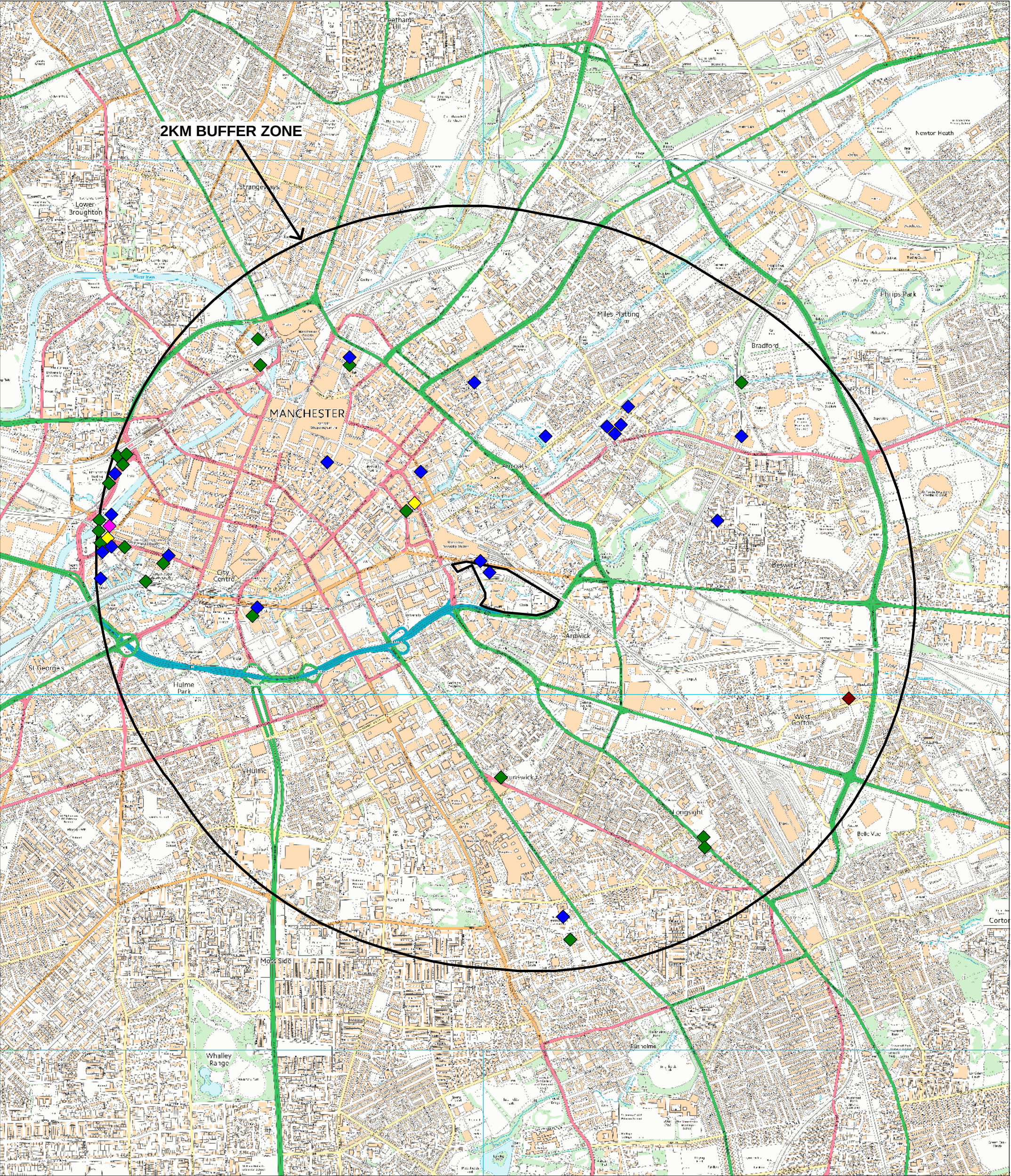
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**Greater Manchester  
Ecology Unit**

Telephone 0161 342 4409  
Email: [gmeu@tameside.gov.uk](mailto:gmeu@tameside.gov.uk)

Date Produced: 19/02/2019



**KEY**  
**BAT ROOSTS**

- ◆ BROWN LONG-EARED BAT
- ◆ COMMON PIPISTRELLE
- ◆ DAUBENTON'S BAT
- ◆ PIPISTRELLE SP
- ◆ SOPRANO PIPISTRELLE

**GREATER MANCHESTER ECOLOGY UNIT**  
**ECOLOGICAL SEARCH - SJ 851 975**  
**MAYFIELD - MAP 4A**

SCALE 1:20,000

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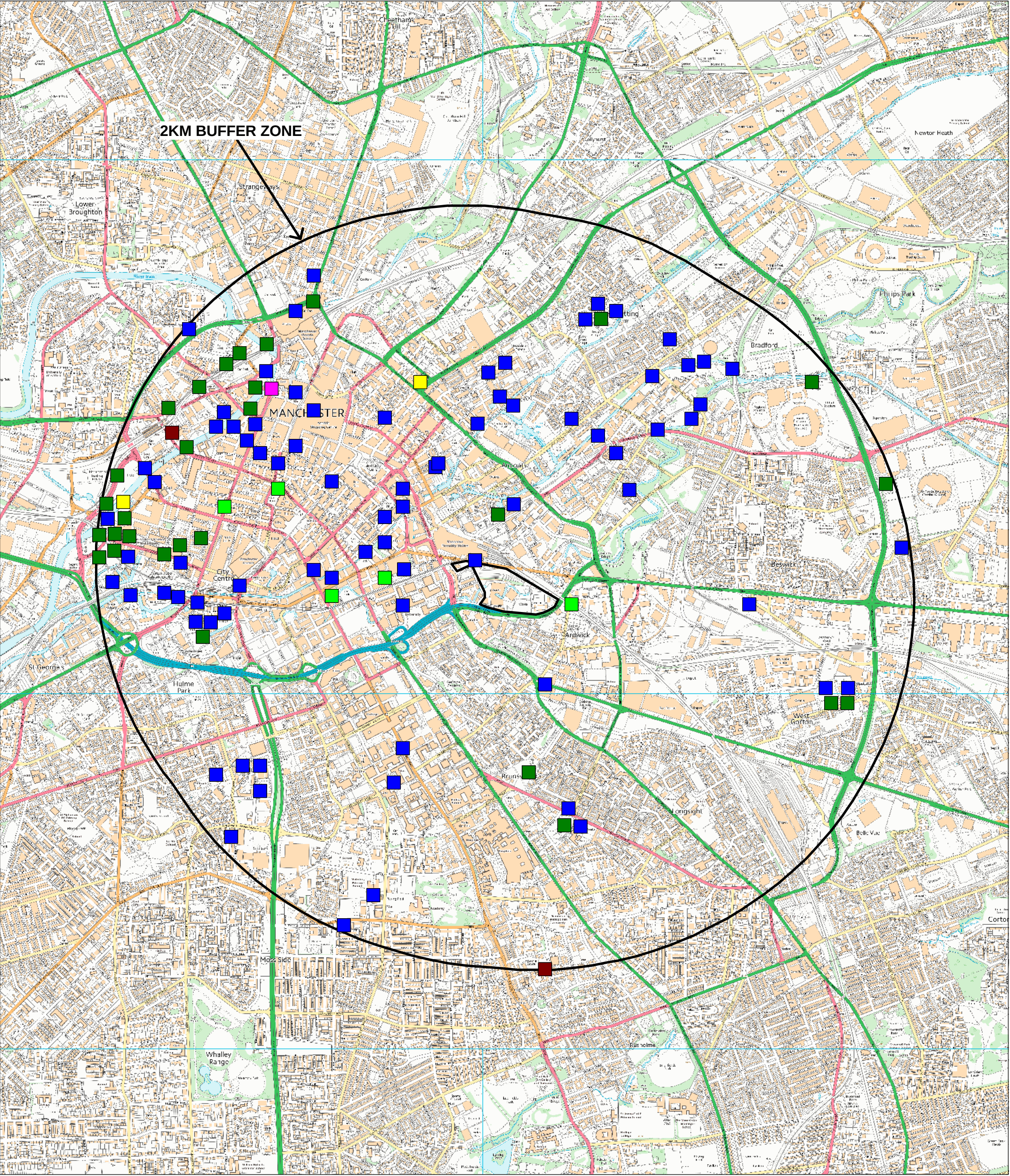
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**Greater Manchester**  
**Ecology Unit**

Telephone 0161 342 4409  
Email: gmeu@tameside.gov.uk

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**KEY**  
**BAT SIGNS**

- BAT SP
- BROWN LONG-EARED BAT
- COMMON PIPISTRELLE
- DAUBENTON'S BAT
- PIPISTRELLE SP
- SOPRANO PIPISTRELLE

**GREATER MANCHESTER ECOLOGY UNIT**  
**ECOLOGICAL SEARCH - SJ 851 975**  
**MAYFIELD - MAP 4B**

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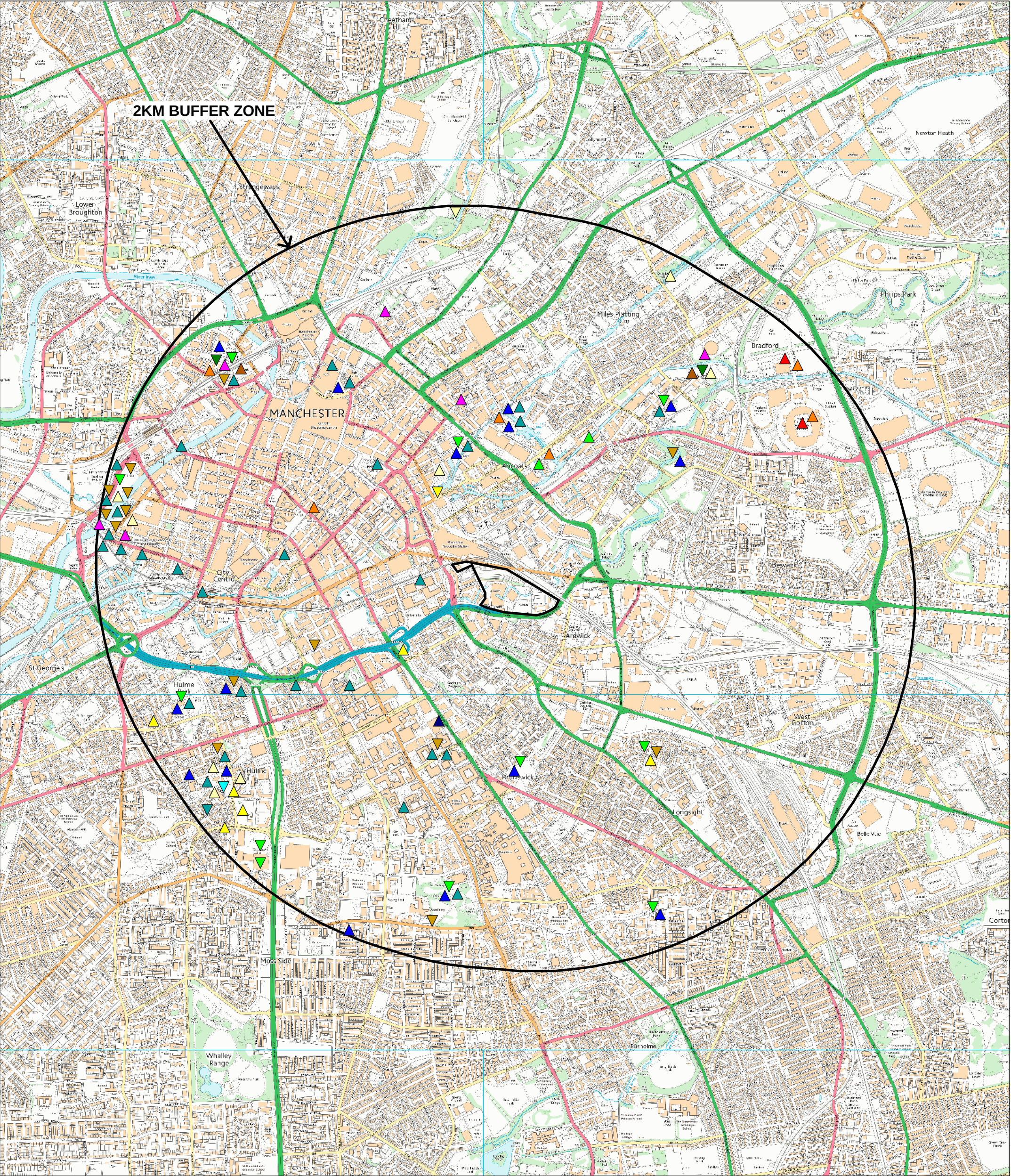
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**Greater Manchester**  
**Ecology Unit**

Telephone 0161 342 4409  
Email: [gmeu@tameside.gov.uk](mailto:gmeu@tameside.gov.uk)

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**KEY**  
**SECTION 41 SPECIES**

- |                    |                      |
|--------------------|----------------------|
| ▲ BULLFINCH        | ▲ S41 MOTH           |
| ▲ DUNNOCK          | ▲ SONG THRUSH        |
| ▲ GRS-WRK PONDWEED | ▲ SPOTTED FLYCATCHER |
| ▲ HEDGEHOG         | ▲ STARLING           |
| ▲ HERRING GULL     | ▲ TREE SPARROW       |
| ▲ HOUSE SPARROW    | ▲ TWITE              |
| ▲ LAPWING          | ▲ YELLOW BIRD'S-NEST |
| ▲ LESSER REDPOLL   | ▲ YELLOW WAGTAIL     |
| ▲ LINNET           |                      |

**GREATER MANCHESTER ECOLOGY UNIT**  
**ECOLOGICAL SEARCH - SJ 851 975**  
**MAYFIELD - MAP 5**

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**Greater Manchester**  
**Ecology Unit**

Telephone 0161 342 4409  
Email: [gmeu@tameside.gov.uk](mailto:gmeu@tameside.gov.uk)

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# APPENDIX 4

## **Site Photographs**

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**Plate 1**

**Typical area of  
hardstanding, eastern area  
of site**



**Plate 2**

**Building B27 recently  
constructed with cobbled  
area**



**Plate 3**

**B27 showing woodchip  
ground covering**



**Plate 4**

**Ephemeral short perennial  
vegetation (February 2019)**



**Plate 5**

**River Medlock looking  
downstream. Felled trees on  
left bank**



**Plate 6**

**Recently cleared tall ruderal  
vegetation**



**Plate 7a**

**Tall ruderal vegetation (B27 to the right of picture)**



**Plate 7b**

**Tall ruderal to south of old railway station (B3 to the right of picture)**



**Plate 8**

**Semi-improved species-poor grassland with scattered butterfly-bush - former railway lines**



**Plate 9**

**Self-colonised immature birch woodland,  
southern edge of former railway station complex**



**Plate 10**

**River Medlock looking  
upstream towards culvert  
B24**



**Plate 11**

**River Medlock showing  
dense stands of Japanese  
knotweed (August 2017)**

Penny Anderson  
Associates Ltd  
CONSULTANT ECOLOGISTS



Park Lea, 60 Park Road, Buxton, Derbyshire SK17 6SN

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# Appendix F Biodiversity Metric Calculator

Please see separate Excel calculator for the full Biodiversity Metric calculations. The calculator is to be reviewed alongside this report.

## Appendix G Planning policy and legislation

### A.1 National legislation and planning policy

#### A.1.1 The Environment Act (2021)

In 2021 the Environment Act gained Royal Assent, providing a new legislative framework for developments to consider in respect of potential environmental impacts and opportunities. Within the Environment Act, as of the 12<sup>th</sup> February 2024, it is a mandatory requirement for all developments to deliver a 10% net gain for biodiversity using a measured approved metric approach.

#### A.1.2 National Planning Policy Framework (NPPF) 2024

The revised National Planning Policy Framework (NPPF), published in July 2018 and updated in February 2019, July 2021, September 2023 and December 2024, sets out the Government's planning policies for England and how these should be applied. The revised NPPF continues to stress the importance of the local authority contribution to improving and protecting the environment through development of a systematic approach to enhancing biodiversity, minimising waste and pollution, and mitigation/adaptation to climate change impacts.

Chapter 15 of the NPPF requires that local planning authorities, when considering planning applications, should aim to conserve and enhance biodiversity by applying the following principles:

- 'Planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and sites of biodiversity, (in a manner commensurate with their statutory status or identified quality) and minimising impacts and providing net gains for biodiversity by establishing coherent ecological networks that are more resilient to current and future pressures';
- 'To protect and enhance biodiversity and geodiversity, plans should identify and map 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 promote the conservation, restoration, and re-creation 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';
- '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';
- '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
- 'Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'.nstruction buffer adjustments for ecology

Kathryn Weir  
Buro Happold Limited  
Camden Mill  
Lower Bristol Road  
Bath  
BA2 3DQ  
UK

T: +44 (0)1225 320 600

F: +44 (0)870 787 4148

Email: [kathryn.weir@burohappold.com](mailto:kathryn.weir@burohappold.com)