University of Manchester
Residences DBFO

# Landscape Statement

UMRF-LAP-XX-00-RP-L-30000
February 2025

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|---|---|---|---|---|---|
| rev | **P1** | | | | |
| date | **2025-02-20** | | | | |
| author | **RD/NS/RH** | | | | |
| purpose | **Planning** | | | | |


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NOTE
For technical reasons it has not been possible to incorporate scaled drawings into the landscape compliance document. Any 3D views are included for illustrative purposes only and are not verified views.

| Issue | Status | Date | Revision |
|---|---|---|---|
| **P1** | **For Planning** | **2025-02-20** | **Issued for Reserved Matters Application** |
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# 1.0 Introduction

This Landscape Statement has been prepared by Landscape Projects on behalf of the John Graham Construction Ltd ('the Applicant') in support of a reserved matters application for the redevelopment of the University of Manchester Fallowfield Campus ('the Site'), following the approval of an Outline Application in January 2024.

The Outline Planning Consent (138126/OO/2023) for the site consists of a set of documents to inform the detailed design and provide Manchester City Council (MCC) with a set of control documents to determine future Reserved Matters Applications (RMA); these include:

- Parameter Plans
- Design Guide

This document demonstrates in detail how the Landscape Proposals and design development have been derived from and comply with the Outline Planning Permission.

This document should be read in conjunction with the Statement of Compliance (Section 11 of Sheppard Robson's Design and Access Statement), which confirms RMA compliance with the Parameter Plans, Quantity of Development and Design Guide.

# 2.0 Landscape Proposals

## 2.1 Overview

The Design Guide within the Outline Planning Permission was designed to establish a robust framework to provide direction whilst allowing for a variety of design solutions, defining the level of quality the landscape design should aim to achieve.

Sections 2.0 and 3.0 of the Landscape Statement demonstrate in detail how the Design Guide has fed into the development of the Landscape Strategy and subsequent Landscape Masterplan, and how the landscape design has been developed to align with the University's vision to "enhance the landscape value of the site, promote well-being, security and belonging".

These sections should be read in conjunction with the Statement of Compliance (Section 11 of Sheppard Robson's Design and Access Statement), which confirms RMA compliance with the Parameter Plans, Quantity of Development and Design Guide.

The outline application requires the landscape masterplan to comply with the following topics set out in the Design Guide, these are demonstrated in detail on the following pages:

- Site Strategies including Student Experience and Strategic Approach
- Types of External Spaces
- Security
- Gateway and Arrival
- Existing levels
- Existing trees
- Accessibility
- Privacy
- Ecology and Biodiversity
- Green Infrastructure
- Drainage and SUDS
- Surfaces and Hard Landscape
- Street Furniture
- Wayfinding and Signage
- Boundary Treatments
- Lighting and Ecology
- Planting
- Sustainability including Biodiversity Net Gain
- Landscape Management



## 2.2 Landscape Masterplan: A place for People and Nature

The Landscape Masterplan for the Fallowfield site recognises the importance of two key aspects of the University's aspirations and project brief:

1. The creation of an attractive, inspiring and supportive setting for student life, in which:
   - All residents feel a sense of welcome, of belonging and of being proud to call Fallowfield their home
   - All people are encouraged to engage actively with each other and their surroundings
   - All students encounter new people and nature and experiences in open settings, and in ways which instil confidence and benefit their mental health and well-being

2. The formation of a healthy, sustainable natural environment which will:
   - Increase biodiversity through the enhancement and creation of habitats for a wide range of plant and animal species
   - Be adaptable to climate change through the introduction of more drought and heat tolerant species
   - Be resilient to landscape change by creating a wider range of habitats and micro-climatic conditions

The landscape masterplan integrates the proposed residential buildings, hubs and support infrastructure of roads and pathways into their surroundings, ensuring that the spaces between buildings are sunlit and attractive throughout the year, and that all areas are well-connected and accessible.

In the following pages we describe the landscape masterplan in more detail, starting with the principles which underpin the creation of a place which will be good for students.




KEY

1. Concourse : gathering space close to Hub, on route across site.
2. Activity Space: multi-functional garden with growing space, bike repair facilities
3. Green :communal lawn for informal games and events
4. Court : gathering space at south hub
5. Green roof
6. Photovoltaic array over green roof
7. Courtyard
8. Woodland perimeter
9. Main east-west route for pedestrians and cyclists
10. Green lane along woodland corridor
11. Pond, for biodiversity and surface water management

## 2.2.1 A Place for People: Student Experience

At the heart of the approach to creating a landscape plan for the development site at Fallowfield is the intention that students should feel a sense of belonging, of being welcome and safe, and should be proud to call Fallowfield their home.

We know from research into environmental behaviour that feelings of belonging can be encouraged through:

- Positive interactions between people which develop a sense of common community
- Feeling safe and being secure
- Creation of distinctive spaces with a strong identity
- Connections to past events, people and places

In the following pages we outline how the landscape masterplan sets out to achieve these aims.



## 2.2.2 Outdoor Social Network

### Positive Social Network (In Real Life)

The landscape proposals set out to create an outdoor social network. In a society which is increasingly organised and lived virtually, through social media and mediated entertainment, interactions between people risk becoming increasingly 'siloed'. Part of the experience of living in a campus setting is the possibility to break out of societal and social bubbles and encounter new people and experiences. This can happen in the simplest of ways - a brief encounter on a pathway can become an acquaintance which develops into a friendship. For this to happen, though, people need to be comfortable to share space with others.

The outdoor social network reflects findings from research which shows that the setting of outdoor social space really matters...pathways will be laid out hierarchically (wide primary paths, narrower secondary routes) to make purposeful connections from home (bedroom, kitchen, communal space etc.) to destinations (hubs, transport links, libraries, study space etc.) so that they are well-used and shared by others. They will pass through outdoor spaces of different scales (covered canopies at entrance thresholds, through communal courtyards, to larger outdoor places) each provided with seating, benches or other facility located on sunny sheltered positions. Because evidence shows that when people stop, choose to stay a while to chat, they more readily develop friendships. And when people see others staying, they tend to join them..."people go where people go" according to Prof J Gehl, expert in design of outdoor social space. It is through these simple means that a sense of community, and thereby belonging, is created.

Further community bonds will be encouraged through participation in shared activities. Areas for sports and exercise, gardening and vegetable growing, and a Central Green for outdoor gatherings and events are to be provided within the development site.

The diagram adjacent shows the network of routes, organised hierarchically, which will provide access across the site and the connections to social spaces of hubs, activity spaces and places for gatherings.



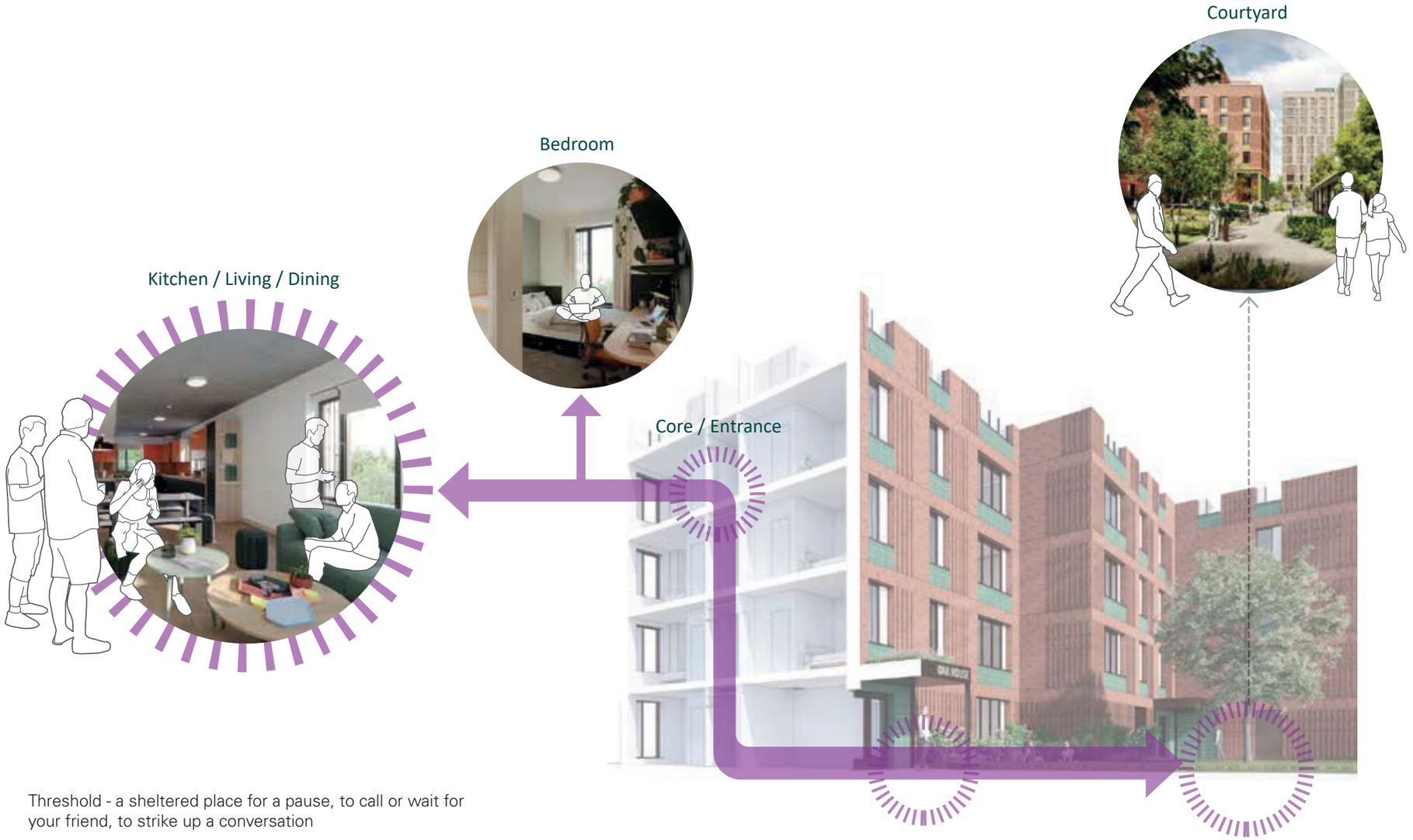

- Legible network of routes which encourage meeting and interaction
- Hierarchy of gathering spaces, from bedroom to communal room, to outdoor courtyard to concourse and Hub, via Communal Green and Activity Concourse

## 2.2.3 Thresholds: Reinforcing a Sense of Belonging

It is well understood how people's behaviour is partly influenced by their reading of an environment through clues which indicate whether, for instance, a place is public, or private, or perhaps somewhere in between (Semi-public or Communal). Legible features at thresholds between places such as doorways, entrances into buildings, gateways into courtyards define transition points and can clearly signal who has permission to be where. This also helps define who belongs where, which in turn can reinforce a sense of a shared common community.

Following these principles, the landscape plan sets out to clearly define each transition between the students private world of bedroom to their shared kitchen and communal space, to the building stair and lift, to the entrance door and outdoors into the courtyard and wider landscape. We will achieve this through the careful variations in material, graphics and lighting, as well as scale and proportion of space and boundaries.

The image adjacent illustrates the sequence of thresholds.




Threshold - a sheltered place for a pause, to call or wait for your friend, to strike up a conversation

change of materials under canopy to signal arrival at 'home'

'doormat', benches, columns, lighting , canopy and doorbell coordinated to make a special and distinctive point of arrival.

Arrival at front entrance - welcoming, distinctive identity

canopy with graphics and lighting clearly signifies entrance

double door to naturally light interior

planting and pathway lead to entrance

refuse store conveniently close for daily drop off

privacy planting in front of adjacent room windows

Arrival into courtyard - enclosed, friendly-feeling place

centrally located places for sitting in sunny places

close to walking routes - making it easy to stop and chat

line of sight connections to entrances - easy to find your way around - no hidden corner

## 2.2.4 Student Experience: Outdoor Activity

Fallowfield has a proud history of sporting achievement (even hosting the first FA Cup played outside London) which continues through the excellent facilities at the Armitage Sports Centre. It is well known that participation in high intensity exercise and team sports brings a wide range of well-understood social and physical benefits. But for many students, this level of activity is not part of their more sedentary lifestyle. However, there is increasing evidence which shows that simply being outdoors is important to health and well-being; the landscape plan therefore sets out to create a framework of activities, which will encourage more sedentary people to enjoy being outside - from undertaking simple aerobic activity like walking and cycling, to participating in shared activities like gardening and bike repair, as well as playful challenges and puzzles. And just as importantly, providing people with peaceful places to sit in natural surroundings as an effective way to manage stress and anxiety.

The adjacent diagram demonstrates how the landscape masterplan is designed to accommodate spaces for a wide range of activities:

- Basketball hoops and 50m dash tracks
- Sports exercise areas with outdoor gym and trim-trail equipment and climbing challenges
- Gentler exercise such as tai-chi, yoga and pilates
- Quiet places to meditate and observe nature
- Playful activities like theatre and dance, as well as playful challenges and puzzles
- Social interactions like gardening, outdoor cooking and eating
- Organised group activities and challenges associated with team-building

These will be located in places appropriate to their scale and level of participation, and connected via outdoor trails, many of which overlap with the walking routes which people use to as day-to-day connections across the campus. In this way it will be easy for less confident students to begin to challenge themselves and build their activity levels, and thereby increase their health and well-being.



## 2.2.5 Outdoor Amenity Spaces

The landscape masterplan establishes a green infrastructure framework of woodland belts and tree corridors, which will create a sheltered setting for the buildings and outdoor amenity spaces. The range of outdoor amenity spaces responds to the needs of a student community:

- Places for rest, exercise and tranquillity : a series of small spaces around the perimeter of the site, linked by open lawns and pathway circuits, with facilities for sitting as well as more active uses.
- Small intimate spaces in courtyards close to homes, where individual or small groups can sit in a sheltered sunny spot.
- Larger gathering spaces, usually adjacent to hubs, where larger groups can meet, making use of the partial shelter provided by overhanging roofs.

In addition there will be a series of special places :




1. Concourse: This will be the main gathering space, located to the north side of the main hub, where it will serve as a ‘town square’, providing a high quality hard landscape surface capable of hosting events like stalls for freshers and vintage fairs as well as farmers market and Christmas celebrations (and the Christmas tree).

2. Central Green : situated at the heart of the wider Fallowfield Campus, and adjacent to the Main Hub, this greenspace will provide a large open multifunctional lawn which will become the focus for activities and events. It will be large enough (20m X 40m) to host marquees for parties and balls, as well as being a place for informal gatherings, sunbathing and picnics. An area to the south side, close to Whitworth Lane is set aside for temporary pop-up refreshments and street food vendors, which could create an attractive destination for students from across the campus, people visiting the Botanic Gardens, as well as the local community.

3. Alumni Garden : The sense of collective memory is an important aspect of creating a community. This is doubly important in University campus settings, where students live intensely for a short period at a significant time in their lives before moving on. We know that for many alumni, their time at Fallowfield holds good memories, so the landscape proposal includes a place to remember past events and achievements, beloved students and staff. The Alumni Garden, proposed for the western end of the concourse, close to the entrance from Wilmslow Road, will allow the continuation of the tradition, already well established at Fallowfield, of remembering people and events through inscriptions, commemorative planting and other features, in a garden setting.

## 2.2.6 Safety and Security

The development site will have open access, as it does today, so the site will not be fully gated. The university will retain the ability to close and lock secondary gates (see entrance gate section 2.4.2).

The provision for security measures follows best practice principles outlined by secure by design, including:

- Passive surveillance of external areas, by orientating buildings to ensure they overlook landscape areas and walking routes
- Minimising hiding places through avoidance of high planting
- Lighting network to provide lighting along key routes at corners and entrances

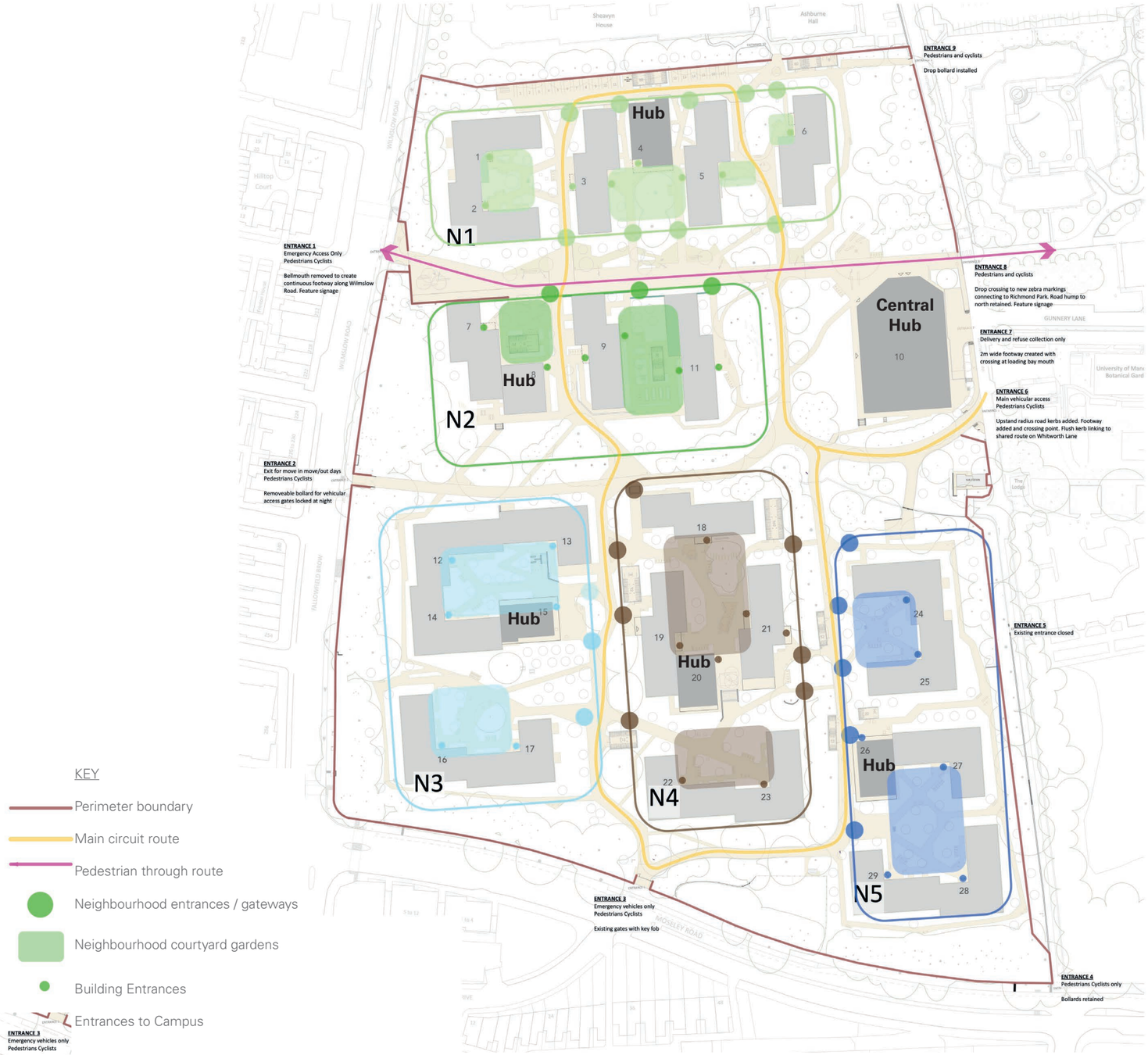
The plan largely retains the current arrangement of perimeter railings and to all external boundaries of the site. Note: the railings along the southern stretch of Whitworth Lane will be set back from the edge of the pathway, to increase the passive surveillance of this route and reduce the sense of containment, in response to student feedback over their sense of insecurity while using this path.

Existing entrance gates will be retained, signalling to visitors that they are entering into a non-public residential domain, and that their behaviour should respect this. Paths and landscape areas will be positioned so that they are overlooked by nearby buildings.

Additional non-gated 'gateways', defined by hedges, walls and changes of surface materials will reinforce the sense of entering into a semi-private courtyard domain. This will signal to visitors that they are entering into a courtyard area, and that their behaviour should respect this.

The residential blocks are designed so that courtyard entrances are overlooked from surrounding rooms.

For further details on boundary treatments and entrance gates, refer to section 2.4.2.



## 2.2.7 Well Lit Paths and Places

The landscape lighting sets out to achieve a well-lit pedestrian network, while ensuring light levels are low enough to minimise impacts on bats which as protected species, should be protected from disturbance.

The adjacent plan demonstrates how the external lighting strategy follows the hierarchy of pathways - with main paths through the centre and across the site being lit from 4m columns, while side routes into adjacent courtyard spaces are lit by bollard lighting at regular spacings, supplemented by 4m column spotlights in specific locations.

Lighting fittings will be LED, fitted with cut-off features to reduce light spillage and pollution, and coloured in the range 2800-3000K to ensure a warm, glowing effect. This, together with the ambient light from adjacent buildings should ensure that all main routes are well-lit, leaving areas where bats are likely to forage in the periphery of the site with less light or, in some places, darkness.

For further detail on the external lighting and locations, refer to section 2.4.3.



Main paths lit by regularly-spaced column-mounted light fittings.



Side / secondary routes lit by low level light fittings



Extract from the External Lighting Strategy Plan - Concourse



External Lighting Strategy Plan

## 2.2.8 Accessibility

The landscape masterplan achieves universal pedestrian access for all. Step-free routes, which avoid steeper than 1:21 gradients, are provided throughout the site to all building / hub / site entrances and car park spaces in line with relevant accessibility standards including Approved Document M and BS 8300.

The landscape design had to consider and work hard with a series of challenges presented by the site, including:

- A significant 4.5m level change, which create a series of terraces from North to South
- Working to existing levels in the vicinity of retained trees and their Root Protection Areas (RPAs)
- A plethora of entrances to the buildings and Hubs
- Requirement for accessible car parking at the north of the site

For further detail on the landscape design measures to achieve universal access, refer to section 2.4.4.

For further detail on access in relation to waste, servicing, vehicles and moving in / out days, refer to the Transport section in Buro Happold's report.



## 2.2.9 Nature and Biodiversity

As well as providing the social infrastructure for outdoor activity (as outlined in previous sections) the Landscape Masterplan also sets out to create a healthy, sustainable and attractive natural environment which will:

- Increase biodiversity through the enhancement and creation of habitats for a wide range of plant and animal species
- Be more resilient and adaptable to climate change through the introduction of wider range of habitats and plant species
- Provide a stimulating, seasonally changing nature-like setting for students to enjoy through all times of the year.

In the following pages we describe landscape proposals will enhance green and blue infrastructure, and create a more biodiverse range of habitats and outdoor spaces. This should be read in conjunction with detailed reports by Thomson Ecology and Kennedy Redford.






























## 2.2.10 Retention of Existing Trees

The landscape setting of perimeter woodland, internal tree belts and interlinked green spaces are important aspects of the character and biodiversity of the site which have been addressed in the landscape design.

The design development accounted for the above, by enhancing these areas and retaining as many trees as possible, working closely with an Arborist and the design team as the site design, demolition and construction methodology developed.

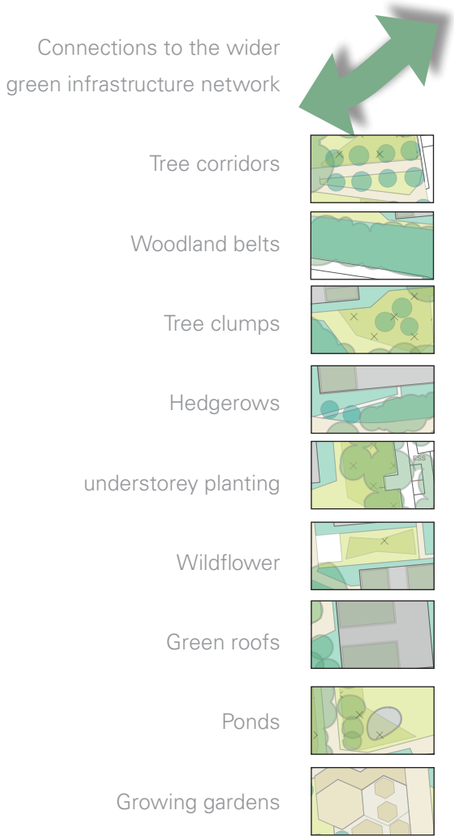
For further details on tree retention, tree removal rational and tree protection measures, refer to the Arboricultural Impact Report by Landscape Projects.

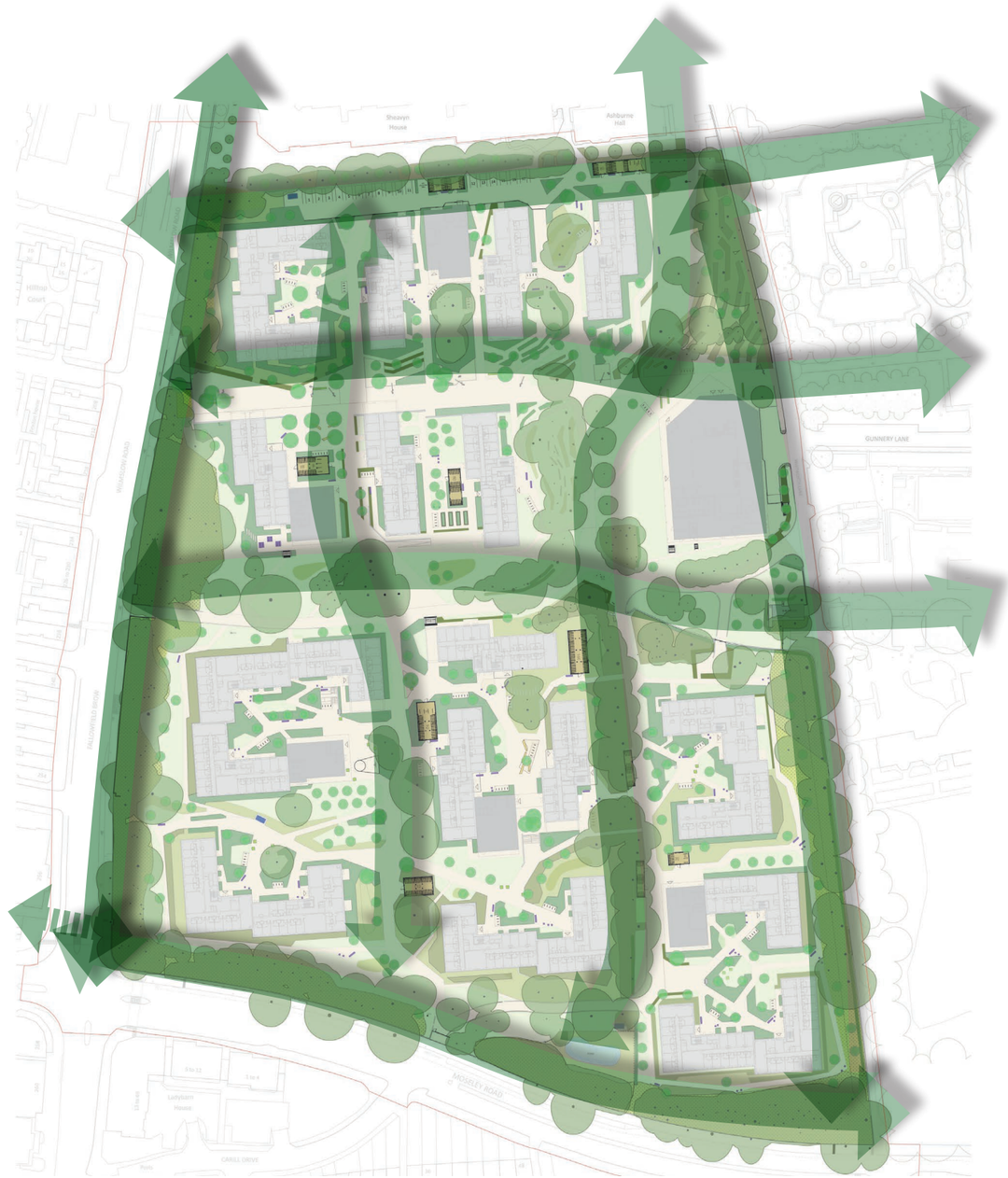
## 2.2.11 Green Infrastructure

Green Infrastructure is the interconnected network of greenspaces (woodlands, meadows, parks and street trees) which provide a physical framework for biodiversity, and multi-functional benefits for society.

The landscape masterplan shows how the existing green infrastructure, which extends through the development site, will be enhanced in the following ways:

- Avoiding tree removals as far as possible by re-using existing building footprints and roadways, and using construction techniques which are compatible with proximity to existing trees.
- Retaining the perimeter woodland, and enhancing these areas through introductions of biodiverse woodland understorey and groundcover planting
- Reinforcing the internal tree corridors and groups, and integrating with buildings and green roofs, to form contiguous green corridors
- Extension of hedgerows, swales and rain gardens to create connected linear habitats.
- Creation of glades, meadows and ponds within the courtyards and open spaces of the site, to further increase biodiversity.



## 2.2.12 Blue Infrastructure

The system for site-wide management of surface water, following 'sponge city' principles, has been developed in close collaboration between civil engineers and landscape architects within the team. Opportunities for nature-based solutions for water management have been maximised, to create a low maintenance system which can also support a wide range of species-rich habitats. Features include:

- **Surface infiltration,** in which increased areas of soft landscape covered by plants with deep root systems will absorb more surface water, reducing runoff into drains, and increasing the amount of water which will replenish the underlying water table.
- **Swales and Raingardens.** Landscape areas include shallow dips and graded areas where surface water runoff from paving and roofs can accumulate and gradually infiltrate into the ground after the rainstorm event has finished. This not only reduces flood risk, but also creates conditions suitable for plants which are tolerant of occasional inundation.
- **Ponds** : the landscape plan includes the creation of a pond at the southern end of the site, in the location of the existing single storey house; this will provide a receptacle for the collection and storage of surface water at one of the lowest points on the site; the banks will be profiled to make them suitable for aquatic and marginal planting. Access to the pond will be restricted by a secure fence and lockable gate.
- **Porous paving** is included in many areas of paths and hardstanding, allowing surface water to infiltrate into the ground, or to be stored in attenuation tanks without the need for complex fixed drainage systems.
- **Blue roofs**, in which proprietary roof build-up systems are installed to provide a rainwater retention layer under an overlying layer of growing substrate to support biodiverse planting; in many cases these planted areas will be under photovoltaic panels. The rainwater retention layer will allow water to accumulate before slowly releasing it after the storm has finished (attenuation) thereby reducing the risk of flooding.
- **Attenuation**: below ground tanks will be installed in places around the site to hold surface water runoff, allowing water to accumulate before slowly releasing it after the storm has finished.
- **Water storage** : landscape features to harvest water for re-use on site, including water butts for storage of rainwater from hub roofs for use in growing gardens.

The combined effect of these measures will be to reduce surface water runoff during storm events, thereby reducing flood risk, while at the same time increasing the amount of water which will infiltrate into the ground, where it will replenish ground water levels. This will help to provide natural ground water sources for trees and other planting and help to make the landscape more tolerant of periodic drought conditions. Furthermore the creation of new habitats associated with blue infrastructure will help to increase biodiversity. In these ways, the blue infrastructure systems will make an important contribution to the sustainability and environmental resilience of the Fallowfield site.

For further details on the blue infrastructure features, refer to Kennedy Redford's report.





















## 2.3 Landscape Places

### Placemaking - Neighbourhoods and Central Greenspace

While the existing campus has an attractive character, derived from its mature woodland setting and informal groupings of buildings, it lacks a clearly defined space at its heart. We recognise from other Universities, including Oxford, Liverpool and York, how important to the life of colleges and student residencies it is to have a central area as a focus for informal gatherings, activities and events.

Neighbourhoods are important components in creating an attractive place for student life; by establishing a clearly defined communal territory, students can develop a sense of belonging which helps them overcome the wrench of leaving home, make friends and develop their self confidence.

Neighbourhoods grow around the provision of communal social space such as hubs and courtyards. At a basic level of perception they gain a sense of identity through the consistent layout of buildings, paths and open spaces, which combine spatially to give a sense of coherence and unity to an area. Landscape materials, colours and graphics, as well as hard paving and soft planting play an important part in refining and defining neighbourhood identity.

The adjacent landscape masterplan demonstrates the five neighbourhoods which extend across the development site each have their own spatial and landscape characteristics. The Central Green (ref: CG) is an open greenspace situated at the heart of the wider Fallowfield Campus and adjacent to the Main Hub, which will become a focus for informal gatherings, activities and events.

In the following pages, we outline the key landscape characteristics of the Central Green Space and the neighbourhoods.



## 2.3.1 Central Green Space

The landscape masterplan includes a Central Green; an open greenspace situated at the heart of the wider Fallowfield Campus and adjacent to the Main Hub, it measures over 800 sqm in area, and approximately 20X40m in extent. Fringed by existing mature trees and areas of biodiverse long grass and wildflowers, the central open mown lawn provides a large multifunctional area which will become the focus for activities and events. It is large enough to host marquees in various configurations for freshers week, parties and balls, as well as being a place for informal games, gatherings, sunbathing and picnics.

Around the edge of the space, seating is positioned in sunny locations, and close to areas with equipment and facilities for exercise and fitness. A paved area with seating will be located at the north east corner, intervisible with and easily accessible from the Main Hub. An area to the south side, close to Whitworth Lane, is set aside for temporary pop-up refreshments and street food vendors, creating an attractive destination for students from across the wider Fallowfield Campus, people visiting the Botanic Gardens, as well as the local community.





Marquees which could be used for events

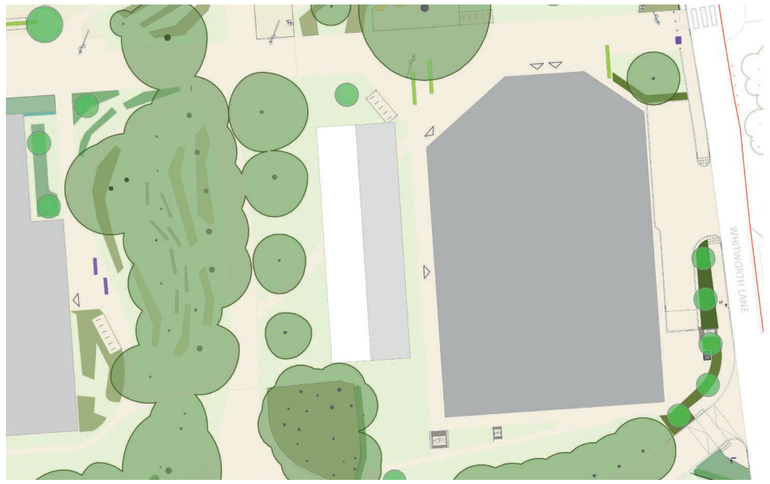



Extract from Landscape GA drawing: Central Green Space and Main Hub



Sketch visual of the Central Green Space

## Central Green - Alternative Uses

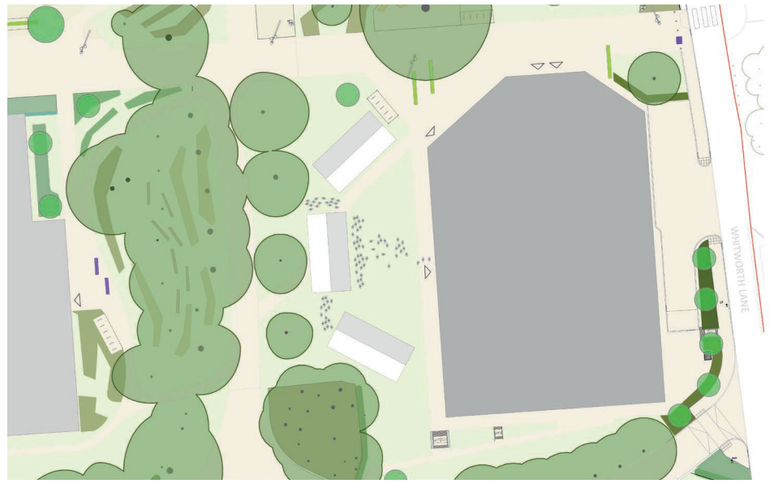



Scenario 1:

Christmas Ball

Largest single marquee (12m X 36m)

with capacity 600 standing 400 sitting for a Ball (linked to bar)




Scenario 2:

Summer Festival

3 medium sized marquees (6m X 12m)




Scenario 3:

Freshers Fair

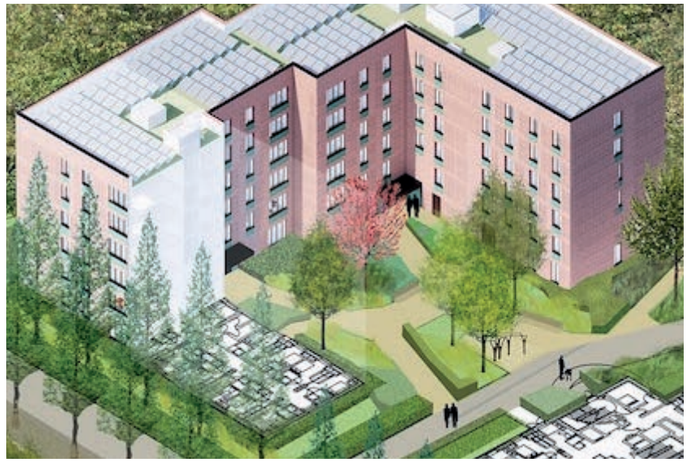
numerous gazebos (3 x 3m)

## 2.3.2 Neighbourhood 1

Key Characteristics:
- Neighbourhood of six to seven storey buildings, set out north-south around open landscaped courtyards
- Accessed off the main east-west pathway and Concourse
- A series of interlinked sheltered courtyard spaces
- Views through the courtyards to the backdrop of mature trees and the foliage colour of the mature Copper Beech trees
- Small and medium scale trees, street furniture and lighting combine to create a lively, welcoming playful ambience

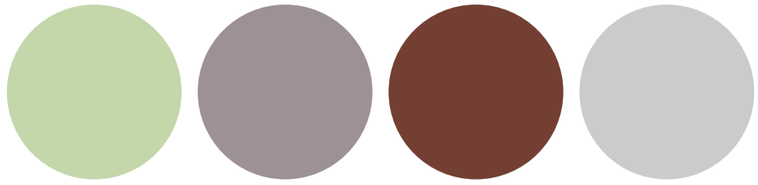
Colour Palette / Neighbourhood identity:
- Contrasting light and dark tones to enhance the dramatic character of the interlinked spaces.
- Tree planting with reddish coppery foliage tones
- Hedges with distinctive copper and purple foliage tones
- Evergreen shrubs with silver and purple foliage tones
- Seating and other street furniture in silver and purple



Interlinked landscaped courtyards





External colours



Paving textures

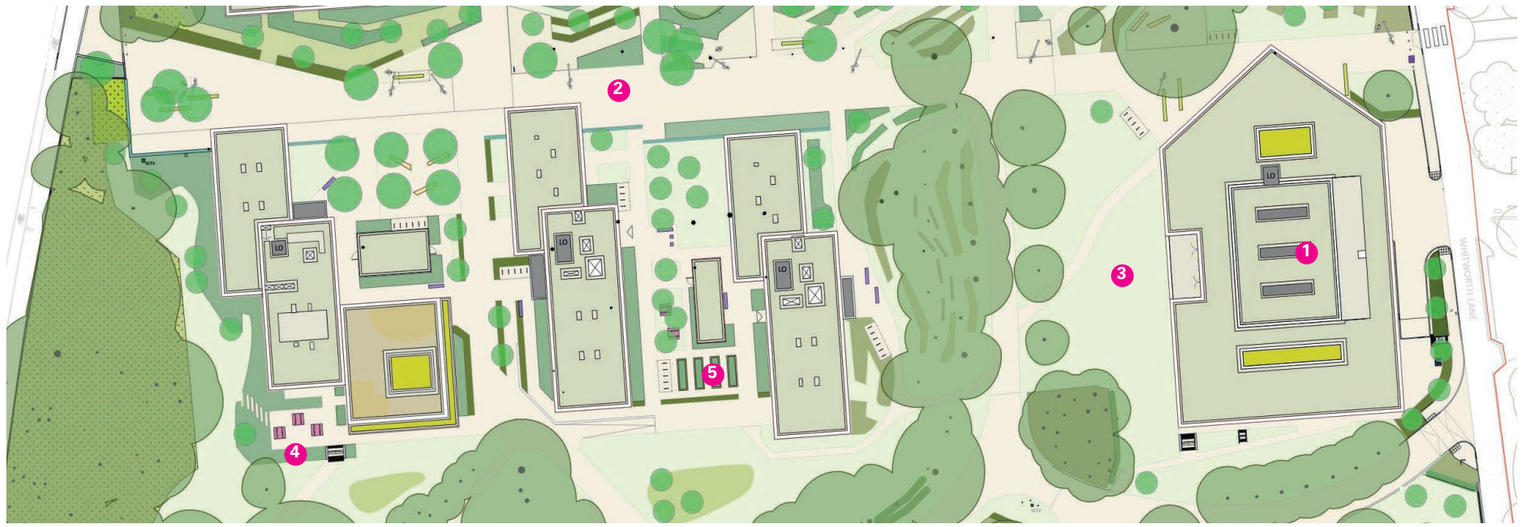


Planting tones and textures

## 2.3.3 Neighbourhood 2

Key Characteristics:
- Comprises the Main Hub (1), Concourse (2) and Central Green (3); the areas will be linked by the east-west main pathway accessed off Wilmslow Road.
- The landscape contrasts the strong linear concourse (long east-west views), distinctive colonnades and tall slender residential blocks with a series of smaller scale terraces landscapes on the south and west side.
- Changes of level will feature carefully integrated steps, shallow slopes and planted banks creating a distinctive and accessible landscape around sunny and sheltered paved terraces (4 & 5).
- A communal vegetable garden and bike repair space will also be provided in the sheltered terrace to the north of the local hub.

Colour Palette / Neighbourhood Identity:
- Light toned paving to emphasise level change.
- Tree planting using tall, slender tree shapes to emphasise the vertical character of the Concourse and contrast strongly with the horizontal terraces, including, Fastigiate Beech, Chanticleer Pear and Juniper.
- Hedges with strong evergreen and variegated foliage including Holly, Euonymus and Elaeagnus.
- Groundcover planting on slopes with strong winter presence including Geranium, Hellebores, Grasses and Sedges.
- Contrasting mown and long grass.
- Seating and other street furniture in yellow-lime green tones.



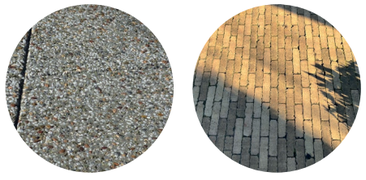



Main concourse running east-west with strong vertical features





External colours



Paving textures



Planting tones and textures

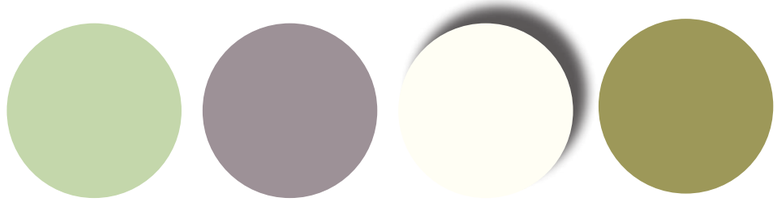
## 2.3.4 Neighbourhood 3

Key Characteristics:
- Complex level changes and interlocking buildings arranged across the sloping ground.
- Two enclosed courtyards with shallow gradient, accessible pathways to the central local hub (1), which overlooks the main north-south pathway and retained trees.
- Multi-functional paved terraces, including a shallow stepped area in the northern courtyard (2) which will form a 'mini-amphitheatre' as focus for outdoor events, which is linked to a sheltered colonnaded terrace.
- Sloping ground to the south of the local hub will be planted as an orchard of fruiting trees (3), benefiting from the south-facing aspect.

Colour Palette / Neighbourhood Identity:
- Forest tree planting of Oak, Lime and Birch.
- Courtyard tree planting of Rowan and light foliaged Birch, with its distinctive white bark for winter interest.
- Orchard trees (including Pear, Apple, Cherry) on the sloping terraces, which could provide a harvest in early autumn as students settle into their accommodation.
- Hedges with light toned foliage, such as Hebe and Rose.
- Contrasting mown and long grass with wildflowers.
- The use of groundcover species on slopes with autumn impact, including low maintenance perennial grasses, ferns and herbaceous plants.
- Seating and other street furniture in white / buff tones.



Sloping site: Courtyard and level changes

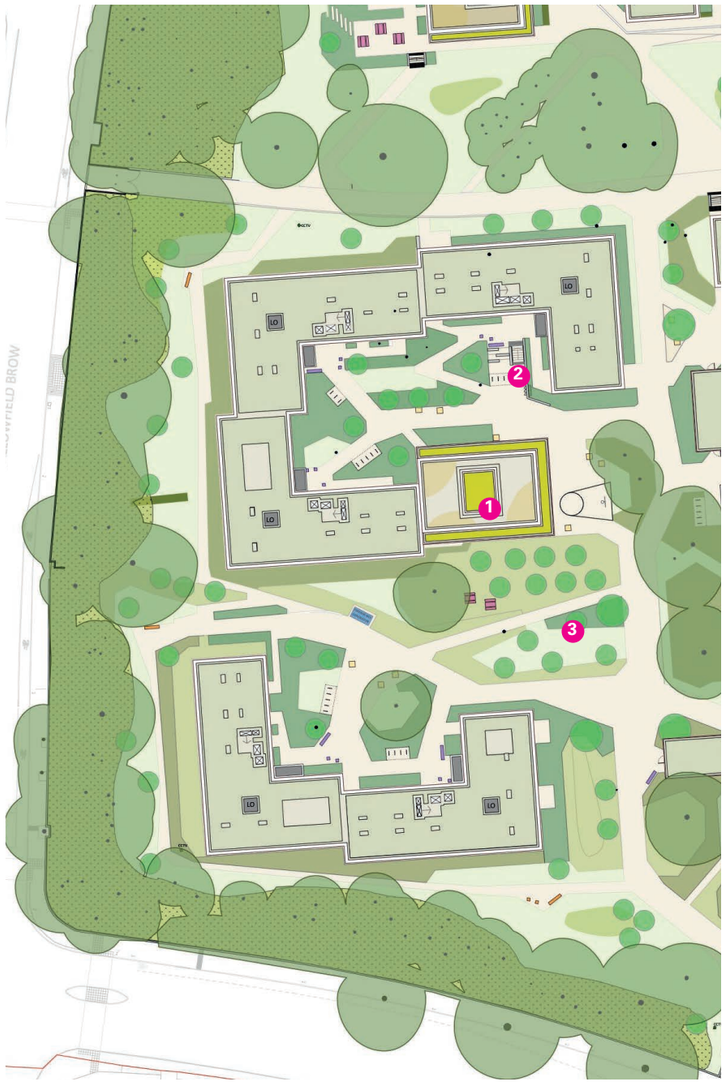


External colours



Paving textures

Planting tones and textures





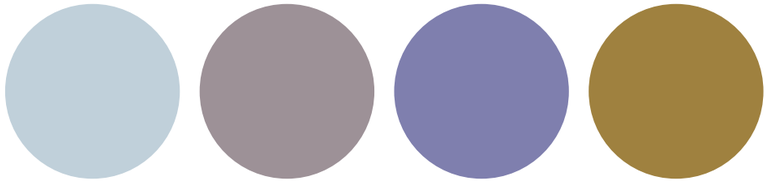

## 2.3.5 Neighbourhood 4

Key Characteristics:
- Cluster of tall buildings in the centre of the site, grouped around a local hub (1) and adjacent colonnade.
- The local hub will be intervisible to all building entrances, creating a social focal point at the heart of the neighbourhood.
- Existing mature tree lines and corridors will form the eastern and western neighbourhood boundaries.
- A south facing, multi-level stepped terrace (2) with areas of lowland heath planting will extend across the slope, creating a sunny place for informal outdoor gatherings; which contrasts:
- The more enclosed landscape of the southern courtyard (3) which will include planting suited to shady and damp conditions.

Colour Palette / Neighbourhood Identity:
- Forest tree planting of Oak and Lime.
- Courtyard tree planting of Pine, creating a strong evergreen identity and continuity with the existing trees, supplemented with Birch, Rowan and Dawn Redwood.
- Hedges with evergreen flowering interest such as Pyracantha.
- Use of perennial groundcover species, typical of lowland heath habitats including purple and white flowering heathers, long grasses and ferns.
- Strong horizontal linear paving, steps and planting bands, to create a distinctive soft planted terraced landscape on the slopes south of the local hub.
- Ground modelling to include dips and swales, to capture surface water in the southern courtyard, with pockets of woodrush, ferns and other shade-tolerant woodland herbaceous species.
- Seating and other street furniture in brown / grey tones.



South facing slope and steps with heathland planting



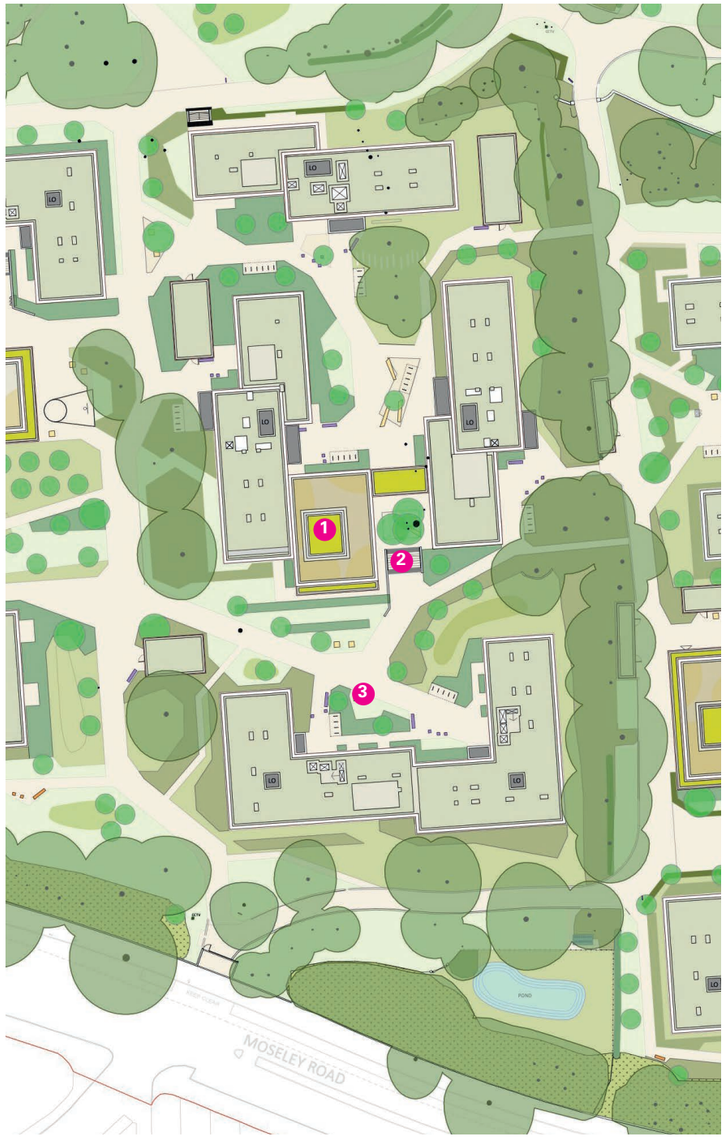
External colours



Paving textures

Planting tones and textures





## 2.3.6 Neighbourhood 5

Key Characteristics:
- Occupies the site of the Woolton Hall residences.
- Three clusters of 6-7 storey buildings laid out around courtyards on level terraces which extend towards the south.
- A centrally located local hub (1) will form the social focal point.
- Existing mature tree belts form the east and west boundaries, and the existing sense of openness within the neighbourhood will be retained by the careful positioning of courtyard trees.
- The landscape proposals create a sunny terrace on the southern side of the local hub, partially sheltered by the hub's colonnaded roof, which will overlook the adjacent courtyard landscape.

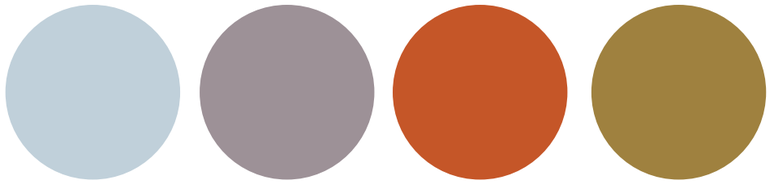
Colour Palette / Neighbourhood Identity:
- Retention of the existing gates and brick piers which form the northern entrance to Woolton Hall (2).
- Buff / grey toned paving.
- Forest tree planting of Oak and Lime, to supplement species already found in the area.
- Courtyard tree planting of Alder and Field Maple in small groups (3), with low branches pruned to allow views through.
- Hedges with distinctive foliage such as Hornbeam, Hazel and Viburnum.
- Use of perennial and evergreen shrub groundcover species typical of woodland edge conditions, including Ivy, Vinca. Prunus and Privet.
- Ground modelling to include dips and swales to capture surface water in the southern courtyard, with pockets of windrush, ferns and other shade-tolerant woodland herbaceous species.
- Seating and other street furniture in rust red / grey tones.



Trees and woodland edge groundcover



Woolton Hall Gates retained



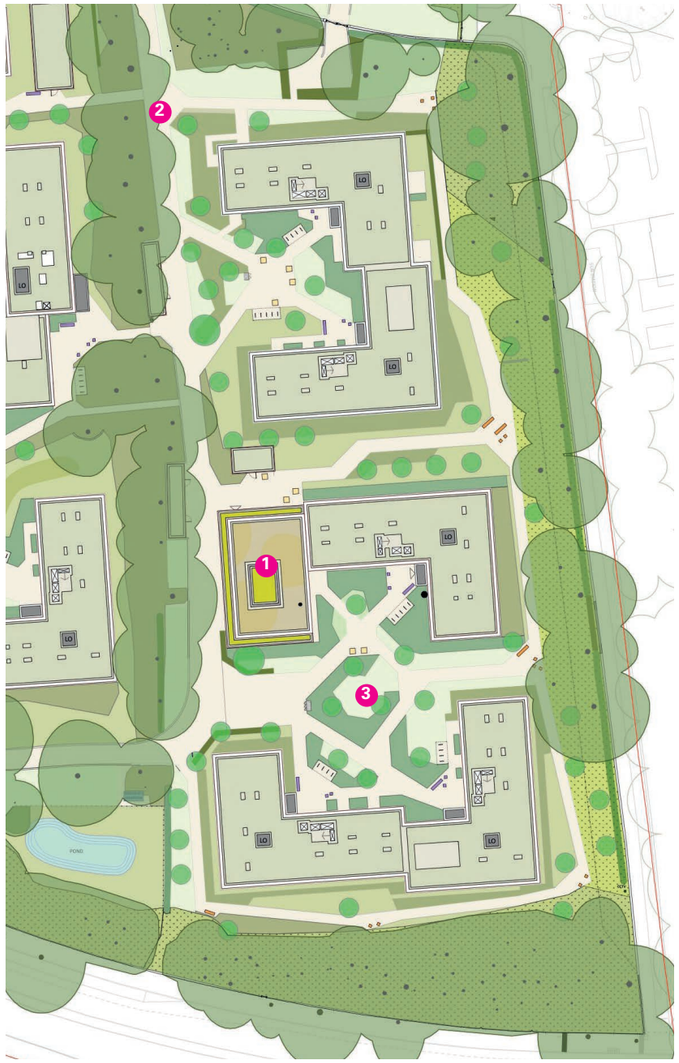
External colours



Paving textures

Tones and textures





## 2.4 Detailed Proposals

### 2.4.1 Landscape GA

The plan adjacent shows a detailed overview of the landscape proposals which are described in detail in the following section.




**LANDSCAPE KEY**

**HARD LANDSCAPE**
See drawing UMRF-LAP-XX-00-DR-L-00008

**STREET FURNITURE**
Seating and benches. See drawing UMRF-LAP-00-DR-L-00012

Cycle stores.

Cycle racks. See drawing UMRF-LAP-XX-00-DR-L-00022

**LIGHTING**
Feature lighting columns to Concourse
Other lighting fittings. See drawing UMRF-LAP-XX-00-DR-L-00011

**BOUNDARIES**
See drawing UMRF-LAP-XX-00-DR-L-00014

**SIGNAGE AND WAYFINDING**
See drawing UMRF-LAP-XX-00-DR-L-00019

**SOFT LANDSCAPING**
**TREES**
Existing trees retained. See drawing UMRF-LAP-XX-00-DR-L-00003 for removals

Proposed trees. See drawing UMRF-LAP-XX-00-DR-L-00016

**PLANTING** See drawing UMRF-LAP-XX-00-DR-L-00010
Ornamental planting beds

Mixed scrub

Grass, mown and wildflower lawn

Refer to Landscape GA drawing: UMRF-LAP-XX-00-DR-L-00002-LandscapeGA

## 2.4.2 Boundary Treatments and Gates

### Site Boundaries and Entrances

The boundary of the site is defined by a combination of railings, and railings mounted on a low wall; hedges are often planted behind the railings and wall. The boundaries and entrance gates will be mostly retained to preserve the setting and character of the site, the proposed minimal changes shown on the adjacent plan are as follows:

- Historic railings along the southern end of Whitworth Lane will move back into the site in the form of new railings, leaving the existing low retaining wall in order to visually open up this narrow constrained route.
- Existing pedestrian gates at the main entrance off Wilmslow Road will be replaced by a low wall and railings to match existing adjacent.
- Close board fencing at the north of the site will be removed and replaced with a mesh panel fence.
- Small sections of boundary walls will be removed to improve access at the well-defined and overlooked gateway entrances to the site. Removable drop bollards are also provided to control vehicle access.

### Internal Boundaries within the Site

- The landscape plan provides open access into and through the Fallowfield site, to allow residents of halls to the east to access bus stops on Wilmslow Road.
- Existing iron gates and brick piers which form the northern entrance to Woolton Hall will be retained to preserve character and define the gateway to Neighbourhood 5.
- Secure entrance points to buildings, cycle stores and equipment compounds will control public access to private areas.
- Internal boundaries within the site will be defined by hedges, fences and railings. These will be below eye-height, or incorporate railings and meshes to allow visual permeability. They will be integrated into the landscape through the use of level changes and hedges.

### Personal Safety and Privacy

Well-established ‘secure-by-design’ principles are applied to the design of external areas:
- Buildings are orientated to ensure overlooking of surrounding landscape areas.
- Lighting and planting will be positioned to eliminate areas for hiding close to paths.
- ‘Privacy planting’ comprising densely planted evergreen and spiny plant species will deter access close to windows. Knee rails will be used to protect planting and define path junctions.



Existing site boundary (right) to Whitworth Lane



Existing site boundary Wilmslow Road



Existing gates and piers to Woolton Hall retained



Internal boundary : weldmesh fencing in green finish



Low hedge: boundary definition and visibility



Low knee-rail




**KEY TO EXISTING BOUNDARY TREATMENTS**

- Historic masonry wall retained
- 1960s dark engineering low brick plinth/retaining wall with black painted railings above retained
- Full height 1960s black painted railings retained
- As above removed
- Low brick wall/plinth with 1960s concrete coping and traditional railings retained
- Traditional railings on low brick wall removed. Wall and 1960s concrete coping retained
- Traditional historic railings painted green, retained
- Historic wall with traditional railings painted green retained
- Timber closeboarded fence removed

**KEY TO PROPOSED BOUNDARY TREATMENTS**

**FENCING**
- A Mesh panel fence. 1.2m high within planting bed (A1) and 2m high to protect pond (A2)
- B Existing bin store wall on line of Whitworth Lane taken down to level of adjacent wall. New concrete coping to match adjacent.
- C New wall 1m high using reclaimed bricks and coping to close gap left by gate removal
- D Flat top railings on low masonry plinth to match those adjacent to close pedestrian access
- E Retaining walls to match adjacent building masonry
- F 2m high railings, flat top painted black

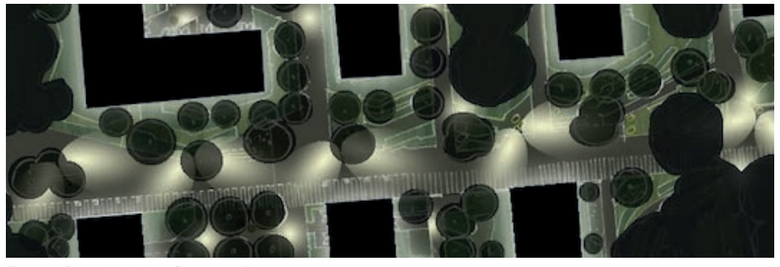
**BOLLARDS**
- Socketed removeable type

## 2.4.3 External Lighting

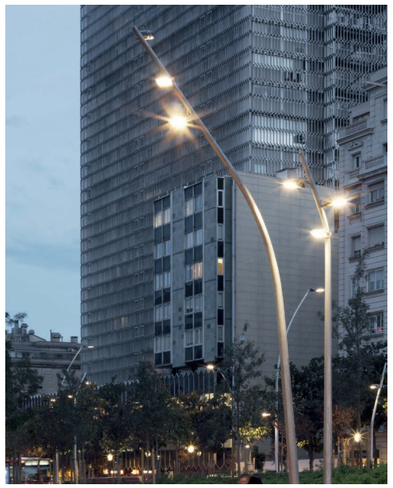
External lighting at the Fallowfield site is designed to achieve a balance between effective lighting for night-time safety and wayfinding, and the requirement to minimise light levels to avoid disturbance to wildlife, particularly bat species.

The following principles are applied to the lighting strategy for Fallowfield, as demonstrated on the adjacent plan:

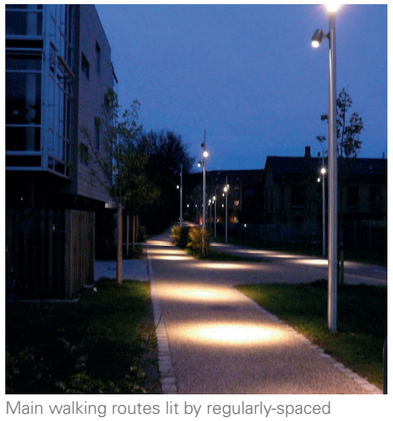
- Light spillage to areas of darkness will be avoided through light fitting position and design.
- Building frontages and entrances will be orientated towards the surrounding paths and landscape, providing indirect lighting.
- Entrances will be lit from buildings and from low level bollard lighting, to create a sense arrival.
- The Concourse will feature approx 7m feature lighting columns.
- All other main walking routes across the campus will be lit from regularly spaced column mounted fittings, no higher than 4m forming pools of light.
- Gathering spaces, such as areas outside hub buildings, will be lit by special lighting, to create bespoke effects, capable of adaptation for different times of year.
- Low energy lighting fittings will be used, with warm lighting (lower than 3300 Kelvin).



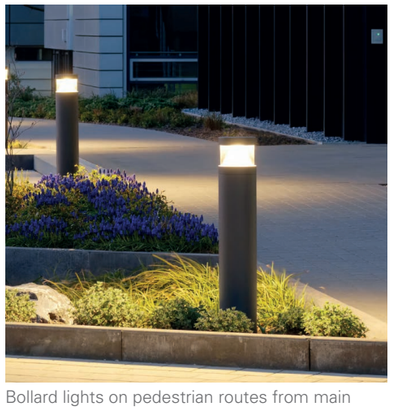
Extract from Lighting Strategy Plan



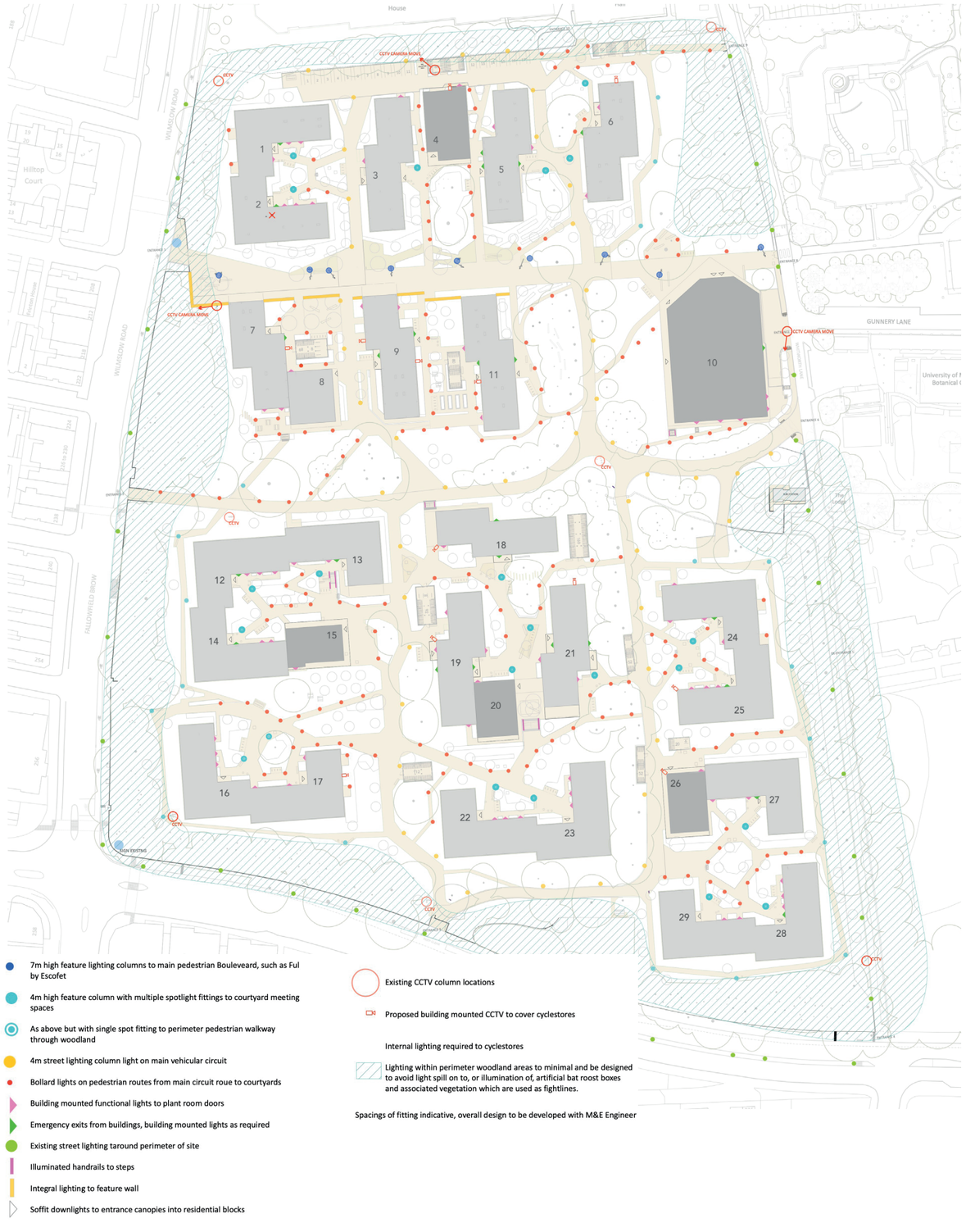
Feature lighting columns to the Concourse, such as FUL by Escofet



Main walking routes lit by regularly-spaced column-mounted light fittings.



Bollard lights on pedestrian routes from main circuit route to courtyards



## 2.4.4 Levels, Slopes and Retaining Features

The 4.5m change of level and terraced terrain at the site sets a challenge to achieve universal access for all people across the site; the landscape proposals incorporate shallow gradient (shallower than 1:21 is deemed level access) routes across the site which will satisfy current access requirements.

The landscape plan incorporates a range of measures to achieve universal level access, these include:

- Re-grading slopes (taking account of existing trees / RPAs)
- Stepped routes with alternative level access routes
- Construction of retaining walls.




Stepped route with an alternative level access route (max 1:21)




Regraded slopes incorporating retaining structures to ensure level access routes




Retaining structures to ensure level access routes



## 2.4.5 Outdoor Activities

The landscape plan incorporates a range of facilities for outdoor activities.

The following two pages demonstrate locations for a range of activities including competitive sports, exercise, physical, playful, social and group / team activities.

Facilities for sensory enjoyment (benches, seating, open lawns etc.) are provided throughout the campus.






1 Artificial boulders (climbing)



2 50m dash



3 Basketball hoop





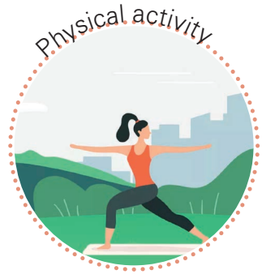

1 Exercise trails



2 Static equipment



3 Kinetic equipment






1 Solitary



2 Informal



3 Small group








1 Challenges



2 Puzzles



3 Theatre



4 Dance






1 Cooking



2 Growing



3 Eating together






1 Boot camp - team building



2 Group - tai chi



3 Outdoor teaching








Throughout





## 2.4.6 Surface Water Management

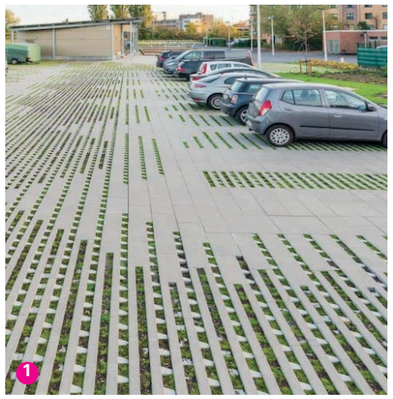
The Blue Infrastructure Strategy and Flood Management Statement in the Environmental Statement set out the rational for surface water management at the Fallowfield site.

The landscape plan incorporates various landscape features to manage surface water run-off, which at the same time are designed, where possible, to enhance biodiversity:

1. Infiltration: Surfaces for infiltration of SW into groundwater
   - Porous paving
   - Porous planted areas.
   - Ponds

2. Attenuation : landscape features to delay surface water outflow after heavy rain, thereby reducing flood risk
   - Swales next to impervious paving areas
   - Raingardens
   - Brown roofs over blue roof build up
   - Extensive roof over blue roof build-up
   - Intensive roof over blue roof build up

3. Storage : landscape features to harvest water for re-use on site.
   - Water butts for storage of water for growing gardens



Porous Paving



Porous Planting



Swale



Raingarden



Green roof over blue roof



Rainwater harvesting tank



# 3.0 Hard and Soft Landscape Materials

## 3.1 Hard and Soft Landscape Overview

A key characteristic of the Fallowfield site is the combination of greenery and building to create a distinctive identity. The landscape hard and soft landscape palette is designed to contribute to placemaking.

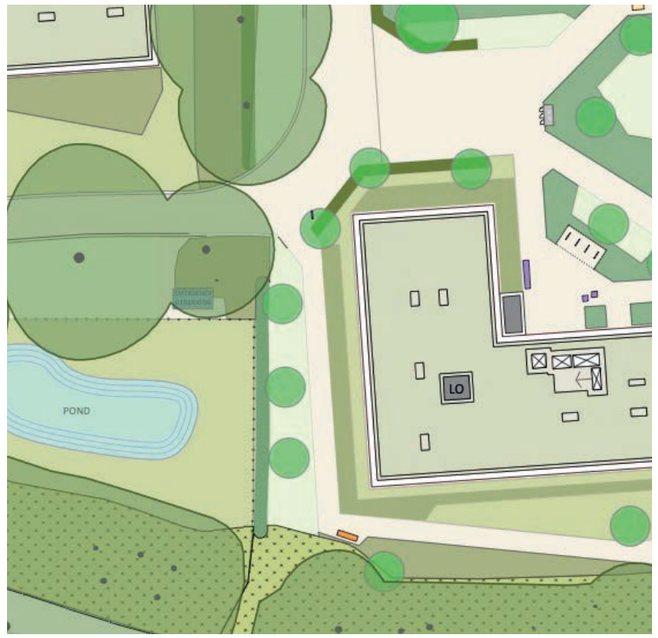
From a sustainability and climate-resilience perspective, hard and soft materials are seen as integrated components which contribute to surface water management, biodiversity improvements and carbon capture.

Functionally, hard and soft landscape materials, when used carefully in combination, provide a hard-wearing and resilient support infrastructure. Hedges and lawns are self-repairing, while well designed porous paving can provide a long lasting slow maintenance surface. Tree cover can reduce energy usage by providing shelter in winter, and shade in summer.

The carefully chosen hard and soft landscape materials create a special identity through the combinations of colour, texture and line; this is particularly important when considering that much of the student year is spent in the colder months, when conditions are overcast, and foliage planting can be drab. A more cheerful, colourful landscape is important in encouraging outdoor activity and promoting a sense of positivity and well-being.

The landscape plan shows how hard and soft landscape materials are used to define space, light and shadow to create a spatially rich environment; how materials define line, proportion, and through coherence create continuity between different areas, such as through the use of consistent paving finished, or linear elements such as hedges.
.
Where contrast is required, tonal and textural differences have been developed through contrasting planting materials,.

The following section provides a detailed summary of the proposed hard and soft landscape materials.



Typical combination of line and texture through hard and soft landscape materials.


Precedent : line and texture used to create a variety of interlinked spaces






Above : hard paved surfaces integrated with greenery

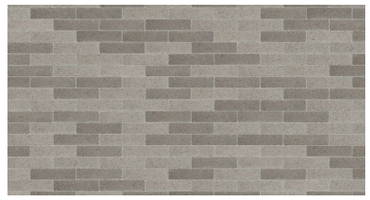
## 3.2 Hard Landscape

### 3.2.1 Surfaces and Edgings

The hard landscape plan uses materials in hierarchically, with primary materials (granitic aggregate finished concrete pavers, kerbs and steps, with a high recycled content), secondary materials (coloured bitmac ) and tertiary materials (gravels, bound and loose) used according to busyness and location. The proposed paving reflects the hierarchy of routes around the site to delineate which of the routes will be used by vehicles.

The hard materials palette shown adjacent demonstrates how colours, texture and line have been carefully selected to enhance the character areas within Fallowfield, creating a distinctive identity and to contribute to placemaking. A more cheerful, colourful landscape is important in encouraging outdoor activity and promoting a sense of positivity and well-being.

Hard materials have also been selected for their sustainability, climate-resilience and ability to contribute to surface water management, biodiversity improvements and carbon capture. Functionally, materials have been selected, carefully in combination, to provide a hard-wearing and resilient support infrastructure.

| | | Surfaces | | Edgings |
|---|---|---|---|---|
| | | Neighbourhood 1 | Neighbourhood 2, 3, 4 & 5 | All Neighbourhoods |
| Primary Materials | Concourse and Entrances | Precast concrete pavers with granitic aggregate finish - contrasting light and dark tones to enhance the dramatic character of the interlinked spaces  | Precast concrete pavers with granitic aggregate finish  | Tegula block paving (porous / non-porous)   |
| | Main Paths | Precast concrete pavers with granitic agg finish  | Precast concrete pavers with granitic agg finish  | |
| | Courtyard Paths | Precast concrete pavers with granitic agg finish  | Precast concrete pavers with granitic agg finish  | |
| Secondary Materials | Access Road | Coloured asphalt - New wearing course only on existing area of asphalt paving  | | Existing concrete channels to sides of the road removed replaced with a strip of concrete paving  |
| Tertiary Materials | Footpaths | Resin bound gravel  | | Steel edging  |
| | Footpaths | Self-binding gravel  | | Timber edging  |

## Surfaces

The landscape plan sets out to retain and re-use as much of the existing pathway system as possible; this will minimise excavation and new construction, and help to reduce energy and carbon usage. The use of surface materials are designed to signify special places (concourse and courtyards) and provide continuity to help with legibility (main path east, main path west), shown on the adjacent plan and as follows:

Special Places:
- Block paving in a variety of formats will be used as the surface for the concourse and all courtyards. These areas will drain to porous paving or swale area on low side.

Continuity of routes:
- Ex bitmac surfaces will be resurfaced with buff coloured asphalt, extended with similar finishes to form the main paths on the east side of the site. These areas will drain to porous paving or swale area on low side
- Primary routes on the west side of the site will be resurfaced in block pavers
- Perimeter footpaths through landscape areas will be surfaced in porous bound gravel (hoggin) with areas over tree roots in 'no-dig' construction build up to minimise impacts on tree roots.







**KEY**

- In-situ buff coloured bitmac surfacing to retained historic routes through site
- Standard asphalt surfacing within loading bay and carpark area
- Concrete block/slab paving, concourse. Some areas porous in line with drainage strategy
- Concrete block paving to new vehicular route around site
- Concrete block paving courtyards. Some areas porous in line with drainage strategy
- Concrete block paving pedestrian circulation
- Porous resin bonded gravel where trees proposed in hard surfacing
- Bound gravel/hoggin in-situ surfacing, semi-porous draining to soft landscaping
- Concrete base to cyclestores
- 200mm wide gravel strip to building facades where planting abuts

## 3.2.2 Street Furniture

The landscape plan incorporates a range of street furniture and landscape fixtures.

The adjacent plan demonstrates how a variety of outdoor seating is proposed to encourage social interaction, whilst carefully positioned to minimise clutter and not obstruct walking routes.

The street furniture has been carefully selected to provide a consistent palette of high quality, robust and contemporary materials throughout the campus; unique characteristics within each Neighbourhood (see Section 2.3) such as colour will create a distinctive identity and contribute to placemaking.

Typical neighbourhood street furniture palettes are demonstrated on the following page.




**Key**

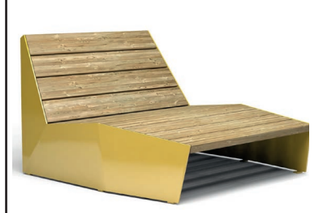
- Feature benches associated with the Concourse
- Feature benches associated with Hub Spaces
- Seating to residential entrances
- Trim trail seating
- Pic-nic benches

Unique characteristics within each Neighbourhood such as colour (see Section 2.3) are used to create a distinctive identity and contribute to placemaking.

Bespoke elements are proposed within each Neighbourhood in response to their unique characteristics; for instance, a selection of retaining benches / steps / walls in Neighbourhood 3 address the difference in levels in this area.

Functionally, materials have been selected to provide a hard-wearing and resilient support infrastructure, with a range of recycled finishes to contribute to sustainability and reduce whole life costs. Materials have been purposely selected to provide warm to the touch surfaces.

The suggested seating and furniture products will also be specified with options for back and armrests, and overhanging tables to meet accessibility requirements.

| | Neighbourhood 1 | Neighbourhood 2 | Neighbourhood 3 | Neighbourhood 4 | Neighbourhood 5 |
|---|---|---|---|---|---|
| Seating and Seating Steps |    |    |    |    |    |
| Fixtures | Note: consistent palette across campus with varying accent colour within each Neighbourhood | | | | |
| |             | | | | |

## 3.2.3 Cycle Stores

Cycle stores will be provided in easily accessible locations through the site, conveniently close to residential entrances.

Stores will be secure, with access via fobs to cycle stands and racks, with provision for accessible parking spaces (5%) and e-cycle charging within each store. Each neighbourhood will also have accessible visitor cycle parking.

The cycle stores will be constructed in steel and timber, and will be faced in timber slats and shingles, and steel mesh panels, some of which will support climbing plants. Roofs of cycle stores will feature water attenuation and areas for greenery.

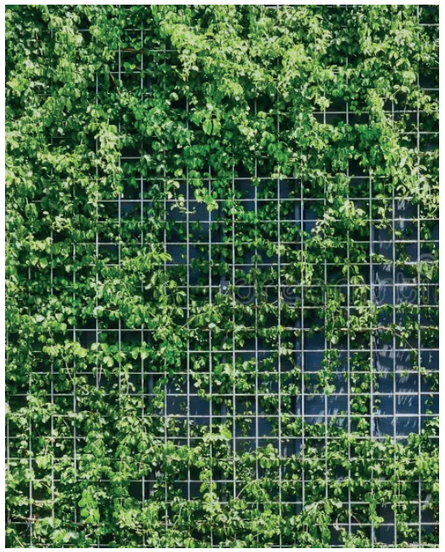
For further details, refer to LP's Cycle Parking Strategy drawing: UMRF-LAP-XX-00-DR-L-00022.



Cycle store roofs to feature greenery and water attenuation



Secure stores with fob access



Mesh panels to

## 3.2.4 Wayfinding and Signage

The landscape plan incorporates a range of signage and wayfinding, as shown on the adjacent plan.

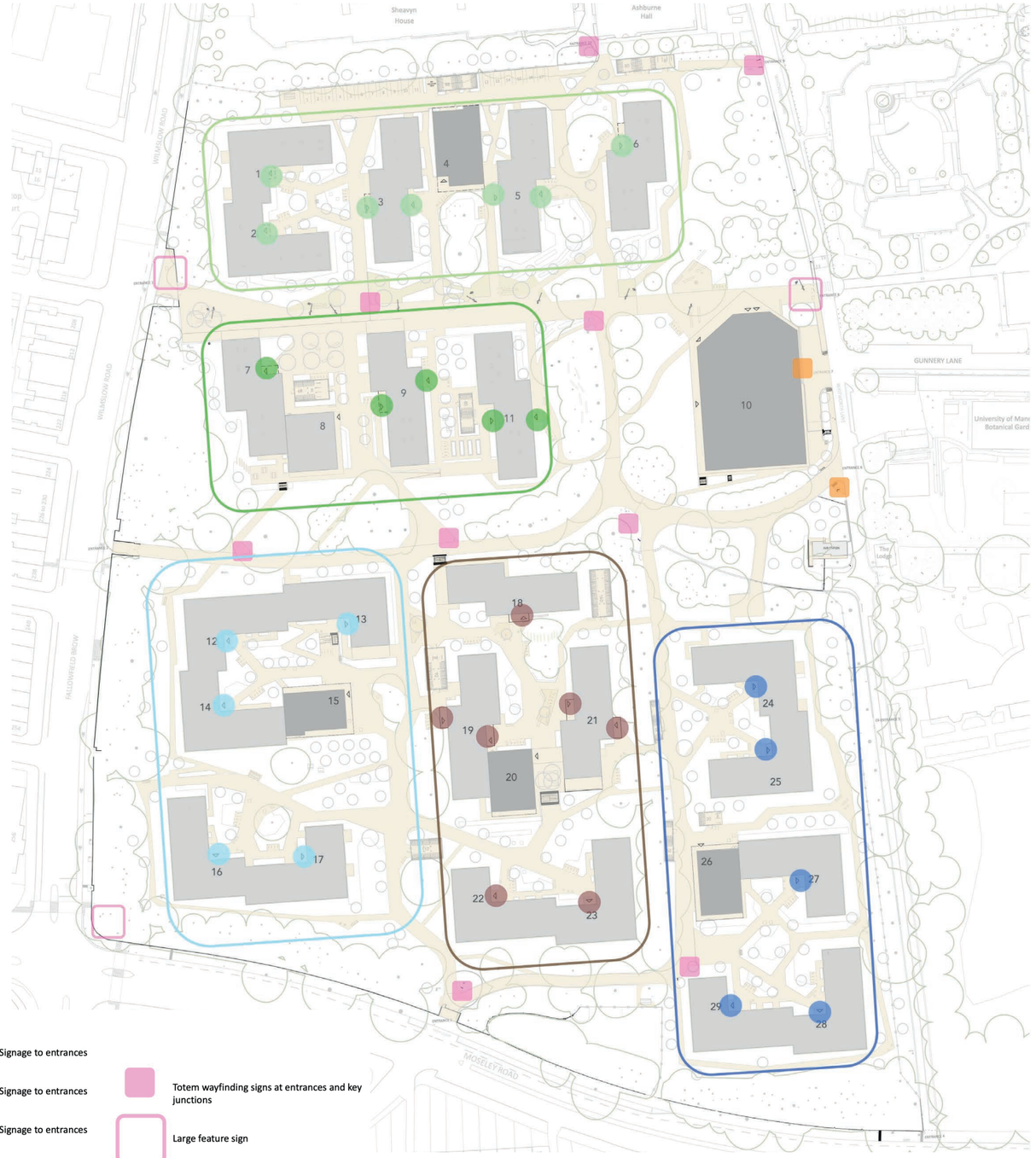
The signage will be developed to fit in with the wider campus suite. The strategy will be developed to ensure it contains features for those with additional needs, and reflects the hierarchy of the route, whether that be primary secondary or tertiary, promoting clear wayfinding and legibility.

Wayfinding will clearly identify the 5 neighbourhoods as well as totem signs to key points around the site and off-campus, design in line with UoM requirements to ensure continuity across the wider campus.










**Key**

- Neighbourhood 1 Building Signage to entrances
- Neighbourhood 2 Building Signage to entrances
- Neighbourhood 3 Building Signage to entrances
- Neighbourhood 4 Building Signage to entrances
- Neighbourhood 5 Building Signage to entrances
- Totem wayfinding signs at entrances and key junctions
- Large feature sign
- Traffic management sign at vehicle entrances

## 3.3 Soft Landscape

### 3.3.1 Site Wide Overview

The soft landscape plan sets out to create:

- Create an attractive place for student life
- Support student health and well-being
- Make a more biodiverse landscape to enhance nature
- Use sustainable nature-based solutions for surface water management
- Implement tree replacement and succession plans

The soft landscape plan was developed through a process of Landscape Evaluation and Placemaking, Arboricultural Impact Assessment, assessment of Biodiversity Improvement opportunities, and taking into account student well-being and safety.

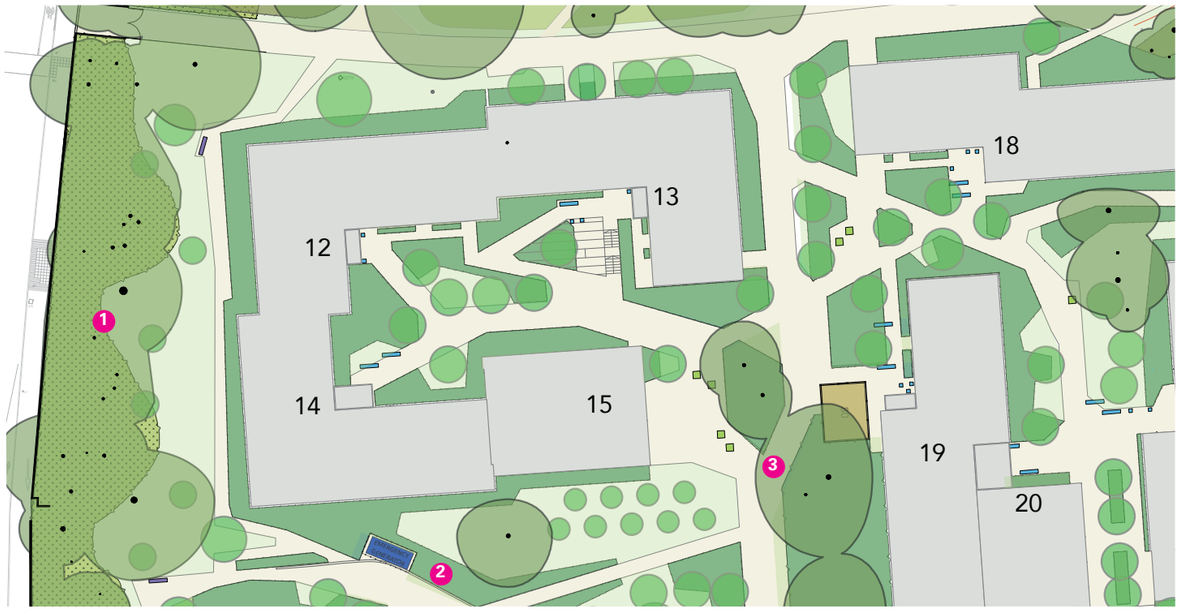
The plan retains as many existing trees and habitat areas as possible, and enhances the existing green infrastructure by increasing the biodiversity of the site, in line with national planning policy and University of Manchester aspirations. Within the Green Framework, the proposals create a series of distinctive places, including main walking routes and open green spaces, Hub terraces and Gardens, and Neighbourhood Courtyards.

The soft landscape plan is described in the following sections as a series of habitats both for the description of character and in relation to the creation of habitats for Biodiversity Net Gain (BNG) improvements.



## 3.3.2 Woodland / Grassland / Mixed Scrub

Woodland, Grassland and Scrub habitat areas are located around perimeters of sites and buildings




Extract from Landscape Plan




Evergreen and deciduous trees

Informal hedges

Shade tolerant groundcover planting

Dense, mat-forming groundcover planting extending to path edges

Pathway: paving slabs / setts

Pathways and Routes




Large trees

Woodland biodiverse groundcover

Shade tolerant groundcover planting

Pathway: informal insitu path

Dense, mat-forming groundcover planting extending to path edges

Woodland perimeter




Deciduous trees

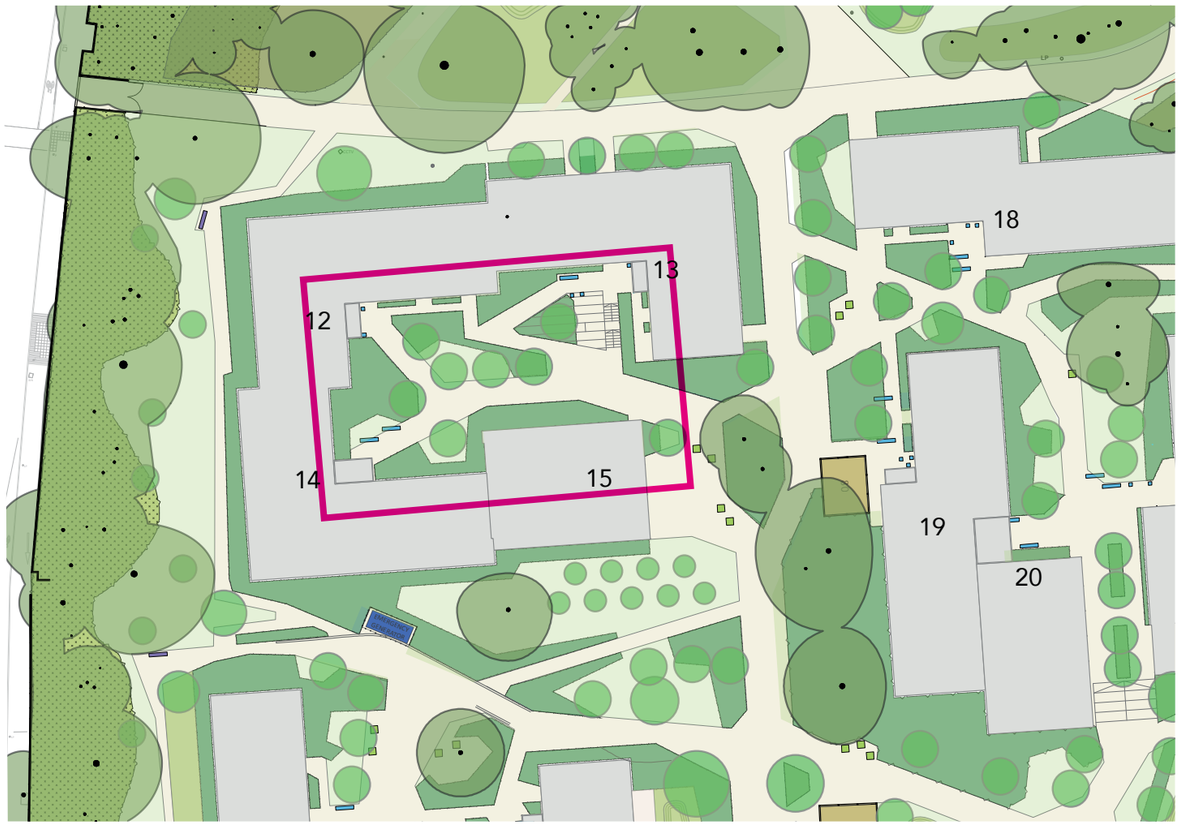
Mown grass:
Maintenance strip to facade

Herbaceous perennial groundcover

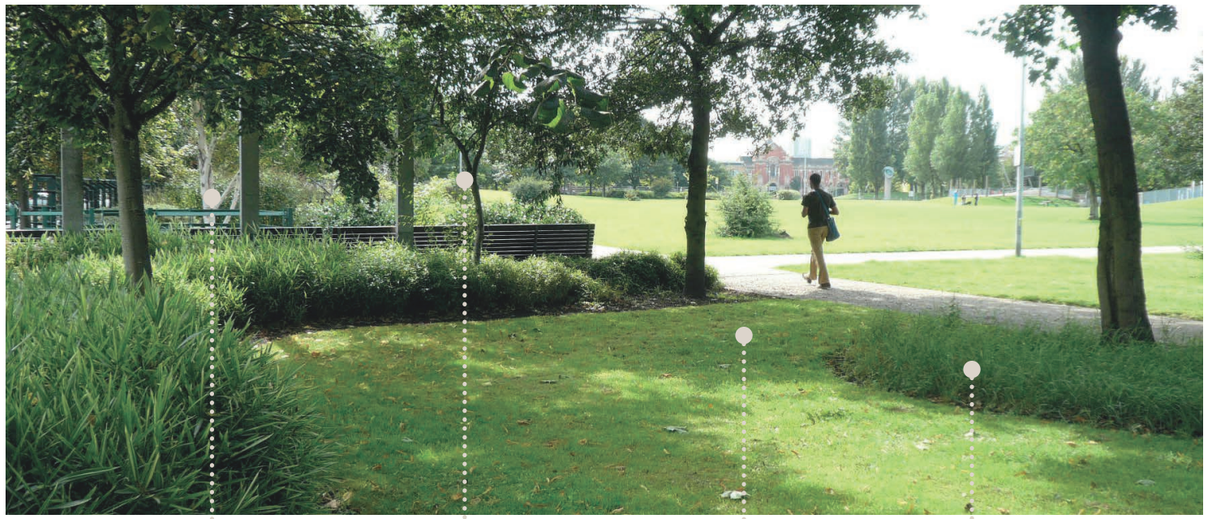
Banks and Level changes

## 3.3.3 Courtyards and Amenity Spaces

Within Courtyards, more ornamental landscapes and hedges predominate.




Extract from Landscape Plan

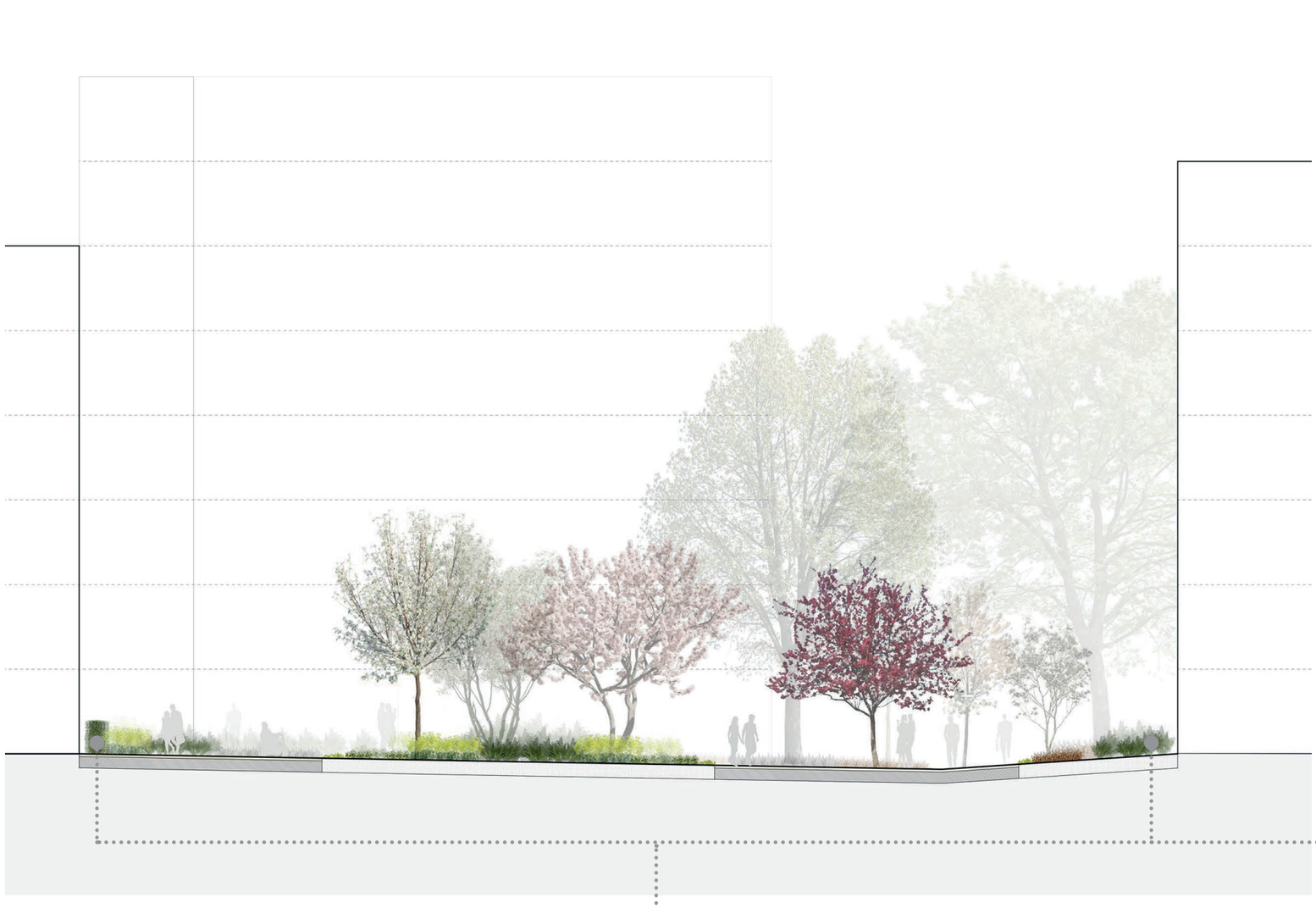





Landscape : Courtyard

## 3.3.4 Typical Planting Sections

Typical planting sections in relation to windows and privacy:



Typical planting section : Neighbourhood 1

‘Privacy planting’ comprising densely planted evergreen and spiny plant species will deter access close to windows.



Typical planting section : Neighbourhood 4

## 3.3.5 Landscape Habitats Overview

This section explains the landscape strategy in order to address BNG habitats, improve biodiversity and achieve BNG at the site. The following pages should be read in conjunction with the detailed calculations in the BNG report by Thompson Ecology, which includes further details on the rationale and BNG % calculations.

The soft landscape plan includes the following features to enhance the biodiversity of the site:

- Perimeter Woodland Enhancement
- Extension of existing areas of species-rich habitat, including tree belts and hedgerows
- Improvement of existing habitat, including closely-mown lawn and ornamental shrubs
- Create new habitats, including roof-top planting, shade tolerant woodland groundcover, lowland heath and a site-wide Sustainable Urban Drainage system

The plan adjacent shows the complete range of landscape habitat areas to enhance the biodiversity of the Fallowfield site. These will be managed to create an attractive and safe campus, as well as contribute to the overall biodiversity of the site through the creation of habitats.

These habitats are described in detail on the following pages, together with their general management and maintenance requirements in Section 4.0.

For further details on the Urban Greening Factor calculation, refer to the Sustainability Statement by Buro Happold.




**KEY - Landscape Habitat Areas:**

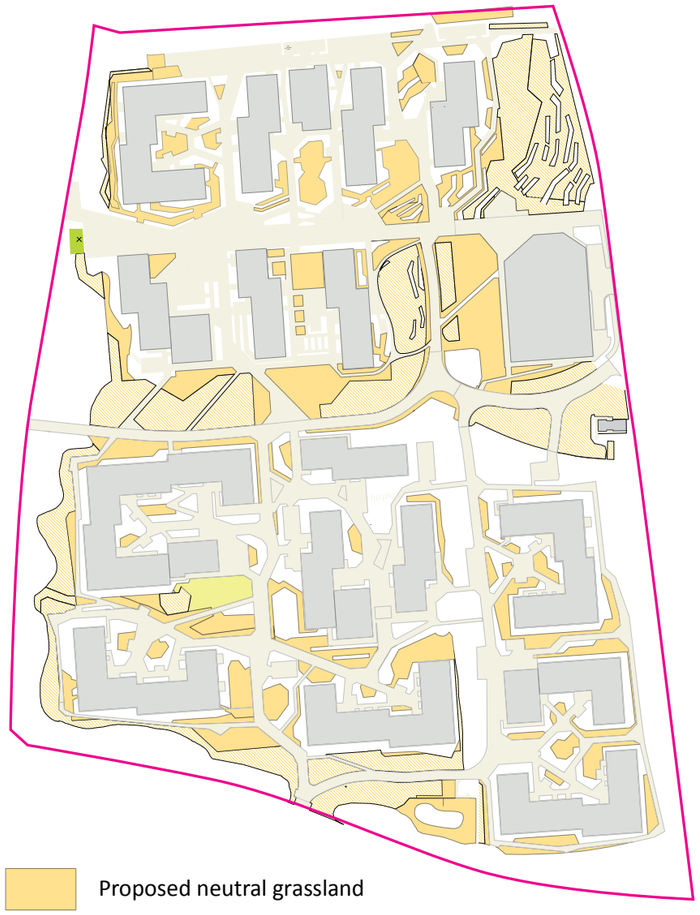
- Existing woodland to be enhanced
- Proposed woodland
- Existing native hedging rertained
- Proposed species rich hedging
- Propose native hedging
- Proposed mixed scrub
- Ornamental planting removed, mixed scrub added
- Proposed neutral grassland
- Existing neutral grassland enhanced
- Proposed traditional orchard
- Proposed pond
- Existing introduced shrub planting retained
- Proposed introduced shrub/flower bed
- Proposed medium tree (30-35cm girth)
- Proposed small tree (8-10 - 25-30cm girth)
- Extensive green roof
- Biodiversee green roof







## 3.3.6 Neutral Grassland: Habitat Type g3c



Proposed neutral grassland

Existing neutral grassland retained and enhanced

| Type of landscape | Habitat Characteristics |
|---|---|
| **Neutral Grassland Habitat type g3c** | **Overview**<br>• Existing grassland areas, together with new grassland areas, will continue to provide an important component of biodiversity habitat, as well as space for amenity. There will be a mix of close-mown lawn, seasonally cut grass areas and wildflower grassland areas<br>• Existing retained lawn areas will be enhanced through overseeding and additional planting of herbaceous plant species directly into the grass sward<br>• Replacement grassland areas will be established with a mix of shade-tolerant grasses and wildflowers |
| | **Habitat Description**<br>• Lowland neutral grassland, typically found in Cheshire and Lancashire, consists of a mix of native grasses and broad-leaved herbs, with between 10 and 15 species per sqm. Includes areas of mixed height grasses, interspersed with wildflowers, some of which are capable of surviving close-mowing e.g. daisy and selfheal. Plant mix includes shade-tolerant species. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of grass and wildflower species present and thriving.<br>• Implement management regime to ensure robust sward together with consistent mowing; including areas which will be left to set seed in autumn and raked clear in late-winter, and winter-flowering bulbs.<br>• Ensure minimal encroachment of species from adjacent mixed scrub and woodland areas, by cutting seedlings during mowing operations |
| | **Key Landscape Management Actions**<br>• Planning mowing regime, in relation to prevailing site conditions (will need experienced judgement re timing of annual cut to allow seed to set).<br>• Adjusting areas of close-mown swards (for access, informal paths etc.) and longer grass with wildflowers in suitable areas according to changing site conditions<br>• Raking off biomass, to ensure low fertility levels prevail. |

Typical species to include:

- Grasses :

Common Bent Agrostis capillaris; Meadow Foxtail Alopecurus pratensis; Red Fescue Festuca rubra

- Forbs :

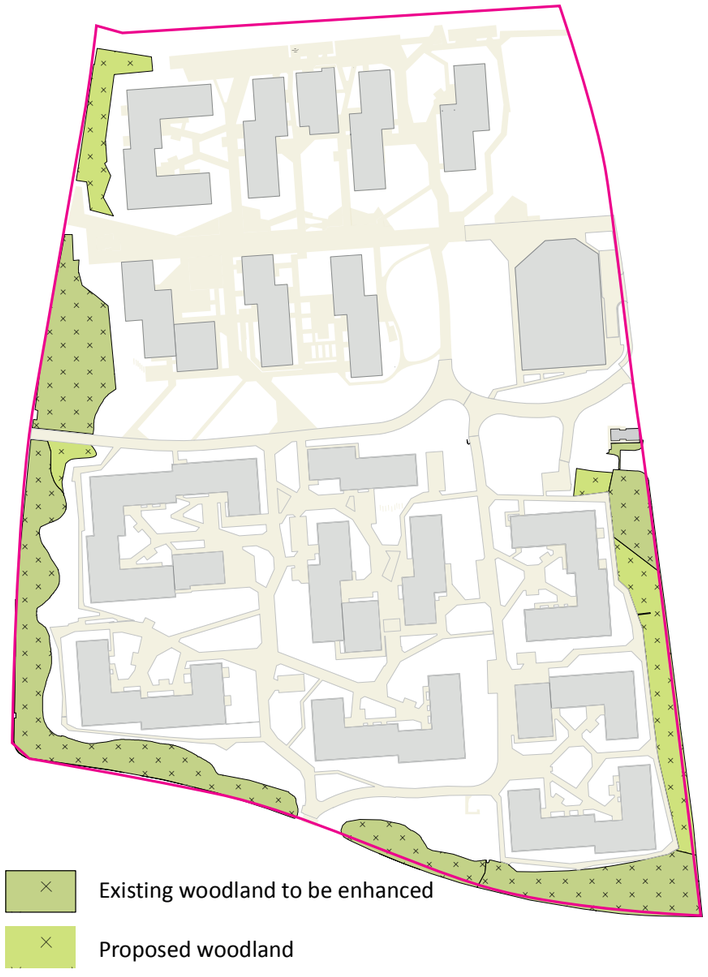
Cow Parsley Anthriscus sylvestris; Meadow cranesbill Geranium pratense; Field Scabious Knautia arvensis; Meadow Buttercup Ranunculus acris







## 3.3.7 Enhanced Woodland: Habitat Type w1g




| Type of landscape | Habitat Characteristics |
|---|---|
| **Enhanced Woodland w1g** | **Overview**<br>• Existing woodland areas, together with new woodland areas, will continue to provide an important component of biodiversity habitat, and provide replacement trees to provide long-term resilience alongside the mature existing trees. There will be a mix of understorey shrubs, informal swathes of woodland groundcover herbaceous species, and spring-flowering bulbs.<br>• Existing retained woodland areas will be enhanced through overseeding and additional planting of woody and herbaceous plant species.<br>• New woodland areas will be established with a mix of shade-tolerant grasses and wildflowers. |
| | **Habitat Description**<br>• Lowland woodland, typically found in Cheshire and Lancashire, consists of a mix of native tree, shrub, grasses and broad-leaved herbs. Seasonal effects include spring bulbs emerging before the tree canopy leafs up, autumnal leaf fall, and persistent evergreen species such as Holly, Yew and Box through the winter. Plant mix includes shade-tolerant species. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of understorey wildflower species present and thriving.<br>• Implement management regime to ensure seedlings of heavy-shade plants such as sycamore and bramble are removed including areas which will be left to set seed in autumn and raked clear in late-winter.<br>• Ensure sufficient space for long term establishment of understorey trees and shrubs. |
| | **Key Landscape Management Actions**<br>• Periodic clearance of overgrowth, in relation to prevailing site conditions (will need experienced judgement re timing of cut to allow seed to set).<br>• Adjusting areas of close-mown swards (for access, informal paths etc.) and longer grass with wildflowers in suitable areas according to changing site conditions.<br>• Raking off biomass. |

Typical species to include:

- Understorey Shrubs

Hazel Corylus avellana; Holly Ilex aquifolium; Crab Apple Malus sylvestris

- Forbs and Bulbs

Lady fern Arthyrium filix femina; Wood sedge Carex sylvatica; Wood Spurge Euphorbia spp; Woodruff Galium odoratum; Woodrush Luzula sylvatica; Red campion Silene dioica; Ramson Allium ursinum; Bluebell Endymion non-scripta



## 3.3.8 Mixed Scrub: Habitat Type h3h



Proposed mixed scrub

Ornamental planting removed, mixed scrub added

| Type of landscape | Habitat Characteristics |
|---|---|
| **Mixed Scrub h3h** | **Overview**<br>• These are areas of mixed deciduous and evergreen native shrubs, interspersed with groundcover woody and herbaceous species, which will grow to form an informal mosaic . These will provide an important component of biodiversity habitat in areas formerly used for construction. They will provide seasonal interest, as well as privacy through the use of prickly shrubs like Holly. |
| | **Habitat Description**<br>• Mixed Scrub habitat, typically found in Manchester and the Mersey Valley, consists of a mix of native shrub, grasses, ferns and broad-leaved herbs. Seasonal effects include flowering shrubs like Hazel, spring bulbs like Bluebell, emerging before the tree canopy leafs up, autumnal leaf fall, and persistent evergreen species such as Holly, Yew and Box through the winter. Plant mix includes shade-tolerant species. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of scrub species present and thriving.<br>• Implement management regime to ensure seedlings of heavy-shade plants such as sycamore and bramble are removed including areas which will be left to set seed in autumn and raked clear in late-winter.<br>• Instigate periodic pruning to remove large shrubs from near window frontages.<br>• Ensure sufficient space for long term establishment of understorey trees and shrubs. |
| | **Key Landscape Management Actions**<br>• Periodic clearance of overgrowth, in relation to prevailing site conditions (will need experienced judgement re timing of cut to allow seed to set).<br>• Raking off biomass.<br>• Ensure mown strips or ‘rides’ subdivide the mixed scrub areas. |













Typical species to include:

Box Buxus sempervirens; Dogwood : Cornus sanguinea; Hazel Corylus avellana; Field Rose Rosa arvensis; Periwinkle Vinca minor

- Forbs and bulbs

Sedge, Carex pendula; Dyopteris Male Fern; Lenten Rose Helleborus foetidus. Snowdrop Galanthus nivalis; Woodrush Luzula sylvatica; Red campion Silene dioica; Ramson Allium ursinum; Bluebell Endymion non-scripta

## 3.3.9 Urban Planted Areas: Habitat Type 1140



Existing introduced shrub planting retained

Proposed introduced shrub/flower bed

| Type of landscape | Habitat Characteristics |
|---|---|
| **Urban Planted Areas 1140** | **Overview**<br>• These are areas of mixed deciduous and evergreen native and non-native shrubs, interspersed with groundcover woody and herbaceous species, which will grow to form closed-canopy groundcover. They will provide seasonal interest, as well as privacy through the use of prickly shrubs. Species mixes vary according to location, so that they contribute to the local identity of each Neighbourhood. Urban Planted Areas are generally located in courtyards and close to walking routes, where their winter colour will be most beneficial. |
| | **Habitat Description**<br>• Urban Planted Areas are design primarily for amenity purposes. They provide visual seasonal effects including winter foliage and stem colour, spring flowering shrubs, spring bulbs like Bluebell, autumnal leaf fall, and persistent evergreen species such as Holly, Yew and Box through the winter. Plant mix includes shade-tolerant species.<br>• The planting type will provide secondary biodiversity benefits, including nectar rich flowers, and cover for birds and invertebrates. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of ornamental species present and thriving.<br>• Implement management regime to ensure seedlings of heavy-shade plants such as sycamore and bramble are removed including areas which will be left to set seed in autumn and raked clear in late-winter.<br>• Instigate periodic pruning to remove large shrubs from near window frontages<br>• Ensure sufficient space for long term establishment of understorey trees and shrubs. |
| | **Key Landscape Management Actions**<br>• Periodic clearance of overgrowth, in relation to prevailing site conditions (will need experienced judgement re timing of cut to allow seed to set).<br>• Raking off biomass. |

Typical species to include:

Neighbourhood 1: typical species to include:
- Accent Shrubs: Purple Hazel Corylus m Purpurea; Juniperus comm Hibernica; Nandina domestica
- Tall Shrubs: Hebe topiaria; Photinia Red Robin; Pittosporum tenuifolium;
- Grasses and Ferns : Carex Bronze Form; Hakonechloa macra; Dryopteris spp.
- Herbaceous and Bulbs: Epimedium spp. Euphorbia spp. Geranium spp. Tiarella spp. Vinca spp. Endymion non-scripta

Neighbourhood 2: typical species to include:
- Accent Shrubs: Hazel Corylus avellana; Cotoneaster waterii; Hamamelis spp
- Tall Shrubs: Hebe rakaensis; Pyracantha spp; Skimmia spp;
- Grasses and Ferns : Carex Ice Dance; Luzula spp; Dryopteris spp.
- Herbaceous and Bulbs: Alchemilla spp. Epimedium spp. Euphorbia spp. Geranium spp. Symphytum spp. Vinca spp. Endymion non-scripta

Neighbourhood 3: typical species to include:
- Accent Shrubs: Hazel Corylus avellana; Hamamelis spp Garrya spp.
- Tall Shrubs: Choisya spp; Prunus spp; Viburnum spp. Skimmia spp;
- Grasses and Ferns : Carex Buchananii; Deschampsia spp; Dryopteris spp.
- Herbaceous and Bulbs: Astrantia spp. Epimedium spp. Euphorbia spp. Geranium spp. Lychnis spp. Vinca spp. Endymion non-scripta; Galanthus spp.

Neighbourhood 4: typical species to include:
- Accent Shrubs: Hazel Corylus avellana; Erica spp Pinus spp.
- Tall Shrubs: Pyracantha; spp; Pieris spp; Sarcococca spp. Skimmia spp;
- Grasses and Ferns : Carex pendula; Deschampsia spp; Dryopteris spp.
- Herbaceous and Bulbs: Erica spp. Calluna spp. Euphorbia spp. Geranium spp. Polygonum spp. Vinca spp. Endymion non-scripta; Galanthus spp.

Neighbourhood 5: typical species to include:
- Accent Shrubs: Hazel Corylus avellana; Laurus spp Taxus spp.
- Tall Shrubs: Choisya spp. Pyracantha; spp; Sarcococca spp. Skimmia spp;
- Grasses and Ferns : Carex sylvatica; Deschampsia spp; Luzula spp. Dryopteris spp.
- Herbaceous and Bulbs: Erica spp. Calluna spp. Euphorbia spp. Geranium spp. Pachysandra spp. Vinca spp. Endymion non-scripta; Galanthus spp.







## 3.3.10 Hedgerow: Habitat Type w3z



Existing native hedging

Proposed species rich hedging

Typical species to include:

- Single species hedge :

Beech Fagus sylvatica; Yew Taxus baccata

- Mixed Species Hedgerwos

Field Maple : Acer campestre; Hawthorn Crataegus spp;
Holly Ilex aquifolium; Privet Ligustrum vulgare.

| Type of landscape | Habitat Characteristics |
|---|---|
| **Hedgerow w3z** | **Overview**<br>• There will be hedges in two types :<br>• Single Species native shrub hedges, including Beech, Purple Beech and Yew<br>• Multi-species mixed hedges, with a mix of native woody species They will provide seasonal interest, as well as privacy through the use of prickly shrubs. Species mixes vary according to location, so that they contribute to the local identity of each Neighbourhood. |
| | **Habitat Description**<br>• Hedges have benefit both for biodiversity and amenity purposes. They provide visual seasonal effects including winter foliage and stem colour, spring flowering shrubs, autumnal leaf fall, and persistent evergreen species such as Holly, Yew and Box through the winter. Plant mix includes shade-tolerant species.<br>• The planting type will provide secondary biodiversity benefits, including nectar rich flowers, and cover for birds and invertebrates. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of hedge species present and thriving, and formative pruning creates appropriate structure.<br>• Implement management regime to ensure seedlings of heavy-shade plants such as sycamore and bramble are removed |
| | **Key Landscape Management Actions**<br>• Periodic clipping and pruning, in relation to prevailing site conditions (will need experienced judgement re timing of cut to allow seed to set).<br>• Raking off biomass. |








## 3.3.11 Urban Tree





Urban Trees

| Type of landscape | Habitat Characteristics |
|---|---|
| **Urban Tree** | **Overview**<br>• There will be urban trees in two types :<br>• Large trees of native woodland species to supplement the existing woodland belts and clumps<br>• Medium and small size trees, both native and non-native, selected for their visual effect (foliage texture and colour), winter impact, and other factors such as biodiversity value. These trees will be planted in courtyards, alongside walkways, and in amenity areas. |
| | **Habitat Description**<br>• Trees have benefit both for biodiversity and amenity purposes. They provide visual seasonal effects including winter foliage and stem colour, spring blossom, autumnal leaf fall, and persistent evergreen foliage through the winter.<br>• The trees will provide secondary biodiversity benefits, including nectar rich flowers, and cover for birds and invertebrates. |
| | **Overall Landscape Management Aims**<br>• Establish trees to ensure range of tree species present and thriving, and formative pruning to create appropriate structure. |
| | **Key Landscape Management Actions**<br>• Periodic inspections<br>• Formative pruning where necessary |







Typical species to include:

- Typical Large Trees (at maturity)

Oak Quercus robur; Red Oak Quercus rubra; Lime Tilia spp.

- Typical medium trees (at maturity)

Field Maple : Acer campestre; Birch : Betula pendula; Cherry Prunus spp.
Rowan Sorbus aucuparia; Holly Ilex aquifolium; Zelkova

- Typical small trees (at maturity)

Crab Apple Malus spp; Pear Pyrus spp. Hawthorn Crataegus spp.
Ligustrum lucidum

Tree Planting at the Fallowfield site is selected to create a distinctive identity and to contribute to placemaking.

From a sustainability and climate-resilience perspective, planting materials are seen as integrated components which contribute to surface water management, biodiversity improvements and carbon capture.

Functionally, soft landscape materials, when used carefully in combination with hard landscape, provide a hard-wearing and resilient support infrastructure. Hedges and lawns are self-repairing, while tree cover can reduce energy usage by providing shelter in winter, and shade in summer.

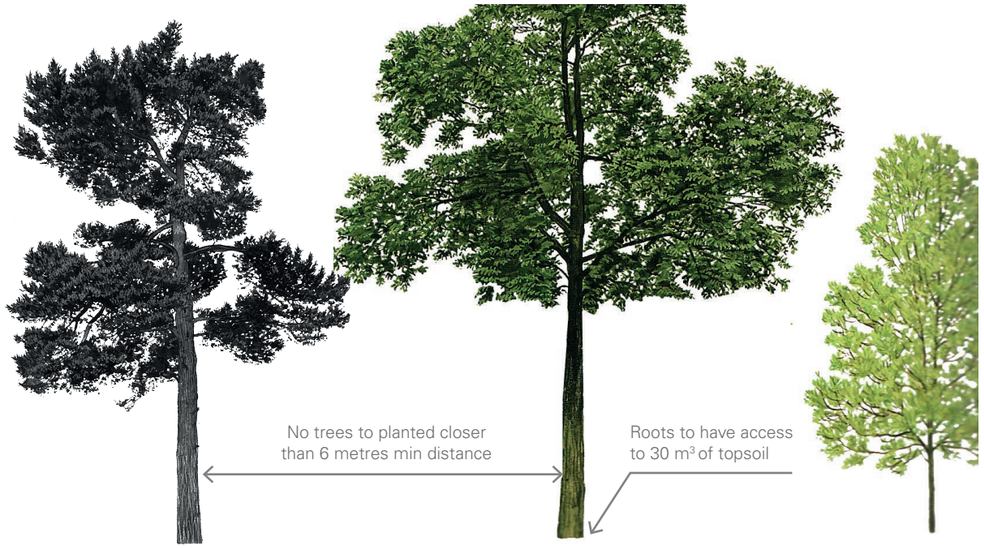
**Tree Types**

- Woodland/native species, large to medium eventual size
- Woodland edge/native species, medium to small evential tree
- Fruit tree, as part of orchard areas
- Ornamental tree, both native and non-native selected from the RHS's Plants for Pollinators List.
- Medium tree, planted at 30cm+ girth - 36no.
  (to replace the 29 medium, 5 large and 2 very large trees removed as part of BNG trading summary calculations)
- Small tree, planted at various sizes 14-16 cm to 25-30cm girth

Species of medium trees planted subject to availability, may be substituted for a different species to retain the 36 no. Tree selection may evolve during future potential collaboration with the University's Botanical Gardens team.

TOTAL NUMBER OF REPLACEMENT TREES: 269 (ratio of 3.5 : 1 replacement)








Soft landscape

## 3.3.12 Pond




**P** Proposed Pond

| Type of landscape | Habitat Characteristics |
|---|---|
| **Pond** | **Overview**<br>• There will be one pond, to be situated at the southern end of the site. It will not be accessible except for maintenance and study purposes, and will be kept secure by a gated access through a secure fence.<br>• The pond will provide a valuable area of biodiverse habitat and will include aquatic, marginal and marshy plant species |
| | **Habitat Description**<br>• Pond have benefit both for biodiversity and amenity purposes. Here they provide important biodiversity benefits, as part of a mosaic of similar habitats through the Mersey Valley, and will provide forage and cover for birds and invertebrates.<br>• The planting type will provide secondary amenity benefits. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of pond species present and thriving<br>• Implement management regime to ensure seedlings of heavy-shade plants such as sycamore and bramble are removed |
| | **Key Landscape Management Actions**<br>• Periodic clipping and pruning, in relation to prevailing site conditions (will need experienced judgement re timing of cut to allow seed to set).<br>• Raking out biomass build-up within pond. |

Typical species to include:

- Understorey Shrubs

Alder Alnus glutinosa; Dogwood Cornus spp. Willow Salix spp.

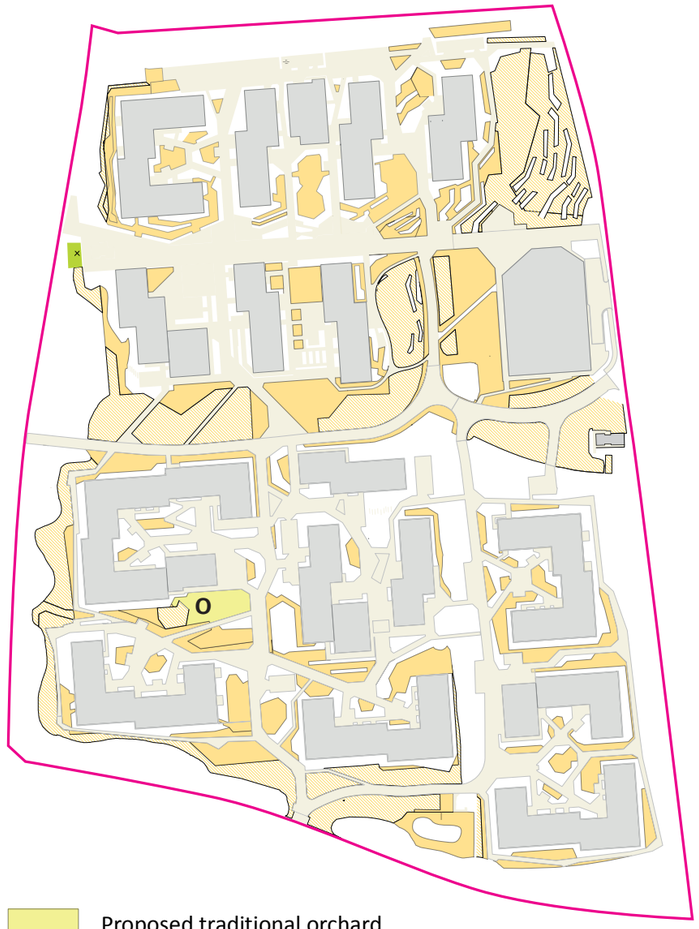
- Forbs and Bulbs

Flowering rush Butomus spp. Ladys smock Cardamine spp. Marsh bedstraw Galium palustre; Purple Loosestrife Lythrum salicaria; Flag Iris Iris pseudacorus





## 3.3.13 Traditional Orchard



Proposed traditional orchard

| Type of landscape | Habitat Characteristics |
|---|---|
| **Traditional Orchard** | **Overview**<br>• A Traditional Orchard area will provide an important component of biodiversity habitat, as well a space for amenity. There will be a mix of close-mown lawn, seasonally cut grass areas and wildflower grassland areas<br>• This will be established below the canopy of a grid of fruit trees |
| | **Habitat Description**<br>• Traditional Orchard grassland, typically found in Cheshire and Lancashire, consists of a mix of native grasses and broad-leaved herbs, with between 10 and 15 species per sqm. Includes areas of mixed height grasses, interspersed with wildflowers, some of which are capable of surviving close-mowing e.g. daisy and selfheal. Plant mix includes shade-tolerant species. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of grass and wildflower species present and thriving.<br>• Implement management regime to ensure robust sward together with consistent mowing; including areas which will be left to set seed in autumn and raked clear in late-winter, and winter-flowering bulbs.<br>• Ensure minimal encroachment of species from adjacent mixed scrub and woodland areas, by cutting seedlings during mowing operations |
| | **Key Landscape Management Actions**<br>• Planning mowing regime, in relation to prevailing site conditions (will need experienced judgement re timing of annual cut to allow seed to set).<br>• Adjusting areas of close-mown swards (for access, informal paths etc.) and longer grass with wildflowers in suitable areas according to changing site conditions<br>• Raking off biomass, to ensure low fertility levels prevail. |











Typical species to include:

- Orchard trees :

Apple Malus var; Plum Prunus var; Pear Pyrus var; Medlar Mespilus germanica

- Grasses :

Common Bent  Agrostis capillaris; Meadow Foxtail Alopecurus pratensis; Red Fescue Festuca rubra

- Forbs :

Cow Parsley Anthriscus  sylvestris; Meadow cranesbill Geranium pratense; Field Scabious Knautia arvensis; Meadow Buttercup Ranunculus acris

## 3.3.14 Green Roofs




| Type of landscape | Habitat Characteristics |
|---|---|
| **Green Roof** | **Overview**<br>• Building roofs will provide an important component of biodiversity habitat. There will be a mix of intensive and extensive biodiverse roofs.<br>• These will be established as three types:<br>GR1 : lightweight extensive green roofs, on canopies over entrances and on part of the Central Hub.<br>GR2 : biodiverse roof to cycle stores and upper roofs.<br>GR3 : biodiverse green roof in patterned layout on lower roofs which are overlooked from above. |
| | **Habitat Description**<br>• Extensive roofs consist of a mix of drought-tolerant species such as Sedum and Allium.<br>• Biodiverse green roofs, with a substrate depth of between 80-150mm, with species including Armeria, Eryngium, Potentilla, Sedum, Briza. |
| | **Overall Landscape Management Aims**<br>• Establish habitat to ensure range of grass and wildflower species present and thriving.<br>• Implement management regime to ensure robust sward ; including areas which will be left to set seed in autumn and raked clear in late-winter.<br>• Ensure minimal encroachment of inappropriate species by cutting seedlings during strimming operations. |
| | **Key Landscape Management Actions**<br>• Planning strimming regime, in relation to prevailing site conditions (will need experienced judgement re timing of annual cut to allow seed to set).<br>• Raking off biomass, to ensure low fertility levels prevail. |
| | **Typical Species to include**<br>• Stonecrop *Hylotelephium spp*; Thrift *Armeria spp*; Chives *Allium spp; Saxifraga spp. Potentilla spp. Erigeron spp; Thymus spp* |

Typical species to include:

Stonecrop Hylotelephium spp; Thrift Armeria spp; Chives Allium spp; Saxifraga spp. Potentilla spp.







## 3.3.15 Seasonal Accents

The soft landscape proposals make use of native plant species to form the green infrastructure of tree belts and corridors, hedges and closed-canopy groundcover. This will increase biodiversity and ensure a resilient, low-maintenance landscape will persist long into the future.

It is acknowledged that in winter UK native planting lacks colour and cheerfulness. It is important for peoples well-being, especially in the depths of winter, that they experience pleasurable moments of stimulation and connection to their surroundings. This is doubly important at Fallowfield, where student life takes place outside of the summer months, when conventional landscape planting schemes look their best. Therefore the planting scheme will include accent plants using non-native shrubs with evergreen and variegated foliage and coloured bark to provide winter interest. It will include winter and spring flowering bulbs, and trees and shrubs with coloured foliage in spring and autumn.









Distinctive foliage colour



Tree groups give identity







Winter interest

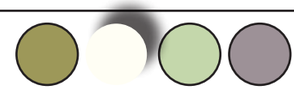
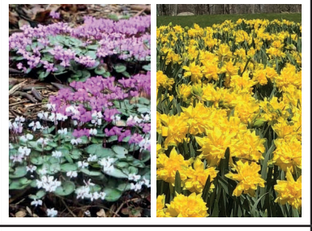
## 3.3.16 Neighbourhood Identity

The planting design makes innovative and extensive use of native plant species to create an attractive, seasonally changing and biodiverse landscape. Low-maintenance grasses and other groundcover species will be used to carpet landscape surfaces, allowing bulbs and perennial flowering plants to grow through to create a year-round cycle of seasonal interest.

It is acknowledged that in winter UK native planting lacks colour and cheerfulness therefore the planting scheme will include accent plants using non-native shrubs with evergreen leaves and coloured bark to provide winter interest.

Distinctive colour palettes within each Neighbourhood (see section 2.3) will also create an identity and contribute to placemaking. A detailed soft landscape materials palette will be created during the detailed design phase.

Tree planting will be use to enhance the green infrastructure of the site, and to create identity in neighbourhoods. They will also be used to modify site conditions, providing shelter as well as light or heavy shade to suit a variety of different habitat-types.

| |  Neighbourhood 1 |  Neighbourhood 2 |  Neighbourhood 3 |  Neighbourhood 4 |  Neighbourhood 5 |
|---|---|---|---|---|---|
| Hedge |  |  |  |  |  |
| Groundcover |  |  |  |  |  |
| Shrubs and Grasses |  |  |  |  |  |
| Bulbs |  |  |  |  |  |
| Trees |  |  |  |  |  |

# 4.0 Management and Maintenance

## 4.1 Landscape Management

### Low Maintenance Principles

The landscape proposals balance the need to maintain the landscape cost-effectively, while at the same time increasing biodiversity in line with University policy, and ensuring the site can effectively resist the wear and tear which results from accommodating a significant increase in student numbers.

Low maintenance soft landscape :

- Conversion of large areas of mown grass to areas of species rich grassland, which require fewer mowing visits
- Evergreen shrub and perennial ground-cover planting to form continuous shade over planting beds, thereby reducing weed growth, and after establishment, reduction in site maintenance input.
- Evergreen and native species hedges, requiring only two cuts per annum
- Continuation of University's mature and new tree maintenance and management cycles.

Low maintenance hard landscape areas:

- Properly constructed long-lasting hard landscape areas with edgings
- Low maintenance nature based drainage design where possible
- Surfaces which can be swept using street cleaning machines.

### Right Plant, Right Place

The landscape proposals follow well-established principles of site preparation, cultivation and selecting plants which are appropriate for their location, so that they thrive.

### Establishment Period

The landscape maintenance period will commence after the satisfactory completion planting area (not necessarily the completion of building construction) and will be followed by a 12month period in which the planting contractor will be responsible for watering, feeding and pruning, to ensure the plants are properly established; any defective planting will be replaced at the end of this period, before being handed over to the University's landscape maintenance team.




**Soft Landscape Surface Types:**

1. Mown grass
2. Long grass
3. Grass and herbaceous perennials
4. Herbaceous perennial groundcover
5. Mixed scrub
6. Specimen flowering / foliage shrubs
7. Informal hedge
8. Formal hedge
9. Small fruiting tree
10. Medium multi-stem and standard tree
11. Large tree
12. Woodland biodiverse groundcover

**Hard Landscape Surface Types:**

13. Maintenance strip to facade
14. Pathway : paving slabs /setts
15. Pathway : informal insitu path

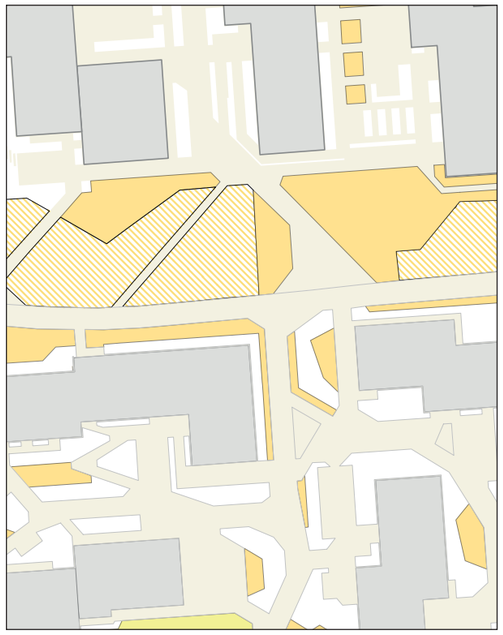
## 4.2 Landscape Maintenance

The planting maintenance will be carried out by the Landscape sub-contractor during the first year after planting. Operations such as watering, feeding and formative pruning will ensure that the planting is established before being handed over to the University's landscape maintenance team.

Management and maintenance operations are outlined on the following pages for the landscape habitats described in Section 3.3.

A management plan outlining the future character of the landscape areas will guide the operations which will be carried out in each year. Reference will be made to a management plan which will be drawn up by the Landscape Architect, in conjunction with the University's Management and Maintenance team.

## 4.2.1 Neutral Grassland



Proposed neutral grassland

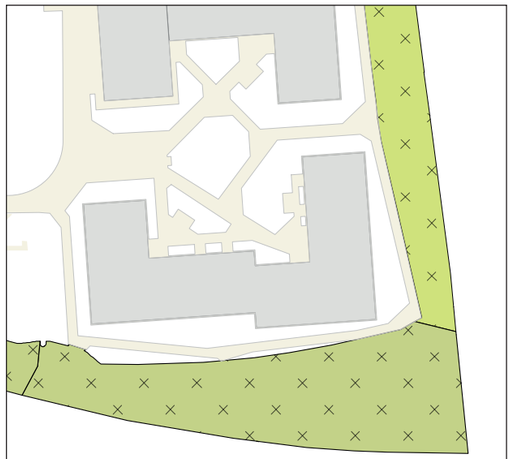
Existing neutral grassland retained and enha

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Grasses - turf or seed.**  | **Weed control**<br>• Spot treatment with gyphosate based herbicide to manufacturer's instructions. | Twice annually: March-April & October |
| | **Grass cutting**<br>• Remove litter/debris, cut to a height of 75-100 mm trim path edges, base of trees, manholes etc., remove cuttings, keep sward free of broad leaved weeds.<br>• Equipment: single and gang mower | Every 2 weeks from March to October, and 3 cuts between October to March. |
| | **Watering**<br>• 1st & 2nd year establishment only, for seeding repairs etc. | Year 1&2 establishment only, or for re-seeding repairs etc. |
| | **Fertiliser / Feeding**<br>• Apply approved slow release fertilizer annually, rate 60g/m | Annually: March/April |

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Flowering Lawn with Bulbs**  | **Weed control**<br>• Spot treatment with gyphosate based herbicide, to manufacturer's instructions. | Twice annually: March-April & October |
| | **Grass Cutting**<br>• Remove litter/debris, cut to a height of 75-100 mm trim path edges, base of trees, manholes etc., remove cuttings.<br>• In areas of bulb planting in grass, do not cut grass until spring bulbs have died back. Mow around areas to leave a neat mown edge. | Every 2 weeks from March to October, and 3 cuts between October to March. |
| | **Watering**<br>• 1st & 2nd year establishment only, for seeding repairs etc. | Year 1&2 establishment only, or for re-seeding repairs etc. |
| | **Fertiliser / Feeding**<br>• Apply approved slow release fertilizer annually, rate 60g/m | Annually: March/April |

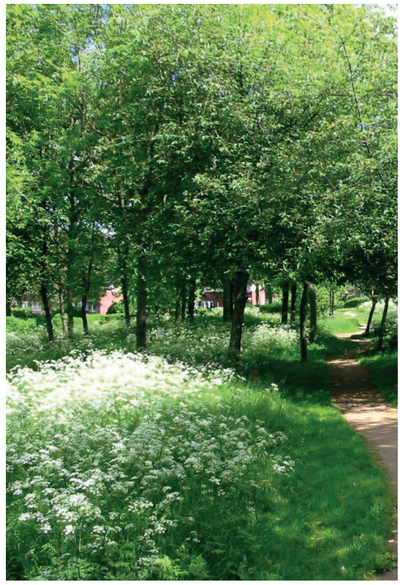
| Type of landscape | Operation | Frequency |
|---|---|---|
| **Long grass**  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Twice annually: March-April & October |
| | **Grass cutting: narrow strips of close mown grass walkways and path edges**<br>• Remove litter/debris, cut to a height of 75-100 mm, remove cuttings, keep sward free of broad leaved weeds.<br>• Equipment: single mower | Every 2 weeks from March to October, and 3 cuts between October to March. |
| | **Grass cutting: areas of long grass**<br>• 1 cut in October: rake and tidy up in March prior to growth<br>• Equipment: flail mower | 1 cut in October |
| | **Watering**<br>• 1st & 2nd year establishment only, for seeding repairs etc. | Year 1&2 establishment only, or for re-seeding repairs etc. |

## 4.2.2 Enhanced Woodland

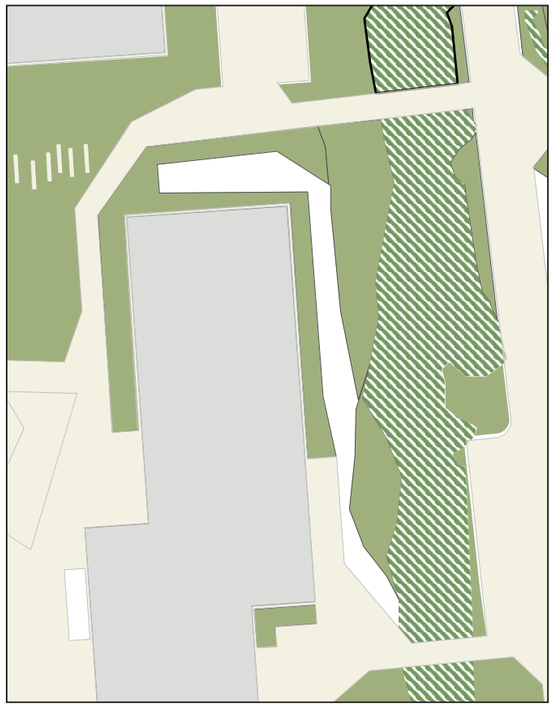


Existing woodland to be enhanced

Proposed woodland

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Enhanced Woodland**  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Monthly from April to October |
| | **Mulching**<br>• Top up where necessary to 50 mm depth medium grade bark mulch. Keep free of weeds and fungus. | Top up twice annually. March/ April & August |
| | **Fertilizer/ Feeding**<br>• Apply approved slow release fertilizer annually in March or April. Scott's Enmag or similar approved equivalent<br>• Applied to manufacturer's/suppliers recommendations. Ensure mulching 3 days after application. | Annually: March/April |
| | **Watering**<br>• Water as required to ensure the establishment and healthy growth of the plant. (Note: If availability of mains potable water is limited then supplies of 2nd class water must be secured) | Between April and October, Year 1-2 for establishment only |
| | **Pruning**<br>• Minimal pruning to remove diseased or dead branches. All pruning to leave plants with a well- balanced, natural appearance, with no straight sides or angular surfaces.<br>• Cut back if encroaching on footpaths. | October to end February, or as required for individual species. |
| | **Dead and Dying Stock**<br>• Remove all dead, dying and diseased plant stock at the end of each growing season and replace if necessary with specified plants | End of November - end of March |

## 4.2.3 Mixed Scrub

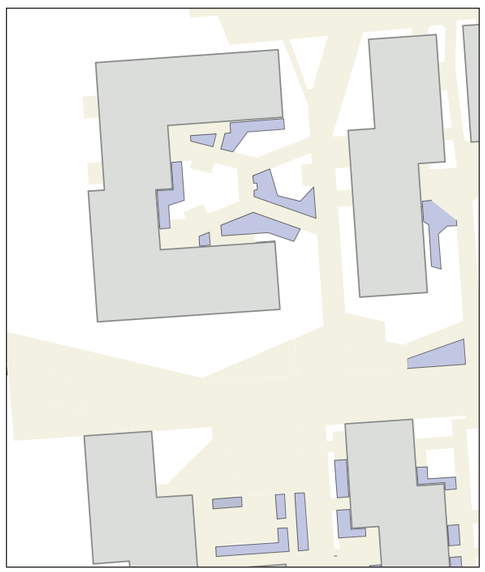


Proposed mixed scrub

Ornamental planting removed, mixed scrub added

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Mixed Scrub**<br>  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Monthly from April to October |
| | **Mulching**<br>• During establishment phase, top up where necessary to 50 mm depth medium grade bark mulch. Keep free of weeds and fungus.<br>• After establishment reduce build-up of biomass . | Top up twice annually. March/ April & August |
| | **Watering**<br>• Water as required to ensure the establishment and healthy growth of the plant. (Note: If availability of mains potable water is limited then supplies of 2nd class water must be secured) | Between April and October, Year 1-2 for establishment only |
| | **Pruning**<br>• Minimal pruning to remove diseased or dead branches. All pruning to leave plants with a well- balanced, natural appearance, with no straight sides or angular surfaces.<br>• Cut back if encroaching on footpaths or close to window frontages.<br>• Cut 'rides' and informal paths through mixed scrub to allow for access, and discourage vermin. | October to end February, or as required for individual species. |
| | **Dead and Dying Stock**<br>• Remove all dead, dying and diseased plant stock at the end of each growing season and replace if necessary with specified plants | End of November - end of March |

## 4.2.4 Urban Planted Areas

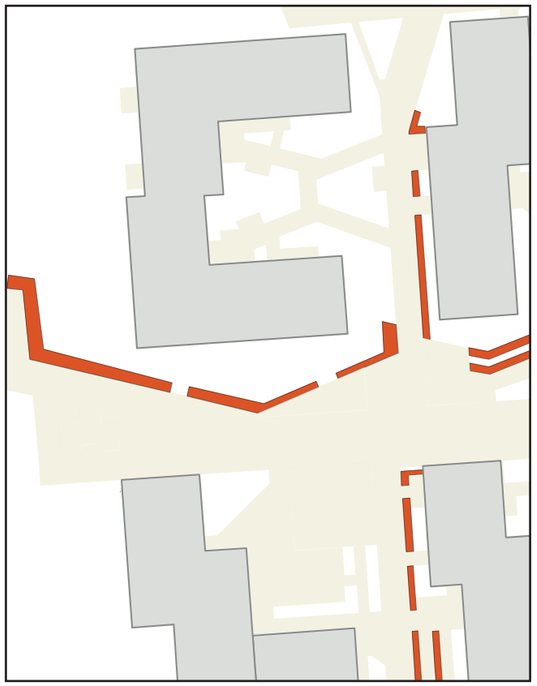


| Type of landscape | Operation | Frequency |
|---|---|---|
| **Urban Planted Areas**<br>  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Monthly from April to October |
| | **Mulching**<br>• During establishment phase, top up where necessary to 50 mm depth medium grade bark mulch. Keep free of weeds and fungus.<br>• After establishment reduce build-up of biomass . | Top up twice annually. March/ April & August |
| | **Watering**<br>• Water as required to ensure the establishment and healthy growth of the plant. (Note: If availability of mains potable water is limited then supplies of 2nd class water must be secured) | Between April and October, Year 1-2 for establishment only |
| | **Pruning**<br>• Minimal pruning to remove diseased or dead branches. All pruning to leave plants with a well- balanced, natural appearance, with no straight sides or angular surfaces.<br>• Cut back if encroaching on footpaths or close to window frontages.<br>• Cut 'rides' and informal paths through mixed scrub to allow for access, and discourage vermin. | October to end February, or as required for individual species. |
| | **Dead and Dying Stock**<br>• Remove all dead, dying and diseased plant stock at the end of each growing season and replace if necessary with specified plants | End of November - end of March |

Existing introduced shrub planting retained

Proposed introduced shrub/flower bed

## 4.2.5 Hedgerow

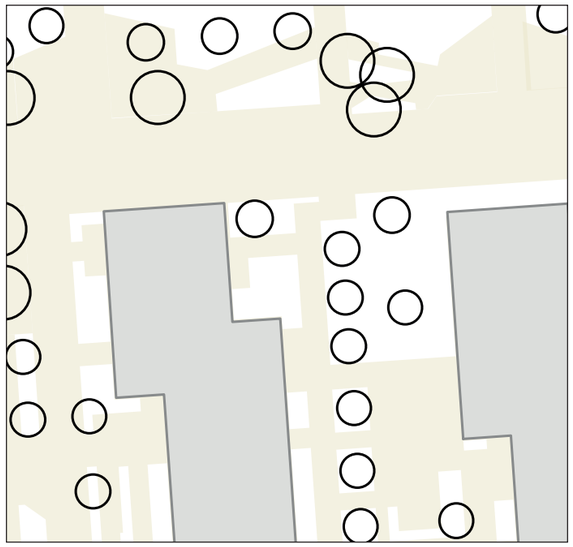


Existing native hedging

Proposed species rich hedging

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Formal hedge**<br>  <br>**Informal hedge**<br>  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Monthly from April to October |
| | **Mulching**<br>• Top up where necessary to 50 mm depth medium grade bark mulch. Keep free of weeds and fungus. | Top up twice annually: March/ April & August |
| | **Fertilizer/ Feeding**<br>• Apply approved slow release fertilizer annually in March or April. Scott's Enmag or similar approved equivalent. Applied to manufacturer's/suppliers recommendations. Ensure mulching 3 days after application. | Annually: March/April |
| | **Watering**<br>• Water as required to ensure the establishment and healthy growth of the plant. (Note: If availability of mains potable water is limited then supplies of 2nd class water must be secured) | Between April and October, Year 1-2 for establishment only |
| | **Pruning**<br>• To be in accordance with good arboricultural/horticultural practice and BS 7370-4.<br>• Equipment: pruning shears / power shears | October to end February, or as required for individual species. |
| | **Pruning - Formal Hedges**<br>• Clip hedges to maintain at required height in a neat formal shape. | |
| | **Pruning - CG hedges: individual plants**<br>• Second year, cut back strong laterals by 1/3.<br>• Subsequent years, cut leaders when final height of 1.5m is reached. Remove selected vigorous shoots to keep within bounds. Pruning sides of hedgerow on alternate years, for wildlife benefit. | |
| | **Dead and Dying Stock**<br>• Remove all dead, dying and diseased plant stock at the end of each growing season and replace if necessary with specified plants | End of November - end of March |

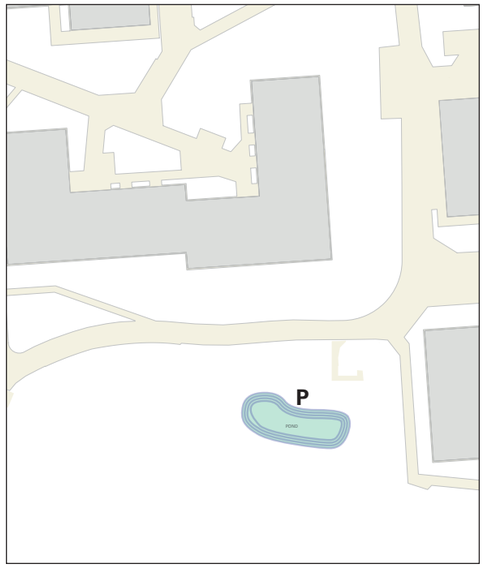
## 4.2.6 Urban Tree



Proposed Urban Tree

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Trees:**<br>**- existing trees retained**<br>**- improved broadleaved woodland**<br>**- proposed broadleaved woodland**<br>**- individual trees / urban trees.**<br>  <br>  <br>  | **Tree inspections**<br>• To be undertaken annually to record general health and damage.<br>• Refirm all planting to upright positions. Check and adjust tree stakes, ties and surrounds. | Annually in October and after strong winds |
| | **Weed control**<br>• Maintain weed free area mechanically / by hand around each tree (min. 1 metre diameter for trees in soft landscape) | Monthly from April to October |
| | **Mulching**<br>• Top up where necessary to 50mm depth medium grade bark mulch. Keep free of weeds and fungus. | Bark: Top up per year. March/ April & August |
| | **Fertilizer/ Feeding**<br>• Apply approved slow release fertilizer annually in March or April. Scott's Enmag or similar approved equivalent. Applied to manufacturer's/suppliers recommendations. Ensure mulching 3 days after application. | Annually in March/April |
| | **Watering**<br>• Water all trees as required to ensure the establishment and healthy growth of the plant. (Note: If availability of mains potable water is limited then supplies of 2nd class water to be secured) | Between April & October, Year 1-2 for establishment only |
| | **Pruning**<br>• To be in accordance with good arboricultural/horticultural practice and BS 7370-4. Minimal pruning to remove diseased or dead branches. All pruning to leave plants with a well-balanced, natural appearance. | October to end February, or as required for individual species. |
| | **Crown lifting - keeping lower branches from obstructing vehicular routes**<br>• Lower branches of wider canopy trees to be gradually removed over the first six years as the trees grow taller to lift the crown and provide an eventual clear stem of 3.2m to avoid any potential obstruction to taller vehicles. | |
| | **Pruning - keeping foliage from obstructing lighting columns**<br>• All trees to be managed to maintain a min. 4m from the outer edge of the tree canopy to lighting columns. | |
| | **Pruning - productive orchard trees/bush/espalier/cordon etc.**<br>• Only prune as required to develop or maintain the required shape and encourage fruit bearing. E.g. Prune fruit trees to maintain a strong branch framework of 8 to 10 main branches. Tip bearing apple trees (e.g. Discovery) - Prune out a good proportion of the older shoots that have borne fruit to encourage new shoots to develop. Spur bearing apple trees (e.g. Cox's orange pippin) - Cut back young laterals to 3 to 6 buds of the current growth. Prune back the current season's growth on branch leaders by one third. | |
| | **Dead and Dying Stock**<br>• Remove all dead, dying and diseased plant stock at the end of each growing season and replace if necessary with specified plants | End of November - end of March |

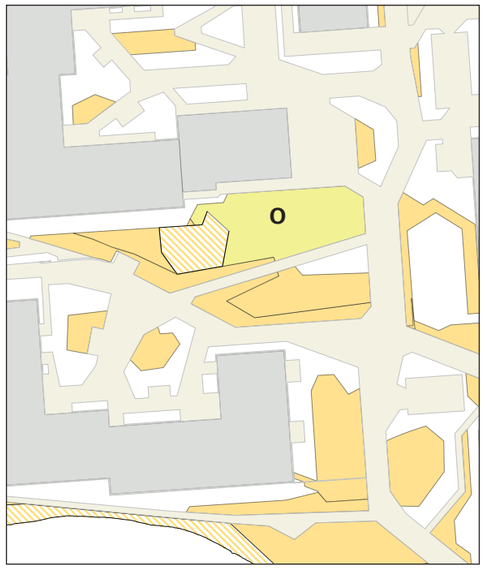
## 4.2.7 Pond




P Proposed Pond

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Pond**<br>  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Twice annually: March-April & October |
| | **Grass cutting: narrow strips of close mown grass to provide access**<br>• Remove litter/debris, cut to a height of 75-100 mm, remove cuttings, keep sward free of broad leaved weeds.<br>• Equipment: single mower | Every 2 weeks from March to October, and 3 cuts between October to March. |
| | **Grass cutting: areas of long grass**<br>• 1 cut in October: rake and tidy up in March prior to growth<br>• Equipment: flail mower | 1 cut in October |
| | **Watering**<br>• 1st & 2nd year establishment only, for seeding repairs etc. | Year 1&2 establishment only, or for re-seeding repairs etc. |

## 4.2.8 Traditional Orchard




**O** Proposed Orchard

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Long grass**<br>  | **Weed control**<br>• Maintain weed free area mechanically / by hand. Do not use herbicide | Twice annually: March-April & October |
| | **Grass cutting: narrow strips of close mown grass walkways and path edges**<br>• Remove litter/debris, cut to a height of 75-100 mm, remove cuttings, keep sward free of broad leaved weeds.<br>• Equipment: single mower | Every 2 weeks from March to October, and 3 cuts between October to March. |
| | **Grass cutting: areas of long grass**<br>• 1 cut in October: rake and tidy up in March prior to growth<br>• Equipment: flail mower | 1 cut in October |
| | **Watering**<br>• 1st & 2nd year establishment only, for seeding repairs etc. | Year 1&2 establishment only, or for re-seeding repairs etc. |

## 4.2.9 Green Roof



Extensive green roof

Biodiversee green roof

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Green Roof**<br><br>**GR1 : lightweight extensive green roofs (entrances and central hub)**<br><br>**GR2 : biodiverse roof (cycle stores and upper roofs)**<br><br>**GR3 : biodiverse green roof (lower roofs overlooked from above)**<br><br>  | **GRO Code (2023) Maintenance Requirements**<br>• Always remove species with large growth habits or aggressive root systems.<br>• Any wind-blown seeds or cuttings should be removed before they have the opportunity to take root.<br>• Many grass species can be invasive and should be removed from extensive green roofs, unless designed into the planting scheme.<br>• The ecological and aesthetic requirements of the site should guide the management of dominant species and habitat over time.<br>• Cut back taller flowering species to approx. 150mm above substrate surface in autumn/ winter after seeding. Note: Wildflower and grass species on the roofs will not be tall varieties to minimise overshadowing of the PV and for less frequent maintenance requirements to keep height low<br>• Excess dead plant matter should be removed to avoid encouraging fungal disease. However, for maximum wildlife support, care should be taken not to remove all vegetation straight after flowering as many insects over-winter in hollow plant stems. For this reason, rotational cutting (where not all vegetation is cut simultaneously) and removal is advised.<br>• Generally inspect vegetation area and monitor poor growth areas. Insert cuttings from good growth areas into bad growth areas | Minimum twice annually |
| | **Plant management - GRO Code (2023):**<br>• GR1: Removal of undesirable plant species and fallen leaves. Drainage outlets (including inspection chambers) and shingle/gravel perimeters to be cleared of vegetation. NO weed growth in fire margins.<br>• GR2 & GR3: A maintenance programme should be drawn up to follow the intended biodiversity objectives | |
| | **Operational inspections to carried out to manufacturer's recommendations:** | Minimum twice annually and as per manufacturer's recommendations |
| | **Watering**<br>• For establishment and seeding repairs etc. | During droughts and when there hasn't been rain for over 2 weeks |
| | **Access:**<br>• GR1- Entrances and Central Hub: via steps or scaffolding around the perimeter for inspection and light maintenance. Safe working height parapets are not provided therefore a fall restraint system will be required for direct access onto the roofs.<br>• GR2 - Upper Roofs: via access hatches<br>• GR2 - Cycle Stores: via steps or scaffolding around the perimeter for inspection and light maintenance.<br>• GR3 - Lower Roofs: via a doorway in the adjacent block | As required |

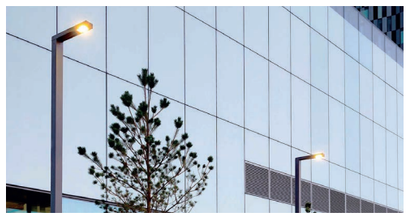
## 4.2.10 Hard Surfaces



Hard surface areas

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Hard Landscape**<br>- Concourse<br>- Main Paths<br>- Courtyards<br>- Maintenance Strips<br><br>  <br>  | **General Tidying and Litter Bins**<br>• Collect rubbish from litter bins on a weekly basis<br>• Paving to be swept to remove wet leaves and debris to avoid slip hazards. Remove arisings from hard surfaces.<br>• Footpaths to be kept free from encroaching vegetation and leaf fall.<br>• Extraneous rubbish not arising from the contract work: Collect and remove from site weekly. | Litter bin collection: weekly<br>Quarterly sweeping & weekly in autumn<br>Weekly litter clearance |
| | **Removal of Leaf Litter**<br>• Maintain soft and hard landscape free of leaf litter. Keep drainage covers and slot drains clear of debris. | September to November |
| | **Snow and Ice Clearance**<br>• Clear snow on reaching a depth of 10mm.<br>• De-ice hard surfaces with Rock salt to BS 3247, avoiding planted areas, when freezing precipitation is forecast. Spread Rock salt evenly at a rate of 20g/m2. | October to March or as required. |
| | **Weed Killing**<br>• Hoe loose gravel surfaces<br>• Use a weeding knife on paving joints<br>• Use a paving brush with angled wire bristles to scrub mosses, weed seedlings and debris from cracks and paving joints.<br>• Use a specialist ‘dandelion weeder’ or ‘weed puller’ to tackle deep-rooted weeds like dandelions, dock and creeping cinquefoil | Monthly during growing season |
| | **Deep Cleaning and Stain Removal**<br>• Allow for one annual deep clean and one deep clean of the works in its entirety after any scheduled event.<br>• Paving and kerbs shall be cleaned using a steam cleaner. Sweep the area with a stiff bristle brush to remove any loose material. Protect or move any vulnerable items.<br>• Inspect area post cleaning to ensure that joints are full.<br>• New chewing gum to be scraped off using a mechanical scraper. Steam clean paving to remove old chewing gum. | x1 annually<br>After every scheduled event.<br>After major maintenance operations |
| | **Topping up of Joints:**<br>• Jointing: Ensure joints are inspected and topped up annually. Remove to depth of 25mm and re-grout. | Annually |

## 4.2.11 Street Furniture

| Type of landscape | Operation | Frequency |
|---|---|---|
| **Benches / Chairs / Picnic tables**<br>  | **General Inspections:**<br>• Inspect for damage.<br>• Tighten loose fixings.<br>• Repair or replace any missing or damaged timber slats with matching slats from same original source as specified.<br>• Remove chewing gum, graffiti. | Monthly |
| **Cycle Stores**<br>  | **Operational Inspections:**<br>• Operational inspections to carried out to manufacturer's recommendations: Inspect for damage, remove chewing gum, graffiti, clean. | Monthly and as per manufacturer's recommendations |
| **Bollards / Litter Bins / Signage**<br>  | **General Inspections:**<br>• Inspect for damage.<br>• Tighten loose fixings.<br>• Repair or replace any missing or damaged parts with matching parts from same original source as specified.<br>• Remove chewing gum, graffiti.<br>• Clean bins and signage. | Monthly |
| **Lighting Columns**<br>  | **Operational inspections to carried out to manufacturer's recommendations:**<br>• Inspect for damage.<br>• Tighten loose fixings.<br>• Repair or replace any missing or damaged parts with matching parts from same original source as specified.<br>• Remove chewing gum, graffiti. | Annually, or as required to replace lamp fittings. |
| **Sports / Exercise Equipment**<br>  | **General Inspections:**<br>• Daily routine visual inspections to identify any hazards resulting from vandalism, extreme weather etc.<br>• Remove litter, and rake to re-level loose soft fall materials. | Daily |
| | **Operational inspections to carried out to manufacturer's recommendations:**<br>• Inspect for damage.<br>• Fencing - Tighten loose fixings or otherwise repair/replace parts in order to maintain barrier | Monthly |
| | **Annual inspection to manufacturer's recommendations.** | Annual |

# List of Associated Documents

## Landscape Drawings

| Ref / No | Title |
|---|---|
| GA Plans | |
| UMRF-LAP-XX-00-DR-L-00001 | Existing Site Plan for BNG |
| UMRF-LAP-XX-00-DR-L-00002 | Proposed GA |
| UMRF-LAP-XX-00-DR-L-00003 | Tree Removals |
| UMRF-LAP-XX-RF-DR-L-00004 | Proposed Roof GA |
| UMRF-LAP-XX-00-DR-L-00006 | Existing Site Plan |
| UMRF-LAP-XX-00-DR-L-00008 | Hard Landscape |
| UMRF-LAP-XX-00-DR-L-00010 | Street Furniture Strategy |
| UMRF-LAP-XX-00-DR-L-00011 | Lighting Strategy |
| UMRF-LAP-XX-00-DR-L-00012 | Proposed BNG Plan |
| UMRF-LAP-XX-00-DR-L-00014 | Boundaries and Fencing |
| UMRF-LAP-XX-00-DR-L-00016 | Proposed Trees |
| UMRF-LAP-XX-00-DR-L-00019 | Signage and Wayfinding Strategy |
| UMRF-LAP-XX-00-DR-L-00022 | Cycle Strategy |
| UMRF-LAP-XX-00-DR-L-00026 | Archaeological Trial Pits |
| Detail Plans | |
| Neighbourhood 1 - 10000 series | |
| UMRF-LAP-XX-00-DR-L-10000 | Neighbourhood 1 GA & Levels |
| UMRF-LAP-XX-00-DR-L-10001 | Neighbourhood 1 Planting |
| Neighbourhood 2 - 20000 series | |
| UMRF-LAP-XX-00-DR-L-20000 | Neighbourhood 2 GA & Levels |
| UMRF-LAP-XX-00-DR-L-20001 | Neighbourhood 2 Planting |
| Neighbourhood 3 - 30000 series | |
| UMRF-LAP-XX-00-DR-L-30000 | Neighbourhood 3 GA & Levels |
| UMRF-LAP-XX-00-DR-L-30001 | Neighbourhood 3 Planting |
| Neighbourhood 4 - 40000 series | |
| UMRF-LAP-XX-00-DR-L-40000 | Neighbourhood 4 GA & Levels |
| UMRF-LAP-XX-00-DR-L-40001 | Neighbourhood 4 Planting |
| Neighbourhood 5 - 50000 series | |
| UMRF-LAP-XX-00-DR-L-50000 | Neighbourhood 5 GA & Levels |
| UMRF-LAP-XX-00-DR-L-50001 | Neighbourhood 5 Planting |
| Central Hub and Open Space - 60000 series | |
| UMRF-LAP-XX-00-DR-L-60000 | Central Hub & Open Space GA & Levels |
| UMRF-LAP-XX-00-DR-L-60001 | Central Hub & Open Space Planting |

## Landscape Documents

| Ref / No | Title |
|---|---|
| Reports | |
| UMRF-LAP-XX-00-RP-L-30000 | Landscape Statement |
| UMRF-LAP-XX-00-RP-L-30001 | Arboricultural Impact Assessment and Method Statement |