

# CREATING A BIO-DIVERSE ENVIRONMENT MAKING SPACE FOR NATURE

In his 2010 review, 'Making space for nature', Professor Sir John Lawton identified a need for more, bigger, better, and more joined up wildlife sites that function as a network and allow wildlife to move between them more easily. Managing the surrounding area sympathetically – by creating corridors or 'stepping stones' – can also help wildlife to move through the landscape.

The current collection of wildlife sites do not create coherent and resilient ecological network. It is important for organisms to be able to move between them enhancing the connectivity across our countryside. Linear features and stepping stone habitats can be both natural or man-made corridors such as rivers, canals, road verges, hedges, cycle routes and railway embankments. Management of these in wildlife-friendly ways can improve ecological connectivity and increase access to nature for people.

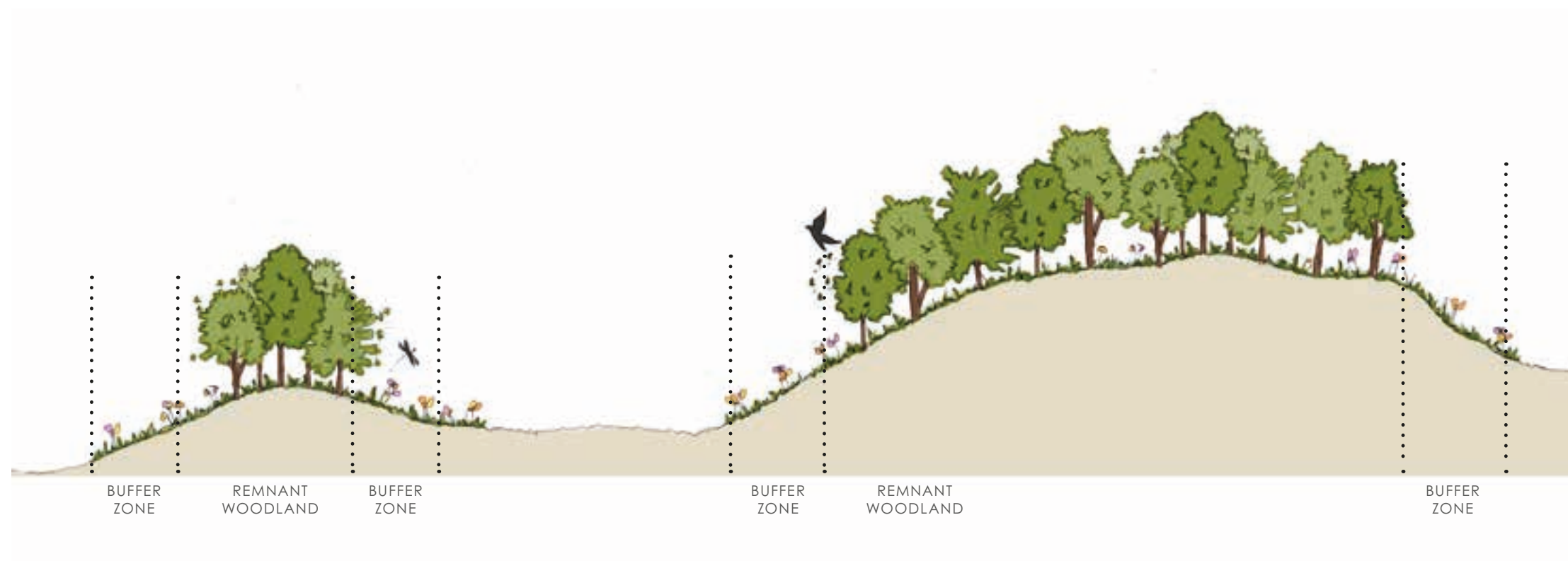
The Wildlife Trust sets out four stages for creation of a Nature Recovery Network:

- Protect the wildest places
- Make connections between them
- Provide a bigger overall area for wildlife
- Find space for wildlife in the wider landscape



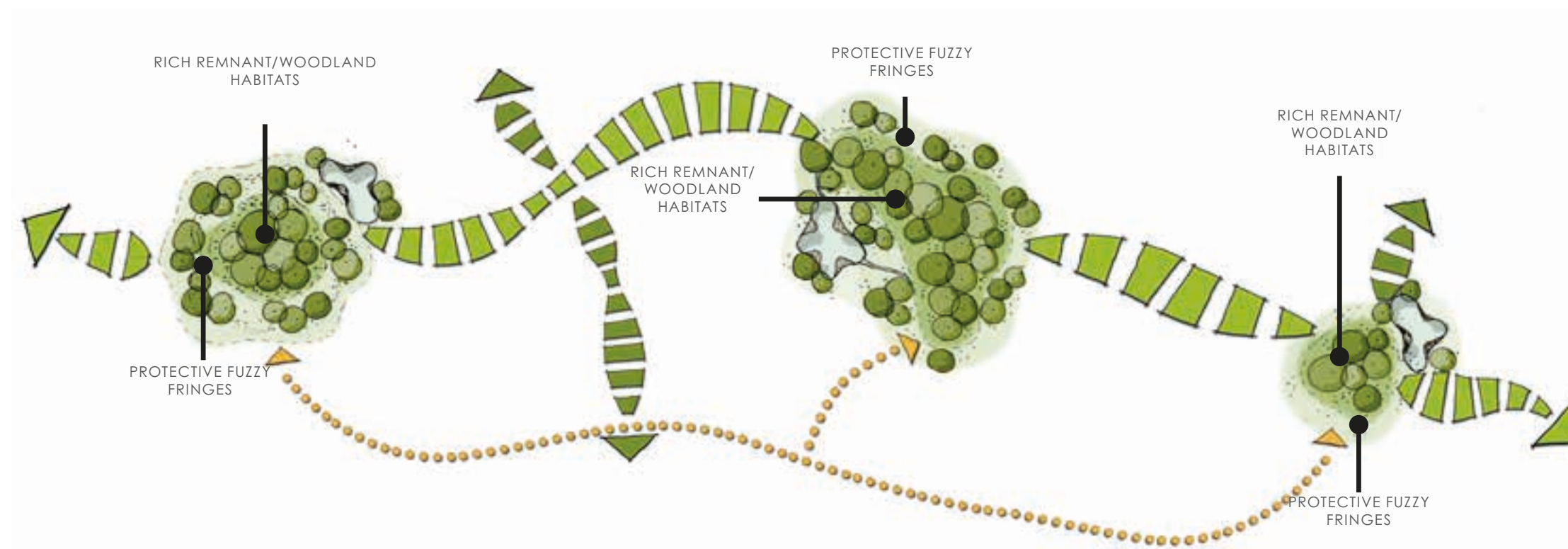


# CREATING A BIO-DIVERSE ENVIRONMENT NATURE RECOVERY NETWORK



## DIVISION OF HABITATS

The UK countryside is dominated by agricultural land. Remnant woodlands are fragmented and disconnected. Most original habitats have gone and natural ecosystems are disjointed. Woods, meadows and ponds are becoming fewer and smaller: however, the opportunity exists to protect, enhance, and expand these.



## NATURE RECOVERY NETWORK

The solution is a proposal for a Nature Recovery Network where wild places are protected, natural systems are connected, providing a bigger area for wildlife integrated within the wider landscape.

A network of green fingers and corridors reconnect rich remnant woodlands and habitats re-establishing natural movement routes for wildlife species. Green fingers weave through the landscape, the nature and character of the corridors reflecting the rich habitats they connect.

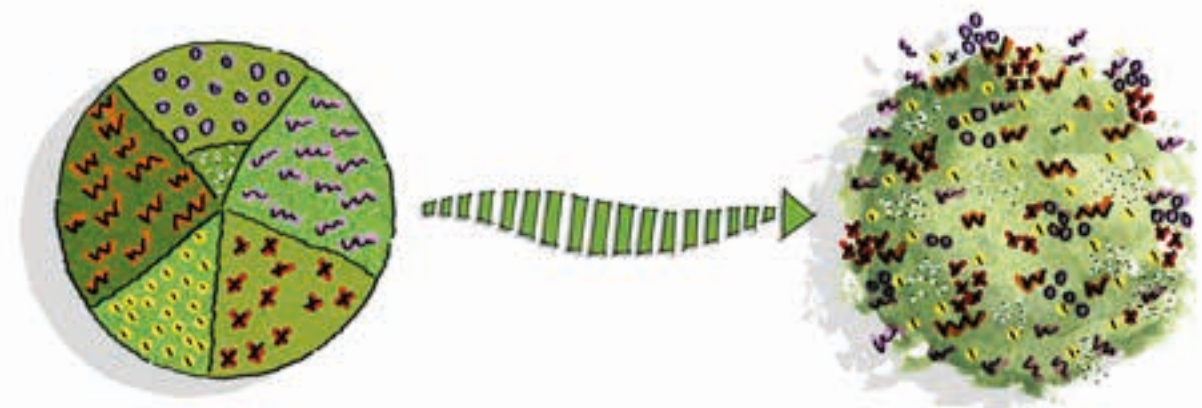
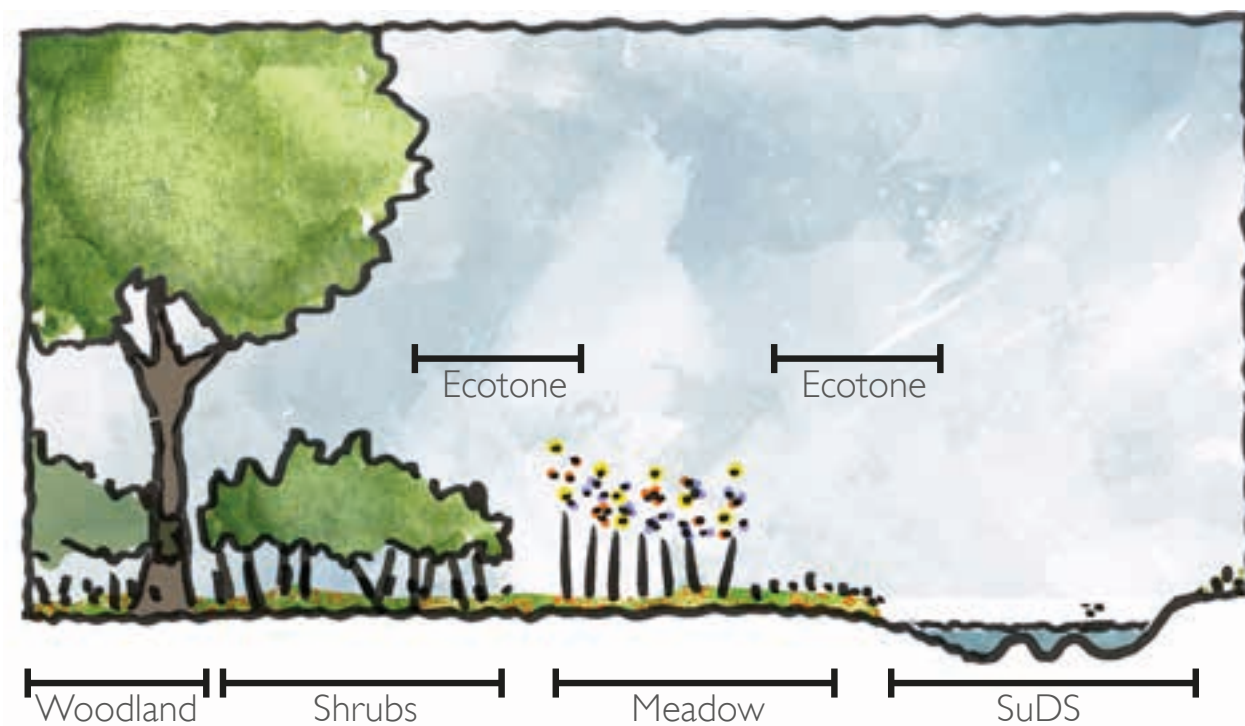
# CREATING A BIO-DIVERSE ENVIRONMENT

## CREATING THE RIGHT HABITAT

To establish a way of connecting the various nature habitats in the surrounding area, it is important that habitat corridors and zones are embedded within the design. These pages establish a set of principles on how this can work.

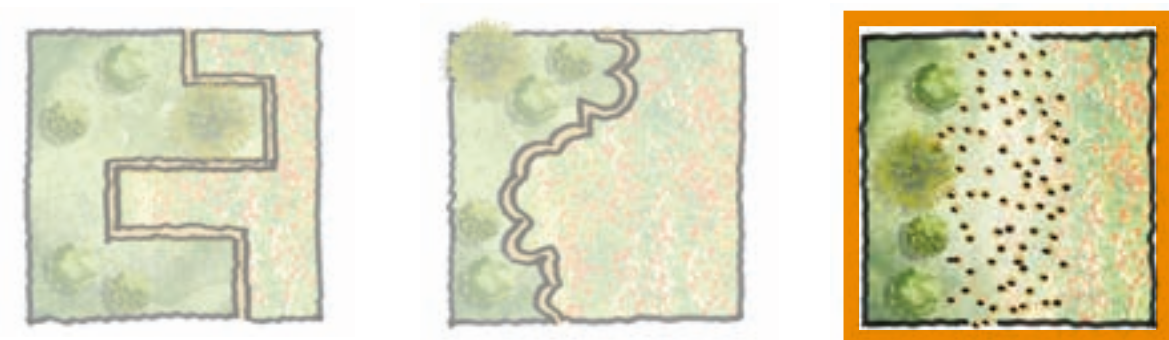
### ESTABLISHING AN ECOTONE

An ecotone is the transition area between two biomes - where two communities meet and integrate. For example, the diagram below shows the area of ecotone where the shrubs meet the meadow or the meadow meets the SuDS. Ecotones are important as they create the perfect habitat conditions for most wildlife. Therefore, it is important to consider how we can embed ecotones within our design.

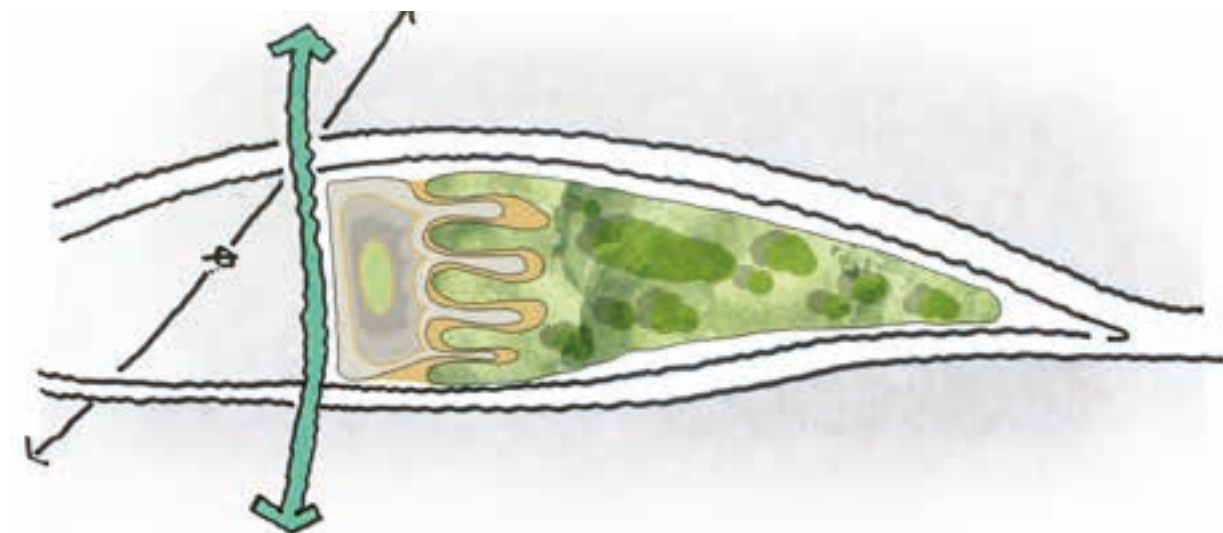


From formal...

...to naturalistic landscape



Re-establishing an Ecotone where open space meets development



Respecting the site's natural signatures and enhancing the remnant ecological character

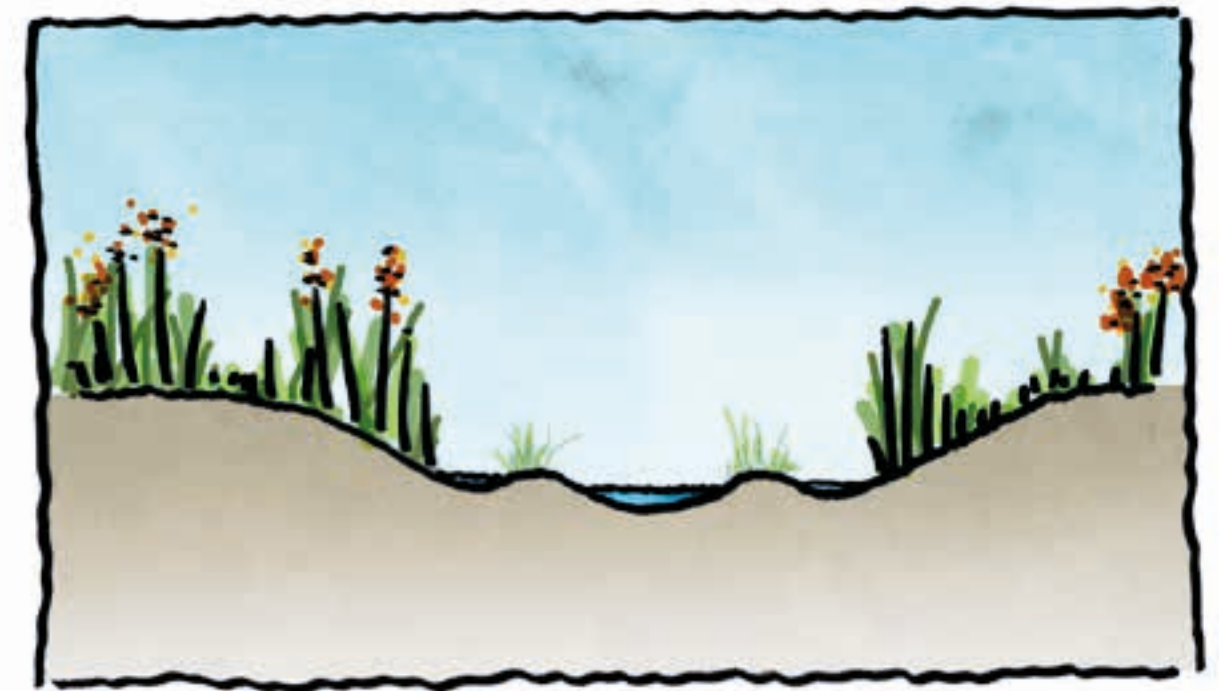


# CREATING A BIO-DIVERSE ENVIRONMENT TYPOLOGIES - SUDSCAPE



Swale links form part of a wild landscape and provide a natural solution to help prevent flooding. Habitats such as woodland, wetlands and swales act as giant sponges, absorbing and holding water slowing down water run-off into rivers. Swale links forming part of a wider green network enable movement of water and wildlife such as water voles and beavers.

- Integrated SuDs system
- Rain gardens
- Bioswales
- Wet meadows
- Attenuation basins on different levels for varied and rich habitat



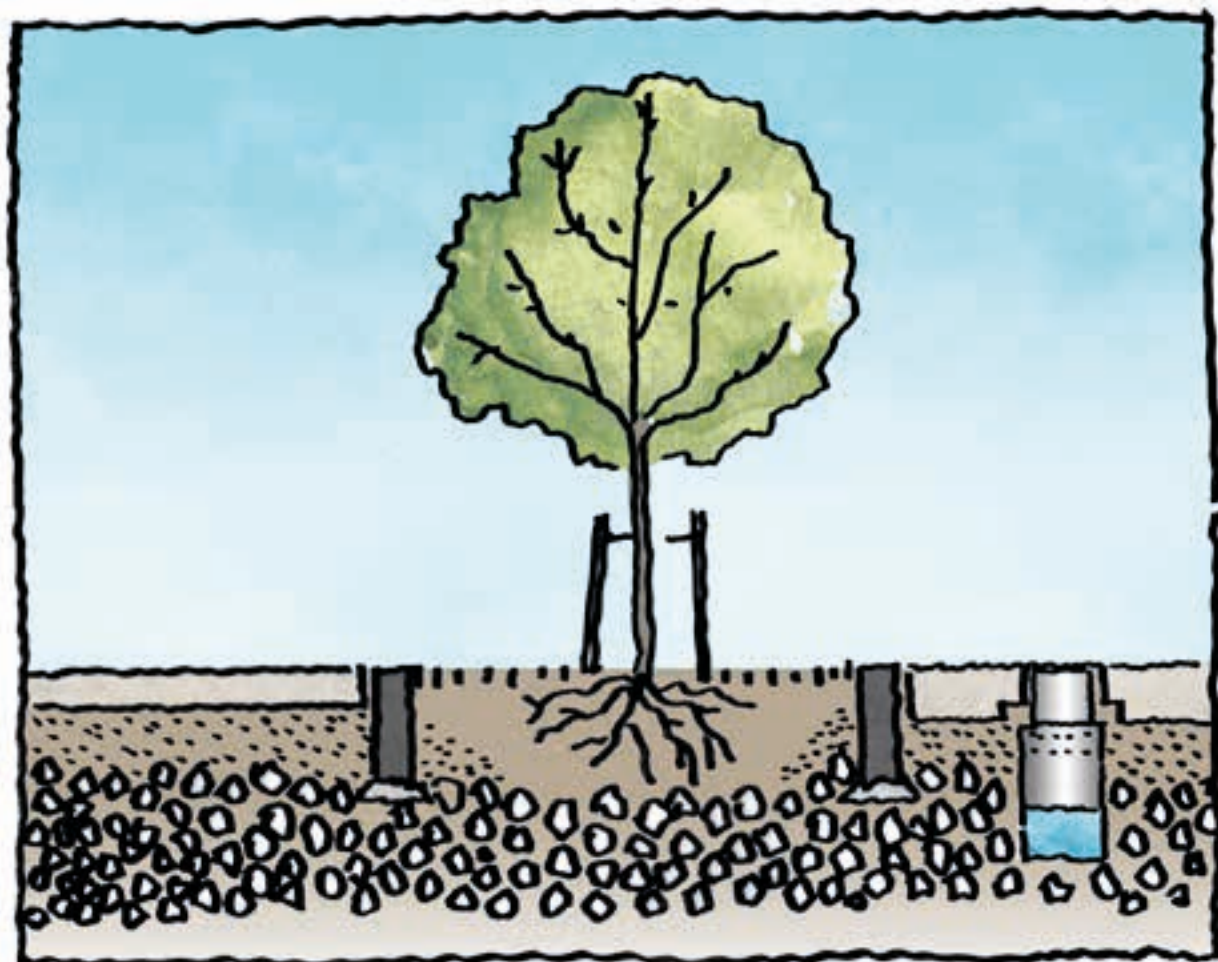


# CREATING A BIO-DIVERSE ENVIRONMENT

## TYPOLOGIES - STREETSCAPE

Green corridors are a key component of the green network protecting and connecting groups of mature trees and hedgerows. Incorporating these corridors into the streetscape embeds nature as an essential element of the design. These corridors also provide opportunities for cycle paths and walking routes to connect with natural open spaces.

- Street trees in “Stockholm Solution” pits (tree trenches that are grouped together that allow tree roots to interact with each other)
- Hedgerows
- Shared surfaces
- Pedestrian priority
- Habitat and wildlife





# CREATING A BIO-DIVERSE ENVIRONMENT

## TPOLOGIES - ROOFSCAPE



The roofscape should aim to replicate as far as is practical, the ecological requirements of the local area. The natural habitats created are designed to support a variety of plants, birds animals and invertebrates.

- Open mosaic habitat
- Undulating landscape
- Gravel margin and low level planting
- Ecological features









The background is a detailed architectural sketch in a light, hand-drawn style. It depicts a multi-story building with a series of terraces and balconies. A prominent feature is a green roof or a series of terraces covered in vegetation, with some trees and shrubs. In the foreground, there is a landscaped area with a path, some trees, and a few small figures of people, suggesting a public or communal space. The overall color palette is muted, with greens, browns, and greys.

5.

# THE DESIGN PROCESS



# THE DESIGN PROCESS

## DESIGN QUALITY OBJECTIVES

As set out by the GLA, where the proposed density is higher (in comparison to the surrounding area), design quality will be a key consideration. To embed this idea into our approach, we have created a set of design objectives which must be achieved.



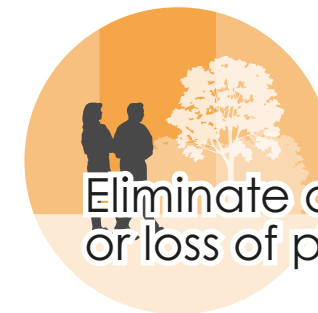
### No single aspect north facing units

No north facing single aspect units, as they gain very little direct sunlight and offer a poor quality of life.



### Well proportioned and arranged dwellings

All homes will be NDSS and M4(2) or M4(3) compliant, which means the rooms will be well proportioned and easy to circulate.



### Eliminate overlooking or loss of privacy

As a minimum, the main aspect elevation from every home will have a distance of 21 meters to the neighbouring facade.



### Parking to be hidden from the public realm

The majority of parking spaces will be located within podium decks removing them from the public realm.



### Access to high quality landscaped spaces

This proposal is a landscape led scheme, taking full advantage of the existing green infrastructure and offering residents a close connection with nature.



### High quality communal areas & circulation

Buildings should be designed with short corridors and well designed communal areas.



### Creating a sense of place and identity

The architecture and public realm should be unique and varied, to help define character and assist wayfinding through the site.



### Good tenure mix and diversity

The proposal should be tenure blind with good quality affordable homes that promote integration across the tenures.



### Promoting the use of alternative transport methods

The adjacent tube station and bus links along with an abundance of cycle storage and facilities should help promote a reduction in car use.



# THE DESIGN PROCESS

## DESIGN QUALITY OBJECTIVES

Collado  
Collins

ARCHITECTURE



Inland Homes assembled the Design Team with a structure that promotes continual review and collaborative working. The resulting creative energy and design process has helped to ensure that the quality of design for the various aspects of the project is kept at a high standard.

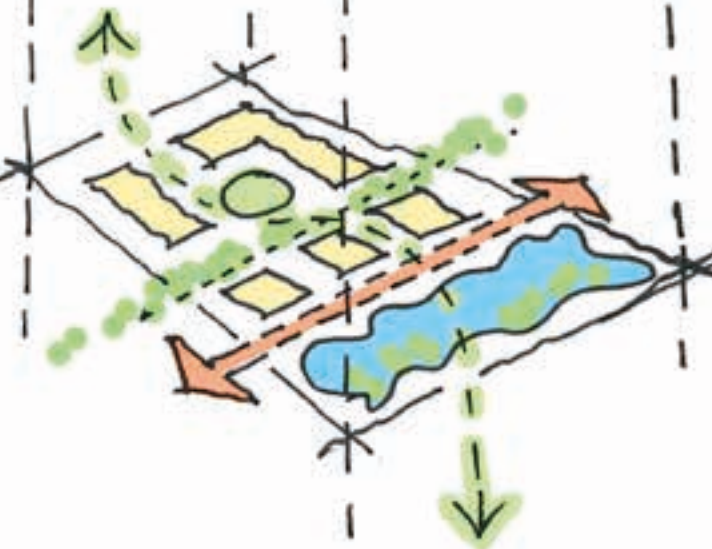
BMD

LANDSCAPE



jtp

MASTERPLAN





# THE DESIGN PROCESS

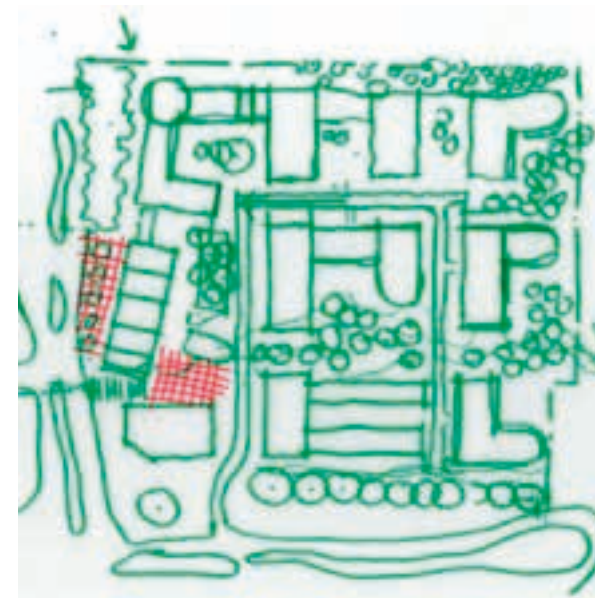
## MASTERPLAN DESIGN CHARRETTE

JTP is committed to ensuring Healthy Placemaking is at the heart of every design project. They work with a collaborative process that allows a range of people to share ideas through creative engagement with the design team.

Projects always begin with a design charrette, where a group of designers come together to sketch and discuss ideas. From this, a series of design principles are produced which underpin the masterplan and help promote Healthy Placemaking.



Sketch proposal - 'Park Pavilions'



Sketch proposal - 'Hillingdon Gardens'



Sketch proposal - 'East-West Routes'



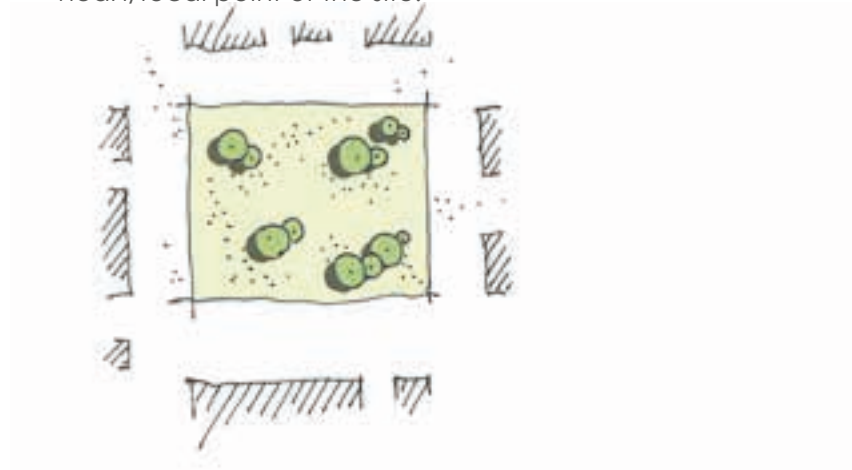
Charrette workshop at JTP's office



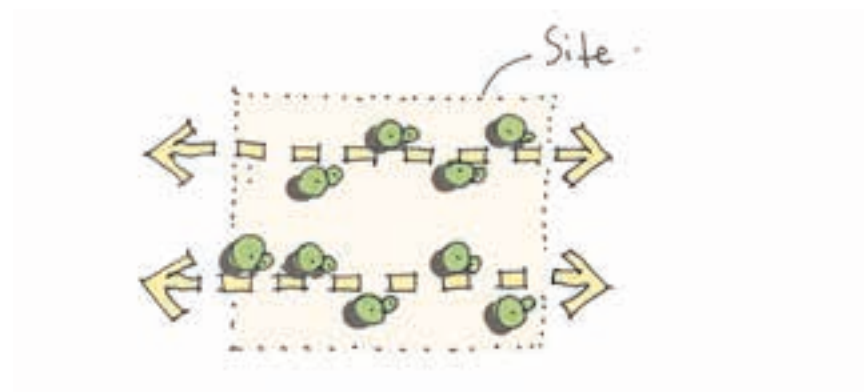
# THE DESIGN PROCESS

## CHARRETTE DESIGN PRINCIPLES

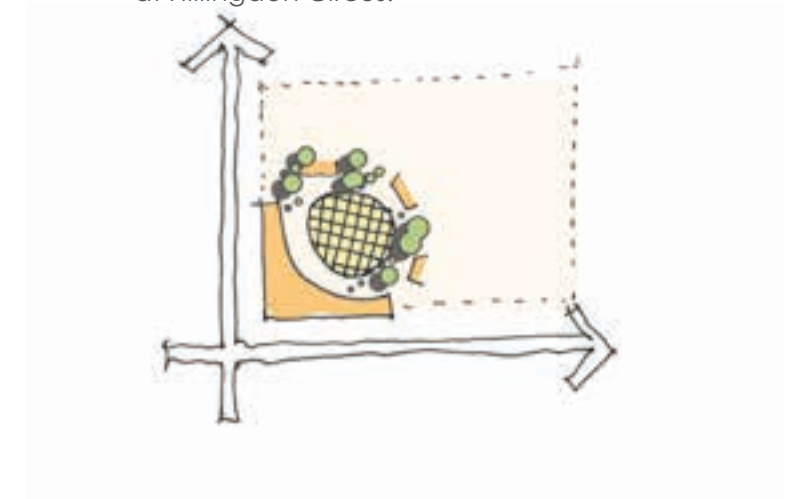
1. A central green square that acts as the heart/focal point of the site.



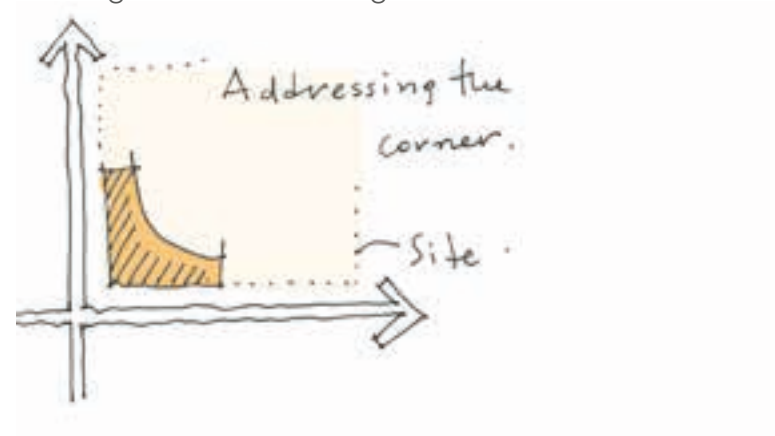
4. East-west connections - visual and physical



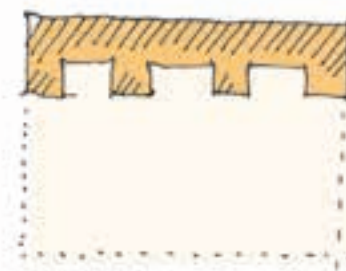
7. Mixed uses located around the entrance at Hillingdon Circus.



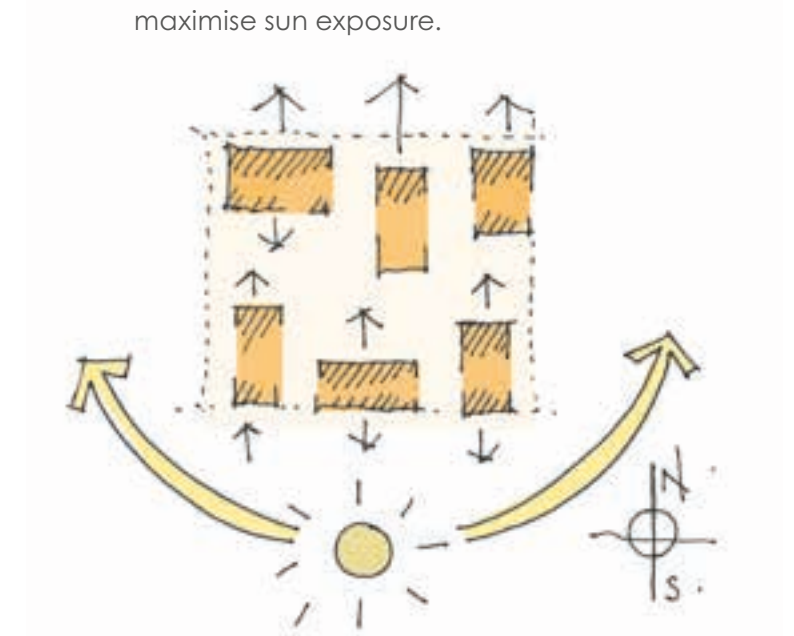
2. Addressing the corner of Hillingdon Circus.



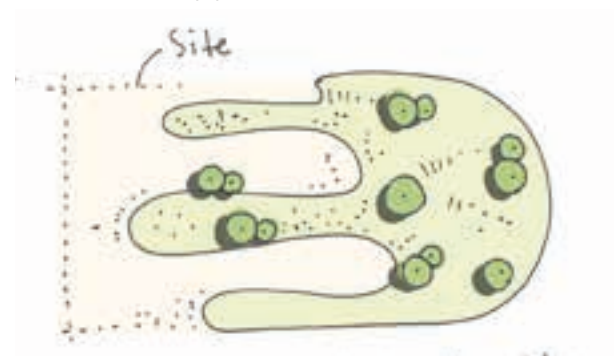
5. Buffer block along the northern boundary to shield from the busy road.



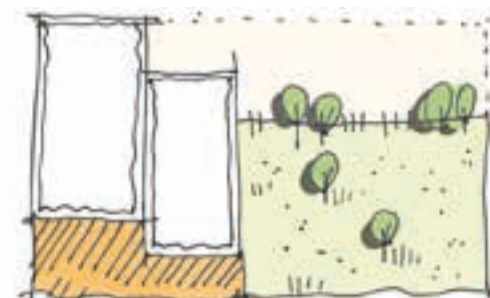
8. North-south orientation of blocks to maximise sun exposure.



3. Pull the country park in to the site.



6. Stepping down massing towards the country park.





# THE DESIGN PROCESS

## COMMUNITY ENGAGEMENT

### SUMMARY OF CONSULTATION

Inland Homes appointed Terrapin Communications to manage the community consultation for the Hillingdon Gardens proposals.

Terrapin Communications sent letters to all the relevant LB Hillingdon councillors and local community groups informing them of Inland Homes' acquisition of the site and inviting them to briefing meetings about the proposals.

Meetings were held with two local Residents' Associations – Oak Farm Residents' Association and Ickenham Residents' Association – on 4th July and 17th July respectively.

A public consultation exhibition to display details of the development proposals was held at the Hillingdon Park Baptist Church between 4.00pm – 8.00pm on 25th July 2019. Newsletters advertising the exhibition were posted to 936 local residents and businesses 16 days prior to the exhibition.

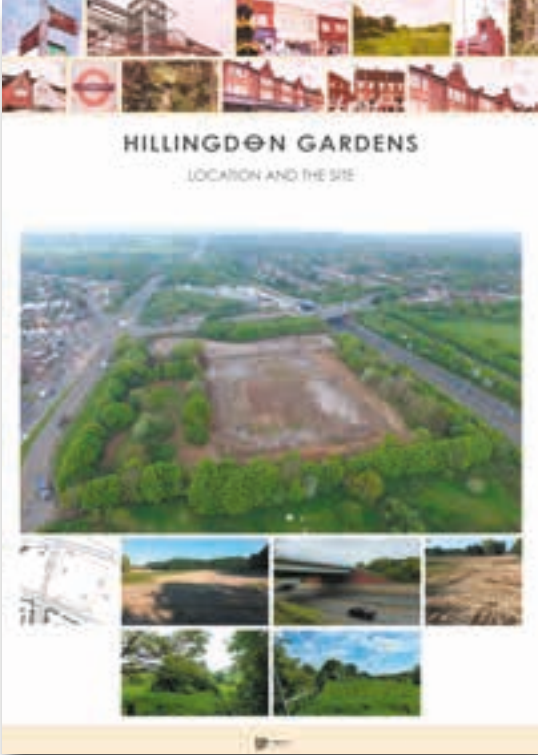
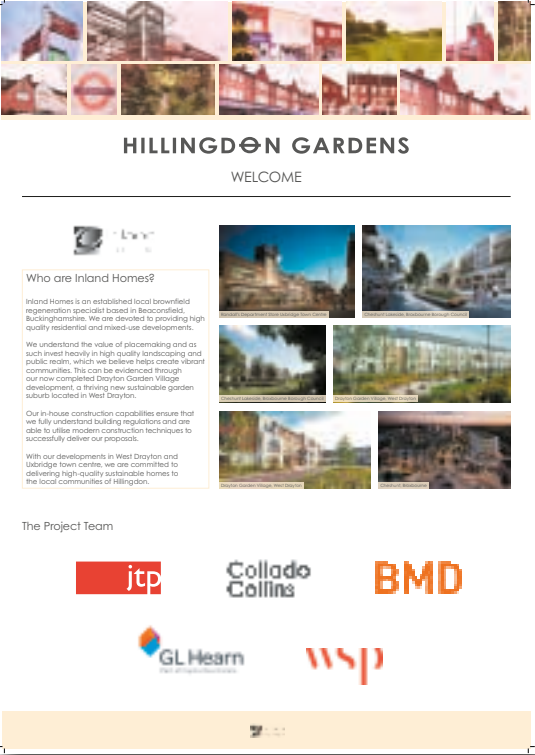
82 residents attended the exhibition and 53 people completed a feedback form.

For further information, refer to separate statement of community involvement (SCI) produced by Terrapin Communications.





THE DESIGN PROCESS  
CONSULTATION BOARDS







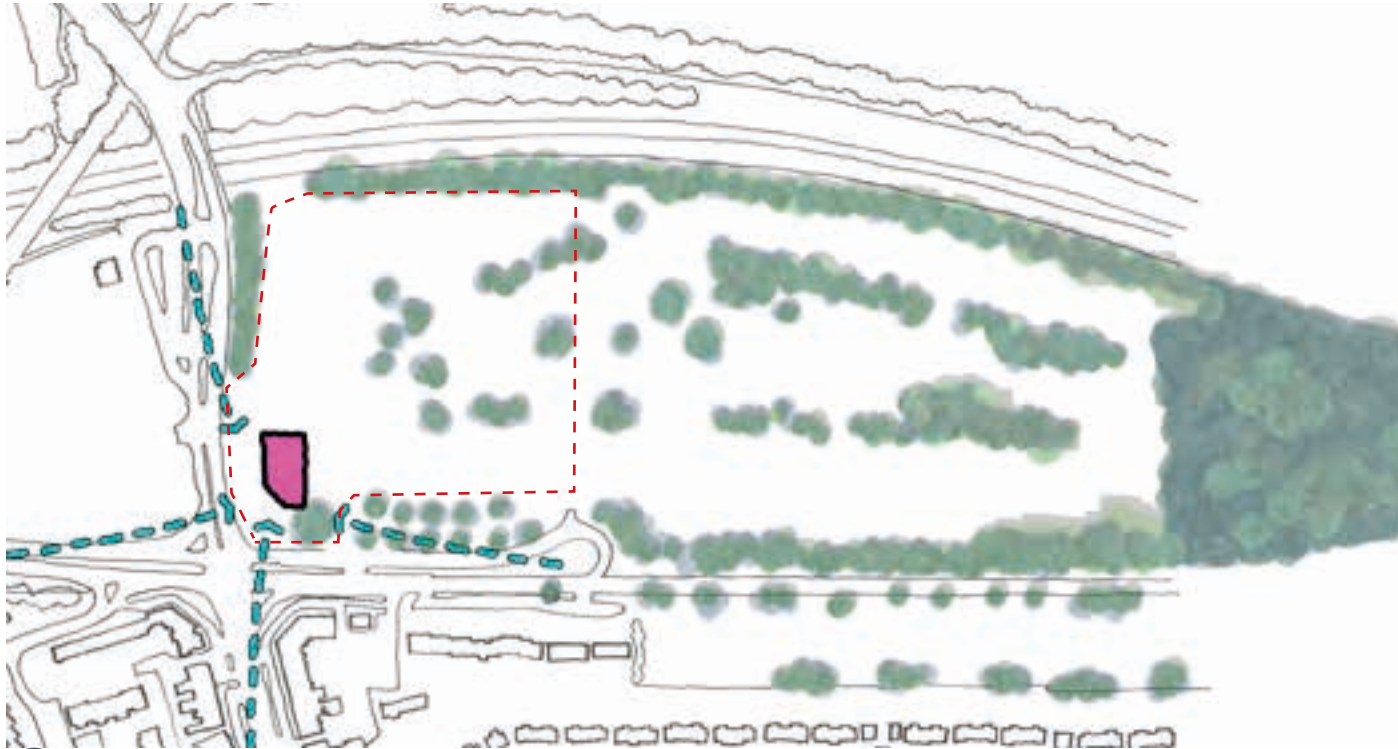


# 6. MASTERPLAN





# MASTERPLAN DESIGN PRINCIPLES



1 Create a focal point and a new landmark building that responds to the existing road junction.



2 Open up the eastern edge to allow the park and countryside to filter through in to the site.



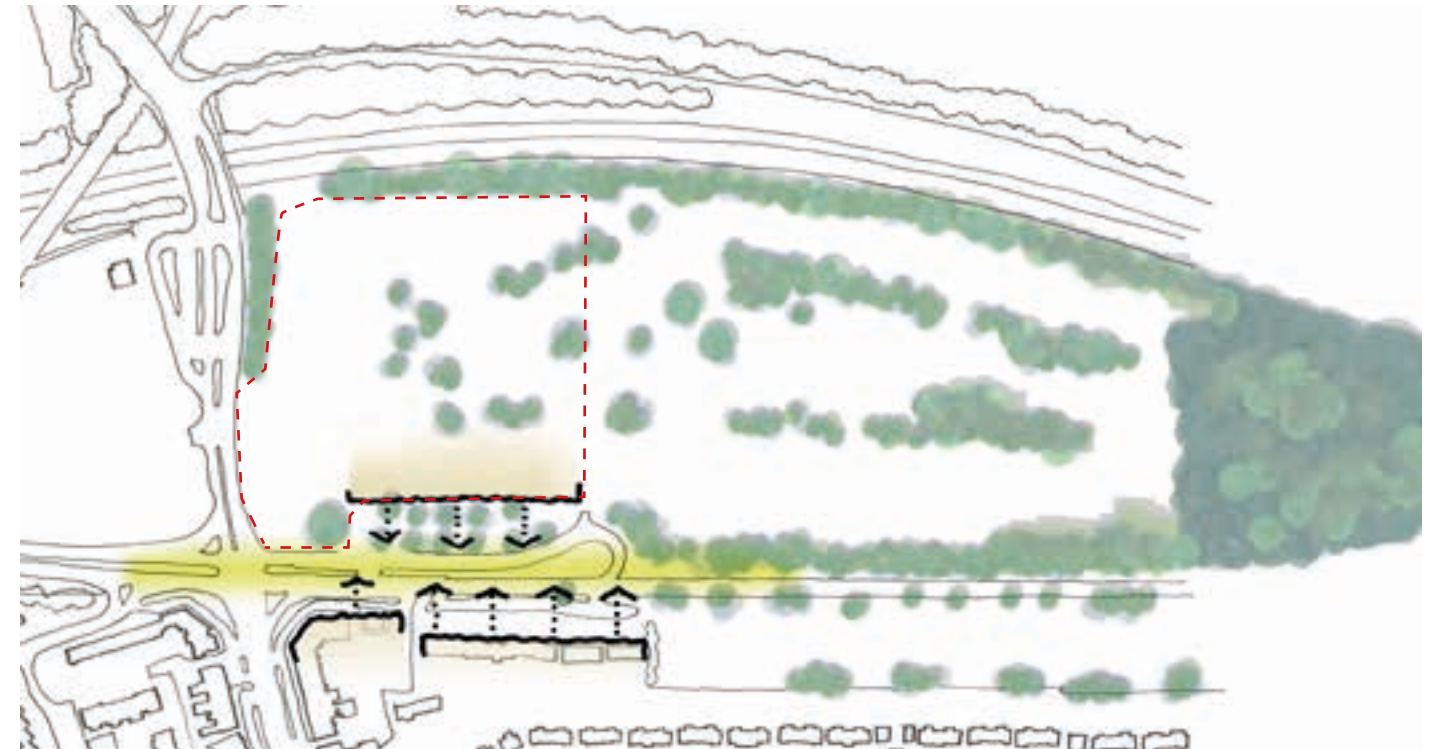
3 Create a series of interlinked gardens and squares that draws the value in to the site.



# MASTERPLAN DESIGN PRINCIPLES



4 Create a buffer to deflect the noise from the adjacent motorway.



5 Front Freezeland Way with lower scale houses to respond to the local character.



6 Use the green links to connect the site to the wider area, taking in to consideration future development potential.



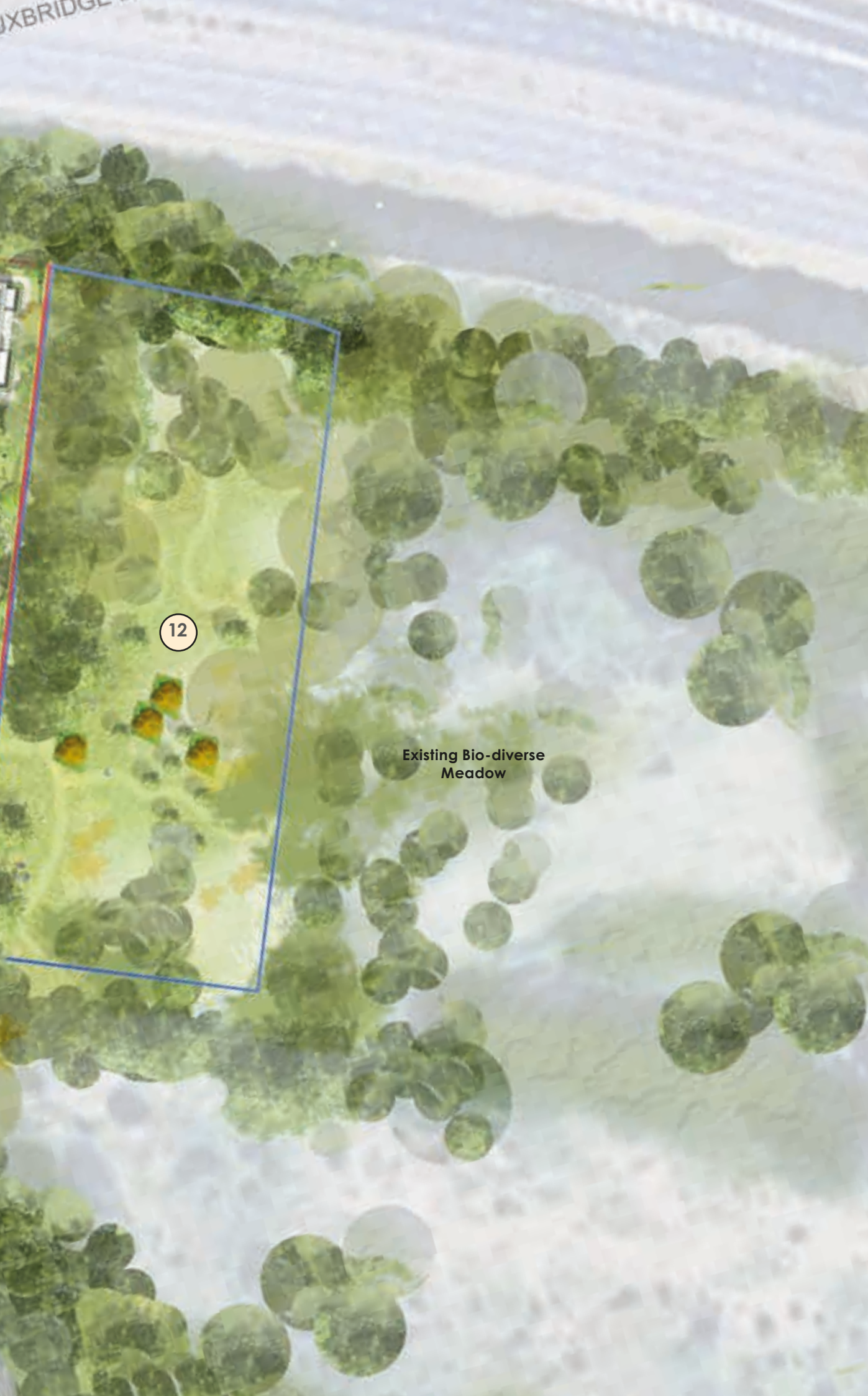
# MASTERPLAN

## PROPOSED MASTERPLAN

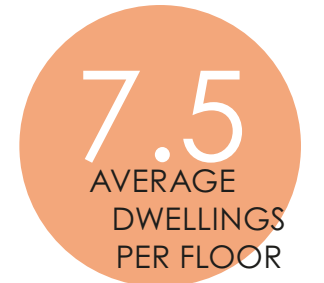
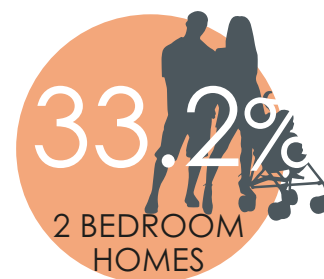
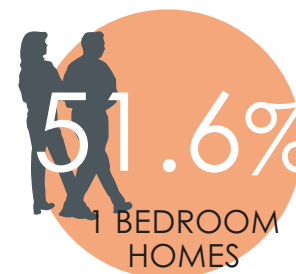
- 1 FOCAL BUILDING**  
New tapered focal building to respond to the road junction corner at the entrance of the site.
- 2 ENTRANCE SQUARE**  
Entrance square with surrounding mixed uses on ground floor.
- 3 BREWERY SQUARE**  
Central green space that draws the park into the site.
- 4 GREEN FINGERS**  
Building orientation changes along the eastern side to allow the park to filter in to the site.
- 5 NEW PEDESTRIAN ROUTES**  
New east-west pedestrian connections link the site to the wider context.
- 6 NOISE IMPACT**  
Buffer block helps minimise the impact of noise from the adjacent motorway to the north.
- 7 HIGH GARDENS**  
Podium gardens create some private amenity space with parking located underneath.
- 8 COMMUNITY**  
Potential for a pavilion structure to sit within the new central green space.
- 9 MASSING**  
Taller massing to the north-west corner which steps down towards the east and south.
- 10 EXISTING TREES**  
Retain and enhance existing tree cover around the site.
- 11 FUTURE CONNECTIONS**  
Potential future connection for the council owned land along Freezeland Way.
- 12 ACCESS TO GREEN SPACES**  
Access to public routes which connect the site to the wider green network.







# MASTERPLAN DESIGN SUMMARY & SCHEDULE





# MASTERPLAN GROUND FLOOR

1,250m<sup>2</sup>

COMMERCIAL

95%

GROUND FLOOR  
FRONTAGES  
ACTIVE

164

PARKING SPACES

1.28<sup>Hc</sup>

PUBLIC LANDSCAPE  
& NATURE  
CORRIDORS





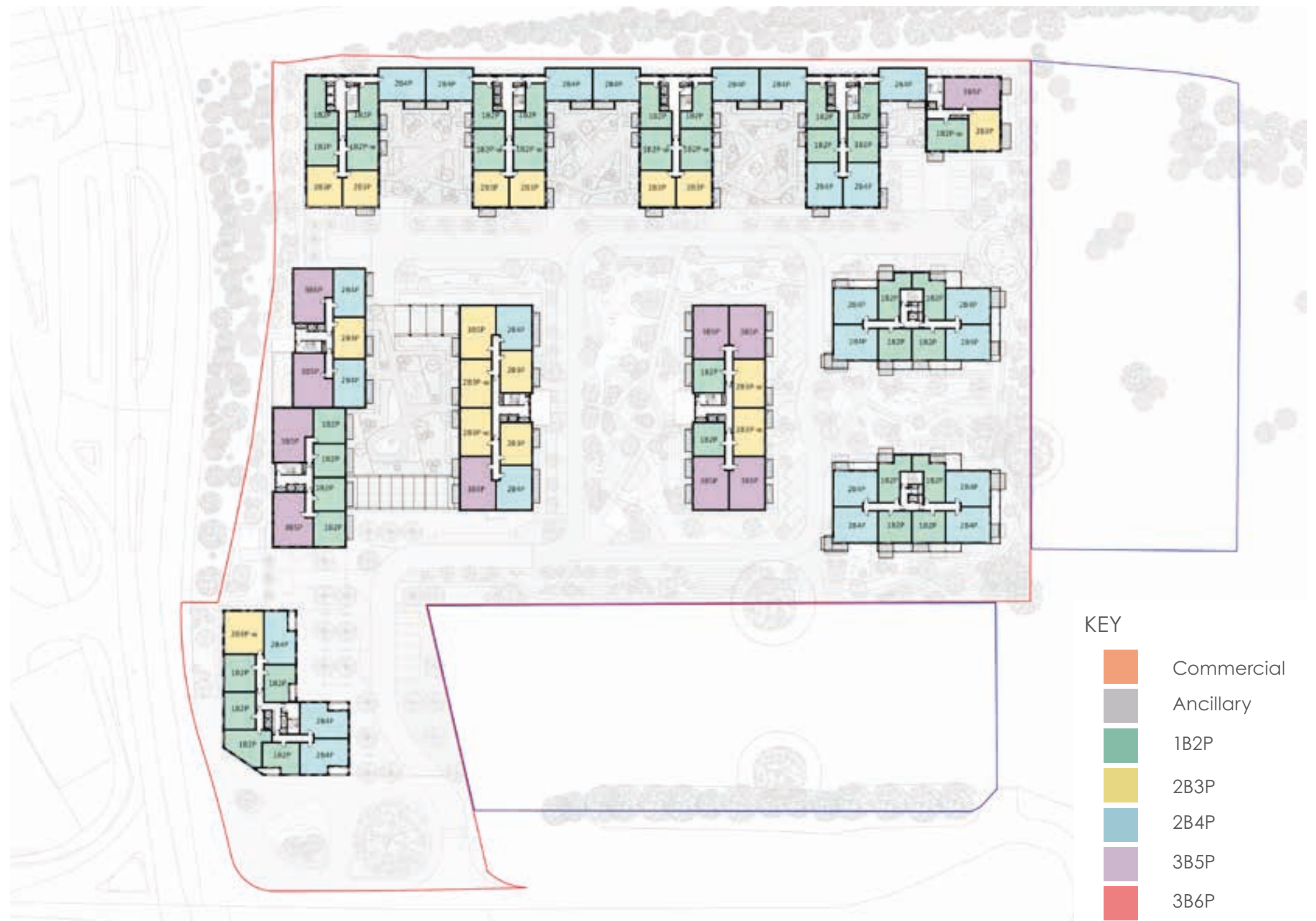
# MASTERPLAN TYPICAL FLOOR

7.5  
AVERAGE  
DWELLINGS  
PER FLOOR

90%  
VIEWS TO  
LANDSCAPE  
AMENITY

16.5%  
FAMILY  
ACCOMMODATION

0%  
NON-COMPLIANT  
OVERLOOKING





# MASTERPLAN

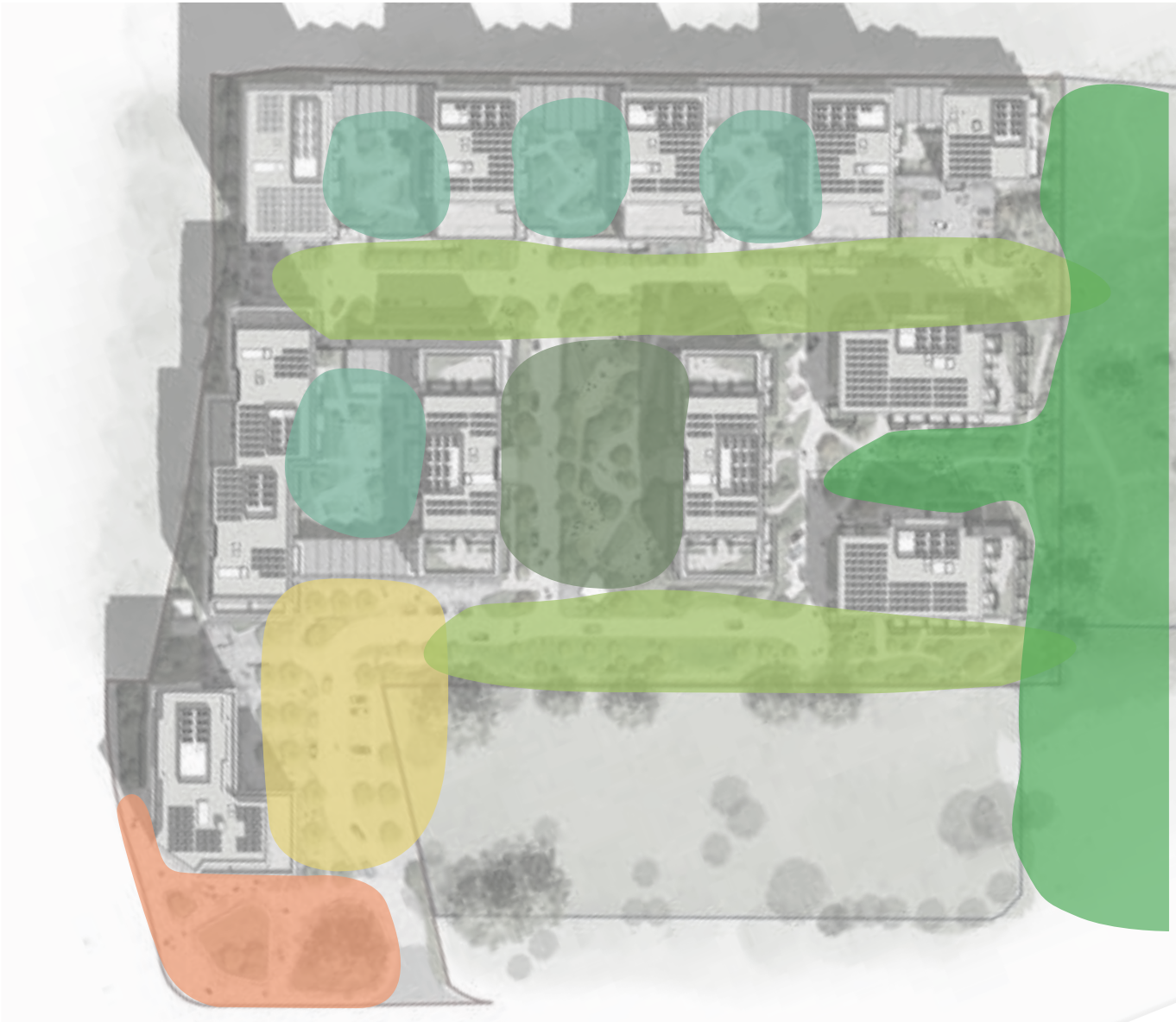
## MASTERPLAN ANALYSIS

MOVEMENT & ACCESS



- KEY
- Vehicle loop shared surface road
  - Podium entrance shared surface road
  - Potential future entrance
  - Pedestrian/cycle routes

OPEN SPACE & GREEN INFRASTRUCTURE



- KEY
- |                   |               |
|-------------------|---------------|
| Hillingdon Circus | Green Square  |
| Commercial Square | Green Fingers |
| Podium Gardens    | Country Park  |

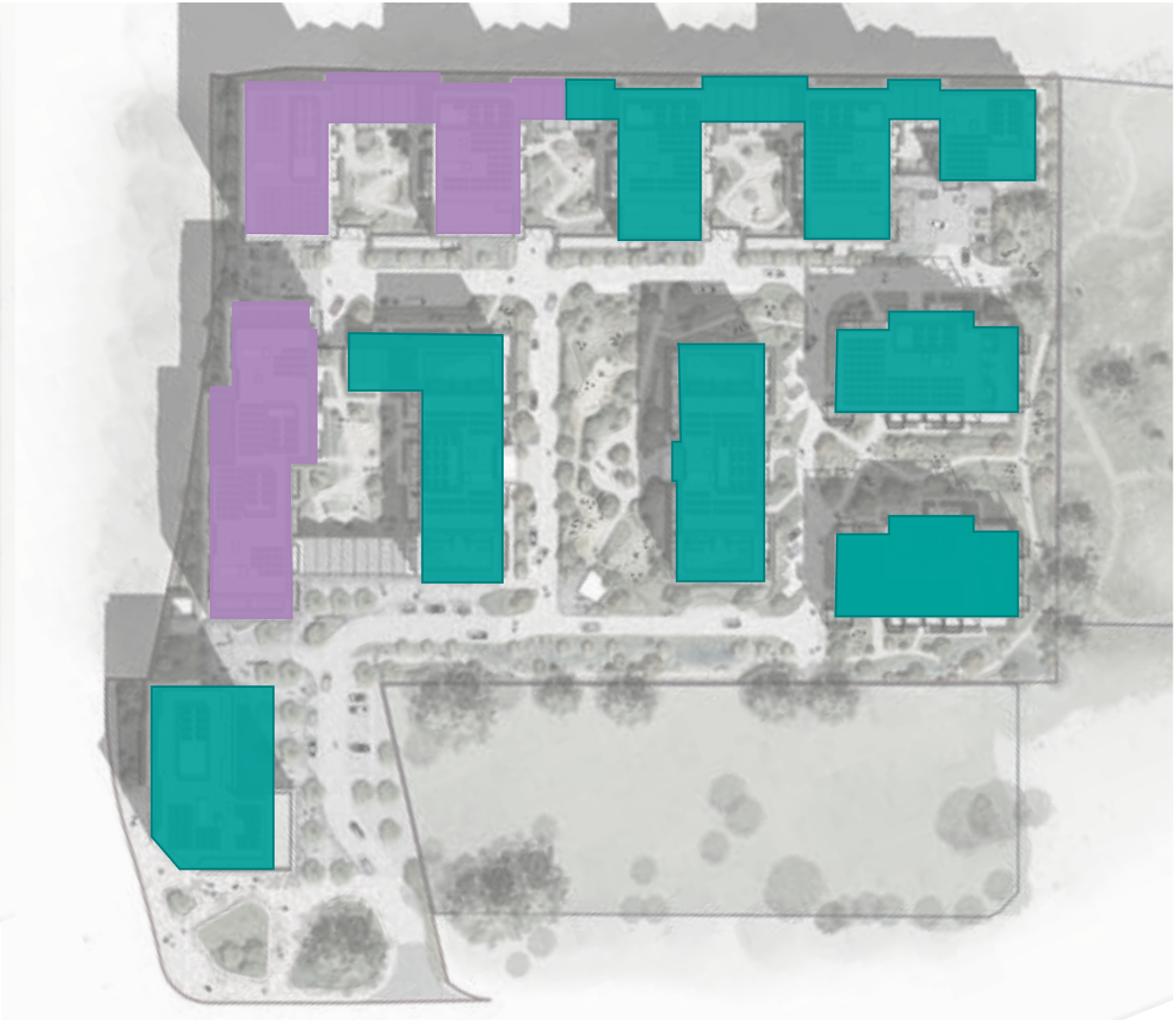


FRONTAGES



- KEY
- Street frontages
  - Landscape frontages
  - No habitable room frontages

TENURE



- KEY
- Private
  - Affordable







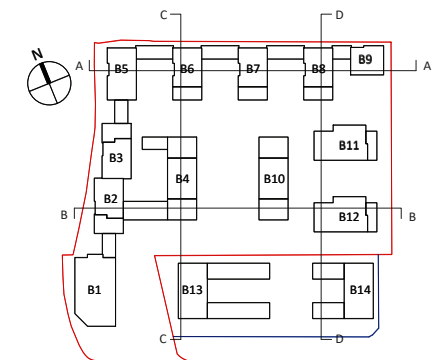
# MASTERPLAN MASSING & STOREY HEIGHTS

## MASSING PRINCIPLES

Due to the sites proximity to RAF Northolt airport, there are height restrictions across the site. The red line in the site sections indicate the maximum height levels.

The massing principles include:

- The general massing of blocks steps down towards the Green Belt Land on the eastern side of the site.
- To mitigate the noise and air pollution from the A40 to the north, the building on that boundary are a minimum of 5 storeys high.
- The individual buildings along the northern edge will step down to create south facing roof terraces.
- The building at the corner of Hillingdon circus steps up in height to create a focal point at the entrance to the site.
- If the council land along Freezeland Way is to come forward for development, we would propose that the massing steps down to reflect the buildings on the opposite side of Freezeland Way.

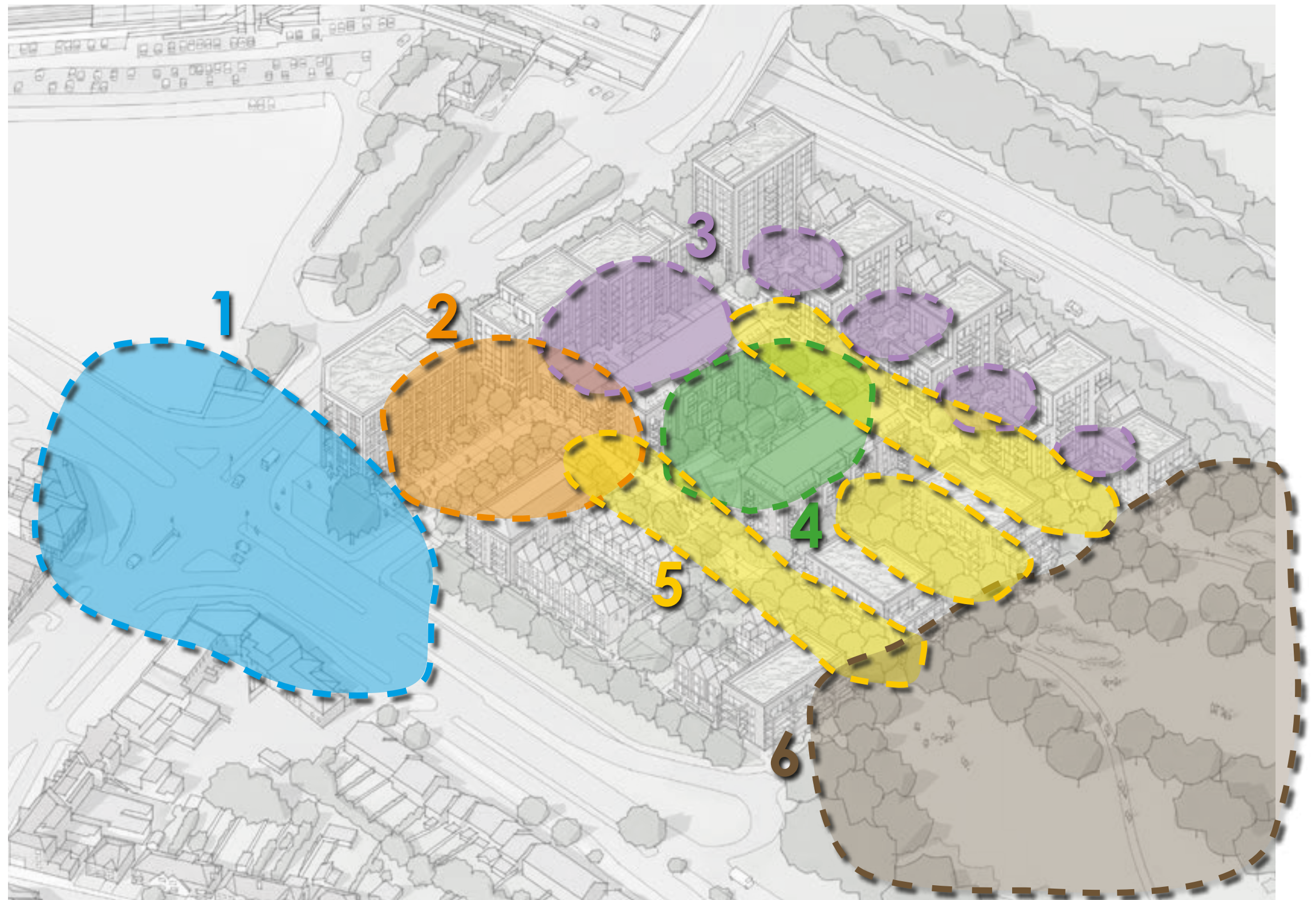




# MASTERPLAN CHARACTER AREAS

## KEY SPACES

Within the proposed layout there are 6 defined spaces that each have their own distinct character and use. These spaces range from mixed-use public squares to private residents gardens. The character of these spaces is defined through a combination of materials, building typologies and most importantly landscape.





# MASTERPLAN CHARACTER AREAS

## 1 HILLINGDON CIRCUS



- Re-animates the corner adjacent to Hillingdon Circus.
- Gateway building is chamfered at the corner to reflect the buildings on the adjacent corners.
- The gateway building height is increased to create a focal point at the entrance to the site.
- New landscaping and planting act as a buffer to the traffic from the busy road.
- Existing large tree is retained to further enhance the landscape qualities of this area.

## 2 THE APPROACH



- The Approach acts as the main vehicular and pedestrian access point to the site.
- All the ground floor units will be mixed-use commercial spaces that will enhance the offer of Hillingdon Circus as a local centre.
- Existing trees and planting have been integrated into the design.
- Paved surfaces will allow the mixed uses to spill out onto the street helping to create a vibrant atmosphere.
- The road will be downgraded to a shared surface street to create pedestrian priority.

## 3 HIGH GARDENS



- The High Gardens allow for private amenity space for residents.
- The podiums are orientated south to maximise the amount of sunlight gained.
- Steps in the building create terraces at a variety of levels.
- Play space and opportunities for rest and relaxation will be available.
- Landscape and tree planting is also integrated into the design.

## 4 BREWERY GARDEN



- Brewery Square is the heart of the site.
- All pedestrian and vehicle traffic must pass this space as they move through the site.
- The square helps draw in the landscape from the adjacent country park creating an overarching green network.
- The amount of roads surrounding the space are minimised to make it pedestrian friendly.
- Natural ecosystems help to encourage wildlife and biodiversity.

## 5 THE WANDERS



- The Wanders are the east-west corridors which link the country park to the central green square.
- These spaces act as the main communication links for both pedestrians and nature.
- The SuDS network is also aligned with these corridors which help create a natural draining system across the site.
- Landscaping is key in these places, with all trees and planting designed to create a natural habitat that boosts the local ecosystem.
- Homes along this route will all front onto the green spaces.

## 6 THE MEADOW



- The Meadow is an existing area of open green space rich in bio-diversity along the eastern edge of the site. It links the site to a wider network of green infrastructure.
- Buildings have been orientated so that as many homes as possible have views of the meadow.
- All homes with views of the park have large openings and balconies enhancing the connection between the indoor and outdoor spaces.
- Landscaping interventions has been kept to a minimum to retain the majority of the existing ecosystems in place.



# MASTERPLAN HILLINGDON CIRCUS

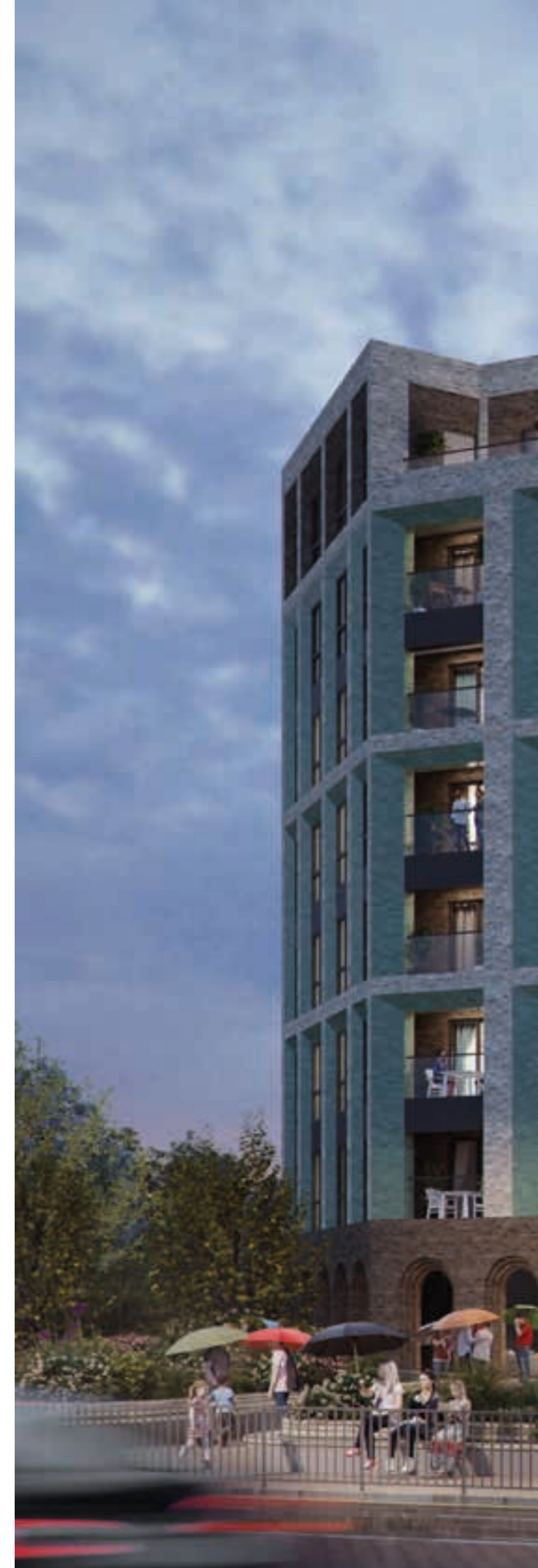
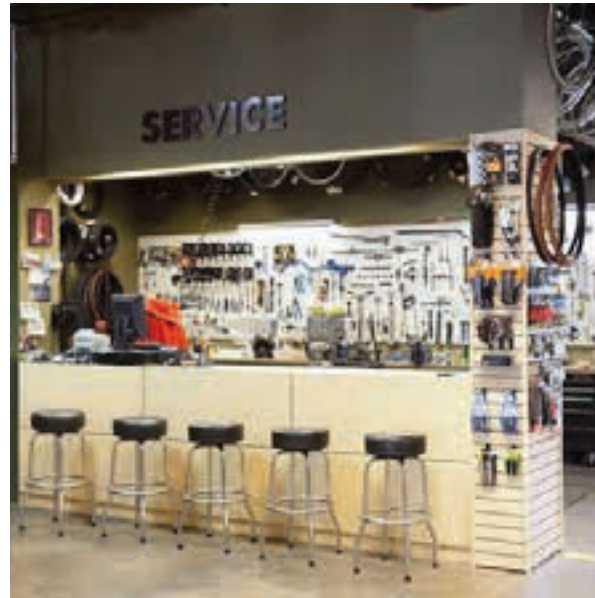
## HILLINGDON CIRCUS

Hillingdon Circus is currently dominated by the large traffic junction where Long Lane meets Freezeland Way. The adjacent buildings have some existing character which we have tried to assimilate. The chamfered shape of the proposed new building is addressing the corner by reflecting the configuration of the existing terrace on the opposite side of the junction.

- The corner adjacent to Hillingdon Circus is given new lease of life by introducing a new building which helps complete the square with mixed uses on the ground floor.
- The gateway building height is increased to create a focal point at the entrance to the site.
- Gateway building is chamfered at the corner to reflect the shape of the buildings on the adjacent corners.
- New landscaping and planting act as a buffer to the traffic noise from the busy road.
- Existing large tree is retained.



Potential commercial uses on the ground floor









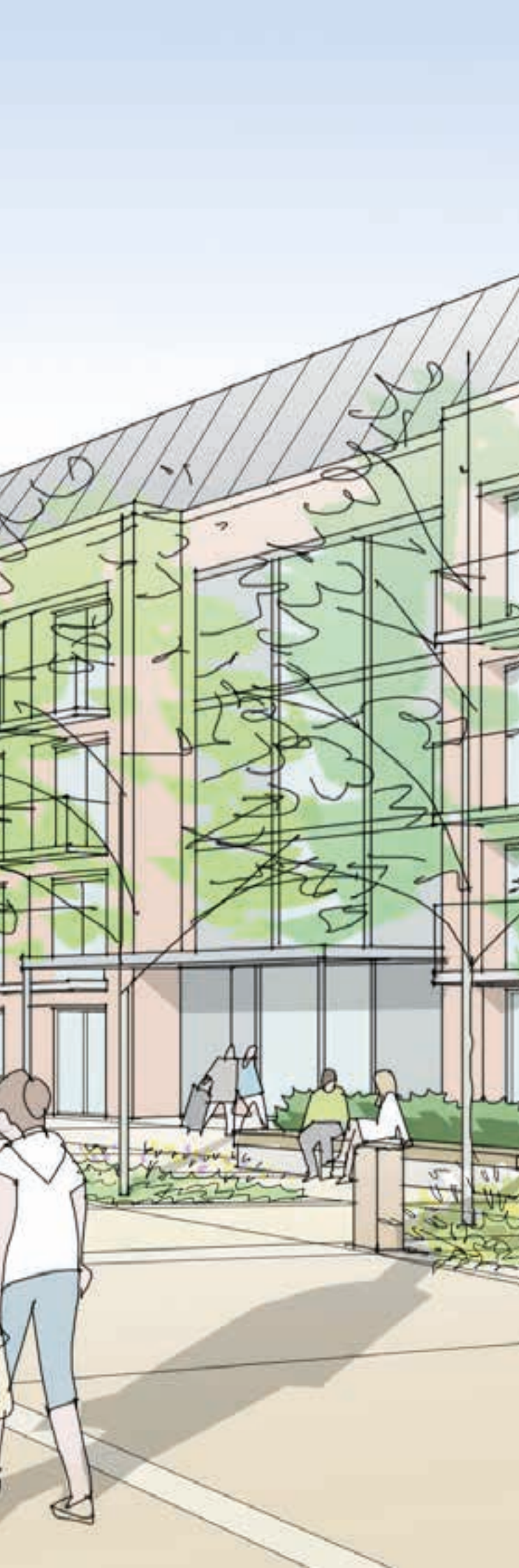




# MASTERPLAN THE APPROACH

The Approach is the mixed-use square which acts as an extension to the existing local centre of Hillingdon Circus. The road surface material changes to indicate pedestrian priority. Formal tree planting creates a special character distinguishing this space from the rest of the proposal.

- The Approach acts as the main vehicular and pedestrian access point to the site.
- All the ground floor units will be mixed-use commercial spaces that will enhance the status of Hillingdon Circus as a local centre.
- Existing trees and planting have been integrated into the design.
- Paved surfaces will allow the mixed uses to spill out onto the street helping to create a vibrant atmosphere.
- The road will be a shared surface street to create pedestrian priority.





# MASTERPLAN THE HIGH GARDENS

The High Gardens are the private residential gardens which are located on the roofs of the podium and building blocks. The massing for the blocks steps towards the south for maximum sun exposure in these areas.

- Play space and opportunities for rest and relaxation.
- Landscape and tree planting is integrated into the design.













# MASTERPLAN BREWERY GARDENS

Brewery Gardens is the green heart of the site. It is a central green square that helps draw the country park into the centre of the site.

- All pedestrian and vehicle traffic must pass this space as they move through the site.
- The square helps draw in the landscape from the adjacent country park creating an over arching green network.
- The amount of roads surrounding the space are minimised to make it pedestrian friendly.
- Natural ecosystems are given space to thrive which will help to encourage wildlife and biodiversity.





# MASTERPLAN THE WANDERS

The Wanders are the green connections which run east-west across the site. They are the primary pedestrian routes which link Hillingdon Circus to the country park and the wider green network.

- SuDS aligned with these corridors help create a natural draining system across the site.
- Landscaping is key, with all trees and planting designed to create a natural habitat that boosts the local ecosystem.
- Homes along this route all front onto the green spaces.













# MASTERPLAN THE MEADOW

The Meadow is an existing area of open green space rich in biodiversity along the eastern edge of the site. It links the site to a wider network of green infrastructure.

- Buildings have been orientated to maximize views of the meadow, with the massing steps down towards the open space.
- All homes looking towards the meadow have large glazed openings and balconies to enhance the connection between the indoor and outdoor.
- Landscaping interventions has been kept to a minimum to retain the majority of the existing ecosystems in place.





