Pre-application - Beehive Centre

Landscape, Drainage and Ecology

The
Beehive Centre
Cambridge

November 2022

A New Sustainable Innovation
District for Cambridge.

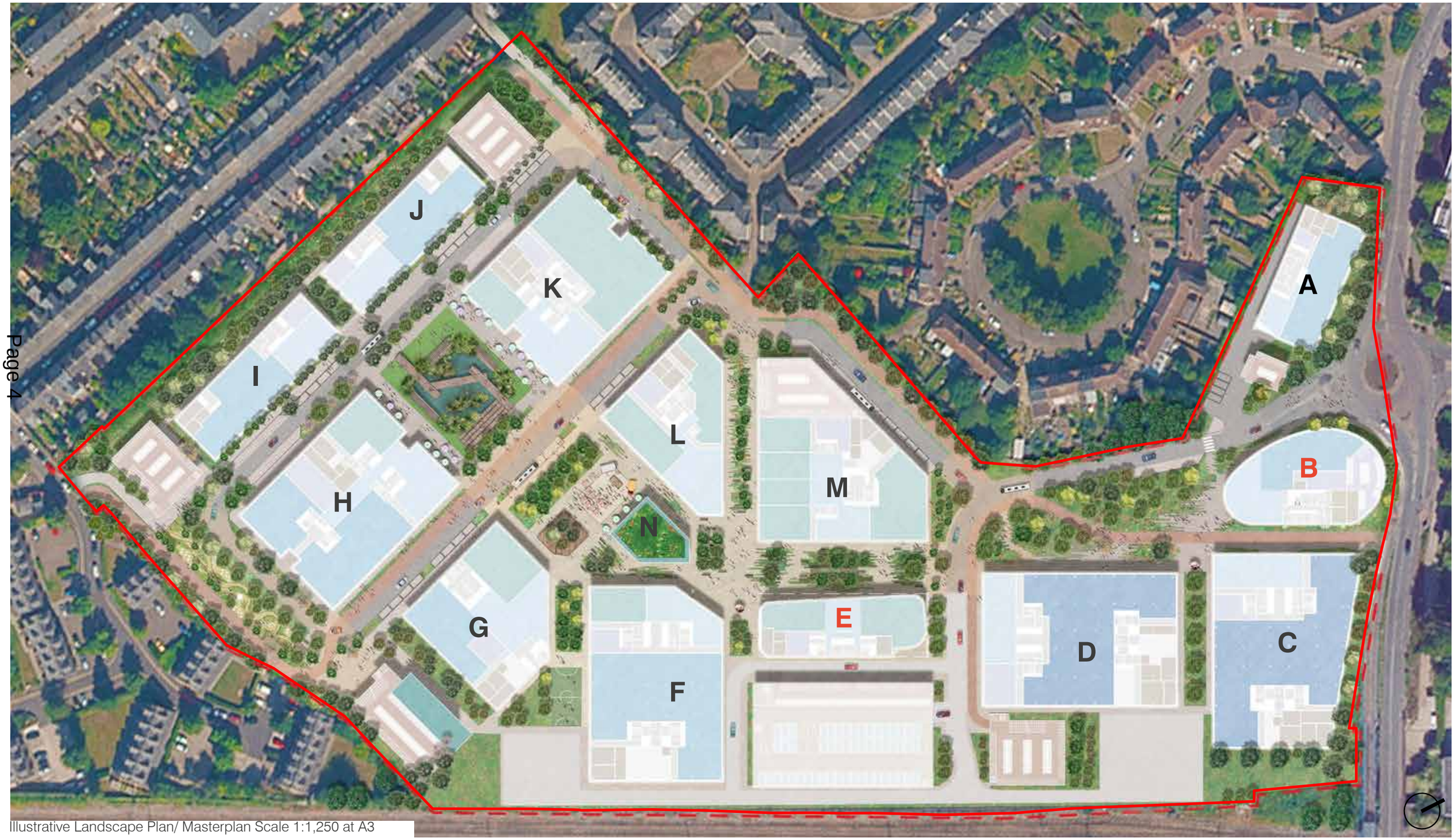
November 2022

Masterplan Overview

Existing Site Plan Scale 1:1,250 at A3

Masterplan Overview

Workshop 3 Illustrative Landscape Plan/ Masterplan



Illustrative Landscape Plan/ Masterplan Scale 1:1,250 at A3

Landscape Officiers feedback in June
DRP and Workshop 3 feedback

General comments on the Landscape Masterplan:

- The panel suggested more detail on scale, materials, buildings elevation, in particular for those elevations facing the conservation area.
- The panel recommended more direct reference to Cambridge (e.g: Christ's Piece or the lengthy York Street)
- The panel suggested to have less fragmented character, both for the buildings and the external spaces.
- The panel were concerned that the public spaces will be overwhelmed by the large scale of the buildings.
- More clarity is required on how the external spaces interact with the buildings and how the servicing, parking and vehicle access will affect these landscape spaces.
- It was suggested that rather than having a number of external spaces of a similar nature, some of the smaller spaces become hard landscaped 'streets' and some of the spaces are linked to create more of a 'destination' public space.
- Concerns raised on the lack of an overall guiding concept or a hierarchy of spaces or building.
- The space comparisons were for much less enclosed spaces and the images in the landscape report needed much larger spaces than the current masterplan was offering.
- The panel recommended a tree strategy is included in the submission

Comments about the character areas:

- About Abbey Walk: Enhance entrance and include more trees
- About the Community garden: Footpath and access unresolved, need more design development
- About the Wetland: Enhance road, consider road as a Boulevard

Landscape Officiers feedback in June
Our considerations

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How the feedback was considered:

- We developed new sections that show the interface particularly at the boundary condition and increased up to a minimum of five meters the green areas at the boundary line.
- Cambridge references are used in the scale comparisons to match as better as we can the surroundings of the buildings.
- Full section of the Linear Walk is shown with a similar precedent to demonstrate how a relatively narrow street can create a strong landscape experience with lots of plants and a variety of trees.
- We reconfigured the spill-out spaces, seating areas and hard standing activity areas in relation to the building's active frontages.
- We reconfigured our character areas into five main characters linking similar areas together into large open spaces.
- We re-structure our design under a new hierarchy of spaces driven by a connected green corridor "The Beehive greenway", active east-west streets and linking green boulevards north to south.
- The scale comparison precedents look at spaces which better reflect the proposed condition.
- We developed a tree strategy in which we prioritised local native species

Comments about the character areas:

- About Abbey Walk: Enhance entrance and include more trees
- About the Community garden: Footpath and access unresolved, need more design development
- About the Wetland: Enhance road road as a Boulevard

How the feedback was considered:

- About Abbey Walk: the road was re-aligned to allow a minimum of five meters distance of green space from the boundary line. A dense tree and planting approach is proposed in this area to give the road a boulevard character.
- About the Community garden: The cycle lane was splitted into two lanes to retain the existing trees and enhance the existing vegetation, with careful consideration to movement and connectivity. The tree strategy prioritise berry trees, fruit trees/ orchard, to support pollinators habitat and biodiversity.
- About the Wetland: We looked to retain as much category B trees in this location as possible. We added a line of trees at each side of the road at the crossing point to enhance the link between the road and the landscape spaces.

Masterplan Overview
Current Illustrative Landscape Plan/ Masterplan

Illustrative Landscape Plan/ Masterplan Scale 1:1,250 at A3

0 50m

A New Local Centre
A Range of Active Ground Floor Uses


LANDSCAPE LED
CULTURAL STRATEGY
COMMUNITY
YOUTH
HEALTH & WELLBEING
WATER
ECOLOGY
CYCLE FRIENDLY

Beehive Greenway
A Connected New Greenspace for Surrounding Communities

Beehive Greenway

- 1,000m2/1ha of connected new greenspace
- 350m in length
- Designed with the community, for the community

Beehive Greenway
Masterplan Development and Activation of the Community Groundplane

LANDSCAPE LED

GARDEN SQUARE

LINEAR WALK

VERA'S GARDENS

CREATIVE EXCHANGE

ABBEY WALK

Community hub, co-working, food growing, play, families, younger children, educational resources, murals

Communal lawn/ meadow, picnic areas, hammocks, fitness, table tennis, young adults, larger events, pop-up cinema

Cafés, smaller regular events, food trucks, market stalls, outdoor dining, outdoor working

Woodland setting, cultural events, theatre, art installations, exhibitions, restaurant, lighting, night-time economy

BEEHIVE GREENWAY

VERA'S GARDENS

GARDEN SQUARE

CREATIVE EXCHANGE

ABBEY WALK

ACTIVE EAST-WEST STREETS

CONNECTING GREEN BOULEVARDS

Analysis:

Site-wide strategies

An initial analysis of the existing site in its immediate context reveals various opportunities that can be incorporated in to the future landscape proposals.

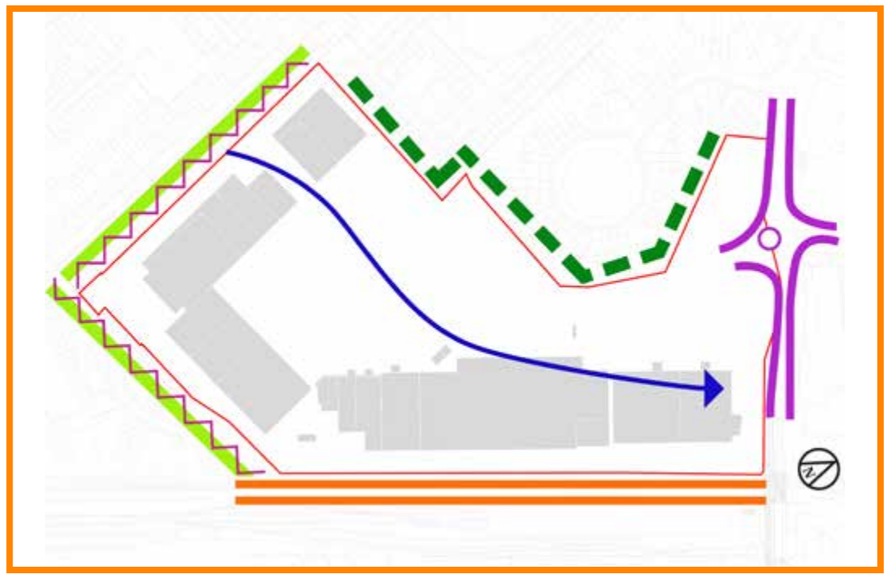
Working with the site's conditions allows for the development of a scheme that successfully contributes to its surroundings, and reads as a holistic part of the wider urban tapestry.

Edges & boundaries
The site is framed by 4 distinct boundaries.
- Coldham's Lane to north;
- the railway line to east;
- a private road with level change to south; and
- neighbours screened by substantial existing planting to the west.

Levels & drainage
Existing site gently slopes down towards the north east, with a notable level change to the southern edge along the private road. The site is extensively hard surfaced, drained by gullies and pipe networks to local public surface water sewers, with minimal source control. Opportunities exist to provide source control, improve water quality, and reduce flood risk elsewhere. Future proposals should work with existing levels and contribute to sustainable drainage.

Existing vegetation
Two thirds of the site boundaries benefit from healthy mature trees and established shrub planting. Further information will be available in the Ecology Report that Ecology Solutions Limited have been appointed to produce. It is proposed to retain these green assets as much as possible in order to contribute to the aesthetic (and acoustic) enjoyment by both members of the public and existing neighbours, and maintain the ecology/ biodiversity benefits provided.

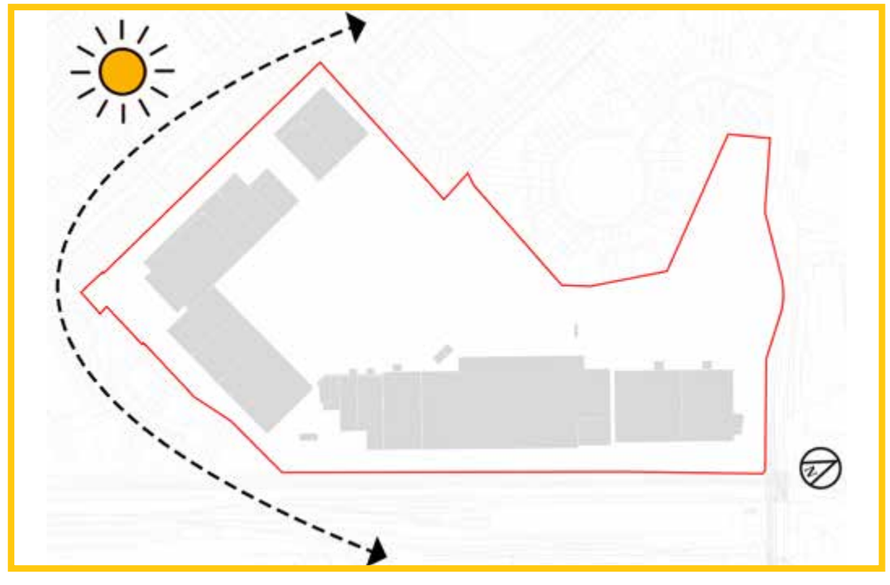
Sun and daylight
This south facing site benefits from long periods of sun throughout the year. A key opportunity exists to maximise sun exposure for visitors through the targeted locating of public open space, lawn areas, seating and planting.



Edges & boundaries

Levels & drainage

Existing vegetation



Sun and daylight

Understanding Edges and Boundaries
Landscape Analysis

Retaining and enhancing existing vegetation

8.5m

10m

5m

5m

4m

19m

5m

4m

5m

I

J

K

L

M

H

G

F

3

D

C

A

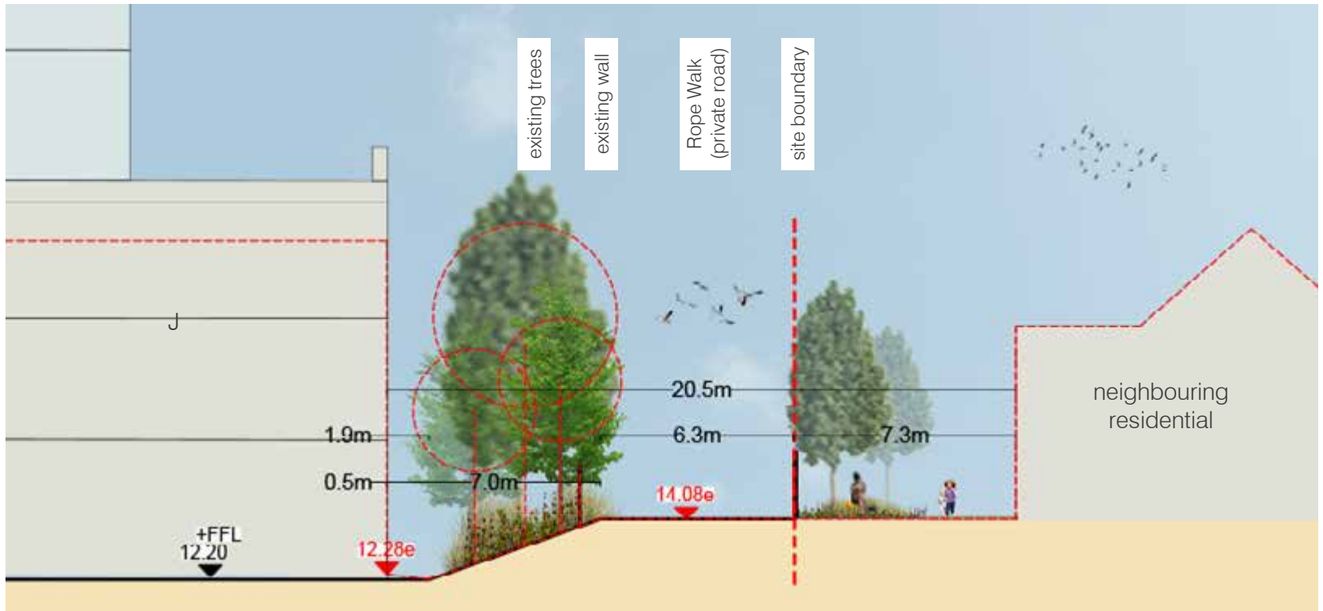
Opportunity to contribute in creating habitats for invertebrates and pollinators

Main Pedestrian Route
Cycling Route
Road
Central key public realm
Entry spaces and public realm

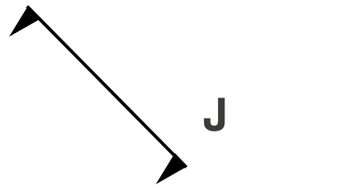
Understanding Edges and Boundaries
Rope Walk and Beehive Lane Sections

Consideration for distance and building height from existing neighbours along site boundary with York Street

Dense canopy of existing trees and planting retained, and enhanced where appropriate



Rope Walk illustrative section Scale 1:200 at A3

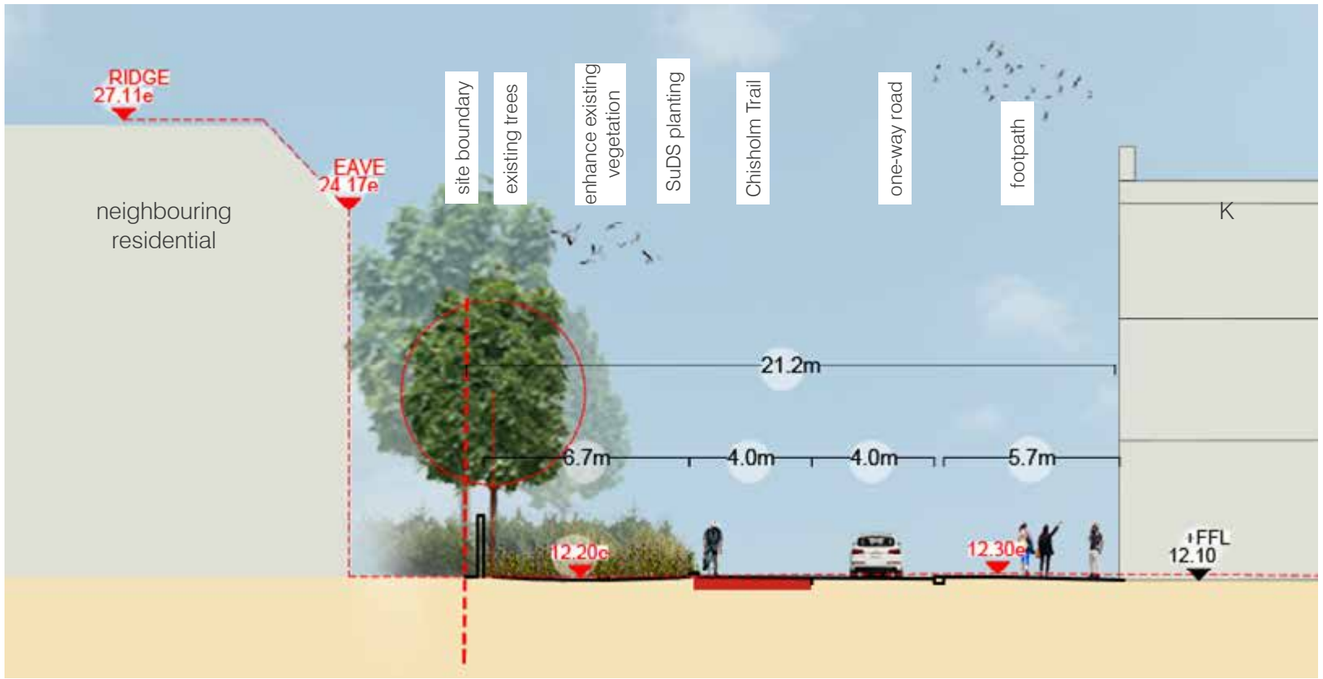


Rope Walk

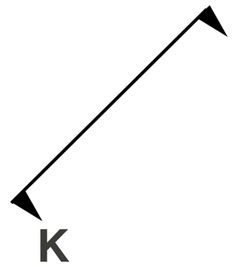
Consideration for distance from existing neighbours along site boundary with St. Matthew's Gardens

Dense canopy of existing trees and planting retained, and enhanced where appropriate

Key connectivity route, establishing the existing cycle route from York Street through the site with a 4m wide Chisholm Trail edged with SuDS planting

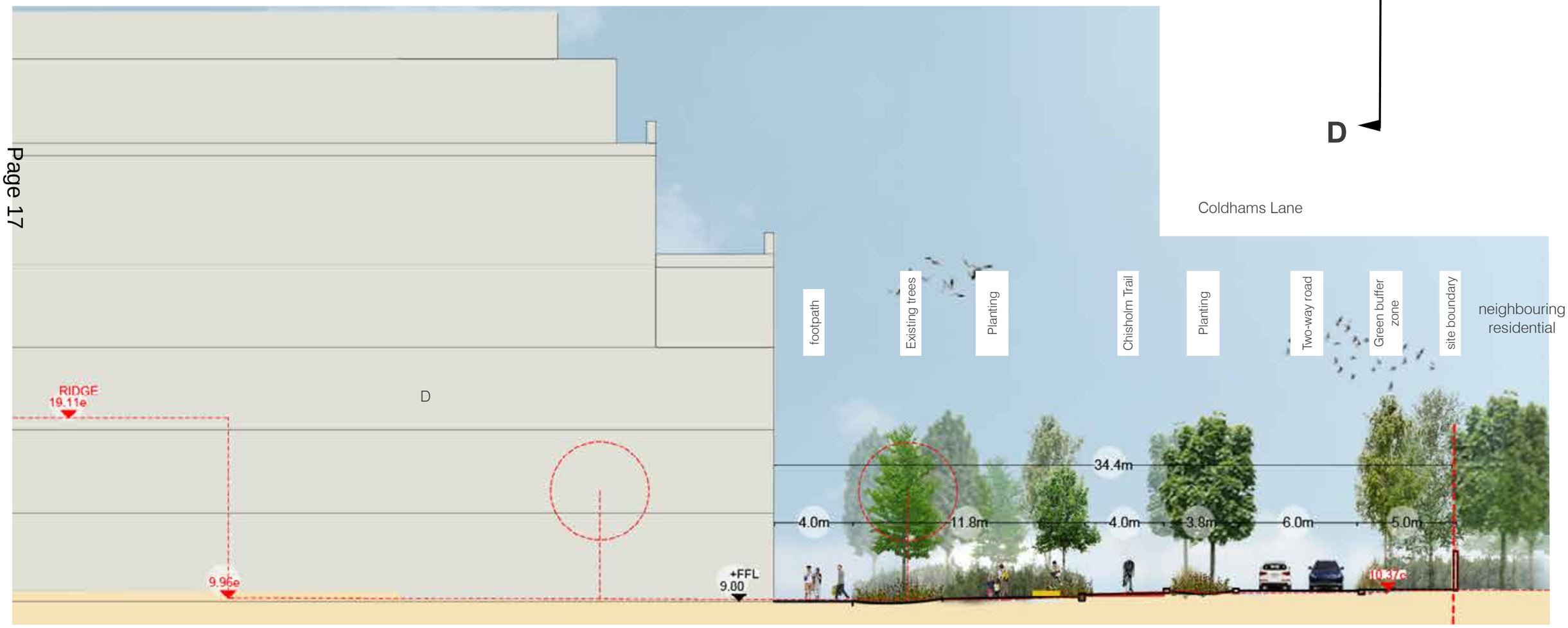


Beehive Lane illustrative section Scale 1:200 at A3



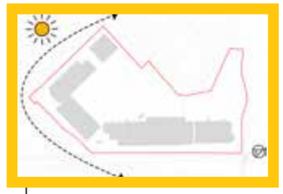
Beehive Lane

*Note: Indicative maximum floor to floor heights and roof profiles



Consideration for distance and building height from existing neighbours along site boundary with Coldhams Lane
15m buffer zone is created between the development and neighbouring residential
Dense canopy of existing trees and planting retained, and enhanced where appropriate

Working with Connectivity
Coldham's Lane



Shadowing of Spaces
Sun and Daylight Matrix

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Climate

Sun/daylight testing has informed the location of the primary public spaces to maximise the enjoyment of these areas by the public.

9am 1pm 5pm

March 21st

June 21st

Existing Trees on Site Scale NTS

Character

The boundary trees in particular provide important amenity value to the site, as well as other individual mature tree specimens.

Climate

The existing trees are a major asset to the site in terms of ecology and biodiversity and should be retained, where possible.

113 individual trees and 6 groups of trees surveyed by Waterman

10 TPOs to north of site

- 3 Cat A London Plane

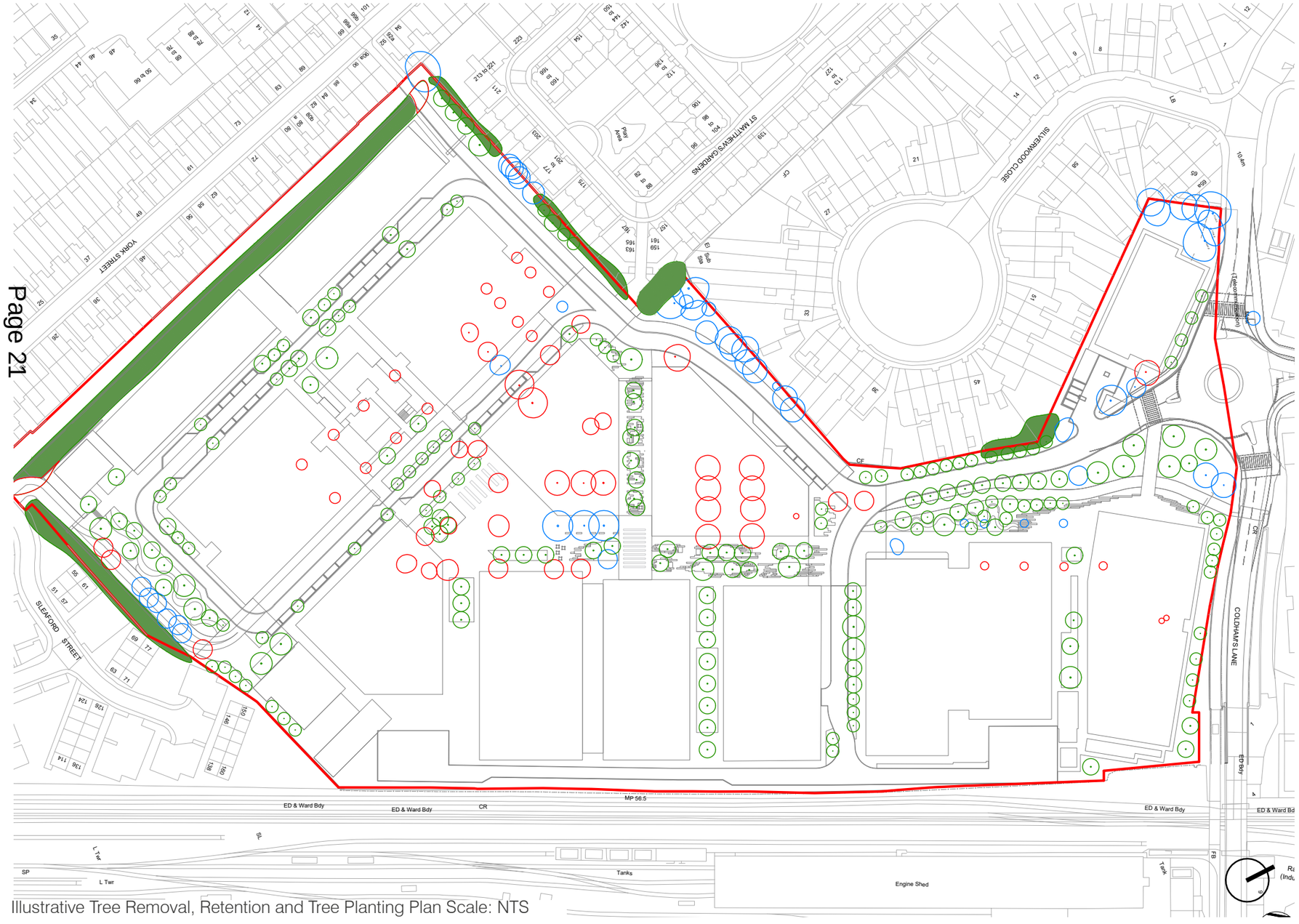
Individual trees:

- 3 Cat A
- 20 Cat B
- 96 Cat C
- 0 Cat U

Groups of trees:

- 0 Cat A
- 0 Cat B
- 6 Cat C
- 0 Cat U

Tree Planting
Illustrative Tree Removal, Retention and Tree Planting Plan



Illustrative Tree Removal, Retention and Tree Planting Plan Scale: NTS

Planting of approximately 196 new trees

Existing trees:

- 113 individual trees surveyed on site
- Retain 52
- Review 00
- Remove 61

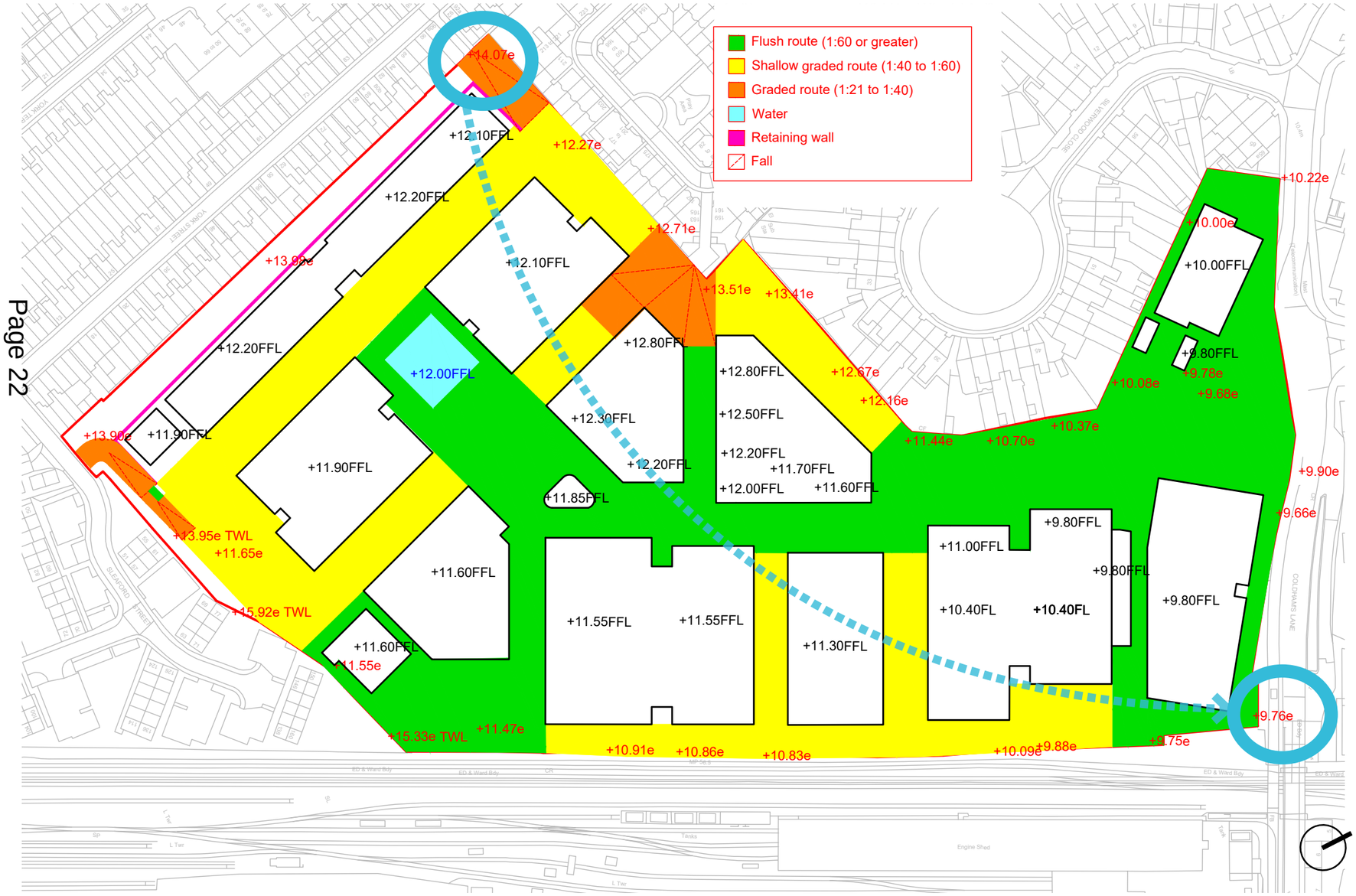
Existing groups:

- 6 groups of trees recorded on site

- Trees with TPO (10) to be retained, subject to further review with Tree Officer;
- Individual trees to boundaries to be retained and enhanced where appropriate;
- Groups of trees to boundaries to be retained and enhanced where appropriate;
- Row of Silver birch to edge parallel with Sleaford Street to be retained and enhanced where appropriate.
- Many trees in the car park have limited visibility from outside of the site, are relatively small and are therefore more easily replaced.

Proposed trees:

- Planting of approximately 196 new trees;
- Native species to be considered for all locations, as preferable for biodiversity.



Opportunities/ preferred approach:

- Tie in to existing levels around site boundary;
- Ambition to maintain a flush central space with gradients of 1:60 or greater for maximum accessibility, movement, circulation and flexibility of use;
- Work with gentle slope of existing site, which falls down towards the north east;
- Direction and falls in line with existing site will contribute to sustainable drainage;
- Graded routes to east and west typically between 1:40 to 1:60 to assist drainage whilst creating an accessible and usable public realm;
- Compliant graded routes to southern entrances (York Street, Sleaford Street, St. Matthew's Gardens);
- Compliant gradients across the site, with handrails and any parallel steps where required to be designed in accordance with Part M.

Challenges/ under review:

- Significant level changes to south of site, parallel to Rope Walk (private road);
- Requirement to widen these entrances in order to accommodate Chisholm Trail (4m) and pedestrian routes;
- Interface with eastern boundary and St. Matthew's Gardens, where levels rise and fall, in conjunction with Plots K, L and M;
- Note: illustrative +FFLs only, still under review.

Illustrative Proposed Levels Plan Scale: NTS

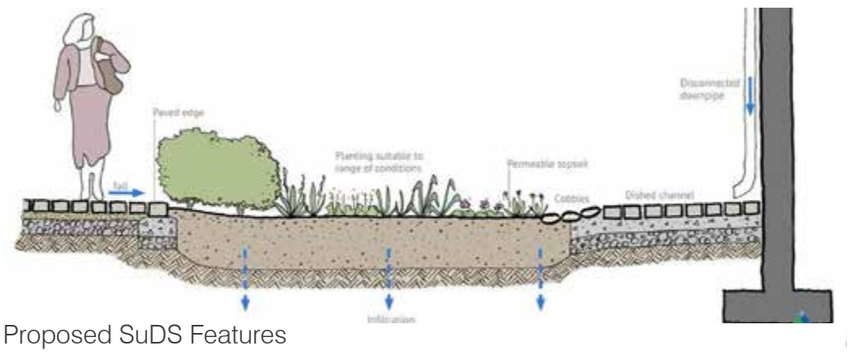
Existing Surface Water Drainage Regime
Runoff from extensive areas of on-site hardstanding is drained via linear channel drains and gullies to an extensive underground pipe network.
No Sustainable Drainage (SuDS) features have been noted from site walkover surveys.
Some underground box culvert attenuation storage beneath the southern car park.
Flows are released northwards to the Anglian Water public surface water sewer network beneath Coldham's Lane and the Railway.

Relevant Policies and Guidance
Cambridge Local Plan 2018 Policy 31 : Integrated Water Management
Cambridge Local Plan 2018 Policy 32 : Flood Risk
Sustainable Development, Climate Change, Water and Flooding
Sustainable Drainage : Cambridge Design and Adoption Guide
Cambridgeshire Flood and Water SPD
Sustainable Design & Construction SPD
Cambridge and South Cambridgeshire Level 1 SFRA

Existing site looking south from Coldham's Lane


Existing site looking north adjacent to railway

Key Principles for Sustainable Surface Water Management
In line with local and national policies and guidance, the SuDS hierarchy has been followed in the evolution of a conceptual surface water management scheme for the proposed development.
Rainwater will be harvested at roof level, filtered and re-used, wherever practical considerations and demand allow for irrigation of soft landscaping within the public realm, and service yard vehicle washdown.
Blue and green roof areas will be provided on selected building roofs, with sedum green roofs on selected canopies and cycle stores.
'Soft' SuDS will be provided in the form of a Wetland feature, rain gardens, filter drains and natural swales. Whilst principally for amenity, landscape, and biodiversity benefit the Wetlands will be designed to provide a material quantum of surface water attenuation storage capacity to control and utilise runoff from the upper (southern) drainage catchment.
Wholesale disposal of surface water runoff to ground, via infiltration, is not considered to be viable due to the shallow groundwater table underlying the site, although lined and under-drained permeable surfaces will be provided across active space and public realm, integrated within hard and soft landscape areas where practical and DDA considerations allow.
Water quality benefits will be gained via integration of multiple treatment trains, including filter media, grassed filter strips and proprietary pollution control units.
Below ground attenuation and flow control arrangements will be provided beneath active space to control design storm events taking into account future climate change allowances.
Post-development surface water runoff rates and volumes will be no greater than for the undeveloped site in line with LP Policy 32. BREEAM sustainability aspirations, provision of attenuation storage, and integration of a suite of on-site SuDS measures within the landscape will seek to control flows much closer to pre-development 'greenfield' runoff rates.
Flood risk to off-site areas will be reduced post-development benefitting the Coldham's Common 'wetspot' and downstream areas.



Proposed SuDS Features
Rain garden and linear swale feature (lined and under-drained) unless ground conditions and groundwater levels allow infiltration techniques to be used.

Role of Blue and Green Roofs

Green Roof Section
1 Wildflower Blanket
2 Biodiverse Substrate
3 Filter Fleece
4 Drainage Layer (Storage Troughs)
5 Fibre Protection Layer
6 Underlying Waterproofing System

Green Roof / Blue Roof Areas & Attenuation Storage

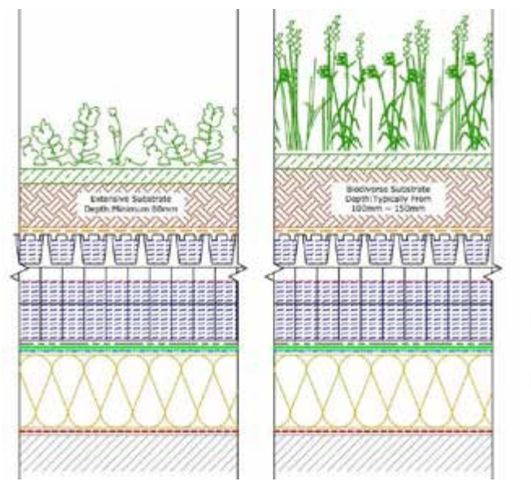
Provision has been made for the integration of extensive areas of blue roof attenuation storage on selected buildings, in tandem with green roof coverage where practical considerations allow. Green roof areas will also be provided on selected roof canopies and cycle storage sheds where only lightweight loadings are permissible. Green and blue roof coverage across the site will be maximised whilst taking into account the competing demands for roof space from solar photovoltaics and critical roof top Mechanical & Electrical plant that form key components to the energy strategy. Below ground attenuation storage is proposed beneath external hardstanding areas and service yards towards the northern portion of the proposed development to control and utilise runoff from the lower (northern) drainage catchment, working in tandem with green and blue roof attenuation and upper catchment SuDS features.

Water Quality & Biodiversity Benefits

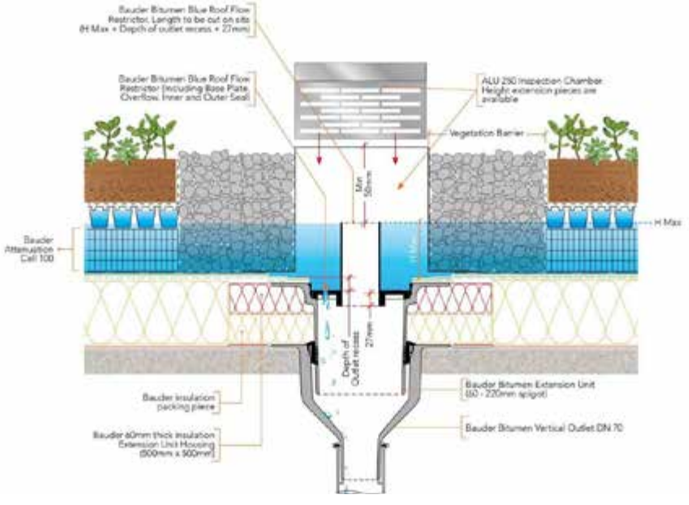
Inclusion of 'living' green roof areas and associated substrate material on selected proposed roof areas, ideally in conjunction with underlying blue roof geo-cellular storage crates, will allow runoff and pollutants to be controlled and captured at source, before releasing cleaner runoff to the positive drainage systems (pipes) at attenuated rates. This approach provides source control of both the quantum and quality of surface water runoff post-development and can also provide significant Biodiversity Net Gain.

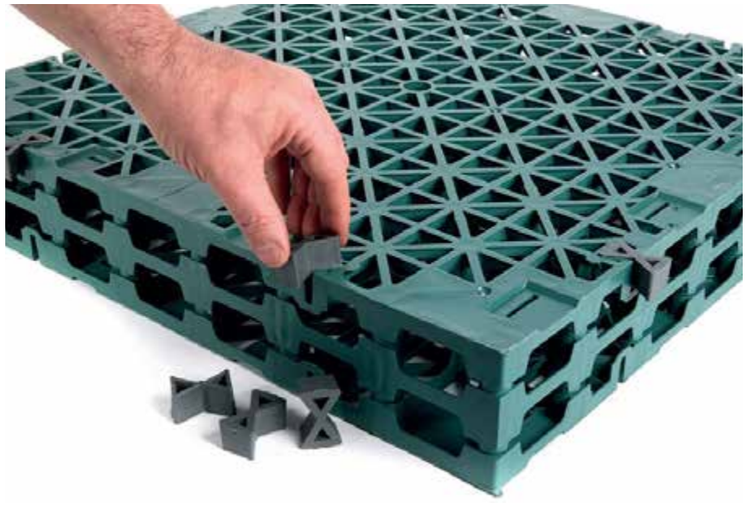
Rainwater Harvesting & External Re-Use

Rainwater will be captured from selected appropriate building roof areas for filtration and re-use for irrigation of soft landscaping within the public realm, and service yard vehicle washdown. Opportunities for rainwater harvesting elsewhere are limited by internal building re-use, coupled with the desire for a regular throughput of runoff into the Wetlands from upstream areas to help sustain it.

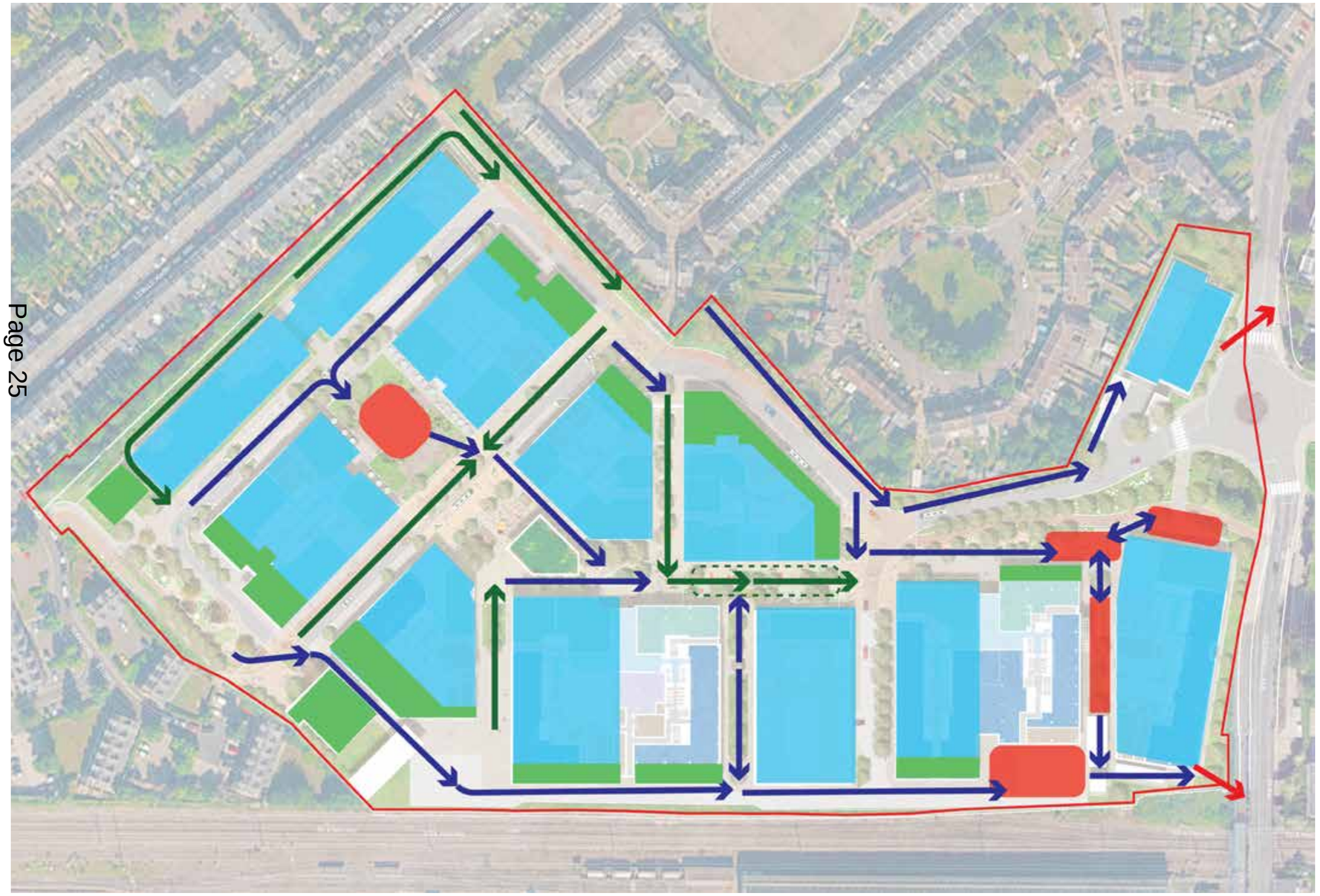


Blue Roof
Section through Blue Roof & Outlet Control





Drainage Strategy
Proposed Approach



Climate

Drainage strategy will cater for climate change allowances (40% uplift in rainfall intensity).

- Proposed blue roof
  (maximised taking into account rooftop plant constraints 2,500m3 Volume. Approx. 15,500m2 Roof Coverage)
- Proposed green roof
  (Roof Surface Suitable for Green Roof 3,824m² Total Area, Assume 25% dedicated green roof area.Therefore, 956m² Green Roof Area)
- Above ground SuDS
  (rain gardens /rills /swales)
- Below ground drainage
  (key routes & exceedance pathways)
- Proposed attenuation location
  (1,800m3 Volume. Approx 2000m2 Land Take. 'Wetland' Attenuation 230m3 Volume. Approx. 770m2 Surface Area)

Note: Illustrative strategy only, and subject to further review and coordination

Diagram to illustrate surface water attenuation strategy and SuDS integration options. Proposed blue roofs are shown in preferred locations.

Main access highway drainage separated from main development drainage to safeguard water quality.

Illustrative Drainage Strategy Scale: NTS

Climate

The site wide ecology strategy has been, and continues to be, reviewed holistically alongside the landscape to ensure true integration.

Existing baseline

The existing baseline of the application site holds very limited ecological value;
- There is significant scope to deliver a range of species-rich habitats which are currently absent from the application site;
- 20% minimum Biodiversity Net Gain (BNG) to be delivered: in line with adopted policy and aligned with emerging policy;
- 50% aspirational BNG.

Positives
- Features of value mostly limited to boundary vegetation;
- Individual trees hold some ecological value.

Existing baseline

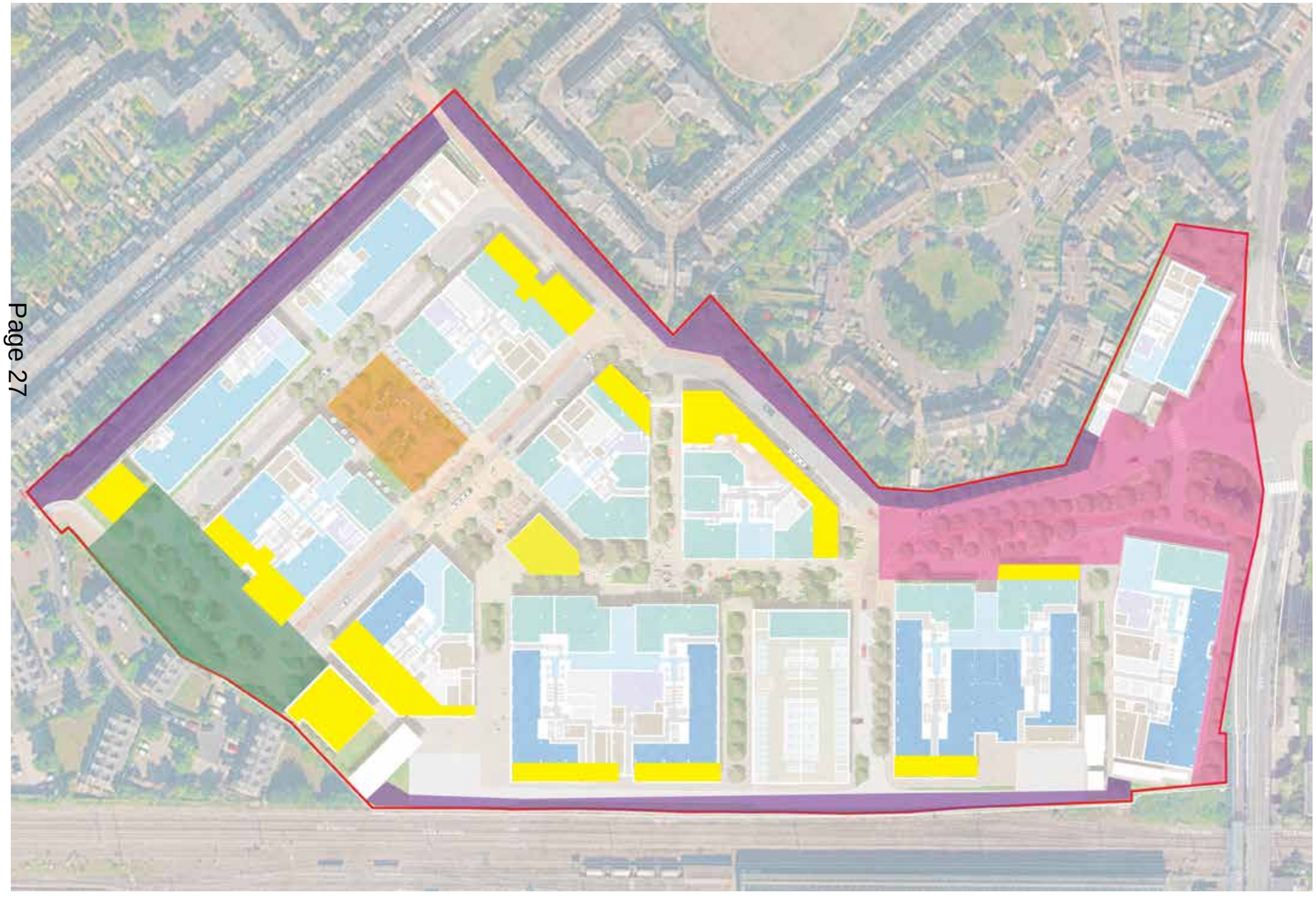
Negatives
- Large areas of hardstanding/buildings and amenity planting;
- Positive features tend to be sparse;
- Grassland managed for amenity purposes;
- Habitat types are considered to be of little intrinsic ecological value;
- Opportunities for faunal species are sparse, with large amounts of hardstanding and non-native planting excluding many faunal groups except for those who are highly adapted to an urban environment.

Emerging proposals

- Retain and enhance existing features of value;
- Improvements on the Beehive Centre boundary condition have been undertaken to preserve and protect the existing green areas.
- Where losses to habitats are required, it is considered that these will be more than off-set for through the emerging landscape designs;
- This will be achieved through the provision of new areas of species-rich grassland, tree and scrub planting;
- Also new areas of wetland habitat;
- Significant areas of green and blue roof space;
- Non-native amenity species will be kept to a minimum;
- Native berry or nut bearing species favoured;
- This will ensure new and improved opportunities for faunal species and significantly improve the ecological value of the site over the exiting situation.

Faunal enhancements

- To be delivered across the site;
- Will include new opportunities for nesting Birds (incl. local priority species) and roosting bats, which will be integrated into the new buildings;
- Invertebrate features (such as invertebrate hotels and bee posts) will also be delivered across the site;
- Long-term management objectives, such as areas of relaxed management, will also ensure that the proposals will deliver dynamic environments which will be of benefit to a range of faunal groups;
- Specific measures such as reptile basking areas and hibernacula will also cater for local priority species such as common lizard and common toad.



- BROWN/ GREEN ROOFS
- WETLAND
- ORCHARD
- WOODLAND
- BOUNDARY

Note: Illustrative strategy only, and subject to further review and coordination

Illustrative Ecology Strategy Scale: NTS

BROWN/ GREEN ROOFS

- Vulnerable species are protected from animal or human interference on the ground.

- The type of vegetation and features of the roof can also be tailored specifically to the area or selected floral or faunal species. This is particularly important in inner-city areas where habitats are lost.

- Removal of air pollution, increased roof water -proofing longevity, urban cooling and reduction of roof storm-water runoff.

WETLAND

- Amenity-led wetland features with positive ecological benefits;

- To sustain aquatic life and to keep water temperatures relatively constant, deeper areas of permanent water will be provided to the middle, with planting and grading to edges for safety;

- Native aquatic planting;

- Edges can support a range of tall emergent species that will quickly form tall stands of dense vegetation; occasional sloped banks would be ecologically beneficial;

- Dense patches of waterweed and emergent plants will become established in areas of shallow water

ORCHARD

- Traditional orchards in Cambridgeshire have included Cox's Orange Pippin, Bramley's Seedling, Conference pears and Victoria plums;

- Native species (wildflowers, mixed native scrub, fruit bearing trees) will be of value to range of faunal groups, including foraging and nesting birds, foraging bats and invertebrates;

- Emorsgate EM3 (or similar) beneficial for pollinating insects;

- Provision of invertebrate 'hotels', bee posts or bee bricks; bat and bird boxes.

WOODLAND

- Reduces both noise and air pollution;

- Opportunity to explore the inclusion of more traditional woodland environment;

- Bolster and strengthen existing boundary vegetation with native tree and shrub species;

- Native species(wildflowers, mixed native scrub, fruit bearing trees) will be of value to range of faunal groups, including foraging and nesting birds, foraging bats and invertebrates;

- Emorsgate EM3 (or similar) beneficial for pollinating insects;

- Provision of invertebrate 'hotels', bee posts or bee bricks; bat and bird boxes.

BOUNDARY

- Examples species, including Hawthorn, Blackthorn, Dogwood, Guelder rose and Hazel are all fairly easy to establish and of value to a range of species;

- Provision of invertebrate 'hotels', bee posts or bee bricks; bat and bird boxes.

November 2022

Parameter Plans

Parameter Plan
Maximum Building Heights & Plots

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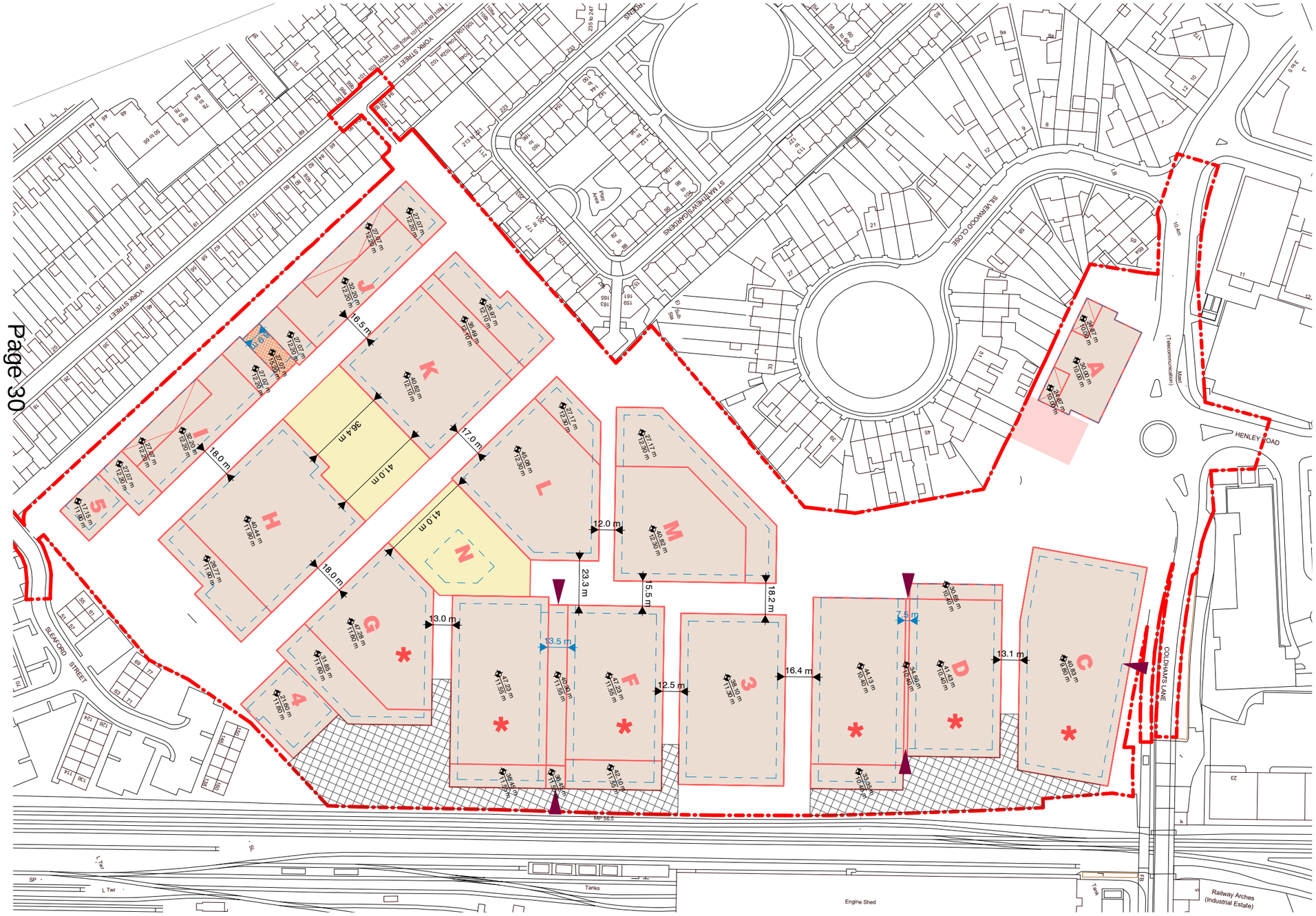


Boundaries

Application Boundary

Building Plots

Maximum building plot

Illustrative building footprint

Recessed break in primary facade line. Refer to individual building design codes for conditions.

Zone for storey pavilion building(s). Maximum height of 11.0m above local ground floor area, up to two stories. Maximum combined total ground floor (GEA) of 450m² across all highlighted areas.

Note: Size of buildings footprints to be controlled as a percentage coverage of maximum building plots - please refer to table in side bar of this sheet.

Building Heights

Top AOD / Base AOD — Maximum building height

Top: AOD measured at parapet level and includes rooftop plant and PV but excludes any fume extract flues.
Base:AOD of primary ground floor level of the building

Top / Base — Sloped parameter height zone. Slope runs in direction of arrow

Top: to match adjoining maximum height parameter
Base: as annotated within the sloped parameter zone

Separation Between Buildings

xx.x m — Minimum separation between buildings

xx.x m — Minimum separation between building elements

Flues

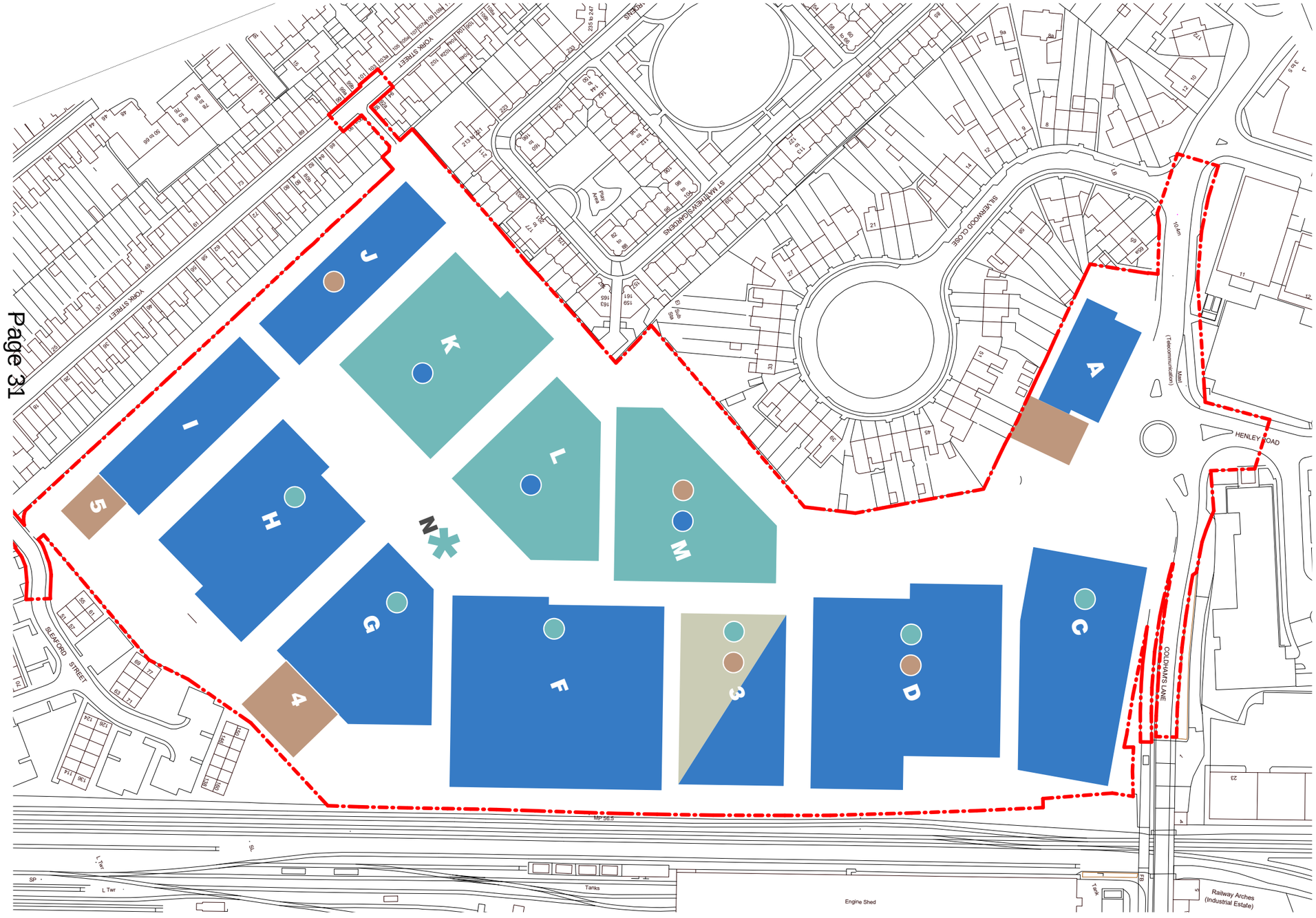
* — Location for fume extract flues: to be located anywhere within the marked parameter height zone

Maximum height of flues to be an additional 25% of the host building as measured from ground floor to its heighest point

No. of flues at each location to be determined at reserved matters applications

A maximum of 4 of the 6 proposed flue locations may be used

Parameter Plan
Land Use



Boundaries
- Application Boundary

Primary uses
- Workplace: E(g)(i), E(g)(ii)
- Mixed Use: E(a-f), F1(b-f), F2(b, d)
- Cycle Parking: Suis Generis
- Car Parking: Suis Generis

Secondary uses
- Workplace: E(g)(i), E(g)(ii)
- Mixed Use: E(a-f), F2(a, b, d)
- Cycle Parking: Suis Generis
- Car Parking: Suis Generis

Other
- Pavilion building: To be Mixed Use: E(a-f), F2(a, b, d). For limits on size and location, refer to Plot N pavilion zone as defined on the Maximum Building Heights and Plots rameter plan.

Parameter Plan
Landscape and Open Space

November 2022 | The Beehive Centre Cambridge | 32

Boundaries

Application Boundary

Landscape Zones

Publicly Accessible Green Areas:
Areas characterised by soft landscape supported by areas of hard landscape and pedestrian and cycle routes

Publicly Accessible Hard Landscape Areas
Areas characterised by hard landscape supported by incidental green space planting and pedestrian routes

Green Planting Areas
Areas characterised by soft landscape and tree planting with little or no direct public access

Streetscape Areas
Areas characterised by hard landscape to support pedestrian, cycle and vehicle movement supported by incidental green space planting

Private Service or Access Areas
Areas characterised by hard landscape to support the functional requirements of neighbouring buildings

Building Footprints

Illustrative Building Footprint

November 2022

Community Engagement

This diagram shows the images that were chosen by participants for each character area. Some comments and drawings are also included that were added by attendees.

This diagram shows which collages correspond to each character area.

Now that there is clear feedback on what the community wants to see in the outdoor spaces of the Beehive Centre, the design team will continue to test the feasibility of activities within each character area. There is potential for some of the activities described by the community to bleed into the spaces between the buildings, including the tendrils that shoot off the character areas.

As this is an iterative process, once the activities are decided on, the team will produce an updated set of plans incorporating the feedback from the community workshop.

Outcomes
Potential ideas to incorporate following feedback from the event

+ Informal play and recreation elements
+ Pollinator planting, bug hotels
+ Water collection and storage system
+ Water attenuation, rain gardens, SUDS
+ Elevated paths above water or plants
+ Protected habitats
+ Community managed spaces i.e. Vera's Garden

Photo of community members participating in Activity 1

November 2022

Design development: Emerging concepts for the spaces

ABBEY WALK

CREATIVE EXCHANGE

GARDEN SQUARE

VERA'S GARDEN

Character

Four distinctly different character areas are being developed to maximise the variety of 24/7 groundplane activation opportunities.

LINEAR WALKS

Character Area Plan NTS

ABBEY WALK

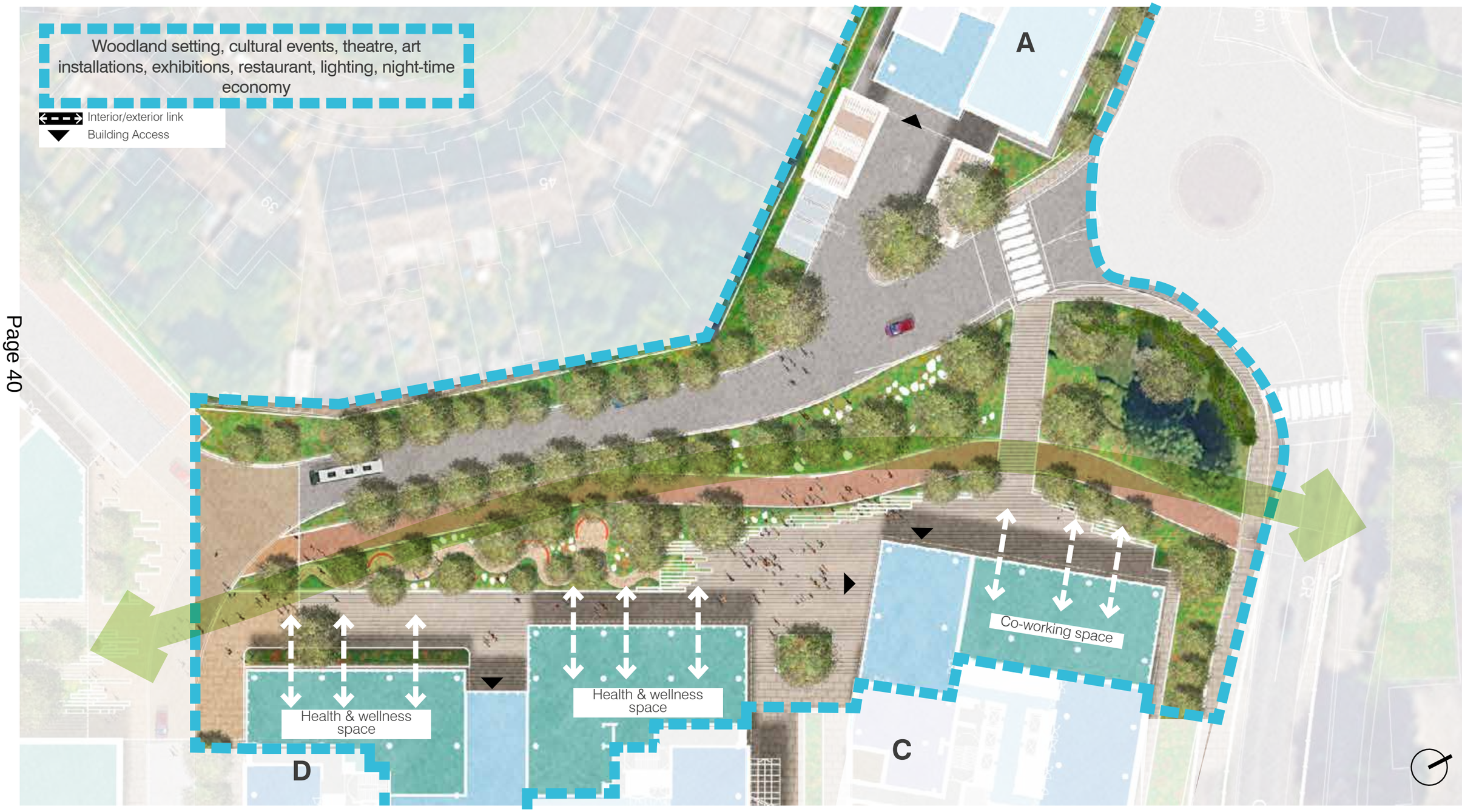
CREATIVE EXCHANGE

GARDEN SQUARE

VERA'S GARDEN

LINEAR WALKS

Character Area Plan NTS



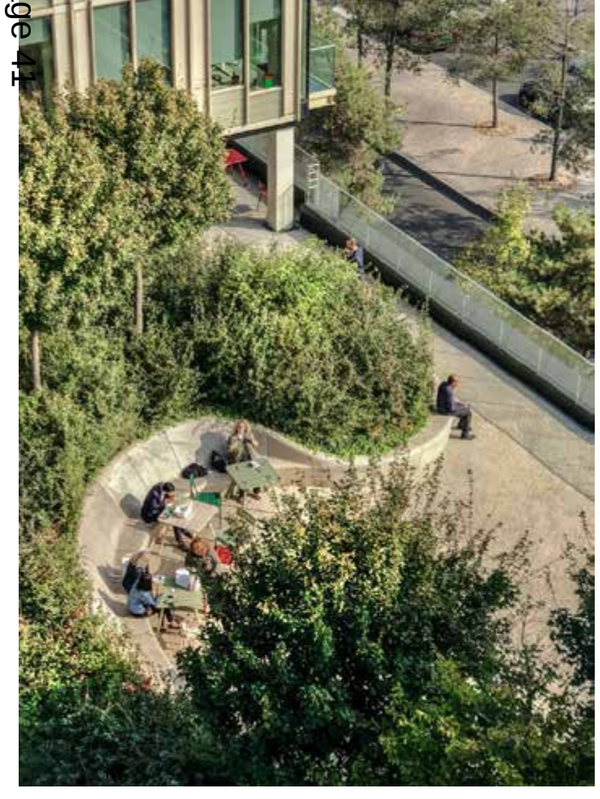
Abbey Walk Character Area and Groundplane Plan NTS

Soft edges and tree planting create green gateway

A flexible space for the community

Green pockets for seating, eating or outdoor working

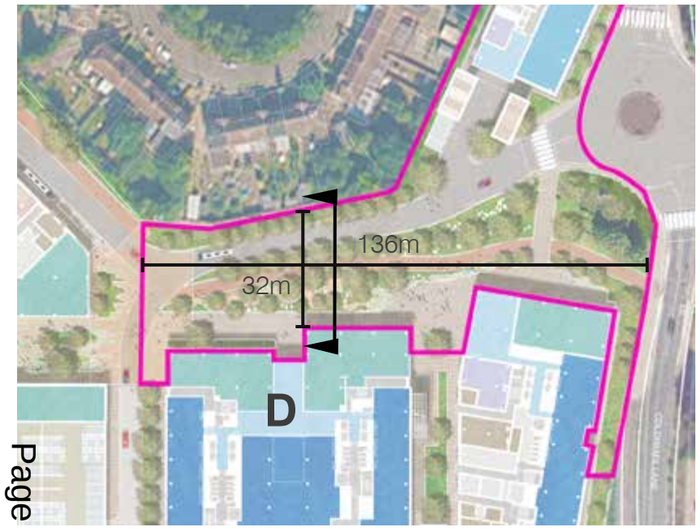
Temp/ permanent small-scale immersive experiences



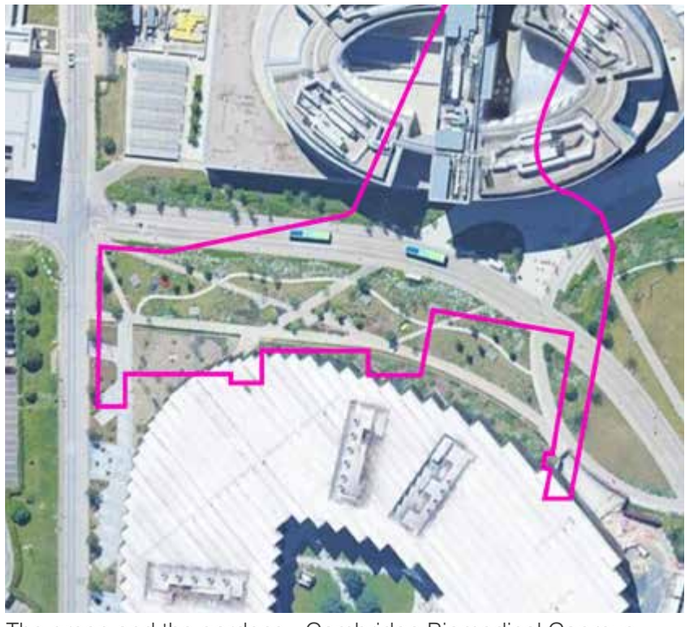
Woodland-style planting with south facing open glades

Intimate spaces & meandring paths

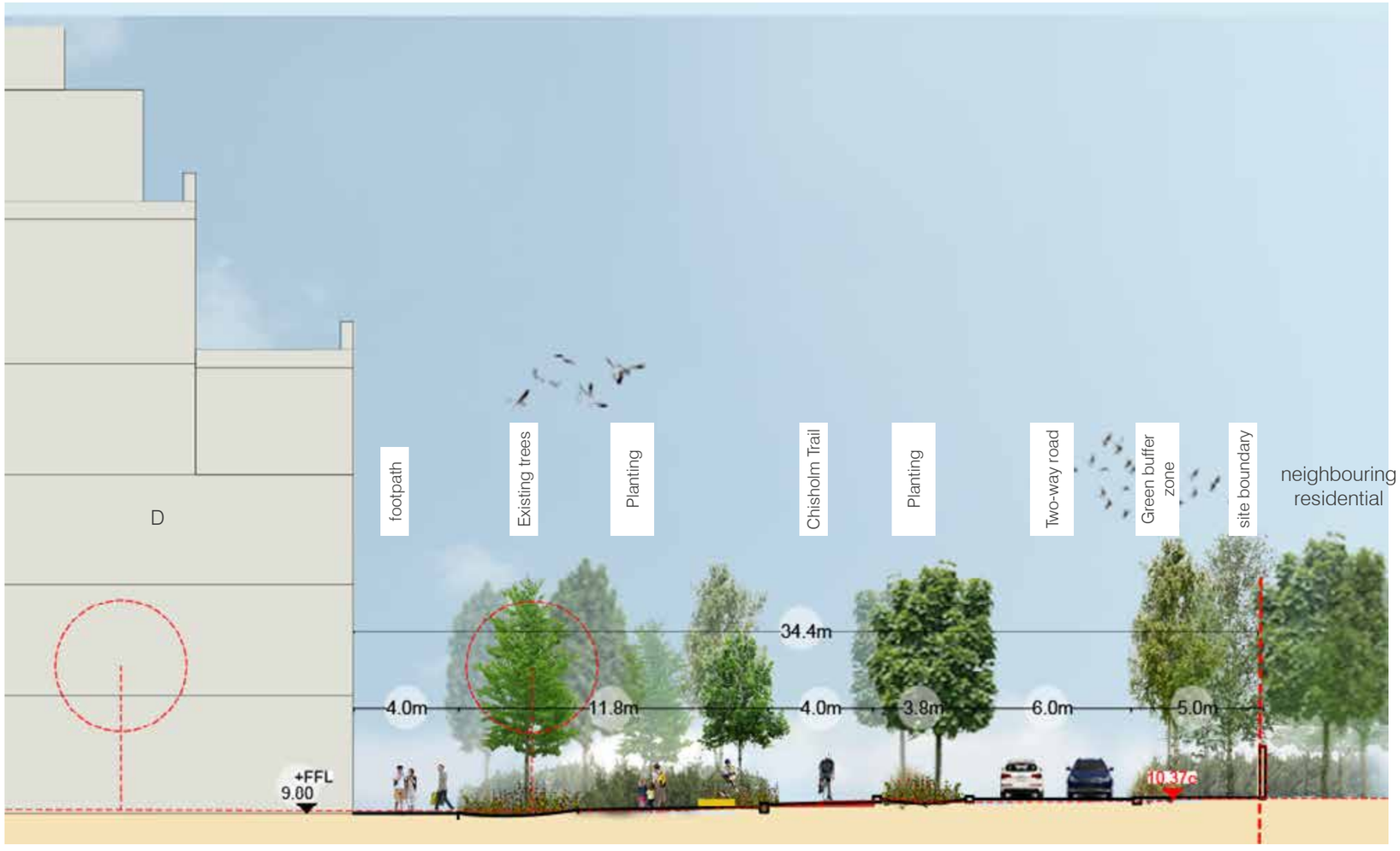
Ping pong tables and outdoor activities



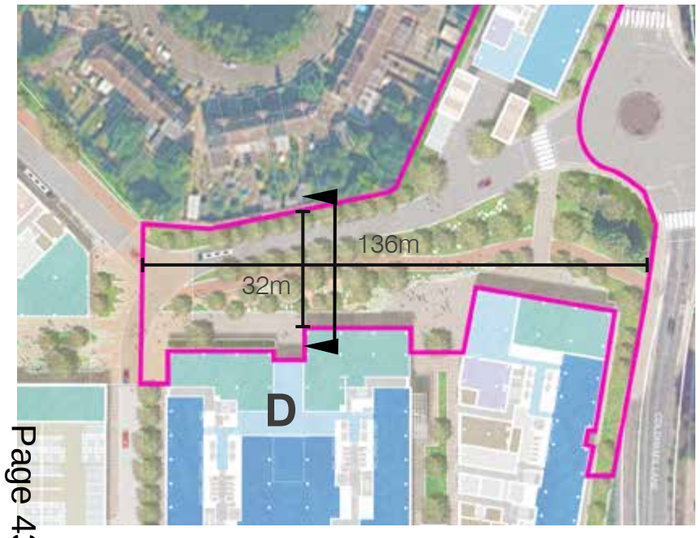
Abbey walk



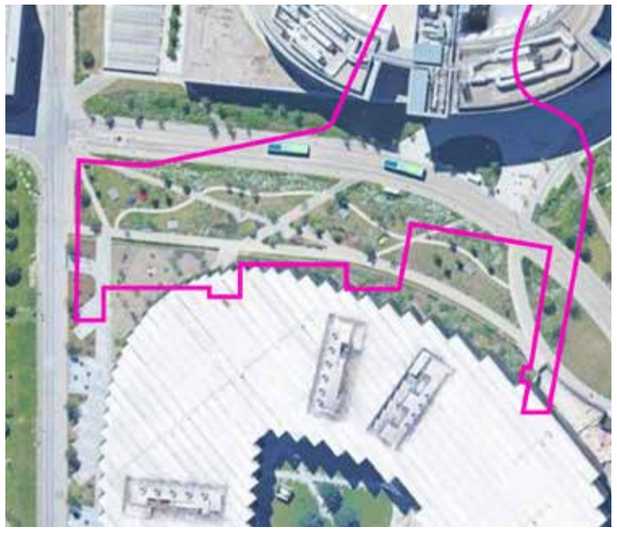
The green and the gardens - Cambridge Biomedical Capmus



Abbey walk illustrative Section Scale 1:200 at A3



Abbey walk



The green and the gardens - Cambridge Biomedical Capmus

The green and the gardens - Cambridge Biomedical Capmus

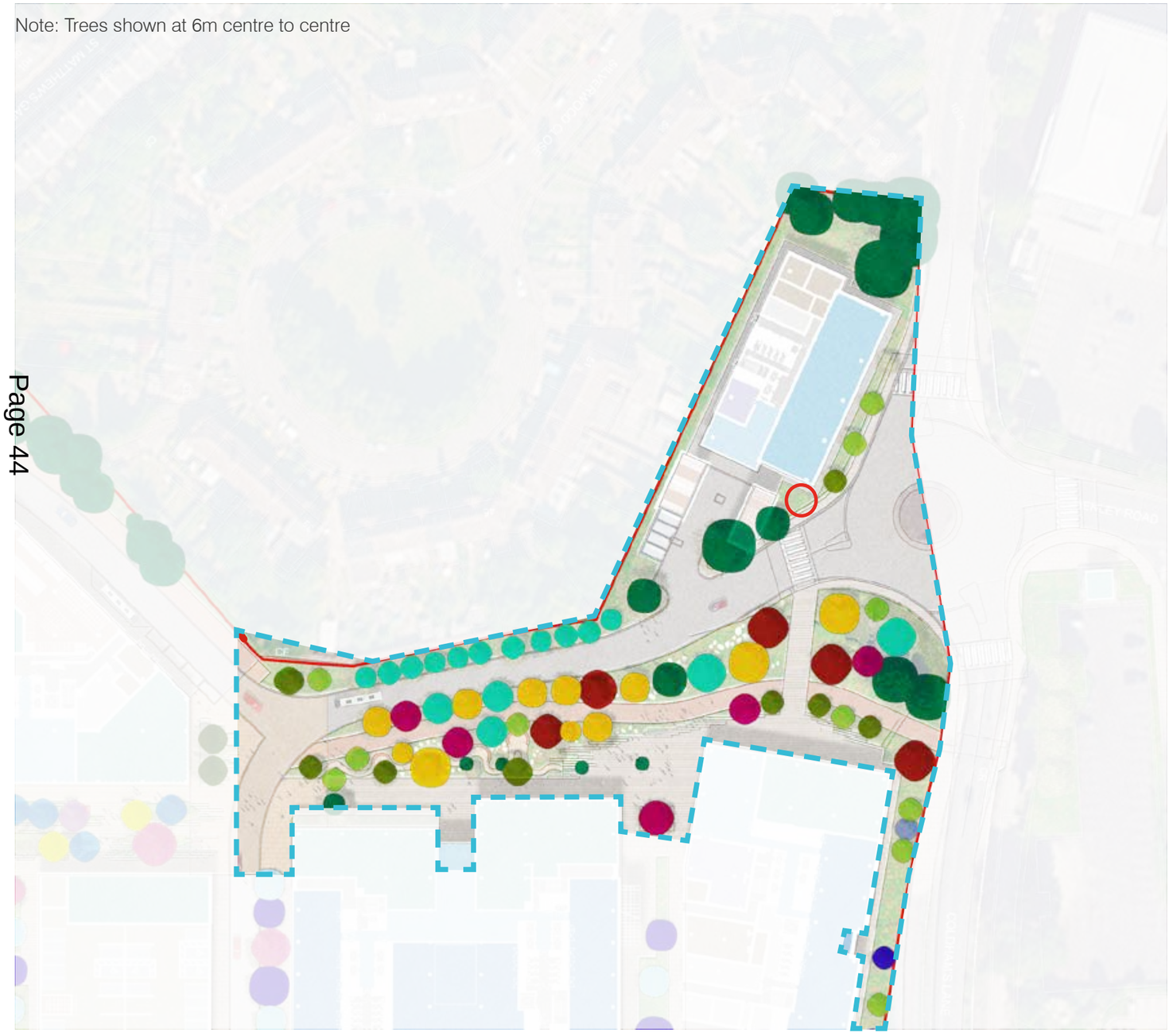
The green and the gardens - Cambridge Biomedical Capmus

The green and the gardens - Cambridge Biomedical Capmus

Tree Planting

Abbey Walk - Tree Planting Palette (Mixed Decideous Woodland)

Note: Trees shown at 6m centre to centre



TOTAL NEW TREES: 58

Betula pendula
(2m clear stem)

Acer campestre

Crataegus laevigata

Platanus x hispanica

Betula Pendula
(multi-stem)

Sorbus Intermedia

Denotes Existing Trees

TPO Tree under discussion

ABBEY WALK

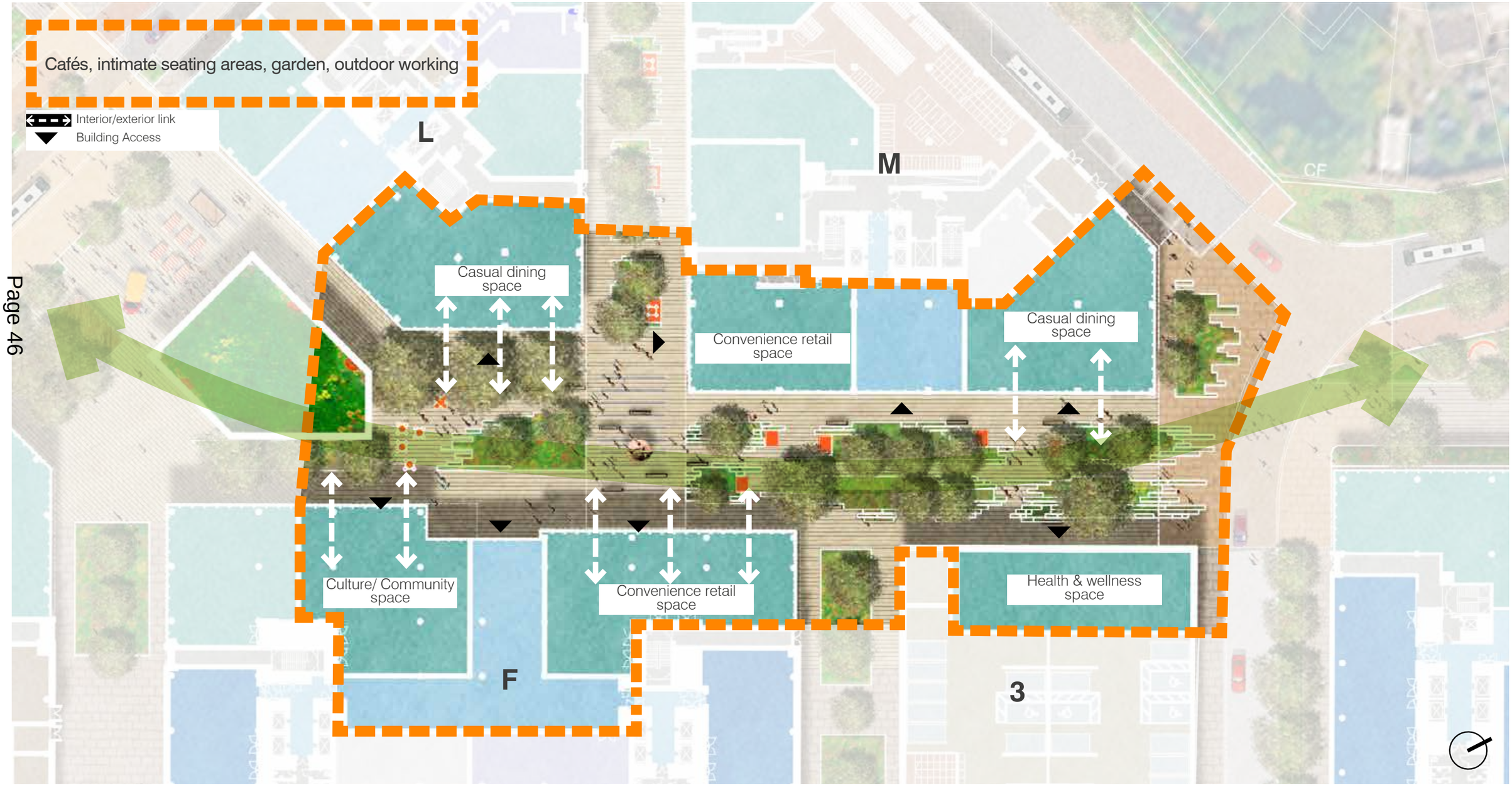
CREATIVE EXCHANGE

GARDEN SQUARE

VERA'S GARDEN

LINEAR WALKS

Character Area Plan NTS



The Exchange Character Area and Groundplane Plan NTS

Activate the space with sport activities during the weekend

Soft green edges, blend vegetation with activity spaces

Public art and installations to activate the space

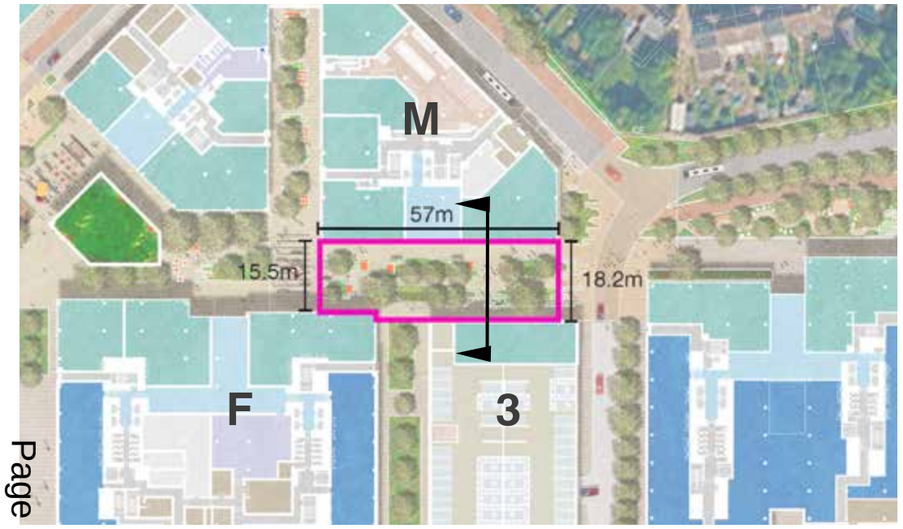
Staggered planting beds soften the hard landscape

Lush green planting frames meandering paths

Active frontages on all sides

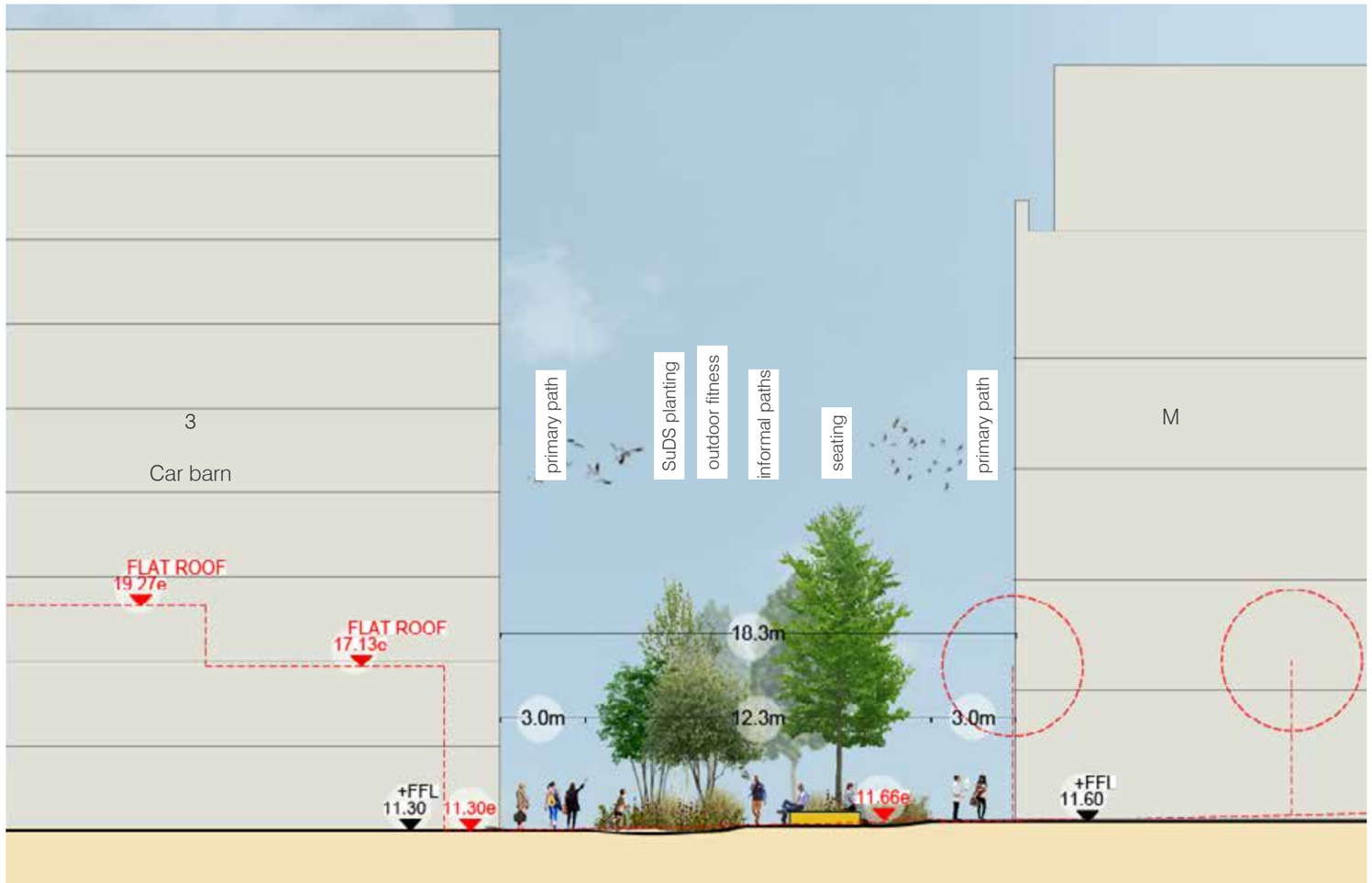
Dynamic space in to the evening

Street furniture and tree planting inform movement



Creative Exchange

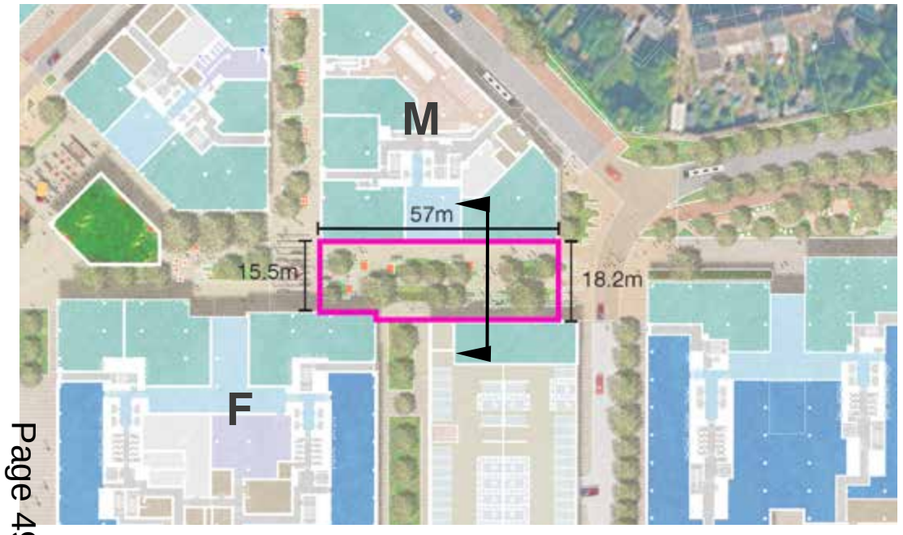
Marmalade Lane, Cambridge



Creative Exchange illustrative Section Scale 1:200 at A3

Scale of Spaces

Street Scape - Scale Comparisons - Creative Exchange

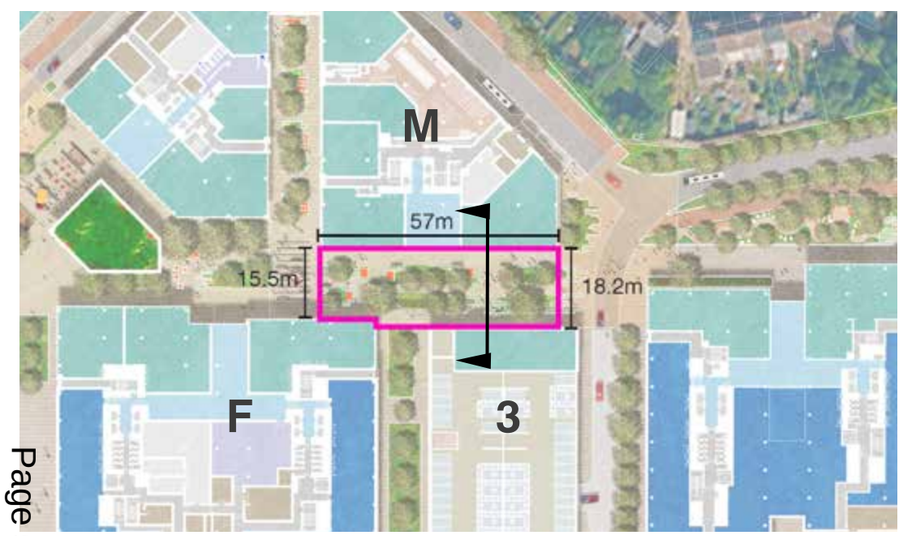


Marmalade Lane, Cambridge

Marmalade Lane, Cambridge

Marmalade Lane, Cambridge

Scale of Spaces
Street Scape - Scale Comparisons - Creative Exchange

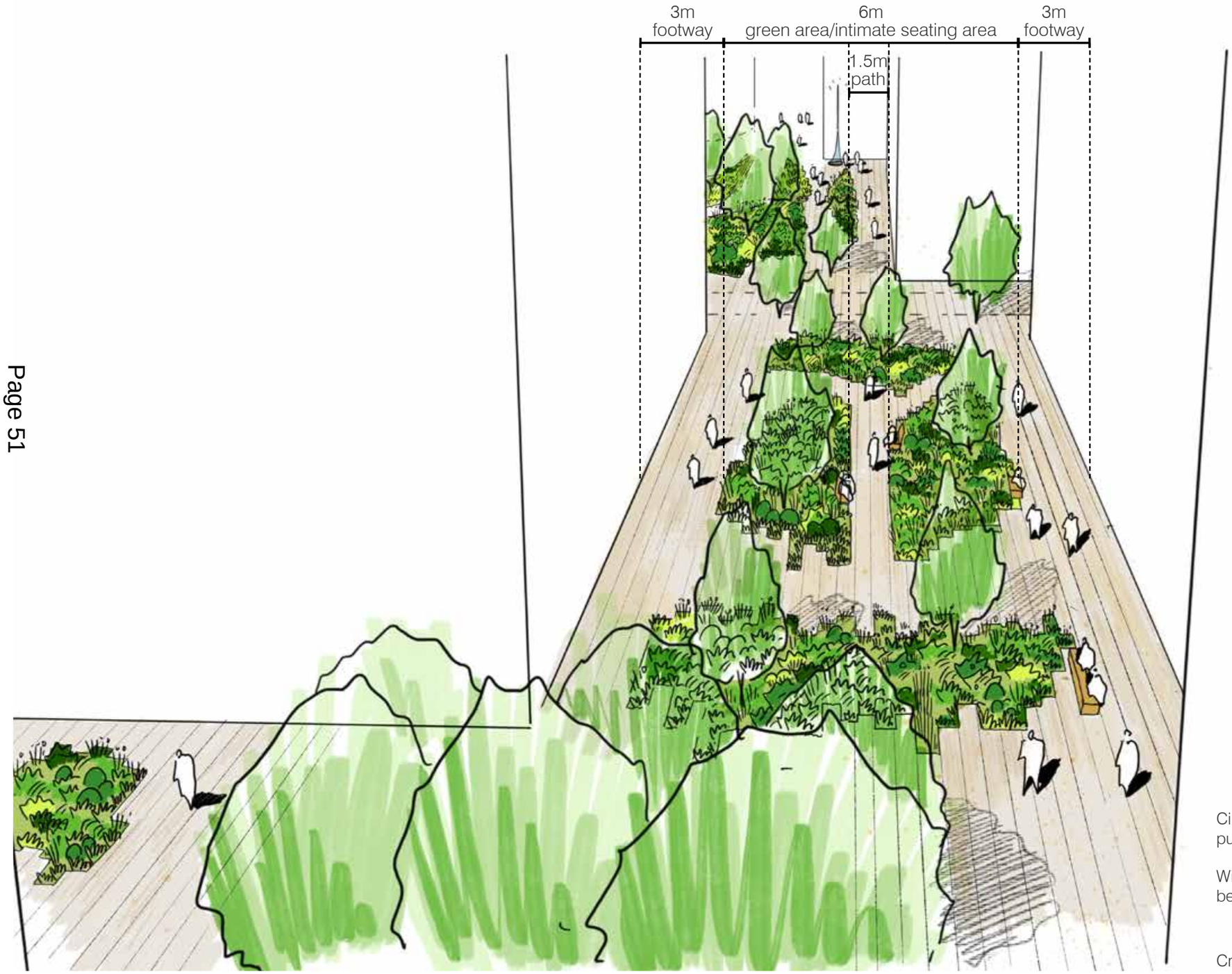


Creative Exchange

Kingdom Street, London

Kingdom Street, London

Kingdom Street, London

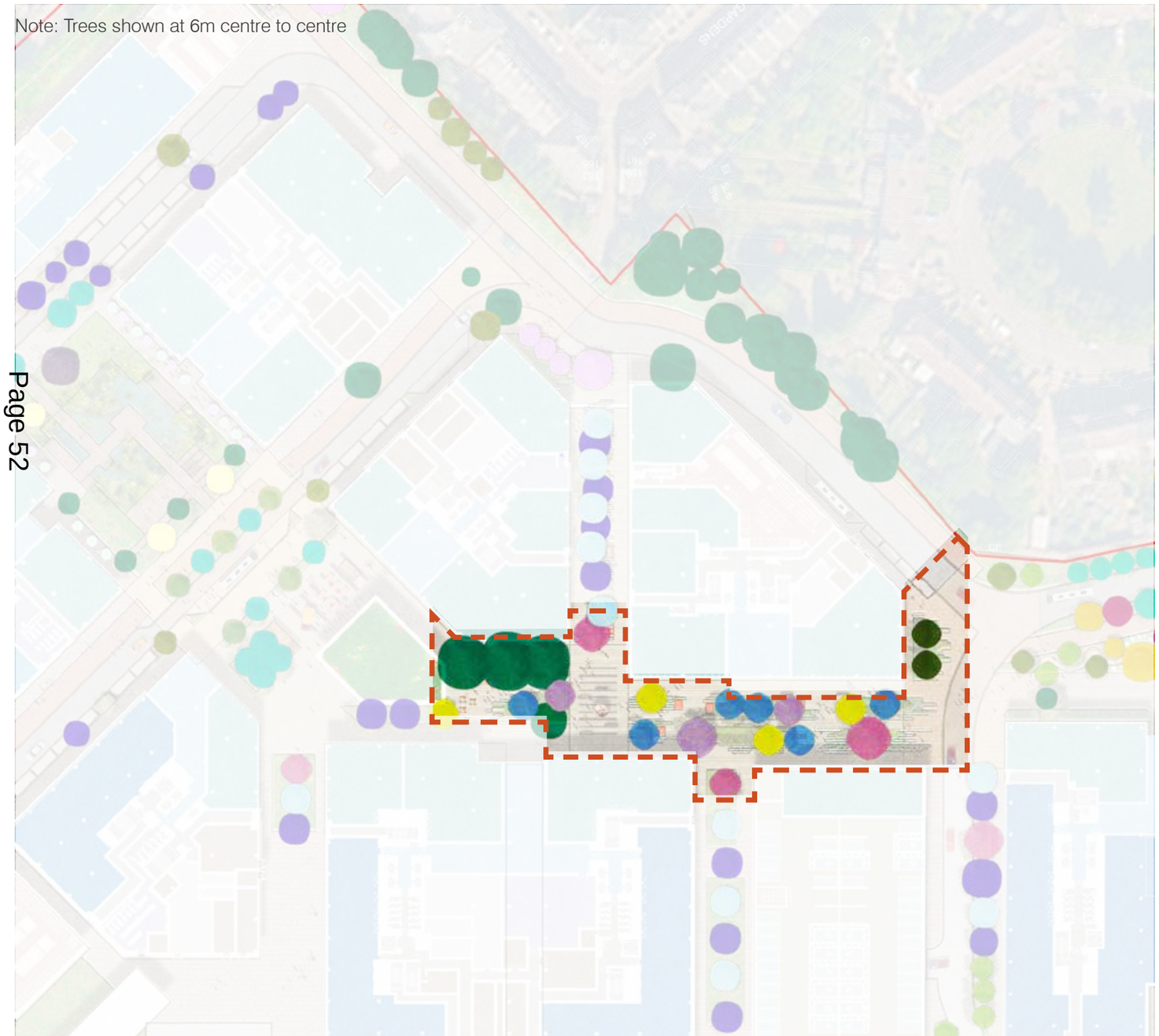


Circulation adjacent to building façades and informally within public realm

Wide open streets provide sufficient width for deep planting beds to soften space

Creative Exchange towards Abbey Walk- Illustrative Axon View

Tree Planting
Creative Exchange- Tree Planting Palette



TOTAL NEW TREES: 16

Prunus padus

Malus sylvestris

Prunus cerasifera

Cornus mas

Quercus x Bimundorum

3 x Cat B Existing Trees
Silver maple

Denotes Existing Trees

ABBEY WALK

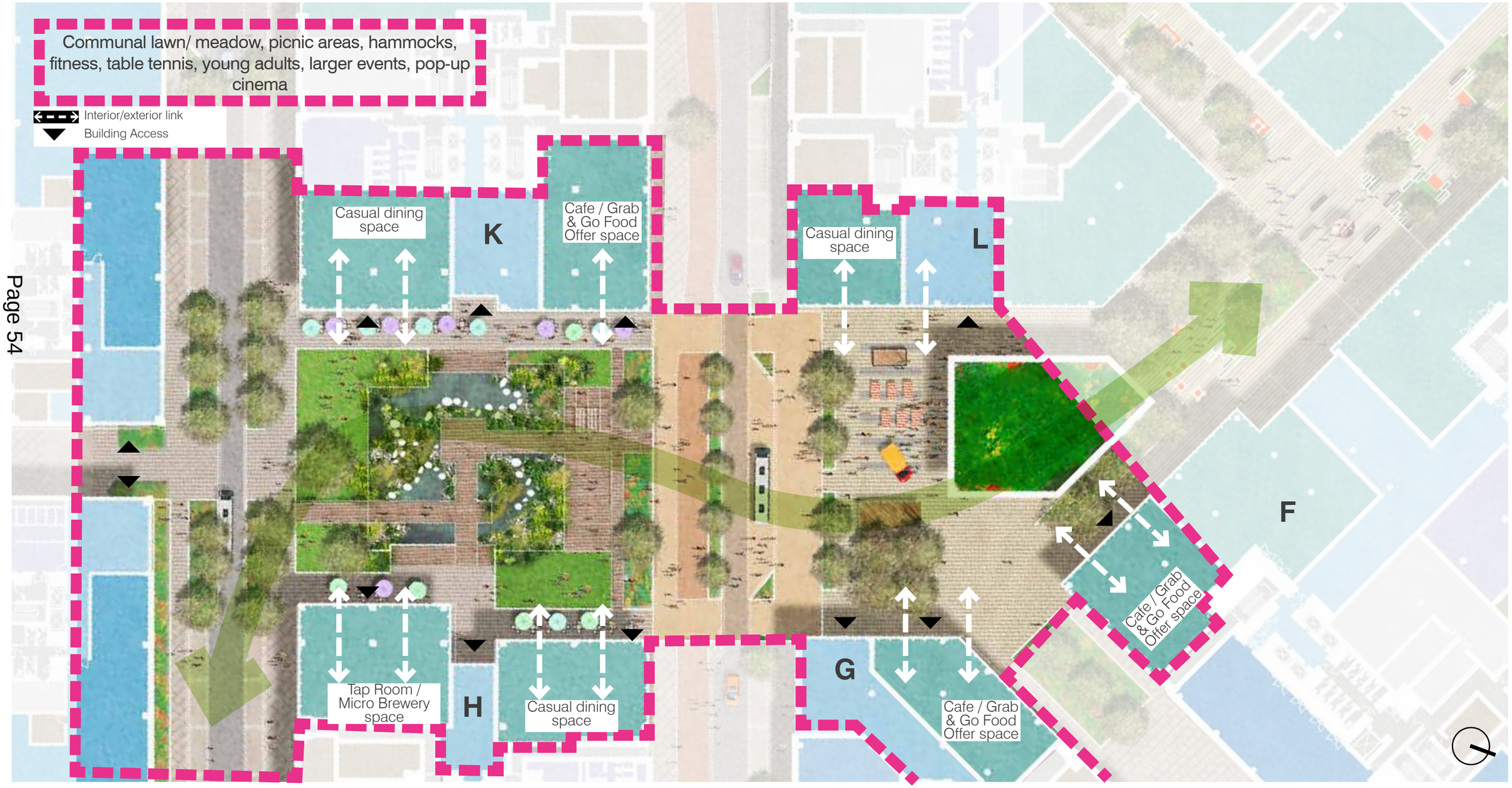
CREATIVE EXCHANGE

GARDEN SQUARE

VERA'S GARDEN

LINEAR WALKS

Character Area Plan NTS



The Common Character Area and Groundplane Plan NTS

Day-to-day: fixed and moveable furniture

Open lawn area with sunny south-facing aspect

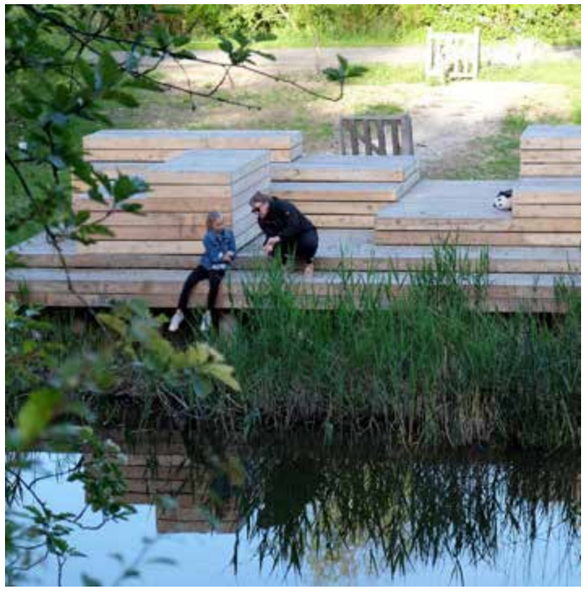
A unique landscape throughout the seasons

Weekly activation: farmers market, street food stalls

Wetlands provides amenity and ecology benefits even during the dry condition

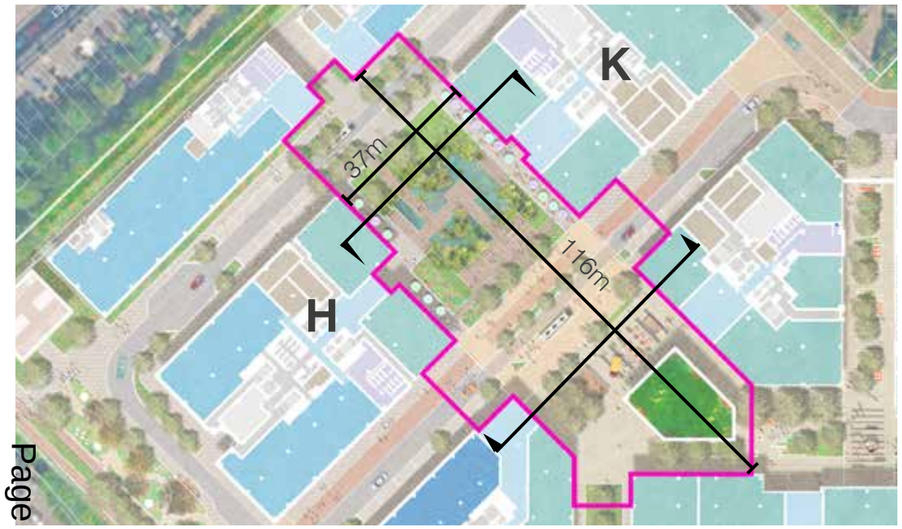
Larger events: pop-up cinema, art exhibitions

Raised walkways provide a sense of connection

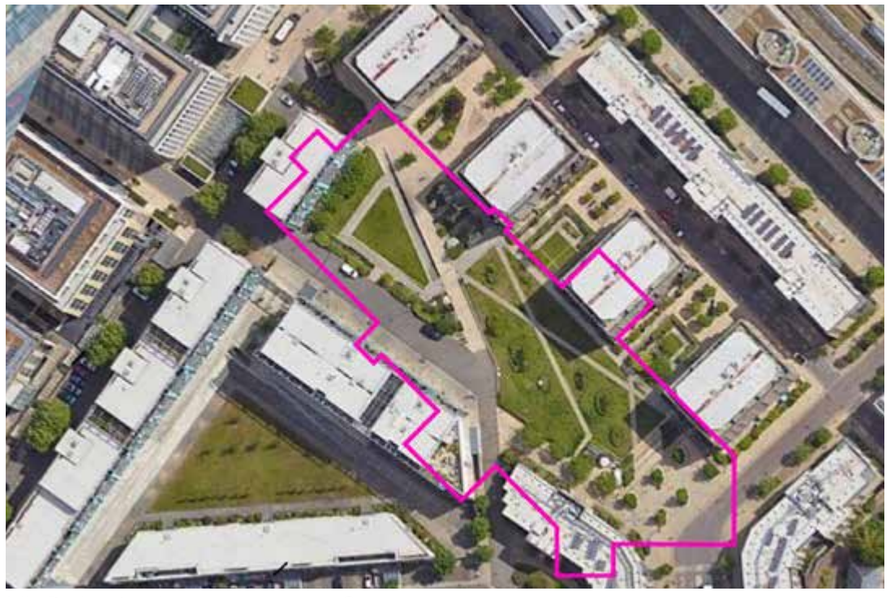


Timber terrace provides space for outdoor activities

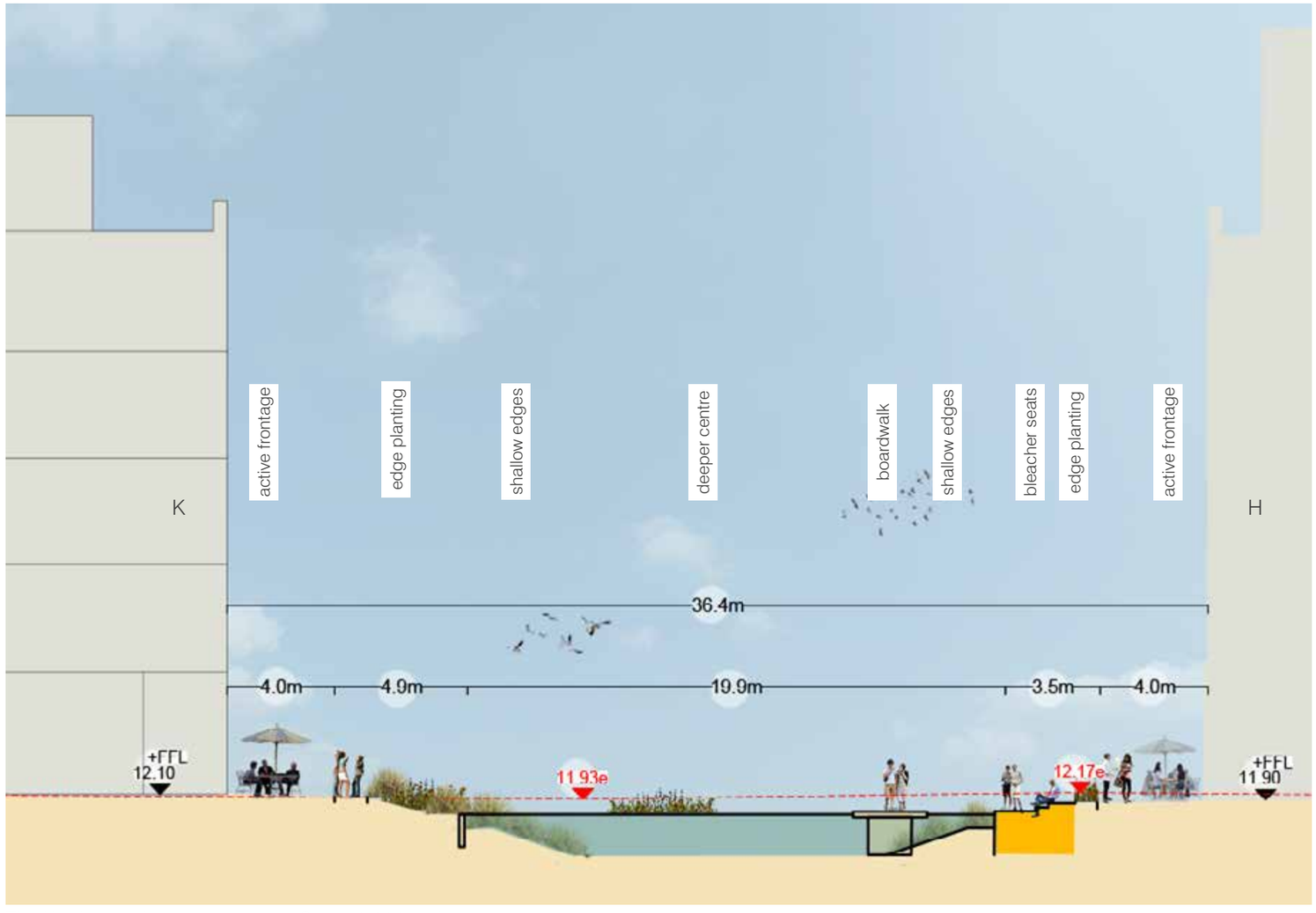
Enjoying lunch by the water's edge



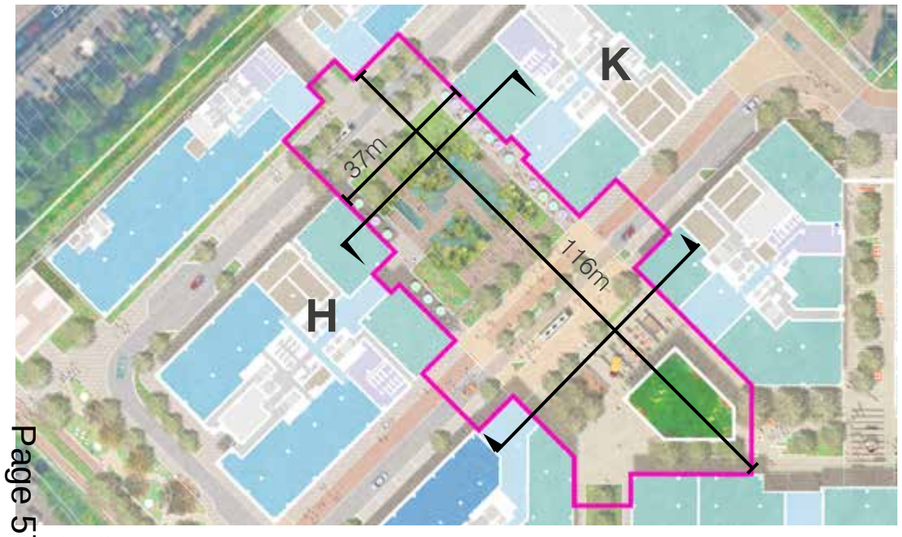
Garden Square



Mill Park refurbishment scheme, Cambridge



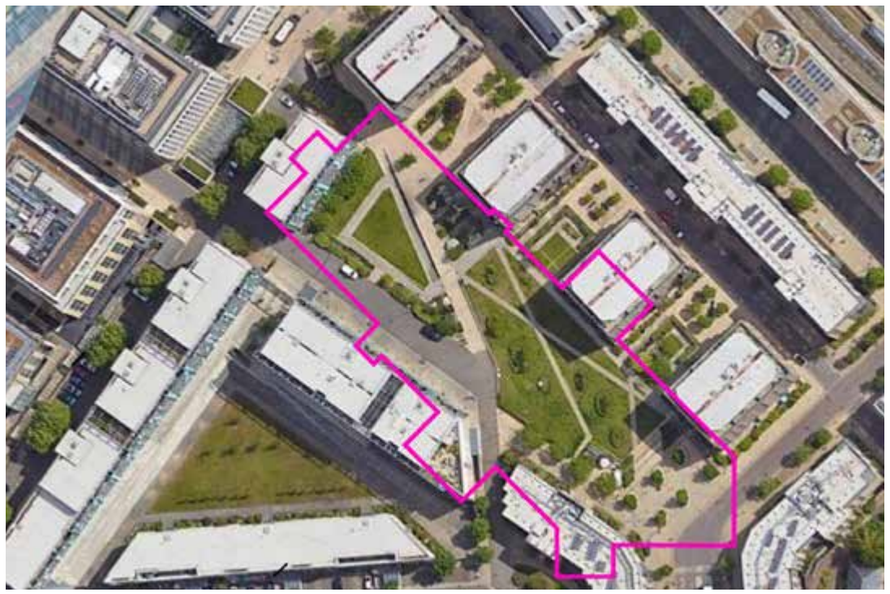
The Wetlands illustrative section Scale 1:200 at A3



Garden Square

Mill Park refurbishment scheme, Cambridge

Mill Park refurbishment scheme, Cambridge



Mill Park refurbishment scheme, Cambridge

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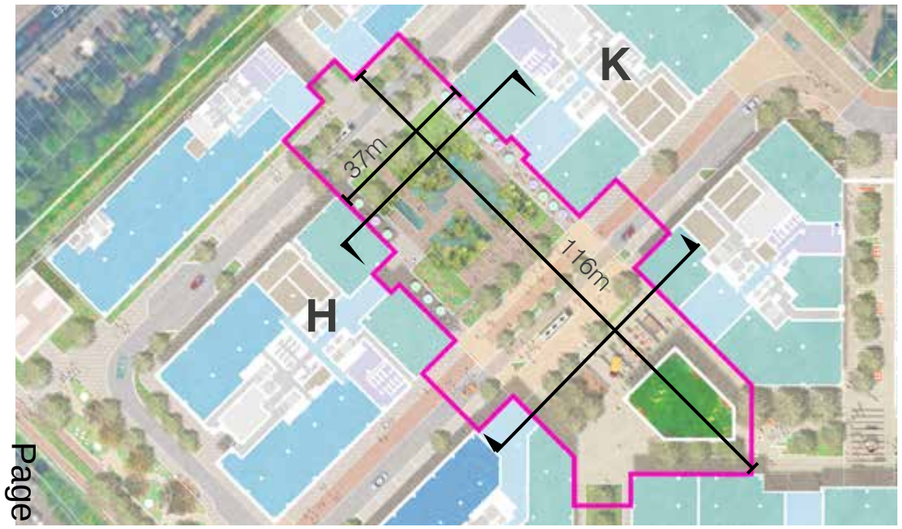
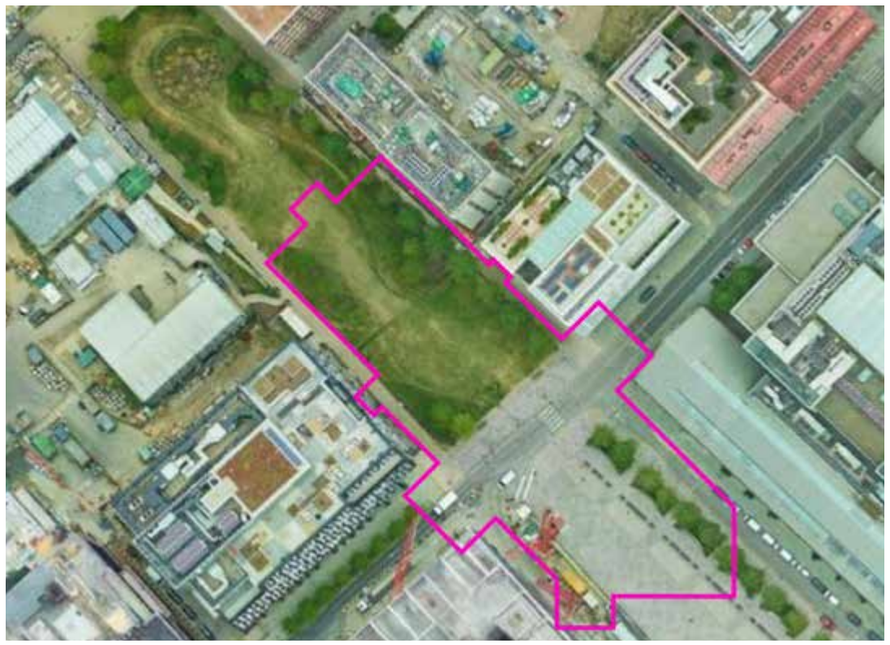


Garden Square

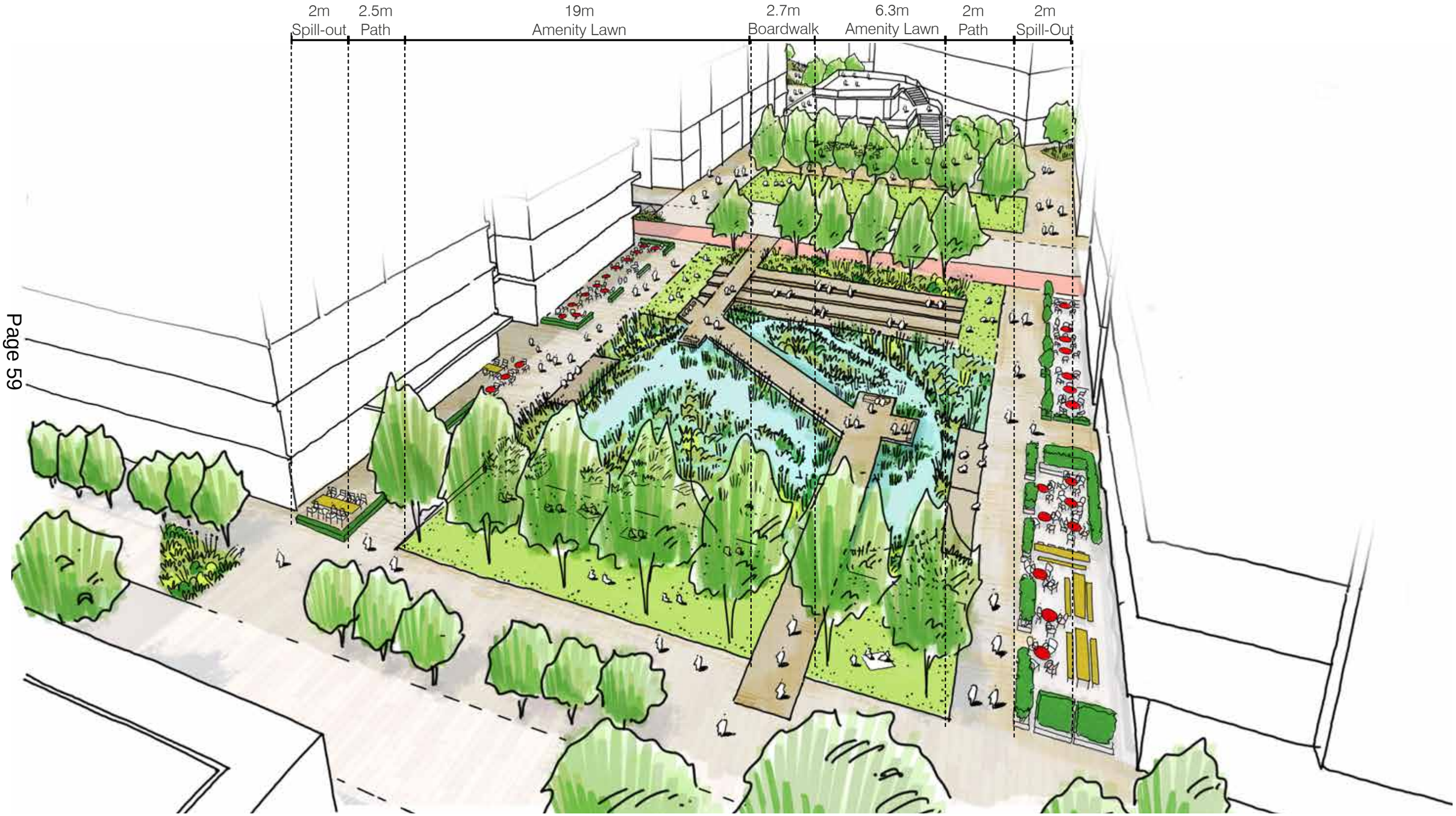
Lewis Cubitt Park, King's Cross, London

Lewis Cubitt Park, King's Cross, London



Lewis Cubitt Square and Park, King's Cross, London

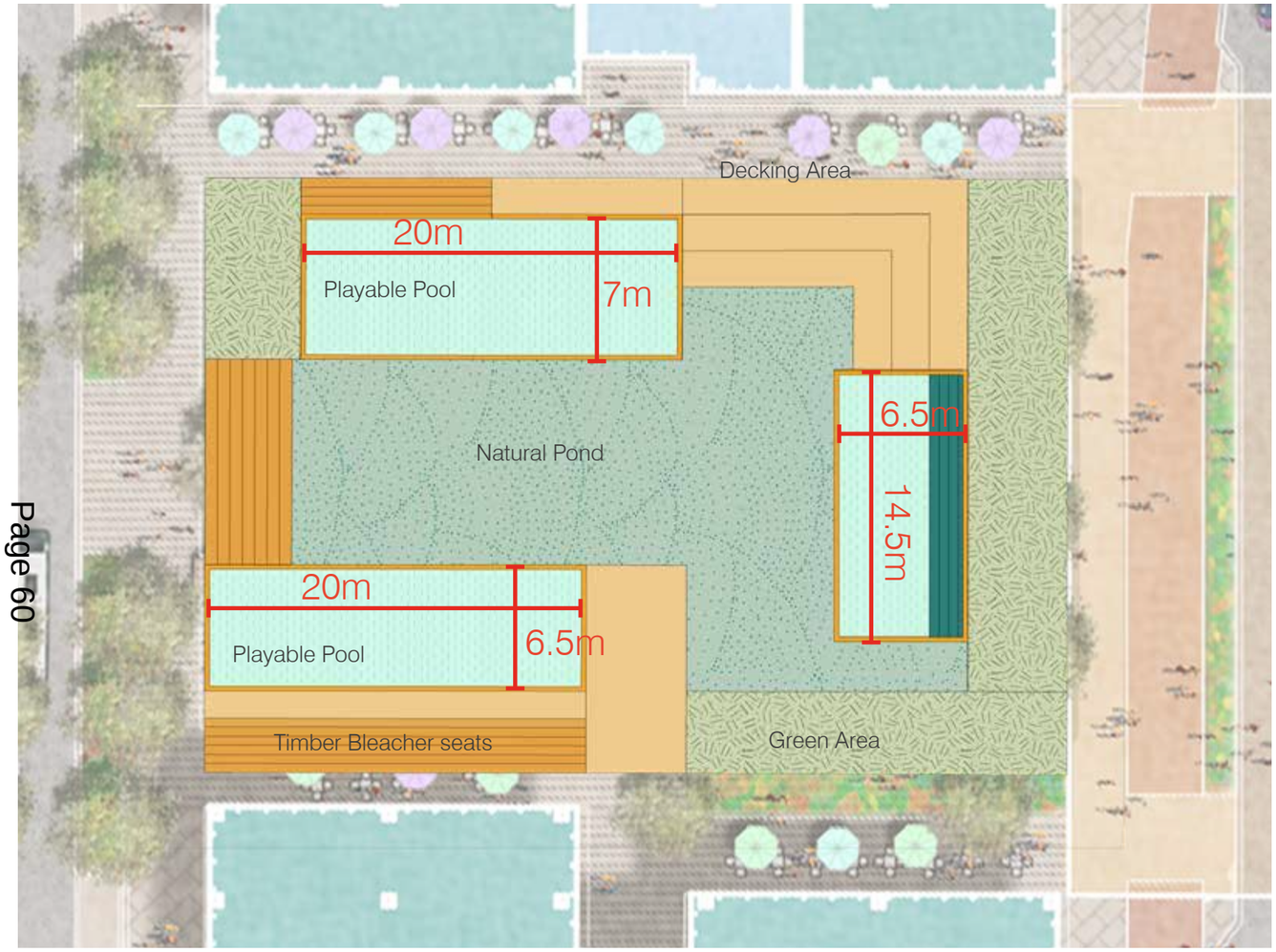
Open lawn area atLewis Cubitt Park, King's Cross, London

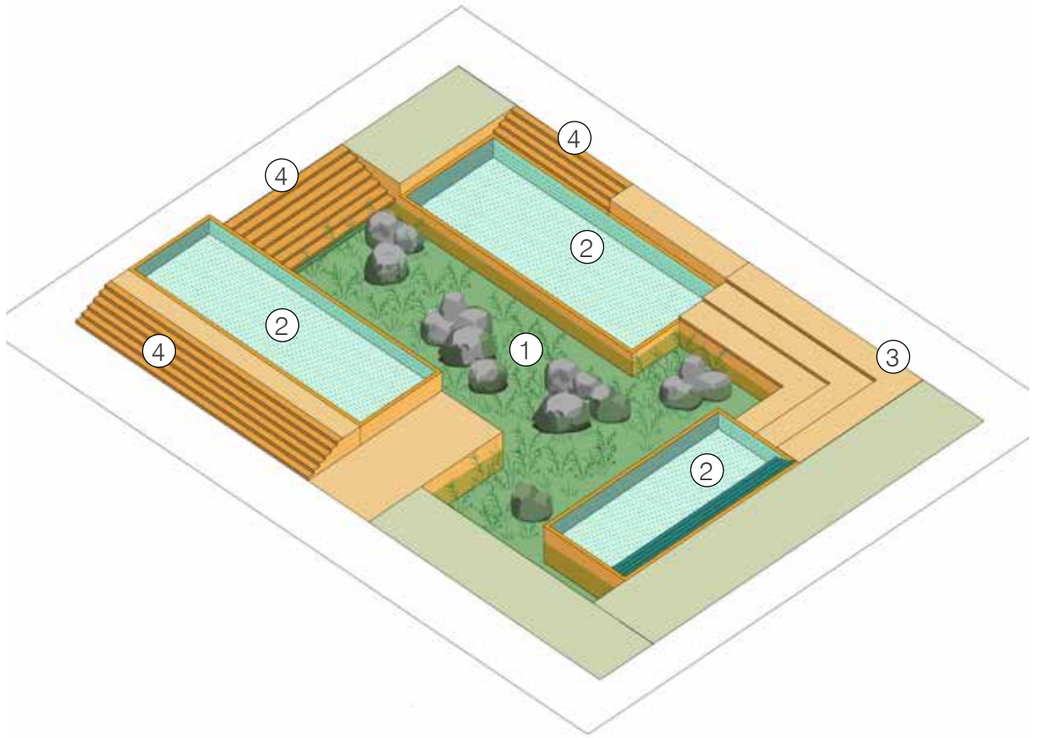


Garden Square - South - Illustrative Axon View

Scale of Spaces

Water feature - Scale Comparisons - Garden Square



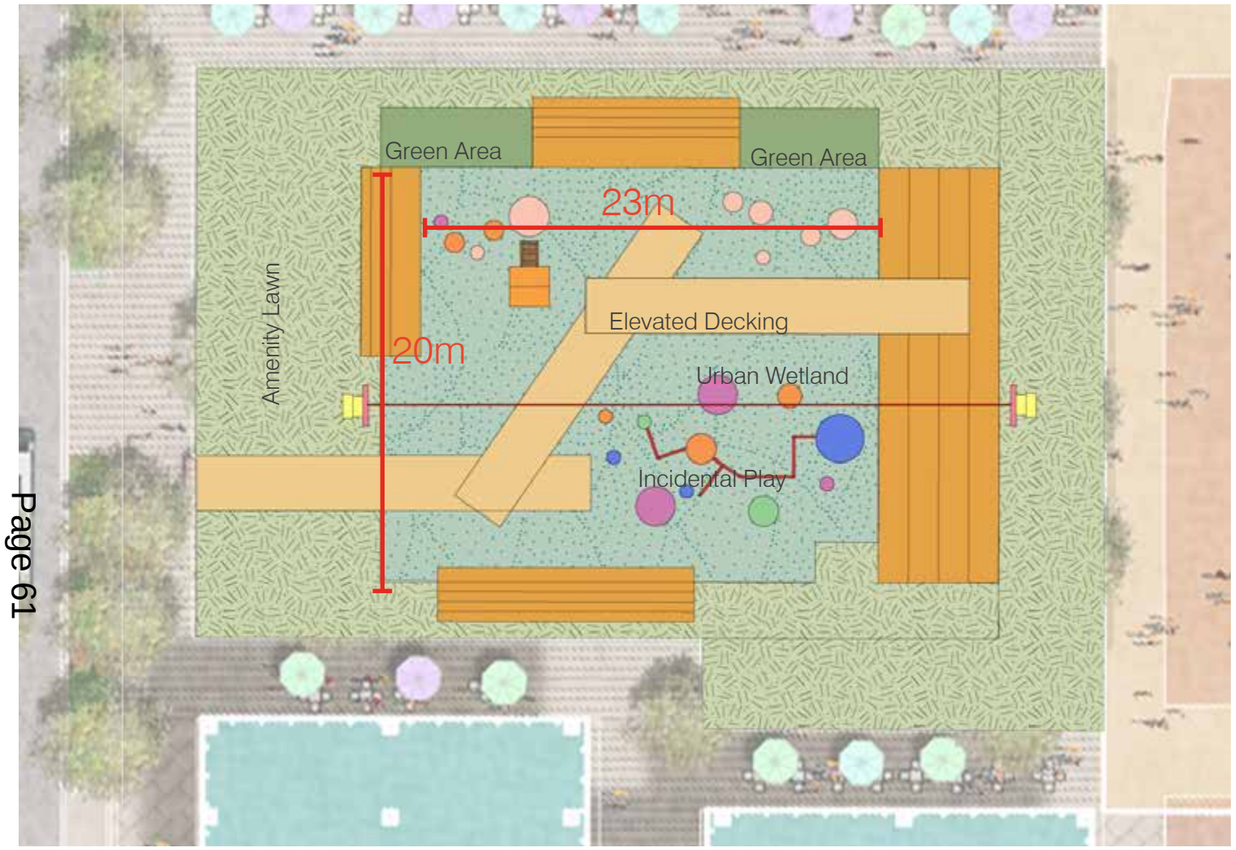


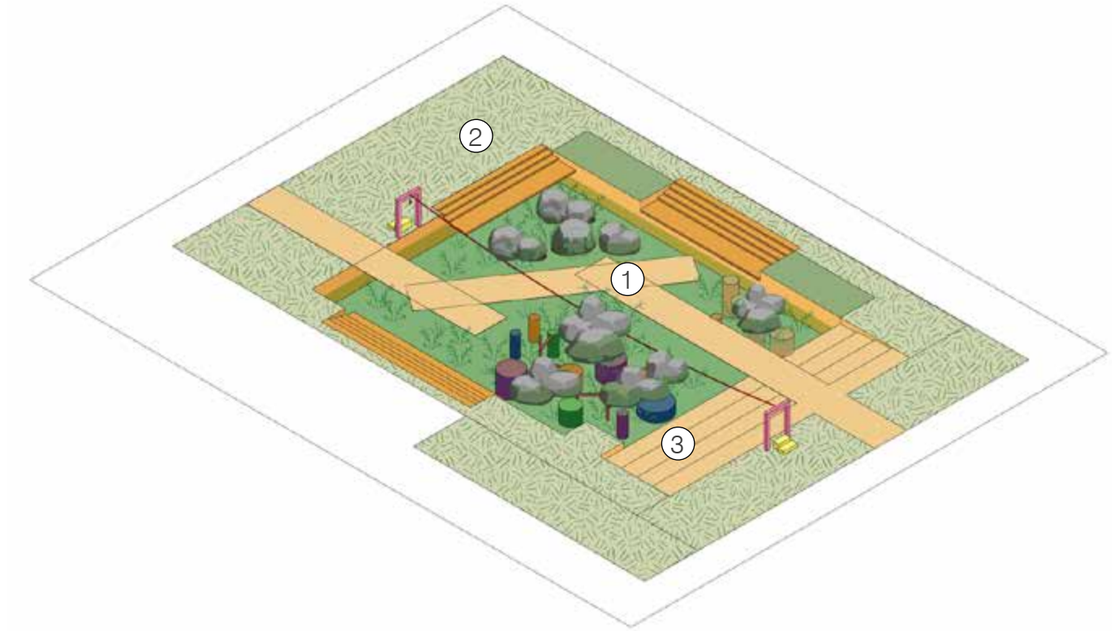
Floating natural Pond

Playable Water Feature

Urban Wetland with large seating terraces/Decking

Timber Bleacher Seats





Urban Wetland/Swale:
- Swales are very shallow channels that are used to collect and/or move water and also remove pollution from it.
- Covered by grass or other vegetation and have shallow side slopes and a flat bottom which means that for most of the time the water flows in a thin layer through the grass or other vegetation.
- Swales can have a wet base, in which case they will behave like a wetland.
- Planting in the swale is essential to stabilise slopes, reduce erosion and slow water flows to aid sedimentation, as well as to provide some nutrient take up
- Maintenance of swales is relatively straight forward for landscape contractors and typically there is only a small amount of extra work required.

Elevated Decking

Amenity Lawn by the Wetland

Bleacher Seats

Scale of Spaces
Urban Wetland - dry condition - Scale Comparisons - Garden Square


1
Incidental Play

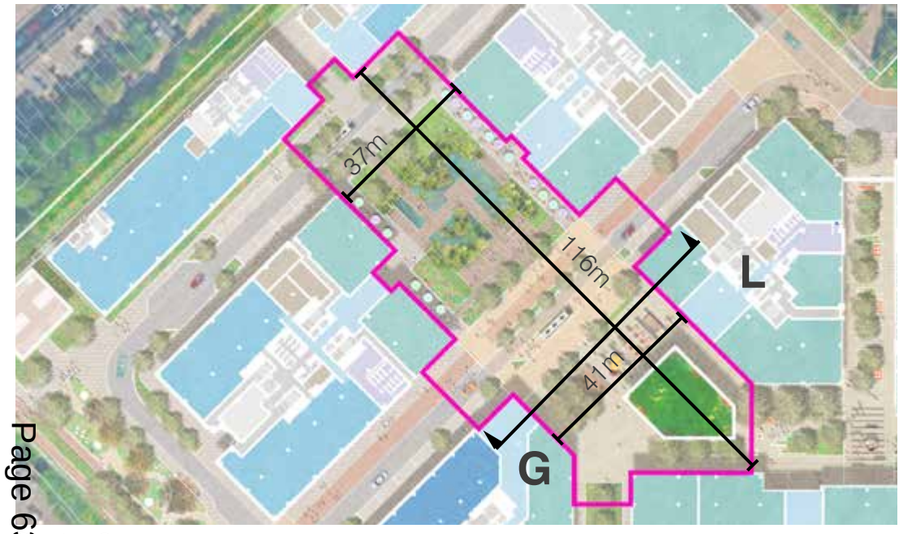

2
Large Stepping Stones


3
Dry Swale/SuDS

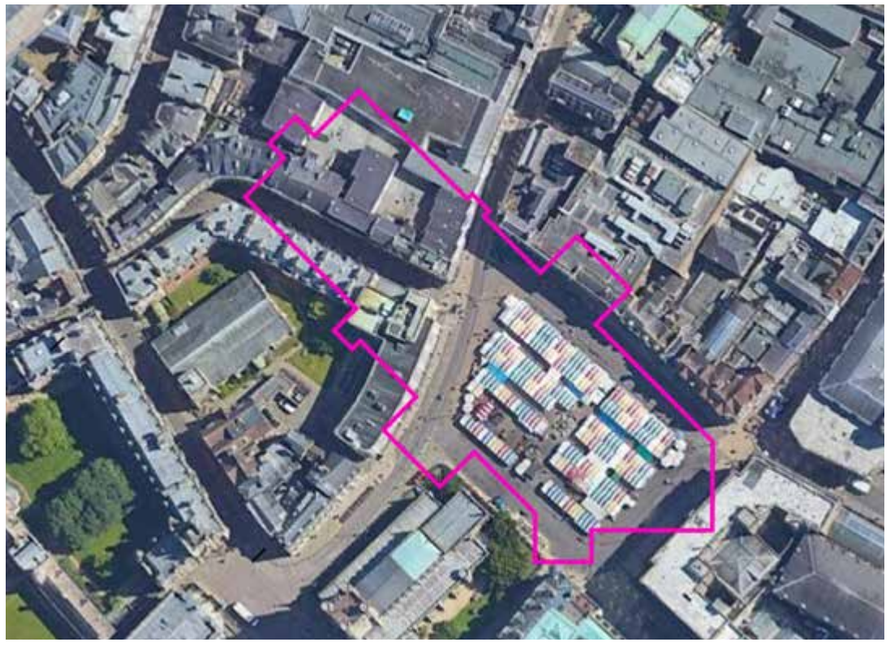

3
Dry Swale/SuDS


4
Zip Line through the Wetland


5
Playable Feature

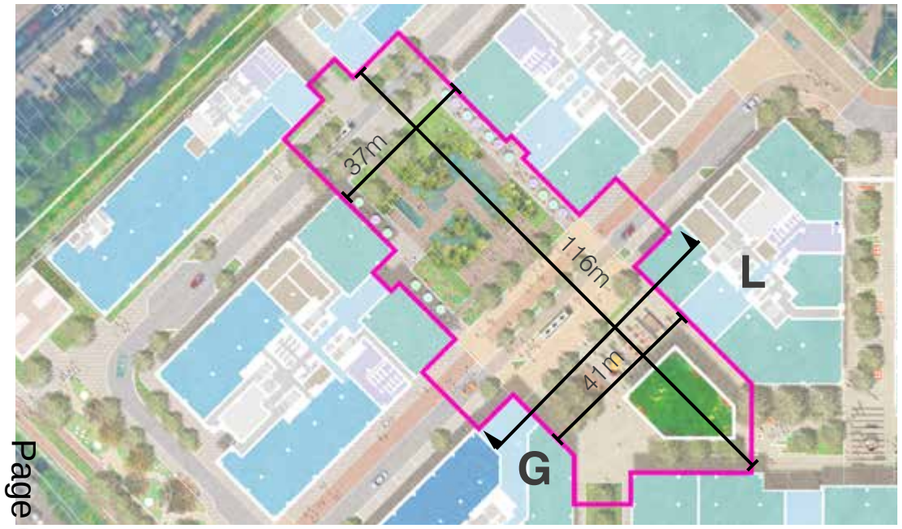


Garden Square



Market Square, Cambridge

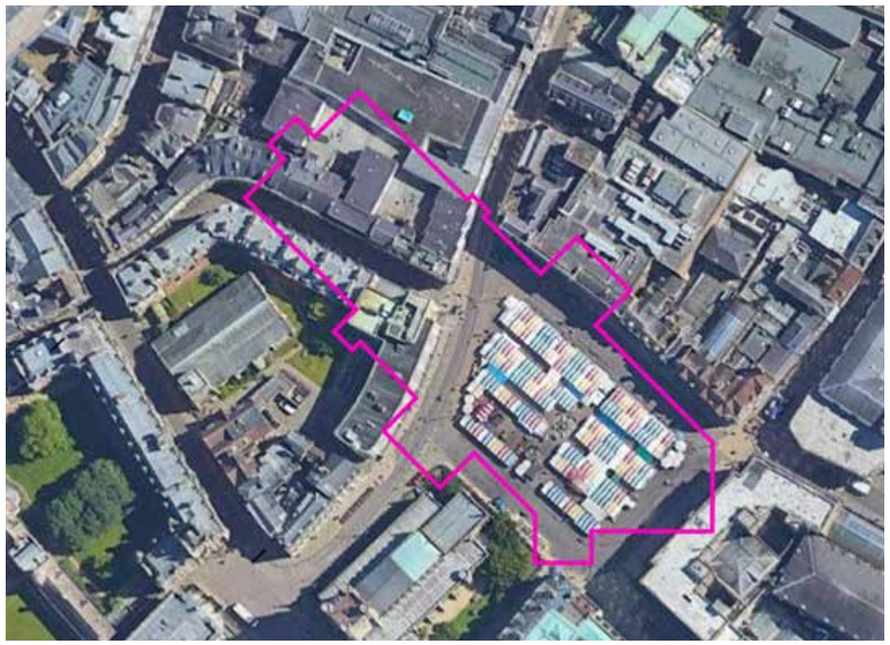
Garden Square illustrative section Scale 1:200 at A3



Garden Square

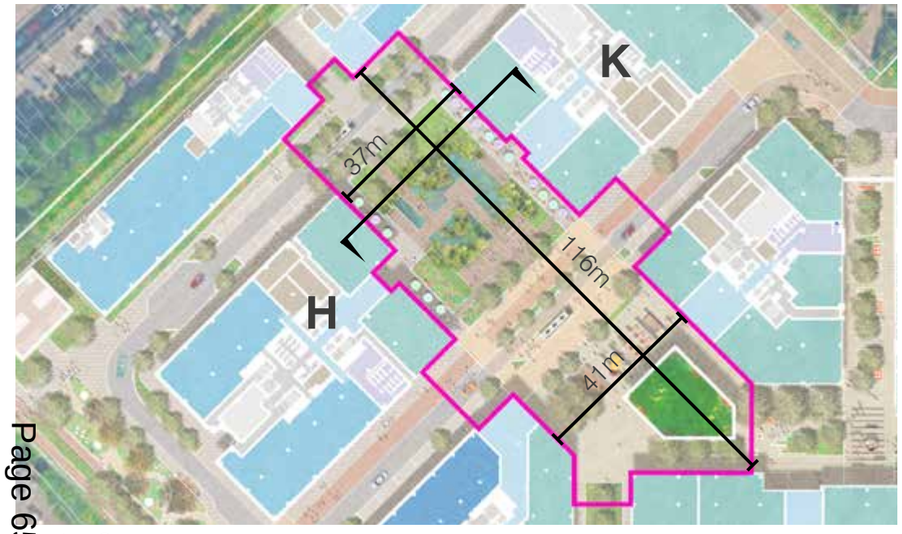
Market Square, Cambridge

Market Square, Cambridge



Market Square, Cambridge

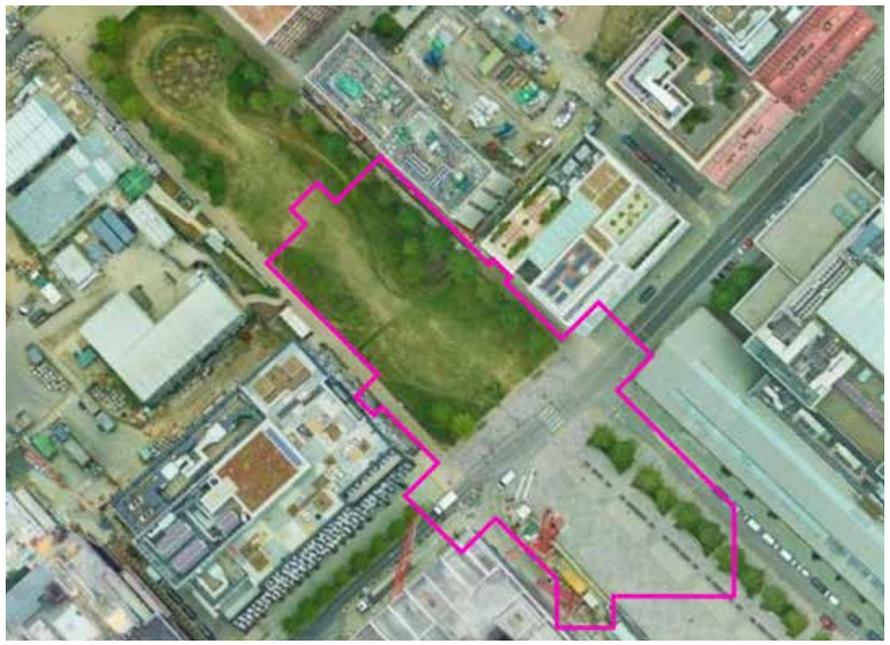
Market Square, Cambridge



Garden Square

Lewis Cubitt Square, King's Cross, London

Lewis Cubitt Square, King's Cross, London



Lewis Cubitt Square and Park, King's Cross, London

Outdoor event at Lewis Cubitt Square, King's Cross, London

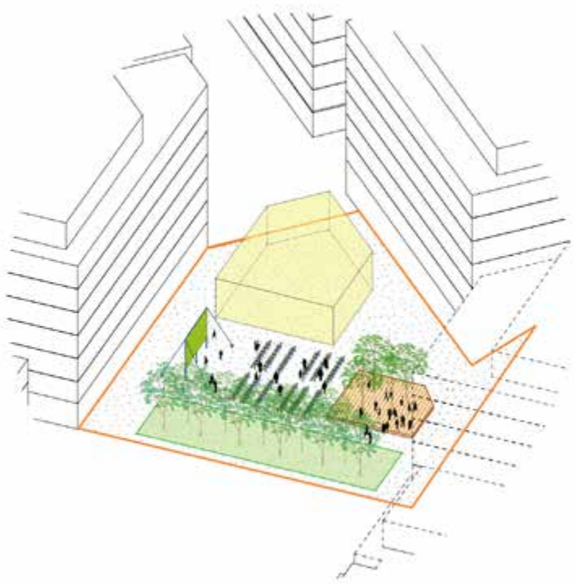
Pop-up Food market at Lewis Cubitt Square, King's Cross, London

Allowance for 4m pedestrian routes to accommodate heavier site capacities

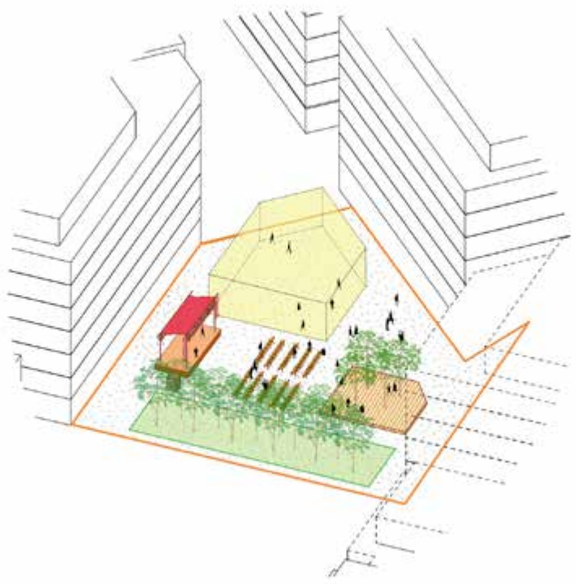
Generous open and flexible central hard space

Opportunity for active frontages spill out on to central area

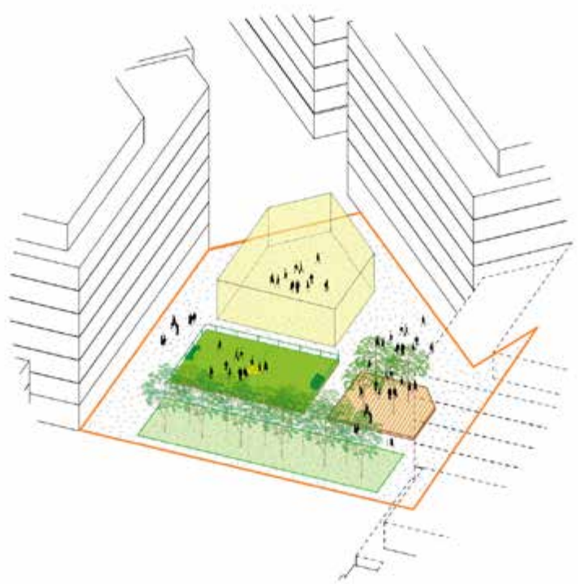
Garden Square - Illustrative Axon View



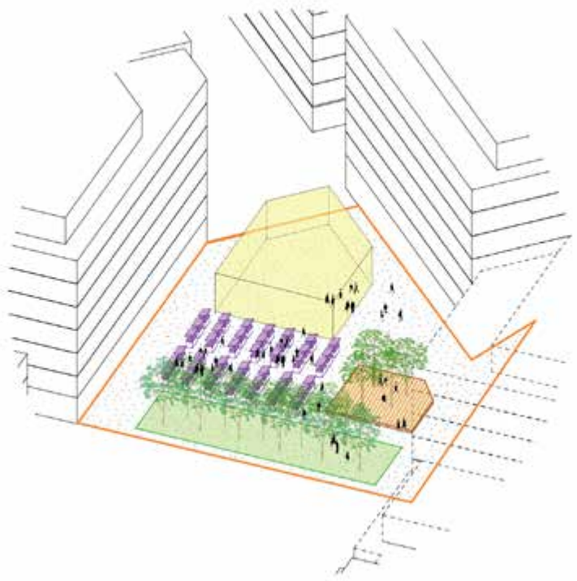
1 outdoor pop-up cinema



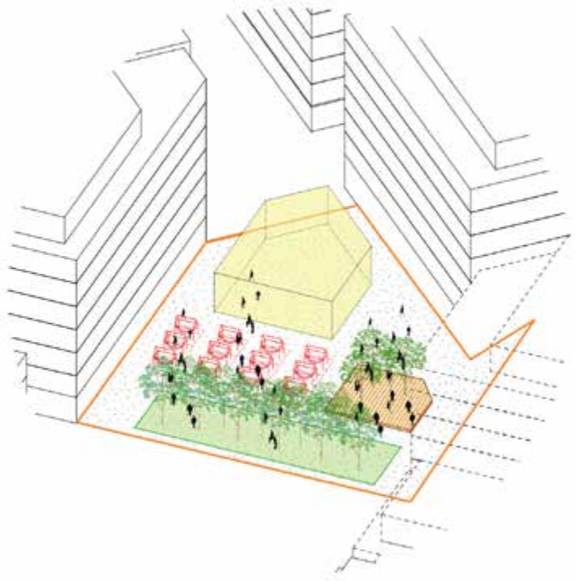
1 Performance Stage 11m x 5m
80 deck chairs



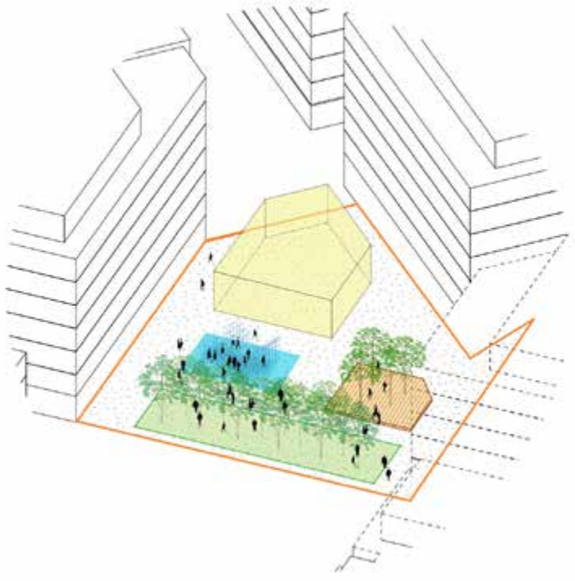
1 mobile football pitch
20m x 15m



42 market stalls
3m x 3m



12 play art installations
4m x 4m with 2.5m walkways

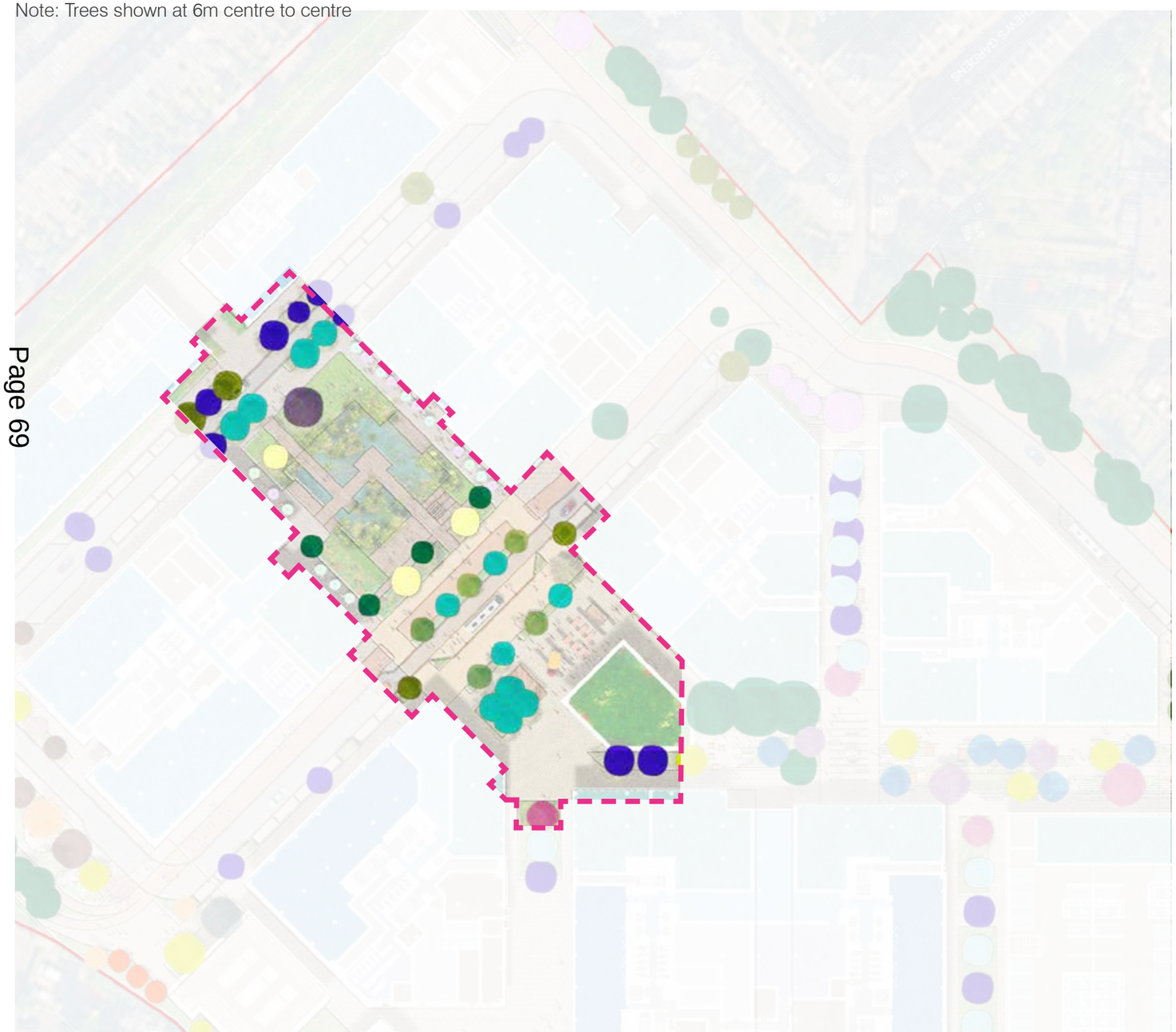


1 water feature switched on-off / 1 ice rink
15m x 16m


niggia
pippin

Tree Planting
Garden Square - Tree Planting Palette

Note: Trees shown at 6m centre to centre



TOTAL NEW TREES: 34

Acer Campestre

Betula pendula

Sorbus torminalis

Acer x zoeschense

Salix caprea

Ginkgo Biloba

Denotes Existing Trees

ABBEY WALK

CREATIVE EXCHANGE

GARDEN SQUARE

VERA'S GARDEN

LINEAR WALKS

Character Area Plan NTS

Community Gardens Character Area and Groundplane Plan NTS

Healthy green streets planted for biodiversity

Community grow-food events/ gathering groups

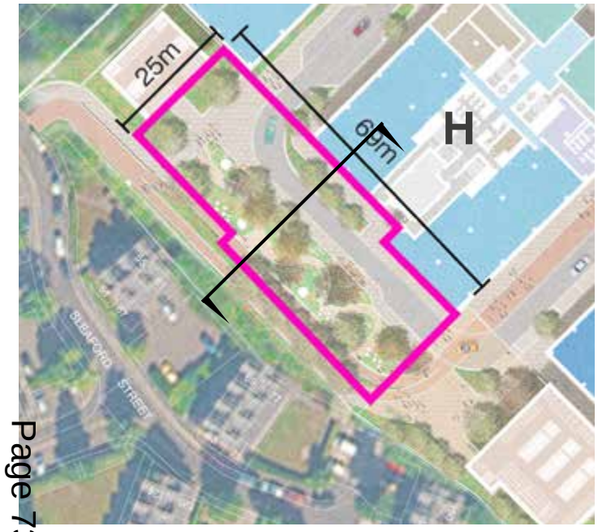
Educational days/activities

Sunny area for vegetable growing

Community orchard with mix of edible fruit

Play-on-the-way for local families

Incidental play for all age groups



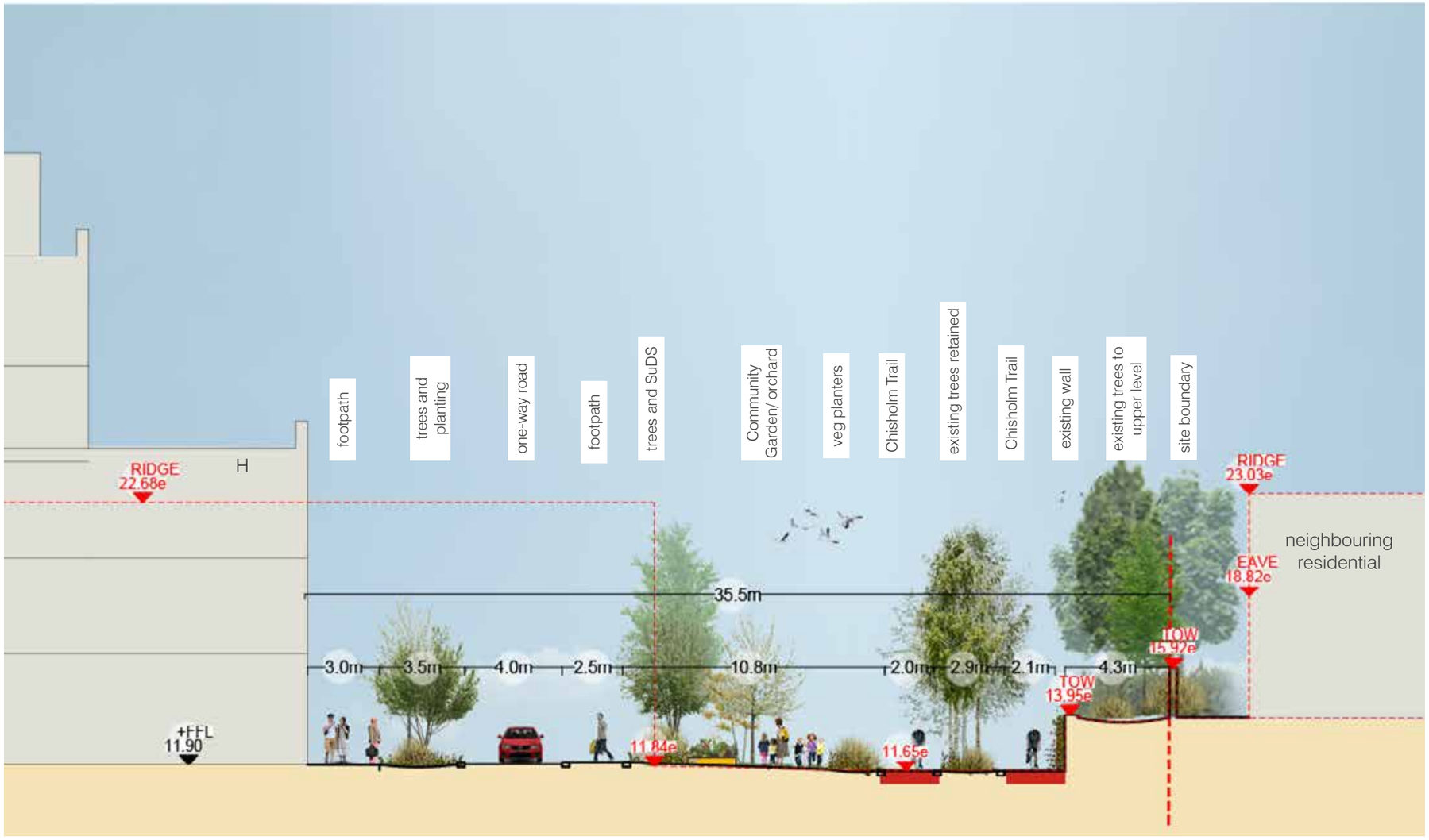
Vera's Gardens

Physic Garden, Basel

Important space to the south of the site, intended to involve and inspire the local community

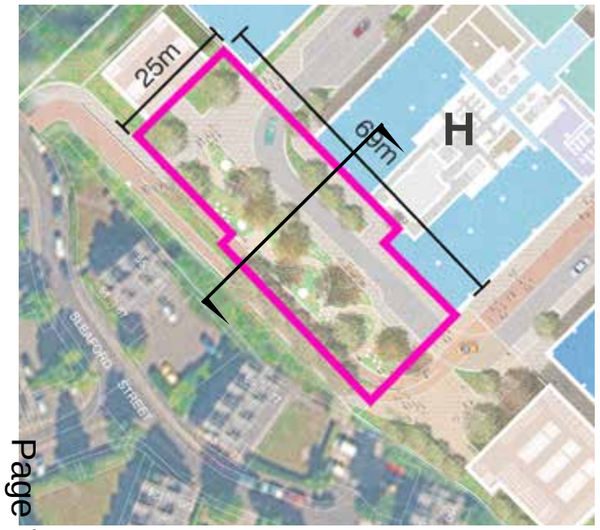
Sunny aspect would facilitate small community events, a fruit orchard, vegetable growing, outdoor education, etc.

Existing trees to upper level to be retained to maintain boundary with neighbours; existing wall could be enhanced with a community mural or climbing plants



Community Gardens illustrative section Scale 1:200 at A3

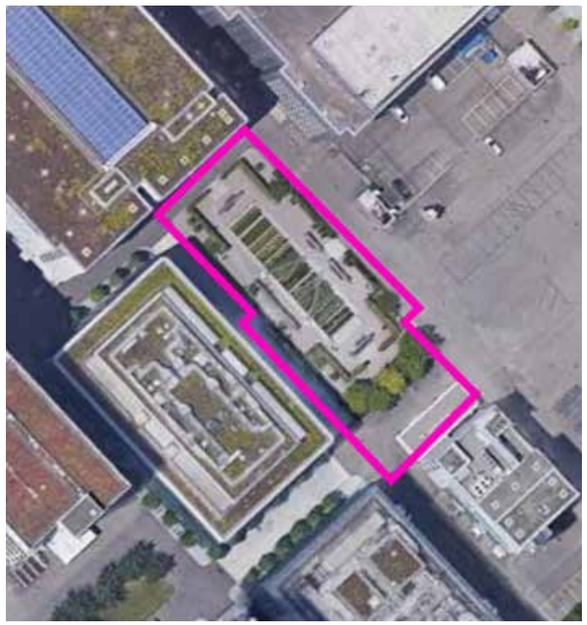
*Note: Indicative maximum floor to floor heights and roof profiles



Vera's Gardens

Physic Garden, Basel

Physic Garden, Basel



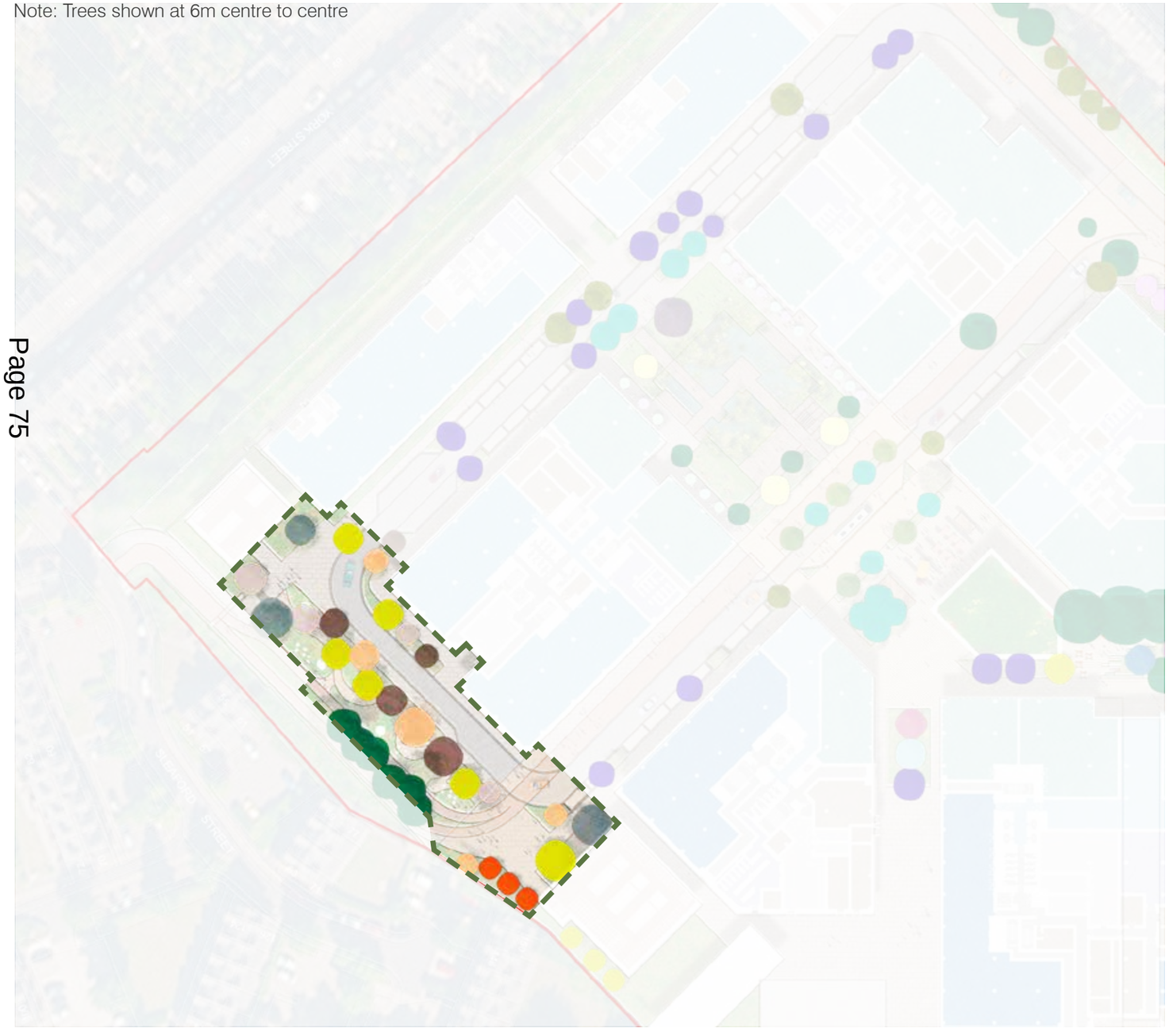
Physic Garden, Basel

Physic Garden, Basel

Physic Garden, Basel

Tree Planting
Vera's garden - Tree Planting Palette

Note: Trees shown at 6m centre to centre



TOTAL NEW TREES: 25

Malus sylvestris

Prunus avium

Pyrus communis

Prunus spinosa

Corylus avellana

Sambucus nigra

Denotes Existing Trees

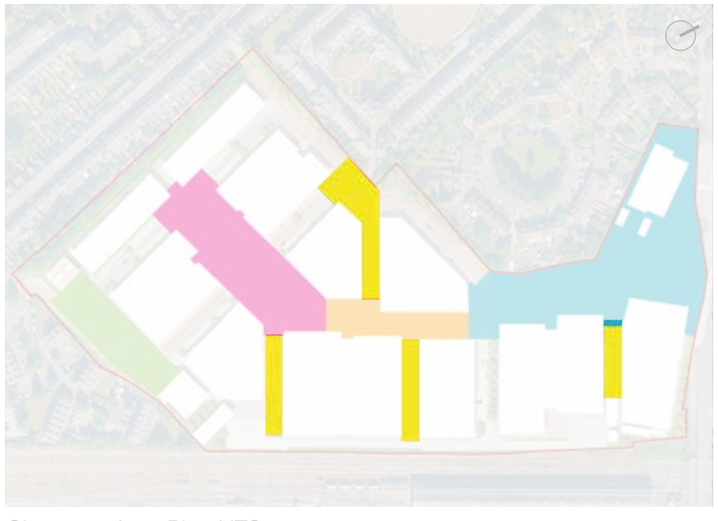
ABBEY WALK

CREATIVE EXCHANGE

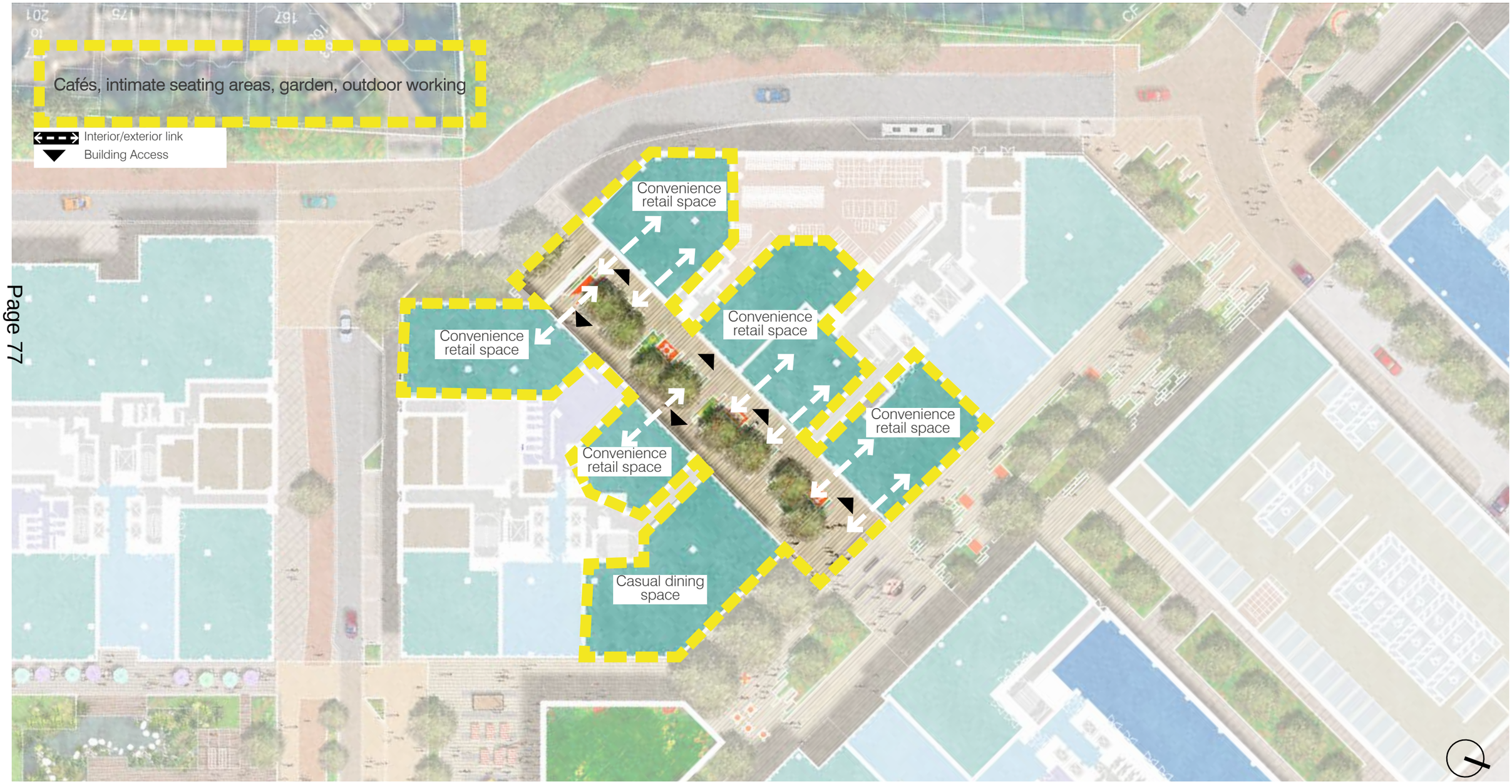
GARDEN SQUARE

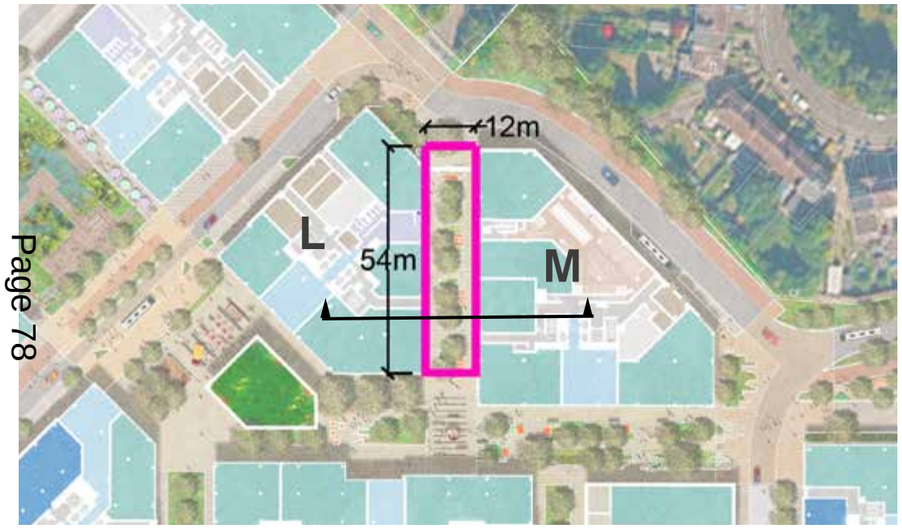
VERA'S GARDEN

LINEAR WALKS

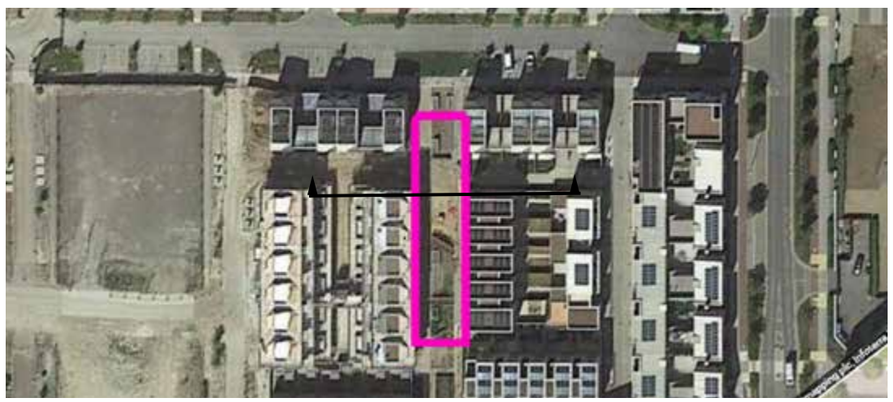


Character Area Plan NTS

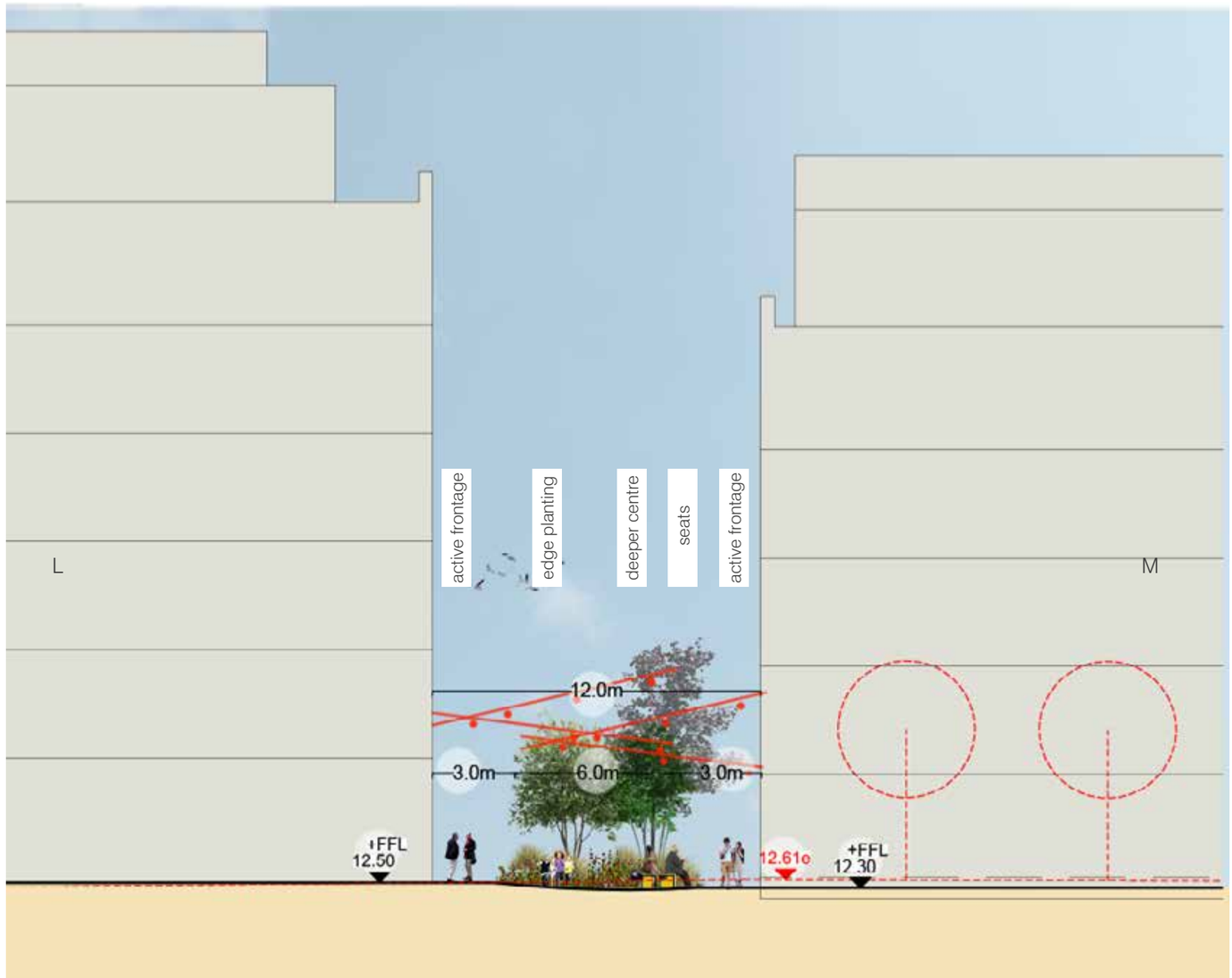

Cafés, intimate seating areas, garden, outdoor working
Interior/exterior link
Building Access
Convenience retail space
Convenience retail space
Convenience retail space
Convenience retail space
Convenience retail space
Casual dining space



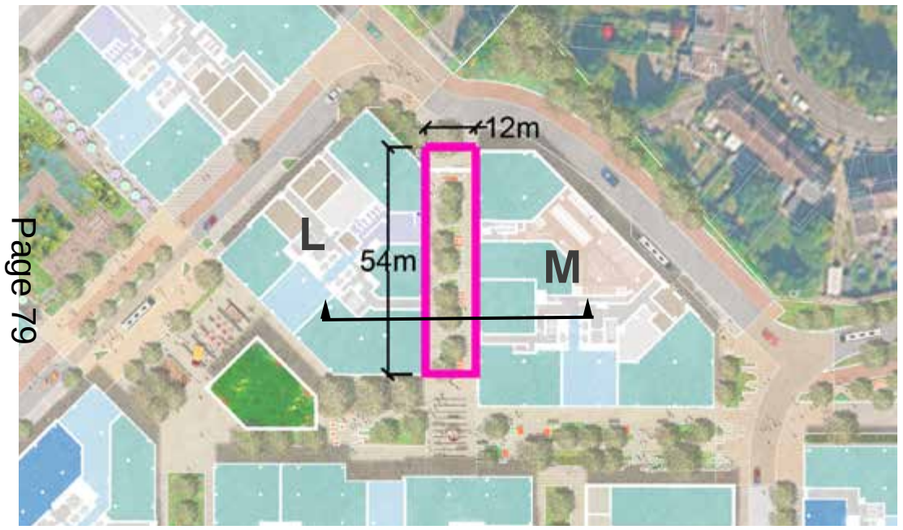
Linear Walk



Knights Park, Eddington, North West Cambridge



Linear walk illustrative section Scale 1:200 at A3



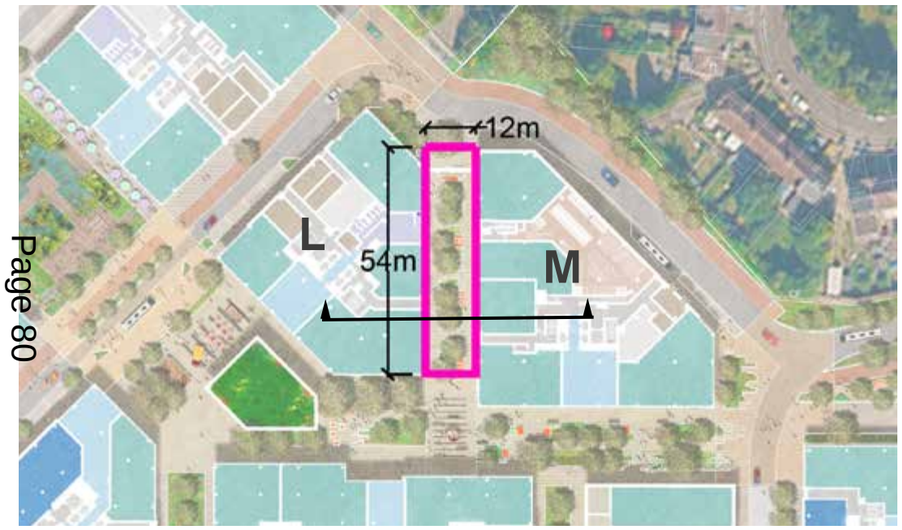
Linear Walk

Knights Park, Eddington, North West Cambridge

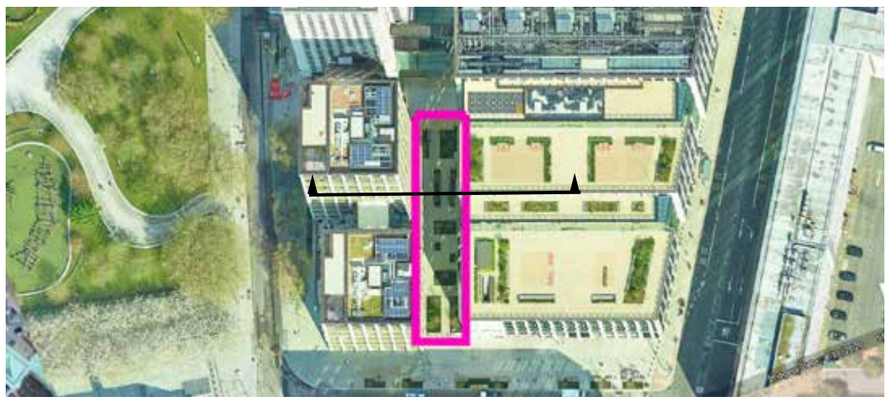
2.5m Walkway x 6m Garden/Green/Seating Space x 2m Walkway

Knights Park, Eddington, North West Cambridge

Knights Park, Eddington, North West Cambridge



Linear Walk



Southbank Place, Waterloo, London

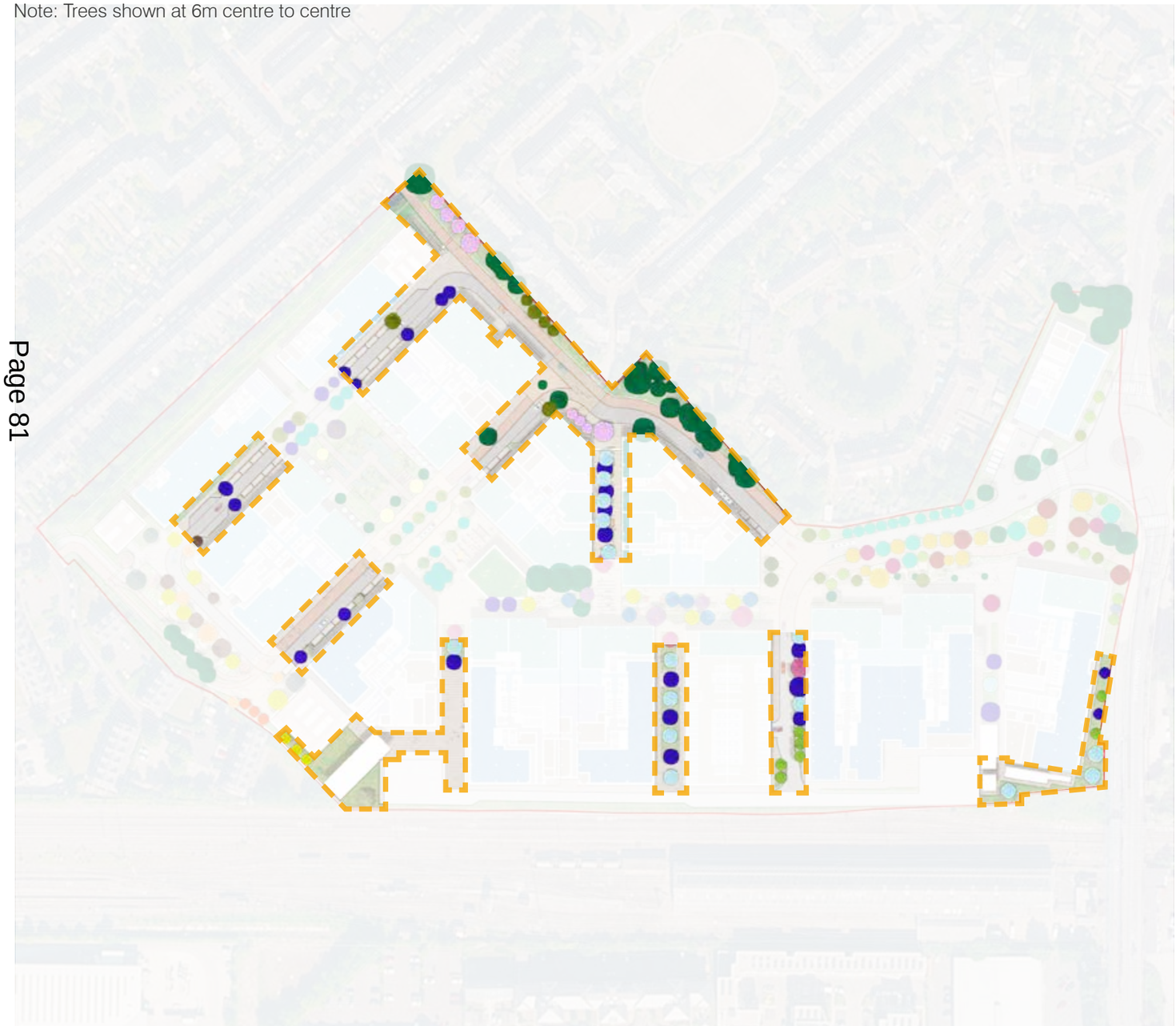
2m Walkway x 6m Garden/Green/Seating Space x 2m Walkway

Southbank Place, Waterloo, London

Southbank Place, Waterloo, London

Tree Planting
Linear Walks

Note: Trees shown at 6m centre to centre



TOTAL NEW TREES: 63

Acer campestre 'Ruby Glow'

Malus domestica

Sorbus torminalis

Acer Campestre

Sorbus Intermedia

Malus sylvestris

Denotes Existing Trees

Masterplan Overview - Comments?
Illustrative Landscape Plan/ Masterplan

Illustrative Landscape Plan/ Masterplan Scale 1:1,250 at A3

0 50m

A New Local Centre
A Range of Active Ground Floor Uses

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