

The Barbican Estate

Phase 2 Podium Refurbishment Public Realm Layout Update

17th August 2022

Agenda

1. Introduction
2. Recap on reason for the works
3. Update on surveys & constraints
4. Stakeholder consultation
5. Revised design layout
6. Programme & next steps



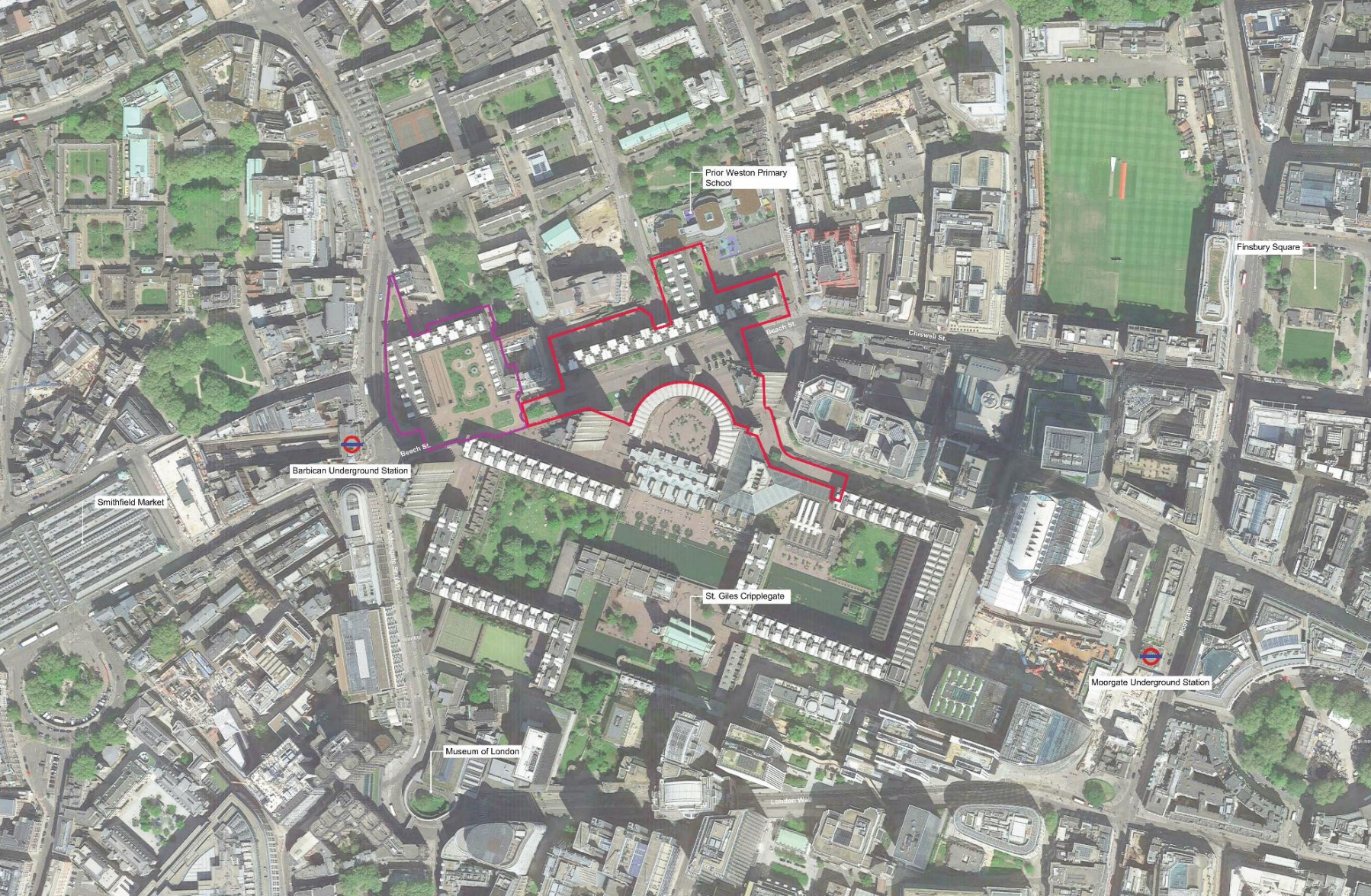
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Reasons for the works

A Unique Opportunity

- Replace the waterproofing membrane
- Repair and replace the drainage
- Climate Action Strategy
- Biodiversity Action plan
- Listed Building Management Guidelines
- Futureproof the podium
- Opportunity to enhance

Location



-  Phase 2 Study Site Area
-  Phase 1 (Complete)

Outline of Project Justification

The Issues

Rainwater is leaking into the interior spaces beneath the podium deck and damaging the fabric of the building.

There are also several areas of disrepair evident in broken paving tiles, broken street furniture and chemical leeching from walls, paving and planting areas.

What Needs to be Repaired

To repair the waterproofing, all public realm and planting areas within the phase 2 boundary will need to be removed entirely. This will facilitate the essential replacement of waterproofing and podium build-up elements such as insulation, screed or paving construction.

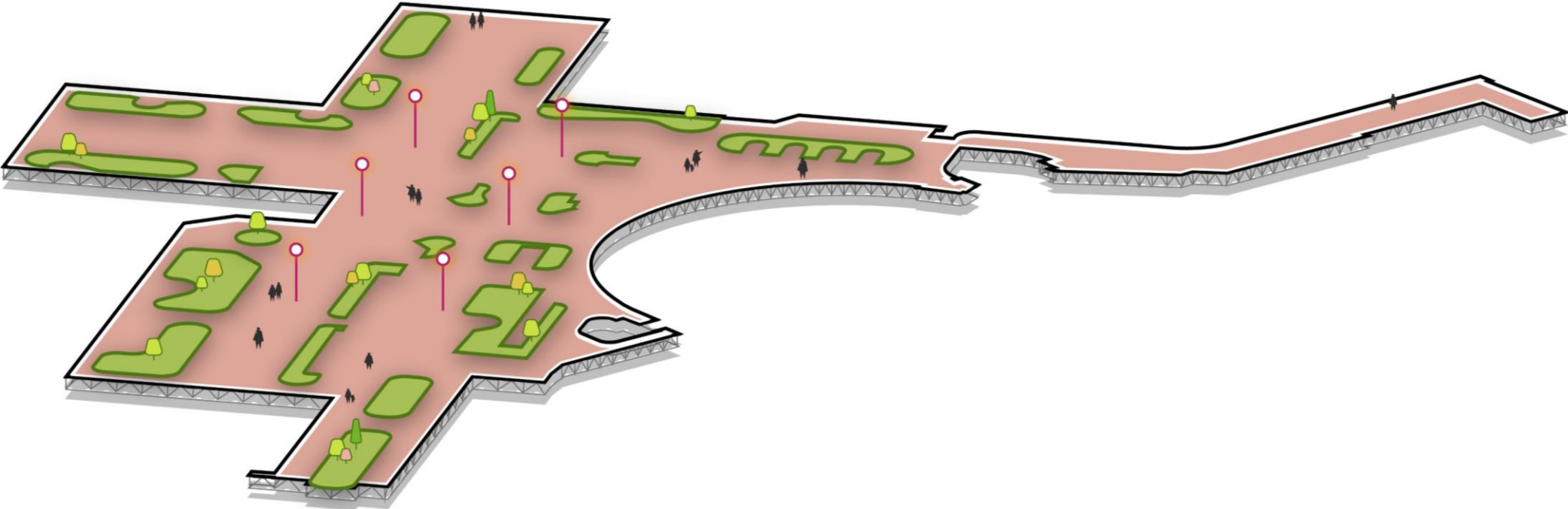
The public realm and planting areas will subsequently be replaced once this repair work has taken place.



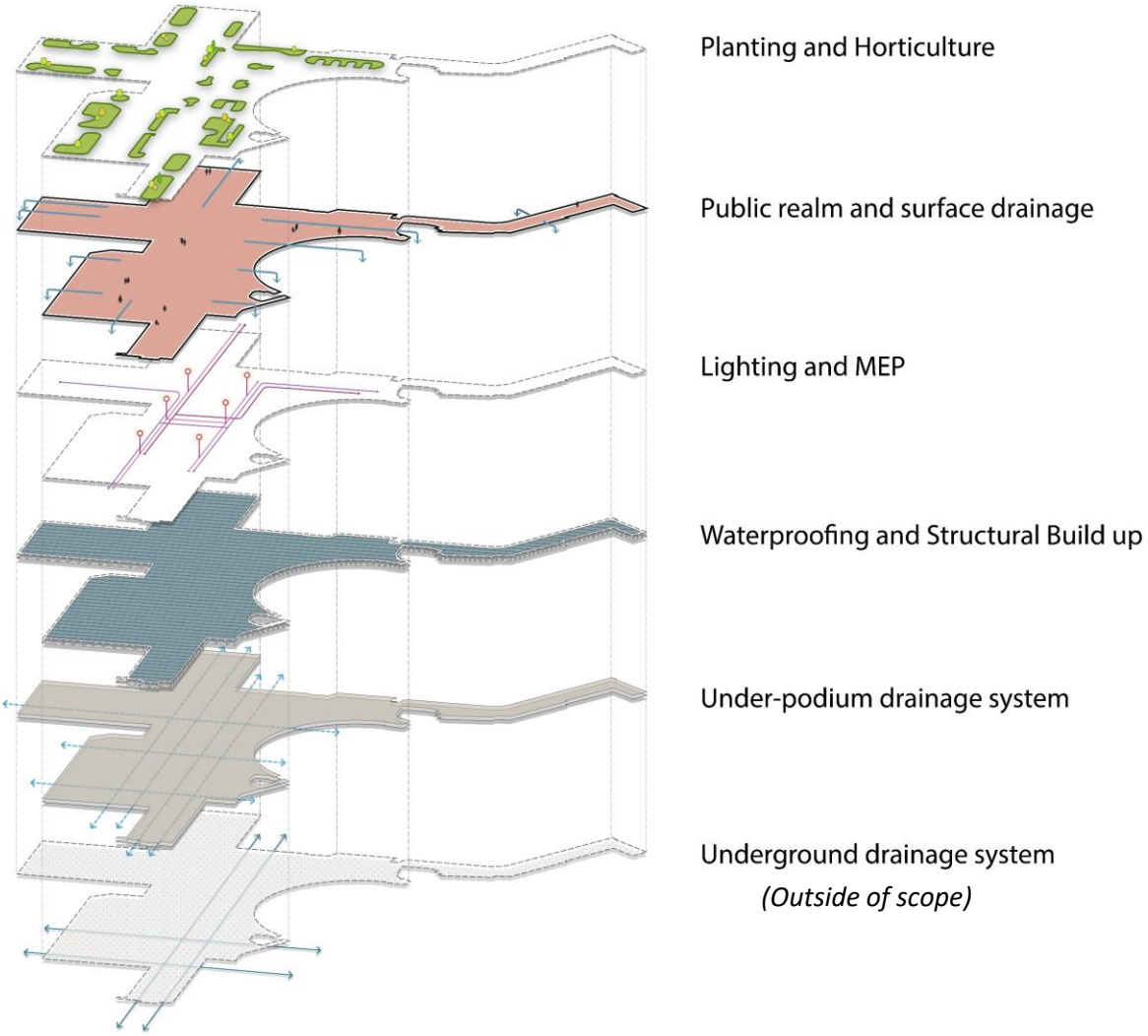
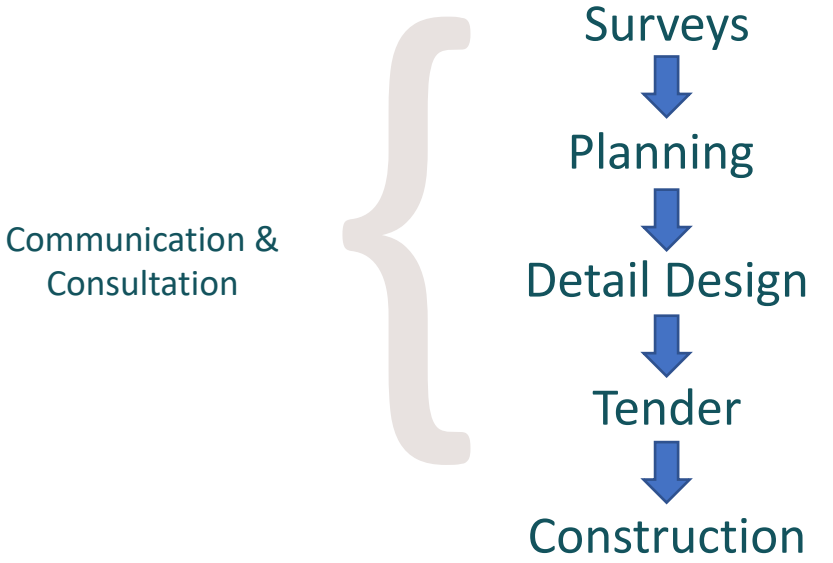
The Podium Landscape



Project Complexity



Project Complexity





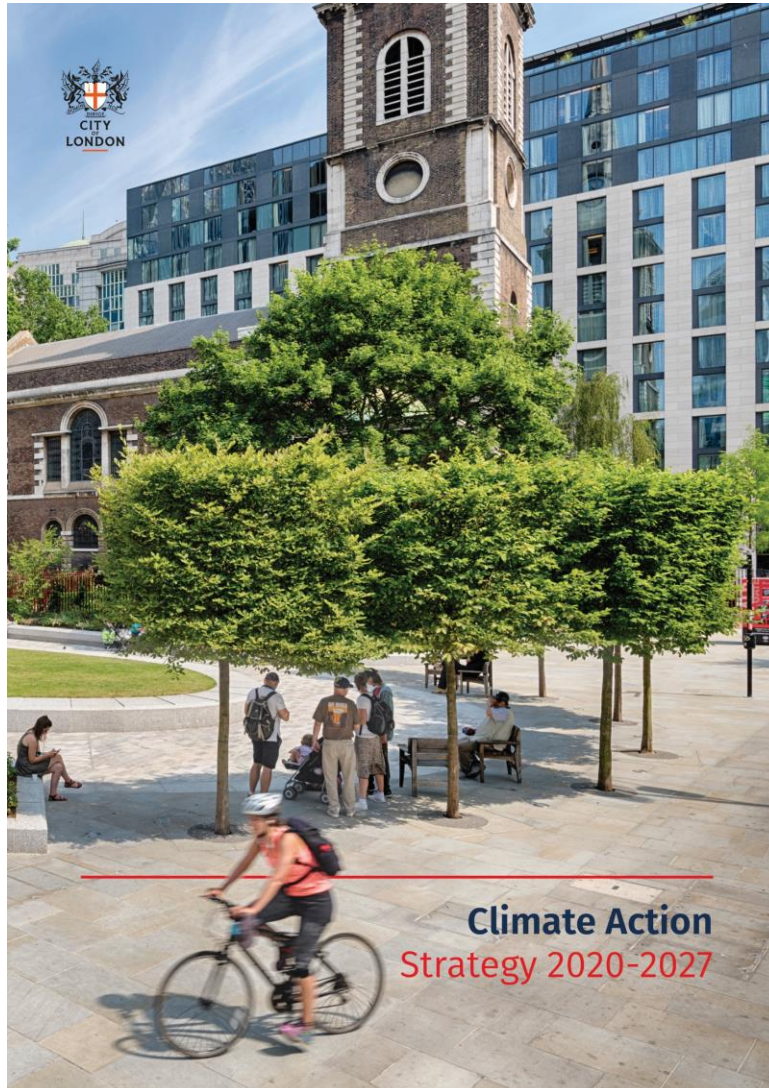
City of London
**Climate Action
Strategy**
2020-2027



City of London
**Biodiversity Action
Plan**



Historic England
**Listed Building
Management Guidelines**



1. Support the achievement of Net Zero
2. Build climate resilience
3. Champion sustainable growth



Risks to Health



Shortage of Water Supply



Risk of Flooding



Risk to Natural Capital

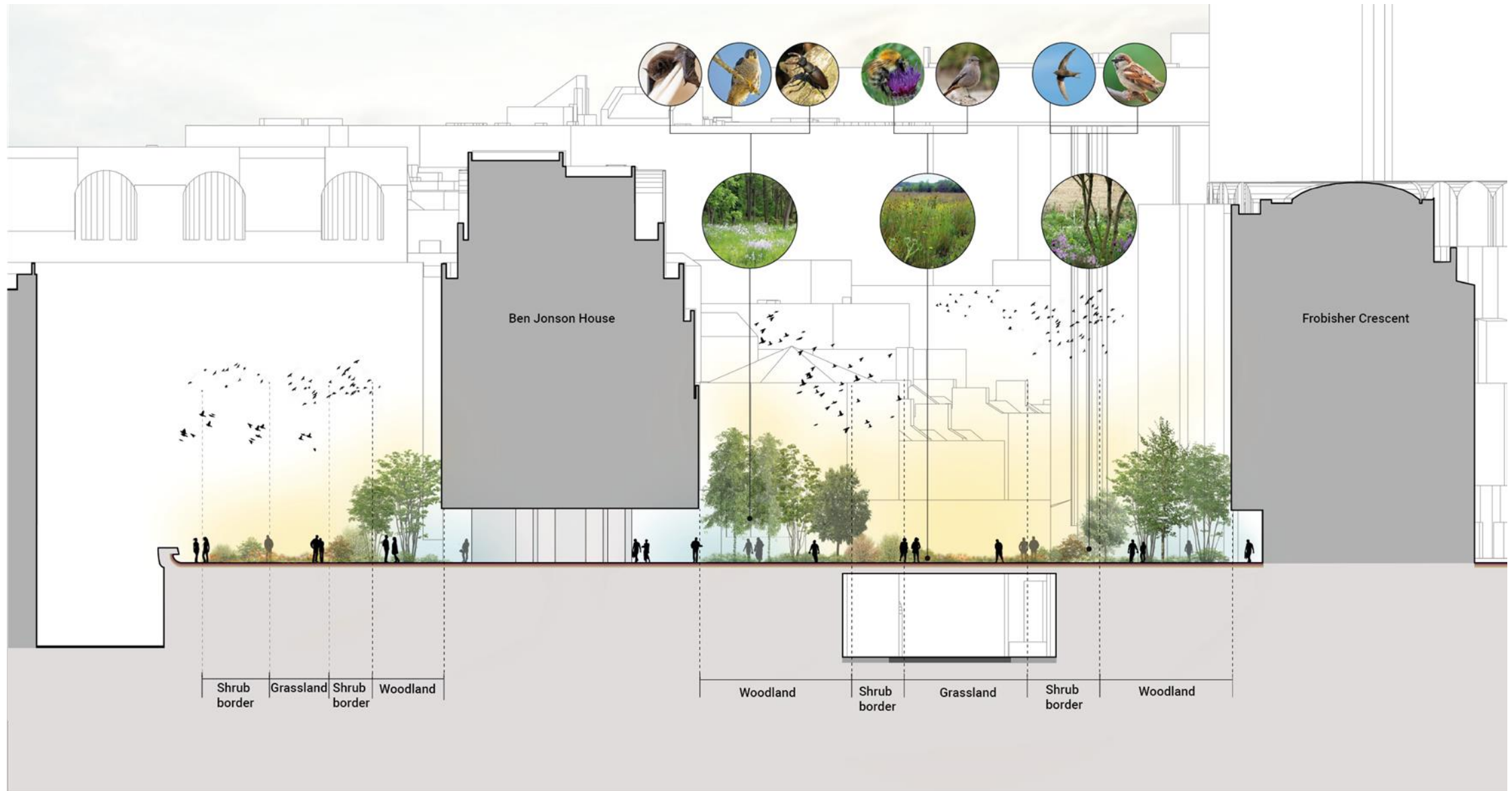


Risk to Food Production



Risk of Pests and Disease

Woodland-Edge Habitat Structure



Design Aims

1. Allow the **repair of the podium** structure to control existing issues of water leakage;
2. Create a more **climate-resilient urban landscape**, aligning with the City of London's Climate Action Strategy 2020-2027;
3. **Maximise amenity** value and functionality and create a green, restorative environment at the heart of the City of London;
4. Create a **safe and accessible environment** where all people feel welcome;
5. Conserve the essence of the **Barbican's heritage**, enabling enjoyment of the Barbican Estate for future generations;
6. Create an **attractive and legible public realm** with a unique character and range of immersive experiences.
7. Create a **maintainable and financially** viable public space



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Technical Surveys and Investigations

Technical surveys and investigations

- Drainage
- Smoke break out vents
- Structural
- Microclimate Analysis

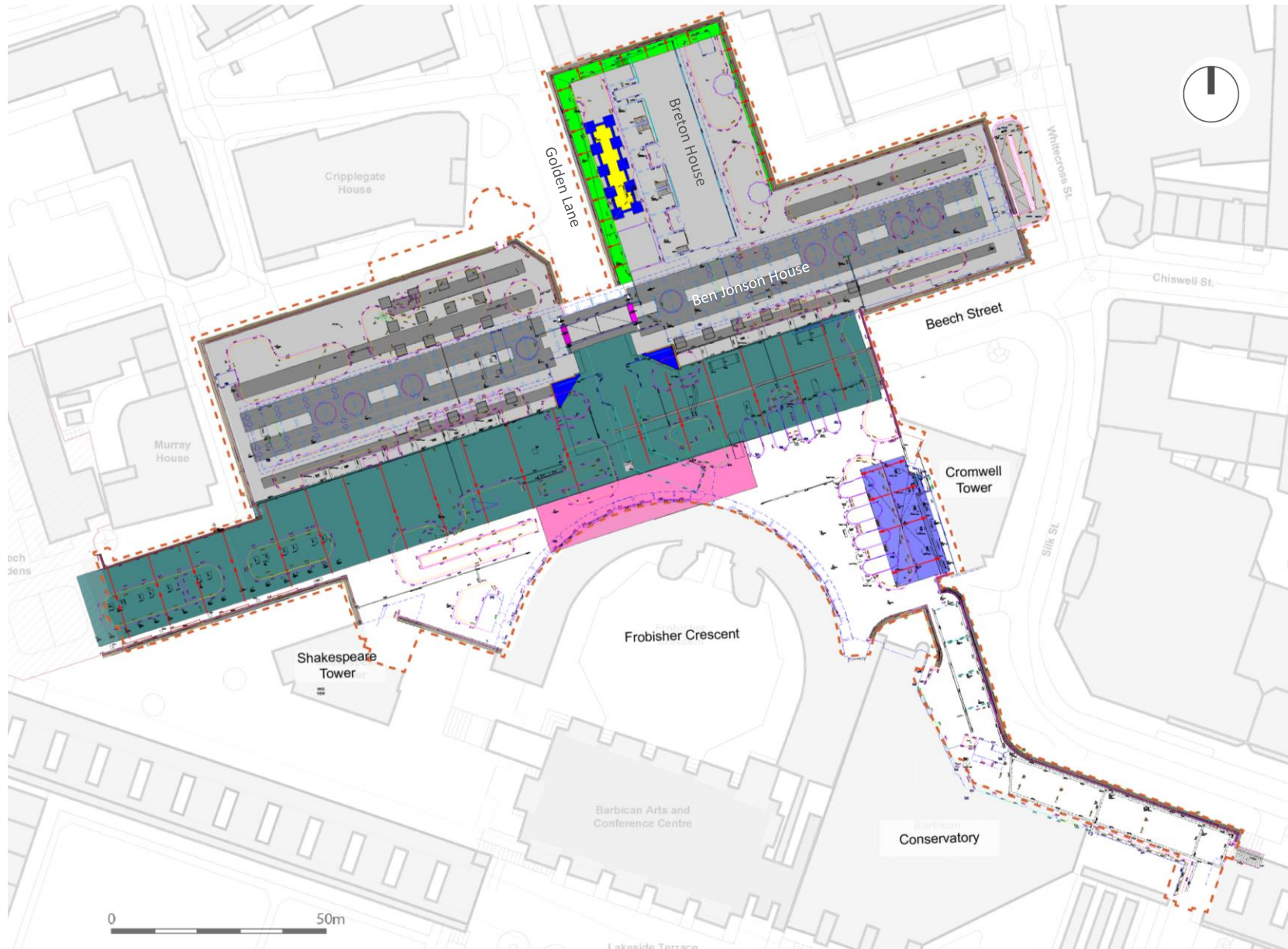
Key Comments from Technical Surveys



Key Comments:

- 106 of 109 downpipes blocked.
- 23 downpipes are encased within concrete and will need to be re-routed.
- 22 smoke outlet panels need to remain.
- London Fire have requested hinged access where viable.

Structural Constraints



Variation in slab thickness and gradients will require careful consideration in the design of the new paving **build-ups, insulation** and the **drainage strategy**.

- We cannot be certain of the build up as no accurate built information available for all areas.
- Structurally can support some trees but not across Beech Street.
- Building control requirement for insulation over occupied buildings – cinema, Cote Brasserie, Exhibition Halls and Music School

LEGEND

- 12" slab (305mm slab)
- 15" slab (381mm slab)
- 18" slab (457 mm slab)
- 21" slab (533 mm slab)
- 24" slab (610 mm slab)
- sloping slab, 160mm level difference between west and east ends
- slab sloping down from the centre of Beech Street northward 160mm in level difference; and southward 80mm in level difference
- slab sloping up towards the parapets, approximately 150mm in level difference
- slab sloping down towards its centre, 200mm in level difference. Slab at 23.26m height level
- 26" tall upstand (660 mm upstand)

NOTE

- All slabs apart from purple in Zone 3 are at 23.34m height level.
- Drawings reviewed presented some level of discrepancies with the topographic survey

Surface Constraints

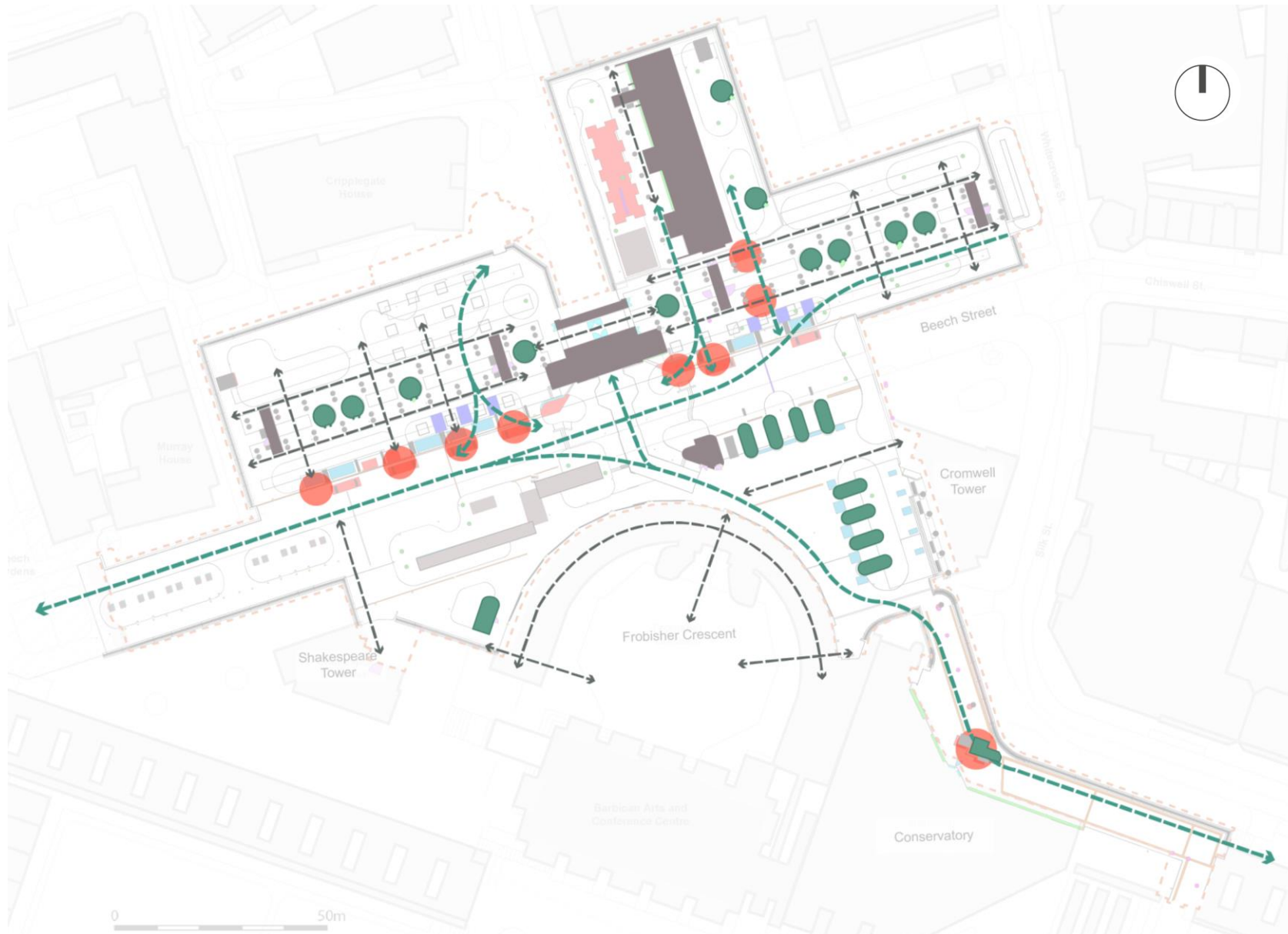


Notes:

- There are numerous surface constraints across the podium, with a large concentration along the southern elevation of Ben Jonson House. These constraints include **smoke outlets, grated ventilation openings and tiled raised blocks**.
- Shallow falls across the site.
- Warranty requires 40 additional trial holes.

LEGEND	
	cabling chanel
	expansion joints
	existing tree planters
	gullies
	gullies found on site, not picked up on survey
	drain chanel
	vents
	smoke vents
	man holes
	grating
	glazing
	miscellaneous (raised tiled blocks, tiled block with vents, raised circular blocks with post)
	door thresholds
	water outlet points




Surface Constraints vs Desired Lines



Notes:

- The surface constraints create clashes with the natural desired lines.

LEGEND

-  Clash desire line - constraints
-  Primary desire line
-  Secondary desire line

Wind Analysis

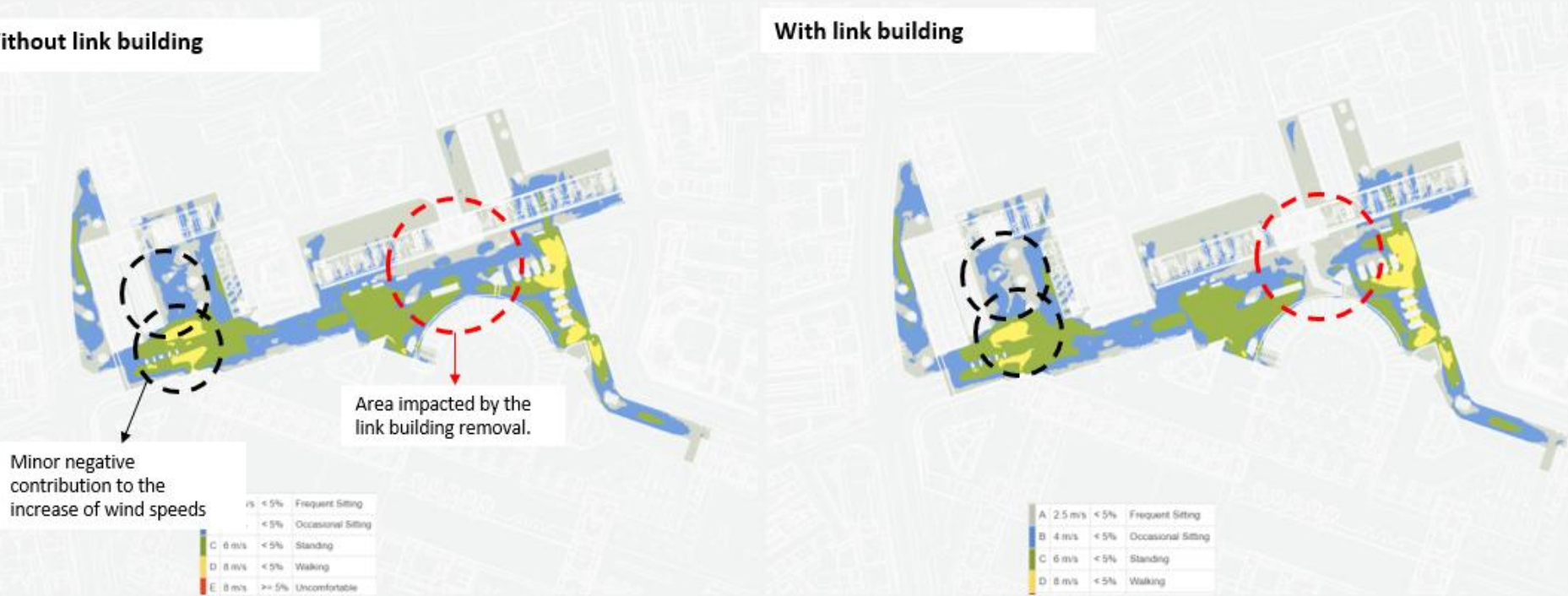
building design.
Results

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Member of the SNC-Lavalin Group

Comparison between with link building and without - Lawson LDDC Comfort criteria

Without link building

With link building



- The removal of the link building increases wind speeds slightly, creating conditions for occasional sitting in the immediate surroundings.
- The link building was acting as a barrier, reducing the wind speed in the immediate surrounding areas. Its removal has created increased wind speeds in these areas, however, there is no need for mitigation.

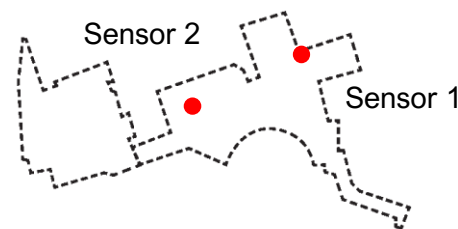
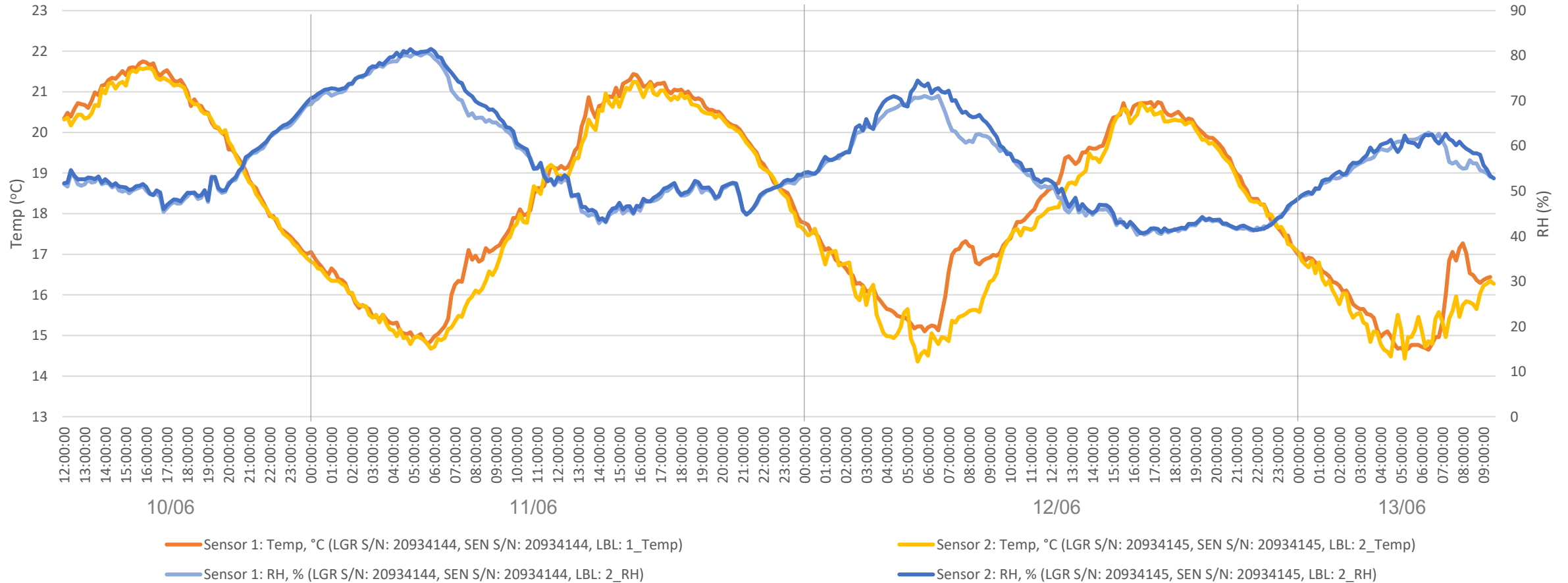
Barbican Monitoring Overview

- To support the evaluation of ongoing improvement works on the Barbican Podium, and supporting the City of London Climate Change Strategy, a data collection exercise is currently in progress, through on-site monitoring.
- The data being collected include *Air temperature & Humidity*. *Wind speed and Wind direction* will be implemented on site soon.
- Data collection on-site started on 10th of June and will continue over a period of 1 year.
- The data collected is a vital element for developing evidence-based approaches, evaluating the success of interventions and gaining knowledge in aspects of pedestrian comfort and impact of developments.



Barbican Monitoring Overview

Temperature & Humidity Overview



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Stakeholder Consultation

Feedback and Comments

- Public and resident feedback
- Local businesses
- City of London Planning
- Barbican Centre
- Historic England
- 20th Century Society
- Gardens Trust

Key figures:

- Consultation started in April 2021
- 5.7k flyers posted to local residents and businesses
- 4.8k unique visitors to www.barbicanprojects.co.uk since its launch on 12 July 2021
- Over 120 emails received giving feedback or asking questions
- 2 previous webinars held:
 - 20 July 2021 (41 attendees)
 - 20 October 2021 (33 attendees)
- Stakeholder meetings held with The Barbican Centre, Barbican Association, local schools, garden stakeholders and House representatives. Including site walkovers.
- Large vinyl panel exhibition installed in November 2021 . These will be updated with the new proposals.



Barbican Projects Hub: Podium Phase 2



Completed Phase 1 area



Phase 2 area to be refurbished

Visit our website
www.barbicanprojects.co.uk



View our Proposals

The Barbican Projects Hub is presenting plans for Phase 2 of the Barbican Podium.

The City of London Corporation (City Corporation) will be undertaking waterproofing and drainage refurbishment on the podium, covering the public realm in the vicinity of Ben Jonson Place, Breton and Cromwell High Walk. To facilitate the project,

existing soft and hard landscaping will be removed. This affords us an opportunity to improve and extend soft landscaped areas on the podium.

You can find out more on our website or visit our exhibition on the Yellow Link Building.



Map showing the Phase 1 (purple) and Phase 2 area (red)

Register for Updates
To receive updates from us, you can register by visiting our website or by contacting a member of our community liaison team.

Contact us

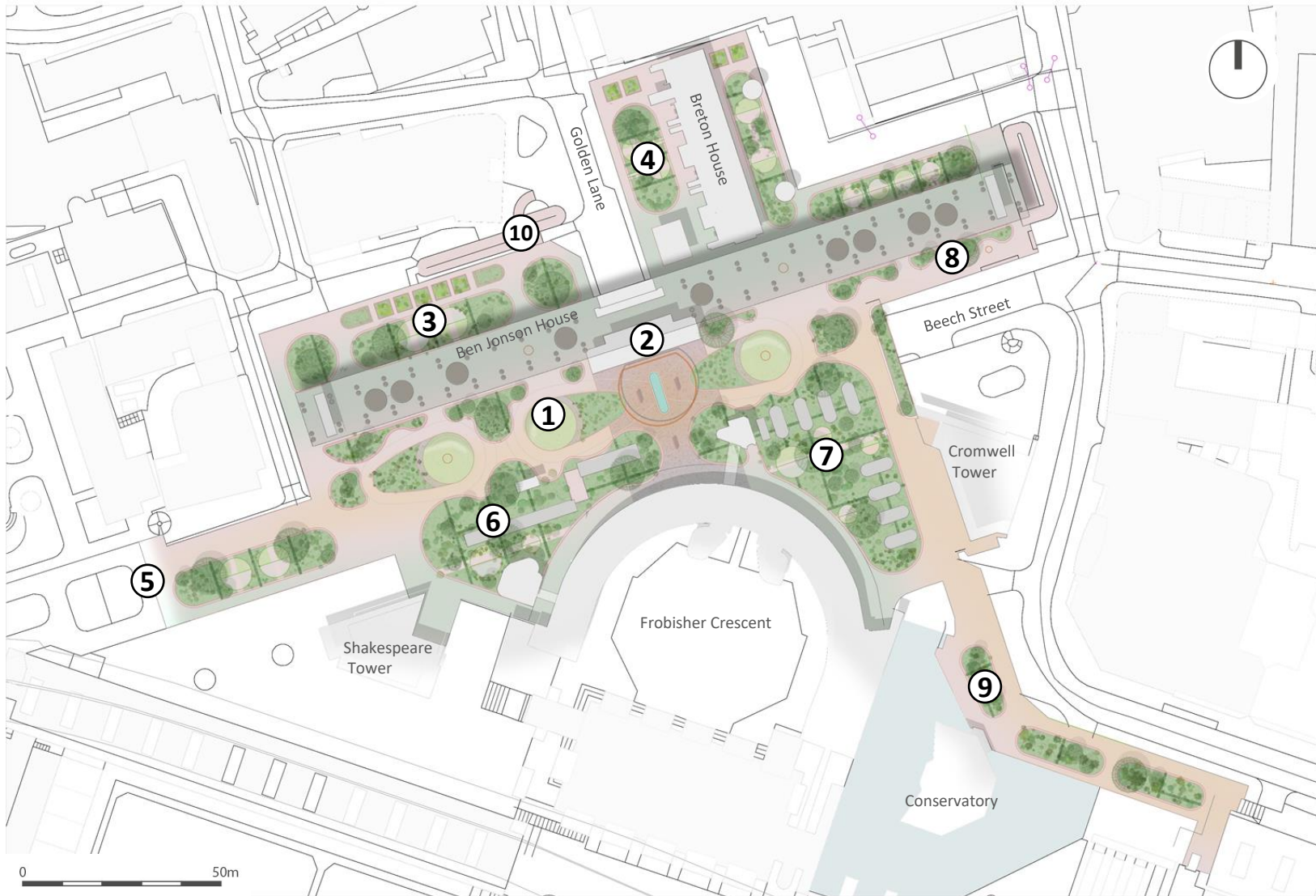
- @ info@barbicanprojects.co.uk
- 0800 772 0475 (no charge)
- Freepost COMM COMM UK

www.barbicanprojects.co.uk

Existing Plan



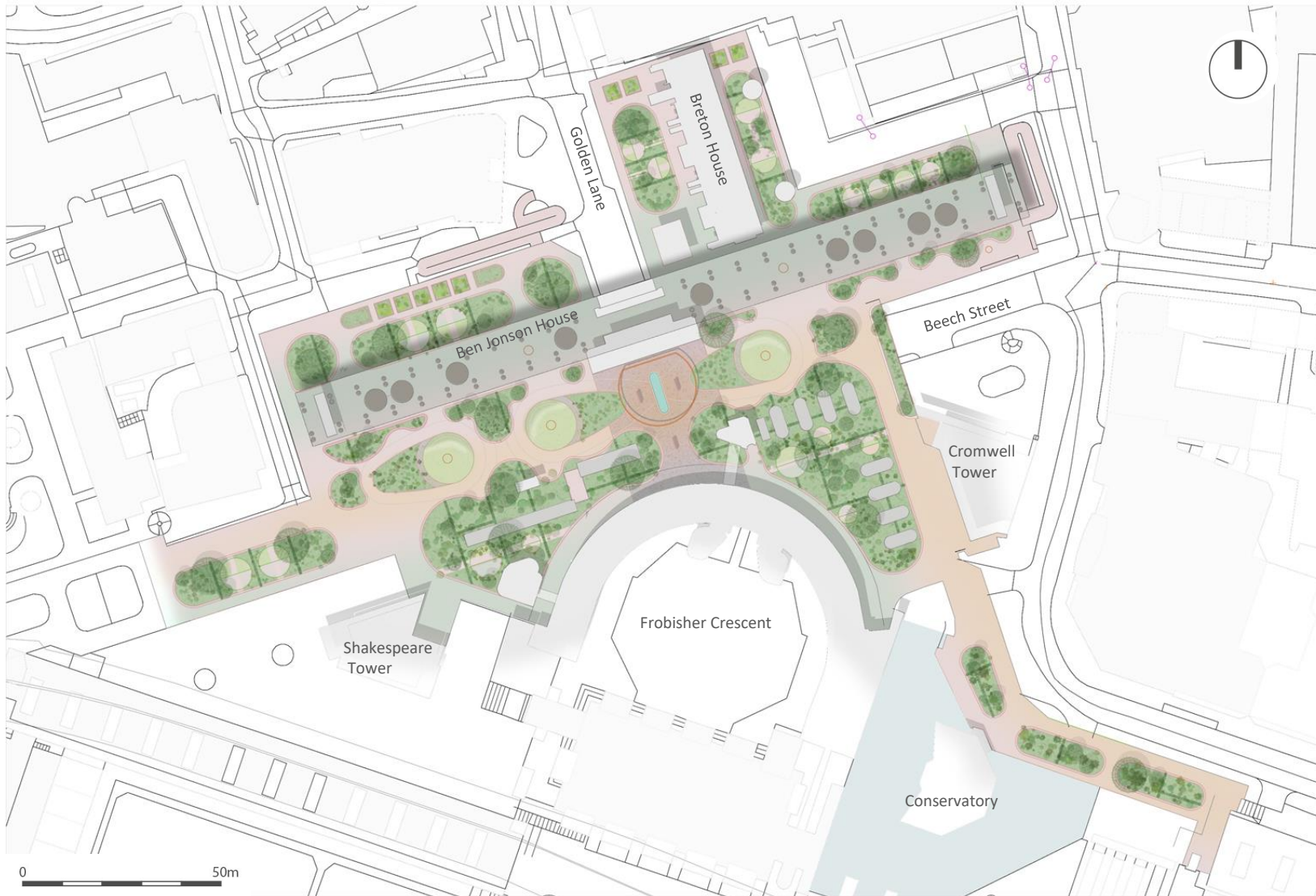
Recap of October 2021 Layout



Concept Layout Notes:

- ① Central vista conserving the openness of the podium and improving legibility of the space, broken up into 3 garden squares
- ② Removal of Link Building creates central break-out plaza for exhibition halls, improving step-free access
- ③ Gardens north of Ben Jonson House create tranquil, solitary spaces alongside communal planters
- ④ Breton House gardens with lush planting and communal planters with semi-private feel
- ⑤ Seamless transition from P1 to P2 with naturalistic planting areas
- ⑥ Woodland edge planting, seating areas and informal paths to the west of Frobisher Crescent
- ⑦ Atmospheric woodland under storey frames the concrete vent structures to the east of Frobisher Crescent
- ⑧ Legibility improved towards the Whitecross Street ramp Access
- ⑨ The conservatory gardens connect the lush indoor planting character with the outdoors public realm
- ⑩ Better routes to northern access ramp improves connectivity for people coming from the North, e.g: Richard Cloudesley School

Key Comments



Key Comments:

- Anti social behaviour
- Skateboarding and parkour
- Loitering and gathering of large groups
- Walls, steps and level changes
- Noise at anti social times
- Tile colour mix

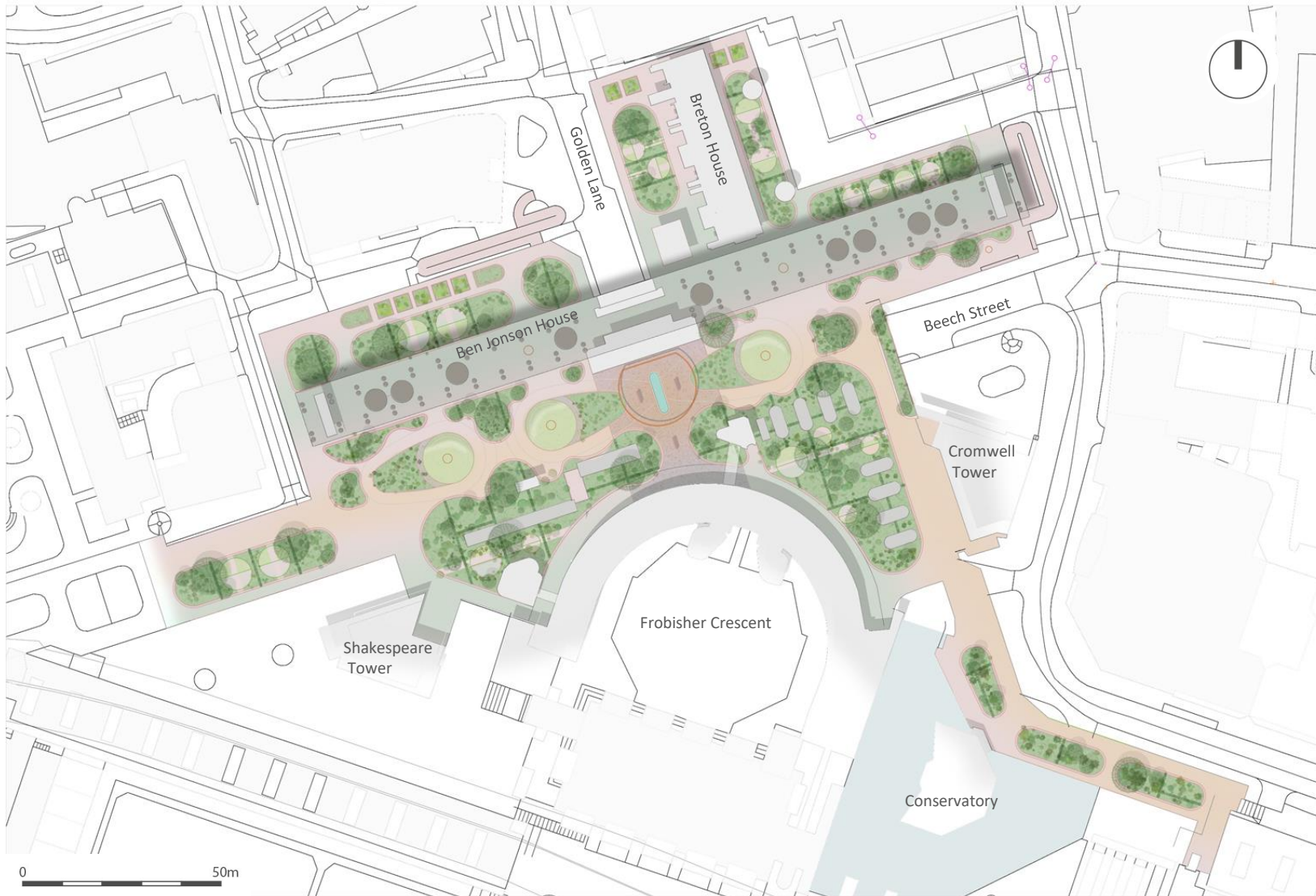
Key Comments from Andrew Lord Access Audit



Key Comments:

- Access for all
- Step free access routes
- Legibility and sight lines
- Provision of seating every 40m
- Range of seating types with supports
- Wayfinding provision insufficient
- Lighting not adhering to standards

Key Comments from Planning



Key Comments:

- Climate Action Strategy
- Microclimate analysis
- Key desire lines
- Public space
- Play strategy
- Exercise strategy
- Art strategy
- Wayfinding strategy
- Lighting
- Seating type and locations

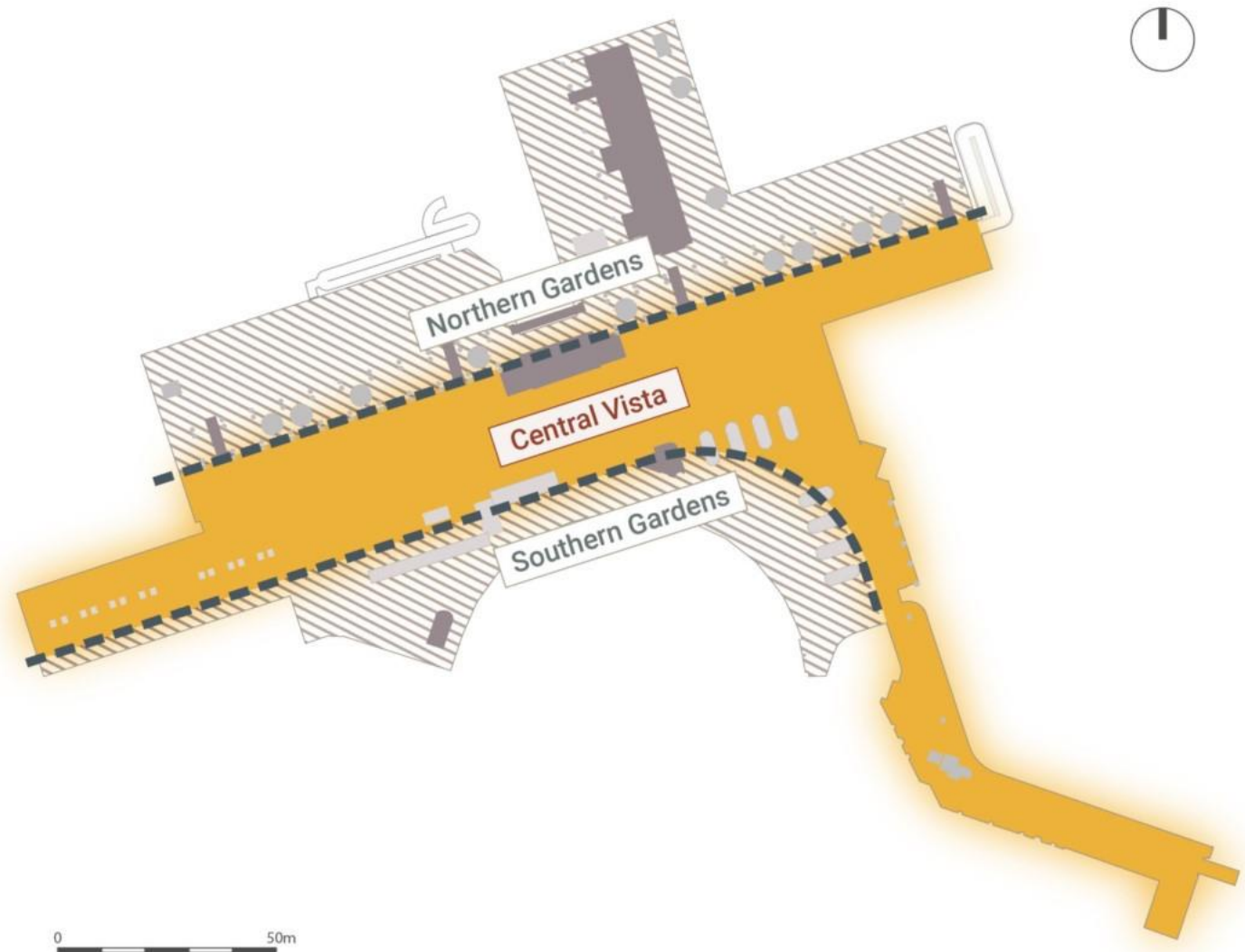
Key Comments from Historic England & 20th Century Society



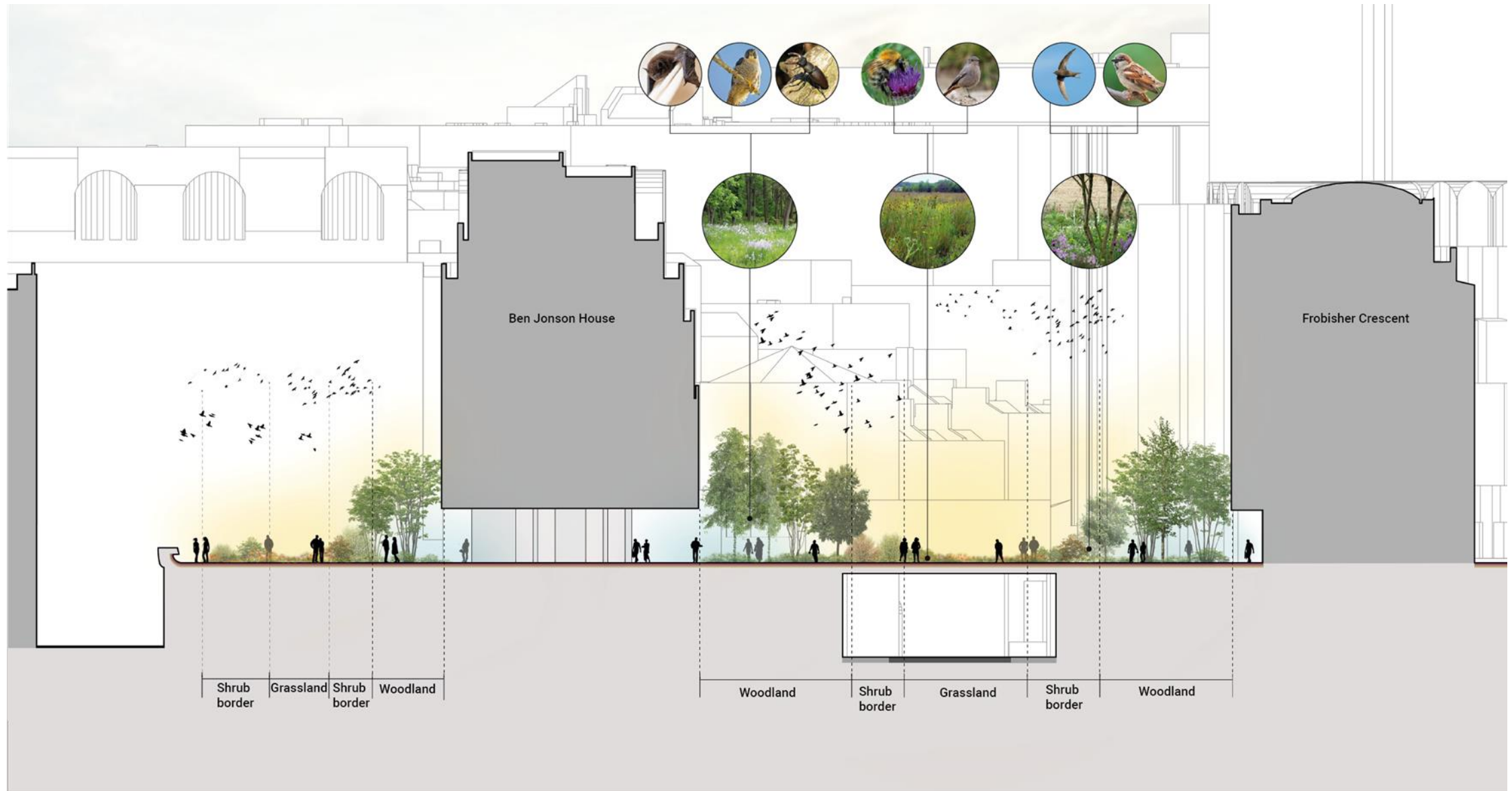
Key Comments:

- Reflect and respond to 1980s landscape design by Janet Jack.
- Continuous run of tiles along main axis.
- Integrated play approach that offers play as part of the landscape.
- Consistent materials and finishes.
- Special consideration and attention on the planting.
- Registered Park and Garden Grade II*

Space Hierarchy



Woodland-Edge Habitat Structure





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Revised Design Layout

Holistic Approach – Stratified Woodland Edge

- Climate Action Strategy
- Technical Constraints
- Historic England guidance and Listed Building Management Guidelines
- Stakeholder and consultation feedback
- Microclimate Analysis

Existing Site Layout



BARBICAN PODIUM REFURBISHMENT: PHASE 2

Public Consultation

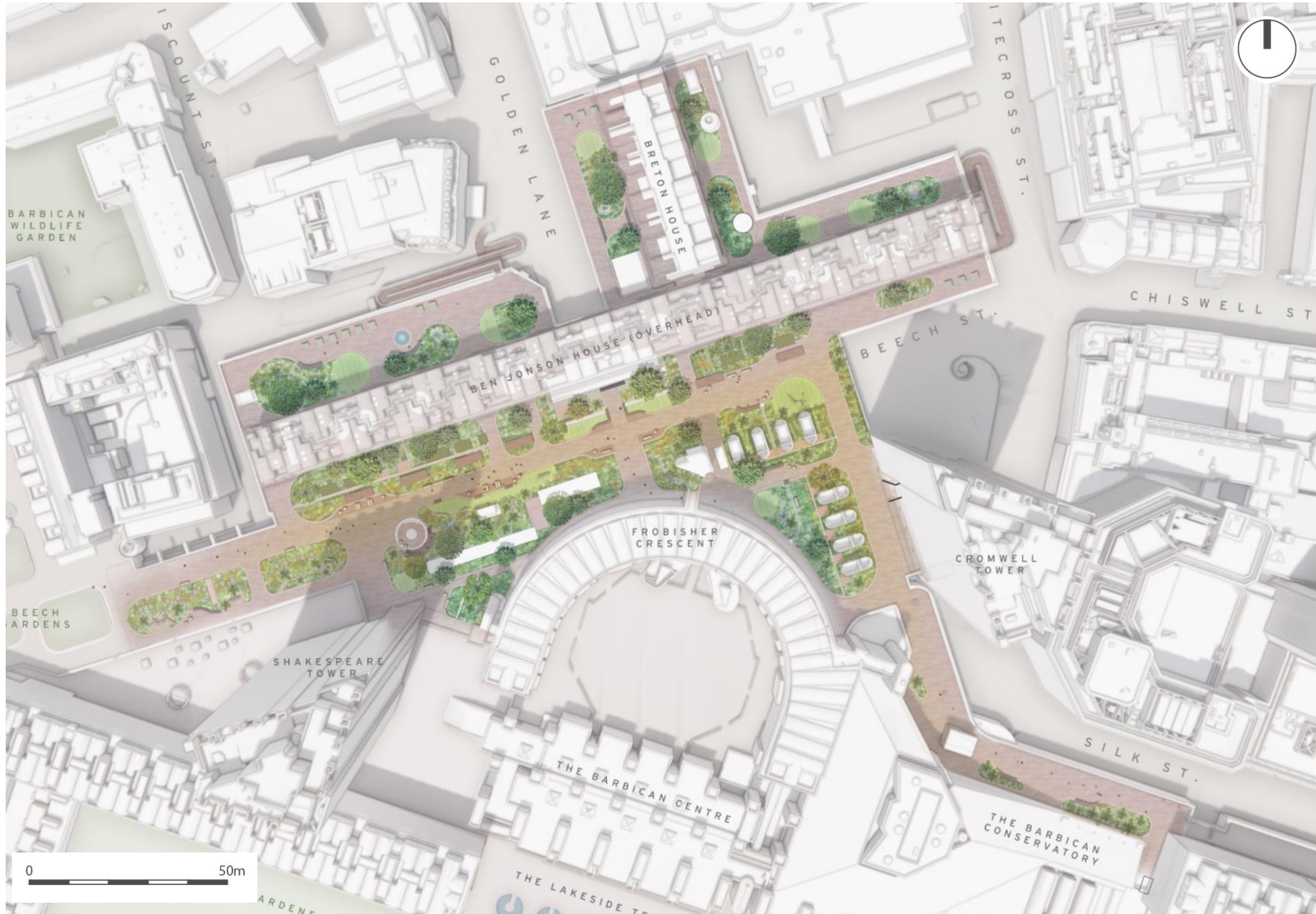
August 2022

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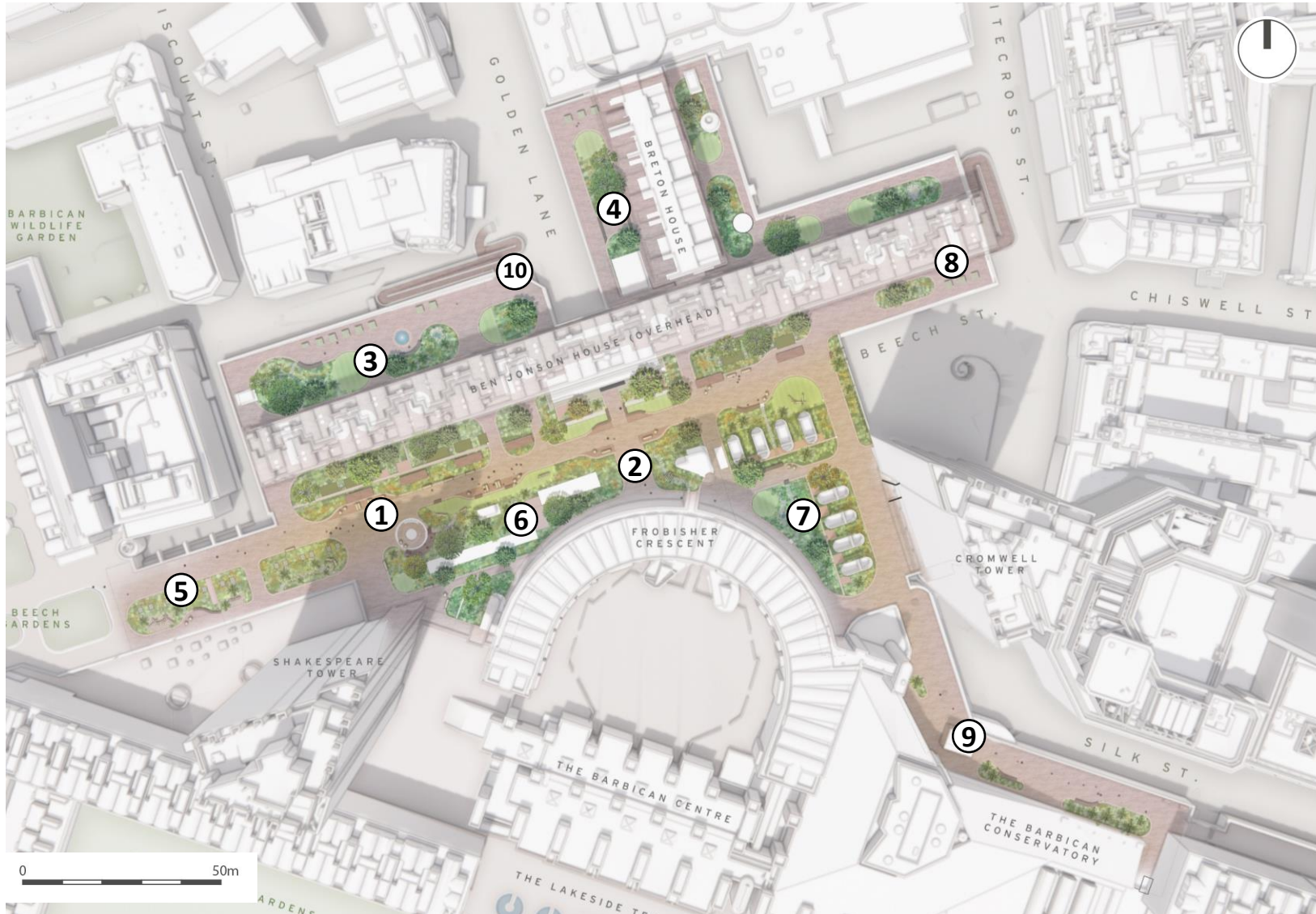


New Design Layout



- The design takes inspiration from the garden squares of London that informed other parts of the Barbican Estate landscape;
- The main vista is broken up into a series of main 'garden squares' with a central open space and more intimate, intricate spaces surrounding this;
- The vista is formed of wide, open spaces and generous, legible walking routes;
- The northern and southern gardens are characterised by lush, part sun part shade planting with an intricate network of social and solitary spaces and circulatory routes
- A stratified woodland-to-grassland habitat ecotone is established across the podium;
- Tree planting is used to bring structure to the ground level of the podium and create a woodland edge habitat;
- The architecture and distinctive concrete objects of the podium are framed by trees and set against naturalistic planting a juxtaposition that emphasises their brutalist character.

New Design Layout



Concept Layout Notes:

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New Design Key Figures



More than **75% increase in green area**. Design developed to maximize microclimate.



Improved accessibility for all.



Woodland edge - **Increased Bio-diversity** in line with Climate Action Strategy



Increased access to **community growing areas**.



Improved Legibility and Sight-lines. Open central vista.



A design that helps to address **anti-social behaviour concerns**.



Provide more and varied seating. Welcoming social and solitary spaces.



Manage maintenance costs and improve water management.



Improved amenity provision – art, play, exercise and ecology.



Improved lighting design creating a safer welcoming space day and night.



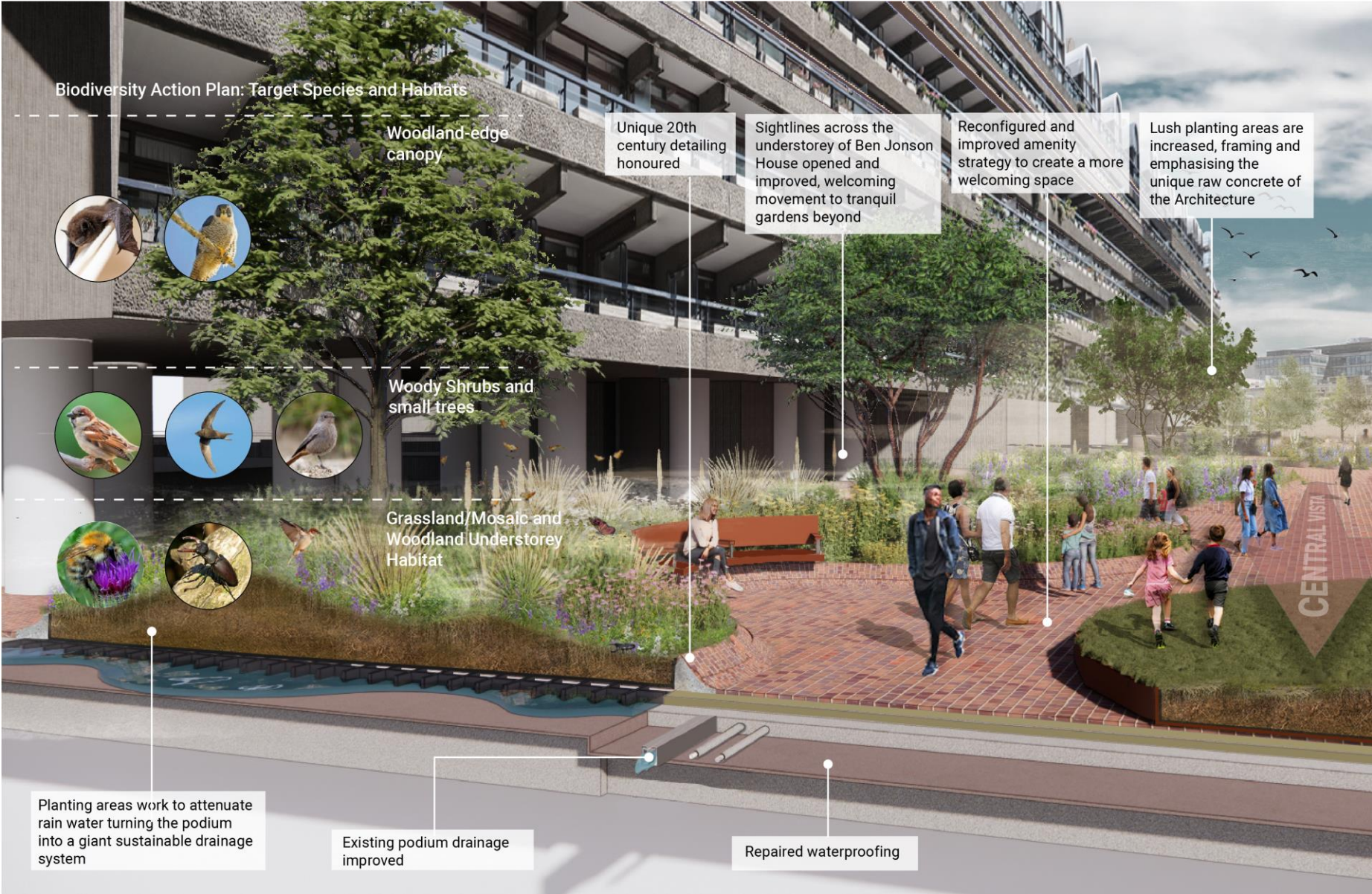
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Design Components

Design Detailing

- Seating
- Lighting
- Art
- Play
- Planting

Resilient Ecosystem



Street Furniture

Timber Benches

With arm-rests and Back Rests



Tiled Blockwork Benches

As existing, but a more robust detail

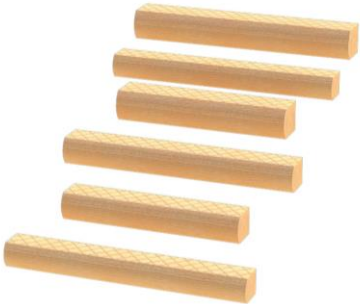
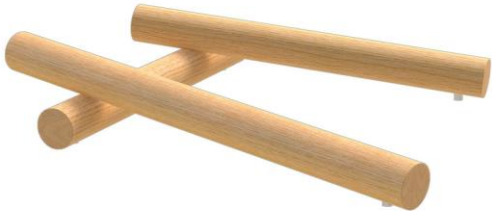
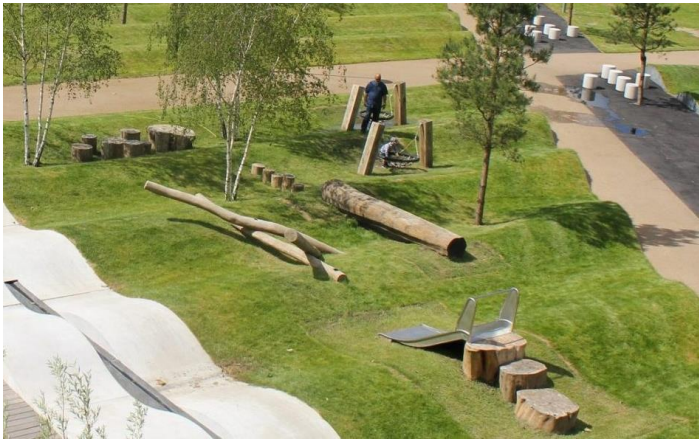


Tiled Terraced Seating

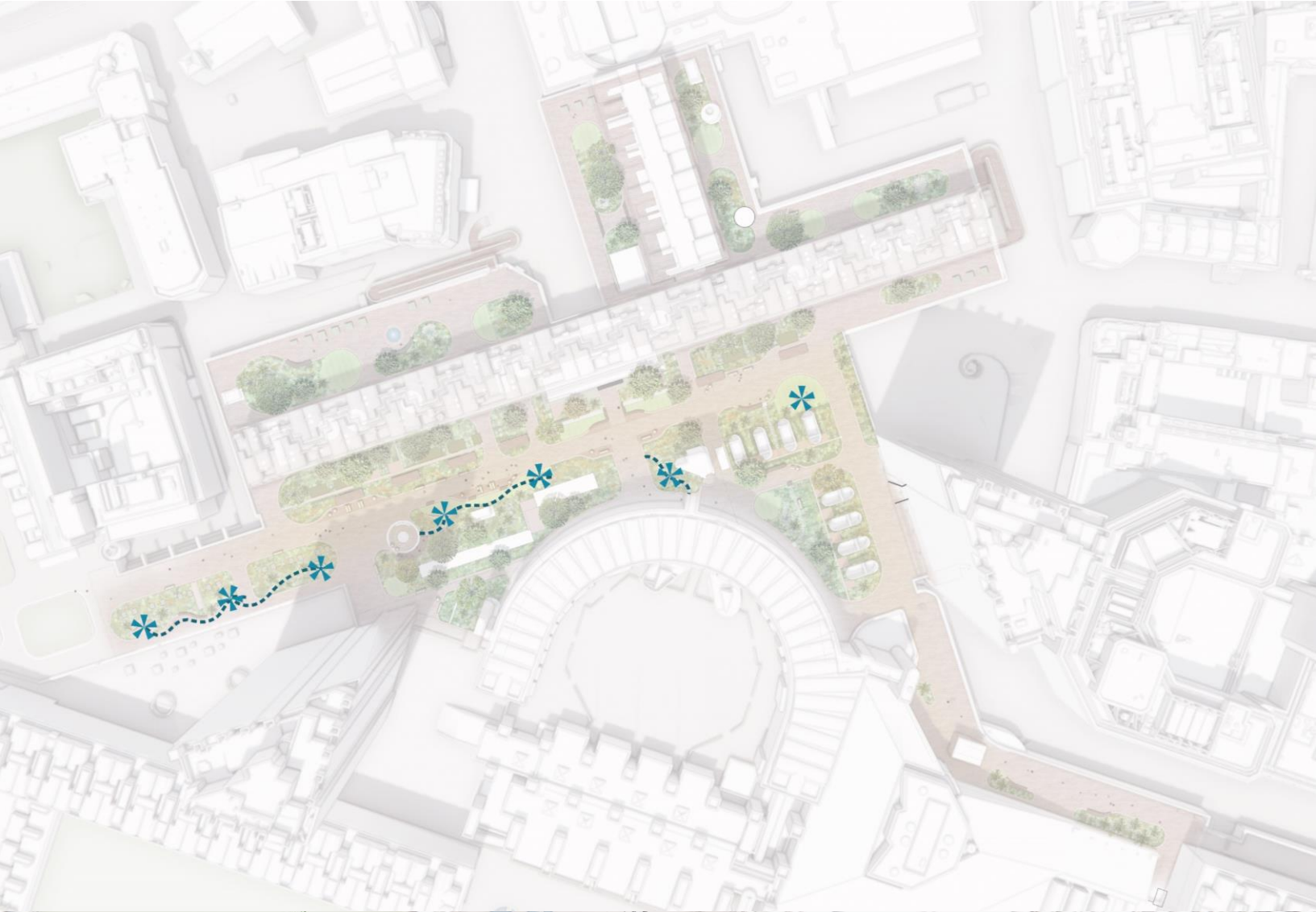
As seen at Beech Gardens and at the Lakeside Terrace



Natural Play Features within Planting



Play & Exercise Locations



Public Art Strategy – A Working Brief

A New Set of Artworks within the Space

The exact size, shape and type of the artworks will be designed and confirmed following the appointment of an artist later in the construction process

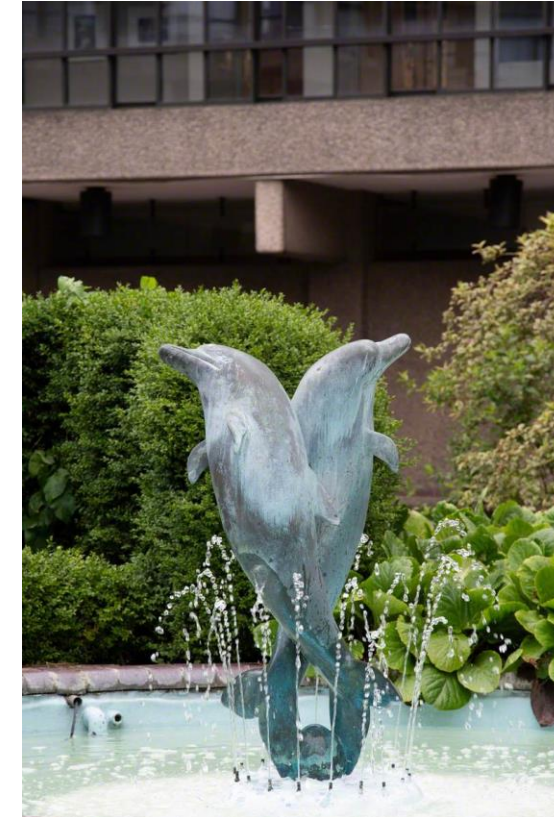


A New Home for Existing Works

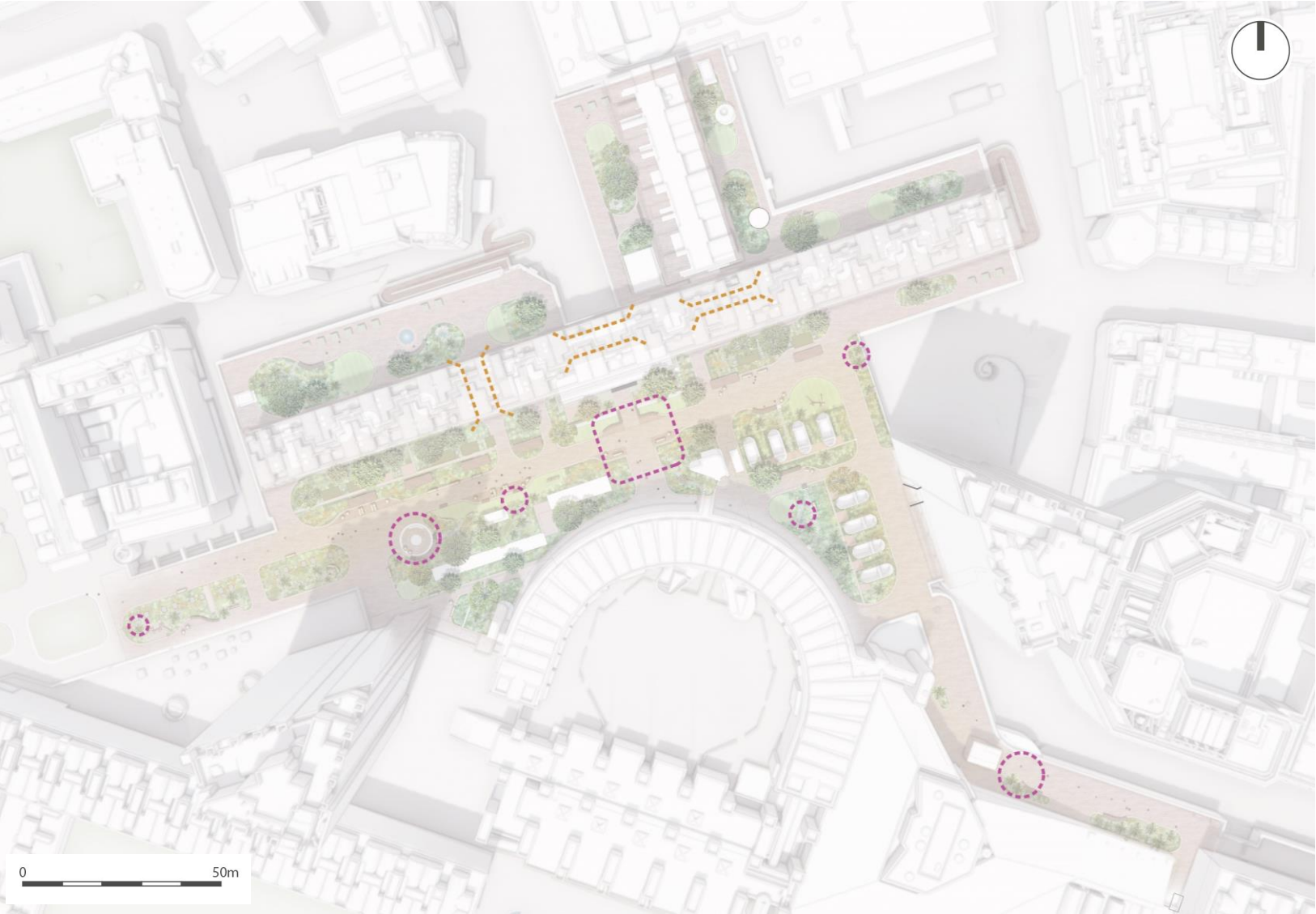
Ascent by Charlotte Mayer



Dolphin Sculpture by John Ravera



Public Art – Indicative Locations



Proposed Planting Design

The planting concept works within the general framework of the wider 'designed woodland edge and glade' concept for Phase 2 of The Barbican podium rewater-proofing project. Within this concept there are three character zones: The Central Vista, the Northern Gardens and the Southern Gardens.

Within each of these zones there are variations in exposure and aspect which in turn give rise to different microclimates. The detailed planting design in each of these zones will respond to these microclimatic differences.

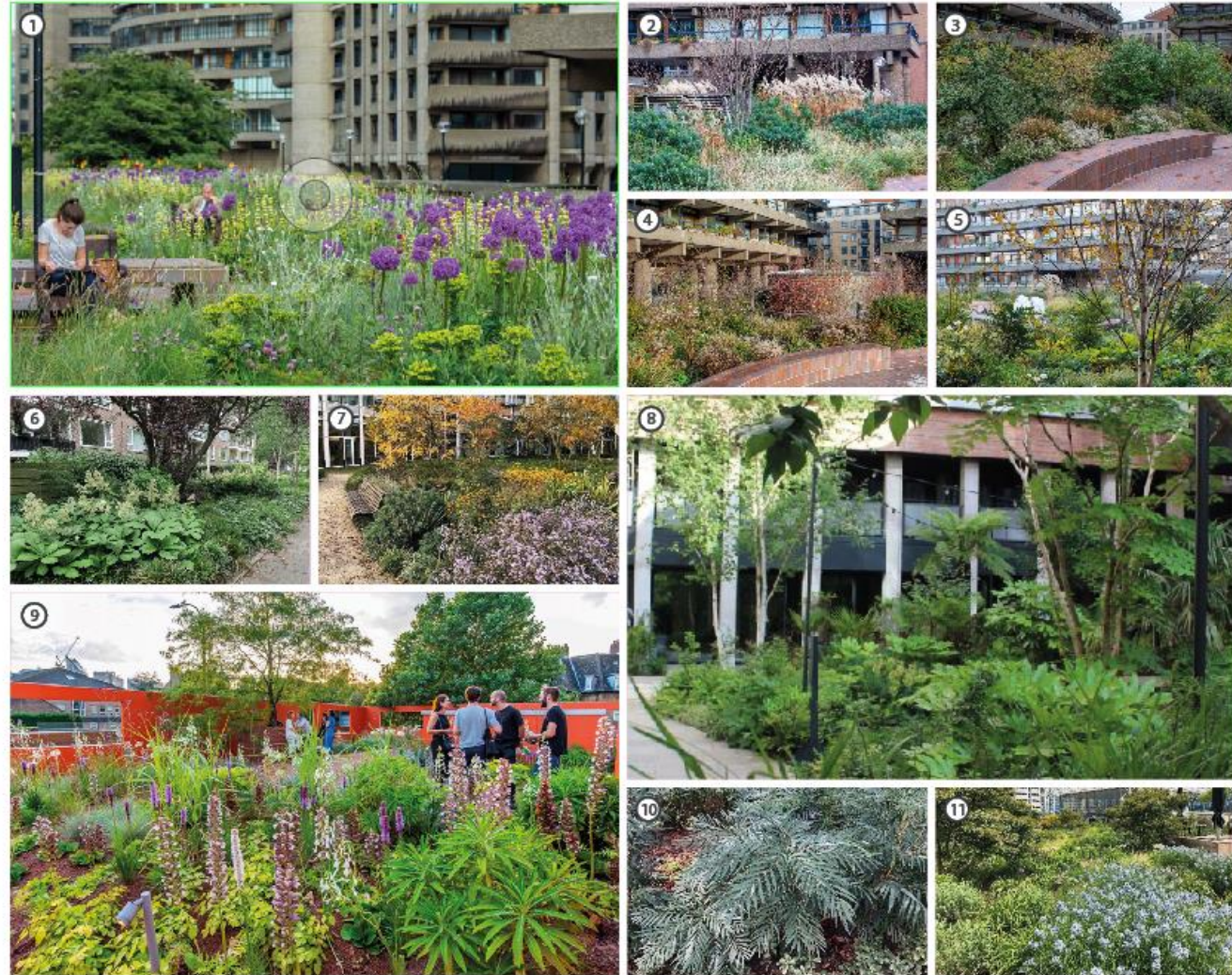
The images opposite give a broad overview of the character in each of the above mentioned areas

1. Along the central vista, the planting in phase 2 will take reference from Phase 1. A vibrant mix of spaces with tranquil atmospheres will be created

2, 3, 4 & 5. A mix of woody shrubs and small trees bring the diversity of a woodland edge habitat and provide functions for wildlife all year round.

6, 7, 8, 10 & 11. The Northern and southern gardens will take on a much calmer approach to planting design evergreen plants providing robustness and blocks of planting providing ease of maintenance, variety is created instead in the detailing of plant structures and foliage patterns.

9. The planting areas outside of the conservatory provide an opportunity to celebrate climate-appropriate exotic-looking foliage and striking plant specimens; drawing attention back to the iconic winter garden structure



Planting Palette: Central Vista

Concept: Woodland Edge Ecotones. The woodland edge ecotones on each side of the concourse will grade from low perennial at the edges to plantings of trees and shrubs closer to the built forms of Ben Johnson House and Frobisher Crescent. This can be best developed and expressed on the south-facing edges and across the central beds, because of the greater warmth and light encouraging more flowering, fruiting, and autumn leaf colours. The north-facing edges have fewer possibilities, but in places can merge nicely into the Southern Gardens planted areas.

Character: Scattered single-stem trees at low density towards the built edges of the Central Vista. Multi-stem medium-small trees and shrubs to give height and three-dimensionality, but with see-through transparency, at medium density beneath and around, chosen to have multiple seasons of interest – flower, fruit, autumn colour. Mostly deciduous to enhance that seasonality, but with some evergreens for winter solidity. A ground layer of evergreen woodland and shade-tolerant perennials, bulbs, and seasonal woodland wildflowers. Shrub planting will be so dense as to create unseen or hidden areas.

This zone provides one of the greatest opportunities to include native plant species and demonstrate biodiversity net gain.

Concept: Central Beds. The planting in the central beds and along the borders of the ecotone edges will be more suited to open, exposed and sunny conditions. Because this zone sits above Beech Street, there is little scope for large trees.

Character: the character of the planting will be similar to that in the central concourse zone of the Phase 1 area. A matrix of drought-tolerant grasses with year-round interest, within which flowering perennials and bulbs produce a long season of flowering and visual interest, including native wildflowers of dry meadows and grasslands. Plants established in

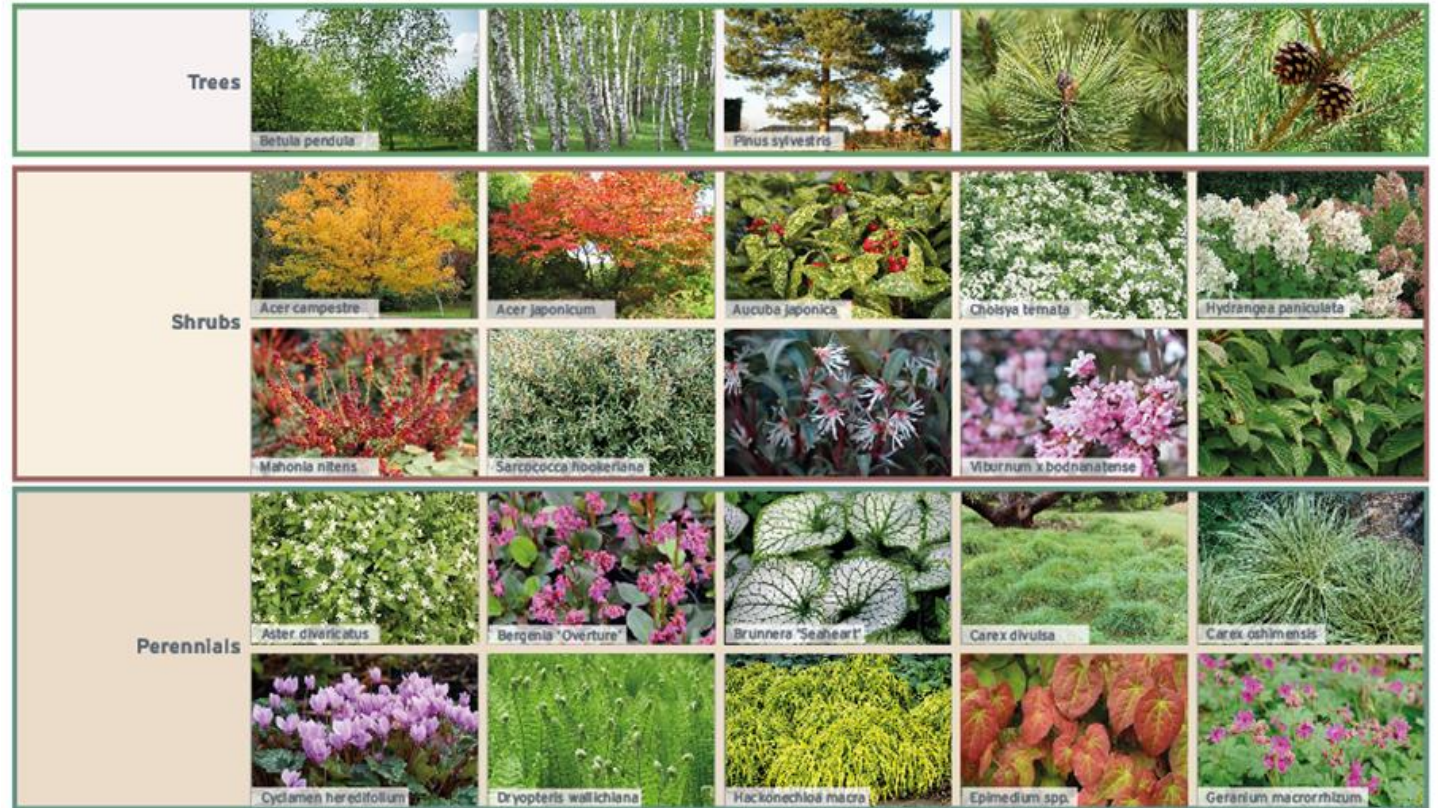


Planting Palette: Southern Gardens

These areas are largely shaded from sun and exposed to other climatic conditions. Imposing concrete structures impress as they rise out of the ground plane. There is a need here for year-round solidity and robustness in the planting.

A largely evergreen palette of shrubs with ground covers, and few trees. Some deciduous shrubs for seasonal highlights. Perennial layer mostly block planting to aid with maintenance and reference the existing planting scheme.

The Southern Gardens will be similar in style and feel to the Northern Gardens but will be unique in their composition and detailing to create distinctiveness.



Planting Palette: Northern Gardens

These areas are also largely shaded from sun and exposed to other climatic conditions. Imposing concrete structures impress as they rise out of the ground plane. There is a need here for year-round solidity and robustness in the planting.

A largely evergreen palette of shrubs with ground covers, and few trees. Some deciduous shrubs for seasonal highlights. Perennial layer mostly block planting to aid with maintenance and reference the existing planting scheme.

The Northern Gardens will be similar in style and feel to the Southern Gardens but will be unique in their composition and detailing to create distinctiveness.



7

Programme & Next Steps

Key Dates & Next Steps

- Webinar will be repeated on 12th September 2022
- Submit planning application and listed building consent end of September
- Undertake trial holes and point cloud survey to inform detail design
- Develop detail design tender package
- Out to tender Q1 2023
- Appoint contractor Q2 2023
- Commence works Q3 2023
- Completion estimated Q3 2025

Thank You

We welcome your feedback

