

4.2. External Envelope

Design Proposals

External Envelope

FACADE CONCEPT

The introduction of the railway line in 1865 connecting Elephant and Castle with London greatly influenced the development of this area by providing a relatively inexpensive and fast journey for commuters into town.

By 1871 when the tram lines were laid, Walworth's population had increased and by 1880 the whole area was closely packed with streets of working-class houses. In 1906 the Underground arrived at Elephant and Castle; firstly with the Northern line and later the Bakerloo line.

The façade has been designed to create an identity for the H1 Development that is anchored in its context and its industrial heritage. Facade fins have been inspired by the shape and intricacy of the railway and tram lines and the rhythm of the steel structure of railway bridges of Elephant and Castle's past.



Fig.108 View towards Elephant and Castle, ca. 1910



Fig.109 Elephant and Castle, ca. 1912



Fig.110 Railway tracks



Fig.111 Railway bridge

Design Proposals

External Envelope

FACADE CONCEPT

Further inspiration has been taken from Michael Faraday's discovery of electromagnetic induction to develop the pattern of the façade fins.

Michael Faraday, born in Newington Butts in 1791, was a chemist and physicist who contributed significantly to the study of electromagnetism and electro-chemistry.

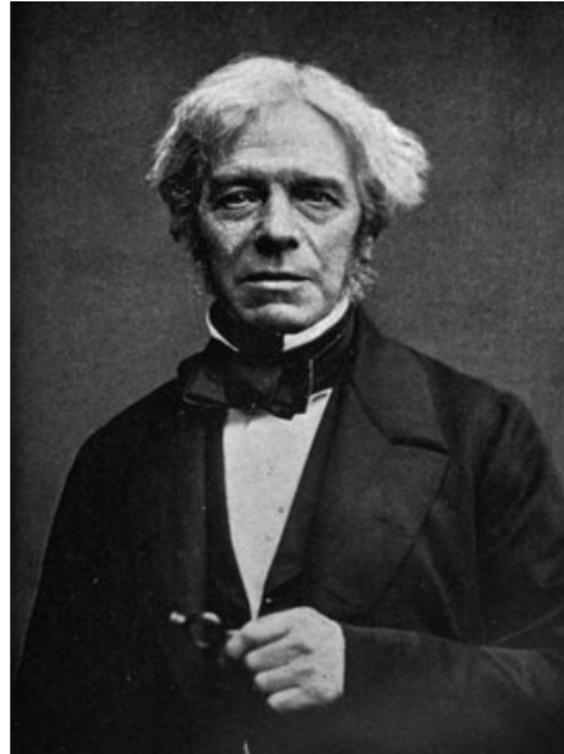


Fig.112 Local scientist Michael Faraday

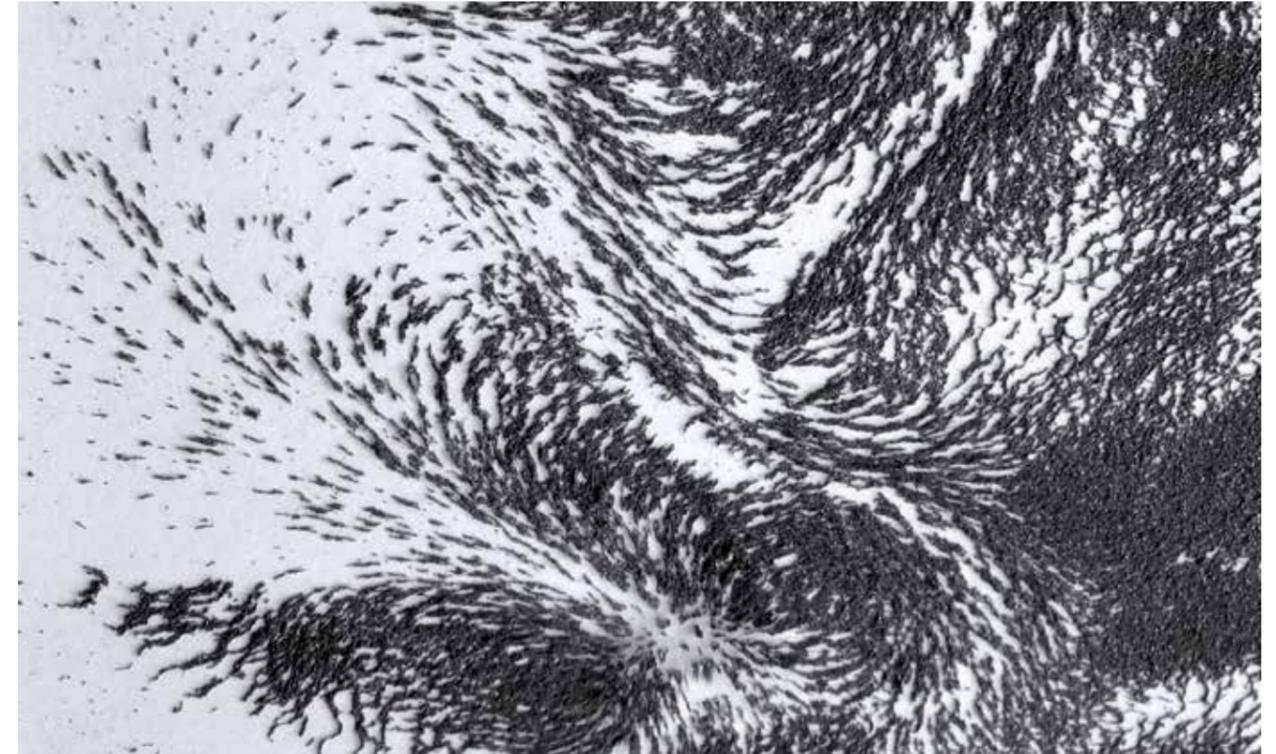


Fig.113 Iron filing pattern experiment

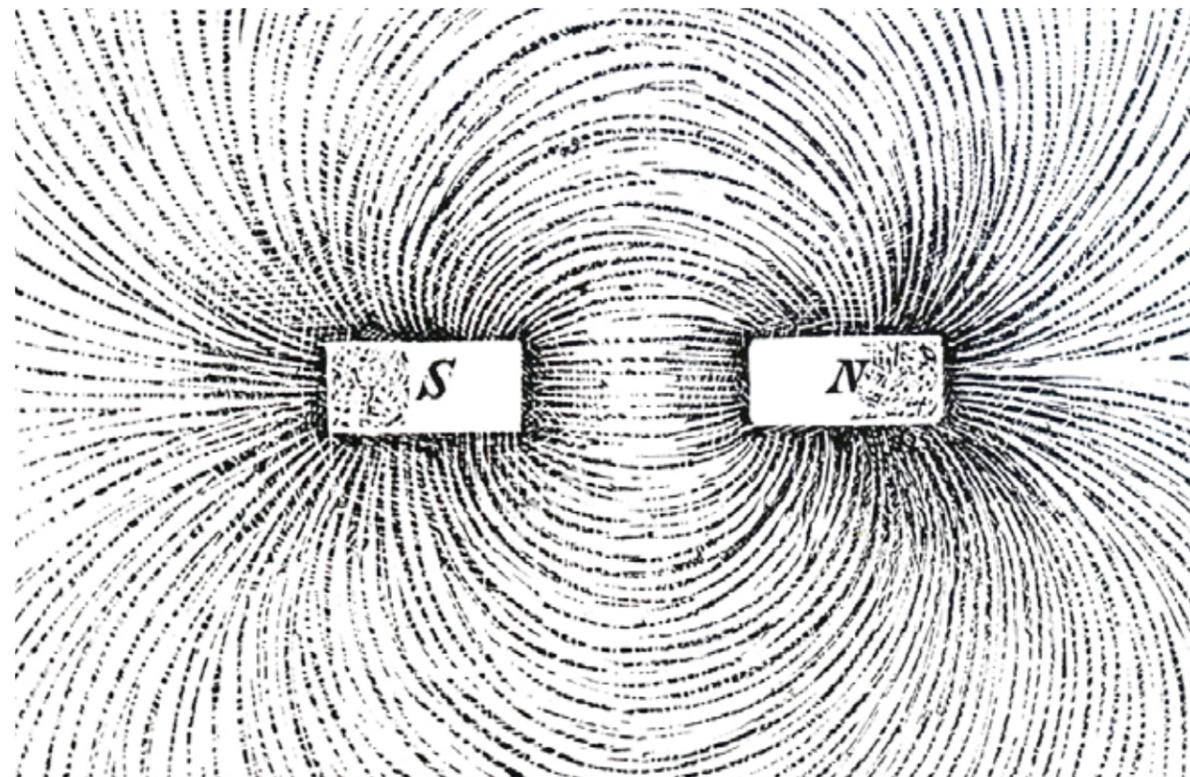
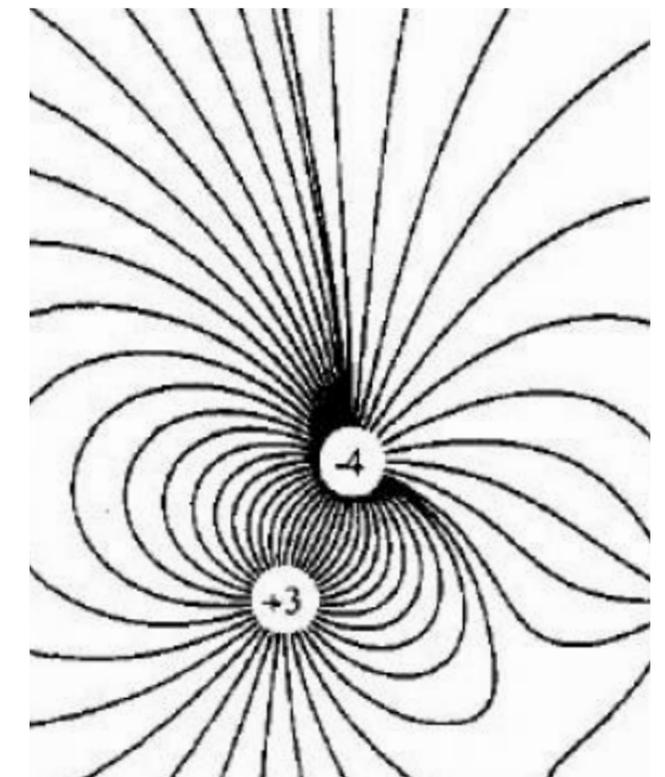


Fig.114 Lines of electromagnetic fields



Design Proposals

External Envelope

FACADE CONCEPT

The facade has been developed as a unitised system, defined by a layer of inclined fins. The horizontal and diagonal coloured aluminium fins are off-set from the glazing to give the elevations depth and provide external sun-shading. The rhythm of vertical fins evokes the hyperbolic forms present in Faraday's studies of electromagnetism.

To create complexity across the facade, several 'attractors' are applied to the façade design, leading to a change of fin orientation and therefore a variety of densities in each façade.

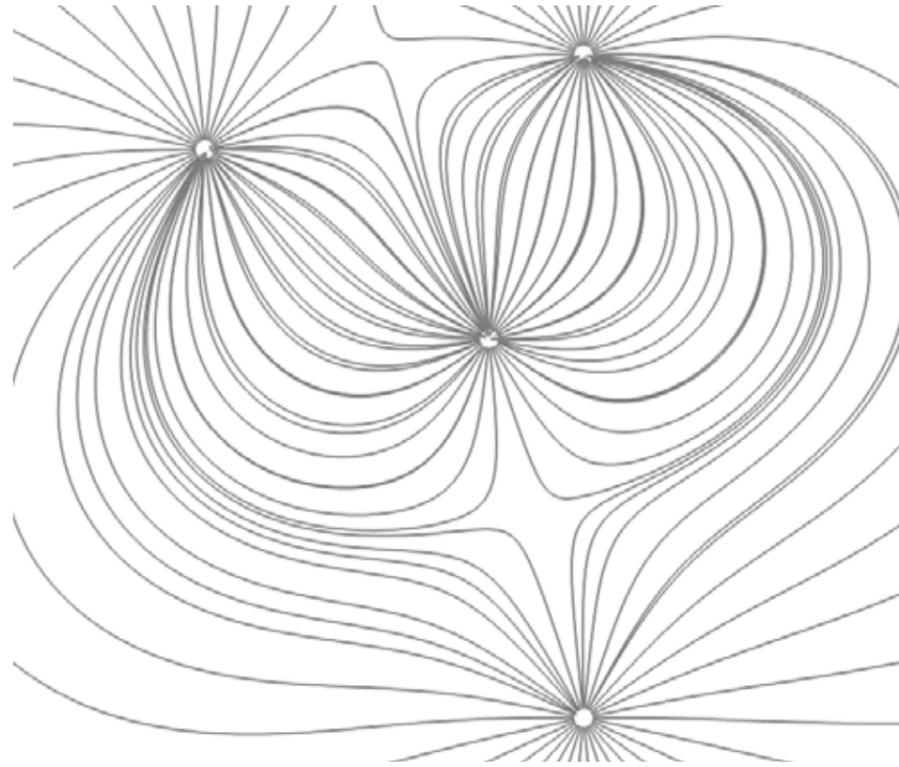


Fig.115 Multiple attractors

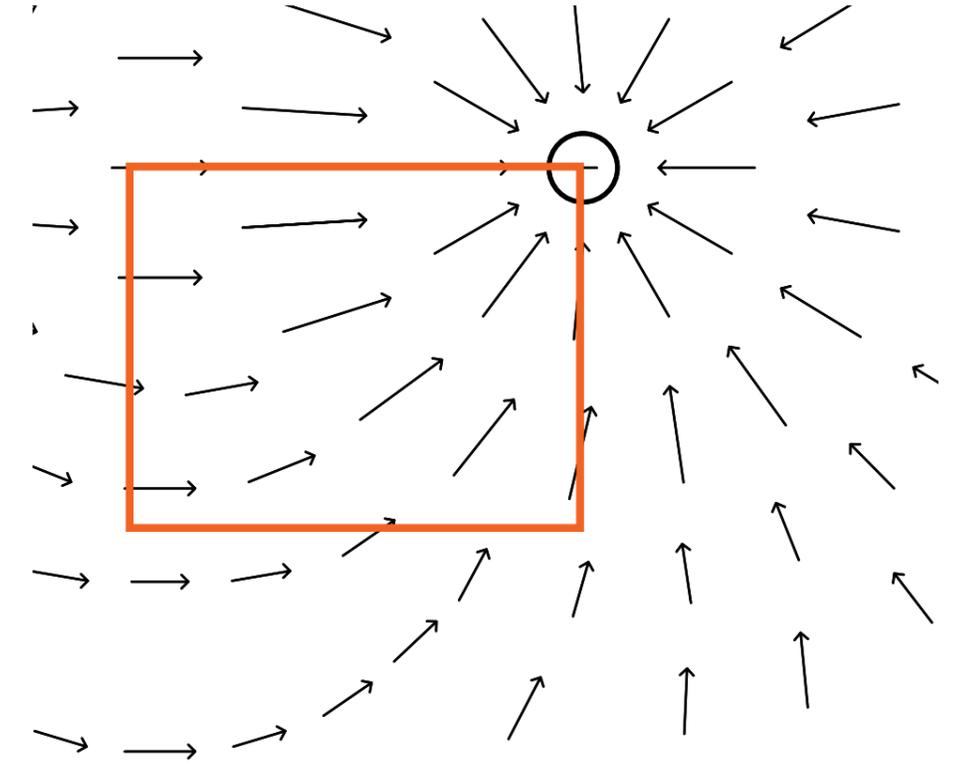


Fig.116 Lines of electromagnetic fields

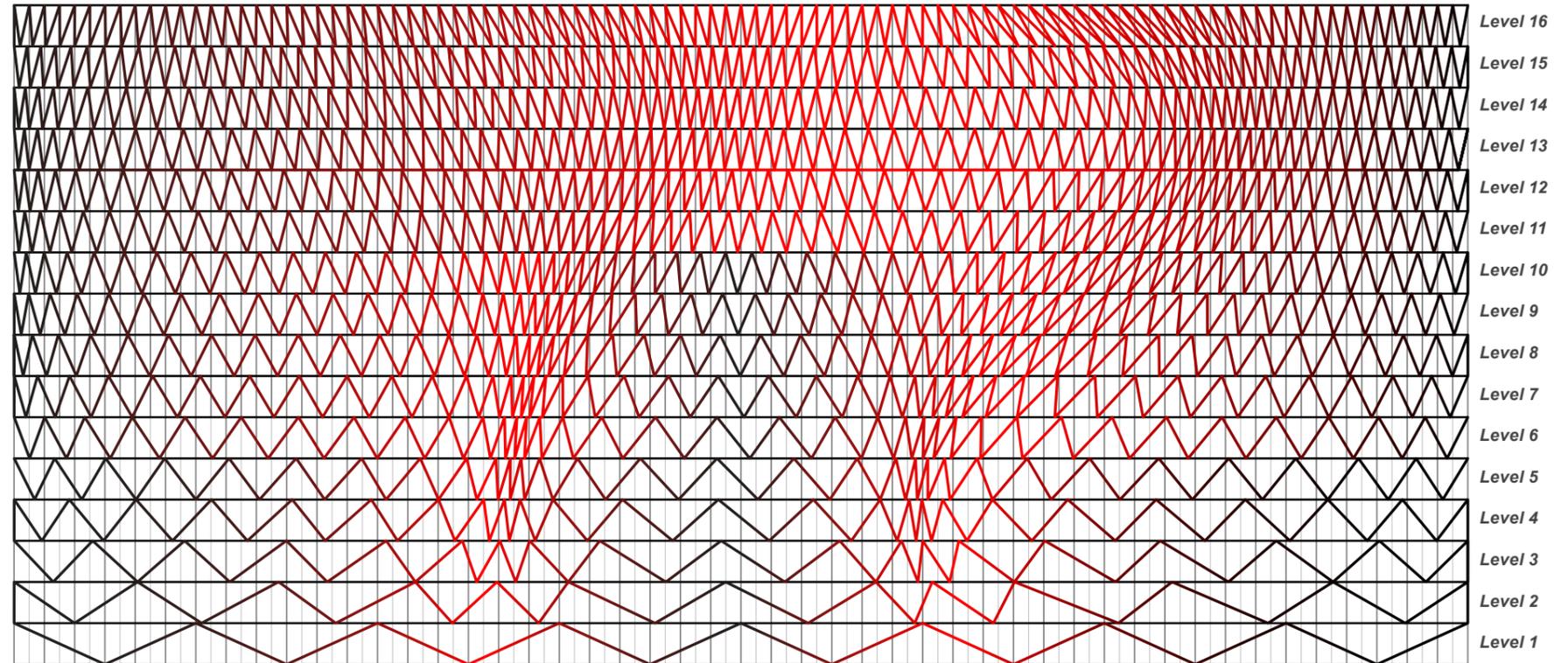


Fig.117 Elevational diagram of fin distribution and densities in response to solar gain and to create variation

Design Proposals

External Envelope

FACADE CONCEPT

The building has been refined to optimise its energy performance. Consideration was given to the extent and solar exposure of each facade and the potential for limiting undesirable solar gains. The north facade allows abundant daylight to filter through to the office space with reduced solar gains; whilst the steps introduced to the east and south help break up the more exposed facades and at the same time provide more solar access to the terraces.

The facade design evolved to reduce cooling demand, over-illumination and blind usage while improving the daylight performance and occupants' wellbeing.

Based on the thermal performance analysis on each facade, the glazing ratio was adapted alongside the facade fins. The fin density increases with the solar exposure to protect from overheating and glare.

The southern and top levels of the western elevation are the most exposed facades to solar gains. The glazing ratio, glass type and distribution of the external shading devices respond to the thermal, daylight and blind requirements on the facades to offer high levels of comfort, performance and wellbeing.

The facade to the upper office levels has been considered to reflect the amount of shading required to meet sustainability targets. The density of the fin pattern becomes greater affording more protection from the sun, and at the same time adding interest to the building. In this way each face of the building is unique with the fin patterns producing their own rhythm.

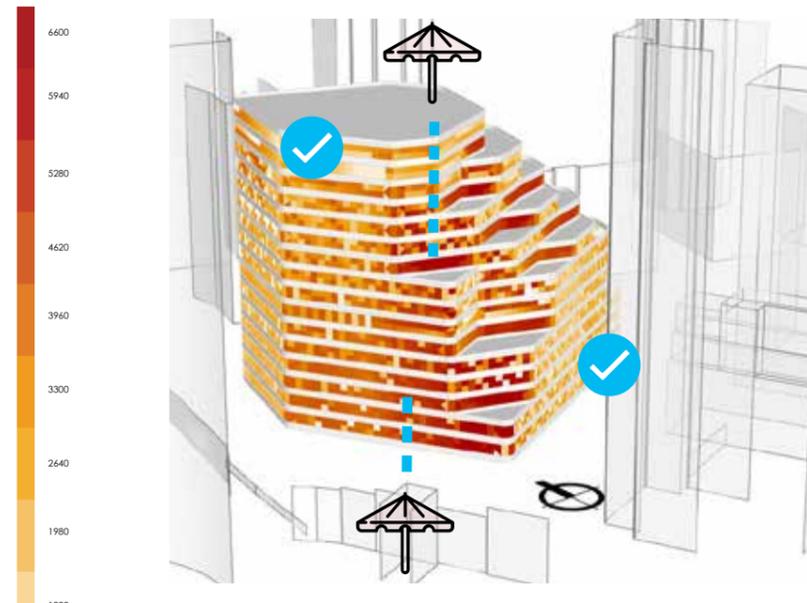


Fig.118 Solar studies for south-west facade

0.75m

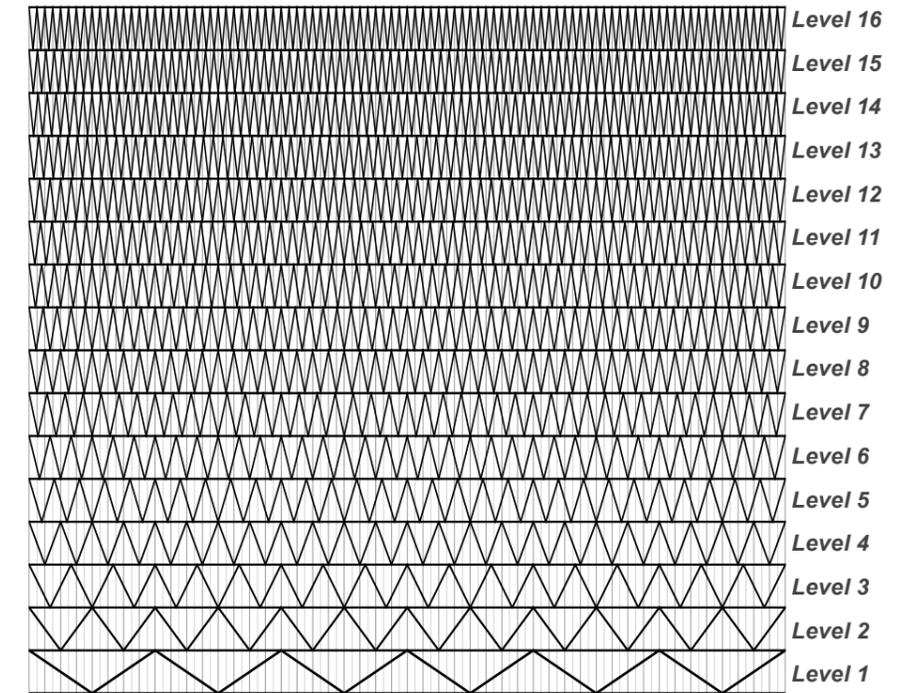


Fig.119 Density study for south-west facade

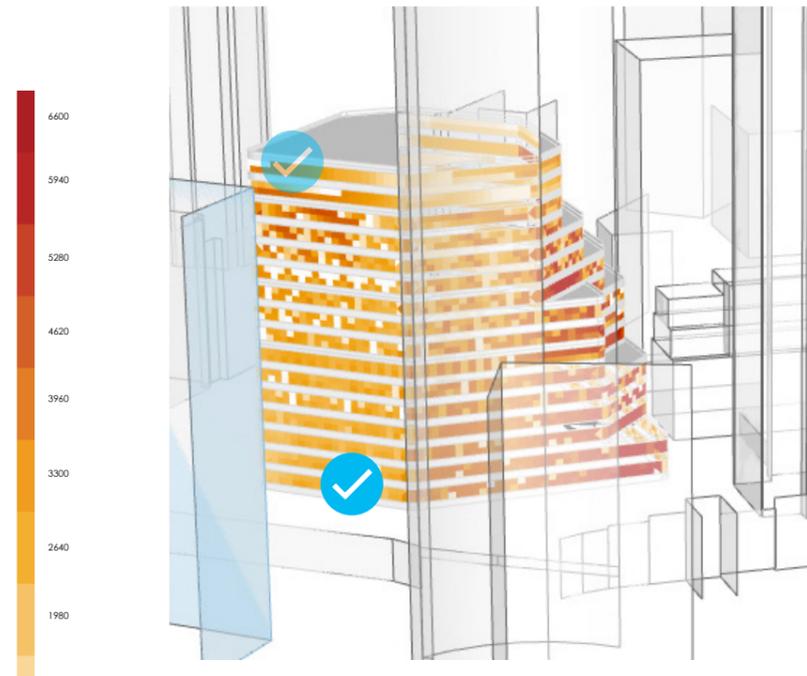


Fig.120 Solar studies for north-east facade

1.5m

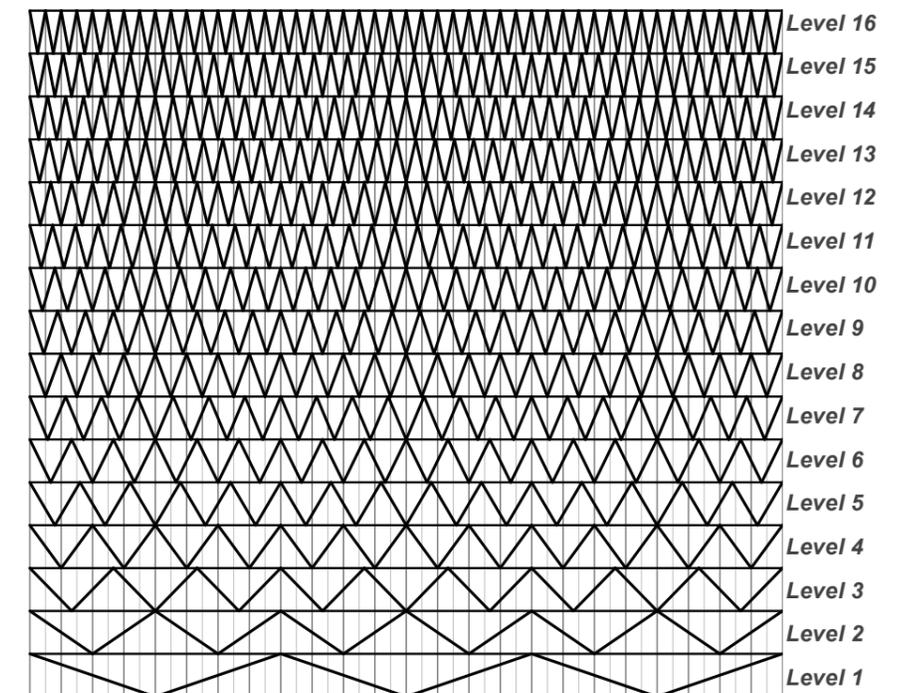


Fig.121 Density study for north-east facade

Design Proposals

External Envelope

FACADE CONCEPT

In addition to the facade fins echoing the shape and intricacy of the railway tracks and tram lines of Elephant and Castle's past, the industrial heritage of the area has also been echoed in the colours selected.

The colour palette has been chosen to reflect the rich burnt-red and warm russet shades evident in the surrounding brick facades and the colour of core-ten and old steel. Used on differently orientated fins, the building appears russet from one direction whereas approaching from the other direction, the more lively red colour prevails.

The colour palette further echoes the earthy and warm colours of the historic Walworth Road buildings such as no. 96 and no. 94 and more recent buildings of Elephant Park.



Fig.122 Walworth Road buildings (no. 96 to no. 90)



Fig.123 Elephant Park buildings

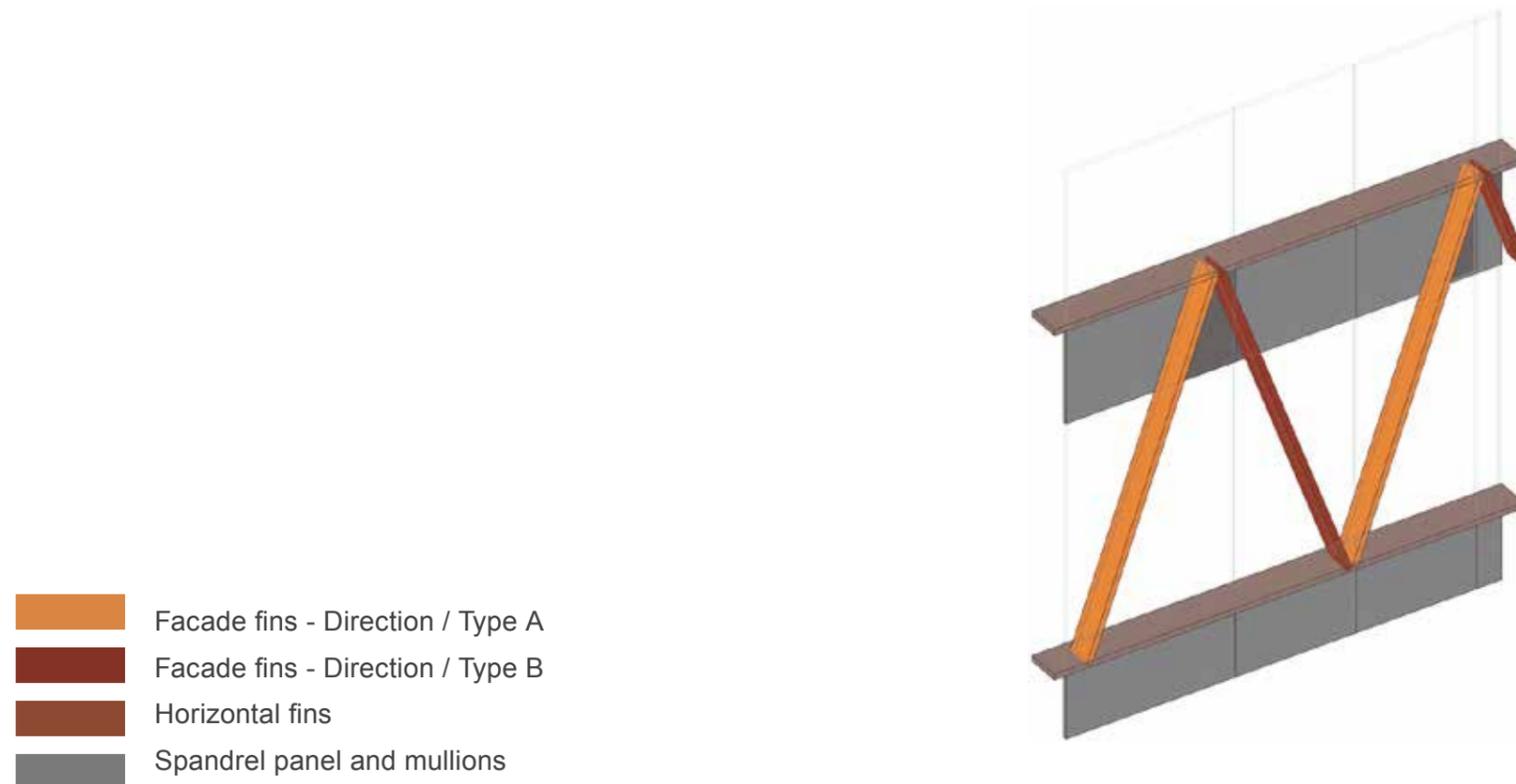
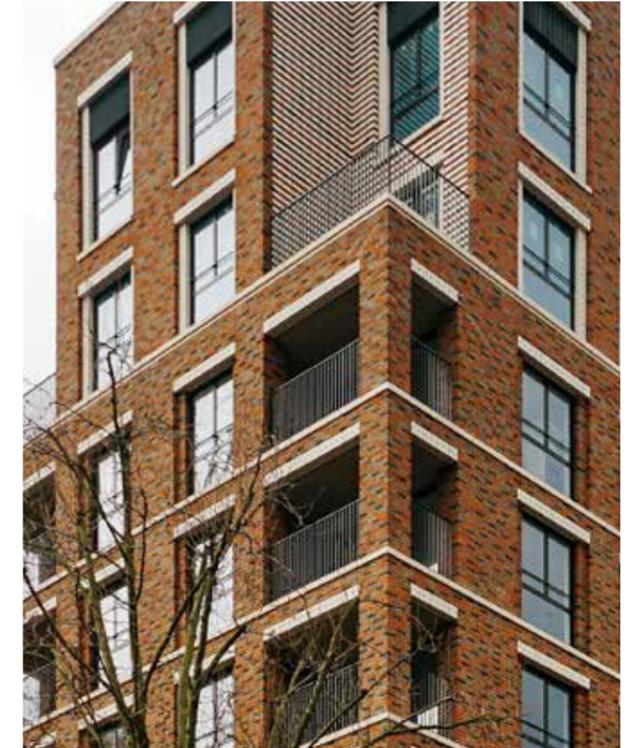


Fig.124 Diagram of facade principle and colour palette



Fig.125 Material and colour samples of aluminium facade components

Design Proposals

External Envelope

FACADE CONCEPT

Subtle changes to the colour palette, including the use of different colours for differently inclined fins add further visual interest and will produce different readings of the elevations, depending on viewpoint, the distance and orientation from which the building is approached.

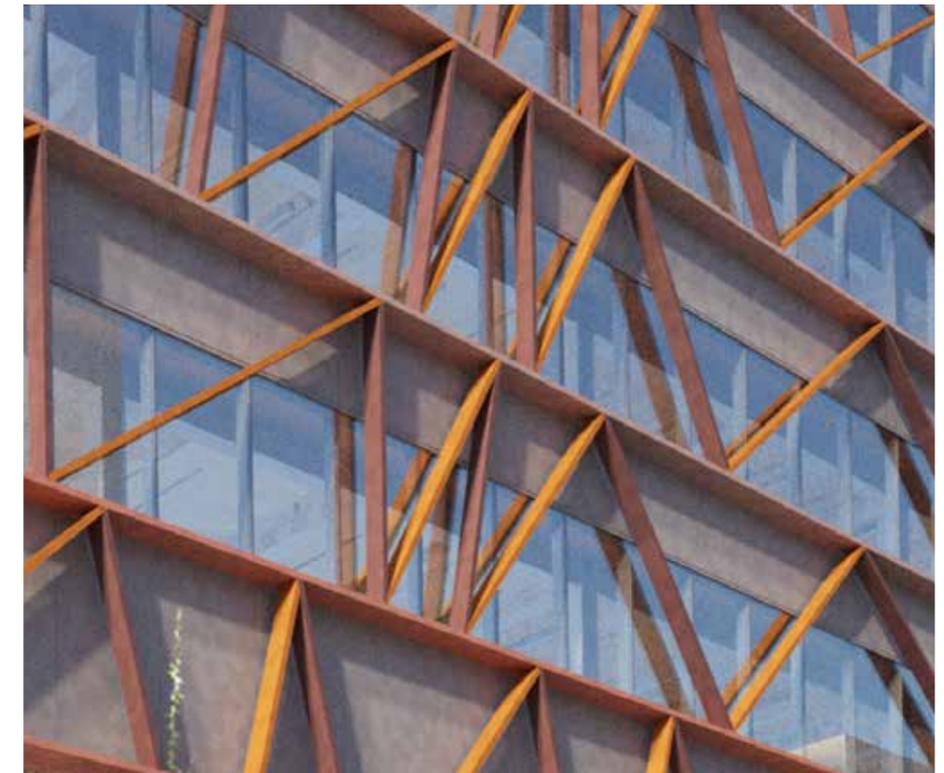
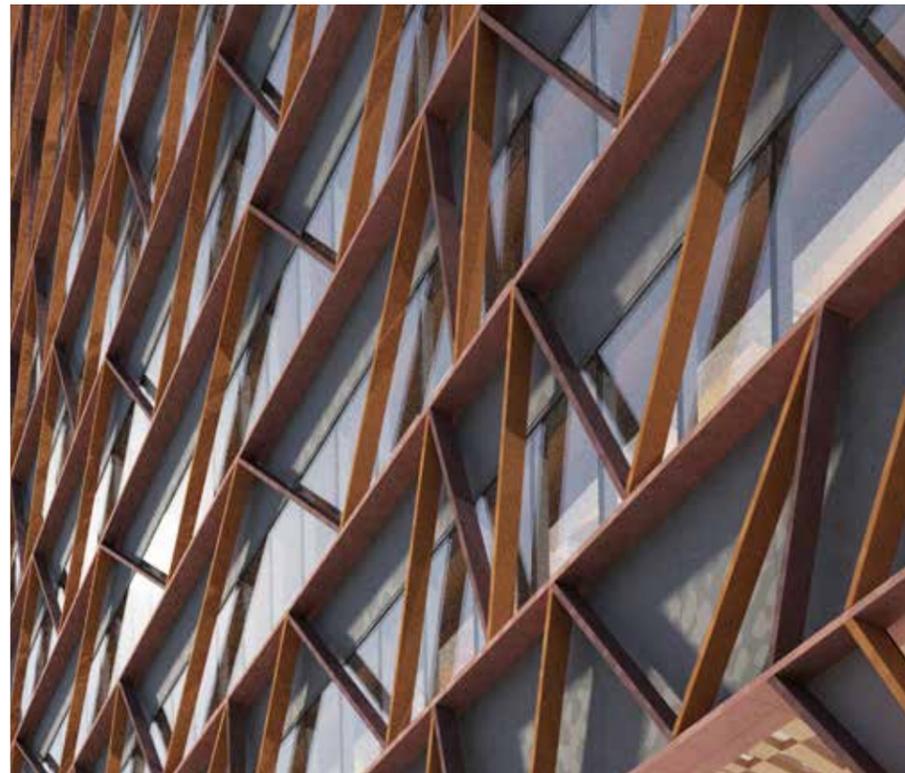
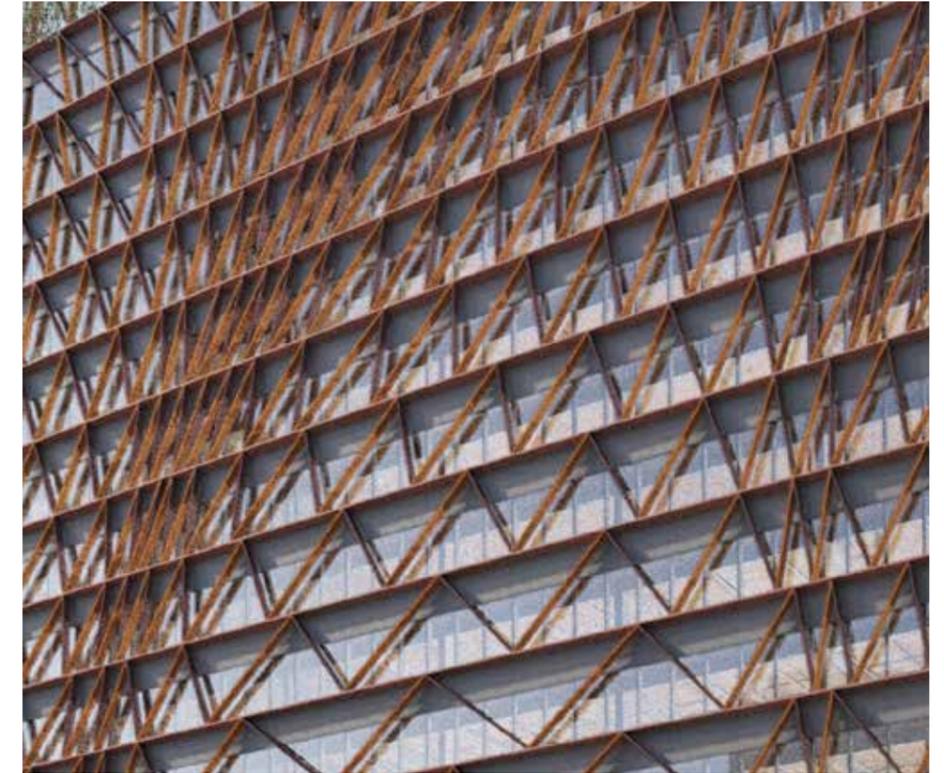
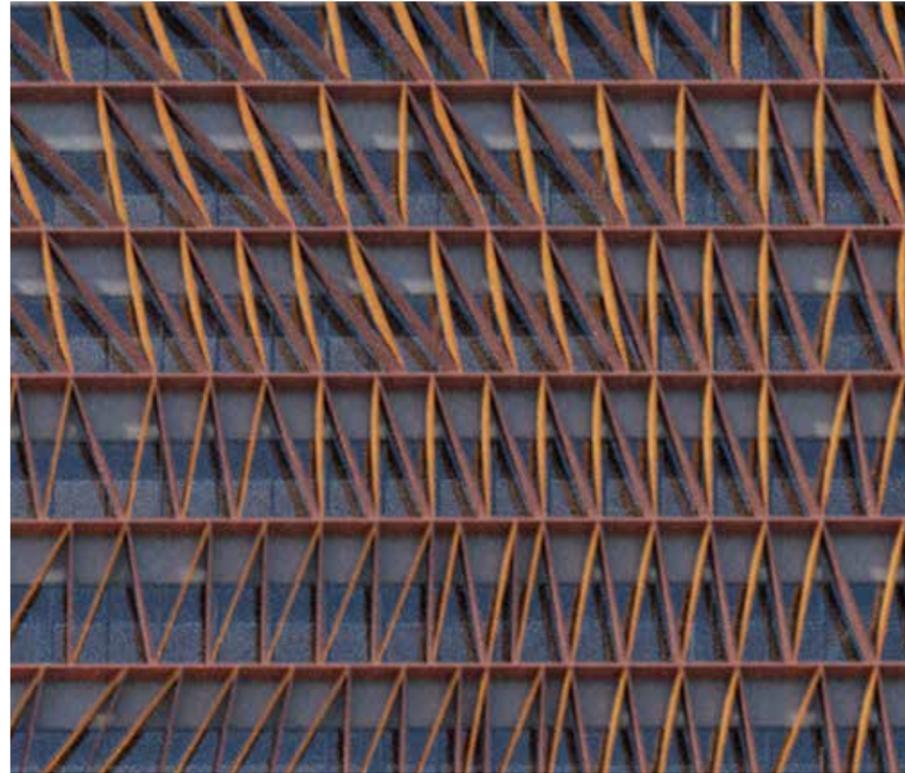


Fig.126 Close-up studies showing varying densities of the diagonal fins

Design Proposals

External Envelope

FACADE CONCEPT AND EVOLUTION

Whilst the north remains the largest scale elevation, articulation is provided through the pattern of the façade fins, bringing visual movement and interest, including the desired verticality.

The distribution of the fins is based on a pattern that has multiple ‘attractors’ to animate the facade by creating areas of different densities. The location and number of ‘attractors’ has been defined during an iterative design process, balancing the visual variation of the fins’ pattern with their use to protect the facade from solar gain and act as brise soleils. Additional to the fin distribution, the depth of the fins and their different angles will enhance the facade’s expressiveness by playing with different intensities of light, shadow and reflectivity.

As one approaches and moves around the H1 Development the perception of the facade will change constantly.

Recognising the importance of each view of the building, the fin concept is enveloping all elevations of the building with equal attributes but with a fin pattern individual to each facade. The intended movement of the design is further emphasised by wrapping the fins around all corners and the terraces.

The blue lines shown on the elevations in Fig. 127 and Fig. 128 illustrate the concept of how the dynamic lines of the electromagnetic fields have been applied to the setting-out of the diagonal facade fins to form areas of higher and lower densities, gravitating around attractor points.

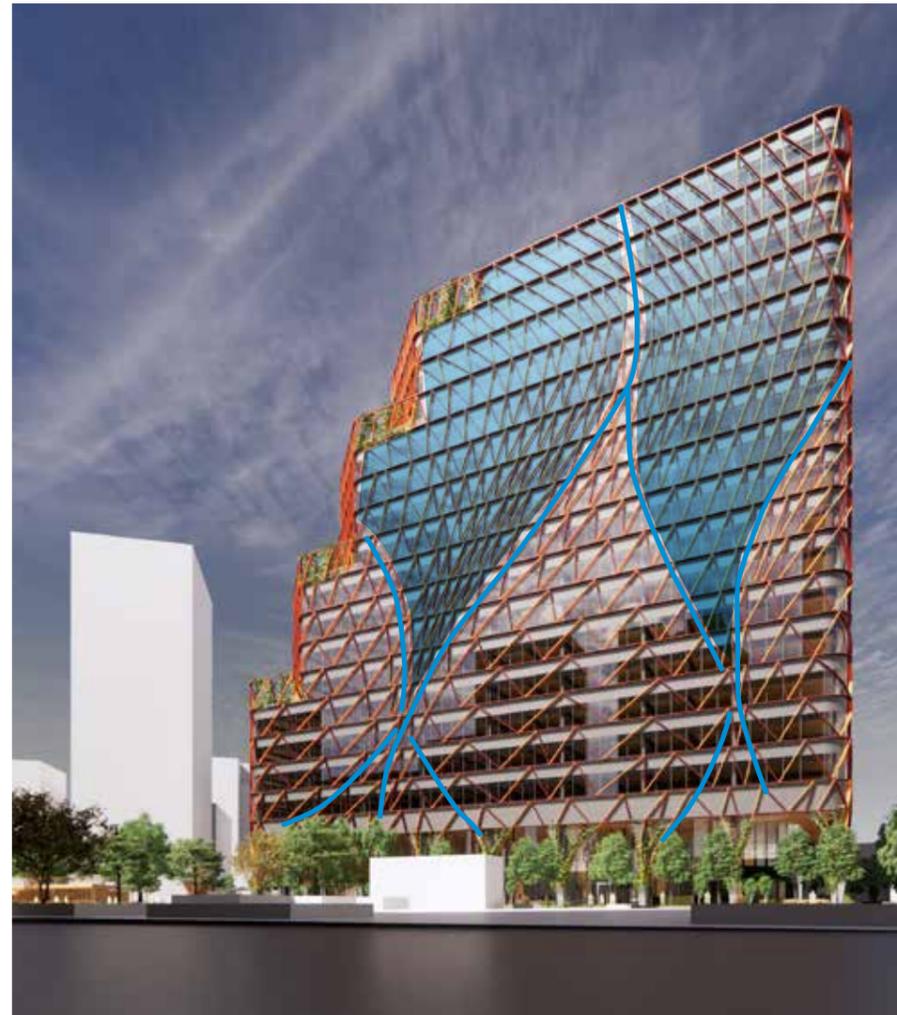
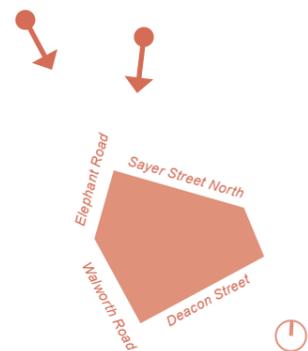


Fig.127 North elevation – view, with illustrative lines in blue to demonstrate the dynamism of the facade patterns



Fig.128 North-west elevation – view from the station platform, with illustrative lines in blue to demonstrate the dynamism of the facade patterns

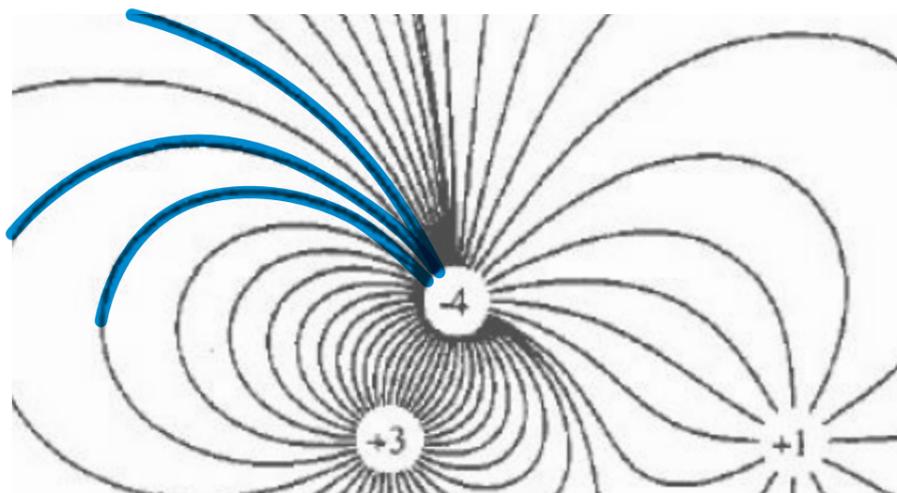


Fig.129 Lines of electromagnetic fields

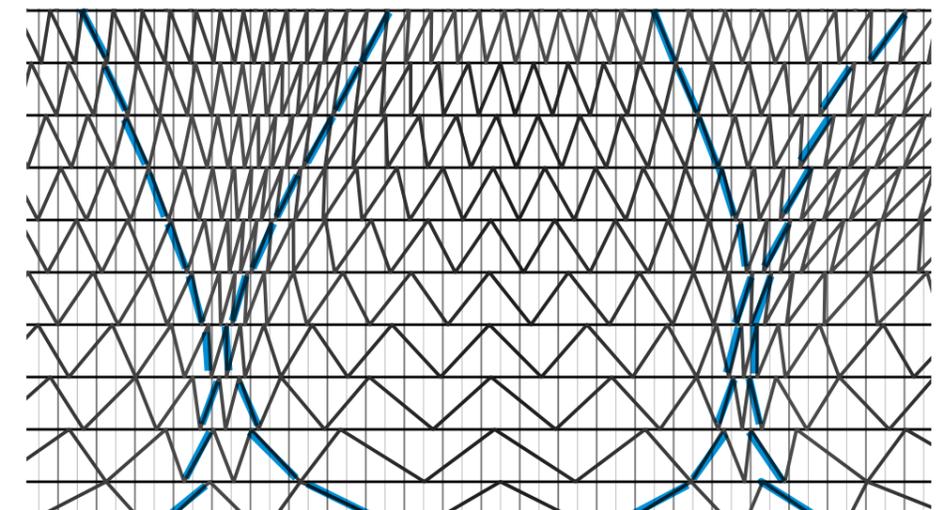


Fig.130 Elevational diagram of fin distribution and densities

Design Proposals

External Envelope



Fig.133 Illustrative view from Walworth Road looking northwards

Design Proposals

External Envelope



Fig.134 Illustrative view from The Park looking west towards the building, with the Pavilion just off to the left

Design Proposals

External Envelope

FACADE TYPE - OFFICE LEVELS

The facade is defined by horizontal and diagonal powder coated aluminium fins placed in front of the glazing.

The off-site assembly of the 1.5m wide by 3.9m tall unitised curtain wall system has been carefully considered to provide a relatively fast installation to follow the construction programme. The 1.4m high aluminium faced spandrel panel is set to create a visual 'modesty panel' at desk height to obscure views into the offices at low level, resulting in a glazed to solid ratio of 65% to 35%.

The position of the spandrel panel is also set to visually expose the soffit; the underside of the cross laminated timber slabs can be read from the outside, emphasising the timber elements of the structure.

The aluminium fins are set off from the glazing to allow for cleaning and maintenance which is achieved externally from a building and maintenance unit (BMU) hidden behind the plant screen at roof level.

Steel column with intumescent paint finish

Double glazed unitised curtain wall system panel

Insulated aluminium spandrel panel with powder coated finish

nom. 300mm deep diagonal aluminium fin with powder coated finish; nom. 100mm offset from the glazing to allow for cleaning and align with the horizontal fins

nom. 400mm deep horizontal aluminium fin with powder coated finish

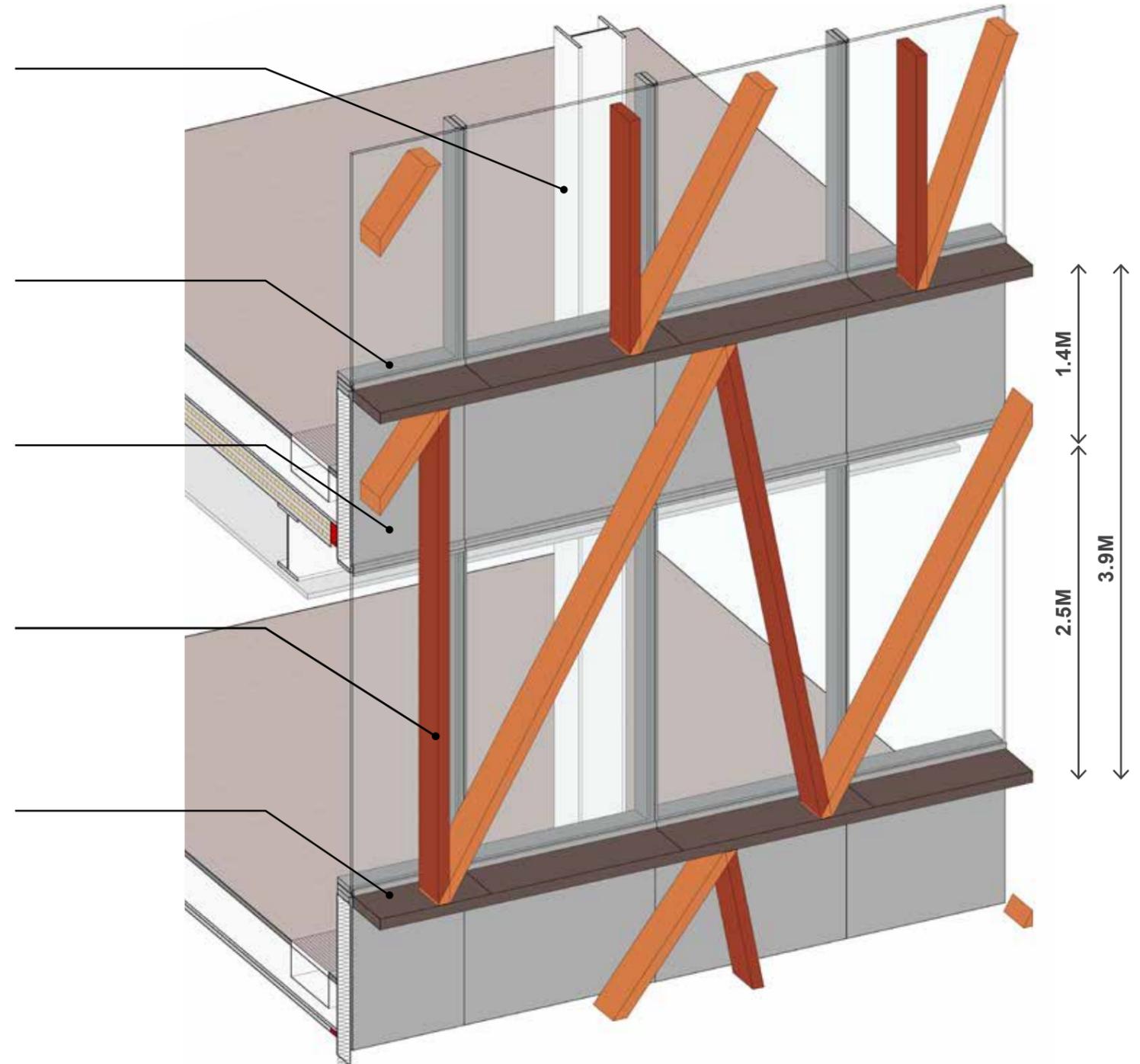


Fig.135 Illustration of typical office facade

Design Proposals

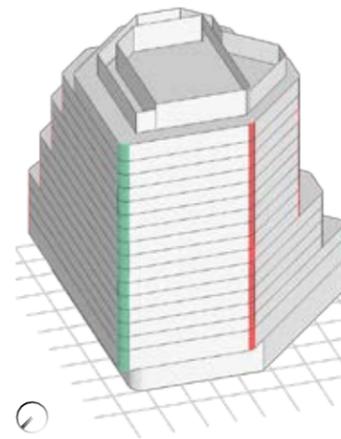
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FACADE TYPE - OFFICE LEVELS CORNERS

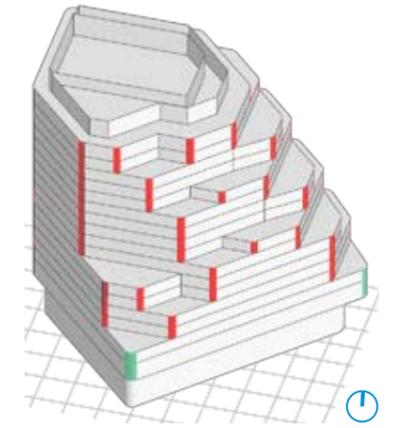
The north-west corner of the office levels of the H1 Development has been designed with a curved glazed facade to soften this prominent corner on Elephant Road. Consequently the fins will be twisted to follow this form.

The south and east corners, both 90 degrees, follow the same principle over the two floors they span.

Other corners, being greater than 90 degrees are designed as faceted glazed panels to achieve the required radii, however the aluminium fins and spandrels are curved to follow the geometry and appearance of the north-west corner.



Corner type 1
 Corner type 2



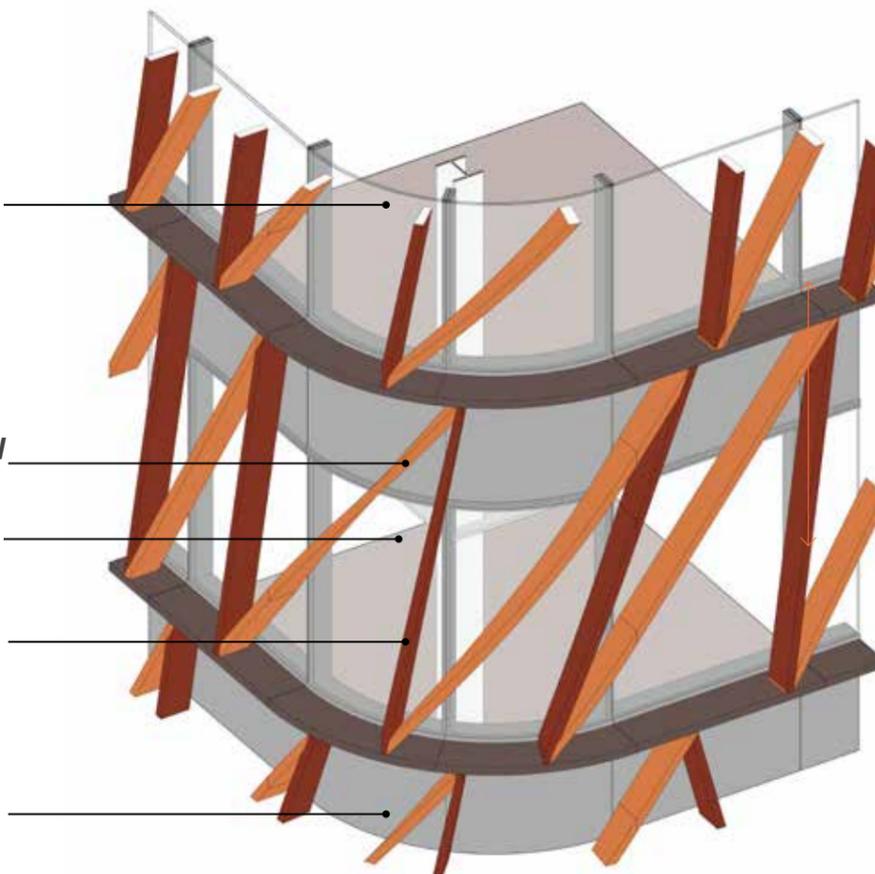
Curved glazed panels on prominent north-west corner

Curved diagonal fins simplified as twisted flat steel plates

90° curve can be divided in 2 no. 135° panels

Curved fin profiles to match glass and spandrel

Consistent 2m radius used throughout the building for aluminium spandrel panels



Curved diagonal fins simplified as twisted flat steel plates

135° curve can be faceted into 2 segments within the one corner glazed panel

Curved horizontal fin to keep with building language

Consistent 2m radius used throughout the building for aluminium spandrel panels

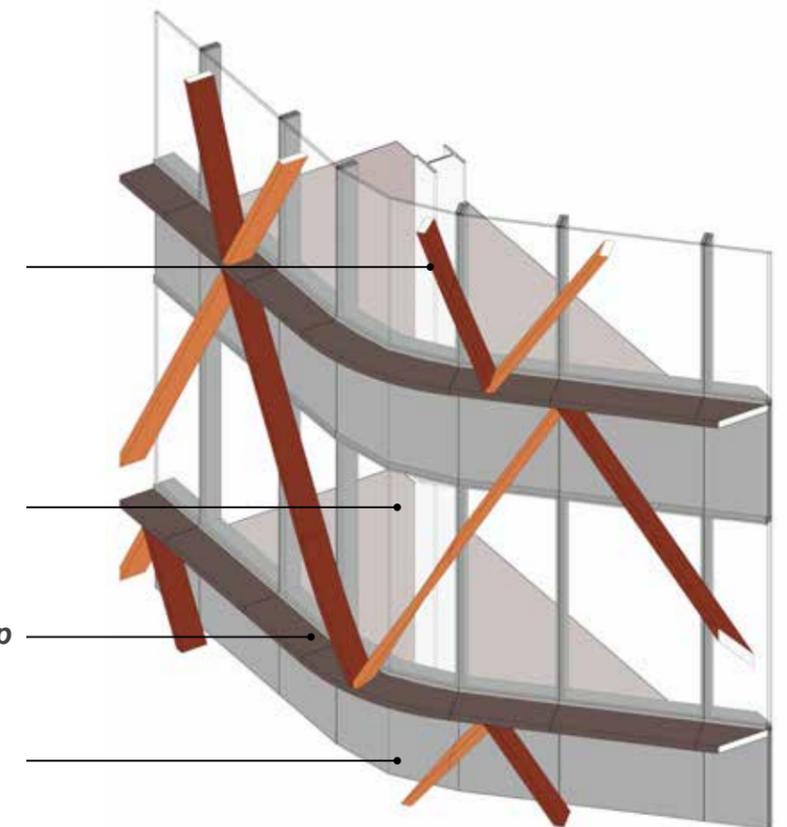


Fig.136 Corner Type 1 - Curved glazing with curved / twisted fins and spandrels

Fig.137 Corner Type 2 - Faceted glazing with curved / twisted fins and spandrels

Design Proposals

External Envelope

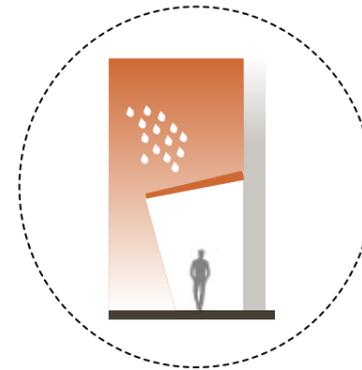
STREET LEVEL FACADE, PLACEMAKING & IDENTITY

In order to create a welcoming space on the ground floor, several design features have been incorporated to enhance the experience along the activated perimeter of the H1 Development.

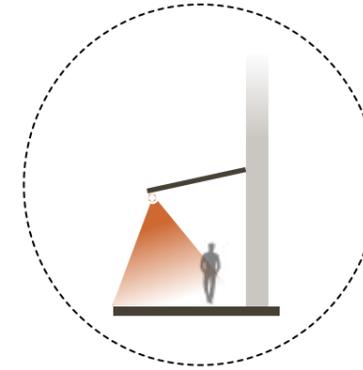
Concepts for placemaking and details of the proposed design of the ground floor of the H1 Development have taken inspiration from Walworth Road, with its rich heritage of small shops and shopkeepers.

Each of the elements illustrated will play its part in making the H1 Development a place that is anchored in its location and creates an environment that is inviting to all and engaging during day and night, all week long and in all seasons:

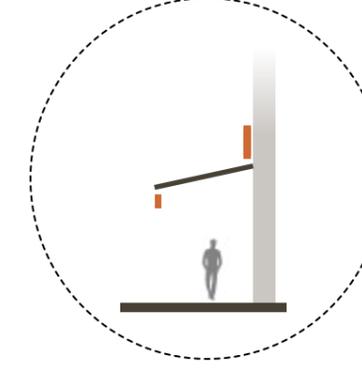
- Awnings: to provide weather protection and extend seasonal use of outdoor spaces;
- Signage; and
- Lighting.



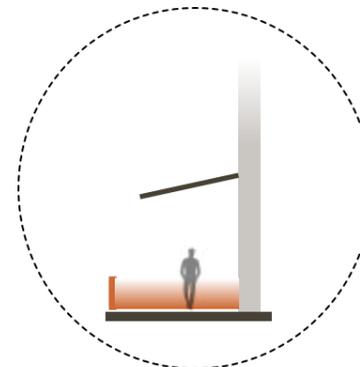
Weather protection



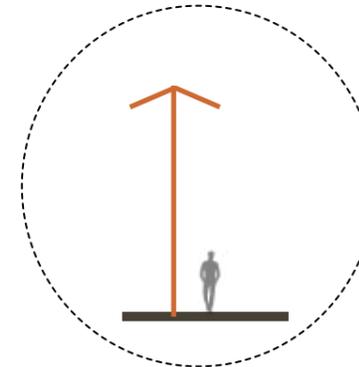
Extending seasonal use of outdoor space



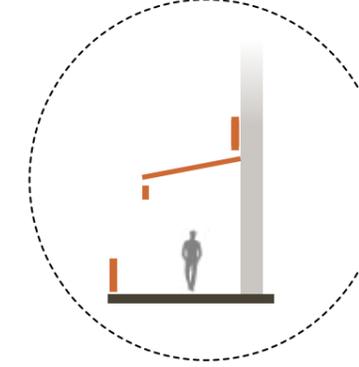
Signage



Defining demise



Spill-out



Branding



Precedent - operable windows



Eastland, Melbourne - integrated signage and lighting, by ACME



Victoria Arcade, Leeds - integrated signage, lighting, and paving, by ACME

Fig.138 Concept diagrams of ground floor and facade design elements

Design Proposals

External Envelope

STREET LEVEL FACADE, PLACEMAKING AND IDENTITY

Appropriate placemaking is fostered by research into the historical context of the Site. The Walworth Society has provided a wealth of local historical information which has given inspiration to aspects of the design.

The use of awnings to provide weather protection and signage were a common sight in the early C19th and are used for the same purpose today.

Awnings will be used around the ground floor of the H1 Development to articulate entrances, define spaces of retail spill out, visually connect with other retail areas on Sayer Street and Ash Avenue and establish a human scale to the building. Additionally, the awnings will fulfil a more practical purpose being weather protection and a branding opportunity for the occupier.



Fig.139 Elephant and Castle



Fig.140 Walworth Road



Fig.141 Sayer Street (2021), the new local retail focal point for Elephant and Castle

Design Proposals

External Envelope

STREET LEVEL FACADE, PLACEMAKING AND IDENTITY

Active lobby facade

In the Victorian era 'state of the art' large paned shopfronts were introduced following the 'Great Exhibition' to better display the retailer's goods, and the proportion of these is echoed in the configuration of the large ten-metre high active lobby facade in the H1 Development.

The glazing of the facade is split into 3 units. The size of the lower panels affords flexibility to integrate openings for a variety of 'open counter' areas, bringing fresh air into the space or to allow customers and visitors to spill-out to enjoy time on the edge of The Park.

Fig. 142: Text and images source: Walworth Road Historic Area Assessment, p. 61: Shop fronts were made taller through the use of larger fascia panels that could be viewed from the top of public transport. These were prevalent on the Walworth Road until the C20th.

Fig. 143: Text and images source: Walworth Road Historic Area Assessment, p. 60: Small glass panes. Mass production of larger glass panels first took place in England circa 1832.



Fig.142 1857: Hughes Illustration



Fig.143 Walworth Road Wine and Spirit Establishment



Fig.144 Illustrative view of Walworth Road elevation



Fig.145 Illustrative view of Park Plaza and Sayer Street North elevation

Design Proposals

External Envelope

LINKING WALWORTH HERITAGE - LIGHTING CHARACTER

The vision for the active ground plane is that it successfully integrates into the local fabric as a public amenity which is inclusive and welcoming. The design vision will therefore build upon local character, taking inspiration from the historical references of Elephant and Castle. The design development of this space will continue to evolve post planning consent, with engagement from local stakeholders to ensure the vision is realised. Initial concepts for lighting and paving are explored below and overleaf.

Pendant Lighting

With the introduction of electricity, shopkeepers used 'huge' pendant light fittings to illuminate their wares.

Taking its cue from these, and the equally appropriate design of the Fresnel lighthouse lenses that fascinated Faraday, the pendant fittings in the ground plane of the H1 Development could give scale to the spaces and send a welcoming signal to visitors and passers by.

Fresnel lenses have different focal lengths, categorised in different orders, ranging from 1 to 6.



Fig.146 Fresnel lenses



Fig.147 Victorian era shopfront with gas lanterns



Fig.148 Victoria Gate Arcade, Leeds, by ACME

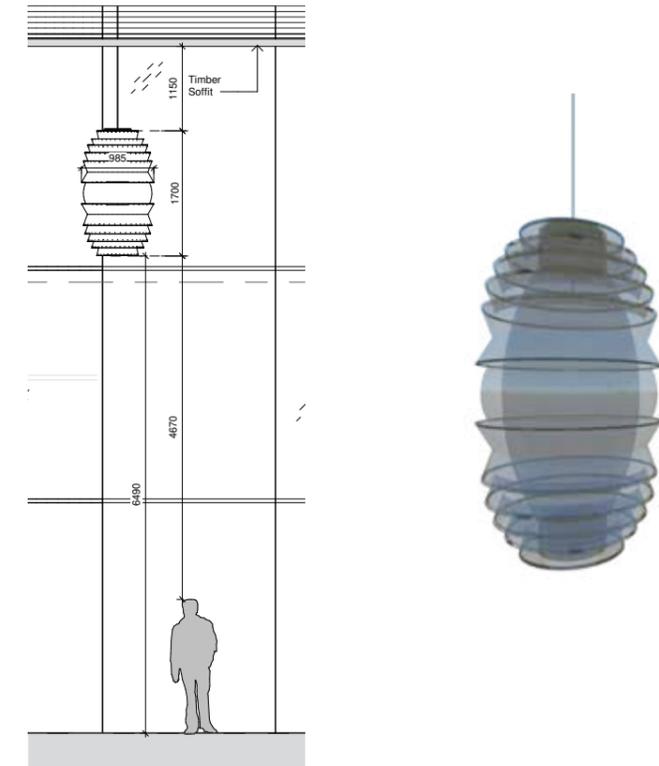


Fig.149 Concept sketches for light pendants for the H1 Development

Design Proposals

External Envelope

LINKING WALWORTH HERITAGE - TILING

Decorative Paving

Decorative floor tiling was much in vogue in the Victorian time, and could be found in the local shops along Walworth Road. At the time the kiln fired tiles were made with clays and powdered glazes.

To blur the threshold between the inside and outside of the active lobby and The Park, decorative pavers may be used to visually transition between the external finish of the public realm and the tiling patterns proposed in the active lobby.



Victoria Gate Arcade, Leeds, by ACME

Fig.153 Paving pattern and transition of colour and format



Fig.150 Arments Pie and Mash, Walworth Road



Fig.151 Manzes, Chapel Market

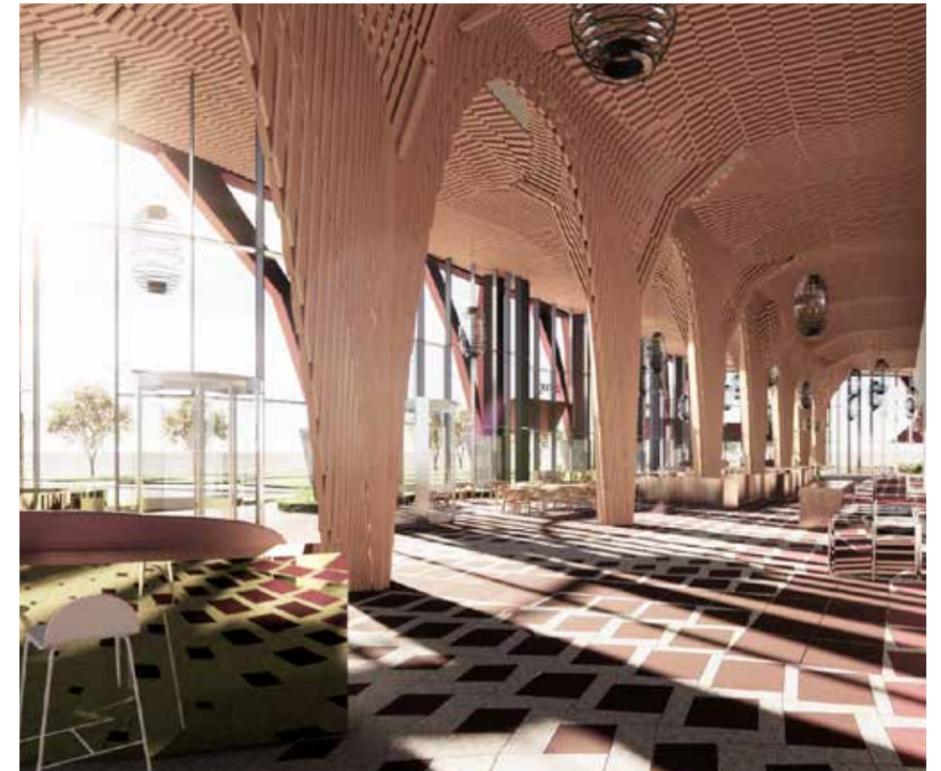


Fig.152 Illustration of the active lobby vision

Design Proposals

External Envelope

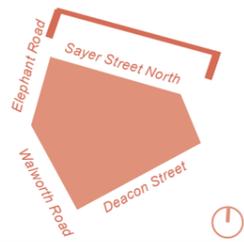
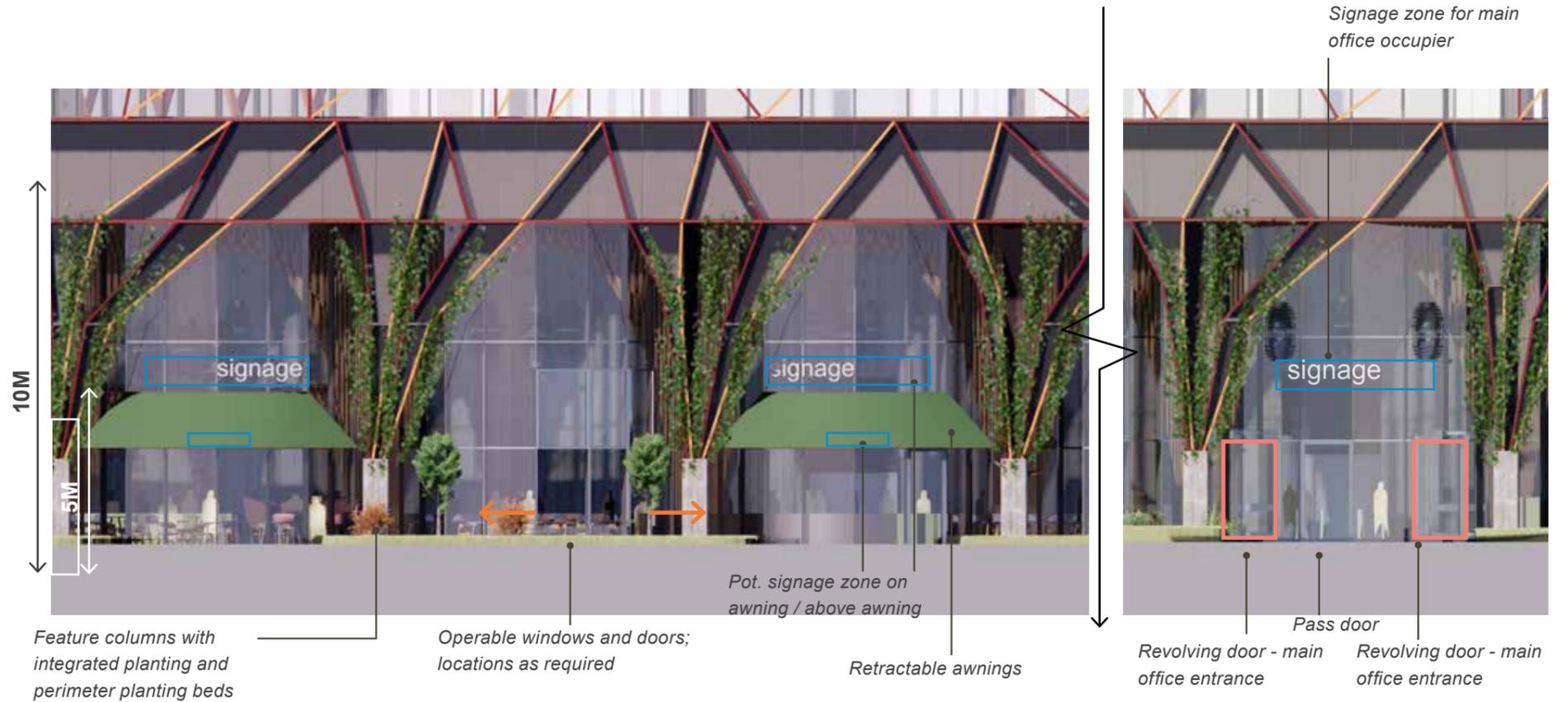
FACADE TYPE - ACTIVE LOBBY FACADE

Operable windows

The desire to have a semi-operable facade during summer months will be facilitated by the integration of operable windows on the ground floor. This will enhance the visual connection between the active lobby and the adjacent Park, Park Plaza and Park Pavilion.

Signage

The signage will be integral to the overall facade concept and design. Signage zones are indicatively shown for individual retailers above the retractable awnings integrated into the active lobby facade and as part of the awnings themselves. In addition to signage being located above and on the awnings, blade signs can be integrated in the facade structure and signs form part of the glazed panels to allow for visibility closer up.



See Zoom



Fig.154 Active lobby facade - North Elevation

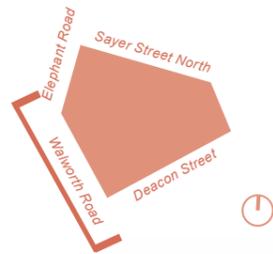
Design Proposals

External Envelope

FACADE TYPE - WALWORTH ROAD

To activate the ground floor along its western edge and tie the H1 Development into the high street fabric of Walworth Road, small retail or affordable workspace units are proposed to line the Walworth Road elevation. The design of their glazed facade is intended to follow the tradition for individual local trades activating the streetscape and engaging with pedestrians. Retractable awnings offer signage opportunities as well as protection from the weather.

The base of the columns are set in planters encouraging climbing plants to extend the green of the public realm vertically to the green of the landscaped terraces above.



See Zoom

 Retail Signage Zones

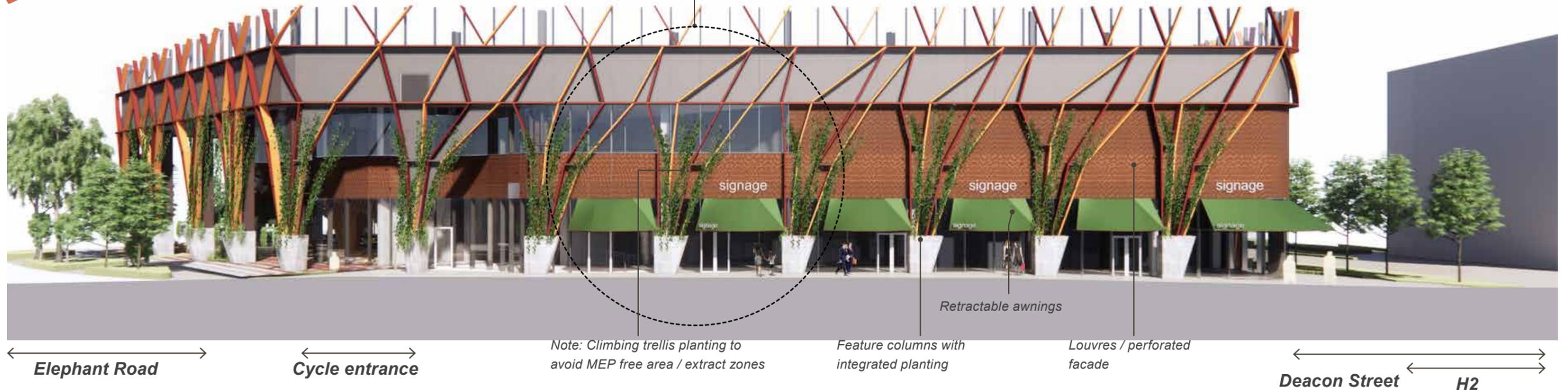


Fig.155 Walworth Road Elevation

Design Proposals

External Envelope

FACADE TYPE - DEACON STREET

The lower level facades along Deacon Street are characterised by glazed corners at either side and an area of opaque facade in-between. Each of the corners will be activated, at the junction with Walworth Road by a small retail unit or affordable workspace unit and at the junction with Sayer Street and Park Plaza by the active lobby space.

The entrances to the service yard, back of house and services areas have been minimised and are placed between the activated corners.

Where openings and louvres are required in the rainscreen cladding for the MEP strategy, they will be incorporated into the visual facade concept and pattern to make the ground floor and mezzanine facade on Deacon Street an extension of the facades above.

Where the vertical facade fins meet the ground, planting beds incorporating climbers have been designed to follow the landscape concept of the terraces and link to The Park.

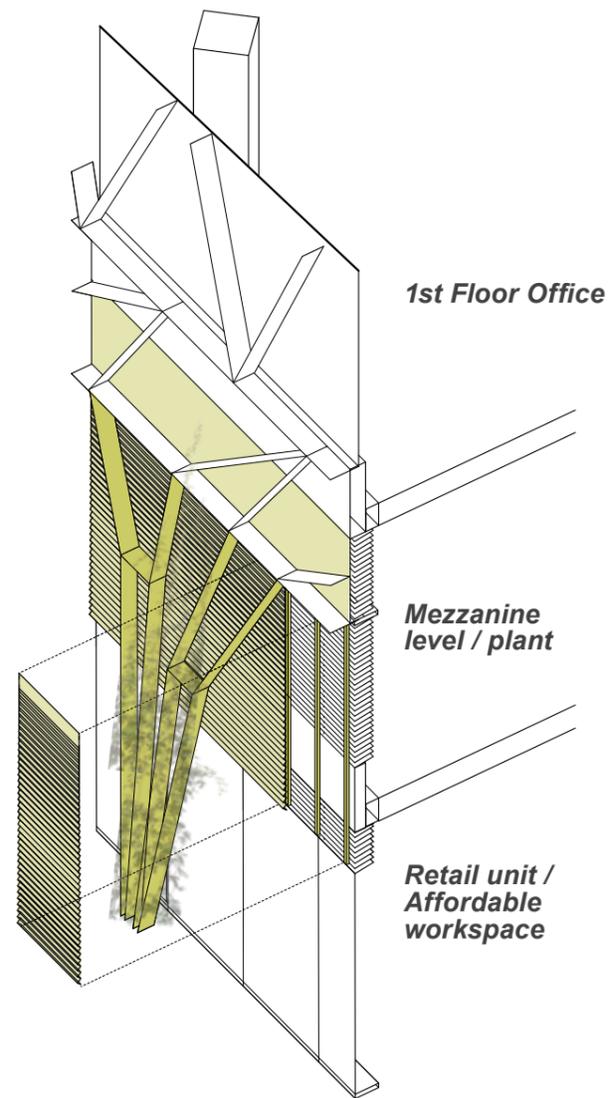


Fig.156 Illustration of facade build-up Walworth Road

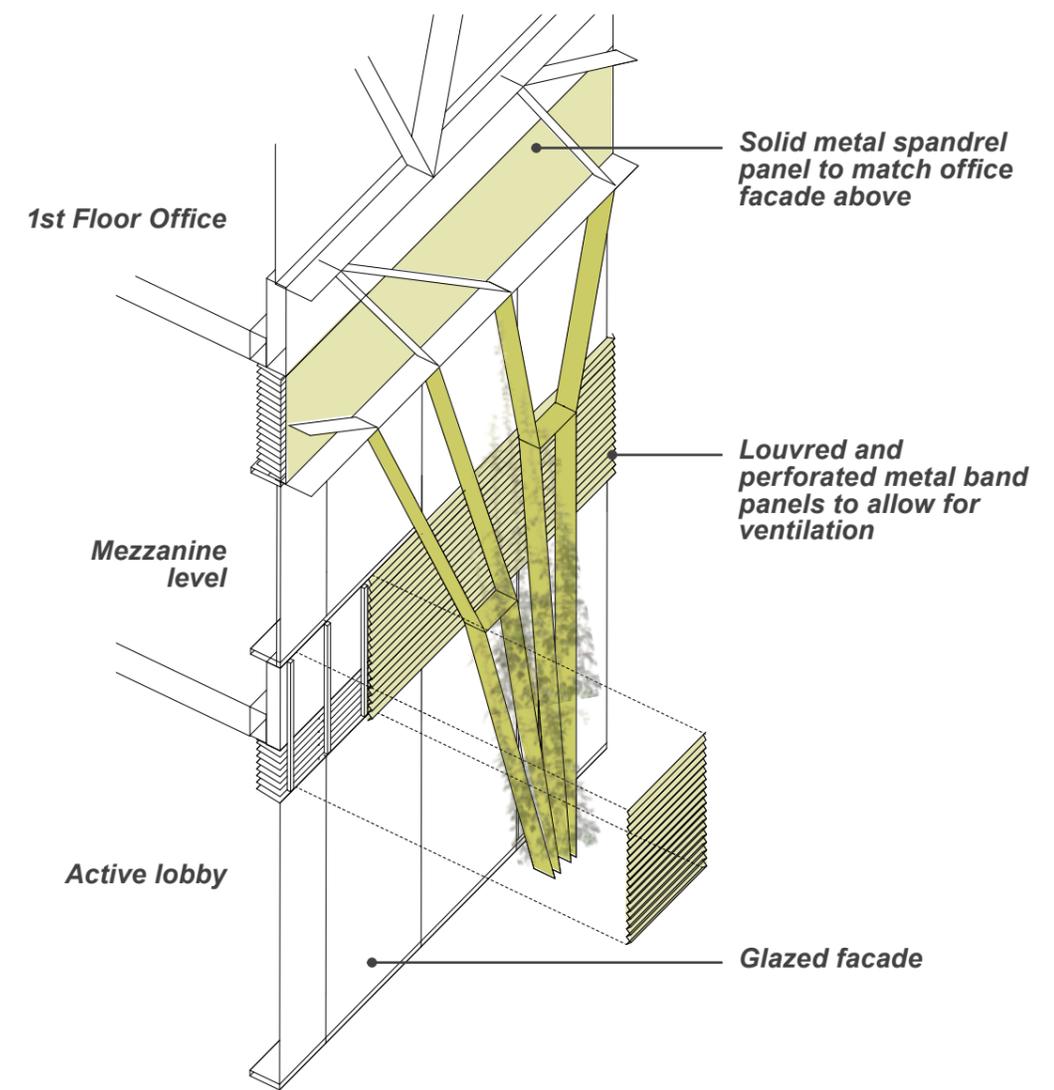


Fig.157 Illustration of facade build-up Deacon Street



See Zoom

See Zoom



← Walworth Road units →

Louvres / perforated facade

← Service Yard Entrance and Gate →

Note: Climbing trellis planting to be coordinated to avoid MEP free area / extract zones

← Power On intake access →

Louvres / perforated facade

← Sayer Street / Park Plaza →

Fig.158 Deacon Street Elevation

Design Proposals

External Envelope

FACADE TYPE - DEACON STREET

The illustrations in Fig. 159 and 160 show how the fin concept of the office facade is extended down in front of the rainscreen cladding to the Deacon Street elevation. Solid facade areas here are clad in aluminium panels with a lasercut pattern echoing the fin facade on the upper levels.

Details of the louvred openings needed for ventilation and the service yard shutter will follow the same material language and colour concept of the main facades to achieve a uniform appearance and consistent detail across all elevations.



Fig.159 Illustrative view east along Deacon Street towards The Park



Fig.160 Illustrative view from the entrance of Plot H2 south-east along Deacon Street towards The Park and the Pavilion

Design Proposals

External Envelope

FACADE TYPE - TERRACES

As the building rises it reduces in size by the formation of a series of landscaped terraces stepping inwards to the south, east and west. The facade concept of the diagonal fins continues by wrapping around each terrace.

By the omission of the glazing, the fins will create a lattice for terrace plants to climb and will provide a level of wind and sun protection. Together, fins and planting will create privacy for residents of nearby buildings and visual amenity for occupiers of the H1 Development and its neighbours.

The planting concept for the terraces relates to the colour concept of the facade fins. The selection of plants will be chosen from a dynamic palette of seasonal reds, golds and evergreens to complement the warm tones of the façade. The planting will create visual interest from nearby vantage points and local view points.

nom. 300mm deep diagonal fins with powder coated finish to match fins in front of the glazed panels

Expanded metal mesh behind fins forms balustrade and provides support for climbing plants

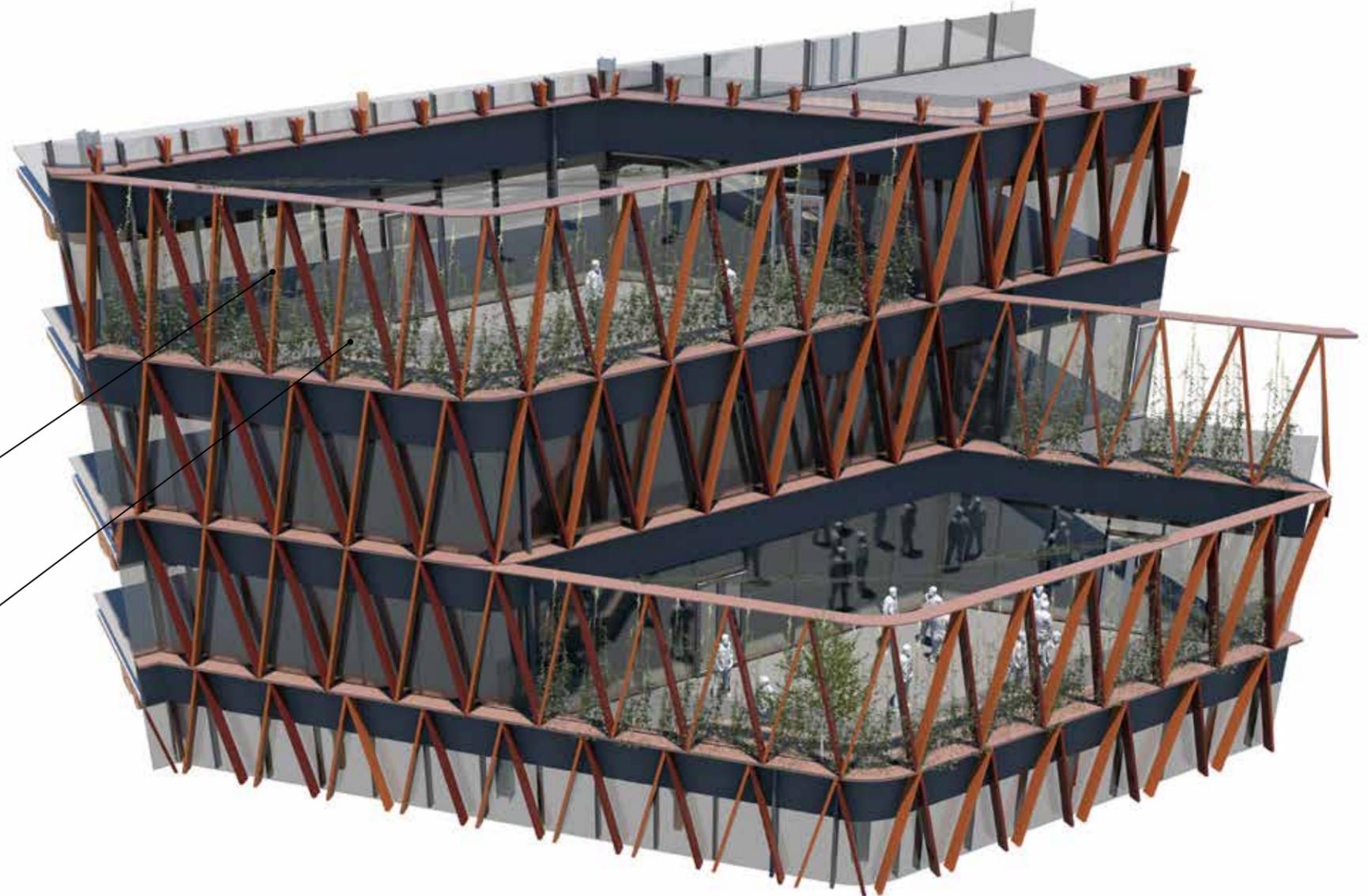


Fig.161 Illustration of stepped upper level terraces with the facade fins wrapping around and mesh trellis providing support for climbing plants

Design Proposals

External Envelope

PLANT SCREEN

The outer, single level plant is restricted to a maximum height of 6m and is concealed from view by a faceted perforated aluminium plant screen. The screen will be powder coated to the colours of the facade or a variation thereof. A metal deck supports additional plant towards the centre of the plan which is hidden from view by an additional screen reaching up another metre, to a maximum height of 7m. Care has been taken to ensure this level respects the Protected Views.

The screen will be perforated in line with requirements of the ventilation strategy where free area is required. Adequate measures have been incorporated into the MEP design to control plant noise and will be followed through with the selection of low noise equipment wherever possible.

The plant screen hides not only the plant, but also the building maintenance unit (BMU) used for facade maintenance and window cleaning, when not in use. The BMU runs on tracks which follow the perimeter around three sides of the roof.

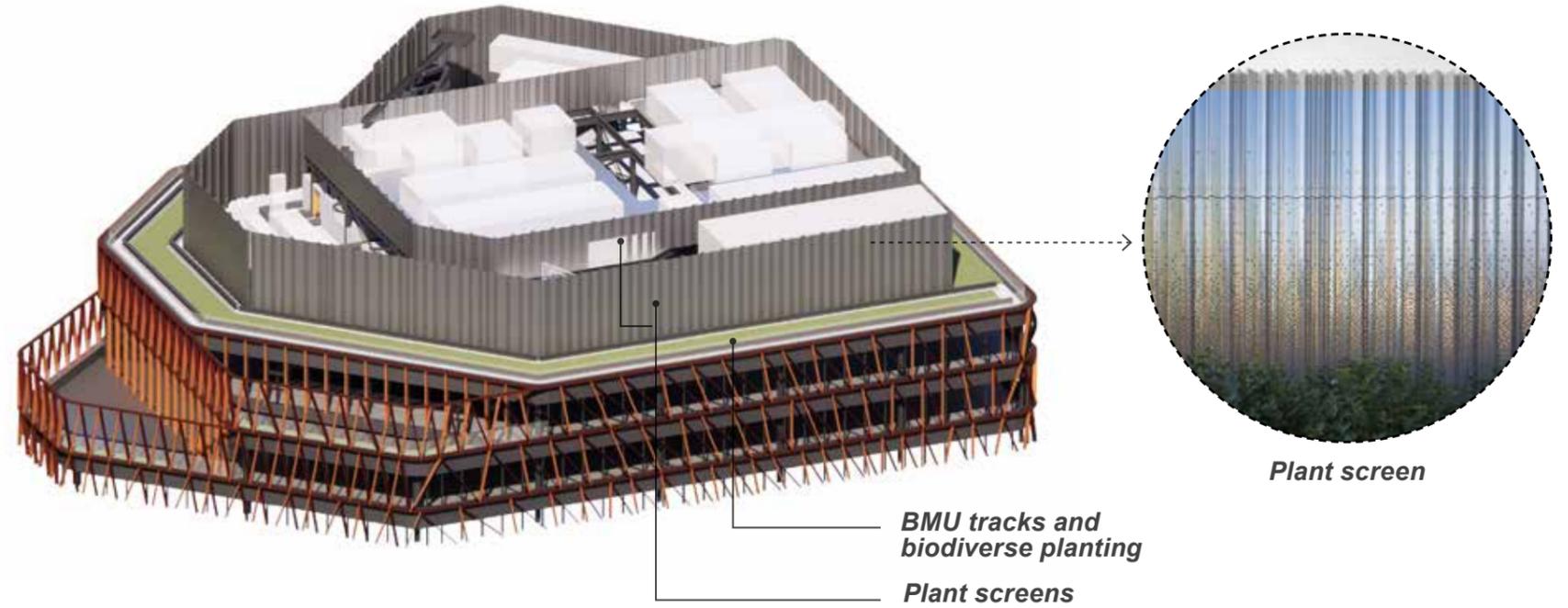


Fig.162 Diagram of roof level showing the scope of the plant screen

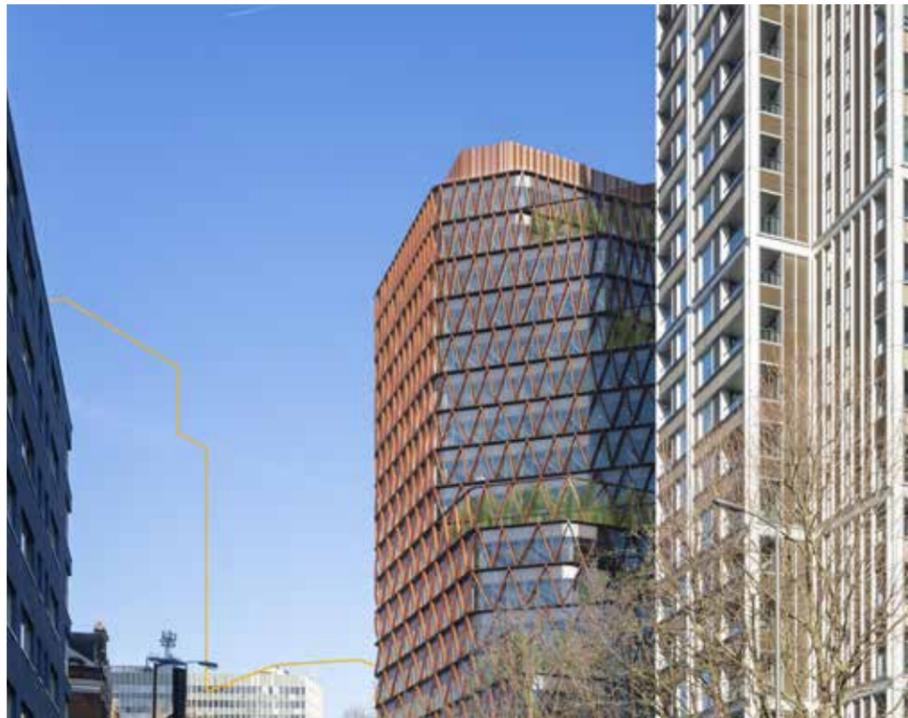


Fig.163 View from Walworth Road



Fig.164 View from Elephant Road

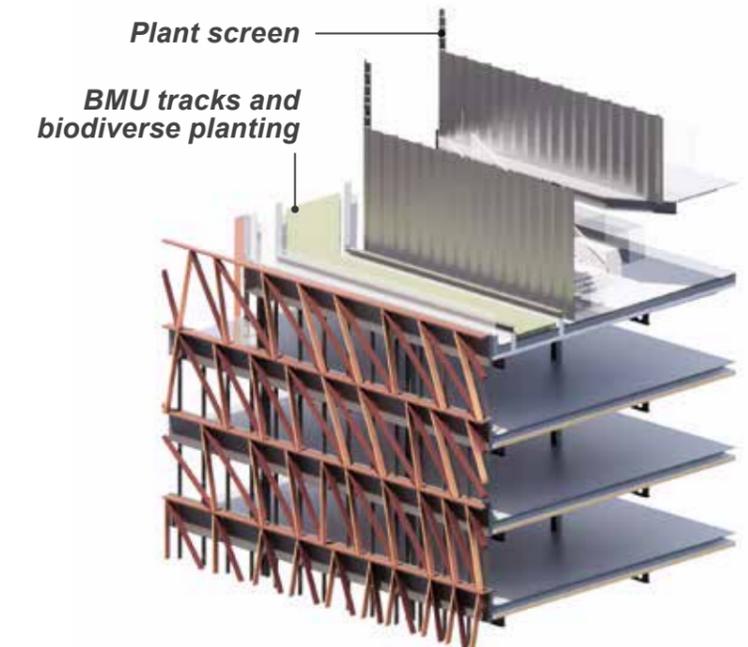


Fig.165 Principle of stacked roof plant and plant screen

4.3. Ground Plane

Design Proposals

Ground Plane

ANCHORING THE H1 DEVELOPMENT

The landscape and extensive public realm at the heart of Elephant Park are unique assets for the local and wider community.

The Park is seen as a green jewel in the heart of the development which lends itself to multiple uses and is intended to act as a catalyst for community cohesion, bringing together new and old residents through a high-quality public realm. Park Plaza is an extension of this which is brought to life by a confluence of active edges and movements.

The ground plane of the H1 Development will complete the principles of improved connectivity, sightlines and greening established in the Elephant Park Masterplan. In turn, the design of the H1 Development has influenced The Park's and Park Plaza's design by opening up key views of the building and introducing new materials to link the development boundaries, allowing the spaces to complement one another whilst maintaining their own identity.

Aligning with the whole neighbourhood regeneration, the vision for the ground plane is born from the aspiration to use The Park and its interaction with the H1 Development to anchor the building in its gateway location between the Elephant and Castle Town Centre, Elephant Park and Walworth. A diverse mix of retail opportunities in the active lobby space and small retail units / affordable workspace along Walworth Road will integrate the building into the surrounding mixed use urban fabric, during the day and into the evenings.

The public realm design around the H1 Development enhances the vision by creating different Character Zones in response, described later in this Chapter.

----- H1 Development Site



Fig.166 Illustration of the ground plane's interaction with The Park and the public realm

Design Proposals

Ground Plane

PARK PLAZA AND PAVILION - INTEGRAL TO ALIGNING WITH THE H1 DEVELOPMENT



Fig.167 Considered relationship with the Park Pavilion and Park Plaza public realm



Fig.169 Illustrations of the Elephant Park Pavilion, due to be completed in 2021. Design and images by Bell Phillips Architects.



Fig.168 Ground floor Pavilion (Bell Phillips Architects)

Design Proposals

Ground Plane

PARK PLAZA AND H1 RELATIONSHIP



Fig.170 Park Plaza and H1 Relationship. Proposed Park Plaza - public realm focal point

Design Proposals

Ground Plane

ACCESS AND CIRCULATION

The public realm of the H1 Development has been designed to ensure clarity and safety of movements for all users, distinguishing clearly between the needs of pedestrians, vehicles and cyclists. Appropriate signage and material changes will be implemented to ensure the safe movement of pedestrians and cyclists at all times.

The public realm has been developed to create a simple and unobstructed footway network and any unavoidable overlap between pedestrians and vehicles is minimised and closely managed.

Trees and street furniture, such as benches and cycle stands, are positioned to avoid pedestrian pinch points and allow clear views along the lengths of the footpaths.

Wide pedestrian footpaths will incorporate appropriate slip resistance to ensure a comfortable and safe walking experience. The use of tactile and hazard warning paving will be provided in compliance with the relevant British Standards, Building Regulations and Department for Transport (DfT) guidance. Their locations will also take consideration of the associated access strategies, best practice guidance and support of Southwark Council's access requirements.

Vehicle movements are restricted on Sayer Street North with only emergency and maintenance vehicles able to access the area. The in-plot service yard is accessed from Deacon Street which is two-way from the Walworth Road junction to the service yard entrance. The majority of servicing activity will approach and depart the Site from the Walworth Road / Deacon Street junction. The northern end of Deacon Street remains one way, with west-bound access via Sayer Street Central. Elephant Road and Walworth Road will operate as currently existing.

— H1 Development Site

↔ Pedestrian crossing

↔ 2-Way service vehicle movement

→ 1-Way vehicle movement

→ Emergency and maintenance vehicle movement

→ 2-Way cycle movement

01 New crossing proposed (to be delivered by Lendlease separate to this application)

→ Pedestrian movement

▶ Active lobby and main office entrance

▶ Secondary building entrances

▶ Cycle facilities entrance

▶ Service yard entrance

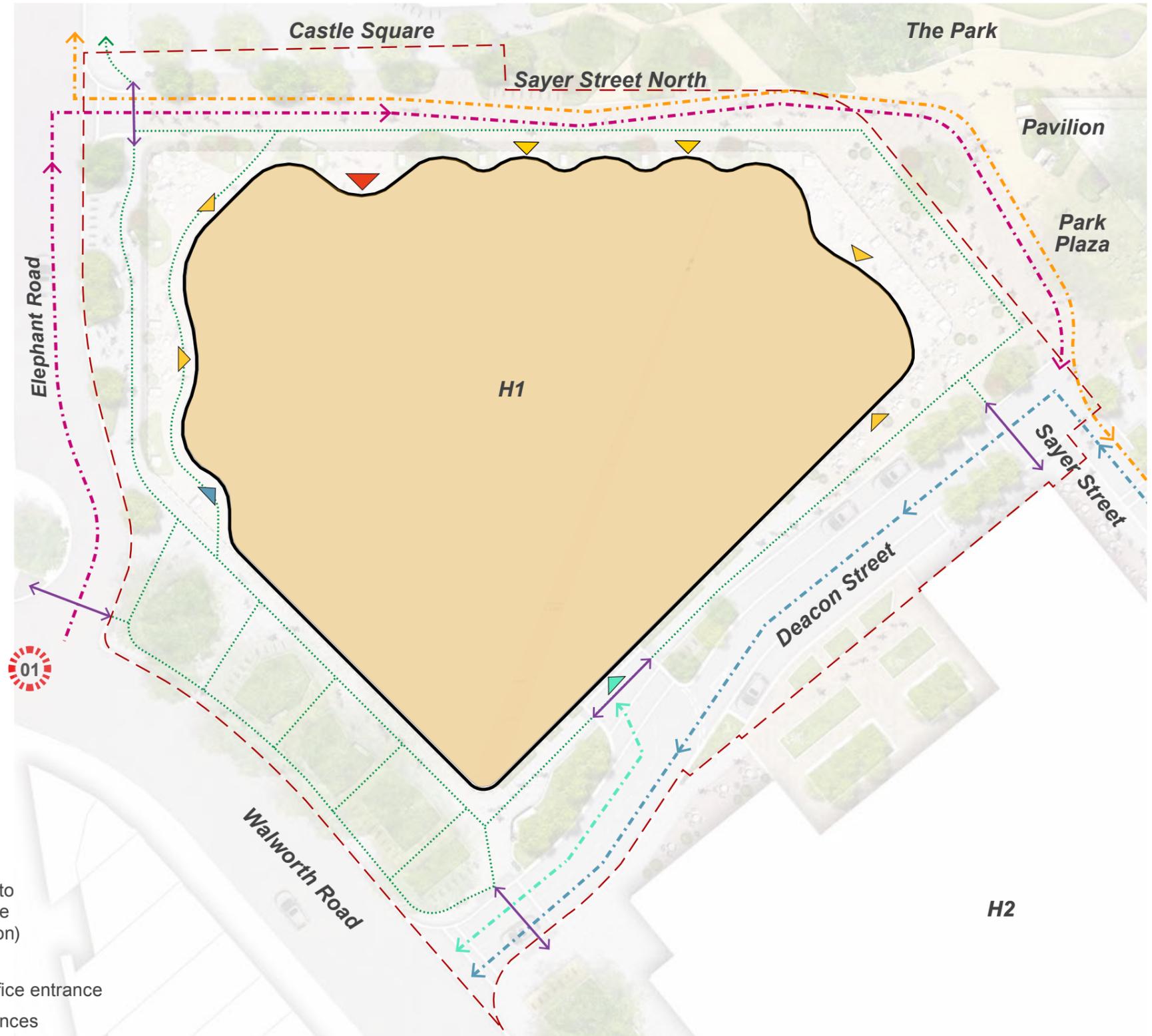


Fig.171 Access and circulation plan diagram



Design Proposals

Ground Plane

BLURRING THE BOUNDARIES

The relationship between the ground plane, the active lobby, and the surrounding landscaped public realm and Park is unique for central London. It is immediate and intimate and the design is focused on capitalising on this opportunity by blurring the boundaries between inside and outside making the active lobby an integral part of its context, inviting and accessible to all.

Key design components used to achieve a seamless transition between outdoors and indoors are planters, floor finishes and the facade. The external paving transitions into a complex flooring pattern that morphs from the active lobby to create an identity for the large space and spill out areas in between.

The landscape principles from The Park are carried through to the building facade, creating an extension of The Park and encouraging exploration and engagement. The landscape continues vertically up the building to anchor the H1 Development in The Park and visually connect with the occupier terraces.



Internal / external flooring to bleed across threshold - pattern, shape, material, colour



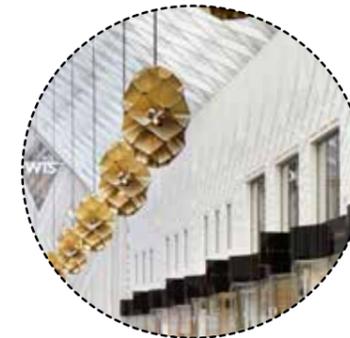
Internal / external floor transition / bleeding



Operable windows and doors; opportunities for retail spill out around perimeter



Low level planters and feature columns with planting



Pendant light concept



Articulated timber soffit and column cladding

Fig.172 Illustrations of design elements of the active lobby

Design Proposals

Ground Plane

EVOLUTION OF GROUND FLOOR ARTICULATION

The diagrams on this page depict the design evolution of the ground plane in response to feedback received from the Design Review Panel and during public consultation. Whilst the general concept of the active lobby has remained unchanged, details of the interface with the public realm have evolved to enhance the fluid relationship between the inside of the H1 Development, The Park and the public realm

Original concepts allowed for a ten metre high arcade encircling the active lobby to form a transition zone to the outside and provide a covered pedestrian route along the building. However, as the design for the public realm evolved and in discussion with the Council, Sayer Street North became a pedestrian-priority zone providing the opportunity to connect the ground plane more immediately with The Park.

Studies of the microclimate and the intention to create greater interest along the northern elevation lead to a more articulated ground floor façade with the design of ‘bay windows’ along Sayer Street North influenced by the historic s on Walworth Road. The main entrance on the north-west remains in sight on approach from the viaducts but has become more exposed and visible without the arcade.

Wind studies dictated the recess of the cycle entrance on Walworth Road, the widening of the Elephant Road set-back and the cutting of the north-west corner to mitigate the wind and create spaces that are suitable for sitting outside. Sun studies provided additional guidance as to which areas were better suited to outdoor seating.

The concept of undulating the façade was born of the desire to soften the sharper edges of the bay windows and to improve safety by avoiding any concealed recesses.

The articulated facade adds visual complexity to the lower level elevations. Its design allows for a unified expression of the ground plane while affording flexibility for internal and external layout and the integration of the landscape and planting designs, blurring the thresholds between inside and out. The active lobby physically ‘reaches’ out to meet the public realm and encourages people to come into the building.

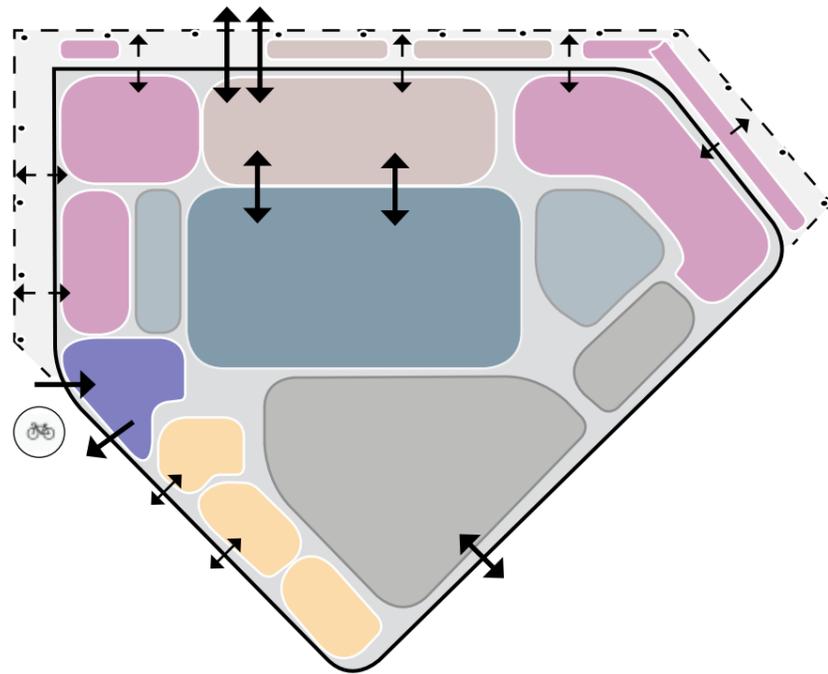


Fig.173 Creating a set-back colonnade

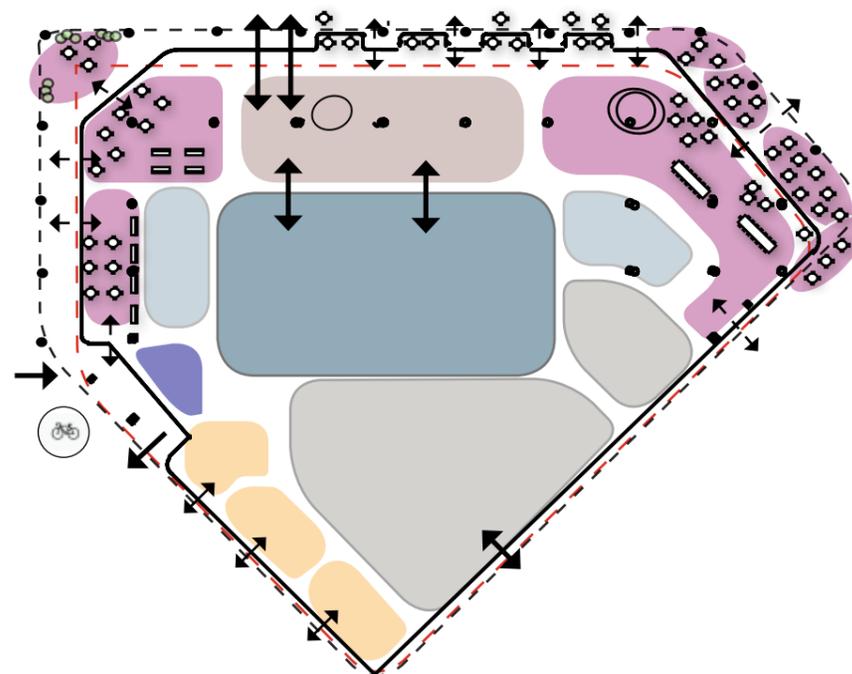


Fig.174 Introducing the concept of bay windows

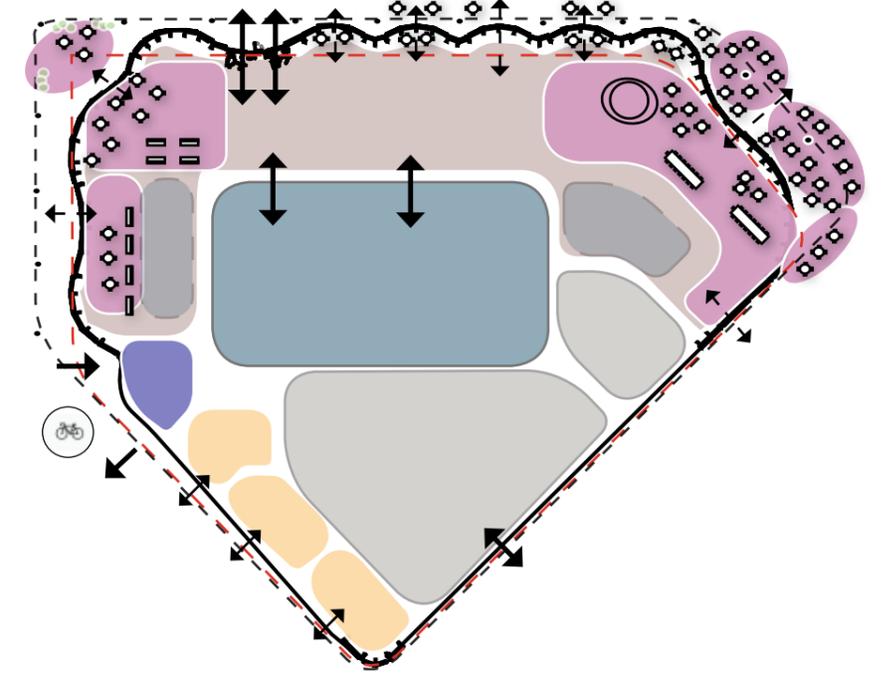


Fig.175 Evolved bay windows to create immediacy with The Park

- | | | | |
|--|---|--|------------------------------|
|  | Active Lobby; Central Zone |  | Entrance to Cycle Facilities |
|  | Active Lobby; Retail/Anchor Restaurant |  | Service Yard and Plant |
|  | Walworth Road Units; Retail, Affordable Office, Medical |  | Plant and Core |



Design Proposals

Ground Plane

THE ACTIVE LOBBY

The concept of the active lobby has been developed to complement the wider Elephant Park public amenity with a space that is buzzing with life, open and welcoming seven days a week for the wider community. The space is designed to create a visual connection with The Park whilst drawing people in from different directions to meet, dine, drink, work or just relax. The space provides opportunities for the curation of events and exhibitions to create additional reasons for visiting across the week and into the weekend.

The vision for the active lobby involves the creation of three character zones that respond to their orientation whilst transitioning smoothly from one to the next.

1. Central Zone - an open, hall like civic space to gather, work, lounge, meet people, plus arrive to and depart from the offices above. The space offers opportunities for exhibitions and small events and is designed as an inclusive and welcoming space for all.
2. Park Zone - the eastern section of the lobby extending the established Sayer Street food and drink experience into the H1 Development. With a view over The Park and adjacent Pavilion, it's the place to relax, enjoy a breakfast in the mornings or perhaps a drink after work.
3. Elephant Road Zone – the western section, connected most closely with the busier pedestrian routes from the stations. A lively position to engage with the wider community whilst lounging, dining or just people watching.

- Active Lobby; Offices / Retail / Services / F&B
- Active Lobby; Offices / Retail / Services / F&B
- Walworth Road Units; Offices / Retail / Services / Medical and Health
- Entrance to Cycle Parking and EOT Facilities
- Service Yard and Plant
- Plant and Core

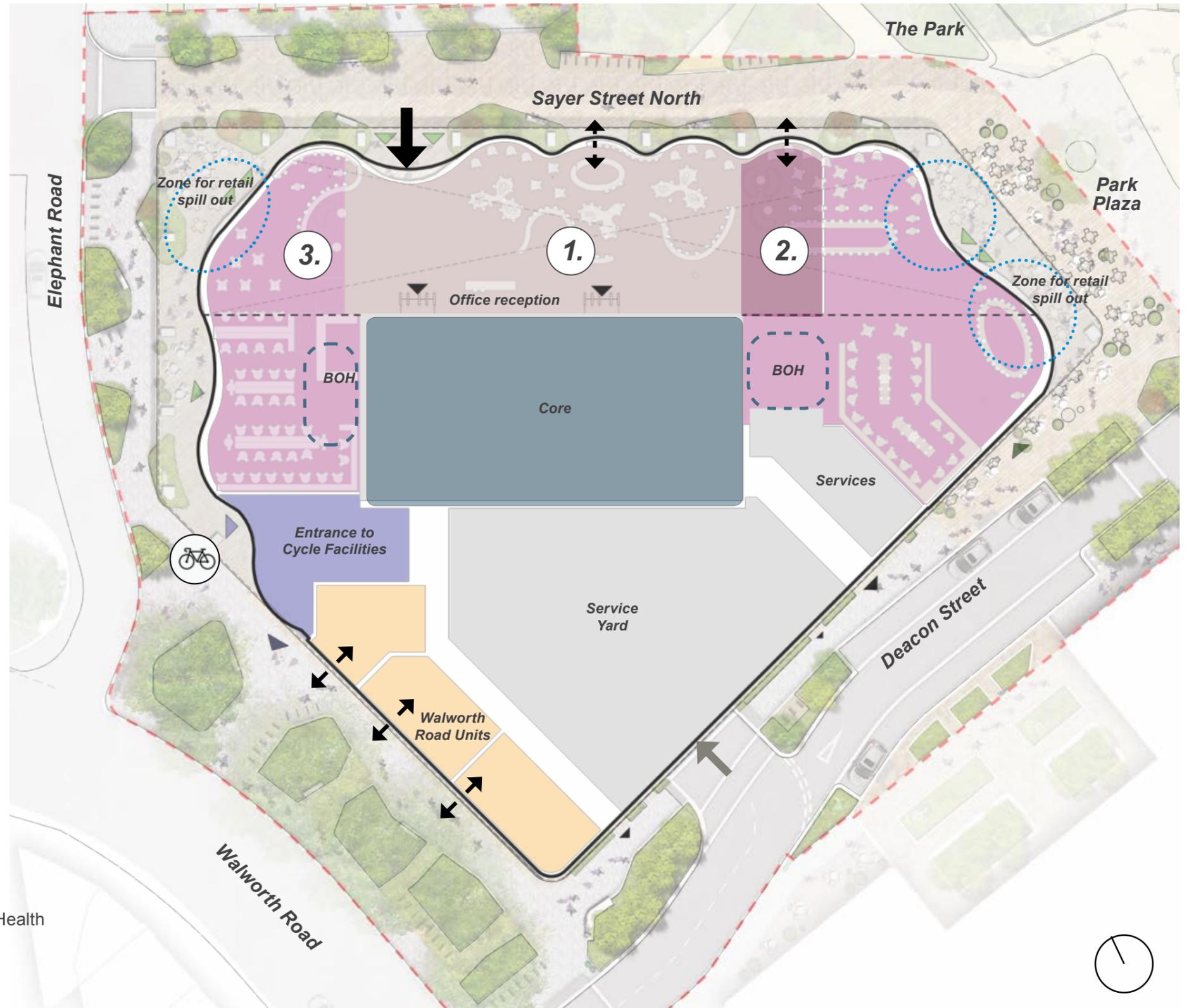


Fig.176 Illustrative active lobby diagram showing potential arrangement of uses

Design Proposals

Ground Plane

CHARACTER ZONES

Building on the character areas identified within the Elephant Park Masterplan, a series of localised character zones around the H1 Development have been established. These define the nature of each street and space of the public realm and articulate their spatial hierarchy, character and intended uses. The ground plane of the H1 Development with its active lobby is the central character zone around which the character zones of the public realm evolve.

The H1 Site is framed by Castle Square to the north, and Park Plaza to the north-east. Castle Square is an existing civic space adjacent to the Elephant and Castle Station entrance. It provides an expanse of hardstanding flexible in its use, with open edges and pockets of planting along the periphery that allow for easy movement in and out of the space.

As Castle Square and the H1 Development are each distinct in their character, the public realm will provide additional pockets of planting along the boundary to reinforce the line of existing Castle Square trees and help to soften the square as it meets the Site. Multiple pedestrian cut-throughs will be maintained along this edge, mirroring key views between the H1 Development lobby and the Square and Station, offering strategic permeability.

Park Plaza is an important piece of Elephant Park - acting as an extension of the park itself, but also as transitory space between Deacon and Sayer Streets to link together plots H1, H2 and H7. The primary function of Park Plaza is to provide passage for people and cyclists (and permitted vehicles) to transition seamlessly between all the individual plots, unifying them as part of the overall Elephant Park masterplan while allowing each plot to maintain their own special identity. Due to this, the materials palette is subtle and informal, mostly comprised of Park elements. The H1 Development public realm aims to actively engage with The Park, thus a similar palette focused on paving and planting styles is reflected. Connection with The Park is further achieved by the lack of visual and physical boundaries between the spaces.



Fig.177 Diagram of character zones of the public realm and the H1 Development

Design Proposals

Ground Plane

SAYER STREET NORTH

Sayer Street North is a clear route running along the northern and eastern facade of the H1 Development. Sayer Street North will provide access for pedestrians and cyclists, as well as controlled access for emergency and maintenance vehicles but will be closed to all other traffic. The two-way quietway cycle route and adjacent footway access have been designed to create a safe environment for the different users. Generous spill out spaces along the active lobby activate the streetscape and provide an opportunity to pause and enjoy views across The Park. The proposed design is simple yet elegant, and mirrors The Park's naturalistic character, linking the H1 Development with the wider open space network that extends across the Elephant Park Masterplan and beyond. Natural stone or clay brick paving in warm tones will unify the space visually to create a unique space, transitioning indoors to blur the threshold between outside and inside.

Design Principles

- Incorporate all emergency and maintenance vehicle movements;
- Clear cycle route through use of materials and tone;
- Maintain clear zones for retail spill area which can be flexibly accommodated;
- Provide visitor cycle parking to meet the H1 Development's requirements;
- Provide sufficient pavement space for the public and users of the H1 Development; and
- Incorporate planting to bring The Park character up to the building facade and extending it along Sayer Street North, accentuating the enviable position of the H1 Development in The Park.



Fig.178 Southwater One, Telford



Fig.179 Park Phase One, Elephant Park, London



Fig.180 Granary Square, Kings Cross, London



Fig.181 Park Phase One, Elephant Park, London

Design Proposals

Ground Plane

SAYER STREET NORTH

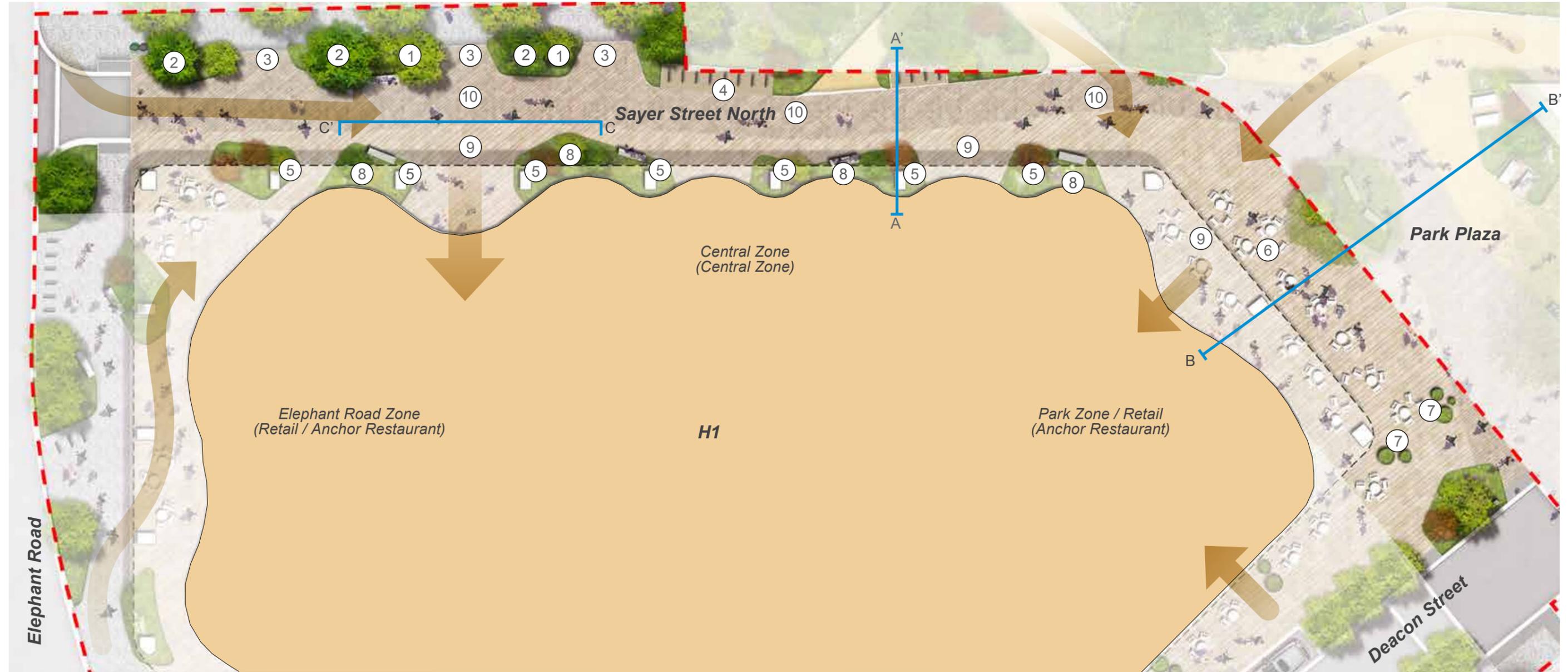


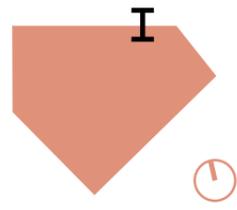
Fig.182 Sayer Street North illustrative Character Zone plan

- | | | |
|--|--|---|
| ① Planting beds softening the interface with Castle Square | ④ Visitor cycle stand parking | ⑧ Planting beds with trees set against the building facade creating a green outlook onto The Park from inside the lobby |
| ② Larger tree planting to create a green forefront to Castle Square when viewed from the H1 Development | ⑤ Climber plants trained to grow up the building columns from planter beds, in addition to climbers in all column 'socks' along Sayer Street | ⑨ Natural stone or clay brick paving |
| ③ Pathways cut through the planting at key points to provide permeable, pedestrian routes to and from the building | ⑥ Spill out space | ⑩ Natural stone or clay brick paving in a small unit size to define the cycle route |
| | ⑦ Moveable planters to define spill out space | |



Design Proposals

Ground Plane



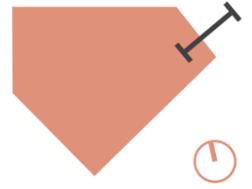
SAYER STREET NORTH



Fig.183 Sayer Street North illustrative section

Design Proposals

Ground Plane



SAYER STREET NORTH / PARK PLAZA

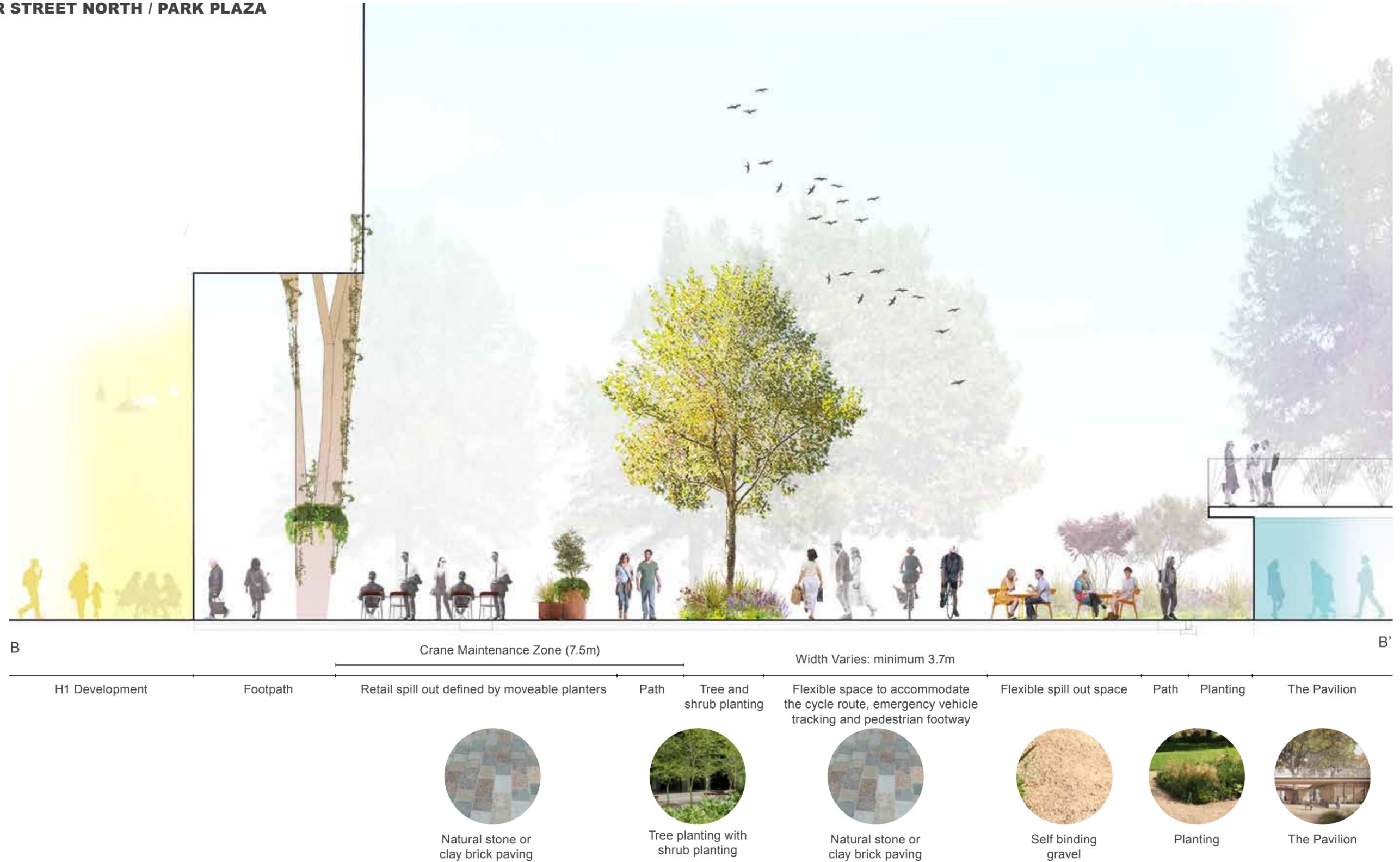


Fig.184 Sayer Street North illustrative section

Design Proposals

Ground Plane



Fig.185 Illustrative view looking east along Sayer Street North on approach from Elephant Road after leaving the railway viaduct new main station entrance

Design Proposals

Ground Plane



Fig.186 Illustrative view towards the main entrance of the active lobby along Sayer Street North looking east emphasising Sayer Street North as a pedestrian priority street

Design Proposals

Ground Plane

DEACON STREET

Deacon Street will create a new link to The Park from Walworth Road and provide a lush and welcoming entrance to the Elephant Park Masterplan. While the southern side of Deacon Street has now been built, the overarching principle for the streetscape is for planting to extend along both sides and feed into the character from the adjacent parkland. The use of natural stone paving in warm tones within the retail spill out areas extends from Park Plaza and will highlight the special character, which will contrast with the consistent grey tones of the wider public realm. Planting has been incorporated wherever possible to emphasise the green character of the road including extending the planting up the building facade via climbing species.



Fig.187 Deacon Street, Elephant Park - completed southern side (Plot H2)



Fig.188 Natural stone door mats to entrances

Design Principles

- Accommodate all vehicle movements along Deacon Street and contain major servicing for the H1 Development to its southern end;
- Provide for H2's loading bay, H2's blue badge bay as well as the H1 Development's designated disabled persons parking bays and drop off zone;
- Introduce shrub, herbaceous and tree planting along Deacon Street, creating an extension of The Park;
- Accommodate generous footways and climbing plants, promoting a green street;
- Provide visitor cycle parking to meet the H1 Development's requirement; and
- Provide retail spill out space to the north-eastern corner of the building.



Fig.189 Ashwin Street, Dalston, London



Fig.190 St John's Hill, Clapham Junction, London

Design Proposals

Ground Plane



Deacon Street Character Zone

DEACON STREET

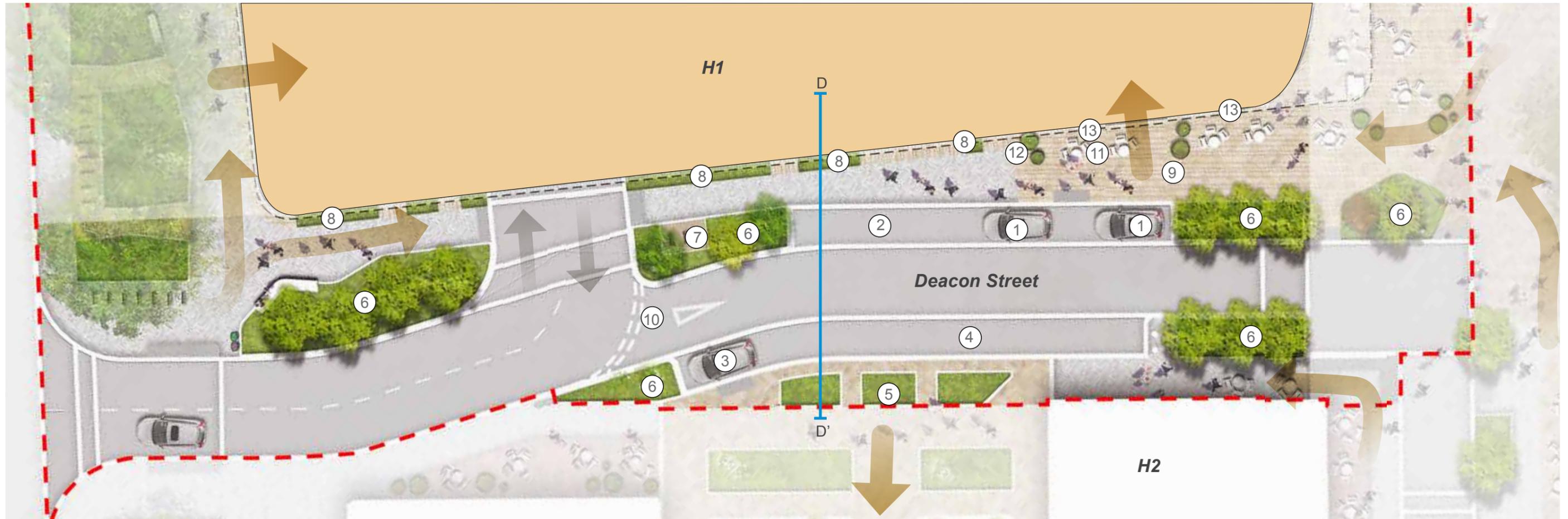


Fig.191 Deacon Street illustrative Character Zone plan

- ① H1 Development designated disabled persons parking bays (x2 no.)
- ② H1 Development drop-off / emergency parking
- ③ H2 Blue badge bay
- ④ H2 Loading bay
- ⑤ Green view maintained from Plot H2's main concierge

- ⑥ Trees and herbaceous planting, greening up Deacon Street
- ⑦ Visitor cycle parking
- ⑧ Planting against the building with climbers growing up the facade
- ⑨ Natural stone or clay brick paving to retail spill out space

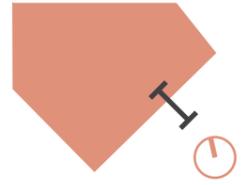
- ⑩ Point where the street transitions from 2-way to 1-way. The planting bed has been enlarged to deter vehicles from driving along Deacon Street whilst signage and road markings inform users at the mouth of the road and vehicle entrance.
- ⑪ Spill out space
- ⑫ Moveable planters to define spill out space

- ⑬ Climbers in all column 'socks'



Design Proposals

Ground Plane



DEACON STREET



Fig.192 Deacon Street illustrative section

Design Proposals

Ground Plane



Fig.193 Illustrative view across Walworth Road looking north into Elephant Road and east into Deacon Street

Design Proposals

Ground Plane

WALWORTH ROAD

The new retail / affordable workspace frontage will be complemented by a generous footway framed by substantial areas of planting underneath the existing mature trees. The introduction of pause points set back from the main footway provides opportunities for seating and pause while cut through paths between the planting beds allow for quick access to the retail / affordable workspace units. The existing tree line will be celebrated with richer under-storey planting creating new habitat and foraging ground for the local wildlife. Collectively these principles will enhance the public realm, re-establishing the key link between Walworth Road and Elephant and Castle Town Centre.

Design Principles

- Retain existing trees, where healthy, to form a continuous greenway along Walworth Road and to The Park;
- Provision of a buffer of planting to allow pedestrians to walk away from the carriageway;
- Introduction of planting in a purposeful and focused manner to soften the space underneath the existing tree planting;
- Provision of climbing plants to the building facade, continuing a green language around all sides of the H1 Development;
- Provision of visitor cycle parking to meet the H1 Development's requirements;
- Provision of resting points; and
- Create a new street section that feels bright and safe to cross.



Fig.194 View along the H1 Development showing the importance of high quality links from the Town Centre to the Walworth high street



Fig.195 Walworth Road, Elephant Park, London



Fig.196 Kingdom Street, Paddington Central, London



Fig.197 Heygate Street, Elephant Park, London

Design Proposals

Ground Plane



Walworth Road Character Zone

WALWORTH ROAD

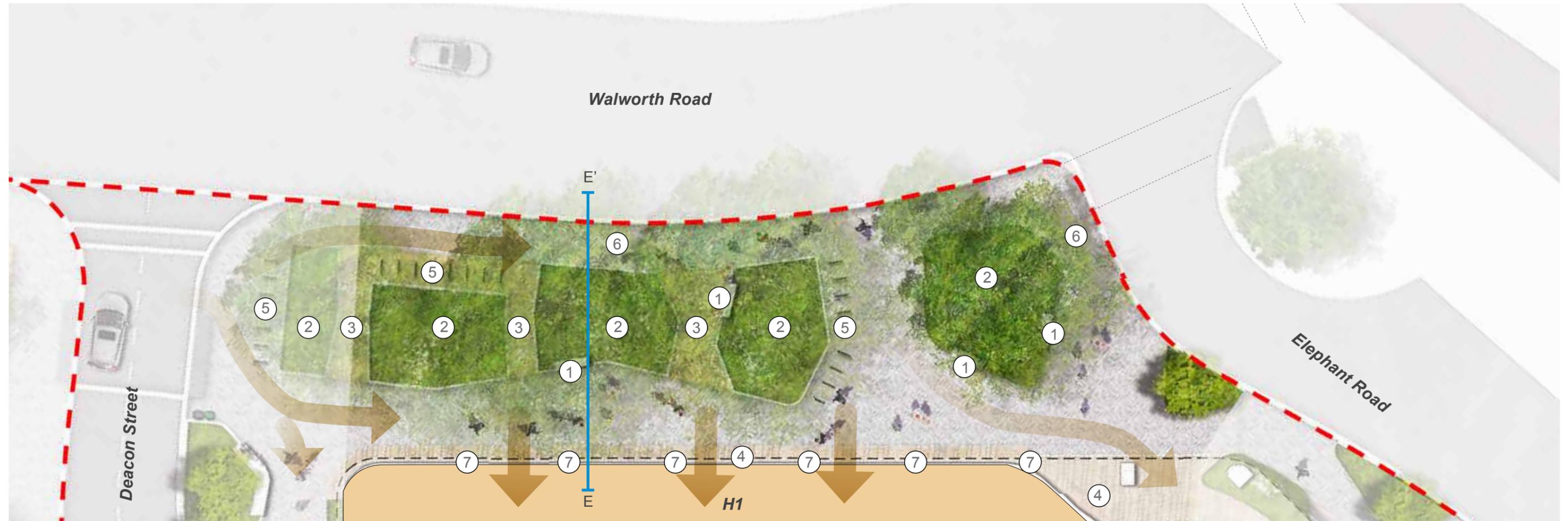


Fig.198 Walworth Road illustrative Character Zone plan

- ① Seating to create a pause point along someone's journey
- ② Shrub planting under existing trees maintaining a green journey along Walworth Road
- ③ Cut through pathways from Walworth Road, creating better open access to retail units / affordable workspaces

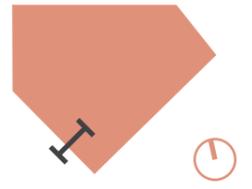
- ④ Threshold 'welcome mat' natural stone or clay brick paving
- ⑤ Visitor cycle parking
- ⑥ 2.4m highway pathway in silver grey granite paving
- ⑦ Climbers in all column 'socks'

--- Indicative Walworth Road crossing arrangement; New crossing proposed (to be detailed and delivered by Lendlease separate to this application)



Design Proposals

Ground Plane



WALWORTH ROAD



Fig.199 Walworth Road illustrative section

Design Proposals

Ground Plane

ELEPHANT ROAD

The south eastern corner of Elephant Road has been transformed into a tree lined street with retail spill out space and generous planting. Islands of shrub and herbaceous planting create an instant green view which directs the user along the road towards Elephant and Castle Station. The character of the shrub and tree planting references The Park whilst providing structure and seasonal interest. Bench seating is nestled within the planting at key intermittent intervals, allowing for pause points throughout. These areas are positioned closer to the building, providing a green backdrop for retail frontages, and directing views towards the H1 Development where possible.

Design Principles

- Connect the Elephant and Castle Town Centre development with the Elephant Park Masterplan via Elephant Road;
- Address retail frontage with a generous footpath width and incorporate the highway 2.4m footpath;
- Provide shrub planting and tree planting to aid with wind mitigation;
- Create an attractive road which ties in with the Elephant Park Masterplan and helps to enhance the setting of the viaduct opposite;
- Integrate the Quietway cycle route along Elephant Road; and
- Provide visitor cycle parking to meet the requirements of the H1 Development.



Fig.200 Planting framing views, Riverlight Quay, London



Fig.202 Seating set against planting, Hardman Square, Manchester

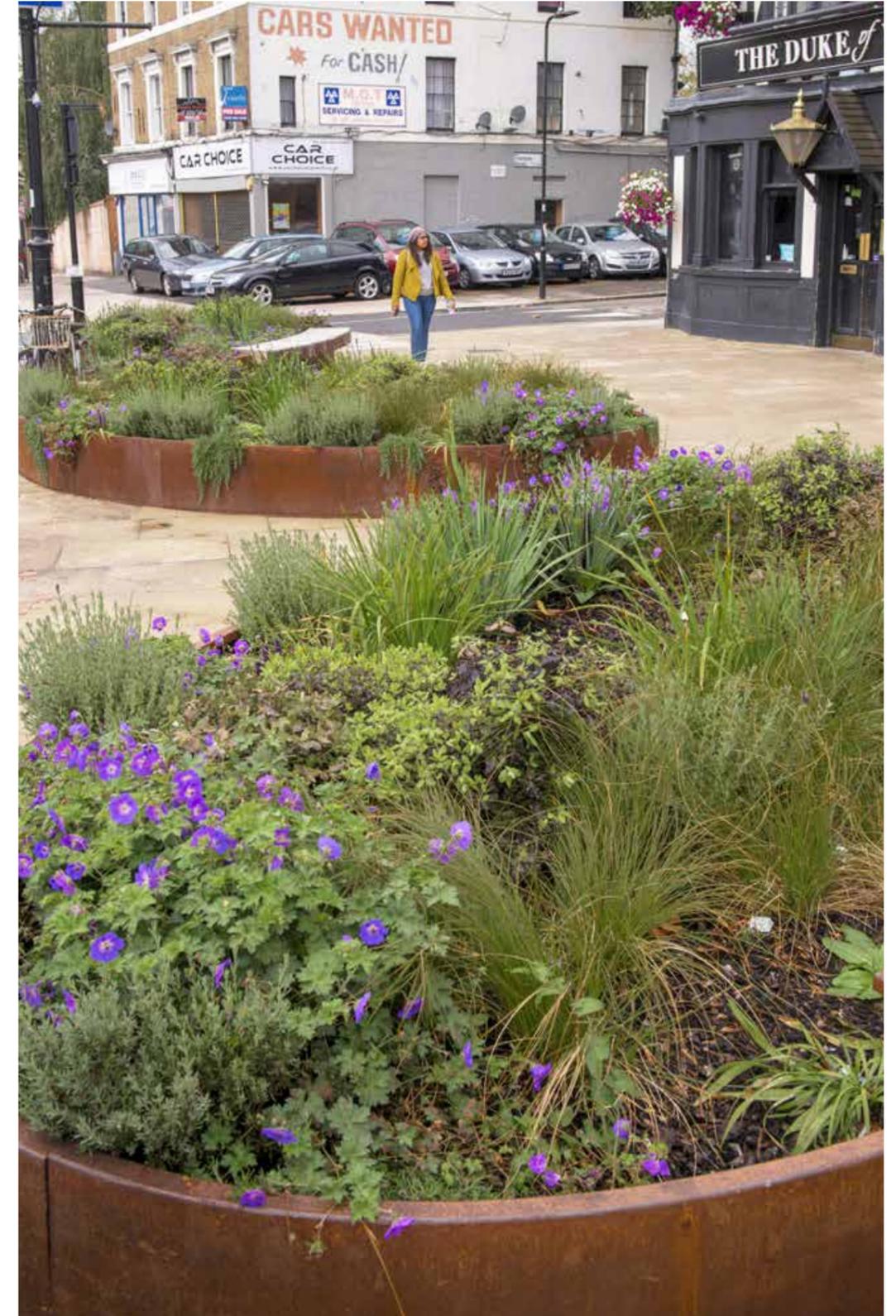


Fig.201 Raised planters taking on The Park language, Hanwell, London

Design Proposals

Ground Plane

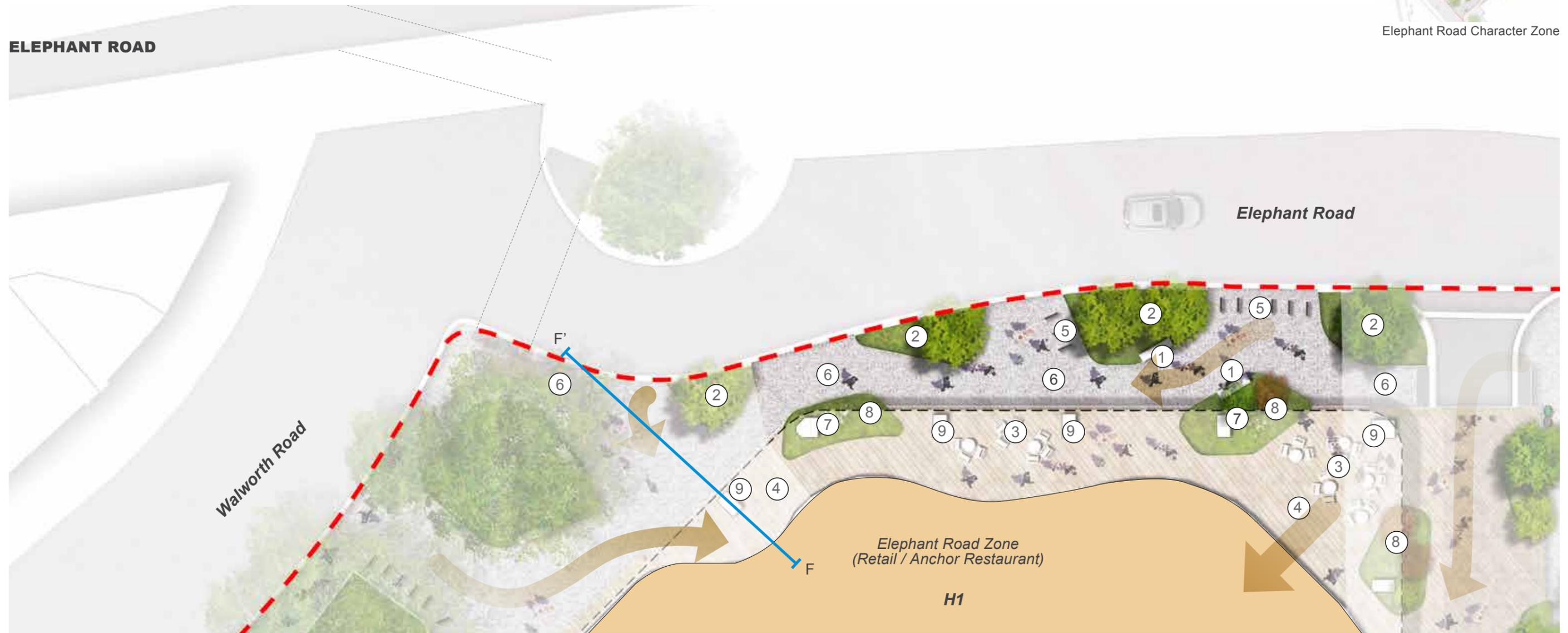


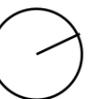
Fig.203 Elephant Road illustrative Character Zone plan

- ① Seating to create a pause point along someone's journey
- ② Shrub planting and proposed tree planting maintaining a green journey towards The Park
- ③ Spill out space
- ④ Natural stone or clay brick paving to spill out space associated with the building, connecting it to Sayer Street North

- ⑤ Visitor cycle stand parking
- ⑥ 2.4m highway pathway in silver grey granite paving
- ⑦ Climber plants trained to grow up the building columns from planter beds, in addition to climbers in all column 'socks' along Sayer Street

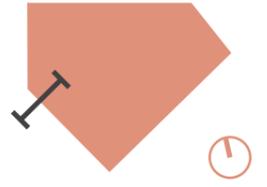
- ⑧ Island planters with herbaceous species and specimen shrubs
- ⑨ Climbers in all column 'socks'

--- Indicative Walworth Road crossing arrangement; New crossing proposed (to be detailed and delivered by Lendlease separate to this application)



Design Proposals

Ground Plane



ELEPHANT ROAD

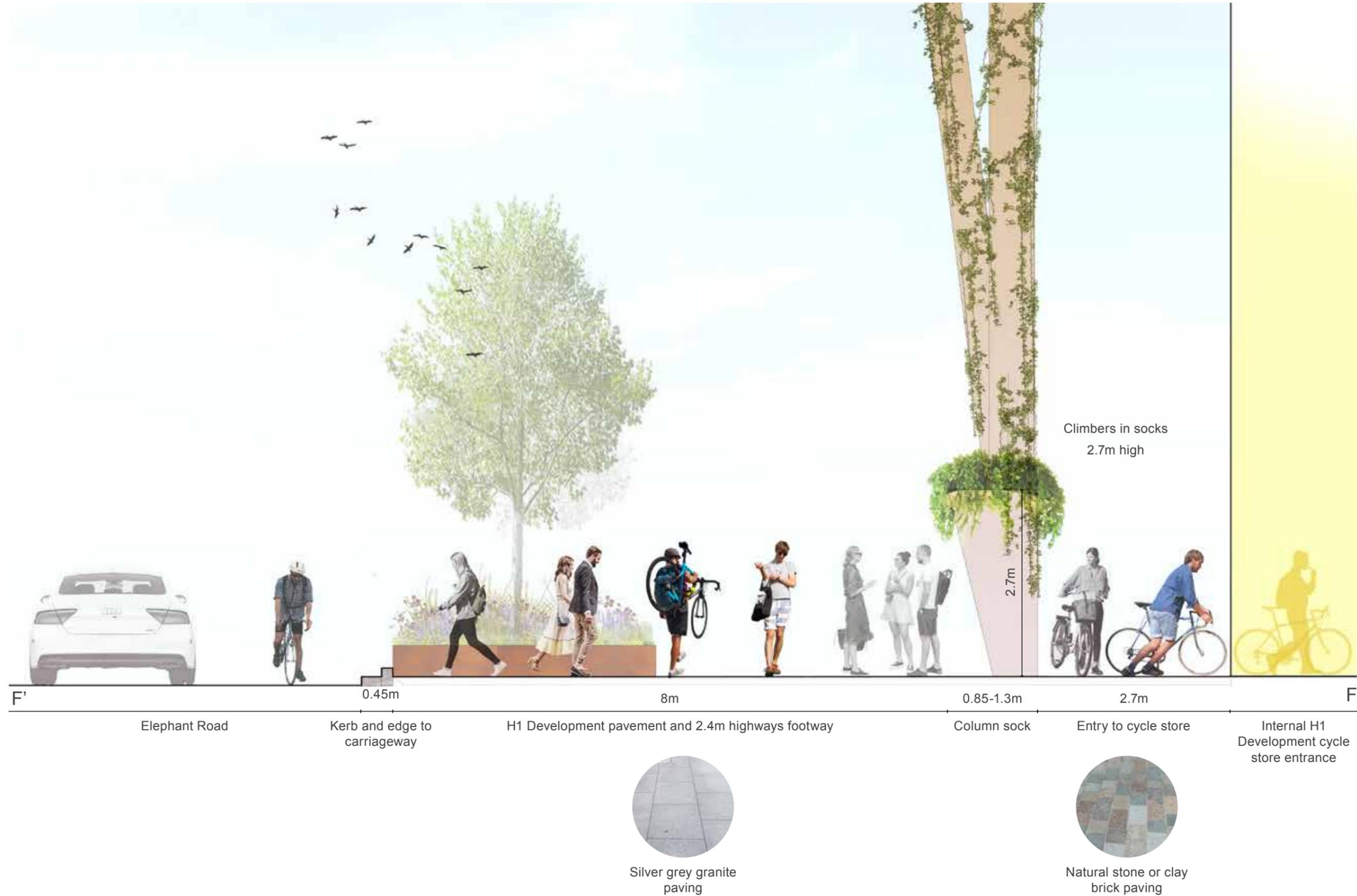


Fig.204 Elephant Road illustrative section

Design Proposals

Ground Plane



Fig.205 In the context of the high viaduct, the Elephant Road frontage has been designed to improve the public realm experience, by setting the building back to allow wide planters, a mix of facade typology and activation through building entrances, covered outdoor sections and direct access to cycle storage from the main local cycle networks.

4.4. Spatial Organisation

Design Proposals

Spatial Organisation

AREAS & DISTRIBUTION OF USES

The proposed land uses / floor areas are:

Uses (All Class E)	Level	GIA (sqm)	GEA (sqm)
Offices	02 - 16	49,351	49,565
Offices / Medical and Health	Mezz - 01	6,728	6,795
Offices / Retail / Services / Medical and Health	GF	264	277
Offices / Retail / Services / F&B	GF	1,689	1,728
BOH (loading bay, plant, cycle facilities)	GF	1,486	1,722
Lift Overrun and Plant Levels	Roof	190	222
Cycle Parking and EOT Facilities	Basement	1,209	1,376
Plant and Core	Basement	2,681	2,938
Total		63,599	64,624

- Plant
- 16 Office
- 15 Office
- 14 Office
- 13 Office
- 12 Office
- 11 Office
- 10 Office
- 09 Office
- 08 Office
- 07 Office
- 06 Office
- 05 Office
- 04 Office
- 03 Office
- 02 Office
- 01 Office / Medical
- M Office / Medical
- 00 Lobby
- B Cycle store and EOT



Back of House / Plant

Retail

Back of House / Plant

- Offices (Class E)
- Offices / Medical and Health (Class E)
- Active lobby – Offices / Retail / Services / F&B (Class E)
- Offices / Retail / Services / Medical and Health (Class E)
- Cycle Parking and EOT Facilities (Long Stay)
- Back of House / Plant

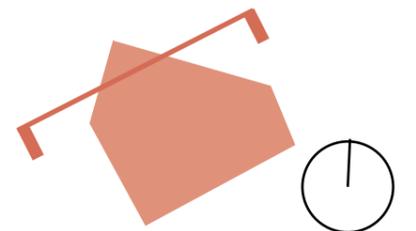


Fig.206 Axonometric section diagram

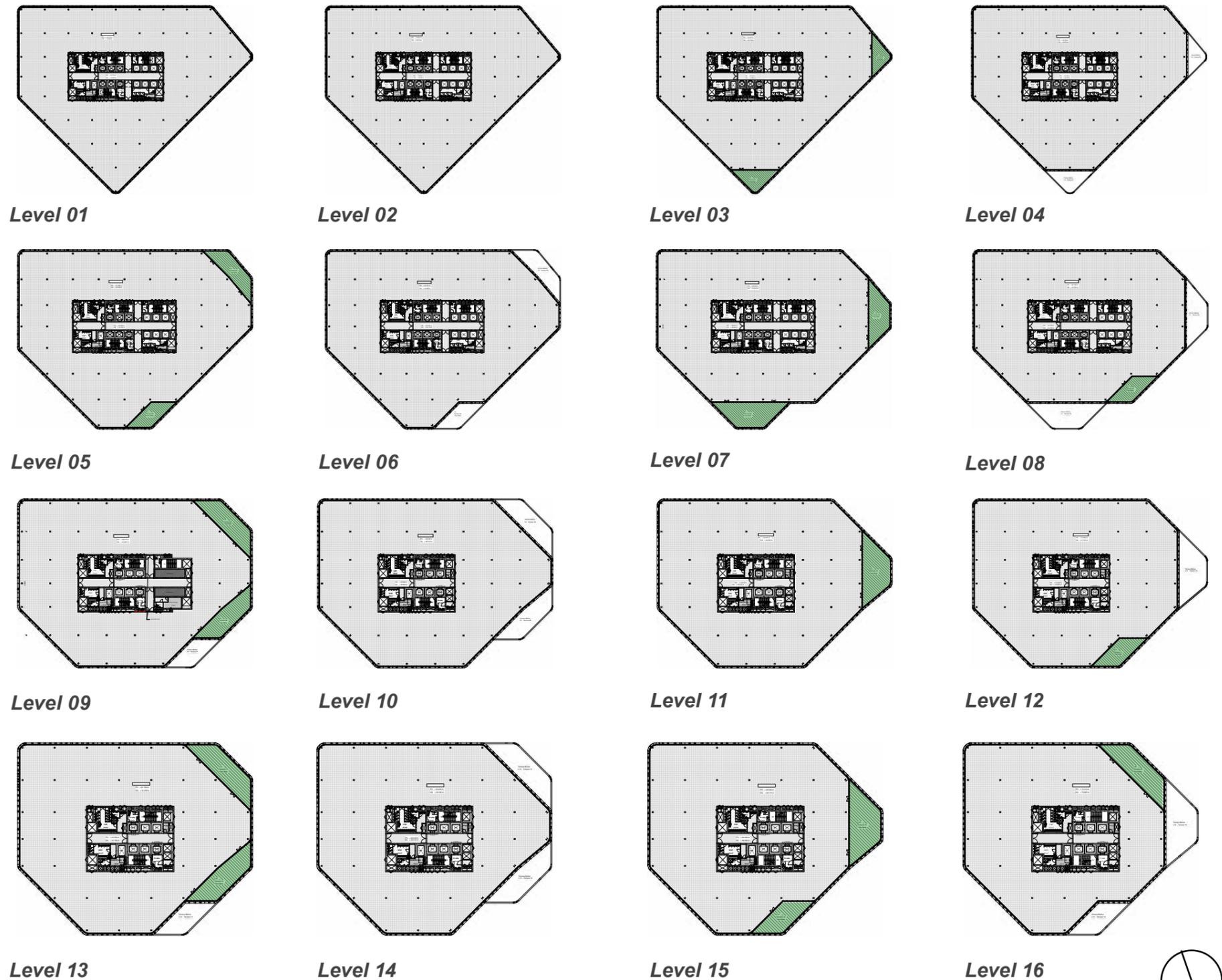
Design Proposals

Spatial Organisation

OVERVIEW GENERAL ARRANGEMENTS

Unlike many offices, the H1 Development's mixed floor arrangements are designed to appeal to a broad mix of small, medium and larger companies. The overview in Fig. 207 illustrates the stepping of the floor plates of all office levels from Level 01 to Level 16. It clearly shows the set-backs and the 16 landscaped terraces that have been introduced by reducing the floor plates and stepping back the building.

The terraces vary in size, shape and orientation. Each will be landscaped to provide external amenity space for the occupiers. In addition the terraces will provide visual amenity spaces and act as a green filter, giving privacy to residential neighbours and occupiers of the H1 Development.



Landscaped terraces

Fig.207 Overview office Levels L01 - L16

Design Proposals

Spatial Organisation

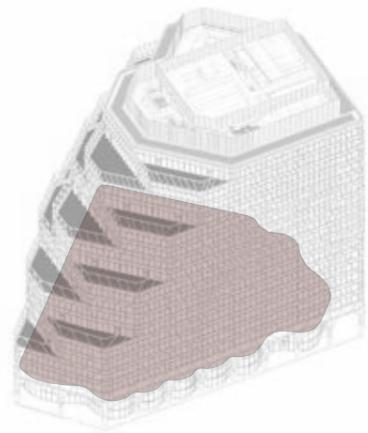
GROUND FLOOR



Design Proposals

Spatial Organisation

MEZZANINE LEVEL



-  Offices / Medical and Health (Class E)
-  Void above active lobby
-  Back of House / Plant

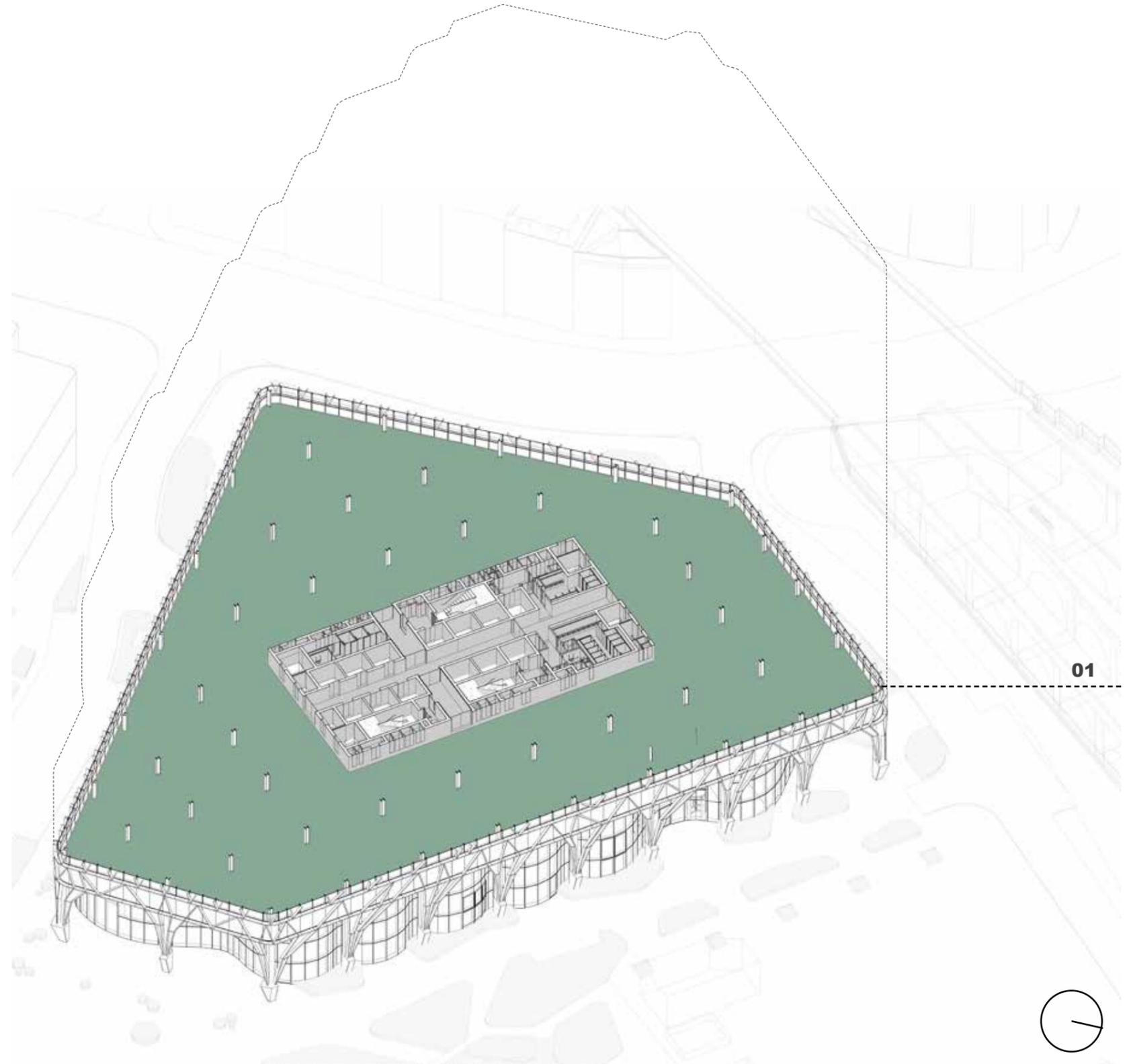
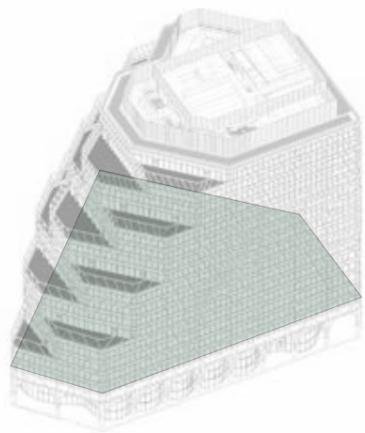


Fig.209 Overview of the mezzanine level

Design Proposals

Spatial Organisation

OFFICE LAYOUT LEVEL 01



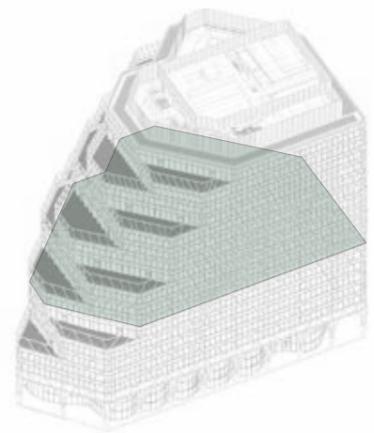
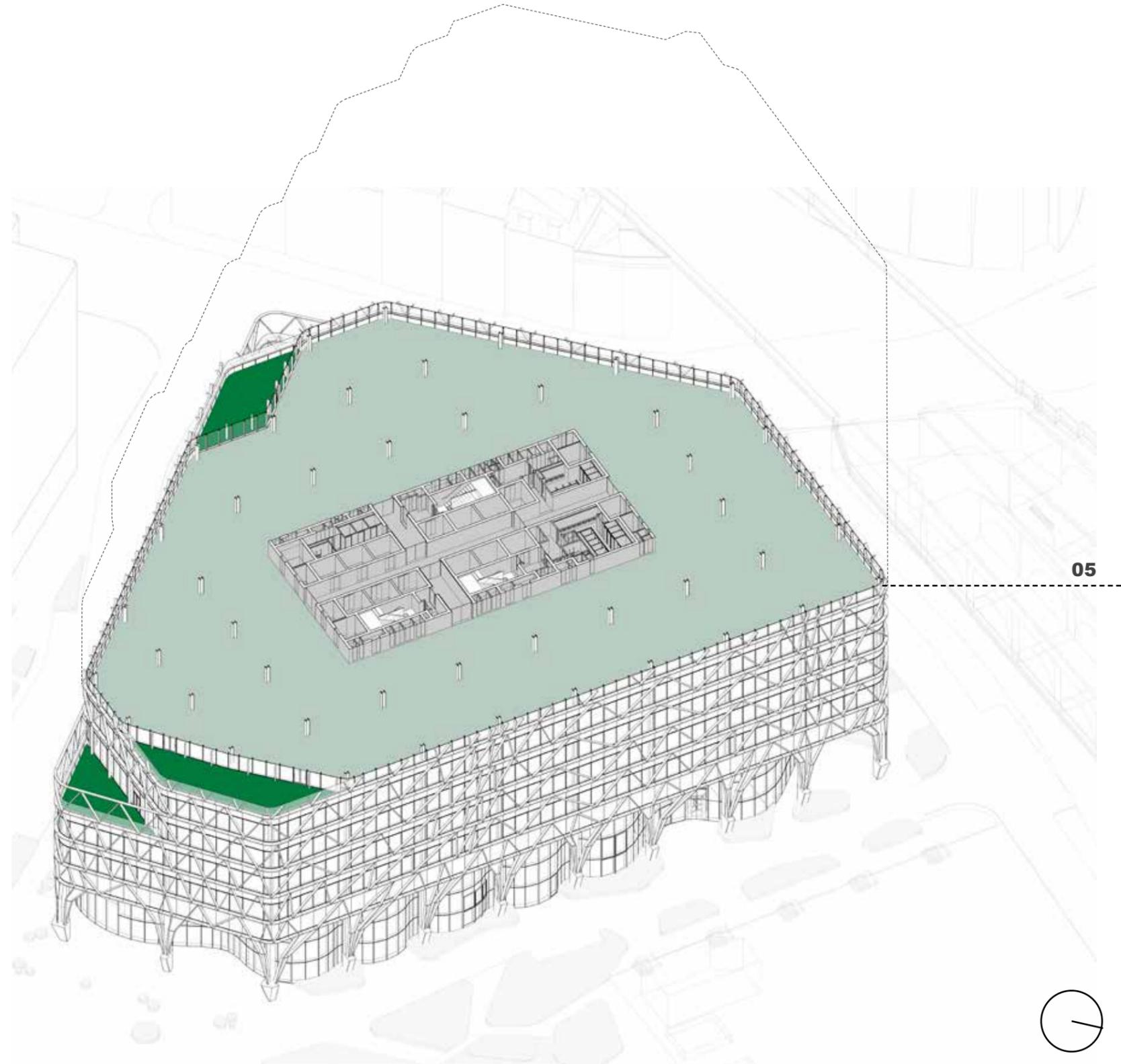
- Offices / Medical and Health (Class E)
- Core

Fig.210 Overview of Level 01

Design Proposals

Spatial Organisation

OFFICE LAYOUT LOWER LEVELS



- Offices (Class E)
- Core
- Terraces

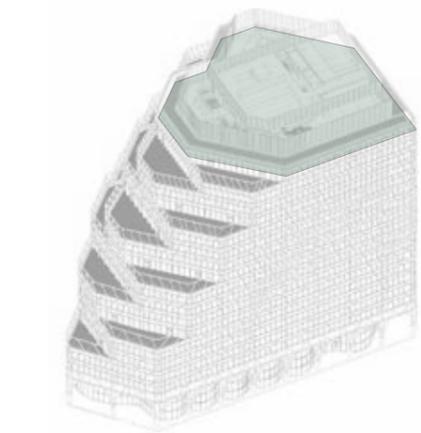
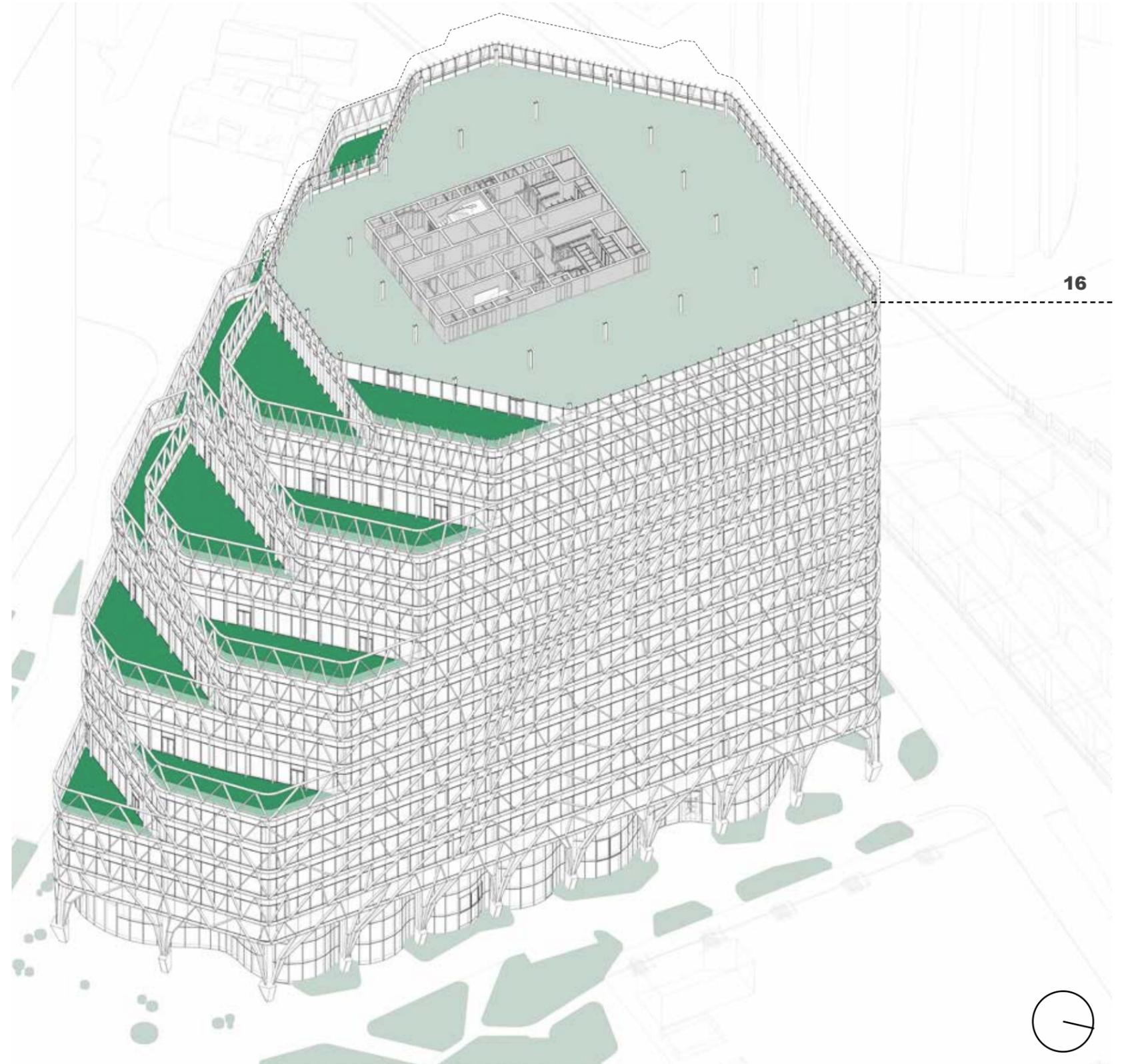
Fig.211 Overview of Level 05

Design Proposals

Spatial Organisation

OFFICE LAYOUT UPPER LEVELS

The role of the workplace in maintaining employees' health and wellbeing (both physical and mental) has arguably accelerated because of Covid-19. Subsequently, the inclusion of 16 terraces across the building provides valuable outdoor amenity and its associated benefits.



- Offices (Class E)
- Core
- Terraces

Fig.212 Overview of Level 16

Design Proposals

Spatial Organisation

WORKPLACE ASPIRATIONS

The design of the building seeks to be responsive to new ways of working following the lessons from 2020 / 2021 and Covid-19.

The floor plates are designed to provide long term flexibility for different layouts, uses and tenancies throughout the building, enabling vertical connections, access to outside space on the occupier terraces and allowing subdivision on each level.

Studies by the design team have analysed the anticipated way offices will become collaborative innovation zones designed to connect people, rather than be focused on individual desks and solitary working.



Flexible Open Plan



Event Space



Innovation Hub



Small and Growing



Research and Development

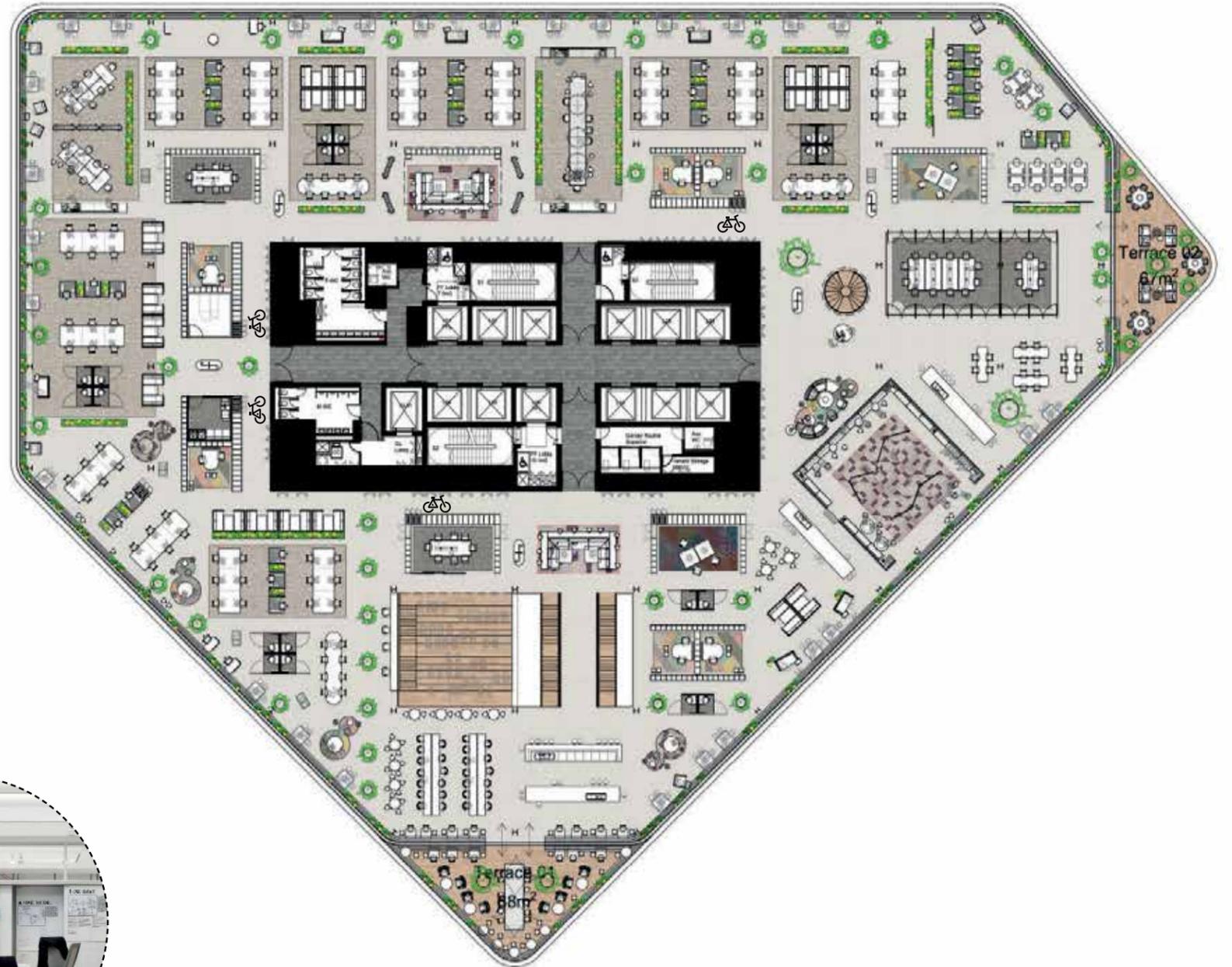


Fig.213 Workplace scenarios

Fig.214 Indicative office layout Level 04

Design Proposals

Spatial Organisation



Fig.215 Illustrative view of the office interior

Design Proposals

Spatial Organisation

TERRACES

The inclusion of terraces across the building provides desirable outside space as an alternative location to work whilst providing opportunities to enhance connections between people and improve overall health and wellbeing.

This diagram illustrates the layout of a typical terrace. Terrace sizes and shapes vary across the building, with each terrace design bespoke to its size, location and orientation while the design principles remain the same.

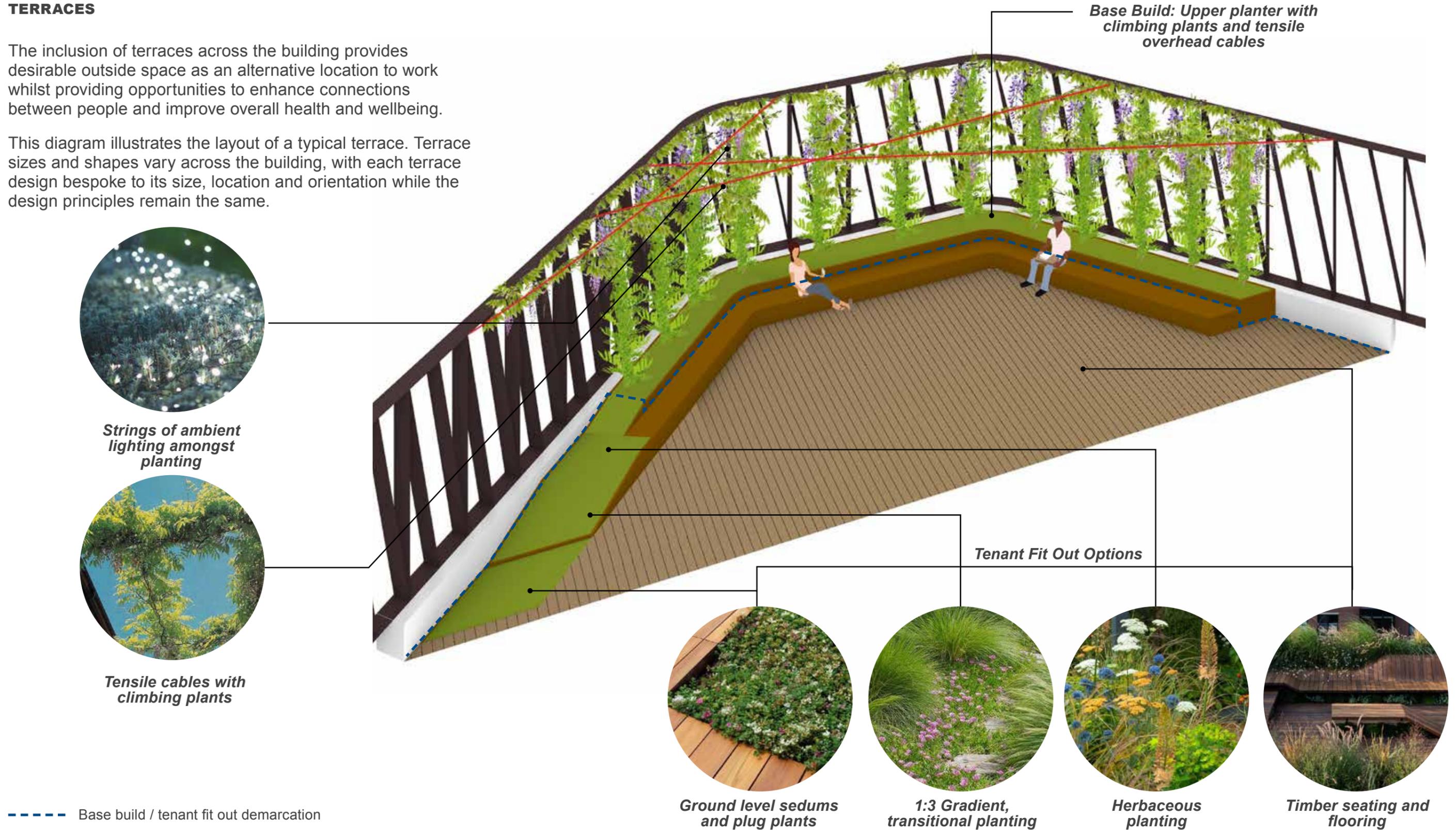


Fig.216 Illustration of terrace planting

Design Proposals

Spatial Organisation



Fig.217 Illustrative view from the Level 05 terrace looking towards The Park, showing an occupier enhanced terrace design

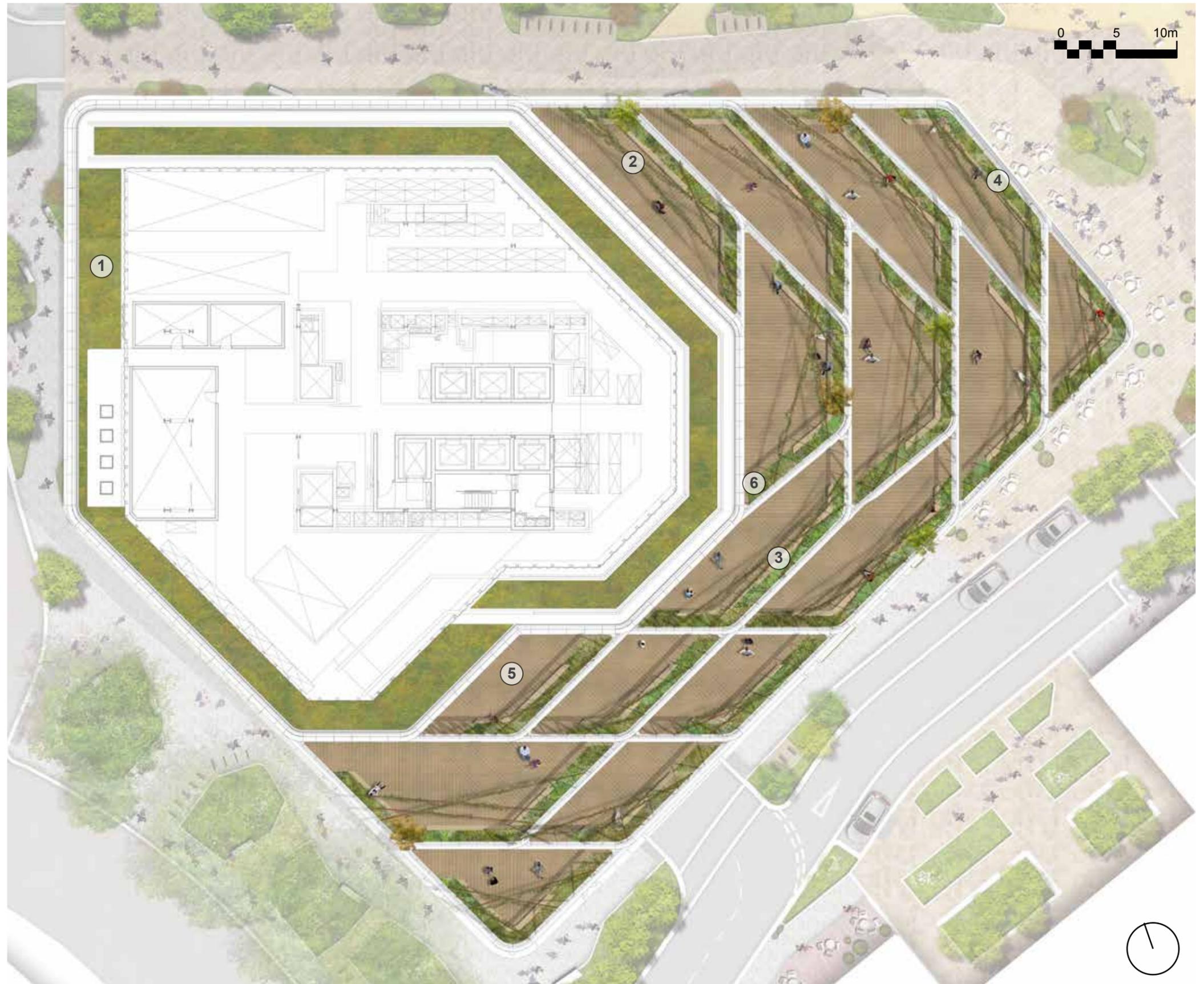
Design Proposals

Spatial Organisation

TERRACES & ROOF

The terrace design includes the planters and irrigation for all the climbing plants, including tensile cables, which allow the climbing plants to extend overhead.

Planting on terraces, roof, adjacent to the façade and at the base of columns at ground level has been designed within the development's fire strategy. The planting described and shown is justifiable on the basis of permanent irrigation being provided, not being located in close proximity of windows and doors nor other ignition sources such as bins, skips, vehicle parking and smoking areas.



- ① Roof with biodiverse planting
- ② Tensile cable with climbing plants
- ③ Climbing plants
- ④ Timber seat
- ⑤ Terrace surface EUTR timber decking or equivalent
- ⑥ Additional planters coordinated with base build

Fig.218 Illustrative roof plan diagram

Design Proposals

Spatial Organisation

OCCUPANT CYCLE FACILITIES - BASEMENT

The importance of cycling as a sustainable mode of transport for Elephant and Castle has been recognised, through high quality facilities for cyclists. The street level entrance is designed as a front door to the building, leading to the basement storage.

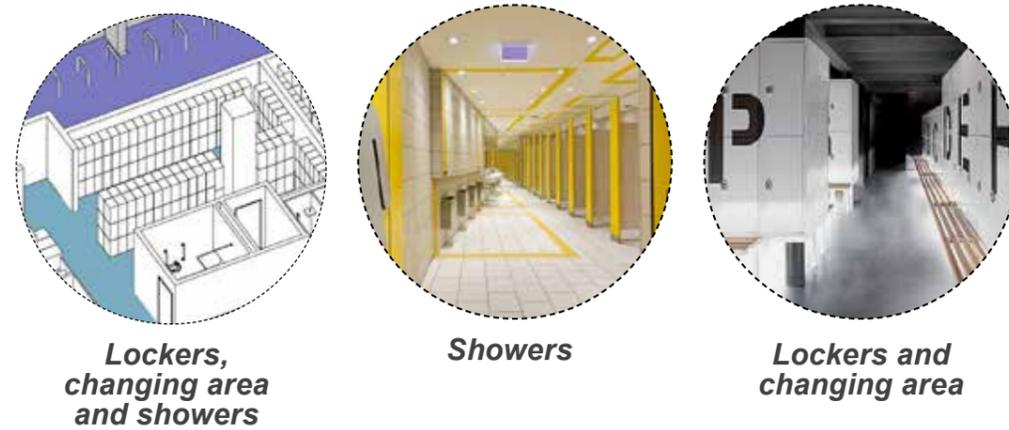
The provision of cycle parking is a mix of double stack racks and single level Sheffield stands. The changing areas for cyclists include showers, lockers and drying areas as well as toilet and wash basin facilities. The changing areas are separated into male and female spaces with the accessible facilities being individual unisex provisions.

Access to the cycle amenities in the basement is via a high quality, equitable access for cycle users from a dedicated cycle entrance located at the corner of Walworth Road and Elephant Road.

The stair is designed to incorporate separate entry and exit ramps for cycles. A dedicated lift provides accessible access to the basement where a parking area close to facilities and lift is provided for accessible bicycle user.

855  =	≈ 75% 640 	≈ 20% 172 	≈ 5% 43 	+ 8 	+ 8 	855 	46 
Total cycle spaces	Two-tier spaces	Sheffield Stand spaces	Folding bike locker spaces	Accessible / oversized space with lockers	Wheelchair locker spaces	Total lockers	Total showers

Fig.220 Schedule of cycle and end of trip facility provision



Sheffield stands



Cycle access -
Ramped stair 1:5
Lift 1.9m x 2.7m



Double stack spaces

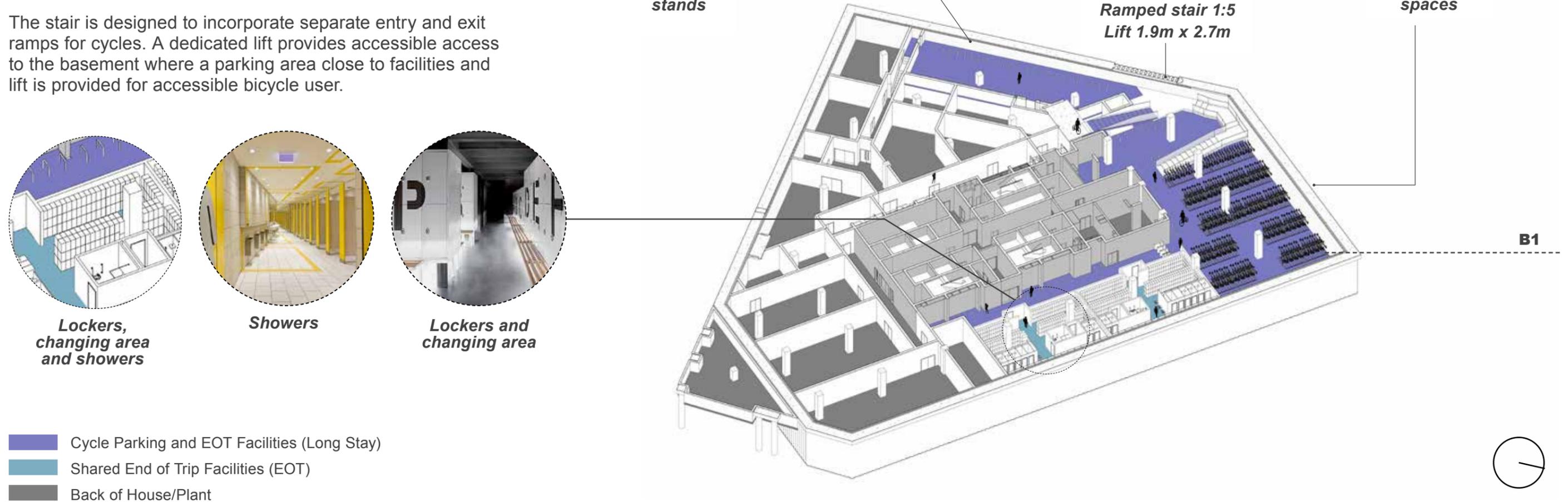
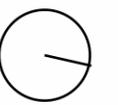


Fig.219 Overview of the basement



5. Public Realm & Landscape

Public Realm & Landscape

Public Realm

PUBLIC REALM VISION

The H1 Development will play an important role in the wider masterplan establishing the western edge of The Park, helping define Sayer Street North and ensuring Deacon Street, Walworth Road and Elephant Road are optimised for public comfort.

The H1 Development's public realm aims to create a series of attractive and inviting spaces that both contribute to the proposed buildings' setting and uses and add to the enjoyment of the Elephant and Castle community.

The public realm provides a series of welcoming and active streets and spaces, drawing visitors in and encouraging them to dwell and stay. These spaces will provide engaging, innovative and freely accessible streets with improved connections between The Park and Elephant and Castle Town Centre.



Fig.221 Illustrative Elephant Park Masterplan

Public Realm & Landscape

Public Realm - Soft Landscaping

EXISTING TREE STRATEGY

The following principles form the basis for the H1 Development public realm tree design:

- To create a mature distinct sense of place for Elephant Park through making reference to cultural and natural influences;
- To provide an attractive setting to Elephant Park and the Site;
- To use the existing trees as assets to create a scale and structure to the Site;
- To create a landscape that provides seasonal interest;
- To promote local biodiversity and wildlife value;
- To create a legible public realm through the use of planting; and
- To promote resilience and technical attributes for attenuation and enhancing air quality.

These established principles for Elephant Park will be applied to the stand-alone H1 Development.

H1 Tree numbers

- Within the H1 Development red line boundary, x39 existing trees have been removed to date (as agreed at OPP), with x1 tree still scheduled for removal;
- A total of x8 existing mature trees have been retained and incorporated into the public realm design, along Walworth Road (as agreed at OPP);
- x5 recently planted young trees will be relocated from the southern side of Deacon Street to the northern side, to facilitate the Plot H2 loading bay requirement which is being delivered at the same time as the H1 Development (refer to Planting Strategy Plan).
- x19 new trees will be planted within the H1 Development.



Fig.222 Existing tree strategy

Public Realm & Landscape

Public Realm - Soft Landscaping

PLANTING STRATEGY

Planting plays an important role in creating a sustainable development and achieving biodiversity, ecology and nature objectives. The planting palette for the H1 Development has been selected in consideration of the following:

- Aspect and availability of direct sunlight (the Site is mostly shaded);
- Proposed uses;
- Water availability (influenced by levels and existing tree planting); and
- Ground conditions, including location of underground services and building basement extent.

A number of planting areas are below existing trees or sit north of the proposed building, and as such require tolerance of both shaded and dry conditions. Various plant species have been compiled to create variety with a focus on texture, seasonal change and habitat diversity.

TREE STRATEGY

Planting placement of trees within the H1 Development will help tie the proposed public realm into the wider Elephant Park Masterplan, whilst creating a clear green link with The Park and existing mature trees.

The following principles have shaped the location and types of trees proposed:

- Indicative species creating colour, contrast and interest throughout the year;
- Creation of a strong landscape structure which complements the character of the plot and helps create a human-scaled public realm;
- Street tree planting to provide a buffer between adjacent roads and the development; and
- Multi-stem placement against the facade to soften the building and ground it as an extension of The Park.



Fig.223 Planting strategy plan

Public Realm & Landscape

Public Realm - Soft Landscaping

(d) - deciduous, (e) - evergreen

INDICATIVE PLANTING PALETTE

Trees



Liquidambar styraciflua 'Worplesdon' (d)



Tilia henryana (d)

Multi-stem Trees



Euonymus europaeus (d)



Hamamelis virginiana (d)

Specimen Shrubs



Viburnum dentatum 'Blue Muffin' (d)



Viburnum opulus (d)

Grasses



Carex divulsa (e)



Anemanthele lessoniana (e)

Ferns



Polystichum setiferum (e)



Onoclea sensibilis (d)

Perennial Layer



Lamium orvala (d)



Geranium macrorrhizum 'Bevan's Variety' (d)



Libertia grandiflora (e)



Brunnera 'Emerald Mist' (d)



Bergenia cordifolia 'Eroica' (e)



Liriope muscari 'Big Blue' (e)



Anemone 'Hadspen abundance' (d)



Kirengeshoma palmata (d)

Public Realm & Landscape

Building & Terraces - Soft Landscaping

PLANT PALETTE - VINES AND CLIMBERS

The planting design seeks to provide a dynamic palette of seasonal red and golds to coordinate with the warm tones of the facade.

A percentage of evergreens are proposed to contrast with the seasonally changing deciduous climbers.

Climbing plants will be trained to both climb up the building and trail down to create a dynamic layer to the building.



Precedent: MFO Park, Zurich, uses a mixture of climbing plants for a robust palette with varied seasonal interest



Reds



Parthenocissus vitacea



Parthenocissus quinquefolia



Vitis coignetiae



Ambers

Celastrus scandens



Humulus lupulus 'Aureus'



Wisteria floribunda



Evergreens

Clematis armandii



Aristolochia macrophylla



Trachelospermum jasminoides

Plant palette is for illustrative purposes only. Note all plants will be green in summer and only red and yellow seasonally.

Public Realm & Landscape

Building & Terraces - Soft Landscaping

PLANT PALETTE - SHRUB AND HERBACEOUS

The ground cover and specimen planting around each terrace will enhance the seasonal colour strategy.

Reds



Ambers Rhus Typhina



Kniphofia



Hakonechloa macra 'Nicolas'



Pennisetum setaceum rubrum



Evergreens Hamamelis mollis



Kniphofia 'Limelight'



Anemanthele lessoniana



Euphorbia



Ficus carica



Fatsia japonica



Polypodium vulgare



Viburnum opulus

Plant palette is for illustrative purposes only.

Public Realm & Landscape

Building - Soft Landscaping

ECOLOGICAL ENHANCEMENTS

The proposed biodiverse roof will provide valuable habitats for wildlife. It will have low maintenance requirements and will not require automated irrigation. An external tap will be provided at roof level to water the roof during the establishment period. The potential to locate this within the roof lobby to reduce the risk of freezing will be investigated at the next design stage.

The substrate level will be varied for increasing habitat diversity. Habitat features will include mounding, hollows for shallow water collection, log piles, bird perches and bee hives. 20% of the biodiverse roof areas will comprise exposed (not laid with turf) mounded extensive substrate (low organic content) allowing opportunities for natural colonisation as well as areas of plug plants and wildflower seeding.

The species list shown below is for illustrative purposes only and will be developed through a process of design development.

Roof enhancements:

- Bee Hives
- Log piles
- Sandy piles
- Water trays
- Bare ground
- Hardwood log piles pre-drilled with various sized holes at least a 100mm diameter with bark still on.
- Substrate piles: Substrates such as gravel and sand could be taken from the associated construction works. The piles will be compacted, with sides angled to 30 degrees and cover an area of approximately 1m²; position in a sunny area with the broadest area facing south, preferably sheltered from the wind.
- Bat, house sparrow, swift and black redstart boxes to be incorporated.

- 1 Biodiversity elements such as log and rock piles
- 2 Possible localised sculptural mounding
- 3 Plant matter - plug planted or seeded
- 4 Extensive substrate
- 5 Filter fleece
- 6 Drainage board
- 7 Insulation
- 8 Waterproofing layer
- 9 Structural slab

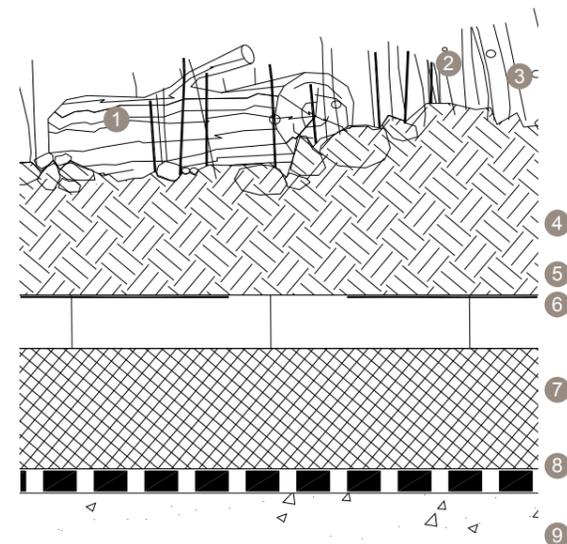
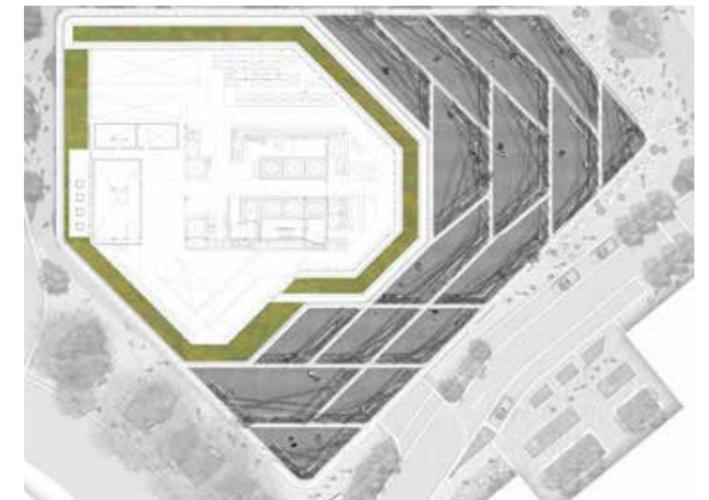


Fig.224 Typical biodiverse roof profile



Indicative species list:

- | | |
|-------------------------|-----------------------|
| • Achillea millefolium | • Primula veris |
| • Agrimonia sp | • Prunella vulgaris |
| • Anthoxanthum odoratum | • Rumex acetosa |
| • Anthyllis vulneraria | • Sanguisorba minor |
| • Briza media | • Scabiosa columbaria |
| • C.rotundifolia | • Silene vulgaris |
| • Campanula glomerata | • Thymus sp. |
| • Cynosurus cristatus | • Trifolium pratense |
| • Echium vulgare | |
| • Galium verum | |
| • Hypericum perforatum | |
| • Leontodon hispidus | |
| • Leucanthemum vulgare | |
| • Linaria vulgaris | |
| • Lotus corniculatus | |
| • Origanum vulgare | |
| • Papaver rhoeas | |
| • Plantago media | |



Roof with biodiverse planting

Fig.225 Illustrative roof plan

Public Realm & Landscape

Public Realm - Hard Landscaping

MATERIALS STRATEGY

The public realm will be paved with a complementary palette, offering a clean and durable ground plane finish to the building architecture. The palette of materials adopted will broadly follow the Southwark Streets Design Manual (SSDM) Town Centre palette, which will connect the overall Elephant Park Masterplan into its surrounding context through common materials and details.

A mix of paving types will be used throughout the H1 Development to define areas of pedestrian priority. The following principles will be applied:

- Pavements, surfaces and edges shall help unify the scheme, providing a strong and coherent setting for the public realm and the new and existing buildings;
- Colour, texture and unit size will be used to help define the uses of the various spaces, for example small unit paving will be used in roadways to identify pedestrian priority;
- The accessibility requirements of partially sighted and disabled people will be a major factor in the determination of surface and edge types to provide a legible and safe environment in conjunction with current accessibility requirements; and
- Materials will be selected for their long term viability and to reduce the need for replacements or intensive maintenance.

- H1 Development Site
- P1 - Silver granite slabs 750 x 600mm
- P2 - PC Concrete blocks 300 x 150mm
- P5 - Porphyry setts 100 x 100mm
- P20 - Tactile slabs
- P26 - Granite setts 100 x 100mm
- P29 - Resin bound gravel - buff
- P34 - Self binding gravel - buff
- P79 - Natural stone or clay brick paving
- TP - Flexi-Pave rubber surface to tree pit
- CS - Corten steel upstand planter edge



Fig.226 Materials strategies

Public Realm & Landscape

Public Realm

FURNITURE STRATEGY

The choice of street furniture has a significant impact on the character and feeling of public spaces. Rest points will be provided throughout the public realm to encourage pause points and support the H1 Development's aspiration to create a memorable, enjoyable and comfortable sense of place. Furniture elements will be designed and located with due consideration given to:

- Comfort and fitness for purpose;
- Durability and robustness of detail to ensure high quality and longevity;
- Providing a high-quality and visually consistent palette - within the H1 Development and as part of the wider Elephant Park Masterplan; and
- Inclusivity and consideration of welcoming users of all abilities (regular resting places at approximately 50m intervals on main routes through Elephant Park).

Policy Requirement

96 spaces (48 stands) have been accommodated within the public realm as part of the short stay cycle provision requirement for the H1 Development.

- H1 Development red line boundary
- Timber benches
- ||||| Cycle stands
- Waste and recycling bins
- Large moveable planters

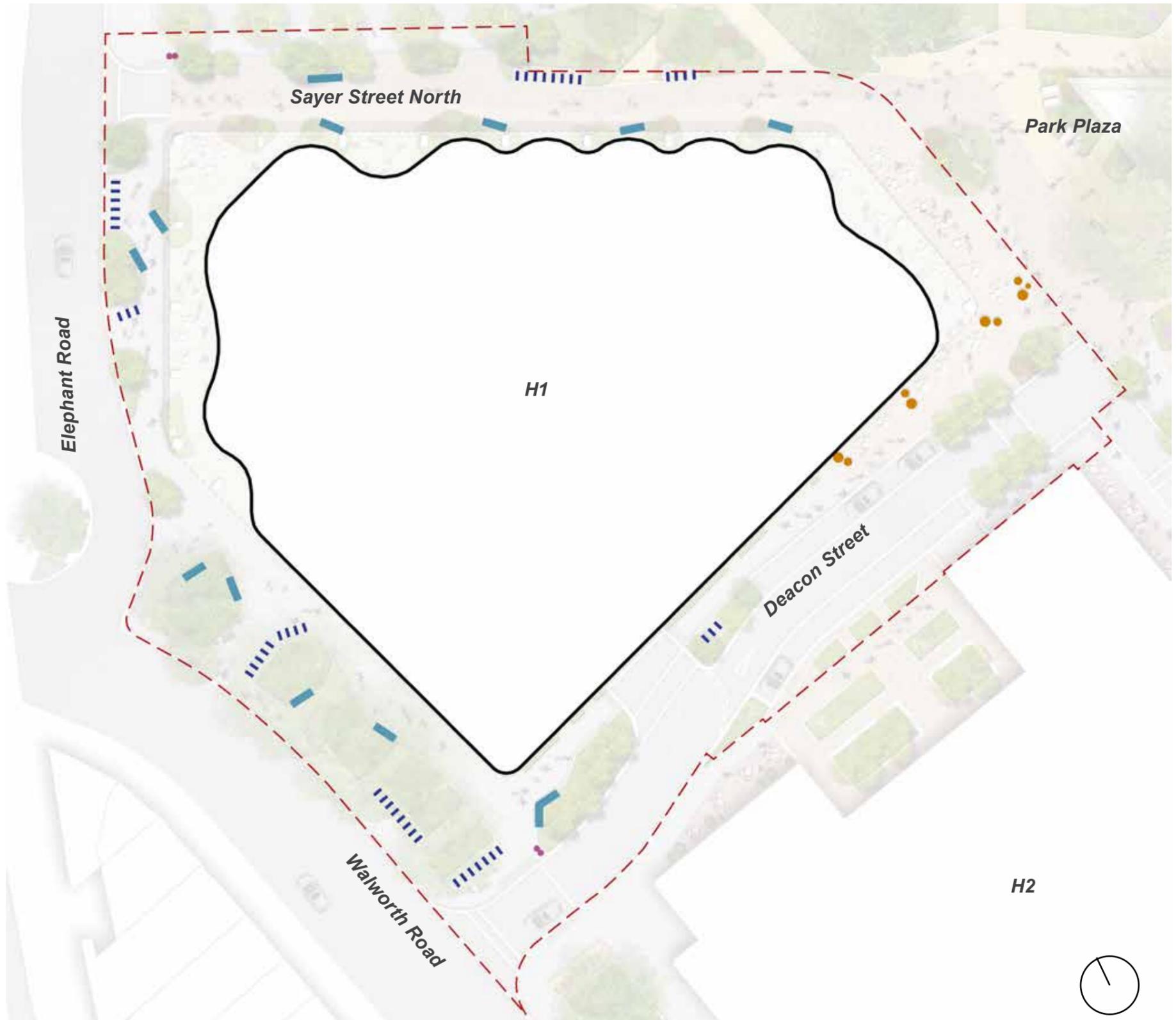


Fig.227 Furniture strategy

Public Realm & Landscape

Public Realm

INDICATIVE MATERIAL PALETTE



P1 - Silver granite slabs 750 x 600mm



P26 - Granite setts 100 x 100mm



TP - Flexi-Pave rubber surfacing



P2 - PC Concrete blocks 300 x 150mm



P29 - Resin bound gravel - buff



CS - Corten steel upstand planter



P5 - Porphyry setts 100 x 100mm



P34 - Self binding gravel - buff

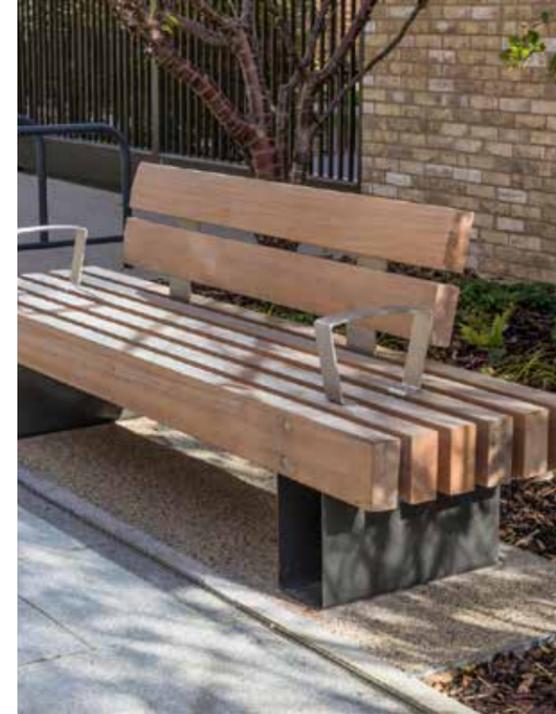


P20 - Tactile slabs

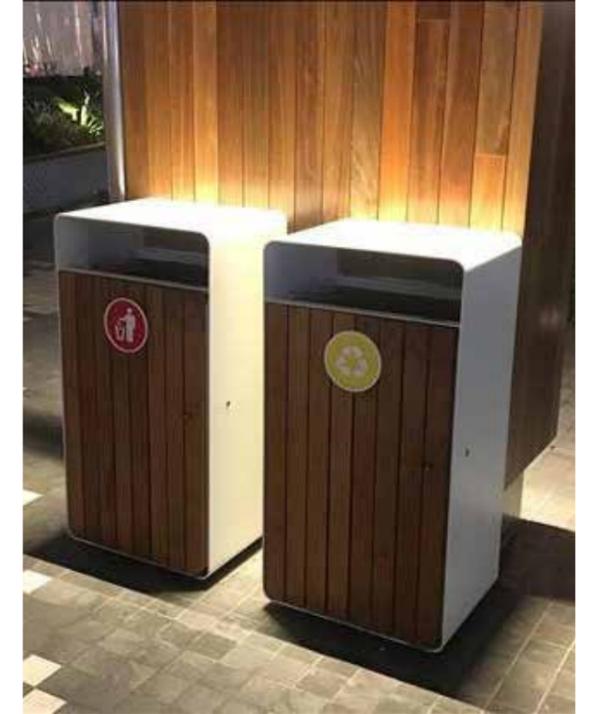


P79 - Natural stone or clay brick paving

INDICATIVE FURNITURE PALETTE



Timber benches



Waste and recycling bins



Cycle stands



Large moveable planters

Public Realm & Landscape

Public Realm - Lighting

LIGHTING STRATEGY

The public realm strategy for the H1 Development aims to make a visual connection with The Park. The prominent location of the Site creates an entrance to Elephant Park. Therefore, after dark, the lighting will need to create a welcoming ambience and blend the illumination with the more expansive cityscape of Southwark.

The design follows the sitewide lighting masterplan for Elephant Park and the British Standards (BS 5489-1:2020). Building-mounted luminaires will illuminate publicly accessible areas under the building overhangs, creating a welcoming environment. Illuminating the public realm under the arcades will help the perception of safety and make the area more accessible to all.

The design aspires to meet the following fundamental principles:

- Character – Similar to The Park, the design aims to create a unique and intimate ambience. The illumination will highlight the dense planting and trees in key locations. Lighting greenery will provide visual interest after dark and create vistas from Elephant and Walworth Road into the Site;
- Human scale - After dark, the lighting design aims to create a lower datum and human scale against the for the architecture of the H1 Development. The mounting heights of equipment are similar to adjacent streets and parkways. A consistent height will also help to blend the scheme with its surroundings;
- Ambience – The scheme aims to create a welcoming atmosphere for visitors by high lighting features in the landscape, such as the planting and selected trees along Walworth Road and Sayer Street North;
- Legibility – The scheme will balance light and darkness in the public realm to create a legible environment after dark;
- Ecology – The lighting will carefully consider light spill into trees to minimise wildlife's impact, such as nesting birds. A sophisticated lighting control system could switch off feature lighting and dim other public realm lighting after a set curfew. Reducing lighting levels will help to reduce pollution and trespass;
- Wellbeing – The lighting scheme will utilise a warm colour temperature to support circadian rhythms in visitors and create an intimate atmosphere after dark. The residents' privacy and sleep will be protected by minimising light trespass through windows of premises adjacent to The Park;
- Energy - Energy use is minimised through balancing light and darkness holistically according to the use and time of the day. A minimal level of light shall always be maintained to ensure pedestrians feel safe at all times. Efficient light sources, control gear and luminaire optics will help to focus light onto the desired surfaces, which will also minimise energy consumption;
- Security – Perceptions of security are enhanced by providing light levels which allow pedestrians to recognise faces while using the key routes through The Park;
- Accessibility – The design aims to be inclusive and support access to The Park for all by helping people with disabilities – in particular, those with visual impairments. Inclusive lighting design should avoid areas of high contrast, control shadows and avoid excessive glare from direct or reflected light sources.



Fig.228 Illustrative plan indicating the lighting effect

Public Realm & Landscape

Public Realm - Lighting

SECTIONS

Sayer Street North

1. The design approach is a continuation of the already existing lighting south of the H1 Development. Using the same method will help to create a coherent appearance of the street after dark.
2. After dark, a low mounting height will provide the human scale. Potential architectural light at ground level could help support this scale further.
3. Gentle illumination to selected trees will not only support vistas out from the building at ground level but will also create an intimate ambience and support the pedestrian experience.



Sayer Street North / Park Plaza

1. Columns located in the adjacent Park Plaza will illuminate the public realm. Fixtures situated in the arcade could potentially further spill light into the public domain.
2. After dark, potential architectural light at ground level could help support this scale further.

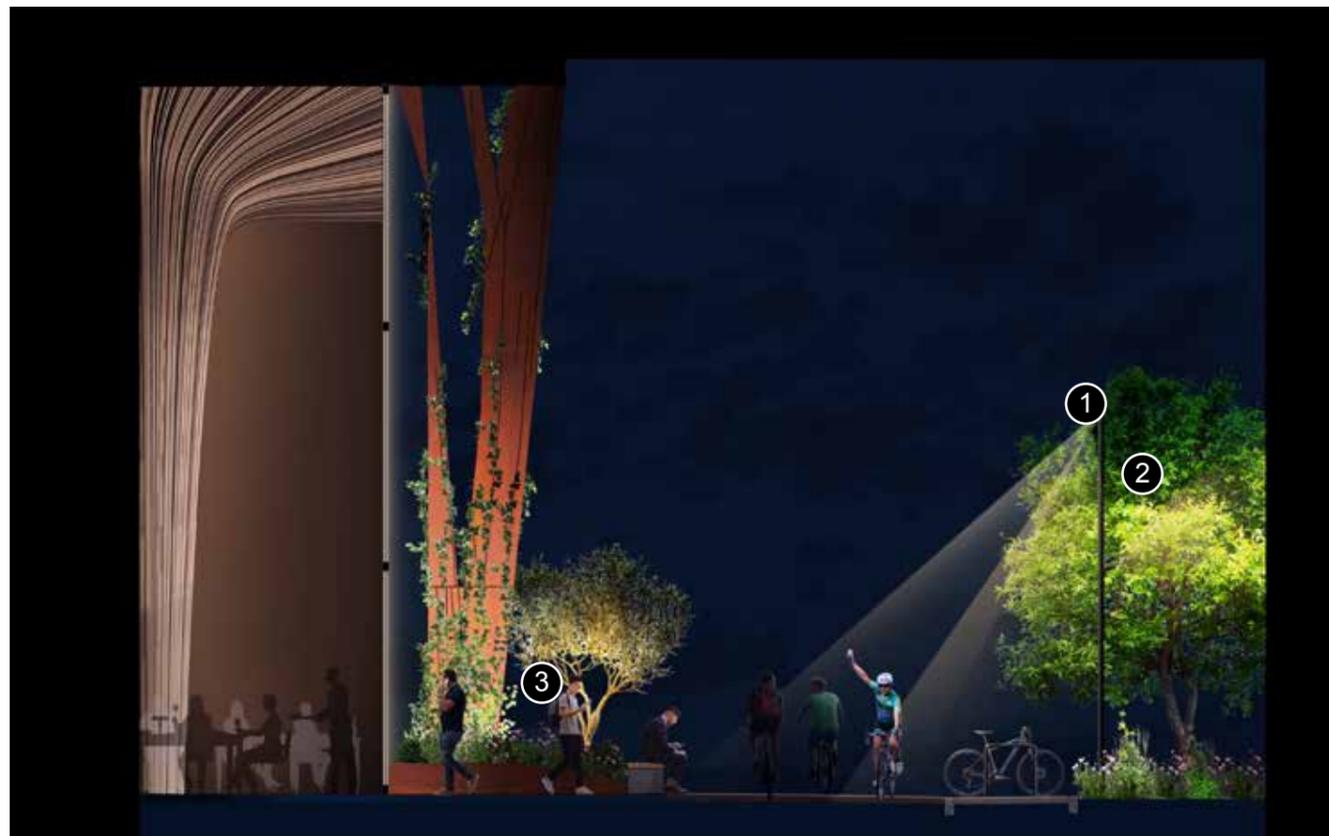
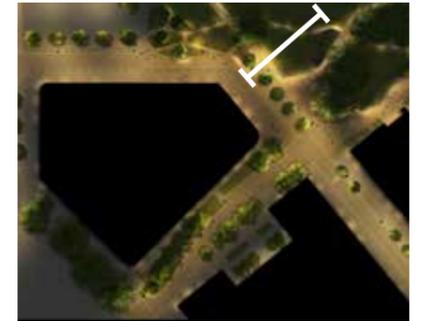


Fig.229 Sayer Street North illustrative section indicating the lighting effect



Fig.230 Sayer Street North / Park Plaza illustrative section indicating the lighting effect

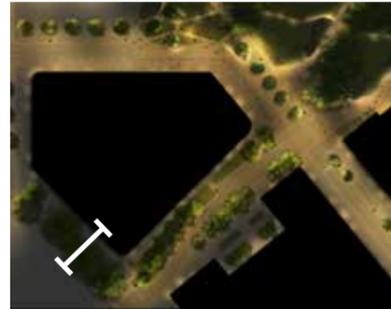
Public Realm & Landscape

Public Realm - Lighting

SECTIONS

Walworth Road

1. The design approach is a continuation of the already existing lighting south of the H1 Development. Using the same method will help to create a coherent appearance of the street after dark.
2. Gentle illumination to selected trees will help create a welcoming ambience and support the pedestrian experience.



Deacon Street

1. The design approach is a continuation of the already existing lighting in the street and Sayer Street. The equipment might need rearranging to suit the new street layout and building use.

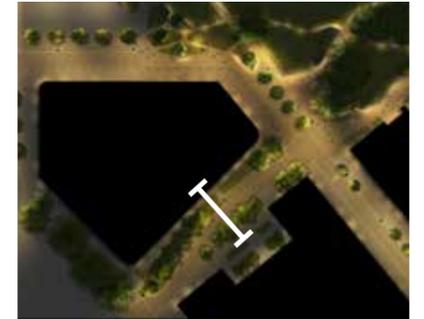


Fig.231 Walworth Road illustrative section indicating the lighting effect



Fig.232 Deacon Street illustrative section indicating the lighting effect

6. Inclusive Design Statement

Inclusive Design Statement

Introduction

PURPOSE OF THE INCLUSIVE DESIGN STATEMENT

1. This Inclusive Design Statement has been written to ensure that the H1 Development achieves a high and consistent standard of accessibility and interprets and clarifies the design standards to be adopted across the Site.
2. It describes the approach to inclusive design for the Site and how it has been designed to meet the relevant good practice standards and regulations.
3. It outlines the inclusive design principles for the Site, lists out the relevant standards and regulations and provides details of each element of the H1 development in relation to inclusive design in the following sections.
4. It sets out how the scheme will be progressed with consideration of the principles of inclusive design, supported by the Design Code that formed part of the OPP which incorporates inclusive design principles.
5. This Inclusive Design Statement should be read in conjunction with the set of Application plans, the other sections within this Design and Access Statement and all other documents that support the Application.

DESCRIPTION OF DEVELOPMENT

1. The Site is located at the northern end of Walworth Road between Elephant Road, Castle Square and Park Plaza. It provides the link between Elephant and Castle and Walworth Road, connecting the Town Centre to the high streets.
2. The H1 Development will provide ground plus 17 storeys of office and retail space, including a mezzanine level providing affordable workspace.
3. The ground floor will be publicly accessible with a lobby, and retail units. This space will connect Sayer Street, Castle Square, Elephant Road and the new Park Plaza.
4. Upper office floors will be stepped back at 10 floors, with accessible landscaped terraces.

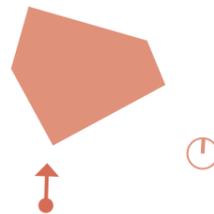


Fig.233 Illustrative view from Walworth Road looking northwards

Inclusive Design Statement

Inclusive Design

ACCESS AIMS

The H1 Development will be designed to be as inclusive as possible for:

- Visitors to the H1 development;
- People working in and visiting the commercial spaces; and
- The wider community beyond the Site boundary.

The meaning of 'disabled' in the Inclusive Design Statement is the definition stated in the Equality Act 2010.

Access aims include:

- To maximise access to all parts of the H1 Development, facilities and services to staff or visitors regardless of ability;
- To ensure that where possible and feasible, appropriate accessibility standards can be met from the start of scheme development going forward into detailed design;
- To meet the GLA's and the the Council's access policies where relevant;
- To meet the Building Regulations Approved Document M – Access to and use of Buildings 2015 Volume 2 (Buildings Other Than Dwellings);
- To meet the aims of the Equality Act 2010;
- To follow good practice design guidance including the British Standards and other relevant published guidance; and
- To identify and consider areas of the scheme that will form part of the later stages of the design development.

ACCESS STRATEGY

1. An access strategy for a building or other development in the built environment describes the approach adopted to making suitable provision for disabled people with reference to the appropriate regulations, standards and good practice guidance.
2. The most basic access strategy would be to design using the approved solutions described in the Building Regulations Approved Documents that make specific mention of access for disabled people, and the other guidance that they reference.
3. This approach makes a place accessible, but it is only inclusive if it enables independent access for all people, using the same means of access. More interpretation and alternative solutions are often required to achieve this for sites with constraints such as level changes and where no statutory guidance exists.
4. The Site is therefore being designed to meet the guidance of Approved Document M Volume 2 and the access policies of the London Plan and Southwark Council as a minimum. Success on completion depends on the principles set out by the access strategy being designed into the proposals and being carried through to detailed design and construction stages.
5. The access strategy also identifies opportunities to provide a more inclusive environment through holistic consideration of the interaction of a building's management, users, information technology and communication rather than a simple application of the Building Regulations, access standards and policies.

Inclusive Design Statement

Inclusive Design

INCLUSIVE ACCESS PRINCIPLES

London Plan policy and London Borough of Southwark policy state the need to deliver inclusive, not just accessible environments. Inclusive design is central to the policies of the London Plan, with mention of it throughout the text of the plan.

London Plan Policy D5 Inclusive Design (A and B) states:

- “A) Boroughs, in preparing their Development Plans, should support the creation of inclusive neighbourhoods by embedding inclusive design, and collaborating with local communities in the development of planning policies that affect them.
- B) Development proposals should achieve the highest standards of accessible and inclusive design. They should:
 - 1) Be designed taking into account London’s diverse population;
 - 2) Provide high quality people focused spaces that are designed to facilitate social interaction and inclusion;
 - 3) Be convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment;
 - 4) Be able to be entered, used and exited safely, easily and with dignity for all; and
 - 5) Be designed to incorporate safe and dignified emergency evacuation for all building users.
- In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.“

The Commission for Architecture and the Built Environment published a guide called The Principles of Inclusive Design in 2006, which states that inclusive design:

- Places people at the heart of the design process;
- Acknowledges diversity and difference;
- Offers choice where a single design solution cannot accommodate all users;
- Provides for flexibility in use; and
- Provides buildings and environments that are convenient and enjoyable to use for everyone.

These criteria are important factors in recommending the most inclusive (not just accessible) solutions for a development within the client’s resources. Inclusive environments remove obstacles for all potential users, especially people who have one or more of the protected characteristics listed in the Equality Act 2010.

Inclusive Design Statement

Consultation

PUBLIC CONSULTATION

A public consultation was carried out in October 2020, which was open for three weeks, along with a pop-up consultation hub in West Grove on Deacon Street.

A high level of responses were received with mainly constructive support for the scheme, in particular for the integration of planting and the publicly accessible ground floor space.

A further public consultation started in January 2021 providing more details of the scheme and the public realm as the design continued to evolve and be informed by the public feedback.

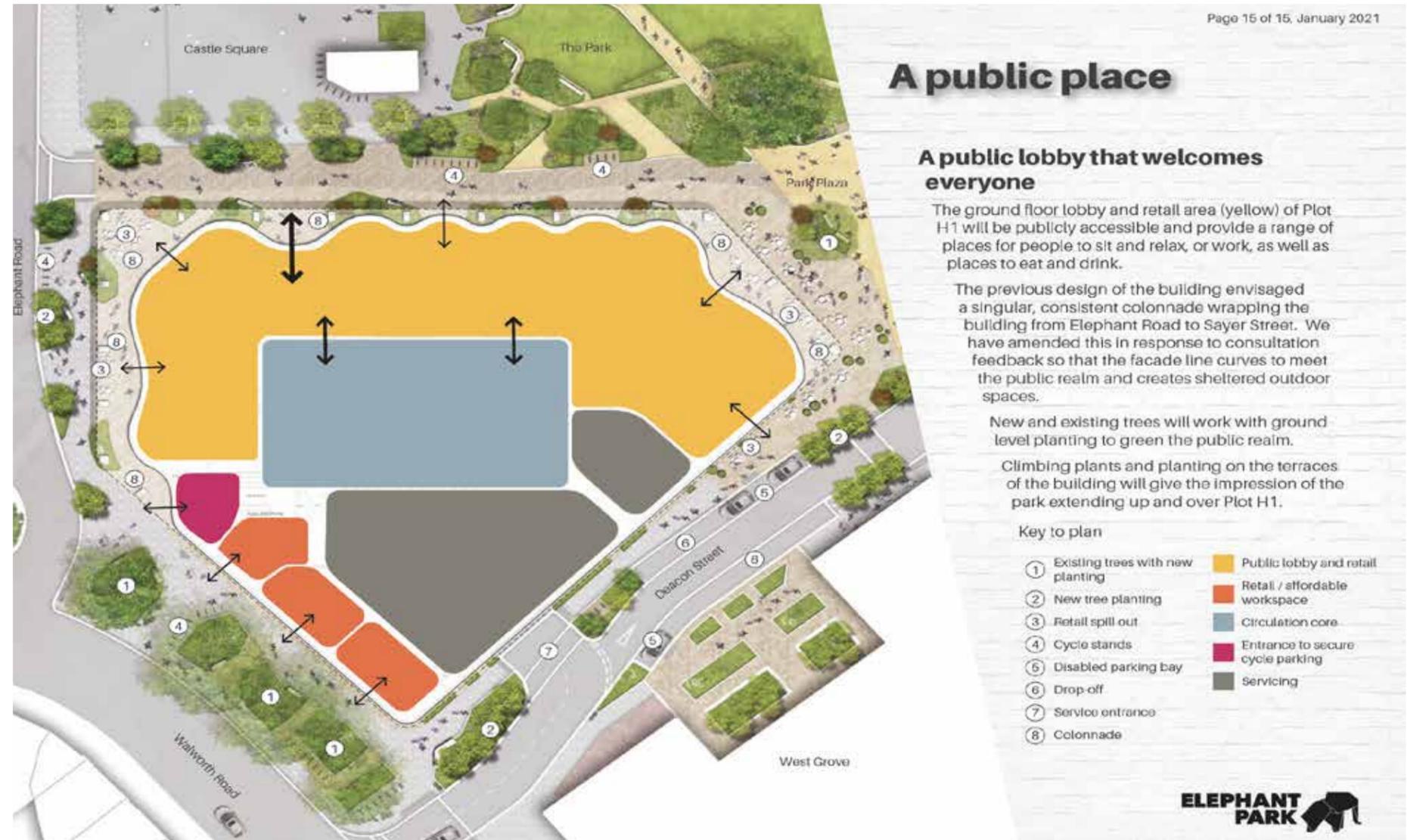


Fig.234 Public Consultation - Extract January 2021

Inclusive Design Statement

Regulations Policies, Standards and Guidance

REGULATION POLICIES, STANDARDS AND GUIDANCE

This section lists the key references for accessibility for the H1 Development in Elephant Park.

Any solutions proposed that are different to those described in Approved Document M must provide an equal or greater level of accessibility and are justified where necessary within this Inclusive Design Statement.

LONDON BOROUGH OF SOUTHWARK PLANNING POLICY AND SUPPLEMENTARY PLANNING

The following Approved Documents and British Standards are key references for the access strategy of the Proposed Development:

- The Building Regulations 2010, Access to and Use of Buildings, Approved Document M, Volume 2: Buildings other than Dwellings, 2015;
- The Building Regulations 2010, Fire safety, Volume 2: Buildings other than Dwelling houses, Approved Document B (2006 edition incorporating 2007, 2010 and 2013 amendments) HMSO, 2013;
- The Building Regulations 2010, Protection from Falling, Collision and Impact, Approved Document K, HMSO, 2013;
- British Standard 8300:2018 Design of Buildings and their Approaches to Meet the Needs of Disabled People Code of Practice, British Standards Institution 2018; and
- British Standard 9999:2017 Code of Practice for Fire Safety in the Design, Management and use of Buildings, British Standards Institution, 2018.

NATIONAL PLANNING POLICY DOCUMENTS

Relevant national planning policy documents are as follows:

- National Planning Policy Framework (NPPF, 2019);
- National Planning Practice Guidance.

STRATEGIC PLANNING POLICY DOCUMENTS

- The London Plan, March 2021

LONDON BOROUGH OF SOUTHWARK PLANNING POLICY AND SUPPLEMENTARY DOCUMENTS

The Council's guidance and policies contained within the following documents have been incorporated into the H1 Development:

Adopted Policy

Southwark Core Strategy 2011

The Elephant and Castle area is designated as a town centre: an 'Opportunity Area and Central Activity Zone' (CAZ) in the London Plan.

The key Strategic Policies for accessibility and inclusive design are SP2 (Participation) for the full participation of equality target groups to planning decisions, SP3 (Quality and accessibility) that states that all development should be designed to be accessible to meet the needs of local residents, and SP6 (Accessible services) that requires that all services are easily accessible to the local community.

Saved Policies of the Southwark Plan July 2007

The Southwark Plan was adopted in July 2007. Certain policies that were consistent with the Core Strategy were 'saved', to be used for determining planning applications until the Council's Development Plan Documents are finalised and adopted.

The Saved Southwark Plan policies are particularly relevant where the Core Strategy or London Plan have no specific policies relating to an issue.

Draft Policy

- Draft New Southwark Planning - Proposed Changes Version (August 2020).

Supplementary Guidance

- Elephant and Castle Supplementary Planning Document (SPD) and Opportunity Area Planning Framework (OAPF), March 2012.

GOOD PRACTICE GUIDANCE FOR ACCESS AND INCLUSION

Approved Documents M and K, and BS 8300:2018 provide general access advice, but refer to other standards and regulations about specific aspects of buildings and their immediate surroundings. Therefore, several documents will need to be referred to, including good practice guidance books written by specialists, including:

- The Colour, Light and Contrast Manual: Designing and Managing Inclusive Built Environments, Bright K., Cook G., Wiley-Blackwell, 2010;
- Sign Design Guide: a guide to inclusive signage, JMU and the Sign Design Guide, 2000;
- Developing Accessible Play Space - A good Practice guide, Stationery Office 2003; and
- London Cycle Design Standards, Mayor of London, 2014.

Inclusive Design Statement

Access provisions: Arrival

ACCESSIBLE CONNECTIONS WITH PUBLIC TRANSPORT

1. The Site is well served by accessible public transport, with a Public Transport Accessibility Level (PTAL) 6b.
2. Transport infrastructure proposals for the area include the upgrade of the Northern line ticket hall and Northern roundabout improvements and significant financial contributions to the improvement of these facilities were made.
3. The main railway station is located in Elephant Road, on the eastern side of the Elephant and Castle Shopping Centre / Elephant and Castle Town Centre Development, approximately 500 metres away.
4. Elephant and Castle Underground station is located on the other side of the existing Shopping Centre, and approximately 100 metres further away than the mainline station. This station has lift access to the platforms for the southbound Northern line only. Kennington Underground station is approximately 1.3 kilometres from the northwestern corner of the Site.
5. Existing and approved bus stops are located on Walworth Road, in close proximity to the entrances of the H1 Development.
6. All London buses (except 'heritage' routes) are accessible buses that 'kneel' to minimise height differences between the bus floor and pavement and have ramps and space inside for wheelchair and pushchair users.

ORIENTATION AND WAYFINDING

1. The public realm has been designed with inclusion as a central concept, with easy-going routes, sufficient surface drainage and lighting, durable materials and suitably designed seating.
2. The H1 Development with distinctive stepped back terraces on upper floors, has been designed to provide a strong sense of identity which will provide orientation for users and a useful wayfinding indicator from Elephant and Castle Underground Station.



Fig.235 Elephant Park Masterplan showing location of the H1 Development Plot

Inclusive Design Statement

Access provisions: Arrival

PUBLIC REALM

1. The site wide principles in relation to the proposed public realm have been informed by TfL's 'Healthy Streets for London'. These include matters relating to defensible space, wayfinding and access, street furniture, lighting, tree planting and materials.
2. Amenity space is provided within the occupier amenity space in the form of landscaped terraces as part of the H1 Development.

CYCLING AND WALKING ROUTES

1. Inclusive cycling routes are provided with safe and convenient walking routes and crossing points.
2. Safe crossing into Park Plaza is made possible as the Sayer Street North between the H1 Development and The Park is motor vehicle free and as cycle routes are oriented away from this street.

SECURITY AND WELLBEING

1. Active street frontages will provide interest, passive surveillance, safety and convenience for all users, especially older and disabled people, children and their carers.
2. Provision of opportunities for communal activity at ground floor, including places to eat, shop and meet will increase community interaction and reduce isolation often experienced especially by older and disabled people.
3. Adequate lighting for public realm spaces to increase a sense of security and wellbeing particularly for visually impaired people.

ACCESSIBLE CYCLE PARKING

1. Cycle parking is proposed in-line with the Council's draft New Southwark Plan, policy for general quantum and TfL's London Cycling Design Standards for 'non-standard' bikes quantum. This is provided at basement and basement mezzanine level, with a convenient dedicated cyclists' entrance off Walworth Road.
2. 855 cycle parking spaces are provided with at least 5% accessible cycle spaces provided.
3. Short-stay cycle parking for the visitors is provided within the public realm.

ACCESSIBLE CAR PARKING

1. This is a car parking free development with two designated accessible spaces provided on Deacon Street.

COMMERCIAL AND RETAIL

1. Commercial and retail uses are provided at ground floor level providing active retail and commercial frontages.

Inclusive Design Statement

Access Provisions: Public Realm

ACCESS PROVISIONS

1. The H1 Development will be complemented by the improvement of the surrounding public realm, including Sayer Street North, which will be a pedestrian priority route, along with improvements to Deacon Street and completion of the Elephant Road and Walworth Road landscape. Although comprising a standalone development, the public realm proposals have been developed in response to the key landscape Character Areas identified in the OPP, which define Elephant Park. The stepped approach of the massing facilitates the provision of external amenity spaces serving the office accommodation in the form of landscaped terraces, which will also allow for a strong visual connection between The Park and the building.
2. Cycle parking is proposed within the basement, accessed from Walworth Road.
3. All servicing will be carried out from an internal loading dock, accessed from Deacon Street, with vehicles both entering and exiting from Walworth Road. The H1 Development will be car free other than allocated accessible parking spaces to be located on Deacon Street.



Fig.236 Illustration of the ground plane's interaction with The Park and the public realm

Inclusive Design Statement

Access Provisions: Public Realm

KEY DESIGN PRINCIPLES

All external areas will be designed using the principles of accessibility and inclusive design as the scheme progresses with the key aspects being noted as follows:

- All pedestrian access routes on the Site will be appropriately graded or level wherever possible due to the constraints of the Site. The main pedestrian access points into the H1 Development lead to a clear and safe pathway layout to ensure ease of access to all the entrances.
- The landscaping provides easily identifiable, legible wayfinding for all and level access pathways provide sufficient minimum clear unobstructed widths.
- Seating with arms and backrests will be provided.
- Footpath paving surfaces within the public realm will be paving slabs, setts or flush resin bound gravel.
- Surface materials have been selected to avoid loose materials that may be difficult for wheelchair users, people with walking aids and cane users. Surface materials that are firm, durable and slip resistant in all weathers have been selected.
- Some areas off the main walking routes will have naturally bound Cedec gravel.
- Slots in drainage gratings will be designed to avoid trapping walking aids, canes or wheelchair wheels.
- All street furniture has been placed in a logical and consistent manner to prevent restriction of routes and to become a hazard.
- Lighting will be designed to be well distributed without extreme shadow, sudden change, glare or reflection.
- The communal open spaces will be designed with reference to accessible play guidance including the GLA's shaping Neighbourhoods: Play and Informal Recreation Supplementary Planning Guidance (Play SPG).

For a more detailed description of the provisions, please refer to the Public Realm Landscape section of the Design and Access Statement.

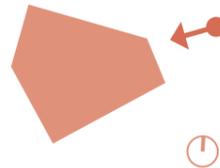


Fig.237 Illustrative view from The Park looking west towards the building, with the Pavilion just off to the left

Inclusive Design Statement

Access Provisions: Public Realm

PRINCIPLE OF VISUAL CONNECTIVITY

1. Designing linked circulation and visual connectivity to key public spaces, plus centralised circulation core and communal spaces is vital – potentially allowing users to orient themselves more readily within the internal environment and the wider context. Allowing a clear view from the reception points through to the core access will assist in orientation and consistency of approach. Combining this with the ease of use to gain vertical circulation will be an important feature.
2. Providing clarity on approach will assist all users. The entrances need to be finalised and should be identified by wayfinding and signage during detailed design.

PRINCIPLE OF HEALTH & WELLBEING

The design includes measures to maximise the health and wellbeing of occupants including consideration towards occupant's experiences, their views as well as suitable lighting, environmental conditions and health.

The project is also being assessed against 'WELL' in line with Lendlease's briefing requirements.

PEDESTRIAN ACCESS ROUTES

1. Improvements to the hard landscaping of the connecting footways are proposed as part of the H1 Development and therefore are designed to meet the criteria for inclusive access.
2. Pedestrian access routes (PARs) are defined as the most direct and convenient pedestrian routes linking key parts of the H1 Development. They are designed to be inclusive and have access features such as gentle gradients, suitable surfaces and rest points.
3. The PARs for the H1 Development include:
 - Approaches to building entrances;
 - Any route that connects with an adjacent pedestrian route or public space.

Provisions to ensure clarity and safety for all users include:

- Design distinguishing clearly between the needs of pedestrians, vehicles and cycles. Appropriate signage and material changes will be implemented to ensure safe movement of pedestrians and cyclists at all times.
- The public realm has been developed to ensure a simple and unobstructed footway network is provided and any unavoidable overlap between pedestrians and vehicles will be minimised and closely managed.
- The accessibility requirements of partially sighted and disabled people will be a major factor in the determination of surface and edge types, so as to provide a legible and safe environment in conjunction with current accessibility requirements.
- The lighting of the public realm has been developed with cognisance of the Council's lighting palette and relevant standards. Roads are lit to meet Southwark Council's highway standards using pole-mounted fittings.
- Pedestrian footways take into account roughness and slip resistance to ensure a comfortable and safe walking experience.

- The use of tactile and hazard warning paving will be provided in compliance with British Standards, Building Regulations and Department for Transport (DfT) guidance. All such instances will be developed with consideration of associated access strategies, best practice guidance and research in support of Southwark Council's and TFL's accessibility requirements.
- Pavement in lieu of traditional tarmac is proposed as road surface in areas of predominant pedestrian priority. The design of these spaces is to be in line with Southwark Council's guidance where a paved carriageway approach is defined. A low kerb (minimum 60mm upstand) will be used to delineate between the vehicular/cycle zone and the pedestrian only footway.
- Regular resting places are provided at around 50m intervals on main routes.

Inclusive Design Statement

Access Provisions: Building

ACCESS PROVISIONS: BUILDING

1. The H1 Development comprises ground plus 17 storeys with a basement level and rooftop plant. The building will serve as a key focal point within the Elephant Park context and along Walworth Road, with the tallest element situated adjacent to the railway line and stepping down towards the neighbouring residential buildings and Walworth Road.
2. A key ambition of the H1 Development is to be open and accessible, through the provision of an extensive, publicly accessible ground floor space serving both future office occupants and the wider public. The ground floor frontages will reflect the hierarchy of the adjacent streets and routes, with the frontages along Sayer Street North, Park Plaza, Elephant Road and Walworth Road providing the main active frontages which will enhance the surrounding streetscape and the relationship between the H1 Development and The Park.

ENTRANCES AND GROUND FLOOR

1. The main office entrance is situated along the north elevation fronting Sayer Street North as it turns to meet Elephant Road, ensuring maximum visibility and accessibility for workers and visitors accessing the building from Elephant and Castle Rail and Underground Stations. This entrance consists of two sets of revolving doors along with an automatically opening swing pass door providing a minimum clear opening width of 1000mm.
2. The office entrance opens in to a large open active lobby space, including the office reception, providing secure access to the central vertical and service core.
3. There are two double height flagship retail areas to either side of the active lobby with multiple entrances facing Elephant Road, Park Plaza and Deacon Street. Another set of three retail units / affordable workspace faces Walworth Road providing an active frontage along this street.
4. Retail units will be provided as shell and core and fitted out by the tenants.

5. There is a service yard entrance from Deacon Street, providing access to service vehicles. Restricted plant and servicing areas are provided at ground floor along this street frontage.
6. There is a dedicated cyclists' entrance from the corner of Walworth Road and Elephant Road via an automated doorway providing a minimum of 1000mm clear opening width. This opens into a dedicated lobby with a cyclists' lift and stair with cycle ramp to the basement level cycle parking and ancillary facilities including showers, toilets, changing areas and lockers.

CENTRAL CORE

1. The large central core provides the vertical circulation elements, sanitary facilities and access to the rear plant and servicing areas.
2. Access is controlled to the central core area via two sets of fixed barriers, one of which will be a minimum of 1000mm wide to provide access for disabled people who need this provision.
3. Vertical circulation comprises two sets of six lifts (12 in total) facing each other in a row across the a central lift lobby. The lifts include two fire-fighting evacuation lifts, which go to all floors, to provide a suitable, dignified and independent means of escape for disabled people as required in the London Plan 2021. A separate goods lift is also provided.
4. Three fire escape staircases are provided within the central core, with fire-protected refuges on all floors (except ground floor) linked to the fire-fighting lifts.
5. Sanitary facilities at ground floor level include two unisex accessible toilets (one right hand and one left hand transfer) in the central core, and an additional one in the back of house area for building and retail staff.



Fig.238 H1 Development, upper level office floor plan with roof terraces

- Step-free entrance
- Step-free external route
- Step-free internal route
- Steps/stairs
- Passenger lift
- Fire fighting lift
- Goods lift
- Protected refuge
- Standard toilets
- Accessible toilet

Inclusive Design Statement

Access Provisions: Building

BASEMENT AND BASEMENT MEZZANINE

1. The basement provides two main functions – plant and servicing areas, and cycle parking and ancillary facilities. Extensive cycle parking is provided at basement and basement mezzanine level. The mezzanine level cycle parking is accessed only via stairs of which two are provided, including an extension of the cycle stair ramp. Inclusive and accessible cycle parking is provided in accordance with TfL's London Cycling Design Standards.
2. Extensive storage and sanitary facilities are provided for cyclists, including lockers, changing rooms, showers and toilets in separate facilities for men and women. Wheelchair accessible lockers, and two combined wheelchair accessible shower and toilets are provided as part of the facilities. Showers and toilets for ambulant disabled cyclists are also provided.

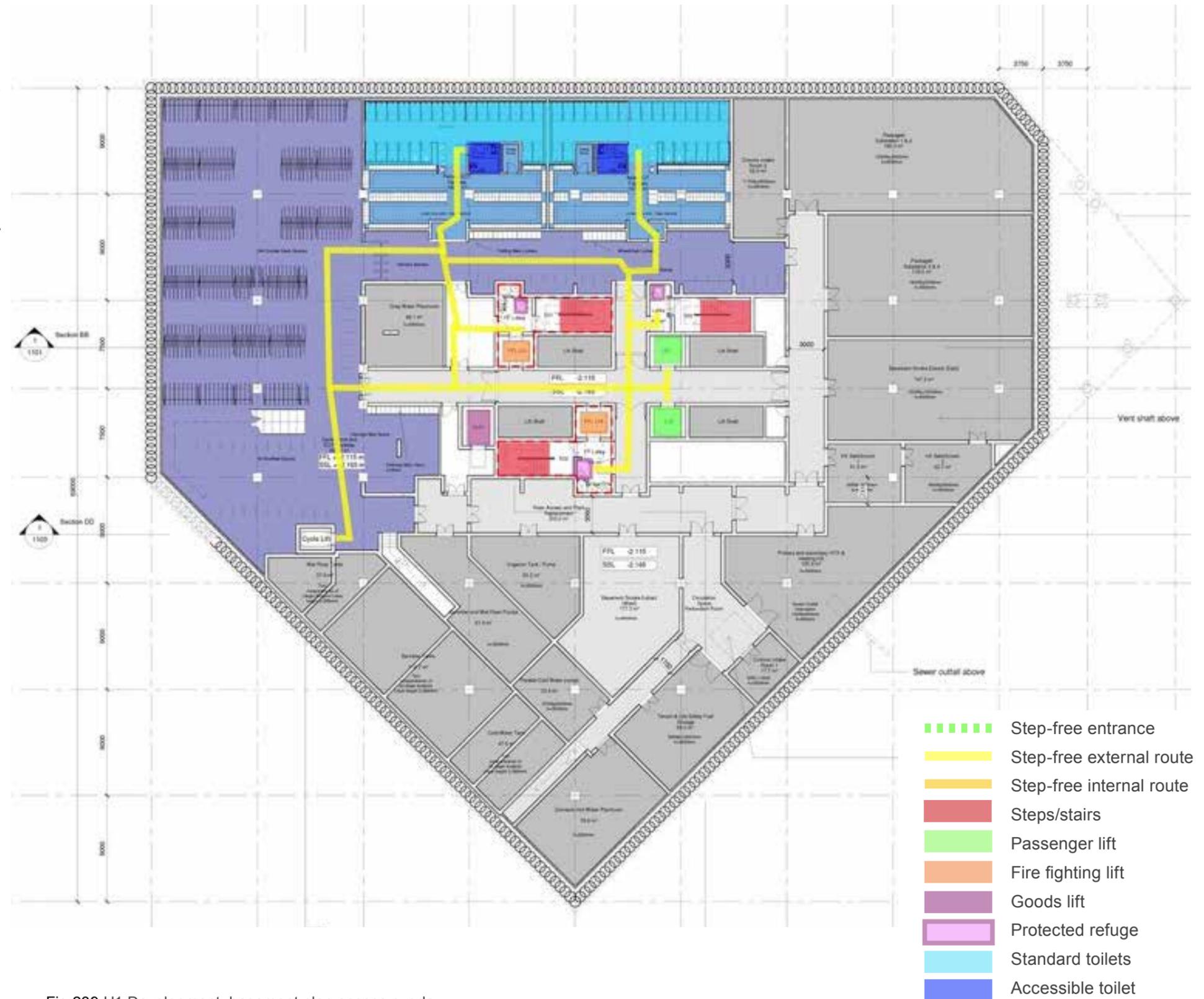


Fig.239 H1 Development, basement plan access overlay

Inclusive Design Statement

Access Provisions: Details

GENERAL ARRANGEMENT

1. The proposals at this stage indicate that all requirements for inclusive access in the building in the H1 Development will be met, subject to the detailed design and construction.
2. Retail units will be provided as shell and core and fitted out by the tenants.
3. Any conference or meeting facilities to be provided as part of the scheme development will provision for suitable hearing enhancement systems.

ENTRANCES

All entrance doors will be maintained and available for people to use at all times without requiring assistance (only locked after hours for security purposes).

The entrances will be designed to meet the Building Regulations Part M (Section 2) standards and include:

- Manifestation to glazed screens and doors, dependent on their detailed design, with entrance doors providing at least one metre clear opening width;
- Any intercom will be located to suit all users (including wheelchair users) and have a speech reinforcement system;
- Transitional lighting between the exterior and interior of the building;
- A large mat (or similar) to remove water from shoes and wheels of wheelchairs and buggies; and
- Highly reflective internal finishes will not be specified.

COMMUNAL ENTRANCES, FOYER AND RECEPTION AREA

- One main entrance has been provided to the north.
- Immediate external routes and entrances will be designed to be level or are provided with suitably specified level access, lighting, signage and weather protection to be included in the detailed design.
- Level access will need to be provided over the threshold for the main and any other entrances.
- Accessible entrance doors will need to accord with the requirements of Part M of the Building Regulations and guidance in the associated Approved Document. If revolving doors are being considered, they will require automated pass doors adjoining the main revolving doors, with a minimum effective clear width of 1000mm and a clear space of 300mm to the latch side of the door if they are swing doors.
- Any internal pass doors within the reception / foyer will also be automated as part of the detailed design.
- As part of the detailed design, the reception desk provision and associated furniture will be developed to meet the Building Regulations Part M as a minimum with induction loop provision and accessible height counters.

CIRCULATION AND GENERAL PROVISIONS

Generally the commercial parts of the H1 Development will be designed to ensure that:

- Ground floor spaces will be step-free with adequate circulation widths;
- Decor will visually distinguish the walls from the floors, and doors within walls in all circulation spaces and corridors;
- Reflective surfaces will be avoided because they can cause confusion for people with sensory impairments;
- Doors with door closing devices on all circulation routes will be designed with an opening force of under 30N;
- All internal communal doors will meet the guidance of Approved Document M of the Building Regulations in all respects, including having suitable vision panels and sufficient tonal contrast with surrounding walls + 30 points difference in light reflectance value (LRV) is recommended;
- All doors on circulation routes will have 300mm clear space on the pull side, to the side of the leading edge of the doors. Doors that only give access to flights of stairs are exempt from this requirement;
- The clear opening widths of doors will be a minimum of 800 mm wide per leaf unless power operated or held open;
- Corridors and lobbies will meet Building Regulations Part M and doors that open into corridors will be recessed; and
- Sanitary facilities will meet the requirements of Part M, with accessible WCs meeting wider space requirements of BS 8300:2018: part 2, (1700mm x 2200mm).

Inclusive Design Statement

Access Provisions: Details

INTERNAL HORIZONTAL CIRCULATION

- Upper level circulation is generally open plan providing level access throughout, with the only main corridors proposed serving the WC and lift bank locations – this is an inclusive feature as it reduces the barrier that doors can present to accessible circulation;
- Any double door-sets will provide adequate width through a single leaf (as determined by function and location in accordance with ADM and BS 8300 2018 Vol 2). Additionally, ADM compliant opening forces will be met, or if this is not possible, the door will be fitted with automatic or power assisted door opener;
- Corridors will follow the relevant guidance for Approved Document M of the Building Regulations with all core access corridors having a width that will ensure a high level of access for wheelchair users;
- Careful consideration of colour scheme, surfaces, signage and lighting requirements will be developed as the scheme progresses into detailed design; and
- Corridor doorsets will provide adequate effective clear width and appropriate opening force.

INTERNAL VERTICAL CIRCULATION (LIFTS AND STAIRS)

1. Staircase provision. This will meet the requirements of Approved Documents K and M of the Building Regulations.
2. There are two banks of six lifts each - one serving the lower levels and one serving the upper levels.
3. Passenger lifts – Passenger lifts provisions will be developed to a suitable size and with travel speeds to suit the intended height of travel and frequency of use in line with Approved Document M of the Building Regulations.
4. Two of the passenger lifts will also serve as the Fire Fighting lifts.
5. Lifts are to use destination control system, so careful consideration will be given to their application and use, particularly for people with sensory and cognitive impairments who may experience difficulty in their use.

ROOF TERRACES

1. Accessible roof terraces are provided at 10 of the 16 office levels starting at Level 03. These have step-free access from the office floors, suitable level, slip-resistant ground surfaces. The roof terraces will be fitted out by occupiers.
2. Planting on the terraces will provide colour, texture and scent for mental and physical wellbeing.

TOILET AND SANITARY FACILITIES

1. Toilet provision is centralised within the core on each floor level with Male, Female and Accessible WC facilities being provided. WCs will accord with requirements of Approved Document M, BS 8300:2018 and BS6465 and with ambulant accessible cubicles in each of the Male and Female facilities. Wash-hand basins will be to work and welfare standards.
2. One of the core Accessible WCs will be right handed and the other left handed on each floor level and as both east and west accessible cubicles are accessible to all tenants it is not necessary to alternate each floor.
3. Accessible WCs will be available within 40m travel distance of all workspaces.
4. Accessible visitor facilities are provided close to the main reception area. The dimensions and layout of the cubicles will meet the requirements of BS 8300:2018 with a 1700mm wide cubicle, rather than the 1500mm width required by Part M.
5. Accessible sanitary facilities are to be dimensioned to meet BS 8300-2:2018, Section 8 where possible with the east cubicle providing the required 1700mm clear width and the alternative west cubicle providing 1650mm.
6. The larger floor plates will be provided with unisex, self-contained 'super-loos' with basins and WC pans in a single cubicle.
7. Ambulant and enlarged (when there are 4 or more cubicles) toilet cubicle provision is included in the current upper floor core arrangement in line with ADM 5.6(c) and

(d) 450mm diameter manoeuvring space is provided inside standard cubicles in line with ADM 5.14(a) and also in the basement sanitary facilities.

8. One ambulant specification shower is provided in each of the male and female basement cycle facilities. Additionally, two accessible toilet / shower and one accessible toilet cubicle are provided here.
9. Clear and private corridor access is provided for all accessible WC provision.

OFFICE FACILITIES

1. The layout and provision within the open plan and individual office space and facilities and the separate estates office area will be by the occupier and is expected to meet the requirements of Approved Document M of the Building Regulations.

CYCLE STORAGE AND END OF JOURNEY FACILITIES

1. The building is designed to have dedicated bicycle storage with step-free access for staff and visitors. Proposals will be developed during further detailed design and will accord with the London Cycling Design Guide including provision of 5% larger cycle bays for ambulant disabled people.
2. The proposal provides for bicycle storage at basement and basement mezzanine level. A suitably sized and specified lift access to this area will be provided.
3. Dedicated 'end of trip' facilities are provided, including accessible toilet provision, changing and shower provision, all of which will accommodate for the needs of disabled cyclists.

Inclusive Design Statement

Emergency Evacuation

EMERGENCY EVACUATION: STRATEGY AND PROCEDURES

The Fire Strategy for the H1 Development will take precedence over this section of the Inclusive Design Statement. Nevertheless, the following measures for the evacuation of disabled staff, customers and visitors to the H1 Development should be considered.

- The strategy will include best practice procedures for the evacuation of disabled people from all parts of the buildings, including BS 9999:2017 and Regulatory Reform (Fire Safety) Order Supplementary Guidance;
- Use of protected refuges – suitable means for communication will be included at all refuge points;
- Evacuation Lifts – Fire strategy - Policy D3 of the London Plan 2021 requires that disabled people can use at least one lift in each core during evacuation in an emergency;
- Management procedures will need to include the training and provision of staff to assist with the evacuation of disabled people from the retail / commercial units;
- The use of suitable warning systems, such as vibrating pagers may be considered for individual members of staff, (such as a concierge) following a PEEP (Personal Emergency Evacuation Plan) assessment; and
- Basement accommodation – particular attention is needed for egress provisions for disabled people.

EMERGENCY EVACUATION: PROVISION OF SPACE AND EQUIPMENT

- All designated escape routes will allow wheelchair users and others to reach a safe area from each part of the H1 Development.
- Alarm systems will provide visual as well as audible signals in isolated locations such as staff and customer WCs.

CONCLUSION

The proposed H1 Development offers a level of inclusive design that exceeds the minimum access requirements of the Building Regulations, local and London-wide access policies.

Each aspect of arriving, entering and using the buildings has been carefully considered during the design process.

Access provisions incorporated into the proposals that are key to the aim of providing an inclusive environment include the following:

- A Site with very good connections to public transport, local pedestrian networks, and town centre facilities nearby;
- Accessible routes to all pedestrian route connections and public transport;
- Legible and logical arrangement of streets, cycle and pedestrian paths, with hierarchy of paths denoted by various surface treatments and planting;
- Adequate and comfortable external seating provided;
- Provision of mixed use (retail and office) on the Site, reducing travel distance to work, eat and shop which are especially critical for older and disabled people with limited mobility;
- Ensuring pedestrian and cycling routes as inclusive as possible;
- Animating street frontages of building to provide interest, passive surveillance, safety and convenience for all users, especially older and disabled people, children and their carers.
- Two on-street accessible parking spaces provided for disabled visitors and staff;
- Provision of accessible cycle parking facilities and changing amenities on site;
- Open plan offices providing flexibility of use and circulation;
- Accessible roof terraces providing attractive amenities at upper floor levels;

- Accessible sanitary provision with two unisex WCs on each floor, providing alternate left and right hand transfers, along with ambulant accessible facilities; and
- Suitable emergency egress provision with two fire-fighting/evacuation lifts in the central core.

Inclusive Design Statement

Ground Floor Plan - Access Overlay



Fig.240 Ground floor plan

Inclusive Design Statement

Mezzanine Floor Plan - Access Overlay



Fig.241 Mezzanine floor plan

Inclusive Design Statement

Level 01 Floor Plan - Access Overlay

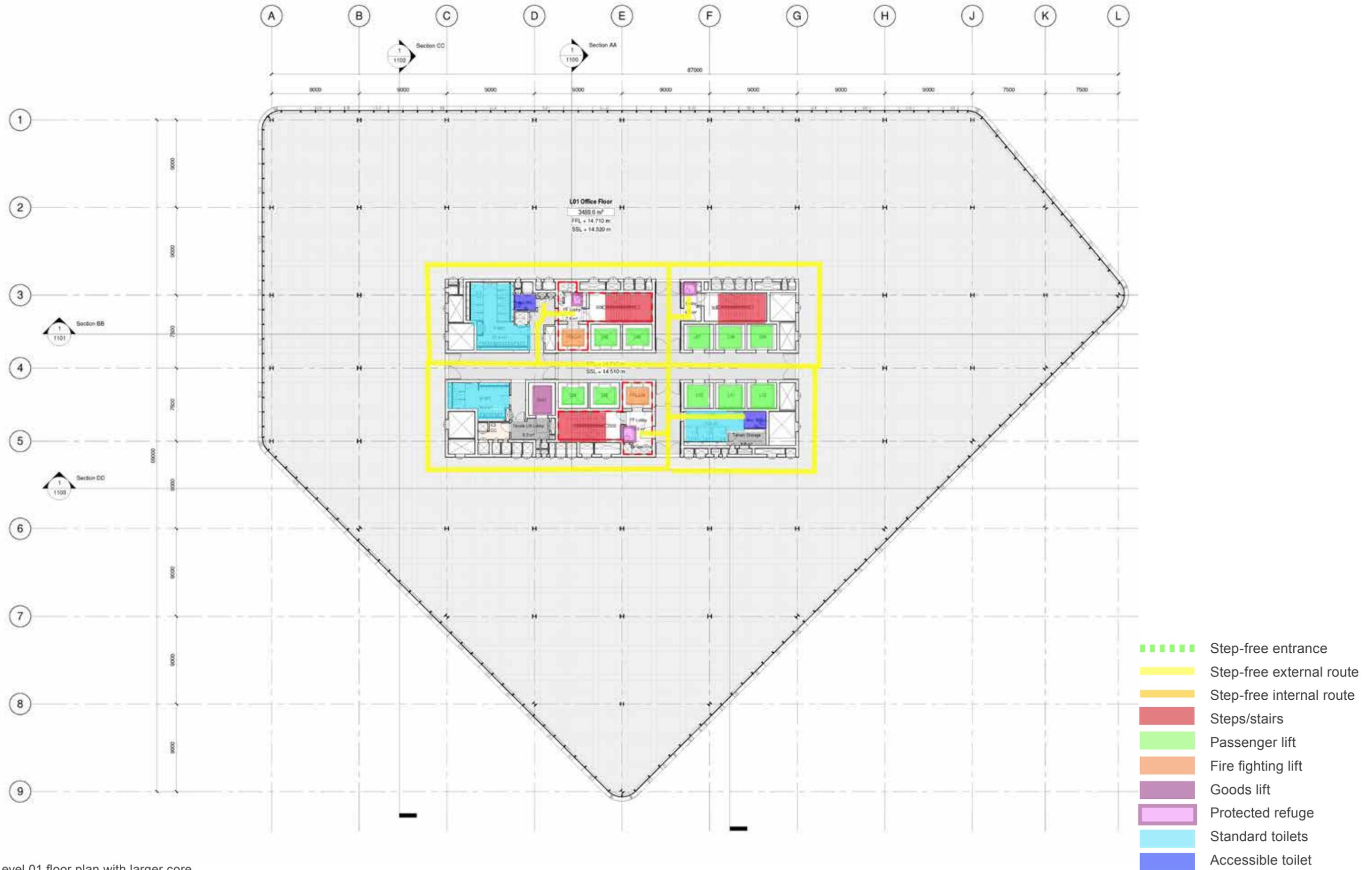


Fig.242 Level 01 floor plan with larger core

Inclusive Design Statement

Level 10 Floor Plan - Access Overlay

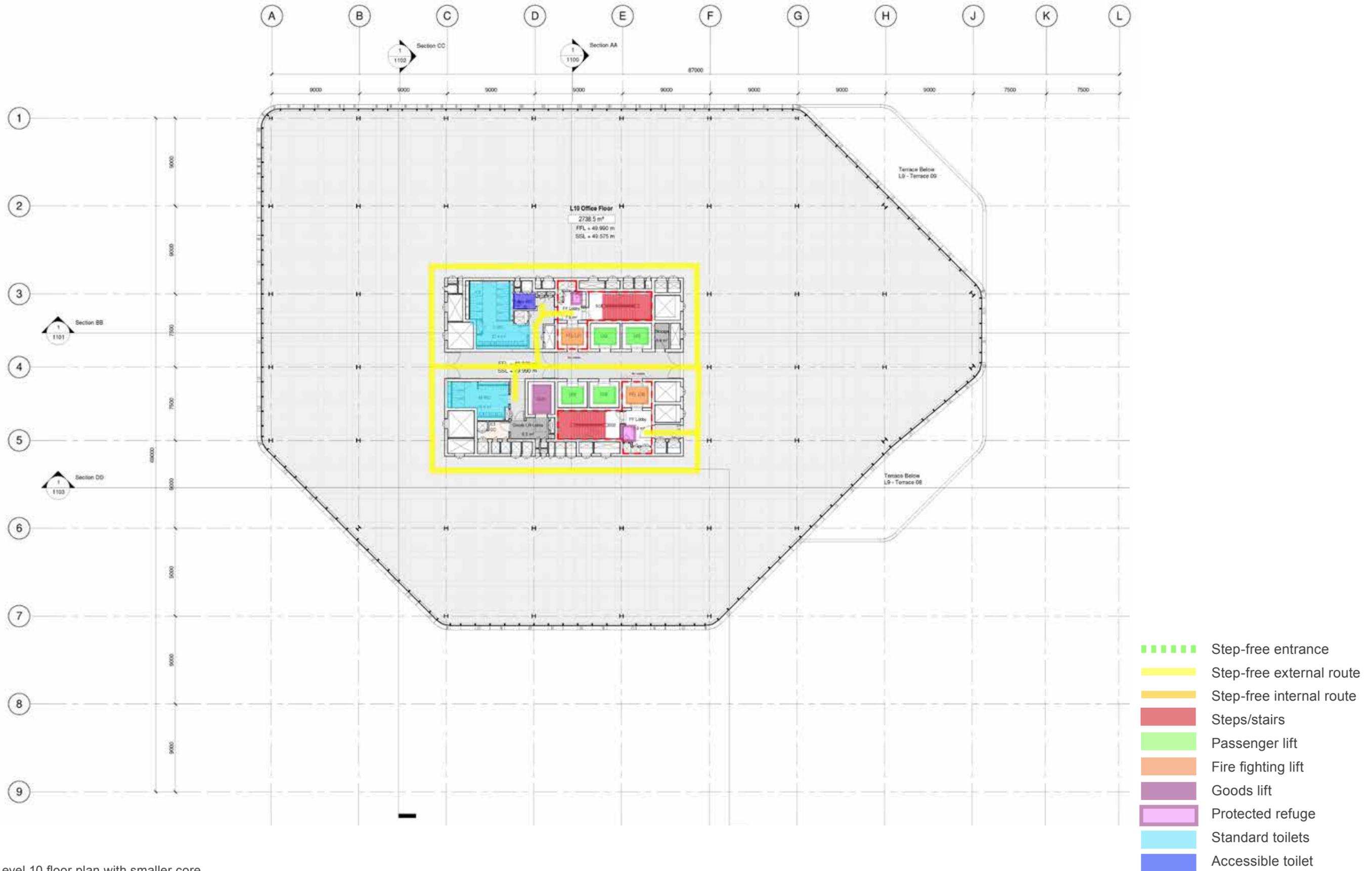
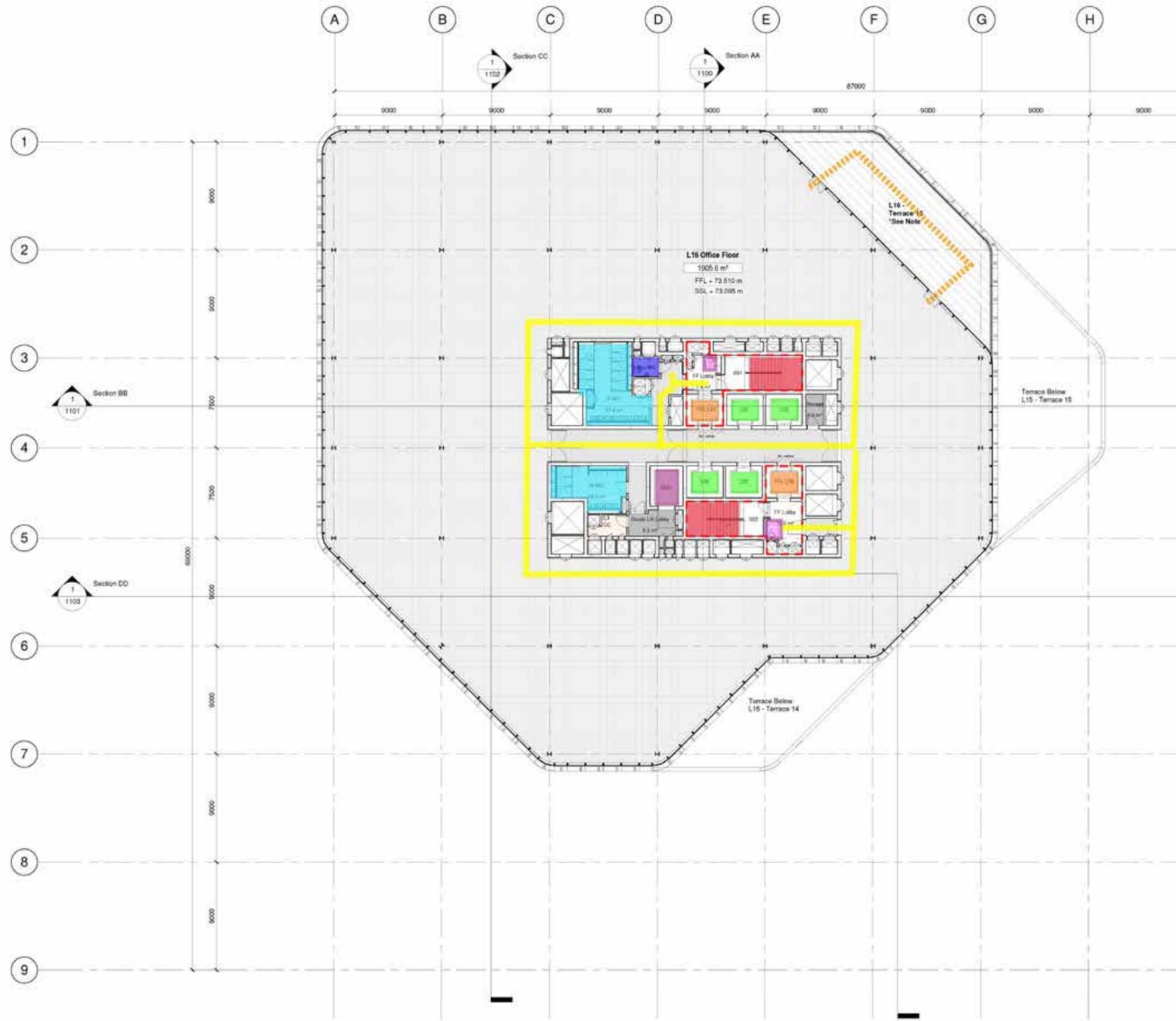


Fig.243 Level 10 floor plan with smaller core

Inclusive Design Statement

Level 16 Floor Plan - Access Overlay



- Step-free entrance
- Step-free external route
- Step-free internal route
- Steps/stairs
- Passenger lift
- Fire fighting lift
- Goods lift
- Protected refuge
- Standard toilets
- Accessible toilet

Fig.244 Level 16 floor plan: Access to roof terrace

7. Technical Summary

Technical Summary

Building

FIRE STRATEGY

The core accommodates two banks of six lifts each, the low-rise lifts serve ground to level 9, with the high-rise bank serving ground and level 9 (transfer level) to level 16. Both the fire-fighting lifts are located within the high-rise bank and in fire mode access each floor from ground to level 16.

There are three escape stairs to all the lower levels, however the upper floors from level 9 to level 16 only require two fire escapes.

The building will evacuate following a 'phased evacuation' protocol consisting of the evacuation of compartments consisting of two floors, starting from the compartment where the fire originates, then followed by the compartment directly above it. If the building would need to be evacuated entirely, the phased approach of evacuation will provide a buffer zone so as not to overload the stairs whilst allowing for a faster evacuation of the entire building.

Access for the fire tender is direct from Elephant Road to the north and Sayer Street to the south with the fire-fighting entrance on Deacon Street. Fire fighters have direct access through the three metre wide protected route to both fire-fighting cores. The additional fire-fighting lift not being used by the firefighters will be used as an accessible escape route.

The principles of the fire strategy have been agreed with the London Fire Brigade.

-  Fire Fighting Route
-  Fire Tender
-  Passenger Lift
-  Service Lift
-  Fire Fighting Lift
-  Escape Stairs
-  Fire Shaft

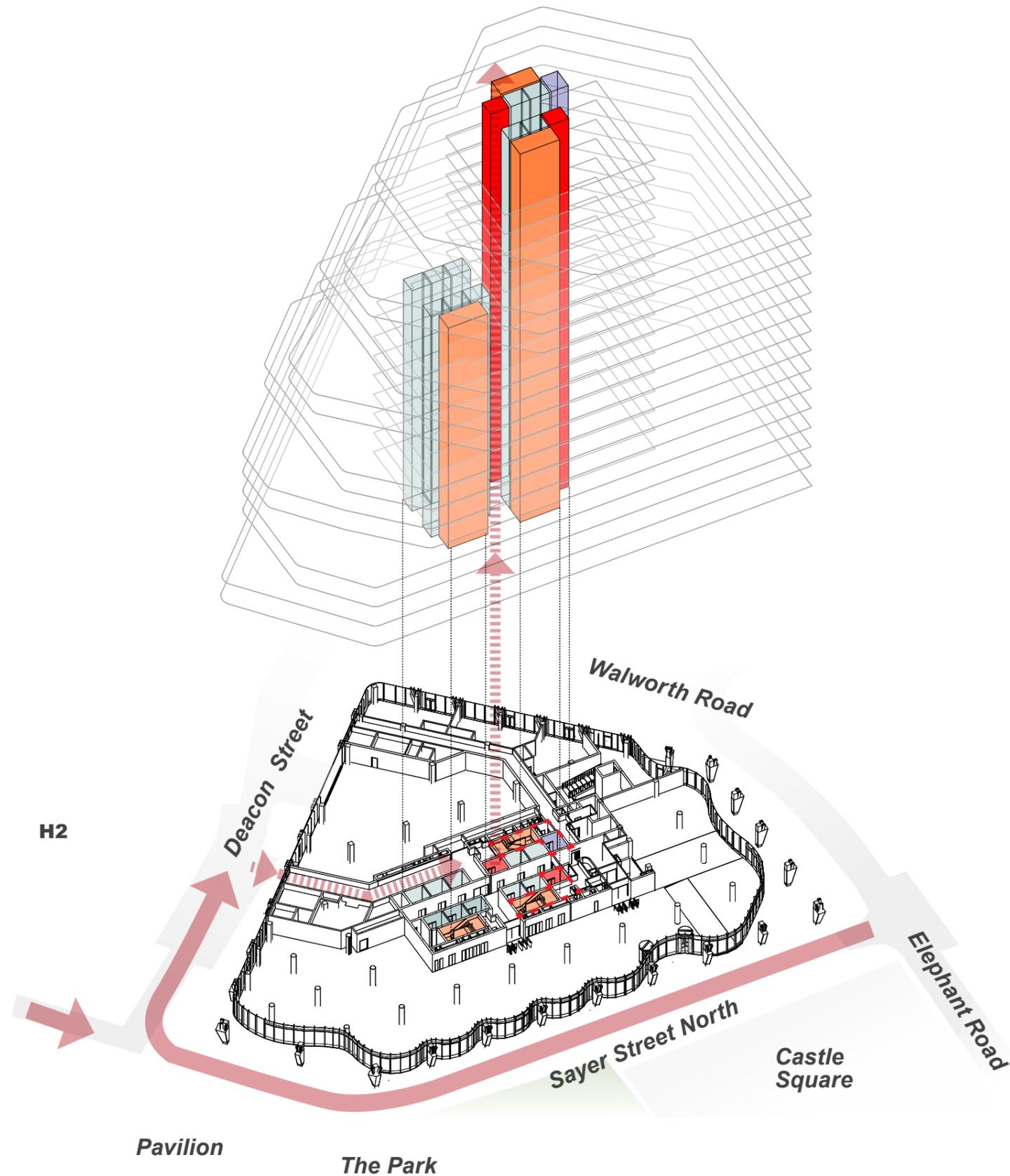


Fig.245 Overview of fire strategy

Technical Summary

Building

FACADE ACCESS & MAINTENANCE

The stepped massing of the H1 Development has required the strategy for cleaning and maintenance of the façade to be carefully studied. An additional consideration is allowing for the maintenance of the planting elements to the terraces. In summary:

- A Building Maintenance Unit (BMU), operating on the roof level will provide access to all elevations, with the exception of the elevations off the Level 05 terrace on the east of the H1 Development;
- A Mobile Elevated Work Platform (MEWP) system operating at ground floor will access the elevations up to the Level 05 terrace on the east of the building;
- Elevations up to one level in height above any terrace will be accessed using an extendible aluminium pole;
- Aerial Work Platform (AWP) provides access to the inner side of the terrace elevation's lattice façade and the horizontal wire trellises; and
- AWP access at GF level providing access to the setback façades that are not in reach of the BMU or MEWP.

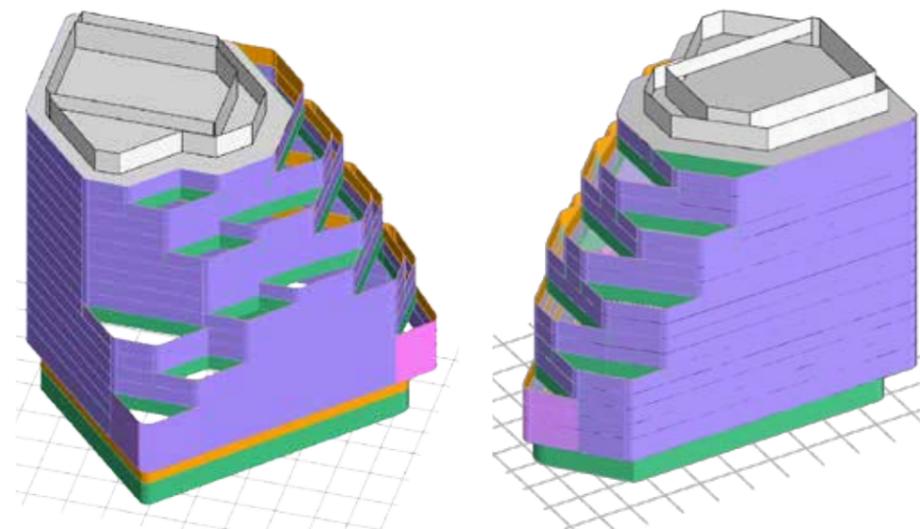


Fig.246 Isometric showing different facade access strategies

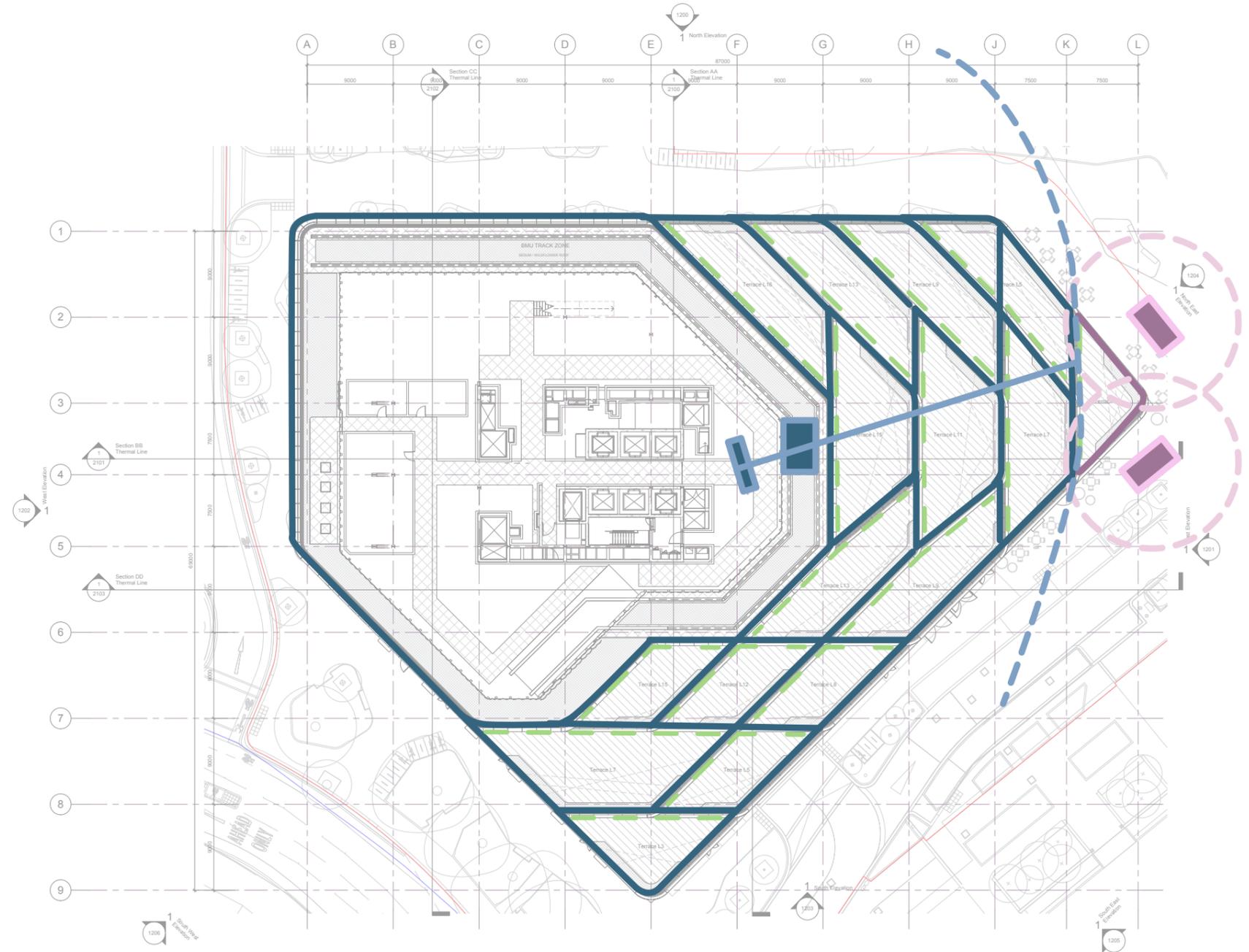


Fig.247 H1 Development roof plan showing access strategy

- Floor / Terrace Access
- MEWP Access
- BMU Access
- AWP Access

- MEWP Access
- MEWP Reach Zone
- BMU Access
- BMU Reach Zone
- Access from terrace below

Technical Summary

Public Realm & Landscape Strategy

URBAN GREENING FACTOR CALCULATION

KEY	SURFACE COVER TYPE	FACTOR	TOTAL AREA (sqm)	UGF AREA (sqm)	NOTES
	Semi-natural vegetation (e.g woodland, flower-rich grassland) created on site	1	0	0	
	Wetland or open water (semi-natural, not chlorinated) created on site	1	0	0	
	Intensive green roof or vegetation over structure. Vegetated sections only, substrate minimum settled depth of 150mm - GF public realm	0.8	62.3	48.8	Includes ground floor planting over basement
	Standard trees planted in natural soils or connected tree pits (with minimum soil volume equivalent to 2/3 mature canopy area)	0.8	216	172.8	Includes retained existing trees
	Extensive green roof with substrate of minimum settled depth 80mm	0.7	636	445.2	
	Flower-rich perennial planting	0.7	627.5	439.3	
	Rain gardens and other vegetated sustainable drainage elements	0.7	25.4	17.8	
	Hedges	0.6	0	0	
	Standard trees planted in pits with soil volumes less than 2/3 mature canopy area	0.6	486.5	291.9	Includes retained existing trees
	Green wall - modular systems or climbers rooted in soil	0.6	1640	984	
	Groundcover planting	0.5	24.5	12.3	
	Amenity grassland	0.4	0	0	
	Extensive green roof sedum mat	0.3	0	0	
	Permeable paving	0.1	0	0	
★	Sealed surfaces - GF public realm	0	2765	0	
★	Sealed surfaces - Building and terraces	0	3535	0	
	TOTAL SITE AREA		7767	2412.98	
URBAN GREENING FACTOR				0.3107	

★ Sealed surfaces / unplanted areas not illustrated on plans for clarity



Fig.248 Urban Greening Factor - Public Realm

The Urban Greening Factor (UGF) is a tool that evaluates and quantifies the amount and quality of urban greening that a scheme provides to inform decisions about appropriate levels of greening in a new development.

The Urban Greening Factor for a proposed development is calculated in the following way:
 $(\text{Factor A} \times \text{Area}) + (\text{Factor B} \times \text{Area}) + (\text{Factor C} \times \text{Area})$ etc. divided by Total site area. The H1 Development meets this policy requirement.

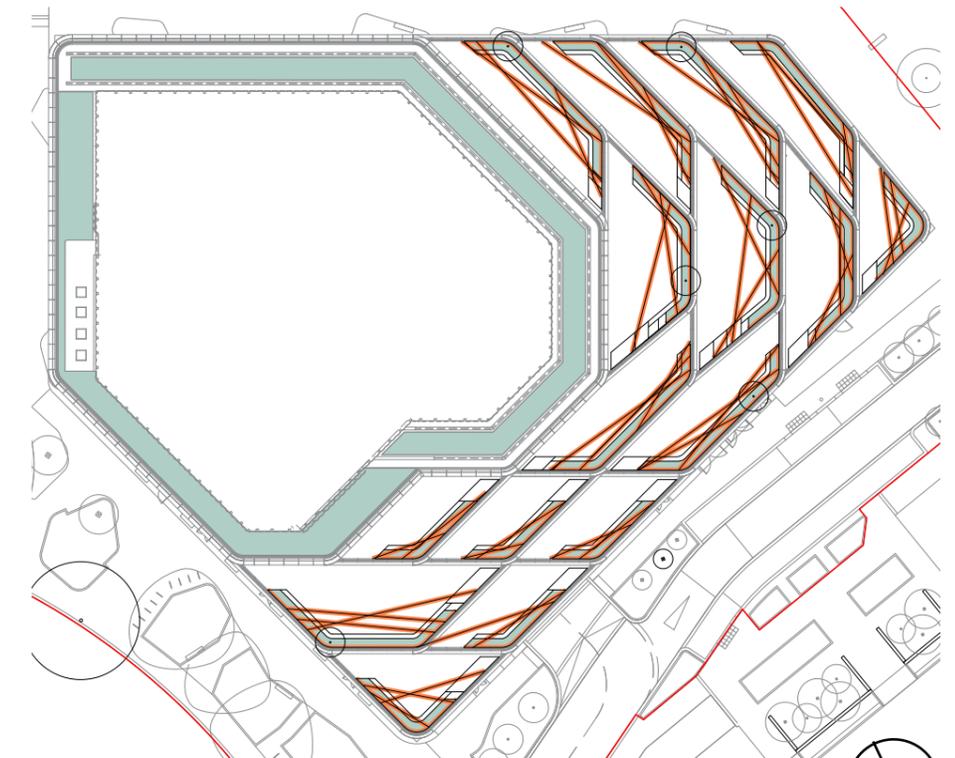


Fig.249 Urban Greening Factor - Building and Terraces

Technical Summary

Public Realm & Landscape Strategy

LEVELS AND DRAINAGE

Generally the H1 Development encompasses subtle level changes, which can be accommodated by discrete measures within the public realm design. There are a number of areas where existing built levels need to be taken into consideration, particularly around where existing trees and kerbs are present and need to be retained.

The design of external levels and gradients of the Site will follow the below principles:

- Ease of maintenance and access will be a key consideration when detailing finished levels;
- Levels generally will fall away from the building, and where possible run-off should be directed to planted areas;
- Grading proposals will consider the retention of existing trees and avoid or minimise any change or disruption to the root protection area; and
- All path gradients will be profiled to ensure they allow access for users of all abilities, with no gradients exceeding 1 in 21. Main pedestrian routes will not exceed gradients of 1 in 40.

- H1 Development Site
- ×^{00.00} Levels
- Direction of surface water flow
- Planting areas capturing water run-off



Fig.250 Levels and drainage plan diagram



Technical Summary

Public Realm & Landscape Strategy

RETENTION AND REMOVAL OF EXISTING TREES

The public realm has been developed with careful consideration of the existing high quality mature trees within the Site that provide a significant positive impact on the H1 Development and an established landscape setting for the new community. Where trees are retained, various measures have been employed in the design process to ensure their ongoing health and vigour including:

- Gathering information in the form of radar surveys and ground investigations to ascertain the exact position and extent of tree roots;
- Maximising permeable surface conditions within the root protection zones generally through the increase in soft/planted ground;
- Employing 'no dig' construction solutions within the root protection zones (RPZ) as outlined in the H1 Development Arboricultural Method Statement; and
- Amelioration and improvement of existing growing medium within zones of planting to facilitate and benefit ongoing life of existing trees.

ONGOING MONITORING OF TREE HEALTH

In order to retain the trees and avoid damage to tree roots, the design has considered the current ground levels around existing trees when setting levels for the proposed landscape.

Where the design requires encroachment into the root protection zone of existing trees, the project arboricultural consultant and engineers have reviewed options and provided methods for ensuring that significant roots are not damaged by severance or compaction. Constructed features (e.g. paths) are to be built to allow for sufficient water penetration and gaseous exchange to support a healthy rooting environment.

As the detailed design is developed beyond the planning stage to construction, further details will be gathered to ensure tree health is maintained.

Trees being removed have been assessed for their Capital Asset Value for Amenity Trees (CAVAT) figure to inform a suitable replacement strategy as mitigation for their loss. The OPP Tree Strategy for the replacement of trees including trees planted off-site as required under the OPP Section 106 Agreement has been developed in consultation with the Council and submitted for approval as required under the Section 106 Agreement.

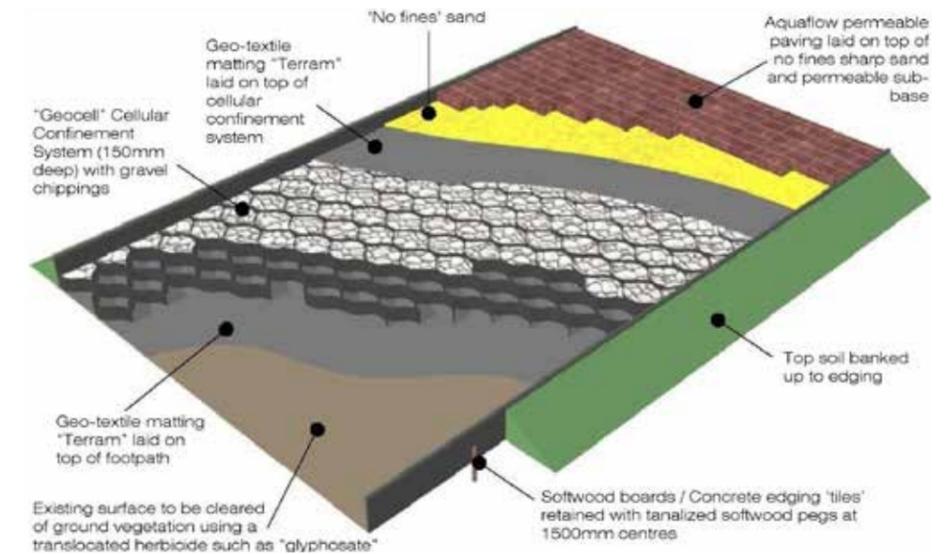
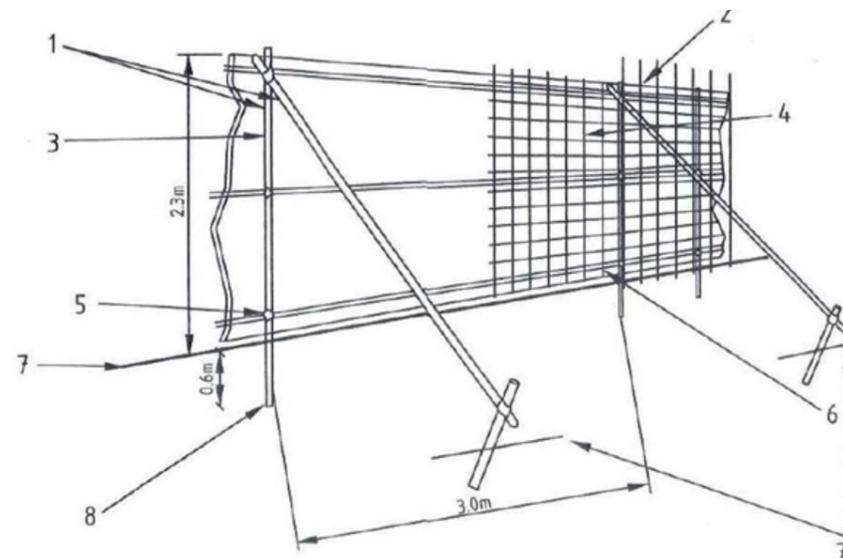


Fig.252 Example of no dig construction option



- | | |
|--|--|
| 1 Standard scaffold poles | 5 Standard clamps |
| 2 Uprights to be driven into the ground | 6 Wire twisted and secured on inside face of fencing to avoid easy dismantling |
| 3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps | 7 Ground level |
| 4 Weldmesh wired to the uprights and horizontals | 8 Approx. 0.6 m driven into the ground |

Fig.251 BS 5837 Tree protection measures

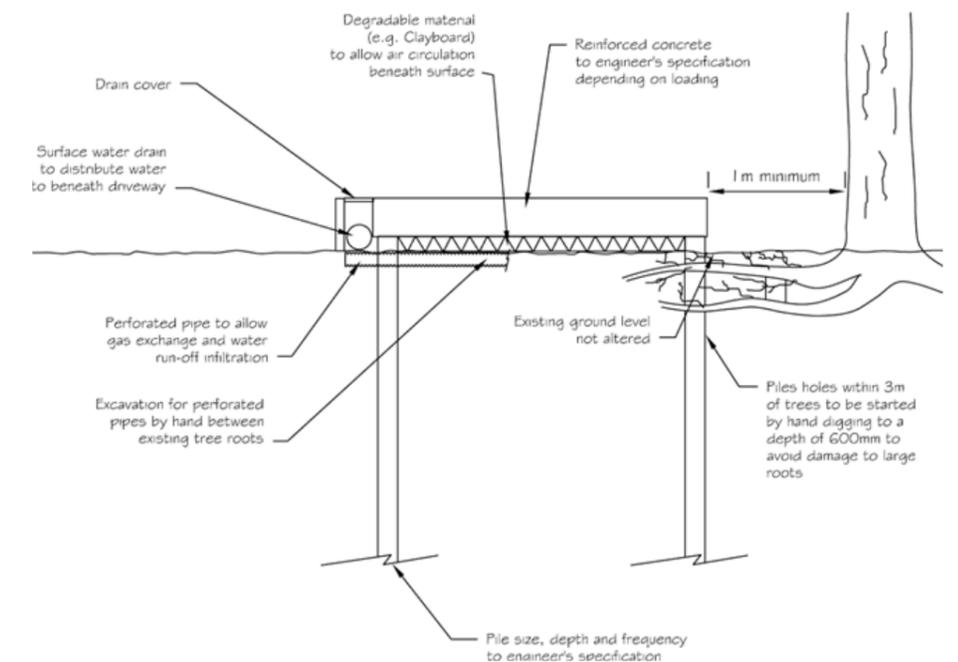


Fig.253 Example of no dig construction option

Technical Summary

Public Realm & Landscape Strategy

TERRACE AND FACADE GREENING MAINTENANCE

Introduction

This outline maintenance and management strategy sets out a general scope of works and specification for maintenance of soft landscape works of the H1 Development. A wide range of measures are addressed and agreed programmes of maintenance tasks will be required.

Soft Landscape Works - General Scope

The proposed scope of the soft landscaping to be maintained is as follows:

Ground Level:

- Climbing plants trained up the facade along Deacon Street; and
- Climbing plants trained up the colonnades.

Terrace Level:

- Climbing plants trained up the facade wrap around;
- Climbing plants trained along suspended cables;
- Shrub and herbaceous planting; and
- Specimen shrubs (tenant fit out).

Access

For both the ground level facade greening and the climbing plants trained around each terrace, an Aerial Work Platform (AWP, 'Genie GR-12' or equivalent) is to be utilised to maintain the higher climbing plants. All other ground cover planting can be accessed from the terrace level.

A 1150mm high X-tend mesh will surround each terrace and roof level to protect from falls. These allow maintenance staff to safely access the planters for maintenance.

Suspended wire cables are proposed on each terrace to allow the climbing plants to spread overhead. These cables are offset a minimum of 1.5m from the facade to allow a clear emergency landing zone for the BMU suspended platform.

General Guidelines

The objective of the landscape maintenance is to achieve and maintain a scheme of the highest visual quality. Horticultural work is to be carried out by appropriately qualified and experienced operatives.

Best horticultural practice is to be employed at all times in regard to works to living plant material.

- Periodic inspections shall be carried out to monitor the establishment of new planting, the ongoing maintenance works and to identify damaged works;
- Leaf removal;
- Disposal of arisings; and
- Removal of litter and other debris.

Maintenance Task Frequency

The maintenance tasks are to be carried out on a regular basis to allow the successful establishment of the planting and sufficient to maintain the soft landscape to a very high standard.

Shrub, climbing plants and herbaceous planting works:

- Establishment of new planting;
- Re-mediation works required in response to incidental or deliberate damage;
- Irrigation checks;
- Soil aeration;
- Re-firming and reinstatement of planting;
- General pruning, dead heading, trimming and cutting back;
- Fertiliser application as required;
- Mulching;
- Checks for pests and diseases; and
- Removal and replacement : If/When necessary.

Climbing Plants

- Climbing plants trained to cables: As the climbers grow they will require regular monitoring to ensure they are growing neatly around the tensile cables. Additional cable ties will be required as the plants grow to encourage them to the tensile wires;
- Regular pruning required to keep climbers attractive, bushy and tidy; and
- Climbers will require monitoring to ensure they do not encroach over windows or any other undesired location on the building.

Plant Replacement

In order to bring in any required plants, access is required through the building. Any plant failures should be replaced within two weeks to match the size and species of the plant that failed.

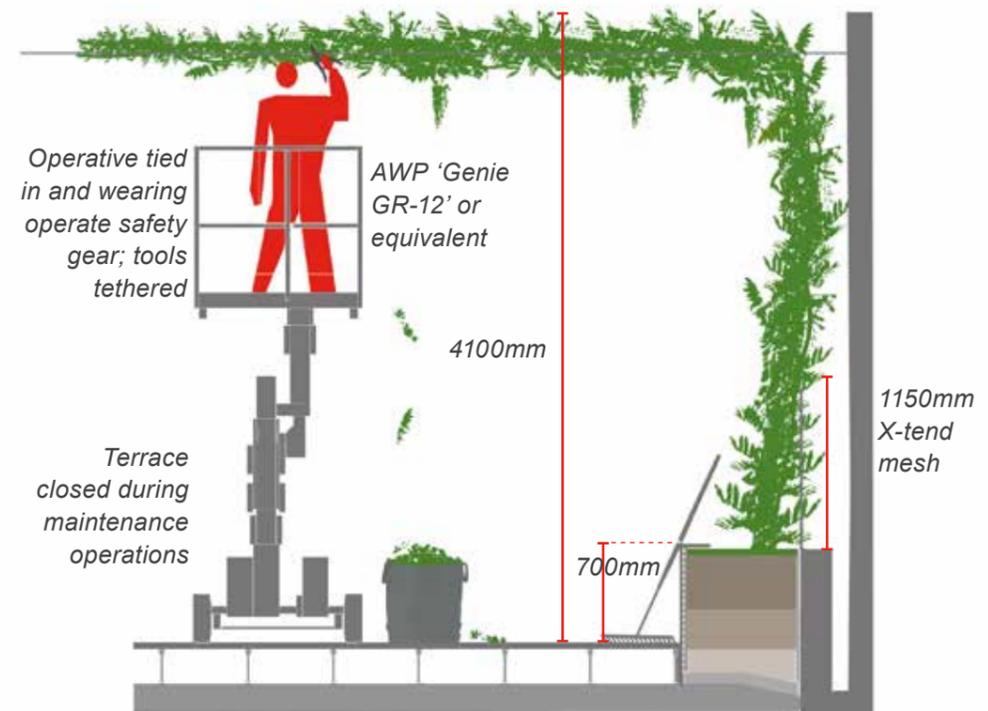


Fig.254 Diagram of maintenance using an AWP

Technical Summary

Public Realm & Landscape Strategy

BIODIVERSE ROOF MAINTENANCE

Objective

This outline maintenance regime is intended as a guide for the general maintenance of the biodiverse roof of the H1 Development.

Performance Requirement

The general maintenance of the rooftop greenery should achieve the following:

- Pro-active and regular maintenance;
- Ecological sensitivity;
- Upkeep and sustain the intended quality and performance of the installed rooftop greenery;
- The general maintenance ensures that the rooftop performance is not compromised by the growth of greenery on the rooftop. Where necessary, the greenery is to be managed in order to upkeep, mitigate and or restore the rooftop performance; and
- The general maintenance is also to identify and rectify potential future malfunctions and problems to the rooftop (such as falling plant debris, plants failing, fire risk, overgrown plants, roots compromising roof systems, or water ponding).

The maintenance and management of soft landscape works, to ensure the roof is maintained to a good condition and to protect the validity of the waterproofing system, comprises the following:

- Checks on drainage and other underlays;
- Pruning / trimming;
- Checks for fungi and pest infestation;
- Removal of landscape debris;
- Plant replacement;
- Ensuring overall safe use of rooftop and check fixtures and fittings (check for rust, loose bolts & nuts etc.);
- General overall monitoring;

- Establishment of new planting;
- Maintenance and management of new planting;
- Re-firming and reinstatement of planting;
- Weed control;
- Disposal of arisings;
- Dead seasonal wildflower foliage should be cut back in the Autumn once the seeds have fallen with a cutting height of 80-100mm. All cuttings should be removed from the roof area; and
- Ensure fire margins remain clear.

Habitats

Specifically designated biodiversity areas should be disturbed as little as possible during maintenance so as not to upset any micro-habitats that may have colonised.

Watering

Extensive green roofs will not normally require any watering beyond the establishment phase- first 6-8 weeks. Roofs that have been plug planted or seeded may require watering for a longer period particularly if there is a long hot, dry spell of weather. An external tap will be provided at roof level.

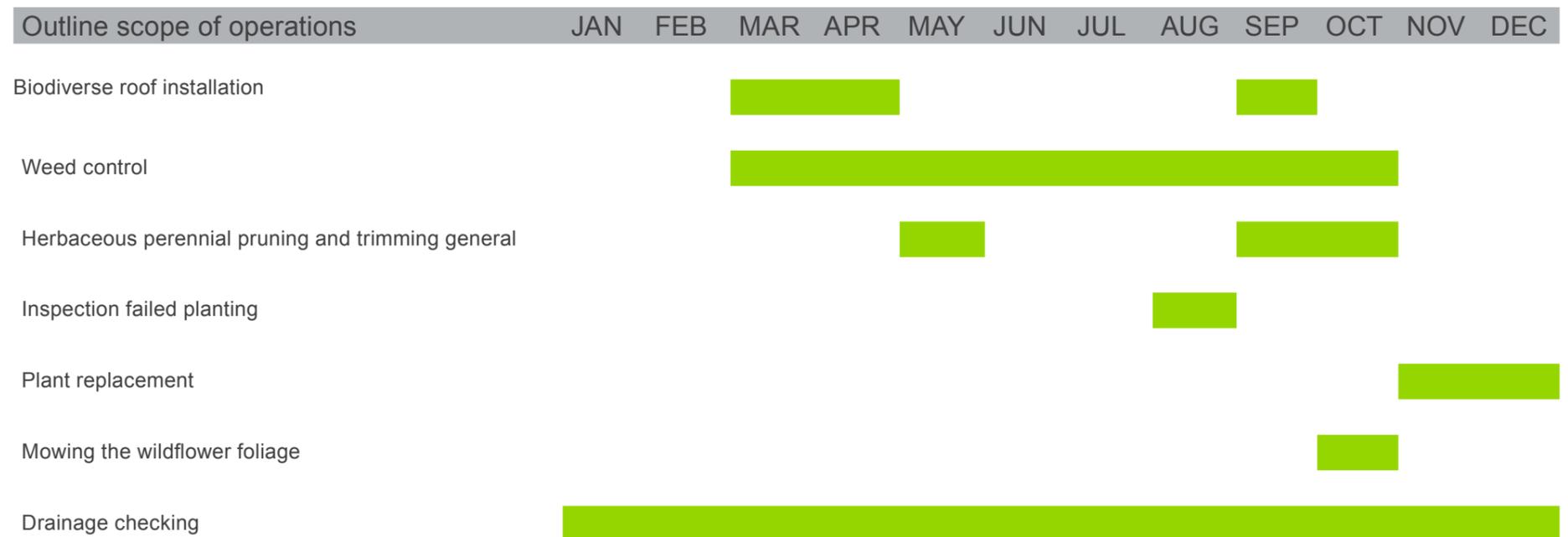


Fig.255 Calendar for maintenance of biodiverse roof planting

PROJECT TEAM



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