

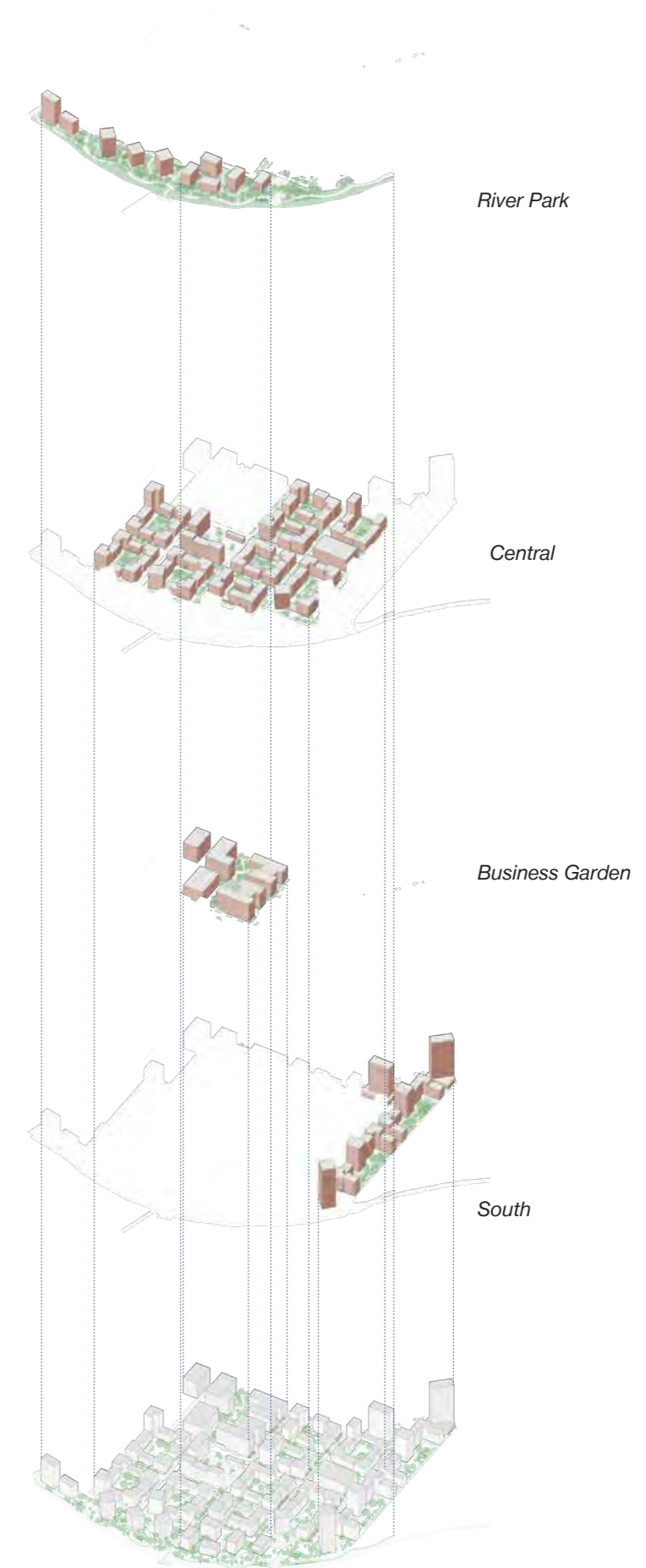
6.0 Masterplan Strategies

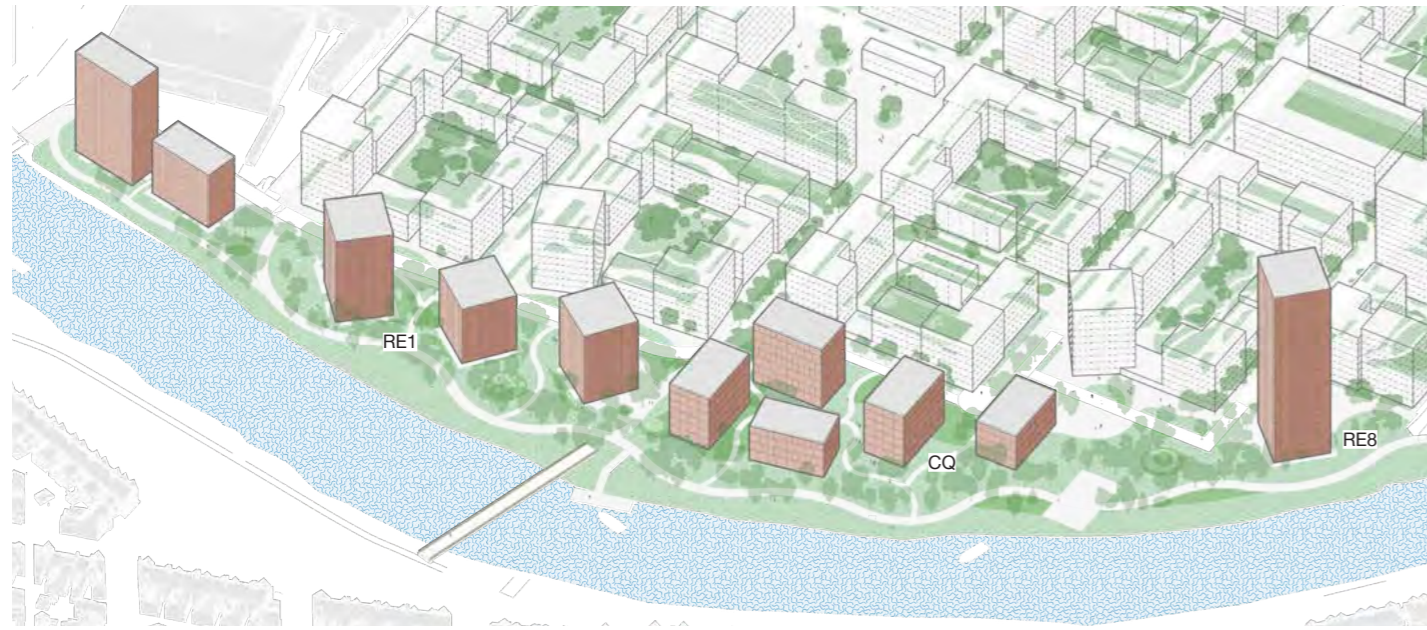
6.1 Character Areas

The masterplan is arranged into a series of distinct character areas. These areas are defined by a particular landscape quality, building use, or particular urban characteristics. The areas are:

- River Park;
- Business Garden;
- Central;
- South.

The character areas serve to define urban conditions - they are not intended to provide arbitrary differences between one part of the masterplan and another. The particular qualities that make each area distinct are set out in the following pages.



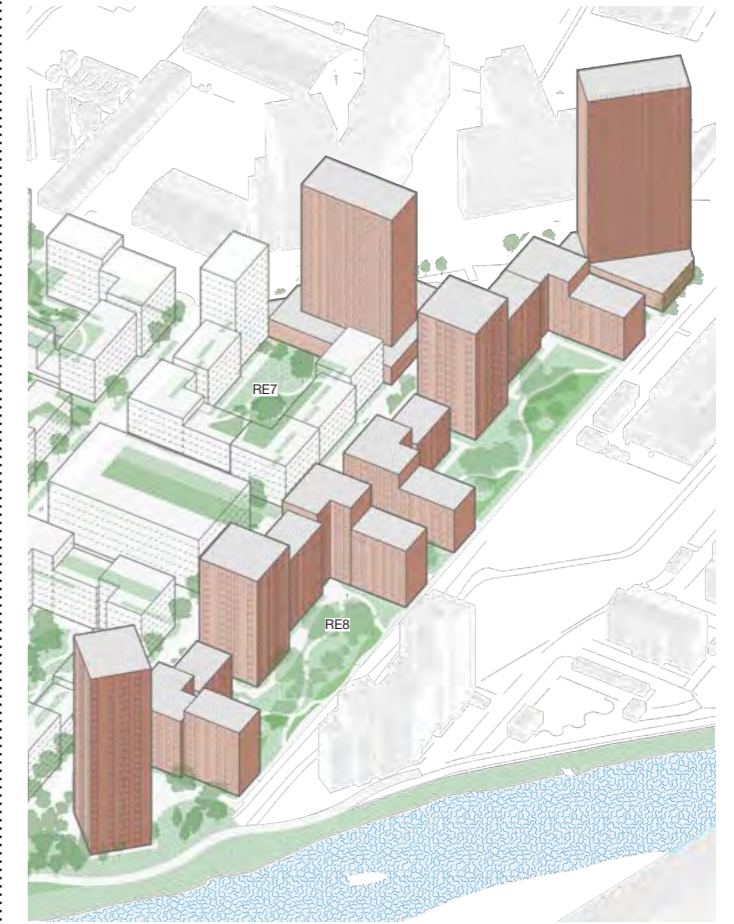


River Park

The River Park character area renews Cardiff's relationship with this length of the Taff Embankment. The area extends down the full length of the western boundary of the development and is bounded by the predominantly residential Central and South character areas to the east. The area includes plots RE1, CQ and part of RE8.

Key public spaces within the area include a beautifully landscaped river park and Creative Quarter. The River Park forms a key public space not just for the masterplan, but wider city. While one character area, the park itself is composed of external spaces of different characters specific to their location or use.

The Creative Quarter is a new commercial quarter within the park aimed at new and emerging creative industries within Cardiff. Smaller office footprints are arranged around a vibrant new public space on the river that is animated by the surrounding industries.



South

The South character area forms the southern edge to the site and is a key gateway into the development. The character area is bounded by the River Park to the west, Dumballs Road to the east, and Central character area to the north. The area is comprised of RE8 and part of RE7.

The area is defined by taller massing which serves a number of functions. The tall buildings act as gateways into the site, assist as landmarks within the wider city, and respond to existing tall developments such as Century Wharf and the emerging Anchor Works development.

Residential developments are focussed around large, south facing gardens. North-south amenity streets will provide pocket parks between blocks. These small green spaces will be safe spaces to play and congregate, offering additional amenity space to residents. The landscaping will also mitigate any effects from wind channelled between blocks.

The western edge of the area should embrace and open up to the River Park and wider views to Grangetown and beyond. The eastern edge should address Dumballs Road and define a new urban edge to this arterial route.



Business Garden

The Business Garden character area is situated in the north-east corner of the site. It is a predominantly commercial area set within a rich landscape garden. The area also contains one of the development's two park houses given it's proximity to Dumballs Road. The character area is bounded by the Central character area to the west & south and Dumballs Road to the east. The area encompasses Plot BG.

The Business Garden offers tenants a different working experience than either traditional office parks or city centre office buildings. The pedestrian focussed public realm offer external break out areas, bio-diverse natural green spaces and a variety of leisure, sports and recreation facilities that gives tenants and nearby residents the opportunity to take a break from daily tasks, exercise or take quiet respite alone or in groups to reset ready for the rest of the day.



Central

The central character area forms part of the northern edge to the site, the central area and is considered a key gateway into the development. The character area is bounded by the River Park to the west, Business Gardens and Dumballs Road to the east, and the South character area. The area encompasses Plots RE2, RE3, RE4, RE5, RE6, RE7 and CS.

The area is defined by a network of characterful streets and key spaces. Key public spaces include a new urban square in the heart of the masterplan. The western edge of the area embraces and opens up to the River Park and wider views to Grangetown and beyond.

The area is predominantly low to mid rise residential properties. Townhouses define amenity streets and taller buildings signal entry points into the masterplan from Trade Street and the Penarth Bridge.

6.2 Open Spaces

A mixture of public open spaces are provided for residents, workers and visitors to enjoy. A new River Park along the Taff, a series of public urban spaces and gardens, will create a verdant new neighbourhood in the City that is vibrant and welcoming. The importance of nature and its influence on our health and well-being is reflected on the masterplan with a well-connected network of amenity streets that enhance the quality of the open spaces.

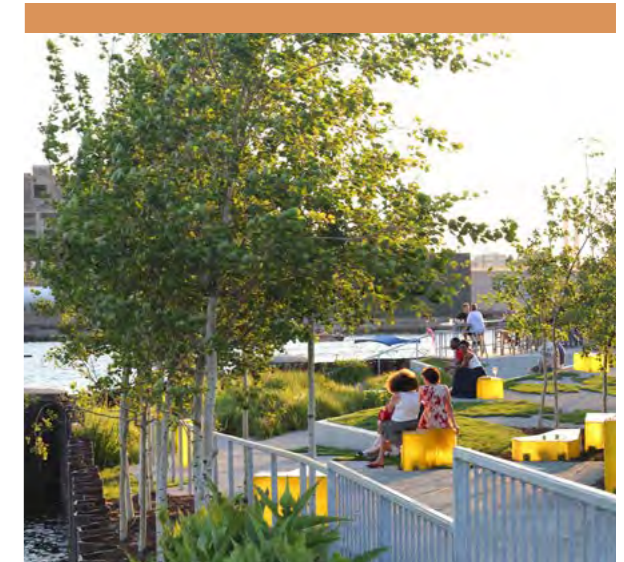
One of the key elements of the proposals is to create a new River Park across the river that extends the existing River Park along Grangetown east of the River Taff. This new green space for the city will accommodate a range of sub-spaces for the community to dwell and interact.

Providing meaningful and generous amenity spaces is very important for the long-term success of the neighbourhood. The provision of adequate amenity spaces has been designed in compliance with Cardiff Council's standards.

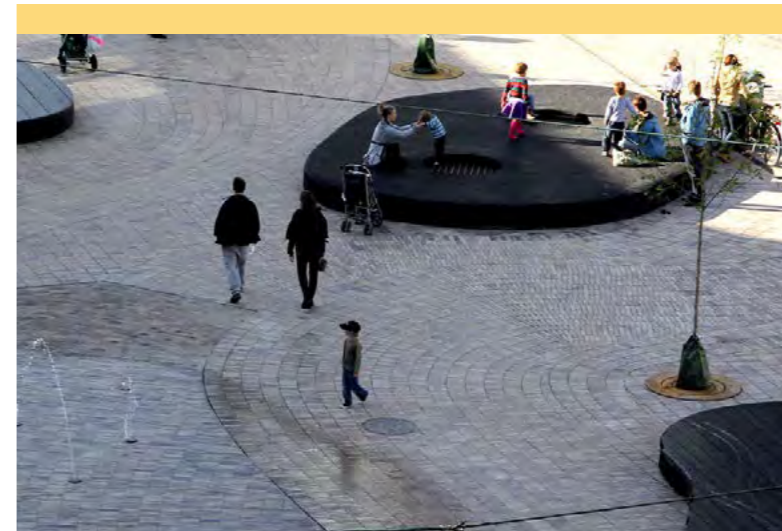
A mixture of high quality private, shared-private and public amenity spaces with play features and other facilities are incorporated within the site to contain the buildings and encourage outdoor recreational activities and social interaction.



Festival Gardens, Liverpool - Planit-IE



Erie Street Plaza, Milwaukee - STOSS



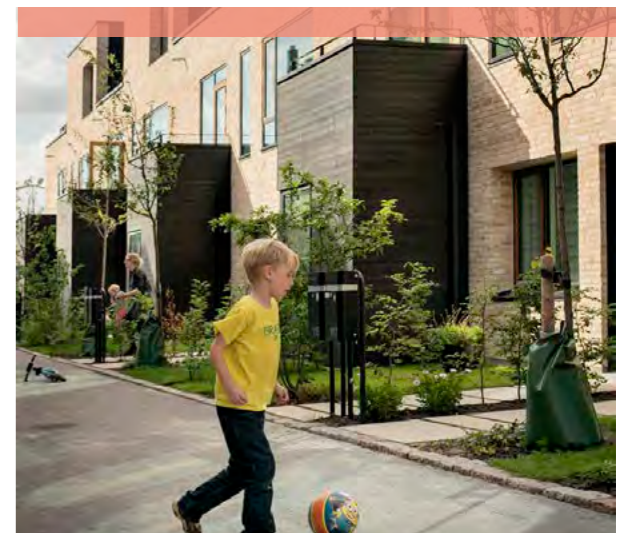
Grønnegade Square, Odense - MASU Planning



Pocket Park, Manchester - Planit-IE



City Dune, Copenhagen - SLA Architects



Byhusene, Copenhagen - Vandkunsten

Key Open Spaces

River Park

The proposed River Park runs down the length of the site along River Taff creating a new green destination for the people of Cardiff. Its character is inspired by River Taff's rich history and revitalised ecological habitats. A mix of activities within the park, a biodiverse planting palette, robust and sustainable materiality, mixed uses in the build form and well connected routes are all structuring elements that have been considered for the design development of the park.

Three distinct character zones are proposed within the River Park to create a diverse park. These character zones supplement the proposed built form and are interlinked with each other via a continuous pedestrian and cycling river walk and an ecological rich river edge.

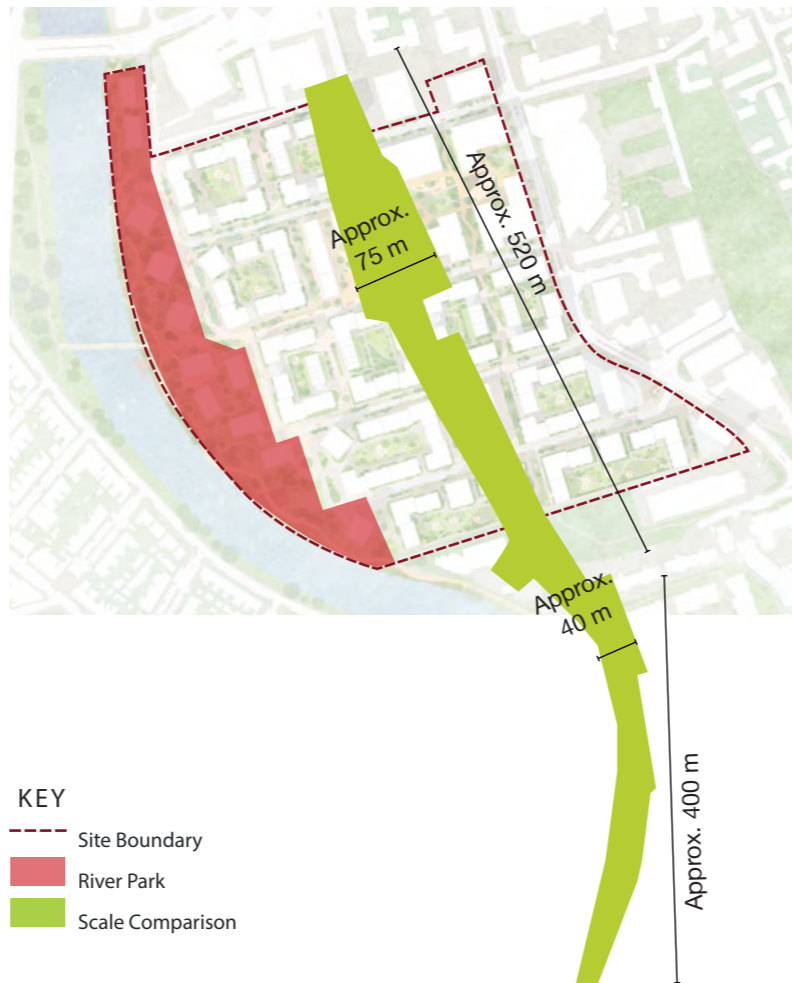
A series of viewpoints and seating areas encourage interaction with the water. Existing tree planting and ecological rich areas are retained and enhanced where possible with new native trees and biodiverse planting influenced by the Welsh landscape.

Local Park Scale Comparison



Canal Park, Butetown

This former vacant area in the heart of Butetown and to the east of our site offers a multi-sports facilities park for the local community. Comparing it to the proposed River Park, Canal Park is slightly bigger.



Location Plan



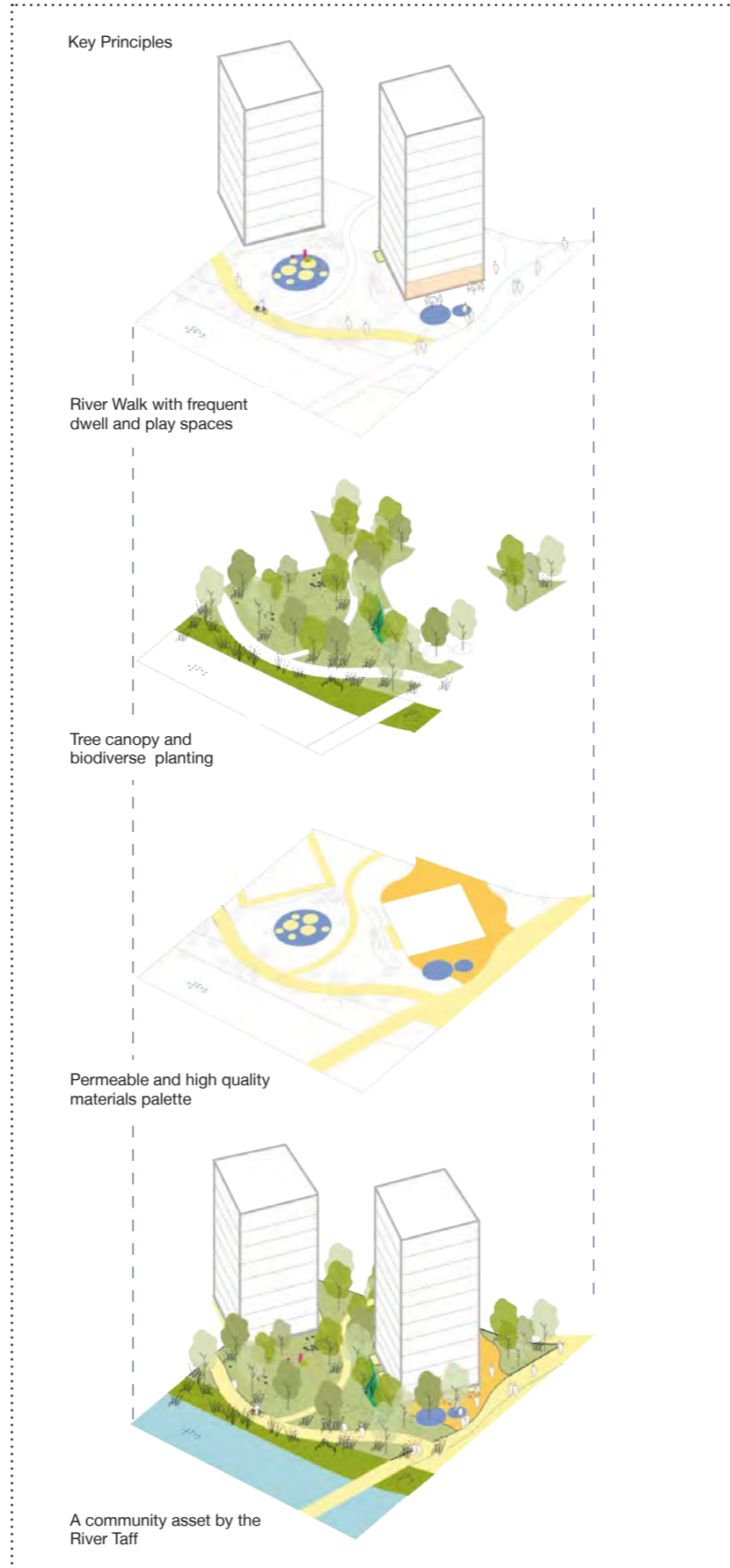
KEY

- 1 Residential Zone
- 2 Creative Zone
- 3 Active Zone

1. 'Residential Zone'

The 'Residential Zone' to the north aims to enhance the sense of community around the residential buildings, offering a mixture of play, outdoor exercise, growing gardens and landscape areas that are well overlooked and safe for the residents to engage and interact with their neighbours.

Zoom in Plan



Brunswick Park, Manchester - Planit-IE



Telegraph Works, Greenwich - Planit-IE



Queen Elizabeth Olympic Park, London - Hargreaves Associate and LDA Design



Liverpool Festival Gardens - Planit-IE



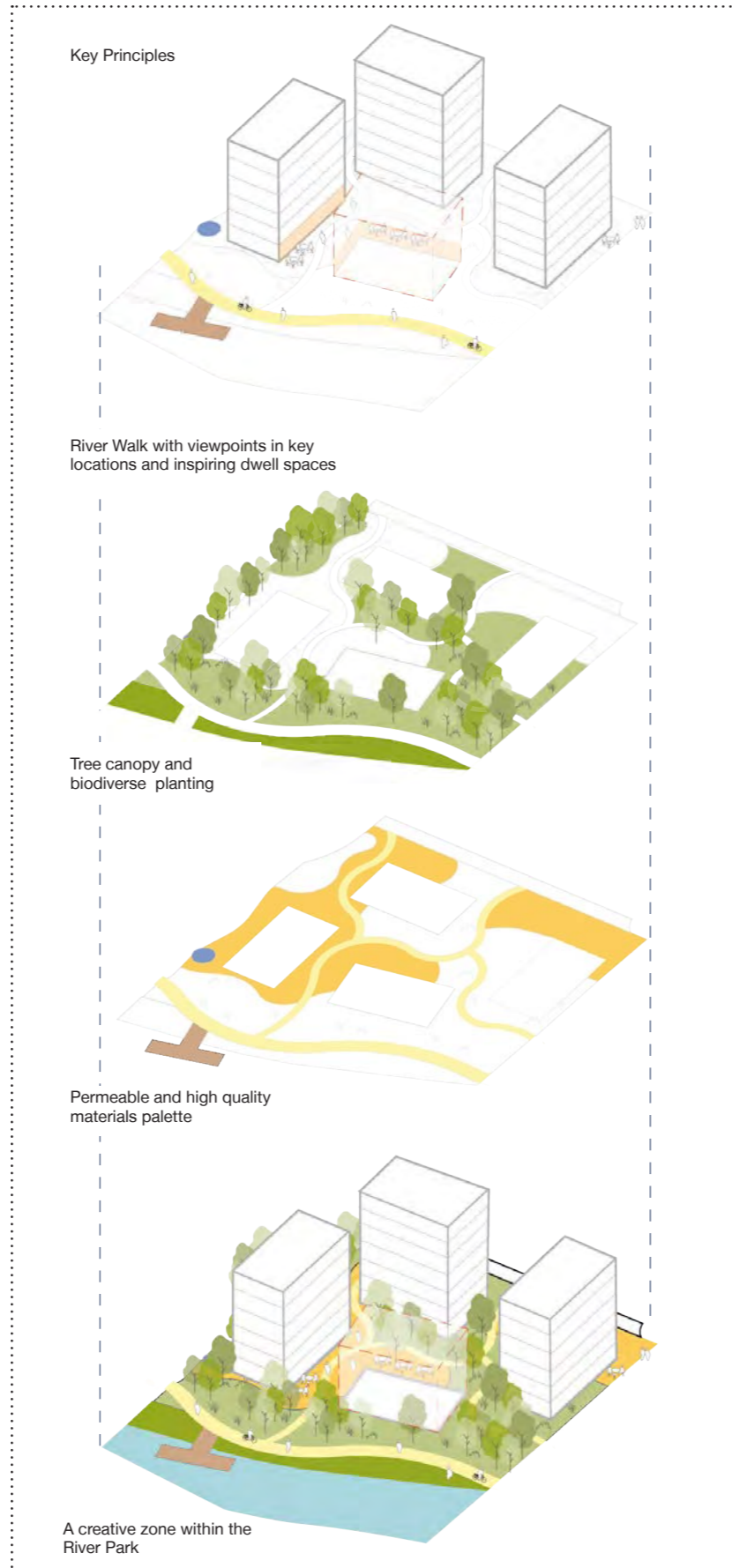
Martin Luther King Park, Paris - Atelier Jacqueline Osty

2. 'Creative Zone'

The 'Creative Zone' is located in the centre of the River Park and encloses the Creative Quarter. This area of the park offers an inspiring place with a mixture of hard and soft landscape areas that are well integrated within the River Park.

A range of open dwell spaces, seating areas, pocket gardens, flexible spaces and viewpoints across the river create an inspiring and creative zone in the heart of the River Park.

Zoom in Plan



Erie Street Plaza - STOSS



Sci-Tech Daresbury Park - Planit-IE



Brunswick Park, Manchester - Planit-IE



Martin Luther King Park, Paris - Atelier Jacqueline Osty



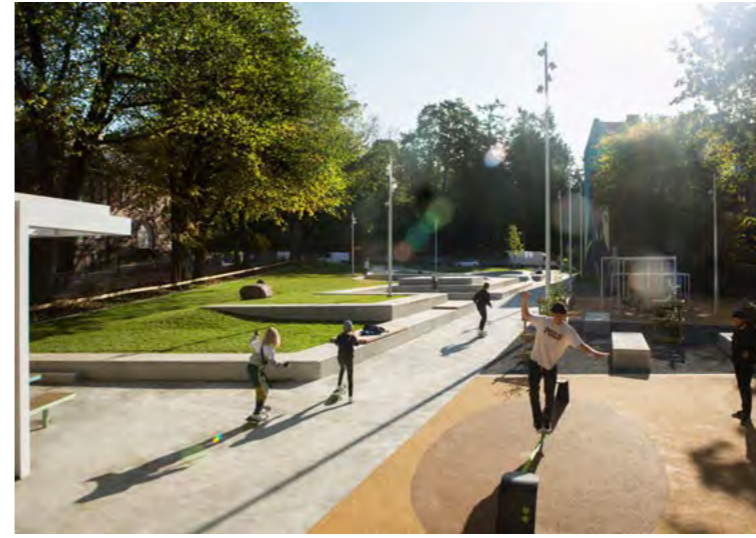
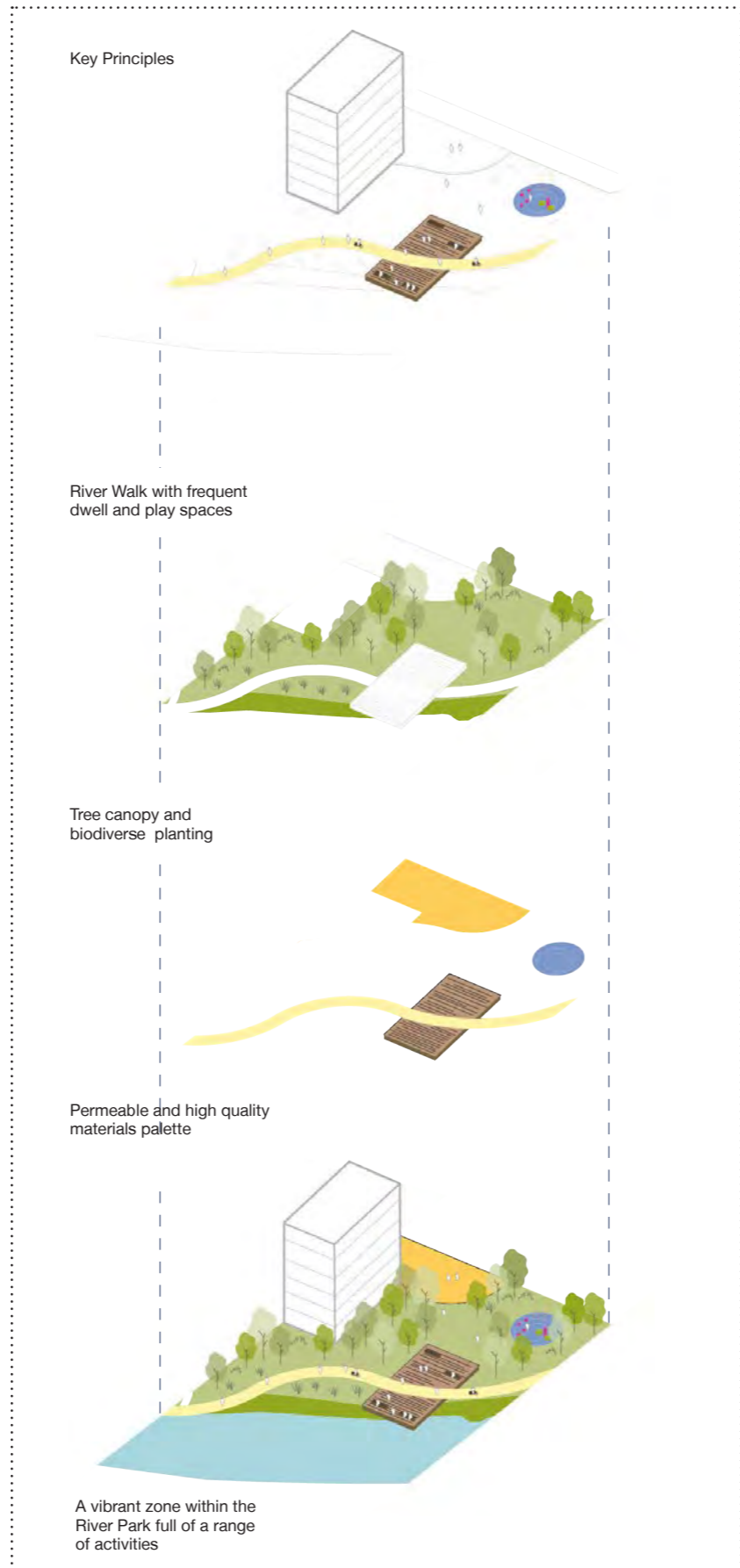
Parc Andre Citroen, Paris

1. 'Active Zone'

The southernmost part of the park offers opportunities for a mixture of activities in a verdant setting by the River Taff. This 'Active Zone' includes a range of activity zones - play, sports, outdoor exercise - and soft landscape areas promoting a healthy lifestyle spent outdoors.

A series of viewing platforms in key locations allow for interaction with the water and the surrounding area.

Zoom in Plan



Brunswick Park, Manchester - Planit-IE



Sci-Tech Daresbury Park - Planit-IE



Zeche Zollverein, Dusseldorf - LATZ & PARTNER



Martin Luther King Park, Paris - Atelier Jacqueline Osty

Local Square Scale Comparison

Urban Square

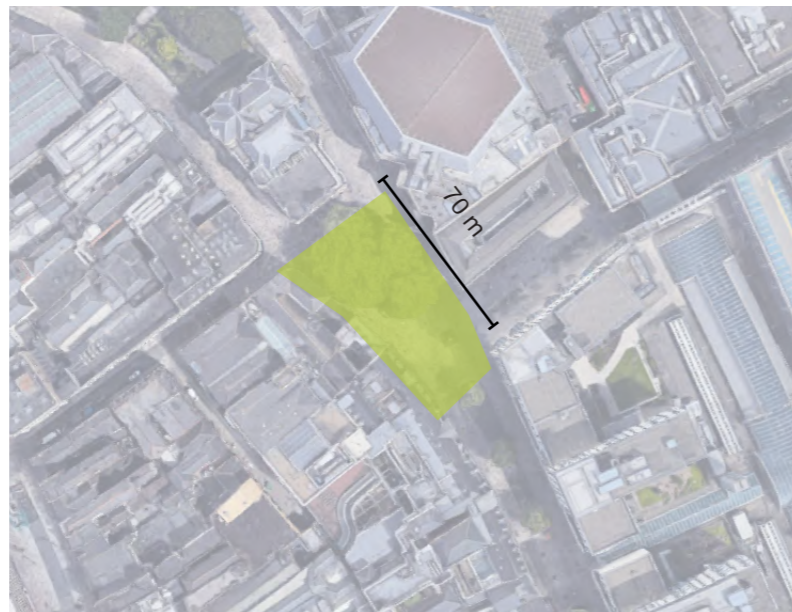
The Urban Square forms the central public space along the site located in a central location across the main public transport corridor.

The square should be of generous size to accommodate for its daily use but also for programmed events - smaller or larger. Active ground floors should frame the square to ensure it is overlooked and well-used throughout the day.



The Hayes, Cardiff

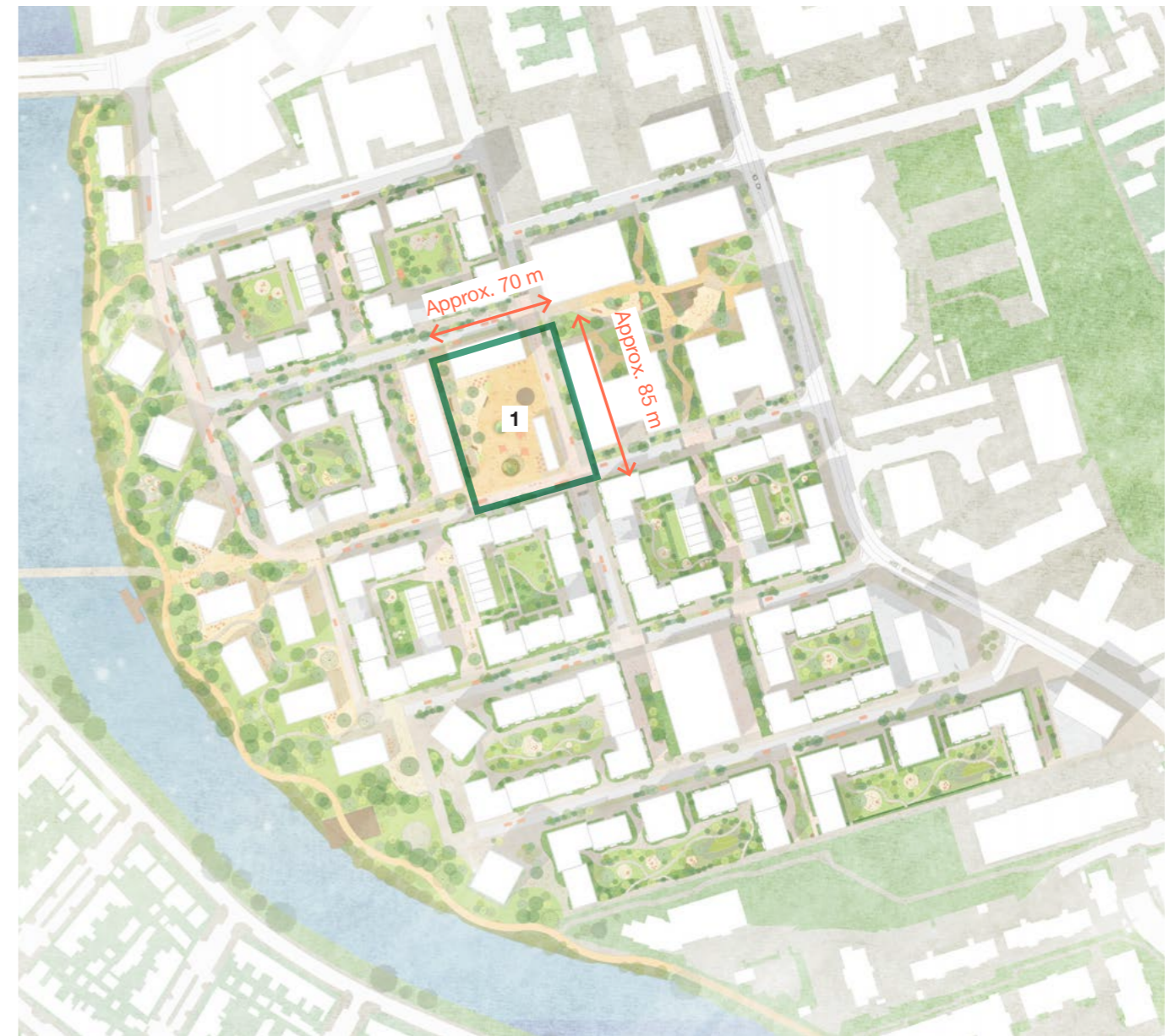
The Hayes, in front of the Old Library in the City Centre, is approximately the same size as the proposed Urban Square within our site.



KEY

- Site Boundary
- Urban Square
- Scale Comparison

Location Plan



KEY

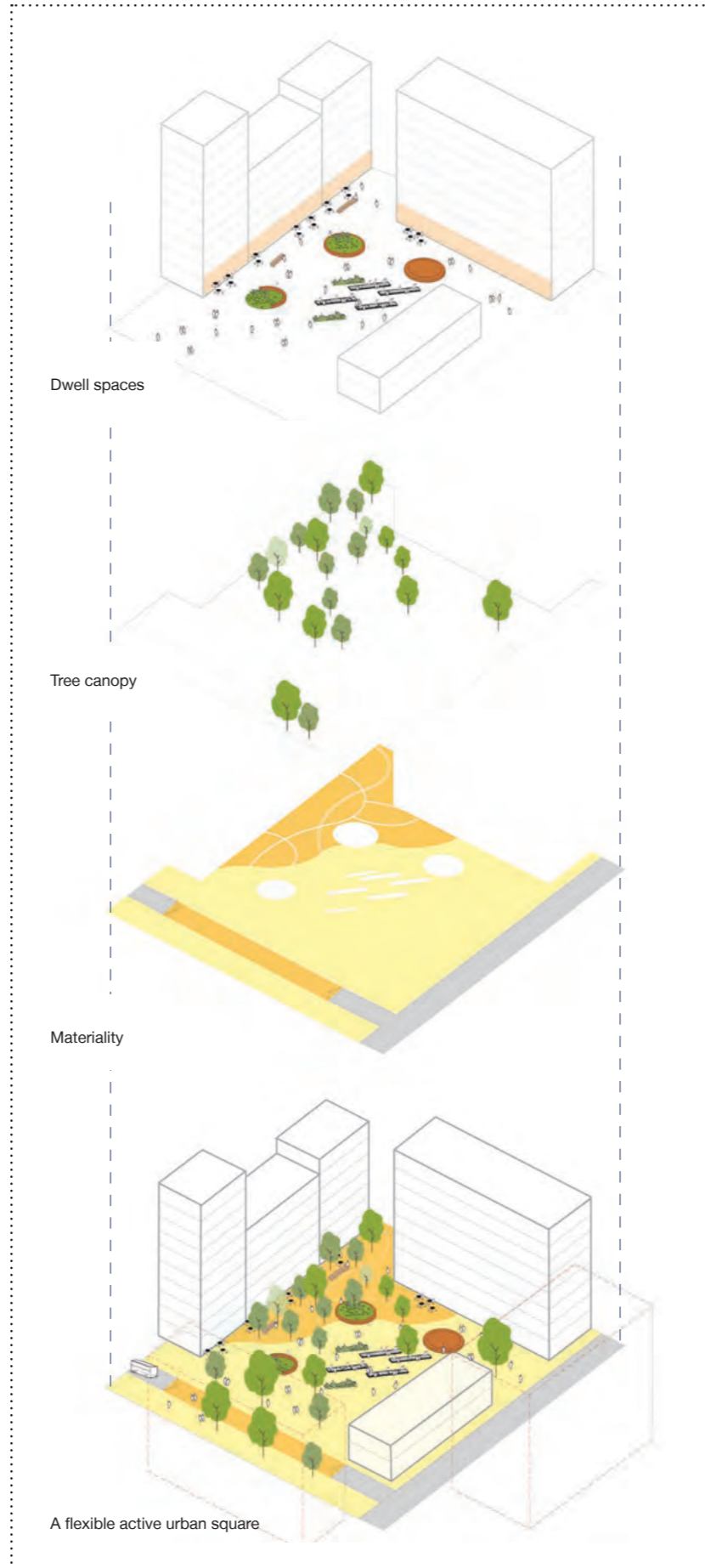
- 1** Urban Square

Key Principles

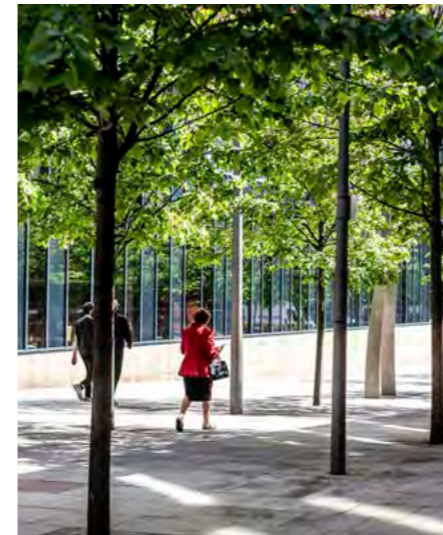
A flexible space that provides opportunities to accommodate a series of various scale events. Surrounded by mixed uses, the square is animated and populated throughout the day. Flexible and generous seating areas encourage interaction and use of the space.

A mix of hard and soft landscaped areas create a desirable and well-used square. Tree planting that is part of the wider planting strategy gives the square a softer look and feel. Water management is integrated into the design and the materials palette is informed by the wider approach, creating a unique sense of place at the square.

Zoom in Plan



Concept collage



MMU, Manchester - Planit-IE



Zollhallen Plaza, Freiburg - Ramboll Studio Dreiseitl



First Street, Manchester - Planit-IE



Vanke, China - the waterlily studio

Business Garden

Situated within the Business Garden character area, a verdant garden creates a natural environment to escape the workplace during lunch breaks and to enjoy during the day or after work.

The garden offers a series of flexible dwell spaces, relaxation zones and spill-out areas encouraging people to spend more time outdoors.

Local Garden Scale Comparison






Gorsedd Gardens and City Hall Lawn, Cardiff

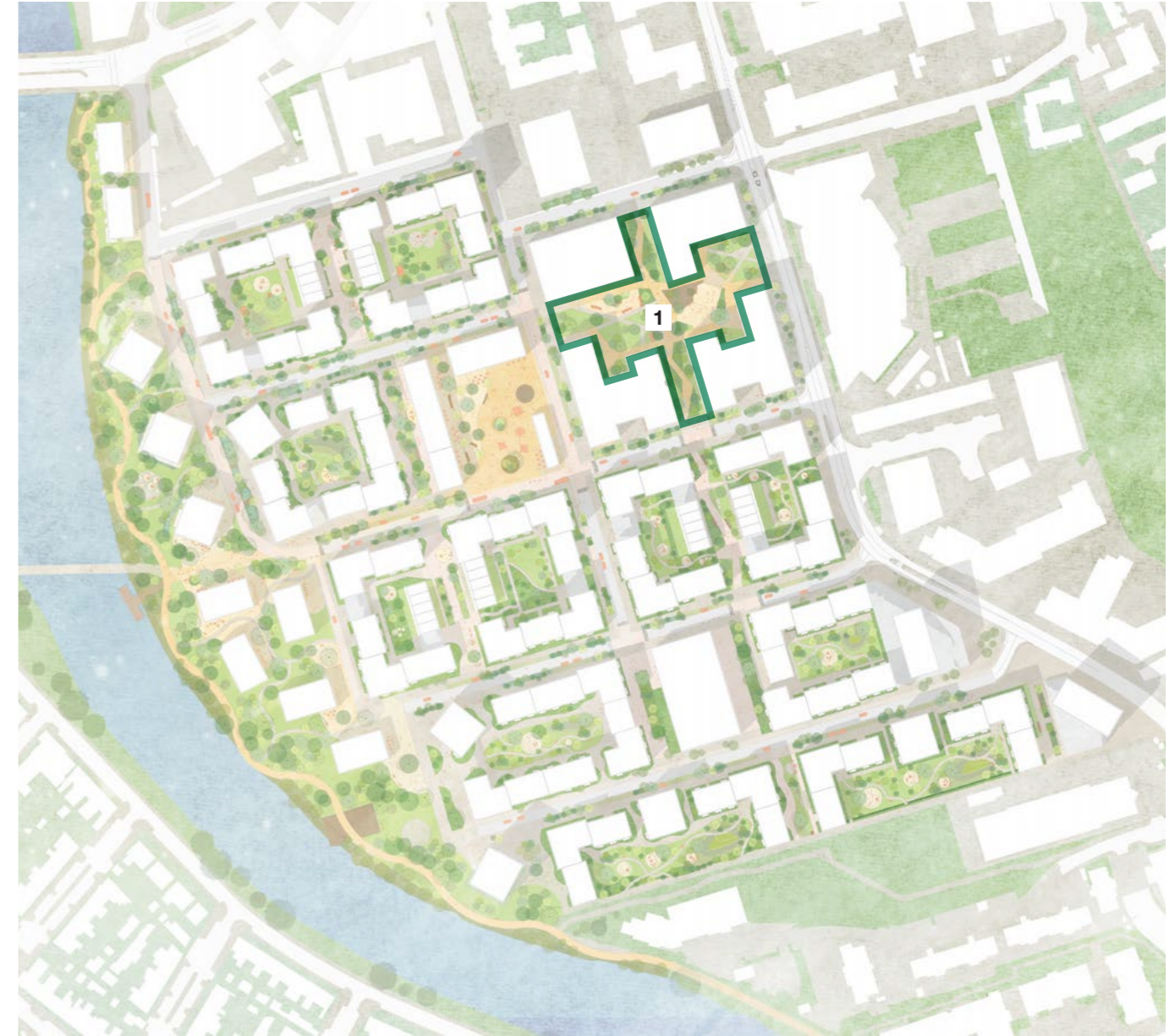
Even though of different character and context Gorsedd Gardens is a good scale comparison to the proposed Business Garden. Slightly larger in area, Gorsedd Gardens and City Hall Lawn form a local example that is located in the heart of the city in front of the Town Hall, National Museum and a surrounding commercial area. The gardens are enclosed by wide roads however, within them a series of open lawns, dense tree planting, seating areas create a pleasant green space.



KEY

-  Site Boundary
-  Business Garden
-  Scale Comparison

Location Plan



KEY

- 1** Business Garden

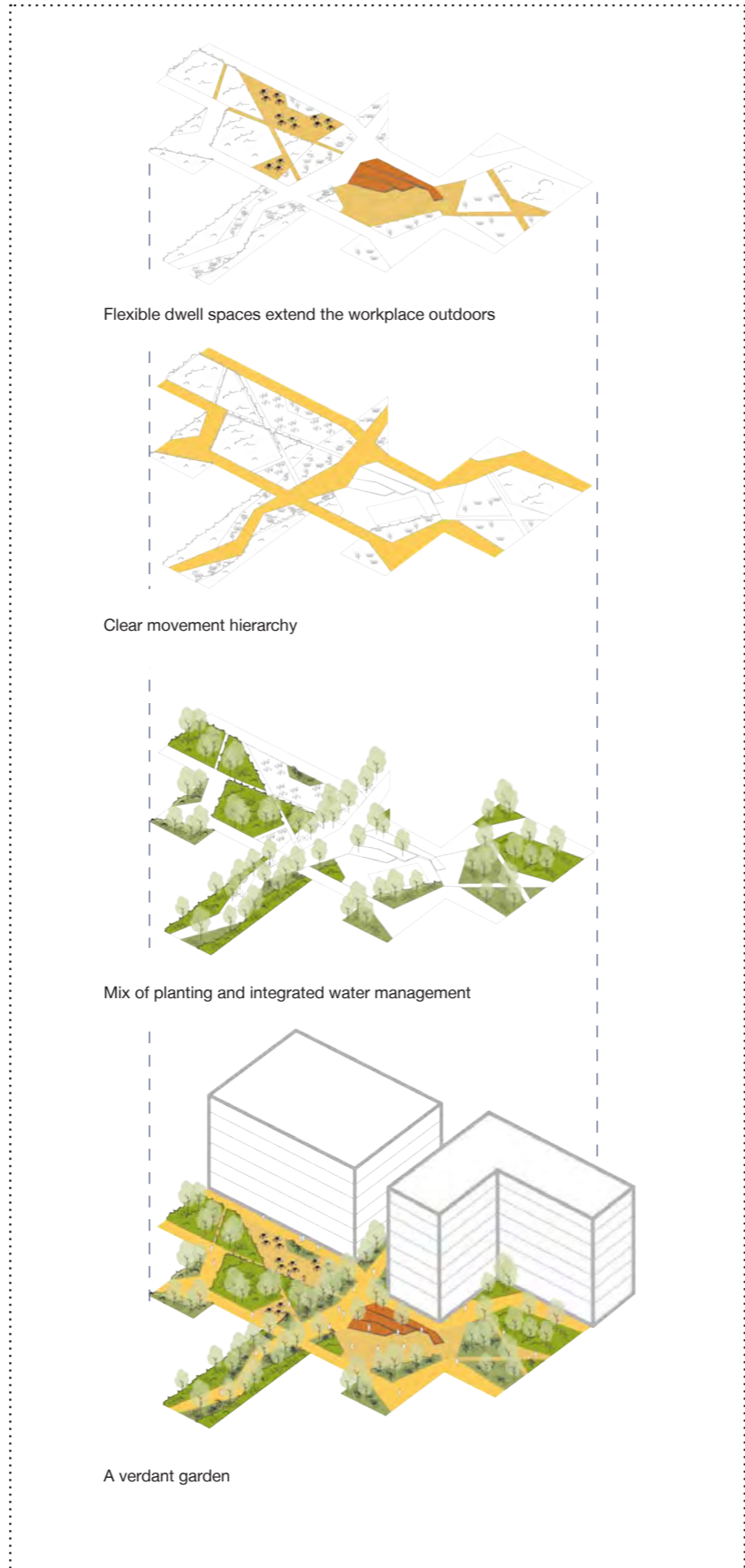
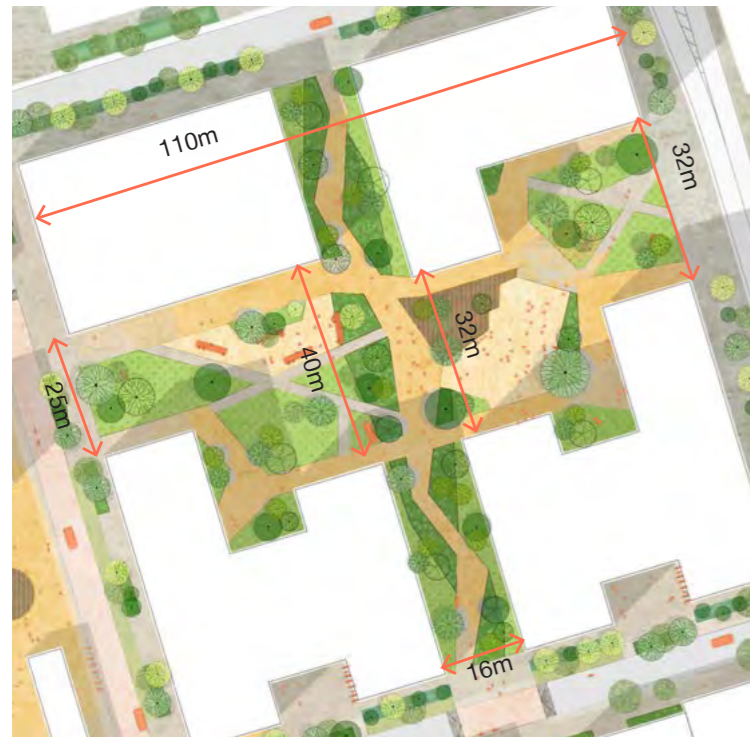
Key Principles

Acknowledging the benefits nature has to our health and well-being, the garden offers a mix of planting and tree species that are carefully considered as part of a site wide strategy. Characterful street furniture and signage give the garden a distinct sense of place.

Clear movement hierarchy through the garden allows for active use of the space. A range of flexible spaces create the opportunities for various activities to take place.

Water management is carefully considered to create a sustainable and resilient garden.

Zoom in Plan



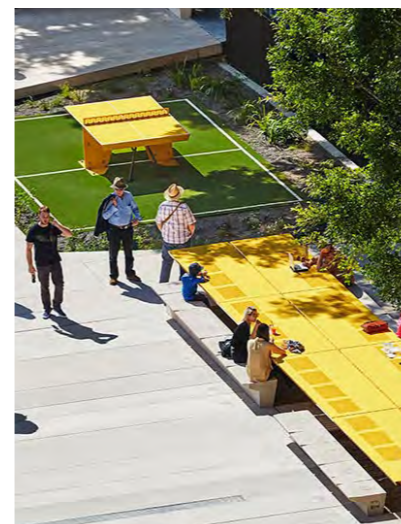
Concept collage



Business Gardens, Vastint



First Street, Manchester by Planit-IE



Goods Line, Sydney by Aspect Studios



SKY UK Headquarters, London by URBAN

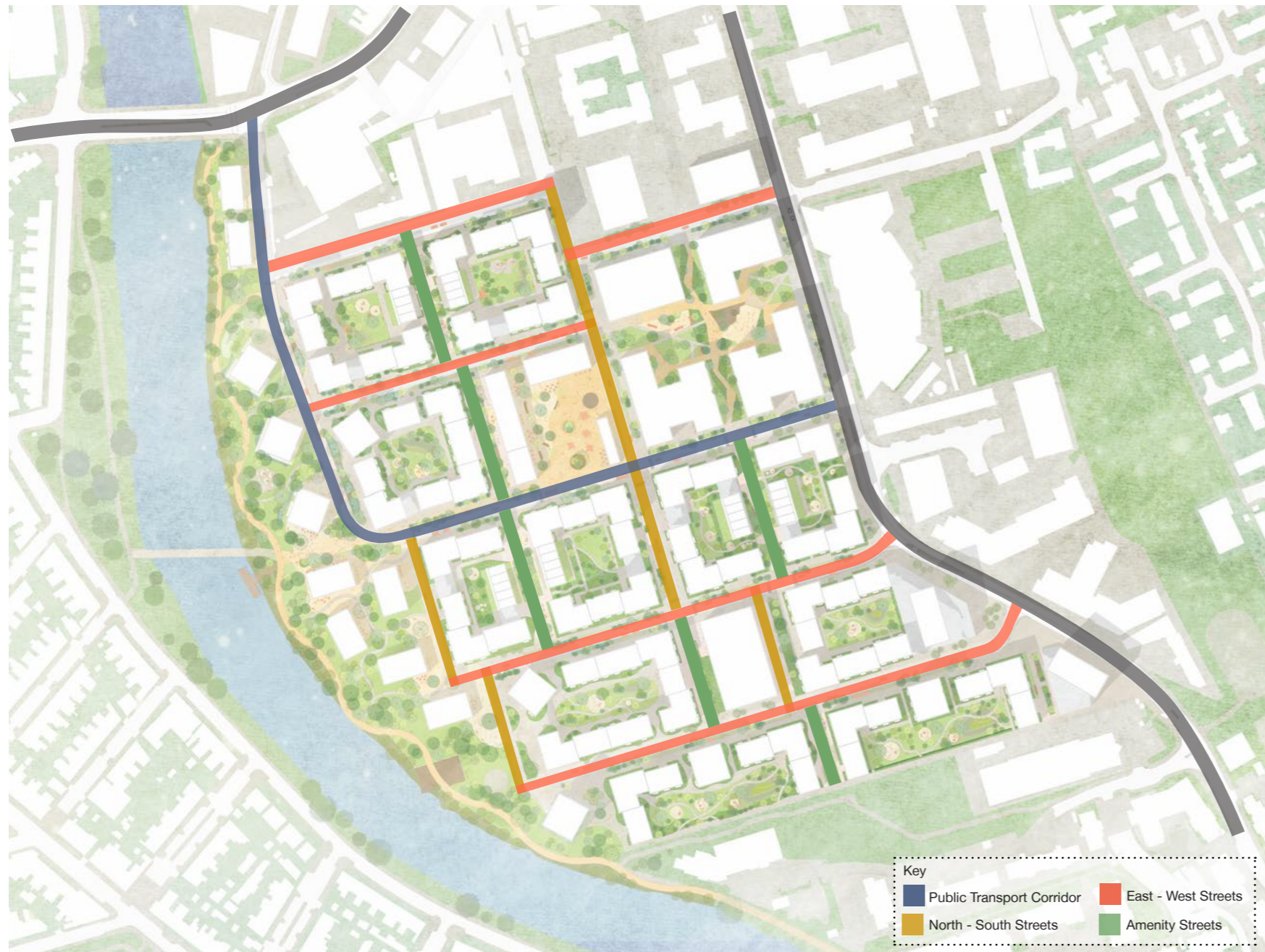
6.3 Streets Hierarchy

The masterplan provides a legible, well-connected network of streets that prioritise pedestrian and cycling movement and create a sustainable and pleasant setting.

Clear street hierarchy ensures legibility and informs wider connections with the surrounding areas. A central bus corridor connects the site with the wider city through public transport.

Sustainable Urban Drainage systems (SUDs) are employed across the site, primarily in the East-West Green Streets. Surface drainage directs water to raingardens which capture, slow and filter stormwater runoff, support biodiversity and mitigate flood risk, whilst providing a pleasant, green environment.

The River Park also utilises swales, appropriate planting and permeable paving to slow and attenuate water which protects the river system.



Key	
■ Public Transport Corridor	■ East - West Streets
■ North - South Streets	■ Amenity Streets



Safe crossing, Copenhagen



Greener Grangetown, Cardiff



Hammersmith Grove, London - Planit-IE



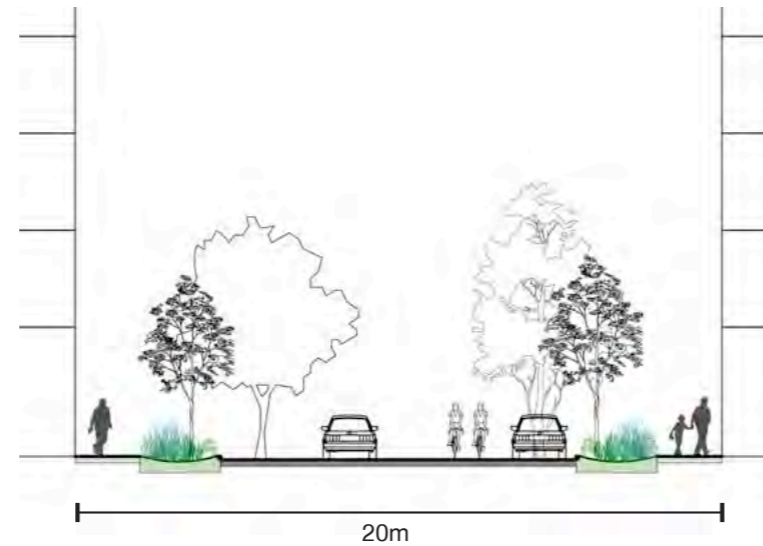
Kings Crescent Estate Play Street - MUF

East-West Green Streets / Public Transport Corridor

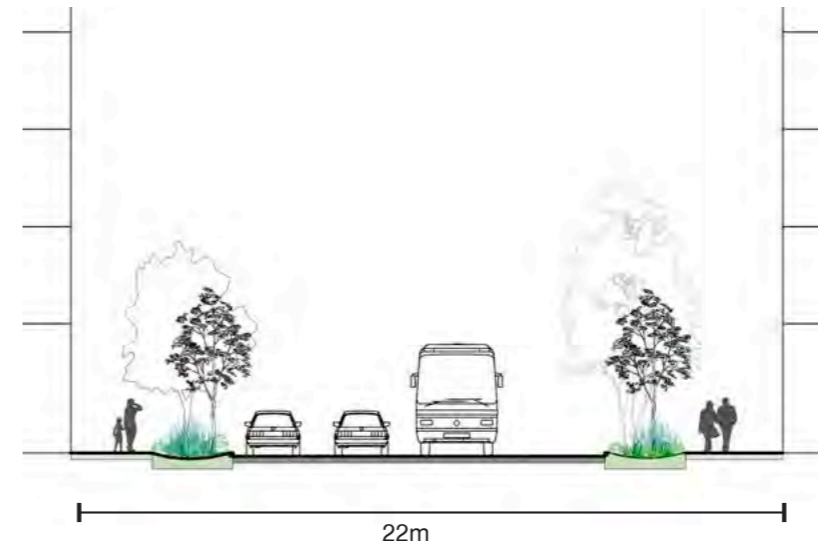
The East-West Green Streets are generous nature-full streets with trees and planting and are an extension of the River Taff, connecting the water source and drawing greenery into the site. Trees provide a pleasant environment, habitat for birds and animals, urban cooling and improve air quality. Extensive swales line the footpaths to capture, filter and slow urban runoff.

Dedicated cycle ways may be integrated for safe and encouraged cycle use.

The public transport corridor runs along a green street through the centre of the site to connect to the wider city.



Green Street Typical



Public Transport Corridor Typical

North-South Streets

The North-South Streets are typical tree lined streets with a local, neighbourhood feel.

The streets are pleasant to traverse with generous tree planting, providing shade and a human scale. Planting softens the urban realm whilst providing colour, texture and ecological services. The character and configuration of the streets varies to suit the ground floor uses of the buildings in the different masterplan character areas. On-street parking, drop-off and services zones are accommodated.



North-South Street Typical

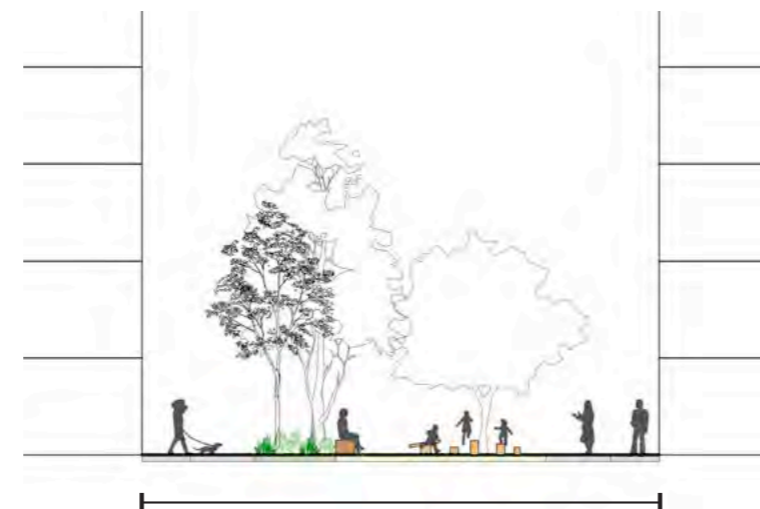


North-South Street Alternative

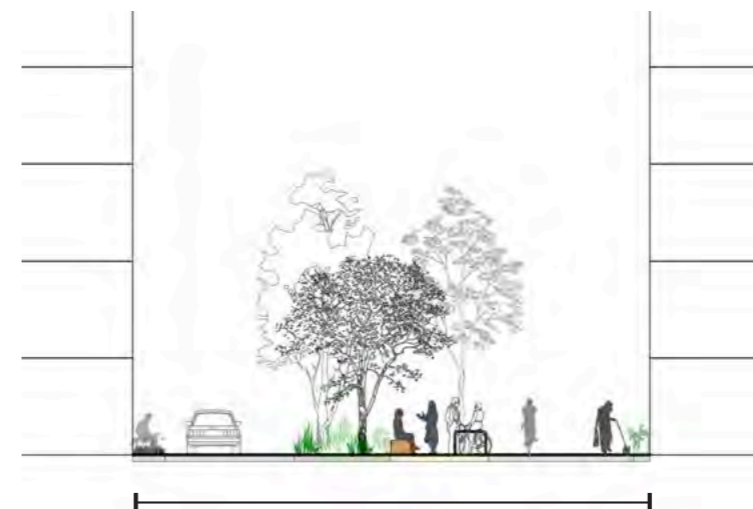
Amenity Streets

The Amenity Streets are primarily pedestrianised green links. They provide a variety of amenity spaces including defined play areas and pocket parks. Trees, planting and swales create a verdant environment with seasonal variation and delight. These streets contribute to a pedestrian and child friendly neighbourhood. The character can vary according to the different character areas of the masterplan.

Emergency vehicle access is provided for, as well as some vehicular routes where necessary.



Amenity Street Typical



Amenity Street Alternative - Vehicular Access

6.4 Bridge & Pontoon

The introduction of a pedestrian and cycle bridge across the Taff is a key aspect in the development.

The footbridge provides new East-West connections across the south of the city, significantly reducing journey times between Grangetown and Butetown. The lines represent 400m, 800m and 1200m walking distances. The bridge will have a transformative effect for the two communities, opening up facilities in each area to residents.

The bridge will be a sophisticated structure which spans the Taff, joining the two parks on each side of the river.

The river park affords opportunities to bring people to the waters edge. Infrastructure for a new pontoon will be constructed to form a new berth for the river taxi mid-way between the inner harbour and the principality stadium as recommended in the River Transport Strategy Report.



Existing Movement



Proposed Movement (with Bridge)



Location



Somers Town Bridge - Moxon



Pedestrian Walkway, Liguria - LD+SR

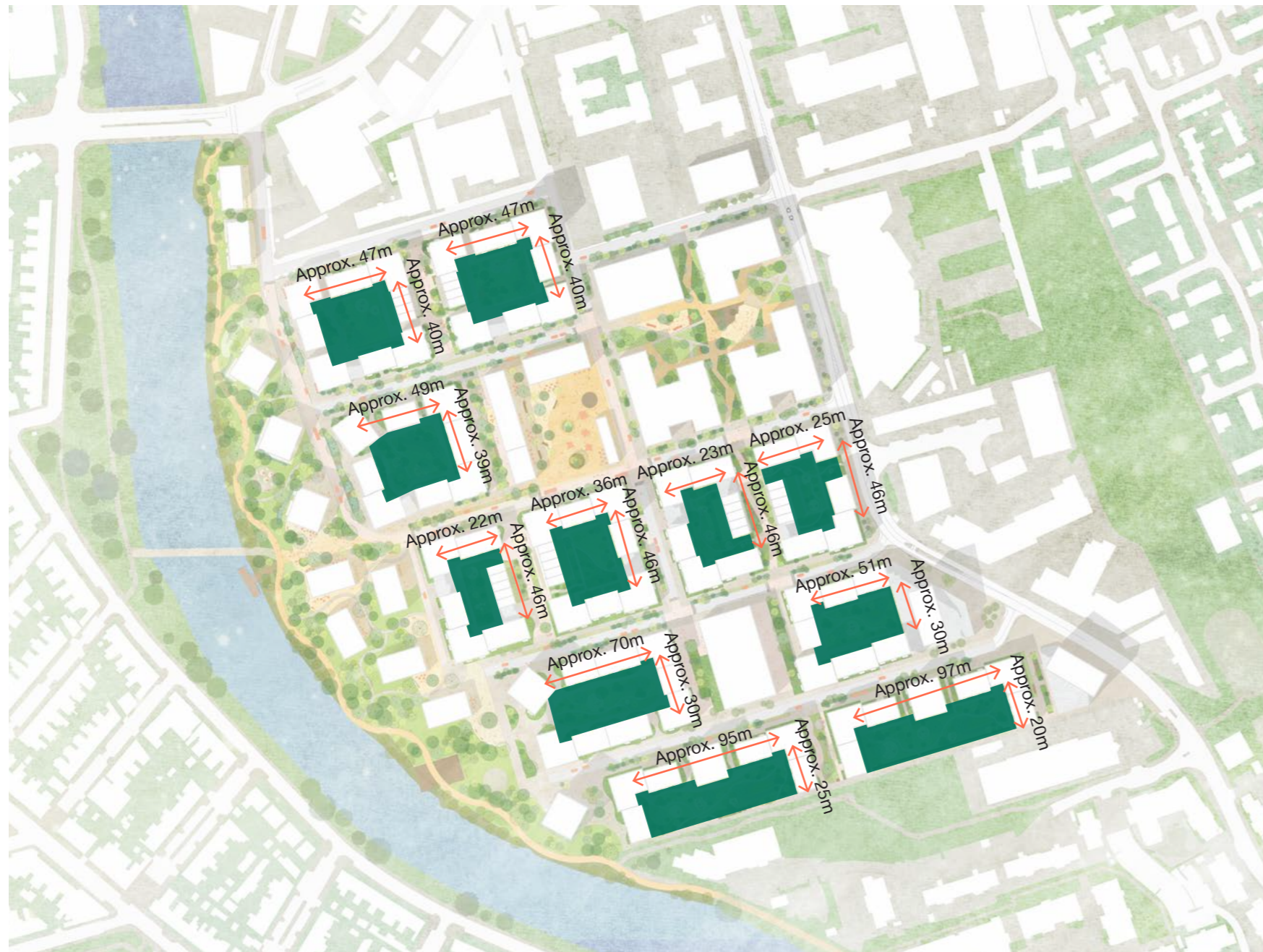


Pedestrian Walkway, Liguria - LD+SR

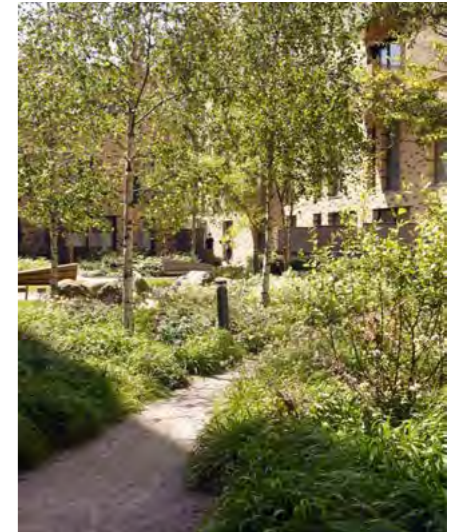
6.5 Courtyards

The communal courtyards within the perimeter residential blocks are verdant, tranquil spaces for residents of all ages and abilities to enjoy. These courtyards are generous in size to provide large, sunny shared amenity spaces. The orientation and the buildings density has been carefully considered around the courtyards to ensure they get enough sunlight throughout the day and year.

Plentiful trees and planting create a soft environment and a pleasant outlook from the dwellings, ensuring there is always a visual or physical connection to nature. Seating and amenities are provided for friends and families to gather, whilst lawn and dedicated play areas allow young children to play freely.



Middlewood Locks, Manchester - Planit-IE



St Andrews, London - Townshend Landscape Architects



St Andrews, London - Townshend Landscape Architects



BIGYard, Berlin - friedburg & Co.



Kroyers Plads, Copenhagen - COBE

6.6 Defining the Urban Grain

The primary objective of the masterplan is to create a network of safe and attractive streets and amenity spaces (both public and private) which allows people to move easily between new and existing neighbourhoods by walking, cycling and via public transport. To realise this objective and ensure the masterplan is integrated with its surroundings, we have undertaken an analysis of the surrounding context, examining issues such as urban grain, massing, and how the fronts and backs of buildings help to define the use of adjoining public, and private amenity spaces.

Neighbourhoods such as Grangetown, Canton and Plasnewydd are characterised by a linear network of predominantly residential streets adjoining a main arterial route to the city centre. A mixture of both small business and community uses have developed and these through routes now form the local centre of each neighbourhood.

In Grangetown and Plasnewydd the blocks vary in length from 100m up to around 250m in length. As access to the rear of each block is often secured, the scale and orientation of each block has a significant impact on the permeability of the neighbourhood and how well it is integrated with the surrounding street network.

Although block dimensions are tailored to the density & character of the proposed development, like Canton, Plasnewydd and Grangetown, a network of streets form the primary public realm framework with characterful public spaces (such as squares / parks and gardens) offering moments of delight; brief pauses within the urban grain.

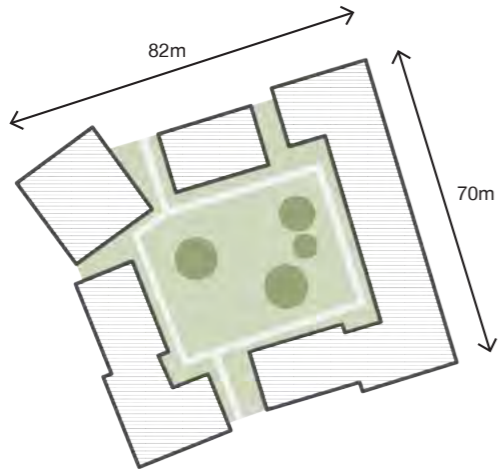
With a network of streets and public spaces defined by perimeter blocks containing secure amenity spaces and private courtyards, the masterplan is founded on a similar morphology to these established neighbourhoods in and around Cardiff City Centre.



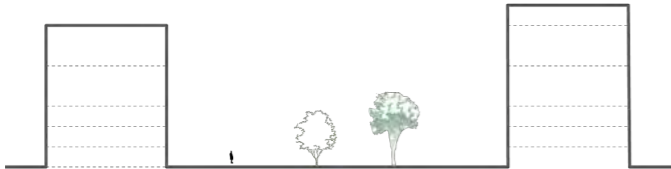
Urban Block Comparisons

The Embankment, Cardiff (typical courtyard)

Plot Area = 5240m²
 Footprint Area = 3035m²
 Plot Ratio = 42% Amenity space



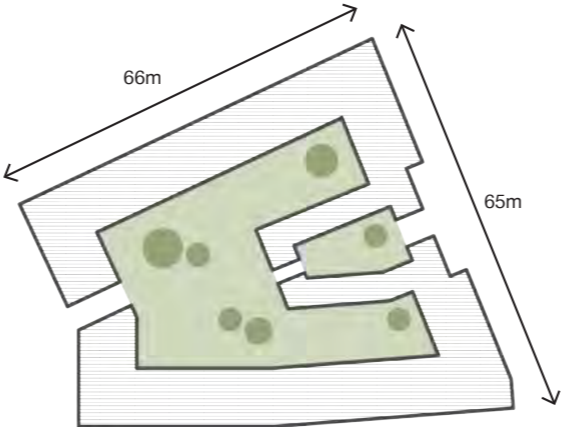
Key Plan



Section

Sugar House Island, London

Plot Area = 14,645m²
 Building Area = 8705²
 Built Ratio = 41% of amenity area



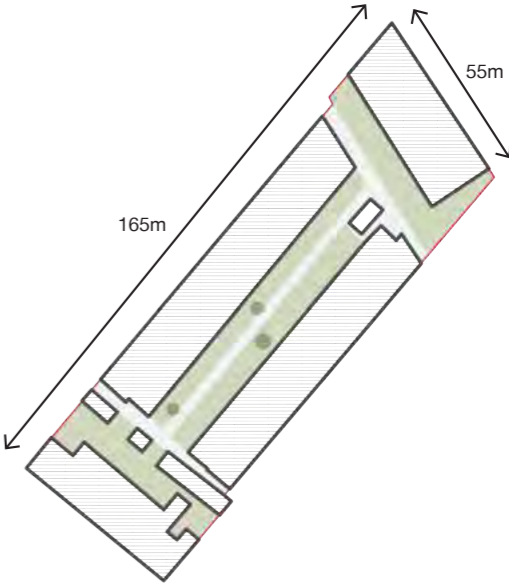
Key Plan



Section

Grangetown, Cardiff

Plot Area = 7500m²
 Footprint Area = 4750m²
 Built Ratio = 37% of amenity area



Key Plan



Section

6.7 Connectivity & Permeability of the Urban Block

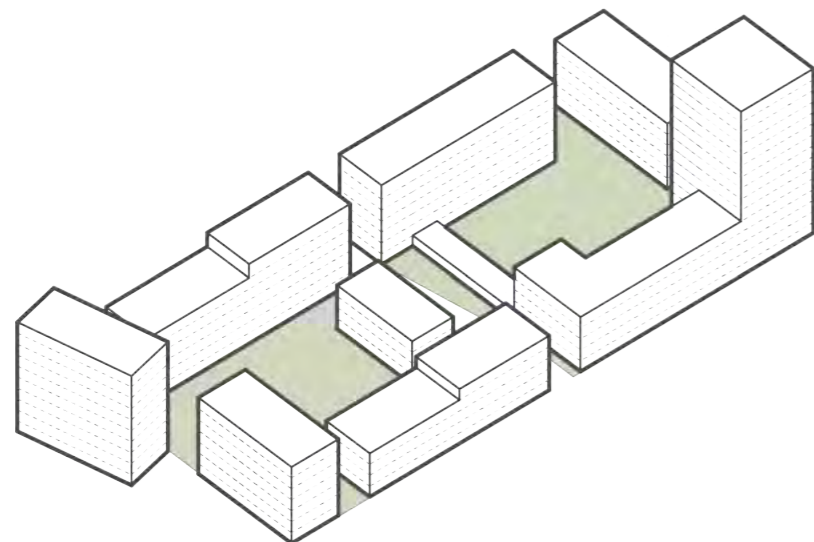
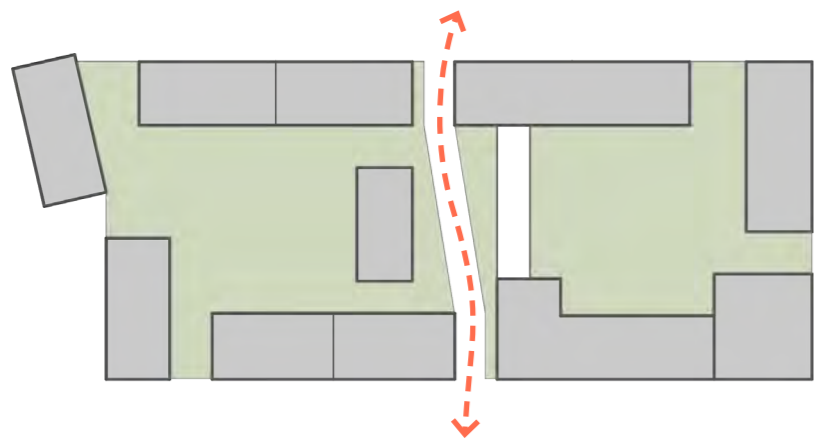
Research was undertaken on successful urban blocks in order to determine an appropriate scale for the masterplan. Examples were taken both locally (Grangetown), and from further afield (Edinburgh / London and Malmo).

Lessons learned from these studies informed the establishment of the urban grain. Sizes of the urban blocks - typically 50-60m wide x 75-100m long - created comfortable walking distances and a diversity of routes through the masterplan. A number of block sizes and orientations have been tested to ensure the network of streets and public spaces encourages free pedestrian movement ensure the network of streets and public spaces encourages free pedestrian movement.

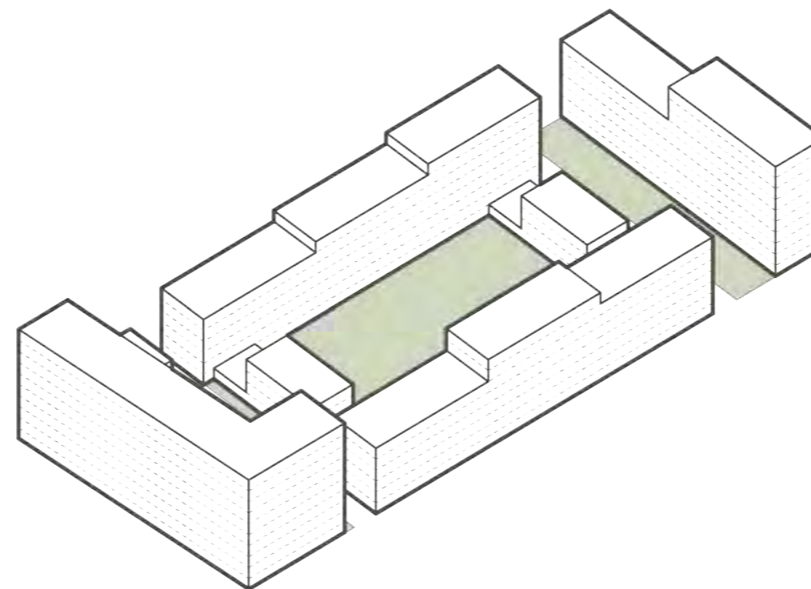
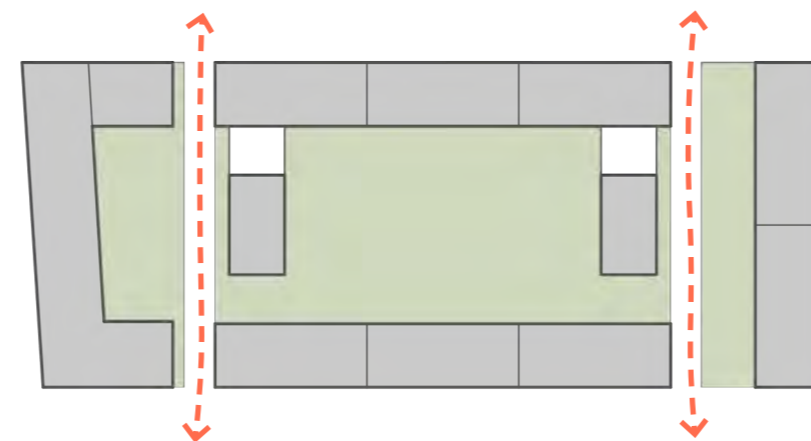
Although block dimensions are tailored to the density and character of the proposed development, the network of streets, spaces and secure residential gardens continues the morphology of the neighbourhoods around Cardiff City Centre.

Block size and massing have been tested to ensure all private courtyard gardens will receive good levels of daylight and sunlight. Studies also demonstrate that apartments facing the courtyards comply with the no skyline rule.

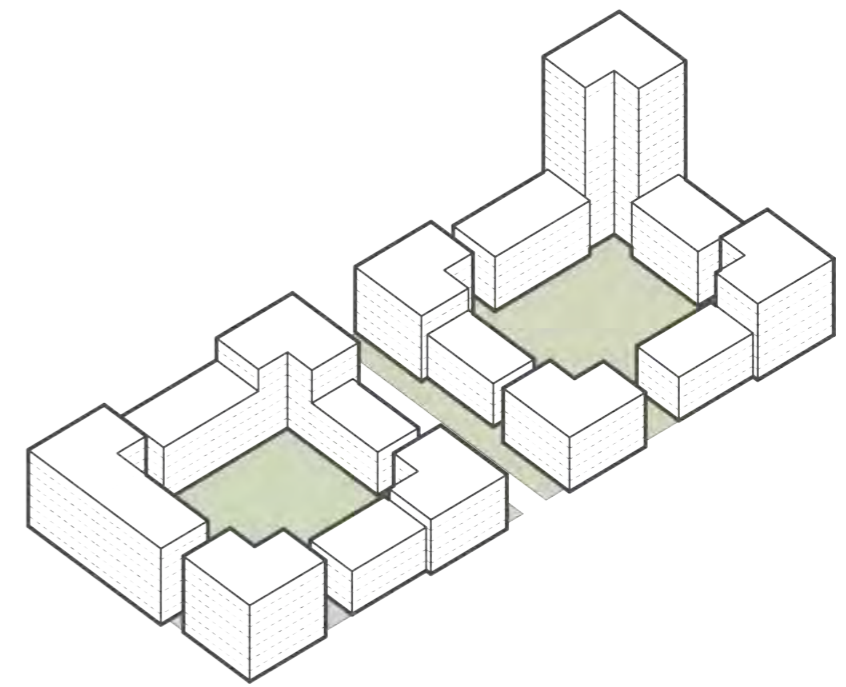
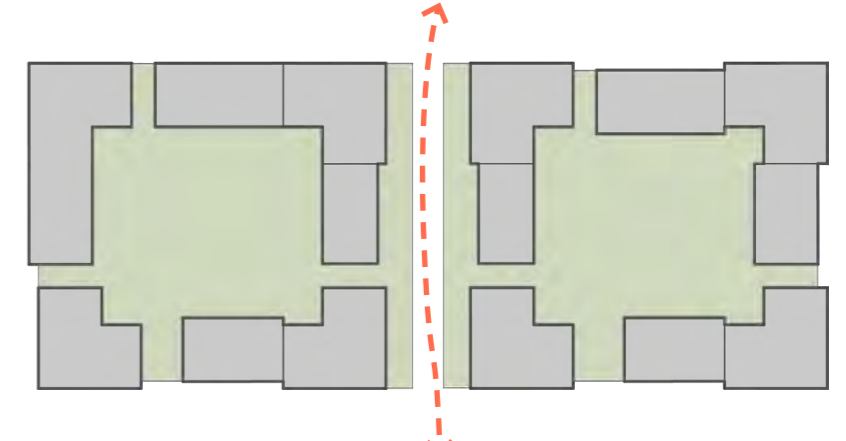
Option 1



Option 2



Option 3



6.8 Density

Areas of Cardiff are undergoing significant re-development. The masterplan proposals aim to bring sufficient density to the area in order to support a new and active community. The proposal has been analysed against emerging schemes in the nearby area. Whilst more dense than existing parts of Cardiff, the analysis illustrates that the masterplan compares to surrounding development.

The masterplan contributes significant new public open spaces to the city. The new development will not only support new residents, but locals in the surrounding areas. The river park, urban square, amenity streets and pocket parks will become integral to the urban fabric of Cardiff.



Keyplan

01 Anchor Works
 Planning Ref: 20/01543/MJR
 Status: Registered

Site Area = 0.95 Hectares
 Residential Units = 432

Density = 454 homes / hectare



02 Old Imperial Buildings
 Planning Ref: 16/00504/MJR
 Status: Permission Granted

Site Area = 0.2 Hectares
 Residential Units = 102

Density = 510 homes / hectare



02 Crawshay Court
 Planning Ref: 19/01930/MUR
 Status: Awaiting decision

Site Area = 0.135 Hectares
 Residential Units = 188

Density = 1387 homes / hectare



04 Central Quay
 Planning Ref: 18/0/735/MJR
 Status: Approved

Site Area = 6.3 Hectares
 Residential Units = 1000

Density = 158 homes / hectare (overall site area)
(insufficient information to determine density of residential only areas)



05 The Embankment
 Planning Ref: TBC
 Status: Not submitted

Site Area = 13 Hectares
 Residential Units = 2,400

Density = 184 homes / hectare (overall site area)
 = 210 homes / hectare (residential areas)
(excl. Business Gardens / Creative Quarter / & Urban Square)



06 Plot RE3 (The Embankment)
 Planning Ref: /
 Status: /

Site Area = 0.52
 Residential Units = 192

Density = 370 homes / hectare (overall site area)



6.9 Massing

The proposed massing establishes a varied townscape appropriate for a city centre development. The proposed massing is responsive to the surrounding context (both existing and emerging).

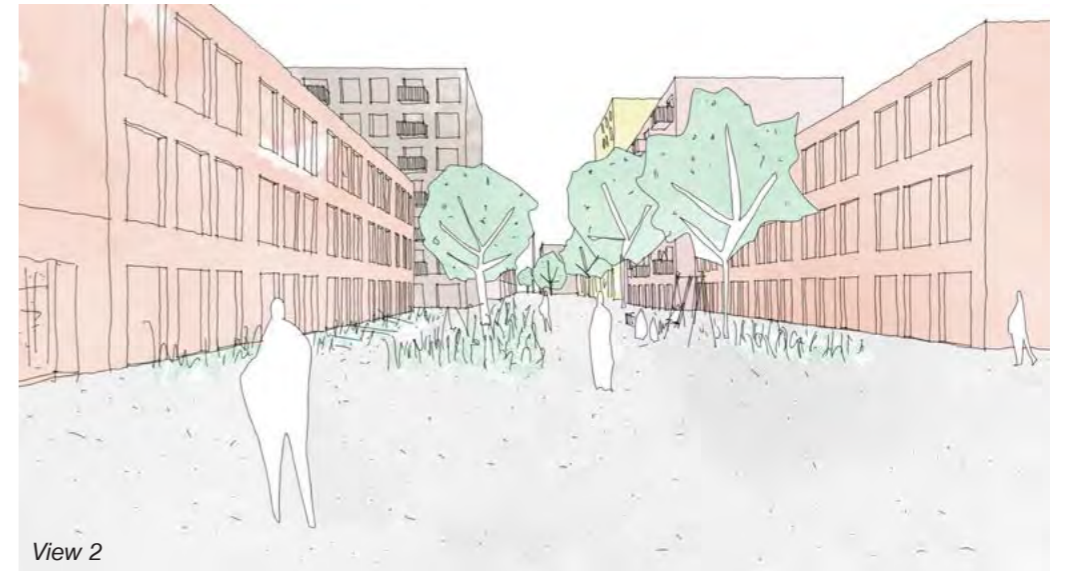
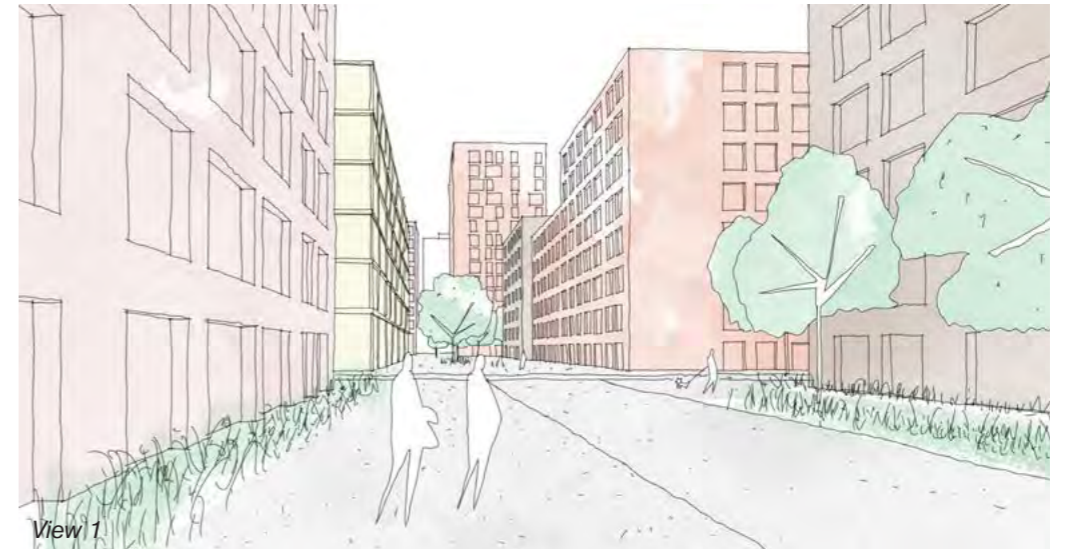
Buildings between 3 to approx. 25 storeys are proposed in order to create diversity in the townscape. The majority of residential buildings are between 4-6 storeys in order to maintain a more human scale to streets. Taller buildings are proposed throughout the masterplan to achieve specific urban objectives.

The massing with each block is also responsive to environmental or urban considerations. For example, taller elements within the

block are placed in the north and east where possible to minimise any overshadowing or overlooking of the courtyard gardens.

Massing also varies to achieve specific street characters. For example - buildings along Dumballs Road define a strong urban edge and reinforce a civic presence on the road. Whereas smaller scale townhouses are proposed to amenity streets to create a more domestic character.

The accompanying sketches illustrate how the massing approach informs well defined and characterful streets.





6.10 Tall Buildings

The location of Tall Buildings has been considered in relation to Cardiff SPG which notes that:

Well-designed tall Buildings in appropriate locations have the potential to add significant value to Cardiff. They can enhance skylines and provide recognisable landmarks that can serve to promote the city centre on a national and international stage.

Clusters of attractive tall buildings can help to signify core areas of the city and can help to punctuate journeys between the city centre and the bay. Areas that tend to lend themselves to tall buildings are often along railway corridors, urban corners and sites that adjoin existing clusters of tall buildings. We have undertaken a detailed context analysis at a variety of scales and

positioned tall buildings to reinforce the placemaking principles that have helped to inform the development of the masterplan, containing street views and creating a legible sequence of spaces on journeys through the masterplan.

Several tall buildings are proposed in the south-east corner of the site to terminate views along Dumballs Road (a former railway corridor) and form a cluster of tall buildings (together with the proposed Anchorworks development) to the East.

Other tall buildings will mark views north and south along Trade Street and along the western edge of the site to celebrate views along the arc of the river Taff and respond to long-range strategic vistas on approaches to the city from the South and West.



Chesterfield House - Maccreanor Lavington Architects.



Capital Building - AHMM.



Plimsoll Building - David Morley Architects.



Porter's Edge - Maccreanor Lavington Architects.

Tall Building Placement

Gateways

Taller buildings signify entrances to a place. Their placement mark the arrival points into the masterplan, and define the outer edges of the site.

Taller building announce arrival to the masterplan, but can also act as markers within the wider city. For example, the taller scale of buildings to the north west establish a dialogue with the proposed towers of Central Quay, and define a new gateway into the expanding Cardiff city centre from the west.

Taller buildings to the south east also mark the entrance from Dumballs Road, but also act a marker on a main north-south route from the city centre to Cardiff Bay.



Capital Building - AHMM.

Views

Tall buildings can open up and frame key views within the city. They can also serve to create a visual stop to long vistas. Tall buildings have been placed at the end of Trade Street and at the change of direction on Dumballs Road to contain views south down these streets.

Tall buildings must be located so as to not harm sensitive long and intermediate range views to key features or buildings within Cardiff.

The design of tall buildings must create a positive feature in the city skyline.

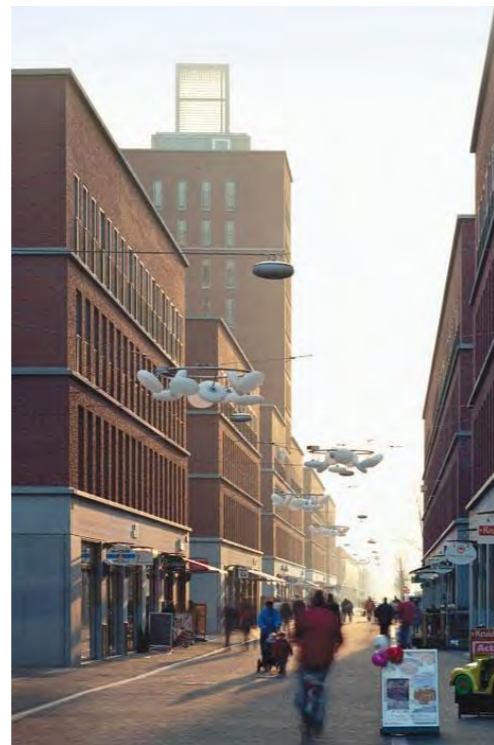


Chesterfield House - Maccreanor Lavington Architects.

Navigation

Tall buildings provide local landmarks with an urban environment. They help with navigation around a city by providing reference points within the network of streets and spaces.

Tall buildings are also focussed around open urban spaces and act as urban figures within the landscape to denote civic importance to a space.



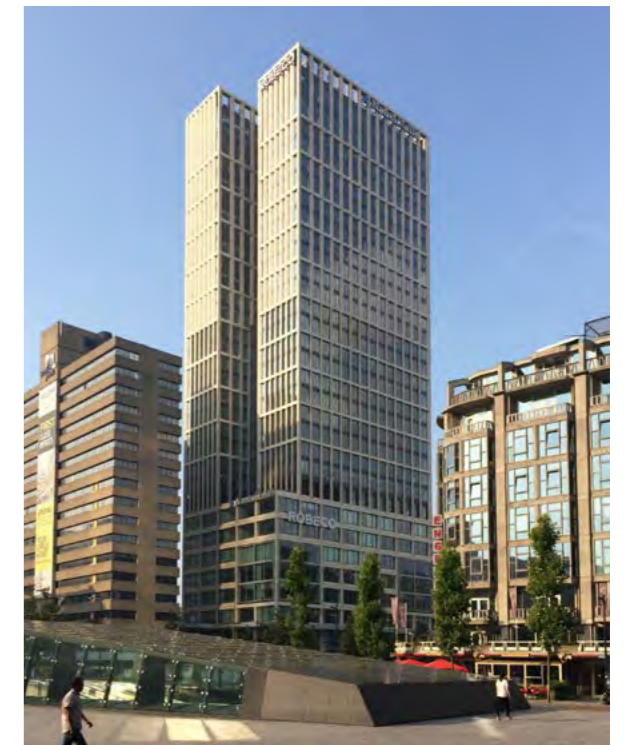
Ypenburg Centre, The Hague - Rapp & Rapp.

Clusters

Clusters of tall buildings can bring significance to new city centre developments. Where possible, tall buildings should be located near existing clusters of tall development in the surrounding context, or form new clusters.

The placement of tall buildings in the masterplan responds to tall buildings in the surrounding context. For example, tall buildings are placed near to the existing tower of Century Wharf in the South, and proposed towers of Central Quay and the Kingfisher Quarter in the north and east respectively.

Tall buildings should enhance the setting of existing and proposed clusters of tall buildings within Cardiff.



Robeco, Rotterdam - Fokkema & Partners.

6.11 Tall Building Design

The form and silhouette of the building must be considered in relation to its positive visual impact - reinforcing the scale and identity of both local streetscapes and city-wide skylines and vistas.

Positioning of tall buildings in relation to key routes, and public realm has been considered as part of the illustrative masterplan. The detail design of the base of the building should be developed to create a well defined high quality, often frequented, overlooked and secure public realm.

Where tall buildings are located alongside the River Park, these have been positioned to capture views along the river and toward the Glamorgan hills. Tall buildings when grouped together should be complemented by a network of easily accessible high quality public open space - the river park will promote walking, jogging and cycling within a semi-natural landscape. The detail design of how these buildings meet the ground will need to be developed with a site-specific ground floor solution and uses that maintains public access to the park and reinforce the quality of both green spaces and streetscape.

Analysis to support the detailed proposals must be brought forward in line with the requirements of Cardiff's tall building SPG. Including analysis of the micro-climate effects such as wind tunnelling, shadowing, solar glare and night time illumination. When detailed carefully in relation to surrounding buildings and streetscape, tall buildings can make a positive contribution to the locality adding the scale and range of complementary ground floor uses and activities that create a local destination within the masterplan.



Vertical emphasis. De Loosden Tower - Office Winhov.



Porter's Edge - Maccreeor Lavington Architects.



Porter's Edge - Maccreeor Lavington Architects.



Active base. Seagram Building - Mies Van der Rohe.



Breathing space. Mapleton Crescent - Metropolitan Workshop



St Pancras Plaza, London by Townshend Landscape Architects

6.12 Daylight & Sunlight

Neighbouring Properties

Daylight and sunlight assessments have been undertaken to measure the impact of proposals on surrounding properties and the results are currently being assessed.

Within the Masterplan

Facade mapping exercises were undertaken early on the design development of the masterplan. Studies showed that the majority of façades received good daylight / sunlight with the exception of north-facing façades (as expected).

Layouts of residential blocks are designed to ensure that each apartment receives good daylight as far as possible. North facing, single aspect apartments are avoided where possible.

Tall buildings have been strategically located at the confluence of principal routes and to be framed in views from key city centre locations. We have also ensured that tall buildings aren't clustered together to minimise the impact of overshadowing.

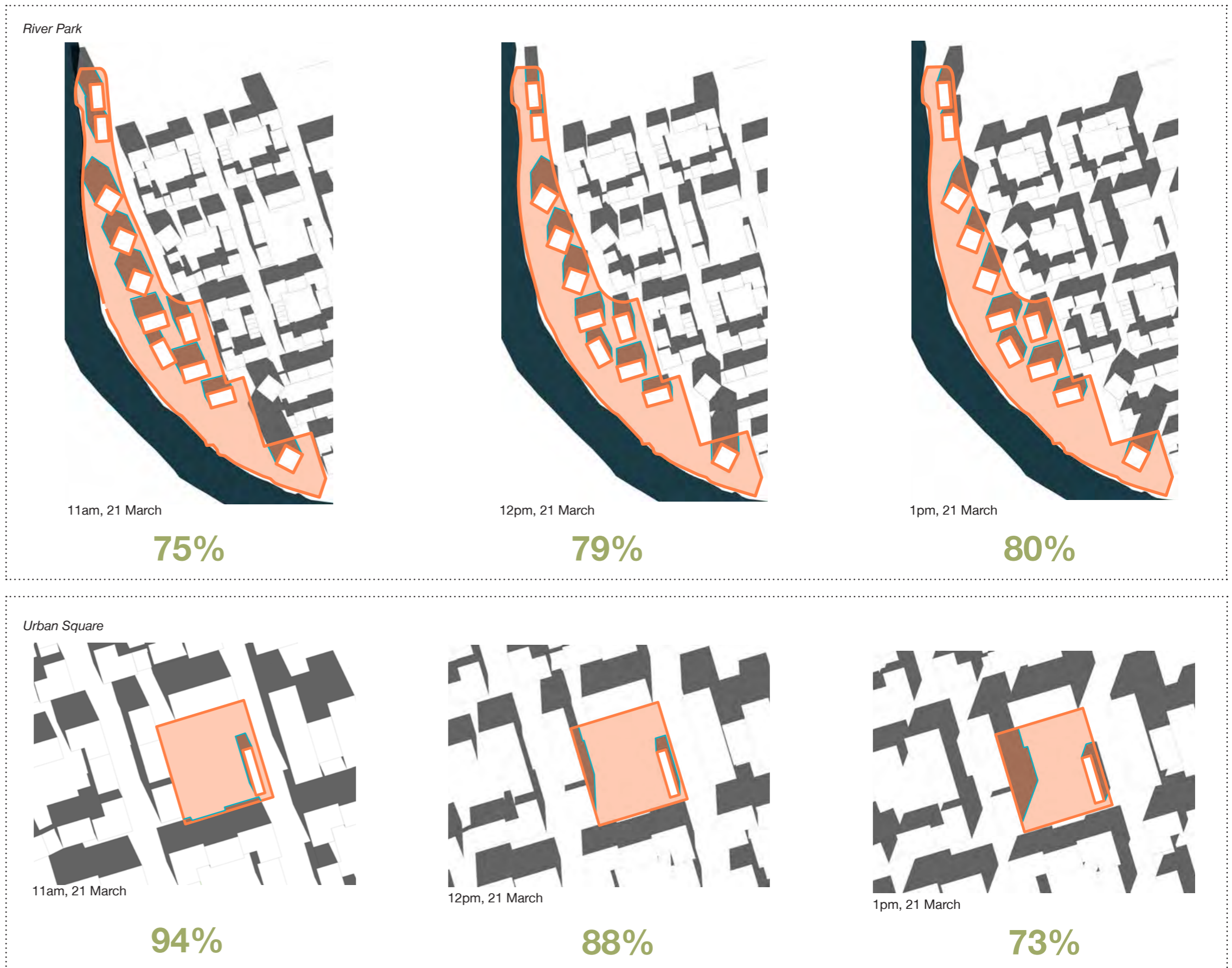
By spacing tall buildings in a considered approach, periodic overshadowing during the day and across the seasons will contribute toward the ever-changing and continually evolving micro-climate. Permanent overshadowing of internal and external spaces will be minimised.

Sunlight to Public Realm Studies

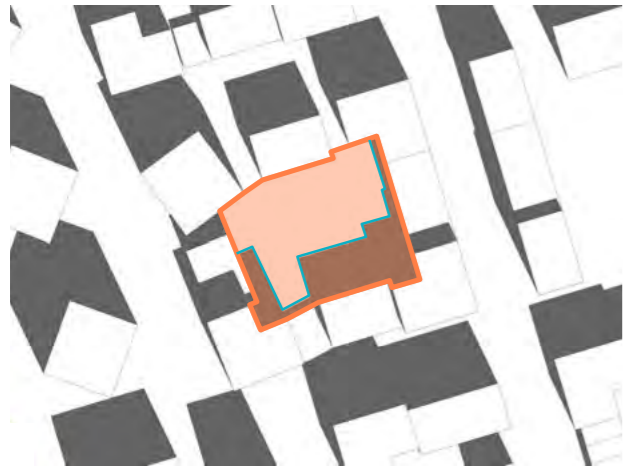
BRE Guidance 'Site Layout Planning for Daylight & Sunlight' has been referred to throughout the masterplan design development (as recommended by Cardiff Residential Design Guidance).

The guidance recommends that at least half of amenity areas should receive two hours of sunlight on 21 March. The accompanying diagrams illustrate a two hour window on 21 March. The majority of spaces receive sunlight to 50% of the area for two hours. In most cases - spaces far exceeds the required 50%.

These diagrams illustrate that the open spaces will receive good quality daylight and sunlight, and consequently, will be pleasurable spaces to be in.

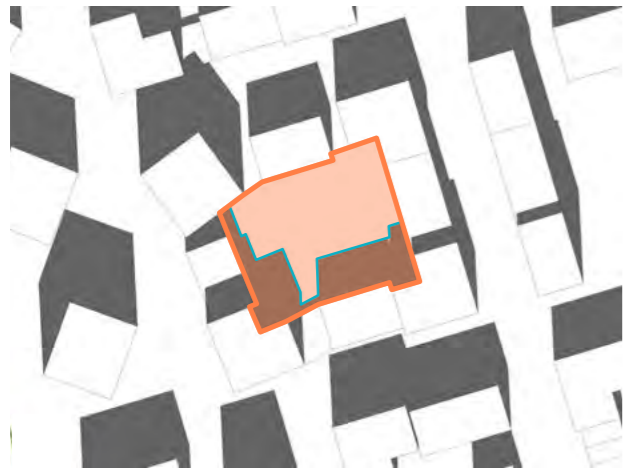


Courtyard



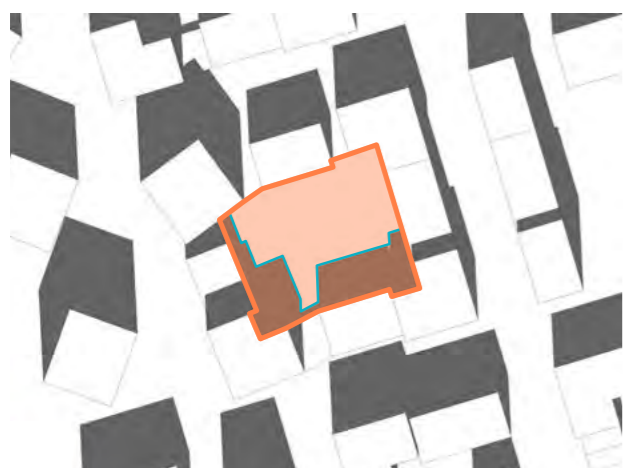
61%

11am, 21 March



61%

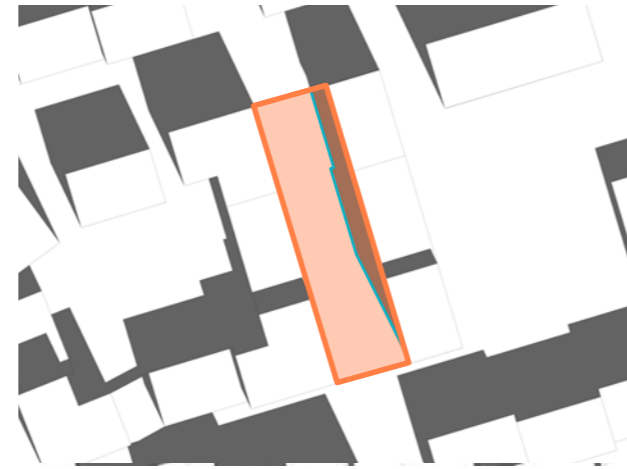
12pm, 21 March



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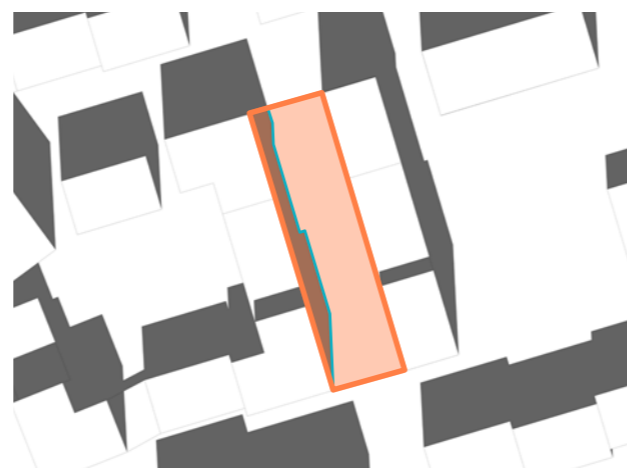
1pm, 21 March

Amenity Street



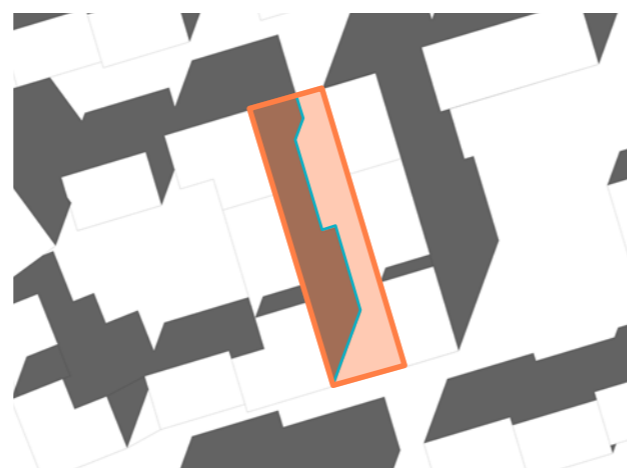
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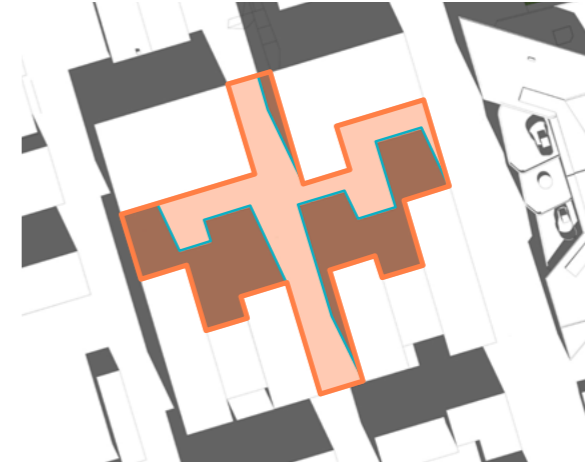
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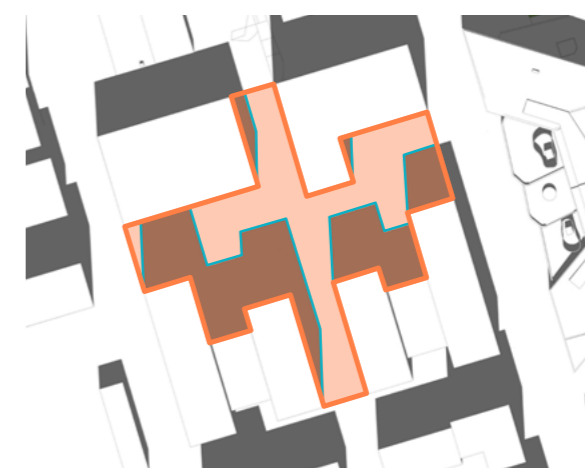
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Business Gardens



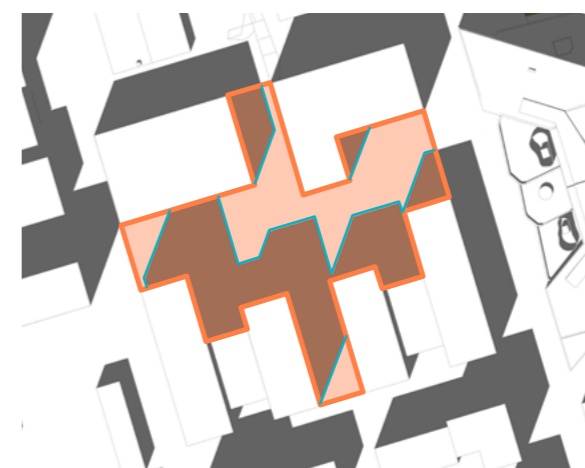
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11am, 21 March



50%

12pm, 21 March



39%

1pm, 21 March