

simpsonhaugh



Trinity Islands – Manchester

DESIGN & ACCESS STATEMENT | January 2022

Z1-SHP-A180-RP-XX-B5D801 | REVISION P02

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1.0 Introduction

PURPOSE

This Design and Access Statement has been prepared by SimpsonHaugh in support of a detailed planning application for the development of a residential-led, mixed use development at Trinity Islands, which sits within the context of the St Johns Strategic Development Framework and the Water Street Strategic Development Framework.

The proposals are located on 2 equally sized island sites, each measuring 0.89Ha, and are bounded by Trinity Way, Water Street, and Regent Road, with frontage onto the River Irwell. The eastern boundary also abuts a railway viaduct. The sites are currently established as a surface level car park and for meanwhile uses such as locations for film crews and as construction storage for development of adjacent sites.

PROJECT

In summary, the proposals include the following elements for which full planning permission is sought:

- Erection of four residential buildings (Use Class C3) of heights varying from 39 to 60 storeys, incorporating lower floors accommodating residential amenity facilities and ground floor commercial units (Use Class E)
- Each building has separate private car and cycle parking within a two-storey basement (c. 29% and 100% provision respectively)
- Delivery of 1.29Ha of high quality public realm
- Enhancements to highways and servicing routes

PROCESS

The Proposed Development has been defined with input from a highly experienced and comprehensive team of specialist consultants with the intention of delivering a unique project which not only maximises the development potential of the Site and directly responds to market demand, but also embraces the Site's unique heritage and delivers key policy objectives and statutory requirements.

The Proposed Development has been subject to extensive pre-application consultation with the Local Planning Authority, statutory consultees and local stakeholders. The involvement of statutory consultees at the pre-application stage has informed the design of the development, and changes to the scheme have been included where appropriate.



1.1 Development Team

Design Team



Developer

Renaker Build Ltd

NQ Building
47 Bengal Street
Ancoats
Manchester
M4 6BB



Architect

SimpsonHaugh and Partners

Riverside
4 Commercial St
Manchester
M15 4RQ



Planning Consultant

Deloitte

2 Hardman Street
Manchester
M3 3HF



Heritage Architect

Heritage Architecture Ltd

Suite 1.6, Canada House
3 Chepstow Street
Manchester
M1 5FW



Structural Engineer

WSP

8 First Street
Manchester
M15 4GU



TVIA

Chris Burnett Associates

Whitehouse Farm
Shocklach
Malpas
Cheshire
SY14 7BN



Verified Views

Ambiente

Hurstwood House
Station Court,
New Hall Hey Road,
Rossendale
BB4 6AJ



Air Quality

REC Ltd

Osprey House
Pacific Quay
Broadway
Manchester
M50 2UE



Daylight & Sunlight

GIA

2 Commercial St
Manchester
M15 4RQ



Building Services

WSP

8 First Street
Manchester
M15 4GU



Landscape Architect

TPM Landscape

Studio 10
10 Little Lever Street
Manchester
M1 1HR



Transport

Vectos

4th Floor Oxford Place
61 Oxford Street
Manchester
M1 6EQ



Sustainability

Element Sustainability

65A High Street
Tarporley
Cheshire
CW6 0DP



Ecology

ERAP

49a Manor Lane
Penwortham
Preston
Lancashire
PR1 0TA



Electronic Interference

Pager Power

South Suffolk Business Centre
Alexandra Road
Sudbury
Suffolk
CO10 2ZX



Fluid Dynamics

WSP

WSP House
70 Chancery Lane
London
WC2A 1AF



Fire Engineer

Hoare Lea

Royal Exchange
Manchester
M2 7FL

AREA

The Site is bounded by the River Irwell to the north and west, railway viaduct to the east and Water Street and Regent Road to the south.

Located within Manchester City Centre, it forms part of the Water Street and St Johns Strategic Regeneration Framework areas. The Site comprises approximately 4.4 acres of brownfield land, which is used as a surface car park. The site is split by the Inner Ring Road into two parcels of land, referred to as Site C and Site D.

Site C comprises approximately 2.2 acres of brownfield land is bounded by the River Irwell to the north, Trinity Way to the west, Water Street to the south and a railway viaduct to the east. The Site slopes downwards to the north towards the River Irwell.

Site D comprises approximately 2.2 acres of brownfield land is bounded by the River Irwell to the north and west, Regent Road to the south and Trinity Way to the east. The Site slopes downwards to the north and west towards the River Irwell and there is a limited amount of vegetation running along this boundary.

CONNECTIVITY

The Site is located to the south-east of the City Centre, within easy walking distance of St Johns, Spinningfields, Deansgate and the city's central retail area.

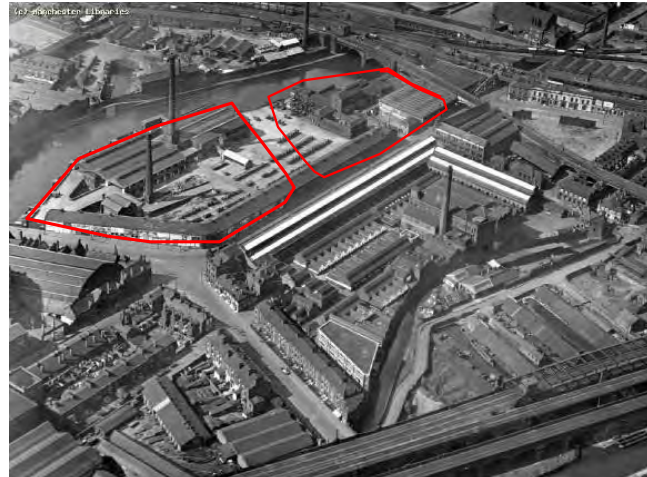
The site is also highly accessible, being near to the Inner Ring Road and within easy walking / cycling distance of Deansgate Metrolink and train station.

The City's full range of retail, leisure and hospitality offers are also within easy walking distance of the Site, including Castlefield, Spinningfields, Deansgate, First Street and the Arndale Centre along with a new cultural hub and array of food and beverage outlets being delivered within the St Johns regeneration area.

TOPOGRAPHY

Typical pavement level abutting both parcels of land is at +26.2m AOD or thereabouts. Where road bridges span over the Irwell, serving either Trinity Way or Regent Road, pavement levels generally increase in height up to circa 28.5m-29.0m AOD, with retaining wall structures and / or existing grass verges forming transitions between the site and the adjacent raised pavement and road.





1930 - The abattoir and Coporation Yard



1907 - Regent Road Bridge Entrance



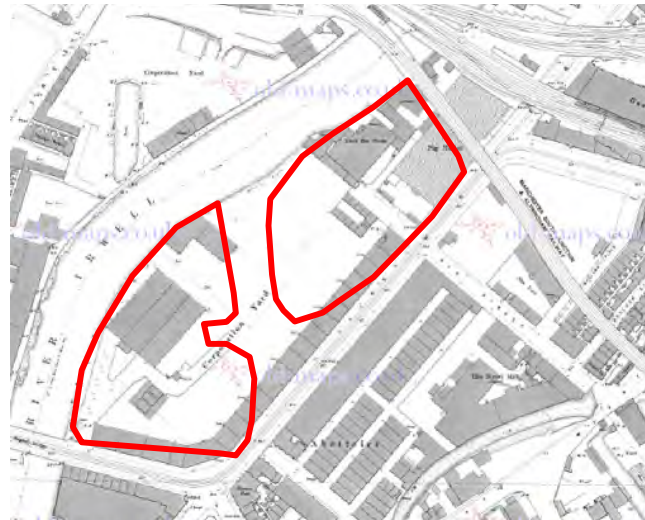
1914 - Water Street abattoir

2.2 Site History

To the east of the subject site is Castlefield where the Roman fort of Mamucium was based. However, it wasn't until the 18th Century with the navigation of the River Irwell and the subsequent construction of canals, such as the Rochdale Canal, that the area became developed. The success of the canal system was short lived as it soon became apparent that canals could not move goods quickly enough. This was compounded by the development of the railways; the world's first being opened on Liverpool Road in 1830. Soon devoted to goods traffic, Liverpool Road Station became the centre of a network of railway lines, several of which crossed Castlefield on viaducts. These were concentrated over the site of the former Roman Fort, where four viaducts, including the Castlefield Viaduct, converge.



1851



1891



1908

During the 20th Century both the canal and rail transport declined but the regeneration of the area for residential, recreational and commercial use has seen the conversion and reuse of many historic industrial buildings in the wider area. The development of the road network immediately surrounding the subject site has dominated the area and resulted in poor pedestrian environments and low quality commercial developments. Regeneration initiatives for the area seek to readdress the imbalance in the economic and social spheres of the area.

In summary, this area has witnessed dramatic cycles of development and decline; the area was first developed in the beginning of the 19th century into a dense industrial area before the decline of industry 100 years later saw the area become underused and derelict. Following the construction of the Mancunian Way and the associated road network in the 1960s, the area immediately surrounding the subject site become shorn of any historic context and was redeveloped for commercial uses.



1950



1960



2015

2.3 Surrounding Streets

The streets surrounding the Site are busy vehicle routes, however they offer moderate to generous pavement widths. The multi-lane roads restrict pedestrian flow and movement, particularly around Site D which is very much an island setting.

Trinity Way (A6042)

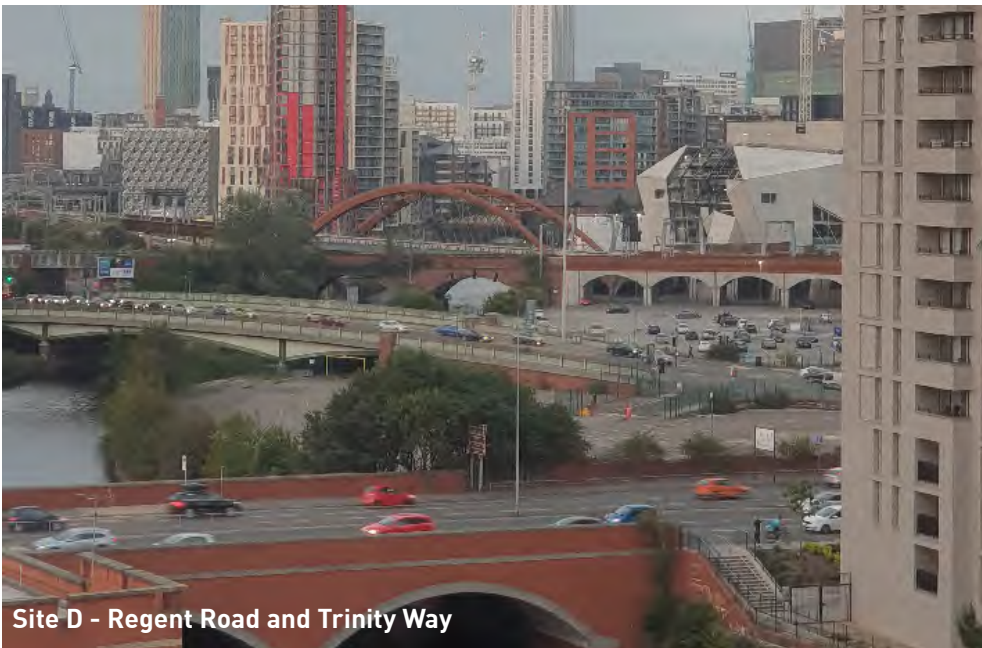
The ring road that crosses the Irwell from Salford is a major arterial vehicular route into the city centre. Pedestrian and cycle use is encouraged via separate footpaths and bridges where possible with recently completed alterations on the Salford side of the Irwell improving connectivity on foot to areas such as Middlewood Locks and Salford Crescent. Rather than entering the city on foot via the Trinity Way most pedestrians circulate via Liverpool Road or into the St John's neighbourhood along Water Street.

Regent Road (A57)

Regent Road is the main arterial route to the M602 and west towards Liverpool. Recent residential developments in Salford, alongside the Regent Retail Park makes this an important pedestrian route from the Regent Road bridge adjacent to Site D.

Water Street

Beyond Liverpool Road junction this street is an important connection from the city centre road network onto the ring road and Regent Road. The section of Water Street adjacent to Site C is therefore often busy with vehicles waiting at the traffic lights to enter the arterial road network. To the east, Water Street provides a regenerated connection for pedestrians and vehicles into St Johns and the city centre. Recent improvement works to the pavements at the Liverpool Road junction, including works under the viaduct arches have improved the connectivity between Liverpool Road and Site C.



2.4 Heritage Context

CONSERVATION AREAS

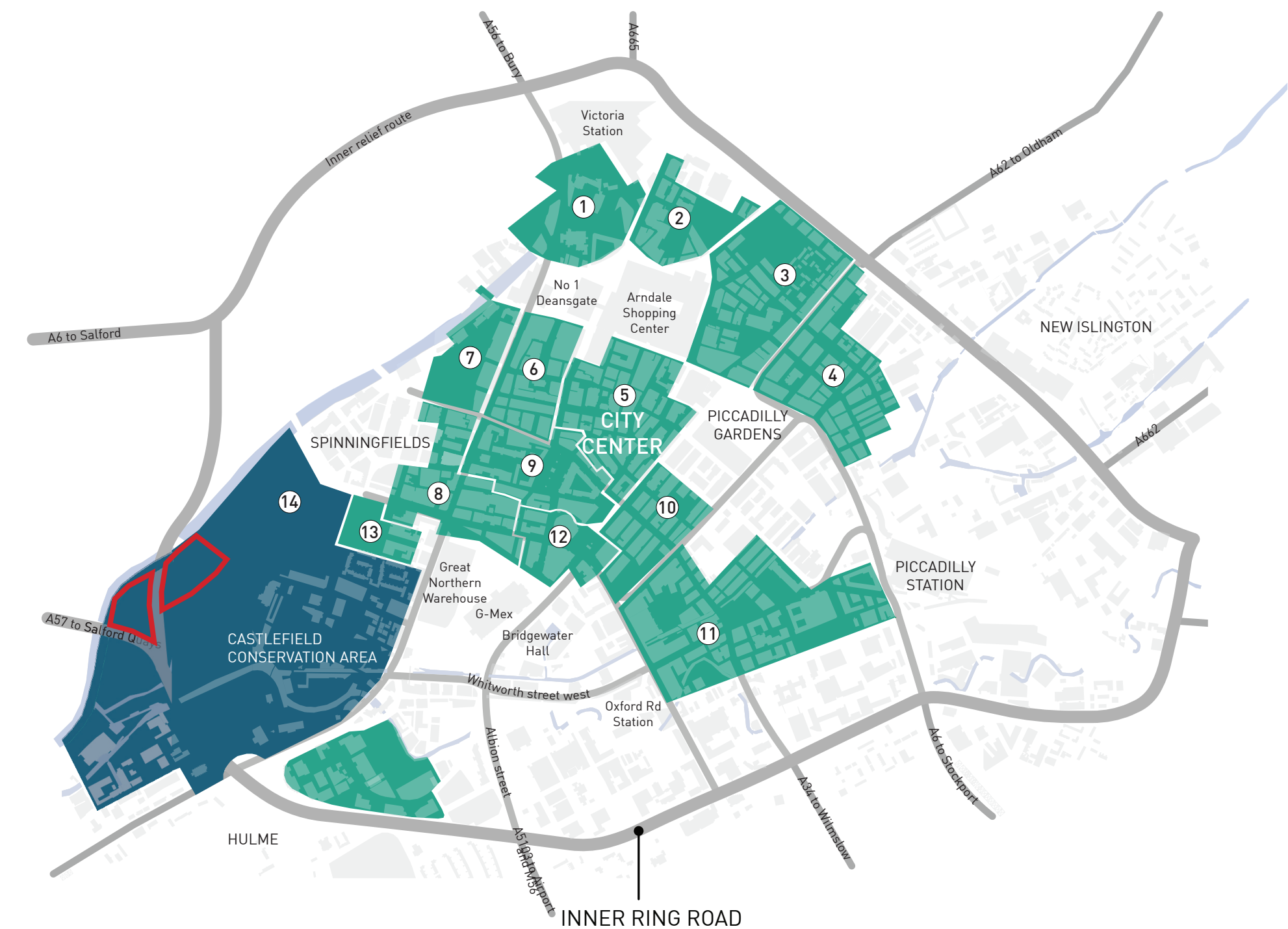
The Site is situated within a designated Conservation Area – Castlefield Conservation Area. Due to the proposed scale of the development it will be clear there is some potential for the development to be viewed from select points within the wider townscape, including from within the St Johns Conservation Area.

The Castlefield Conservation Area is a varied and multi-layered area of the city, and encompasses a large part of the south-west of the city centre. The Conservation Area has been designated as such due to the high significance and grouping of a number of structures which reflect the industrial development of this part of Manchester. Alongside this, the site is of special historic interest due to the connections with the Roman occupation of the area. The Conservation Area is one of the largest in Manchester and was designated in 1979.

Due to the size of the Conservation Area, the accompanying Heritage Report breaks it down into smaller character areas for review and consideration: Water Street Regeneration Area; Mancunian Way; Castlefield Basin and Potato Wharf; Liverpool Road; and St Johns. The potential impact upon their character and appearance has been tested within the Heritage Impact Assessment (HIA).

HERITAGE ASSETS

The redevelopment of the Site will have the potential to indirectly impact the settings of a number of listed buildings in the surrounding area. The Heritage Impact Assessment identifies 28 Grade II or II* listed buildings within a 500m study area of the site, that are considered to be susceptible to indirect impacts from the Proposed Development. These include a number of structures in and around the MOSI / Liverpool Road area and St Johns, such as The Power Hall of the Museum of Science and Industry, the Former Grape Street Railway Bonded Warehouse and a number of viaduct structures. Due to the density of the urban grain, particularly to the west of the Site, it is considered that a considerable number of listed buildings will not be susceptible to potential indirect impacts from the Proposed Development.



 CONSERVATION AREA	
 CASTLEFIELD CONSERVATION AREA	
① CATHEDRAL	⑧ PETER STREET
② SHUDEHILL	⑨ ALBERT SQUARE
③ SMITHFIELDS	⑩ GEORGE
④ STEVENSON	⑪ WHITWORTH
⑤ UPPERKING STREET	⑫ ST PETER'S SQUARE
⑥ STAAN'S SQUARE	⑬ ST JOHN STREET
⑦ PARSONAGE GARDENS	⑭ CASTLEFIELD

Manchester Conservation Areas

2.5 Development Context

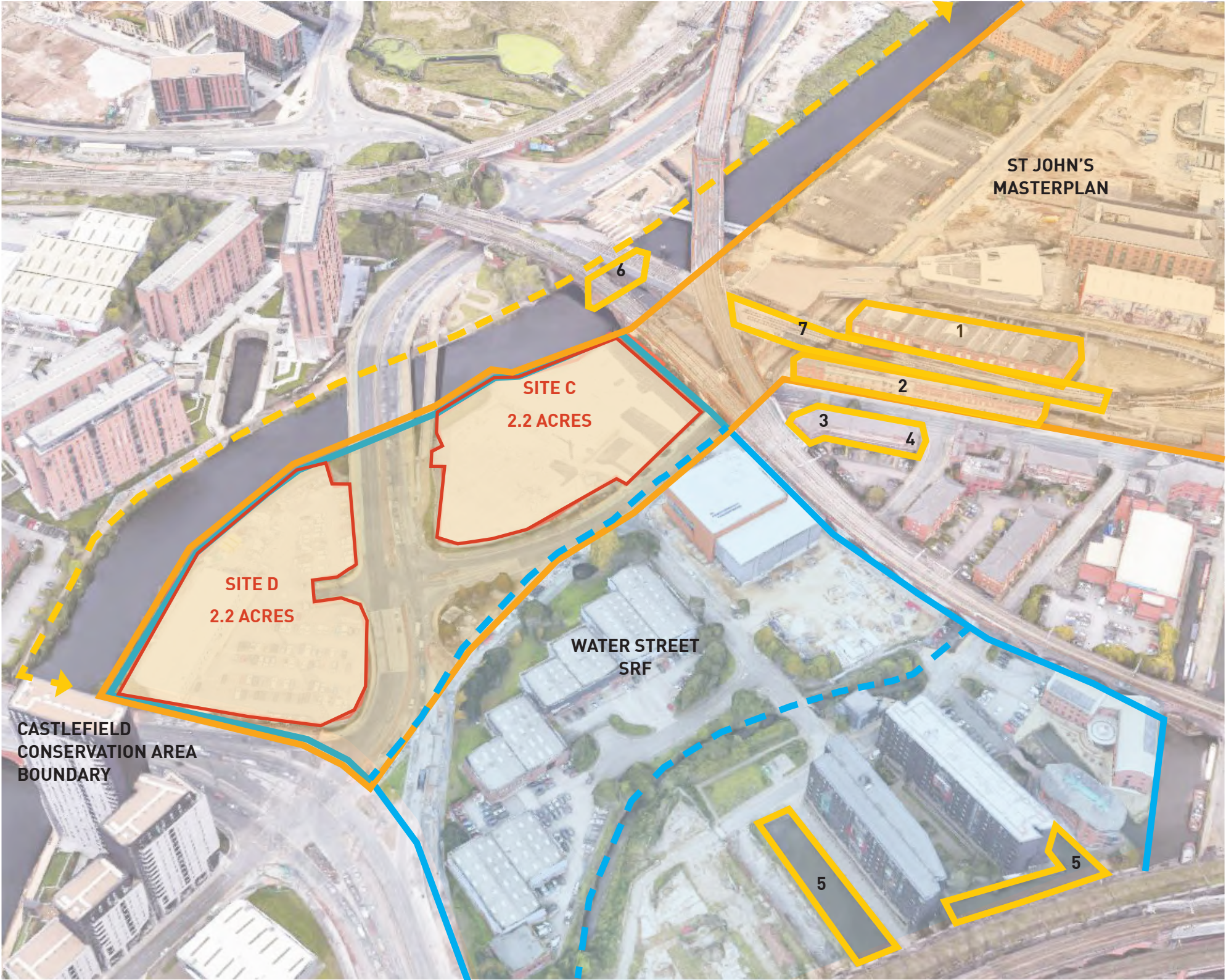
INTRODUCTION

The Site is on the western boundary of Manchester City Centre and is within the Castlefield Conservation Area. The emerging St Johns Masterplan area is located approximately 53m to the north east of the site with Deansgate and Spinningfields beyond. To the west are the River Irwell and Salford.

The Site also falls within the St Johns and Water Strategic Regeneration Framework (SRF) Areas. These are not prescriptive planning policy documents, but together provide guiding development principles for the regeneration of the area.

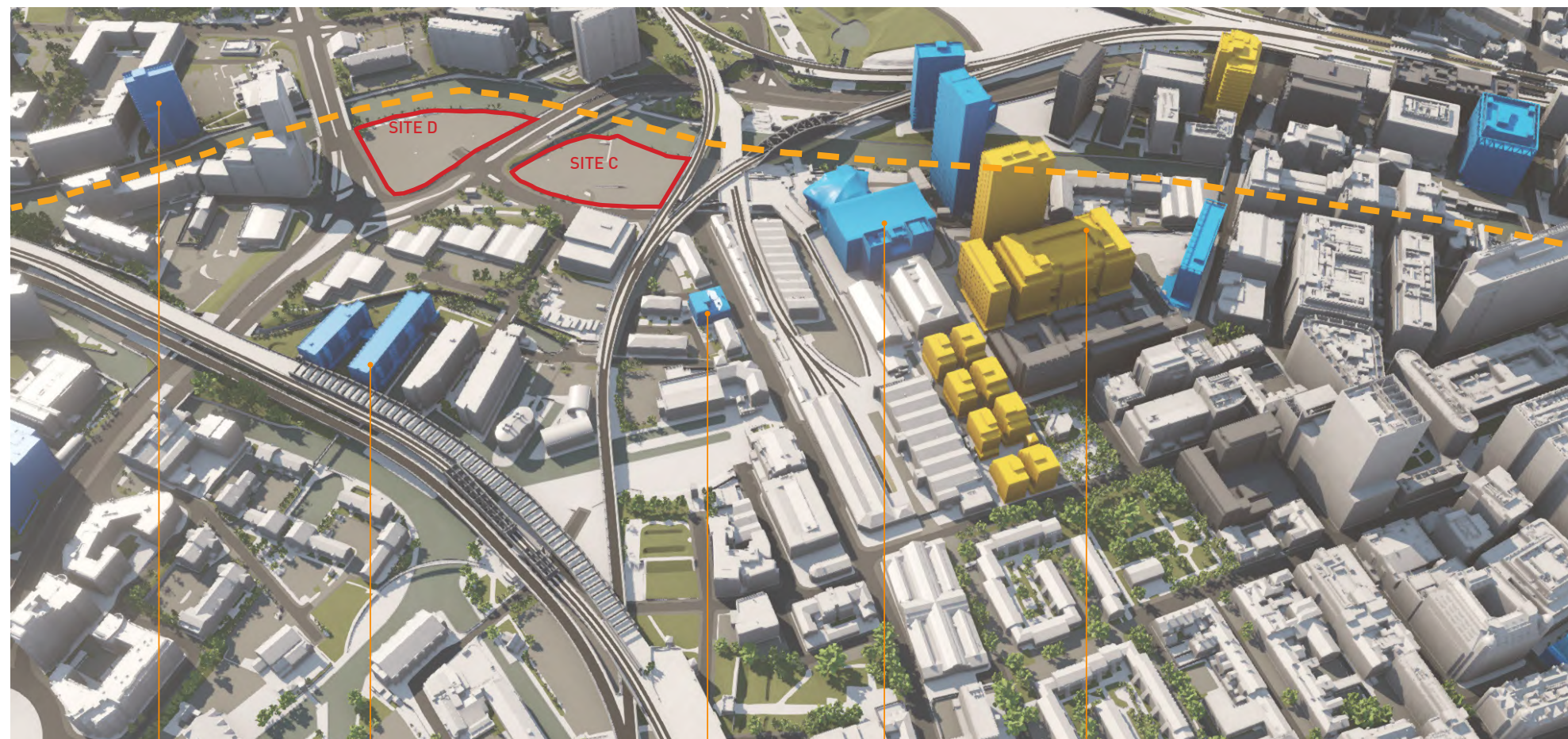
Trinity Islands has been a long term vacant and underutilised site. In 2017 planning approval was secured for a high density residential led scheme, but the approval was not implemented. Since acquiring the site, Renaker have been developing a deliverable scheme that will provide the opportunity to create a new community of residents that are ideally located to access the large areas of high-quality public realm, amenities and leisure facilities within the wider St. Johns area.

The Trinity Islands proposals will strengthen the connections to the city centre, deliver a major new piece of public realm and make a major contribution to the vibrancy and success of the St. Johns area. Renaker’s proven track record in delivering high quality residential schemes presents a fantastic opportunity to positively transform this area and to ensure they support the City’s long-term regeneration and growth objectives.



- LISTED ASSETS
- 1. OLD RAILWAY WAREHOUSE (I)
 - 2. LIVERPOOL ROAD STATION MASTER'S HOUSE (I)
 - 3. NO. 125 LIVERPOOL ROAD (2)
 - 4. NO. 123 LIVERPOOL ROAD (2)
 - 5. BRIDGEWATER CANAL BASIN (2)
 - 6. RAILWAY VIADUCT / BRIDGES (I & 2)

Heritage / Development Context



RIVER PLAZA

POTATO WHARF

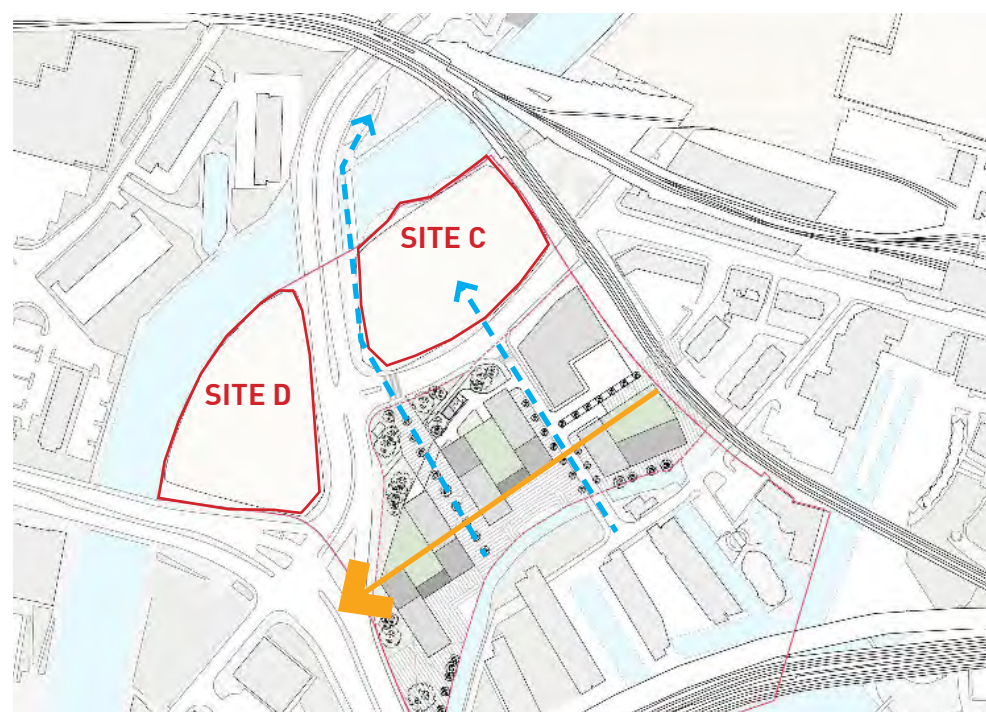
HOTEL ZOE

THE FACTORY

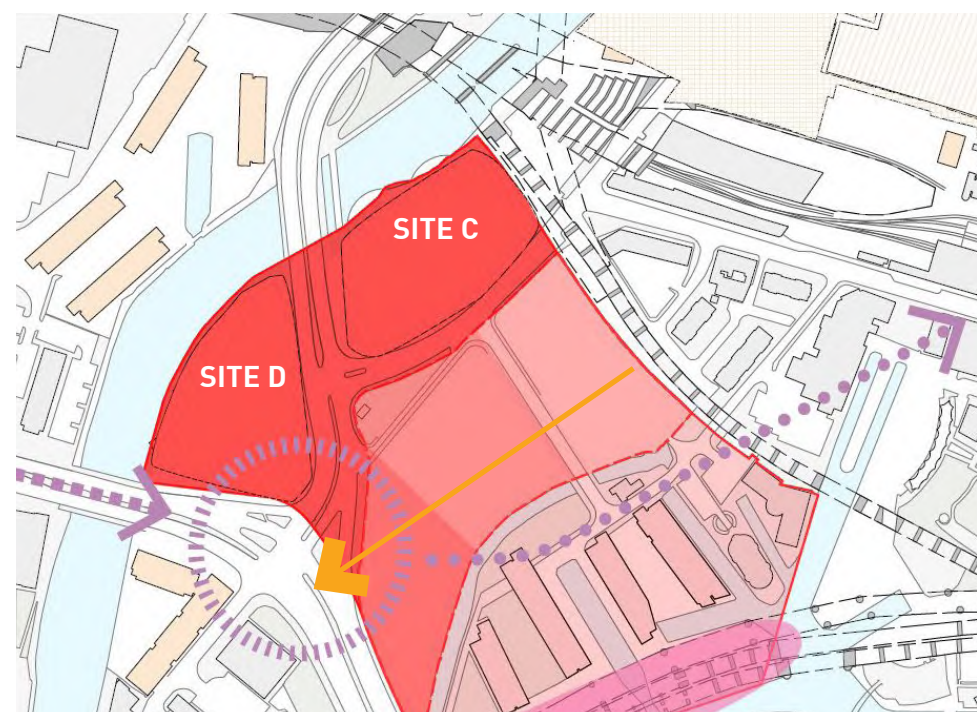
ST JOHNS REGENERATION AREA

■ Under Construction / Completed
■ Consented

Current Developments within Conservation Area



Water St SRF: Preferred Massing Option for Centre of SRF Site



Water St SRF: Further Increase of Scale on Trinity Sites

Manchester City Council have developed an overarching vision which is summarised below:

- › Creation of a new city centre neighbourhood: an attractive place to live, work and play; a place for enterprise and innovation; for culture, entertainment and leisure; a unique proposition for Manchester that will raise its international profile and set it apart from its peer cities.
- › Integration with the City Centre: Development that is fully integrated both functionally and physically with the city centre and adjoining city centre neighbourhoods.
- › Public Space: To create a meandering network of public spaces and complementary range of uses. The creation of new public realms and squares within this area provides the opportunity to create a stronger connection between the public spaces across St Johns and increase the overall level of amenity and biodiversity.
- › Heritage: A form of development that retains and reutilises the Site's key heritage assets and integrates those features into the new urban form.
- › Permeability and Connectivity: A series of existing and newly created public landscaped spaces will support a stronger network of routes and linkages that connect the different parts of the site to the rest of St Johns, its neighbours and the River Irwell, as well as anchoring the major buildings.
- › Height and Scale: A scale of building form that in height and plan extends the scale of the St. John's district across to the Site. To the west of St Johns, adjacent to the River Irwell, there is the potential to introduce taller, elegant residential buildings. These will comprise high-density living within a series of taller buildings, marking a gateway into the city
- › Uses: The development of the Trinity Island site should be designed to the highest architectural quality, promoting high-quality living on the upper levels and a mixture of retail and leisure uses within the ground floors to create active frontages that will bring a new level of activity and vibrancy into the area.

2017 EXISTING PLANNING PERMISSION

In Spring 2017 Allied London achieved committee approval for a proposal on Trinity Islands that, described as a ‘vertical village’, was composed of 5 tower buildings providing 1,390 apartments. The tallest of which was designed to stand at 66 storeys high. Each tower form was identical but rotated in plan with individuality provided in the façade language by use of colour to window reveals. Towers were sited to enable clear views between each building, to enable legibility of the forms, when viewed from key heritage locations within the Conservation Area.

The residential towers were set above a 3 storey podium that included 581 parking spaces, cycle storage and at ground floor a wide range of commercial uses such as restaurants, a market place, educational and medical facilities. The podiums were designed to sit tight to back of pavement along the street edges with public realm space provided in the riverside footpath and at enlarged recesses from back of pavement that served the enclosed arcade spaces at ground level.

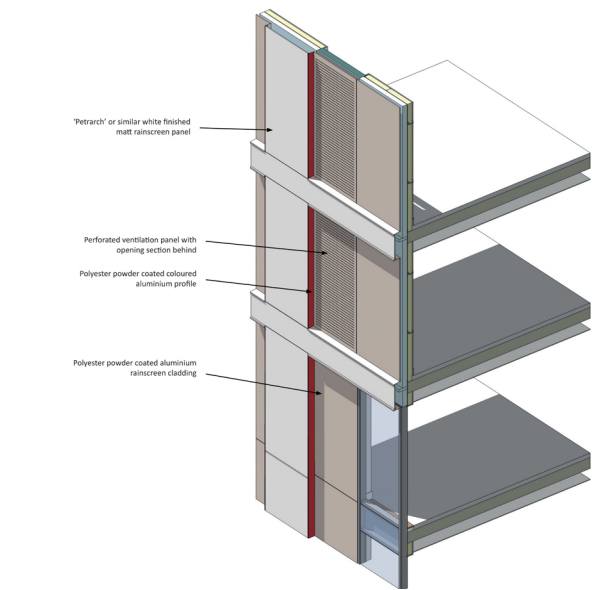
When Renaker purchased the site they decided to revisit these proposals to explore ways in which a residential led scheme of high quality could be delivered on the site.



Typical Residential Tower Level



Example of Internal Arcade Spaces



CGL Planning Scheme	Typical Apts / floor	Apt Numbers by Tower	Apt Numbers by Plot	Residential Floors (GF + X)
Tower V	9	180	180	25
Tower W	9	306	306	40
Sub Total	18	486	486	
Tower X	8	454	454	66
Tower Y	9	270	270	36
Tower Z	9	180	180	25
Sub Total	26	904	904	
Total		1390	1390	



Ground Floor



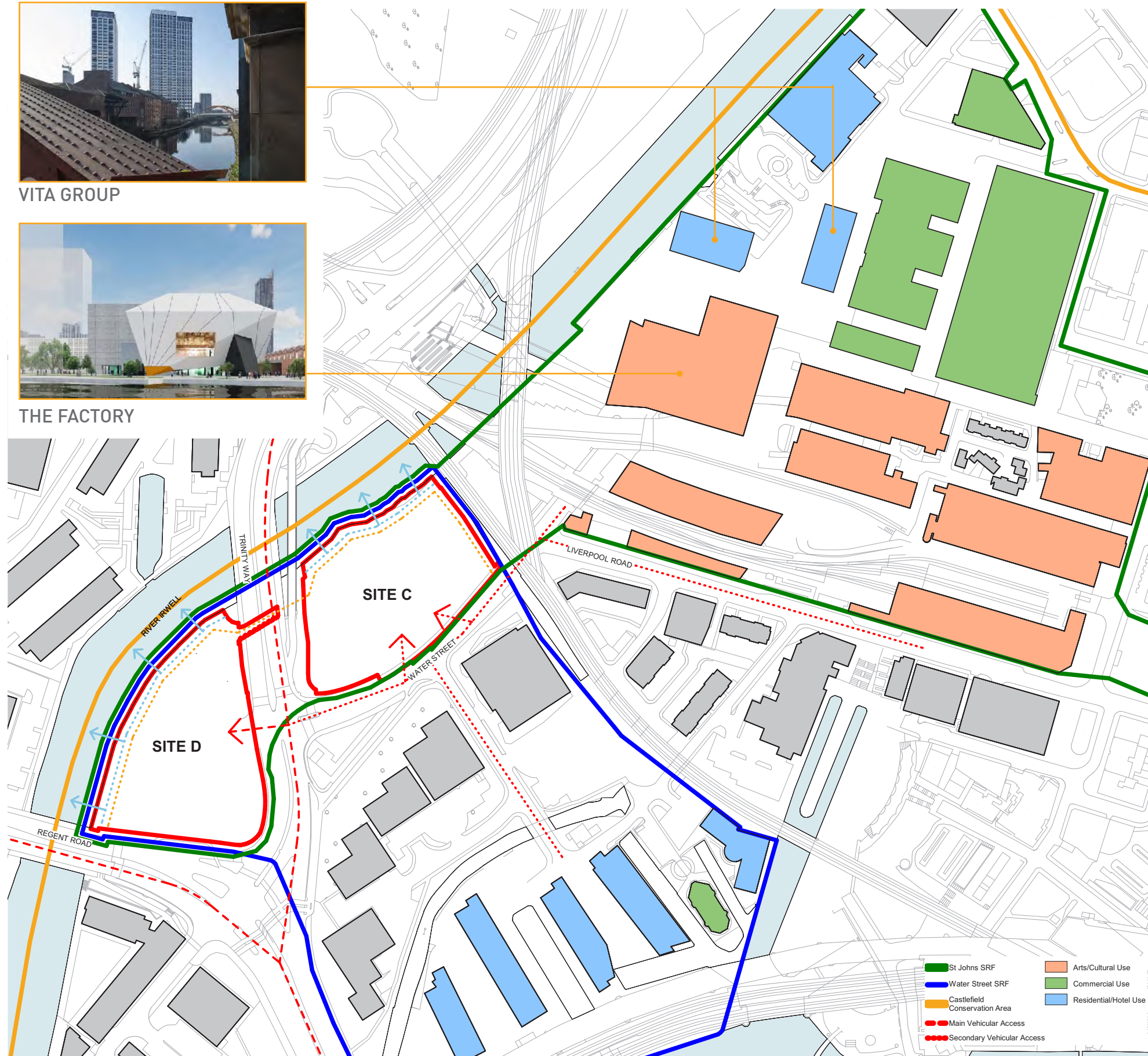
Podium Floor



VITA GROUP



THE FACTORY



2.6 Emerging Context

The surrounding area has seen major investment in recent years with a large number of new residential, commercial and cultural buildings either having been constructed or being under construction. The key component of this regeneration has been the St Johns masterplan, which is delivering:

- Manchester Goods Yard will be a new state-of-the-art flexible workspace with additional retail and leisure uses - expected delivery late 2021.
- The Factory will be a world class cultural venue and new home to the Manchester International Festival - expected delivery early 2022.
- Globe and Simpson will provide high-quality workspace for a leading headquarters building - expected delivery early 2022.
- Old Granada Studios is a redevelopment and refurbishment to create a hotel, workspace, studio complexes workspace and retail and leisure space - expected delivery mid-2022.
- Union T1 will be a 'co-living' scheme, providing 390 apartments and 180 studios with ancillary amenity space, commercial space and self-storage.
- Union T2 will be a 'co-living' scheme, providing 188 apartments and 186 studios with ancillary amenity space, commercial space and self-storage.



3.1 Constraints & Opportunities

CONSTRAINTS

The design development has been a complex process and a variety of options have been generated to analyse key issues associated with the Site and its surroundings; the scale, massing and permeability of the Proposed Development and its relationship to the current surrounding context. Analysis of the existing site identified a series of factors and constraints that had to be taken into account when considering any development on the Site.

Red Line Boundary

Consideration has been given in the proposals to ensure the development enables full access within the red line ownership boundary. Strips of land on Site C at existing car park level adjacent to both Trinity Way and the viaduct outside the red line are not relied upon to service the development but discussions with adjoining owners have been undertaken during the pre-application period to ensure a coordinated response to site interfaces.

Trinity Way and Regent Road

Specialist consultant advice is being provided as part of the Environmental Impact Statement with regard to mitigating the effects of the road in terms of noise and air quality. Whilst the elevated topography of the road bridges limits opportunity for site access the proposals have worked to ensure no impact is placed upon the highway structure during or after construction.

Conservation Area and Listed Buildings

The impact of the development and its relationship to the Conservation Area and various listed heritage assets has been carefully considered with detailed commentary provided within the Heritage Report.

Utilities

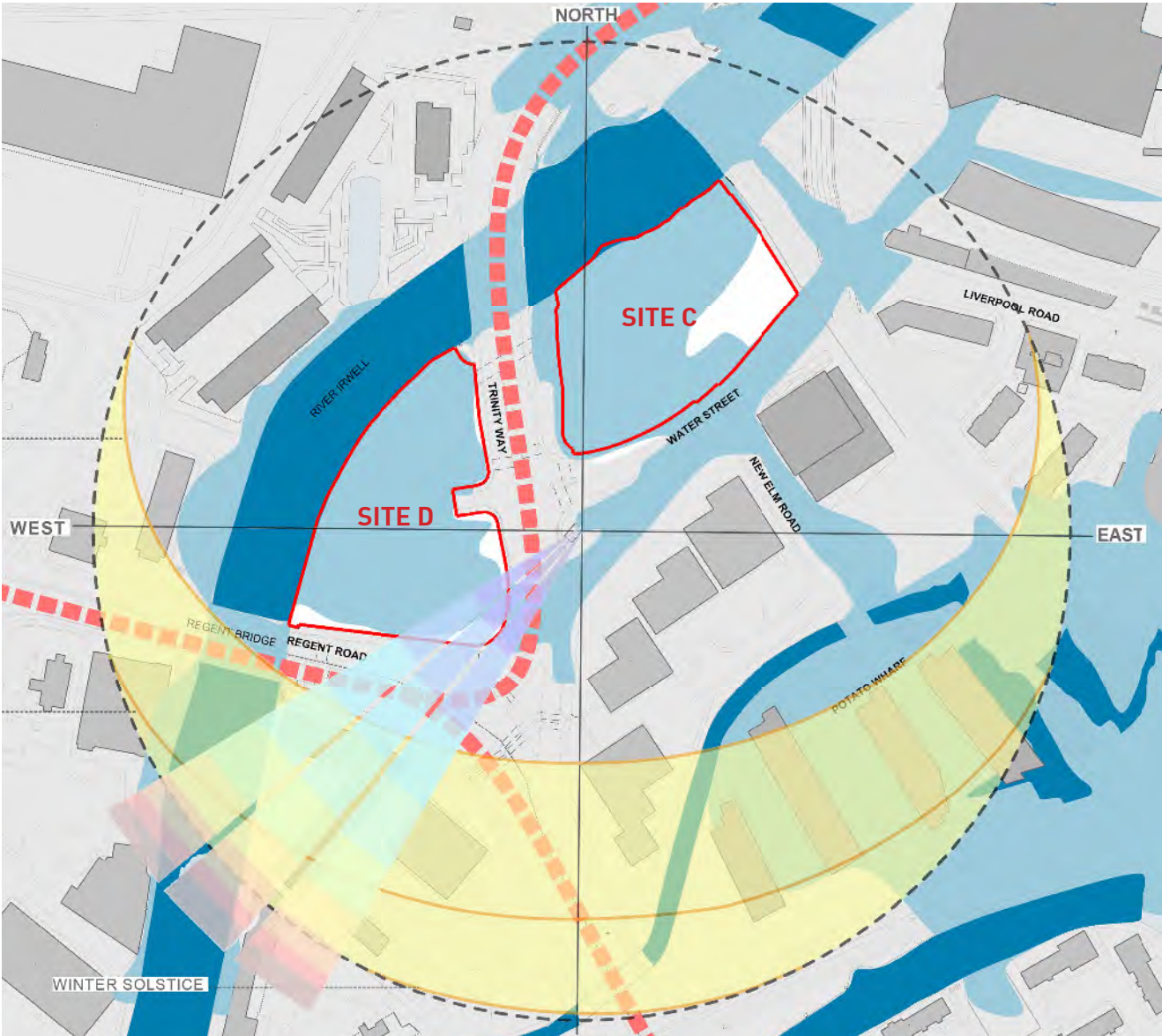
A series of incoming water and power services enter the site from Regent Road and Water Street. A foul sewer cuts north to south across Site D to Regent Road and the proposals have been coordinated to acknowledge these service connections.

Highways

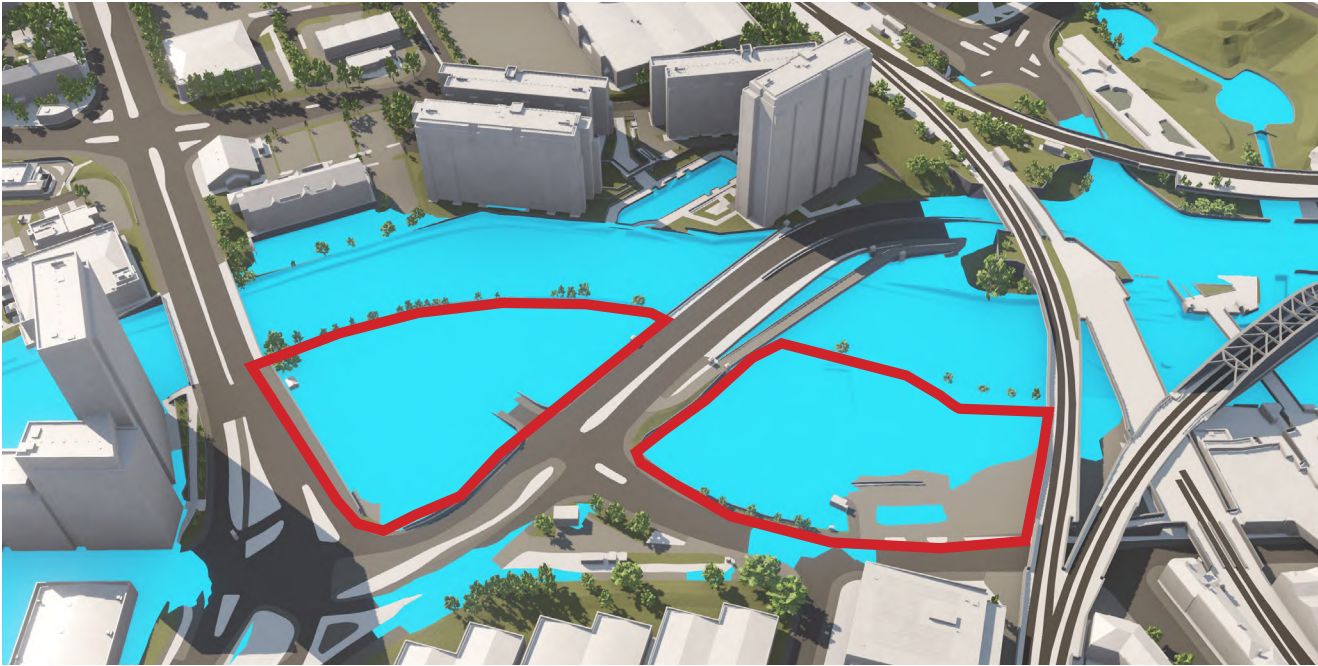
Issues associated with noise / air quality and glare have been considered within this application.

Party Wall Conditions

The proximity to retaining wall and foundation structures associated with the viaduct and road bridges has been factored into the setting out of the towers and basement works – to ensure adequate construction clearances. Early discussions with Highways have been undertaken to determine the condition of a brickwork relic structure adjacent to Regent Road bridge that requires demolition; whilst setbacks also acknowledge easements required for access to the viaduct adjacent to Site C. A basic asset protection agreement has been entered into with Network Rail.

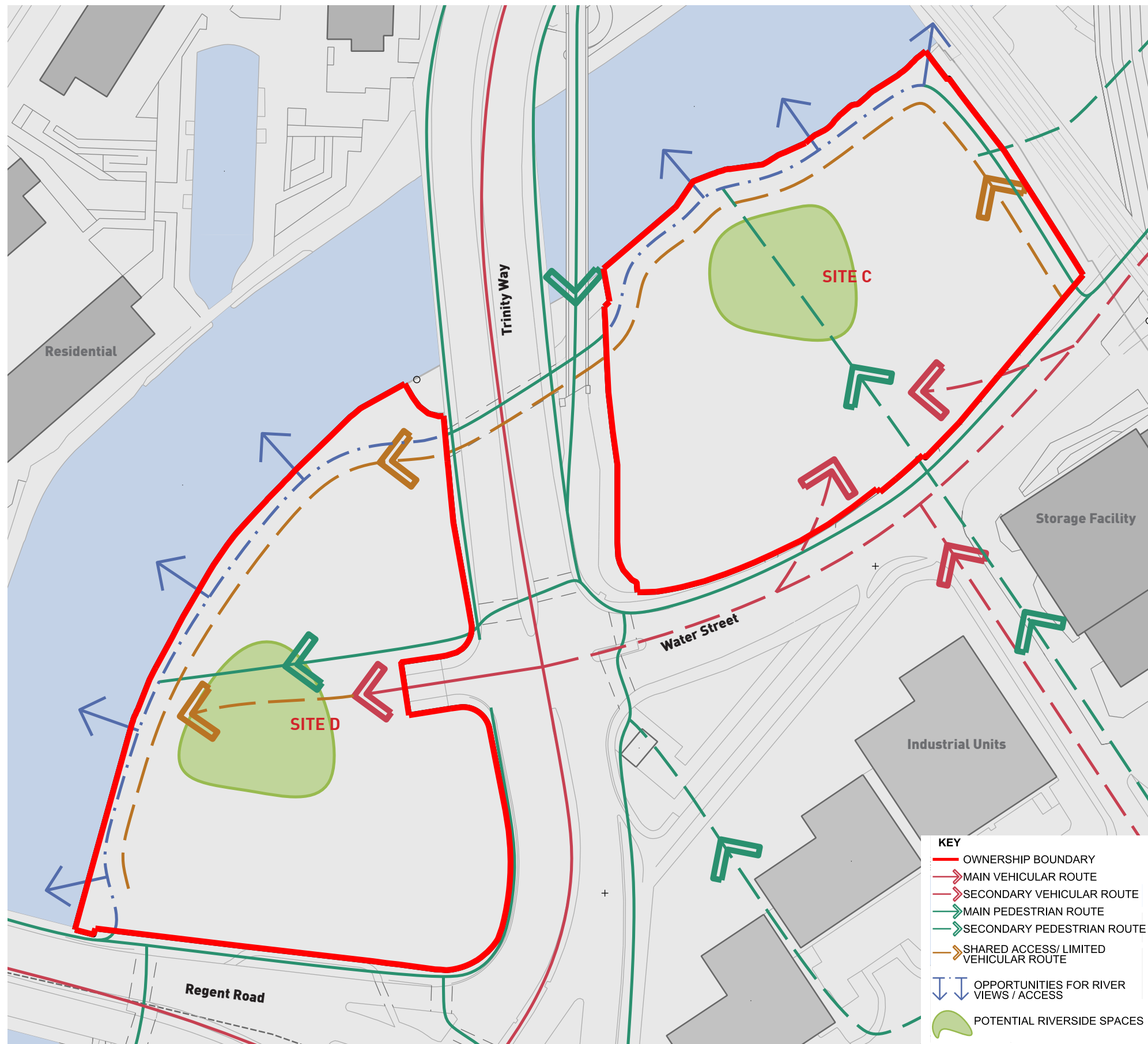


Environmental Considerations



1 in 100 year (+ climate change + freeboard) Flood Level +25.8m AOD





Opportunities to Strengthen / Generate Connectivity

Environmental Factors

Supplementary reports describe how the proposal deals with wind, solar glare, acoustic and flooding considerations.

OPPORTUNITIES

Located within the St Johns and Water Strategic Regeneration Frameworks (SRF), the Proposed Development can build on these to allow positive development with the huge potential that a site of this scale and nature possesses. The proposals aim to take a leftover site within the Conservation Area to provide a positive addition with improved connectivity across the Conservation Area setting.

Quantum of development

The Site represents an opportunity to deliver a significant number of high-quality residential units as defined in the relevant frameworks, with precedent set by the current planning permission on the site.

Street Level Environment

There is significant potential to improve the street level environment and provide public realm space away from the busy road network.

Riverside Setting

The public realm space can generate a true riverside setting which connects the current street level environment to the river. The intention is to create a continuous car free public riverside connection from Regent Road to St Johns and beyond.

Viaduct

Renaker have undertaken pre application discussions with Network Rail to assess opportunities for the viaduct to generate new connections into St Johns.

Gateway Development

The Site, as two separate parcels of land, provide the opportunity to deliver a landmark development at the western gateway to the city centre.

Wider Regeneration

The development proposals come forward at a time when the Factory and St Johns Masterplan is being realised, and through rejuvenated connections to Liverpool Road via Water Street early positive engagement with adjoining land owners will see a coordinated approach to improving connectivity across this part of the Conservation Area.

Connectivity

The Site has the potential to strengthen existing and provide new connections into the Conservation Area setting. Complementing the regeneration of St Johns and potential new connections into and through the MOSI site, and onward into the city centre. Also forming a connection from St Johns to Salford by providing public realm and accessible routes to Regent Road bridge.

Height

Both the Water St and St Johns Regeneration Frameworks outline the potential for a tall building or buildings on this site, and through the existing precedent set by the existing planning permission this has been acknowledged by MCC.



3.2 Brief Development

The brief has evolved and been informed by the extensive design evolution and consultation process. The overriding aspiration is to deliver a high quality and unique residential neighbourhood in a leftover corner of the Conservation Area; to provide homes for a mix of people, ages and nationalities through the introduction of new residential tower forms that provide a unique sense of identity to the place. This strategy is underpinned by a number of objectives that have remained constant throughout this process:

CONTEXT

- › Deliver on the objectives of the 2016 St Johns SRF & 2016 Water Street SRF.
- › Improve the street level environment.
- › Create new high quality public realm at the heart of the development.
- › Provide new high quality riverside public access
- › Create new connections from the site into the surrounding Conservation Area and St Johns
- › Appropriate separation distances between buildings.

USE

1,950 residential apartments; green public realm spaces; underground residents car park; ground floor commercial offers with strong connections into St Johns; residential amenity activates lower floors

RESIDENTIAL UNIT MIX

33%	1 bed units
63%	2 bed units
4%	3 bed units

FORM / APPEARANCE

Within the site each parcel of land is to have a strong identity of its own, whilst using a coherent language to unify both parcels to read as one development.

SPACE PLANNING

Net internal area of apartments to meet or exceed Manchester's Space Standards.

FLOOR TO CEILING

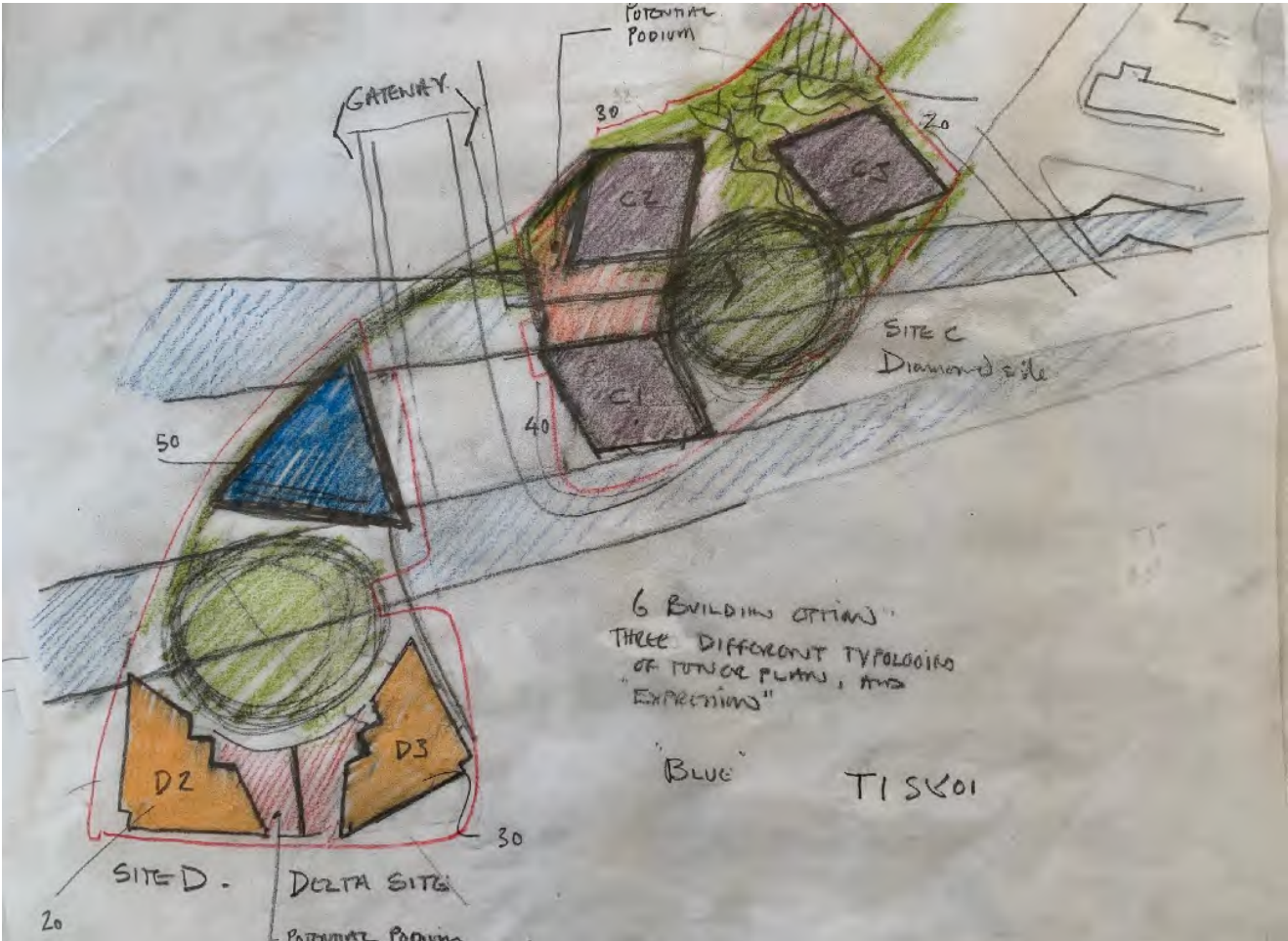
- 2.4m floor to ceiling for typical levels
- 2.6m floor to ceiling for penthouse apartments and upper levels

RESIDENTIAL AMENITY

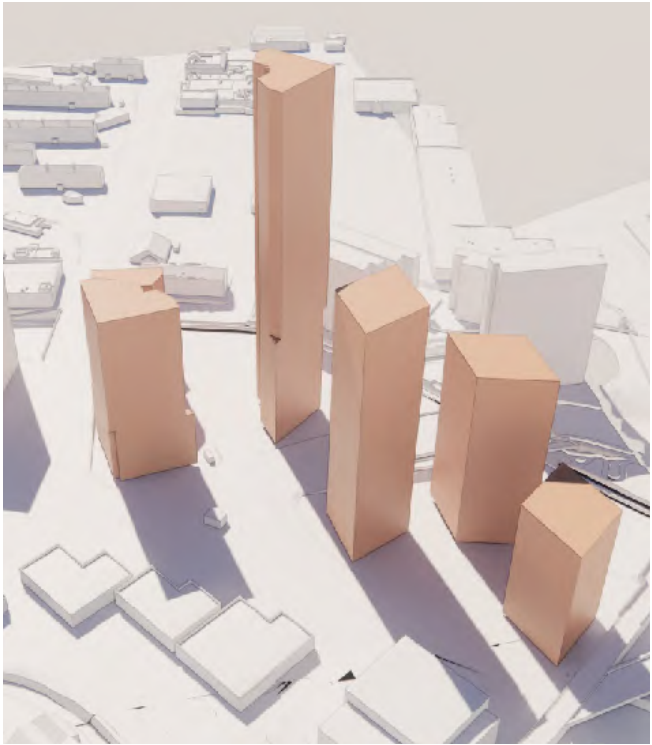
Gymnasium; meeting rooms / business lounge; resident's lounge; resident's garden

CAR & CYCLE PARKING

Private car park - number of spaces to meet approx. 30% of apartment provision across two basement levels, of which up to 20% will have 7kW EV charging facilities according to demand, with all spaces future proofed for further installation. Cycle parking – 1 to 1 parking provision provided in secure underground cycle parking areas.

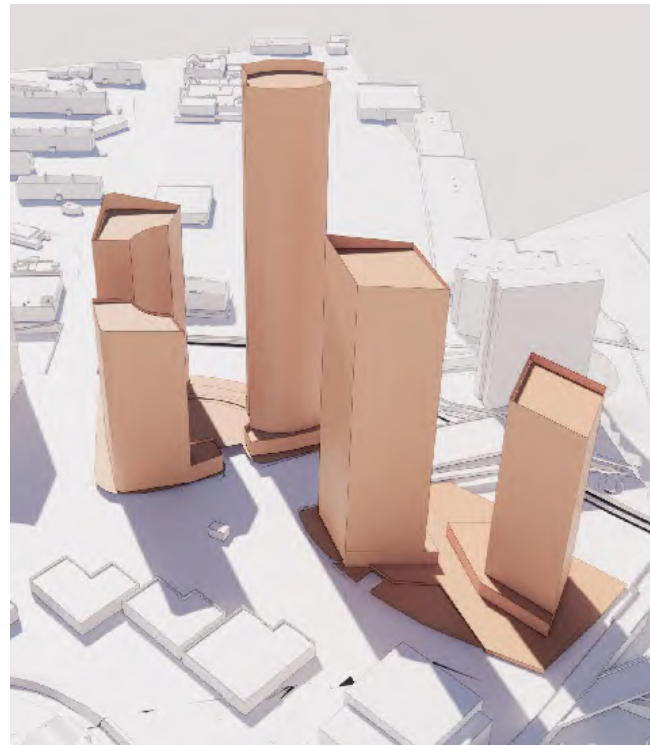
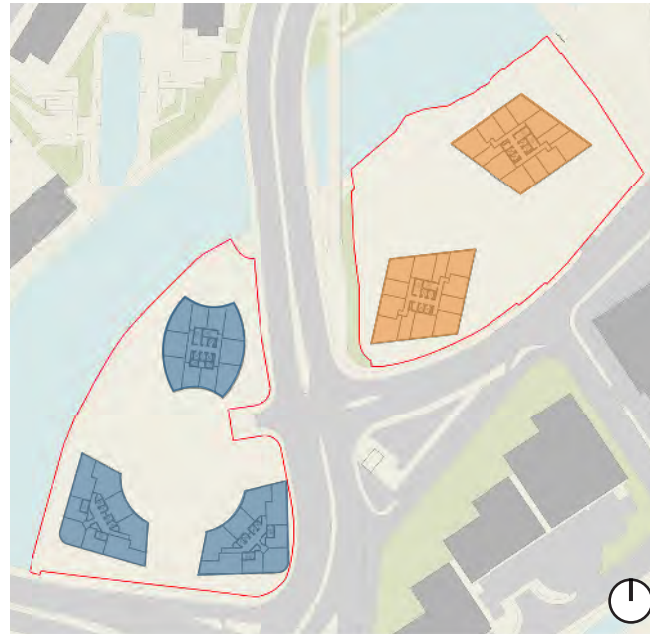


Initial Sketch Proposals



Massing Version 01

- 6 towers
- 2 tower typologies - 1 used on each site
- Each tower locks into site corners
- Centralised public realm spaces

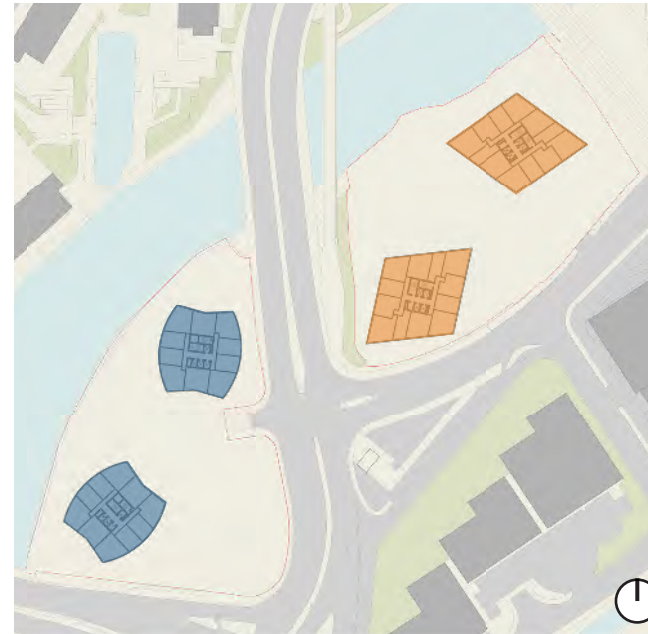


Massing Version 02

5 towers

Site C 2 towers to maximise space and public realm between buildings

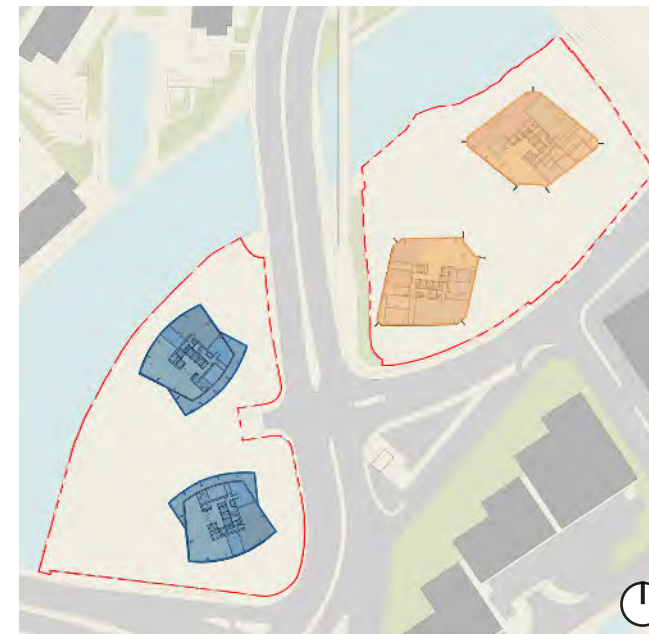
Towers set in from boundary to improve buildability and max offsets from road



Massing Version 03

4 towers - 2 pairs of towers

Site D also becomes 2 towers to maximise space between buildings and area of public realm



Massing Version 04

Tower D2 relocated to Regent / Trinity junction

Tower D2 rotated 90 degrees

Introduction of open floor plates at low levels

3.3 Concept Design

Having developed the brief with the client, a series of massing arrangements have been tested and refined over the pre application period. The initial proposals tested a series of new plan forms, to generate buildings that within the city context provide a unique sense of identity to each site at Trinity Islands. The variety of tower plans were consistently reviewed to ascertain their efficiency, which in turn fed into the viability model to ensure a high-quality design response could be delivered. The efficiency extends into the building section where careful consideration is given to stacking services to ensure minimal ceiling voids, enabling a low floor to floor height to generate floor to ceiling heights of 2.4m to residential floors. This minimises the overall height of the building.

THREE BUILDINGS PER SITE

Our initial proposals considered ways in which up to 3 buildings could be located on each site, whilst maximising overlooking distances, addressing key junctions and generating key routes through the site to improve connectivity with the surrounding area. Gaps between built forms were also considered when viewed from the critical viewpoints in and around the Conservation Area. The multiple tower forms would read as a cluster on each site. Scale was considered to enhance the gateway setting, with lower building forms stepping down towards the adjacent context, and in particular that of the heritage assets in the Conservation Area setting. The use of typical floor plates with between 10 -12 apartments per floor not only offer efficiencies in construction programme, but also enable a variety of building heights to be generated that provide the requisite number of apartments within each plot. Initial diagrams arranged c. 2,000 apartments across six buildings. Upon reflection, through more developed design studies, the constraints of the Site, in particular the available area to position and logistically construct three separate buildings began to compromise the arrangement.

TWO BUILDINGS PER SITE

A series of options for two buildings were explored, maintaining the same quantum of accommodation. Two buildings rather than three allowed a more elegant massing response to be developed with greater separation between the two buildings. Reducing the number of buildings however impacted upon the quantum of apartments. It was necessary to increase the height of the buildings to make up the shortfall, but it was possible to achieve this however in a lower number of total storeys. Fewer buildings offered more public realm space, better views from and between buildings and more generous connections from the site into the Conservation Area.

FORM & MASSING

Each tower has a distinct plan form resulting in a dynamic massing arrangement. The rotation of the towers enables the viewer to understand the repeated form when viewed from any given location.

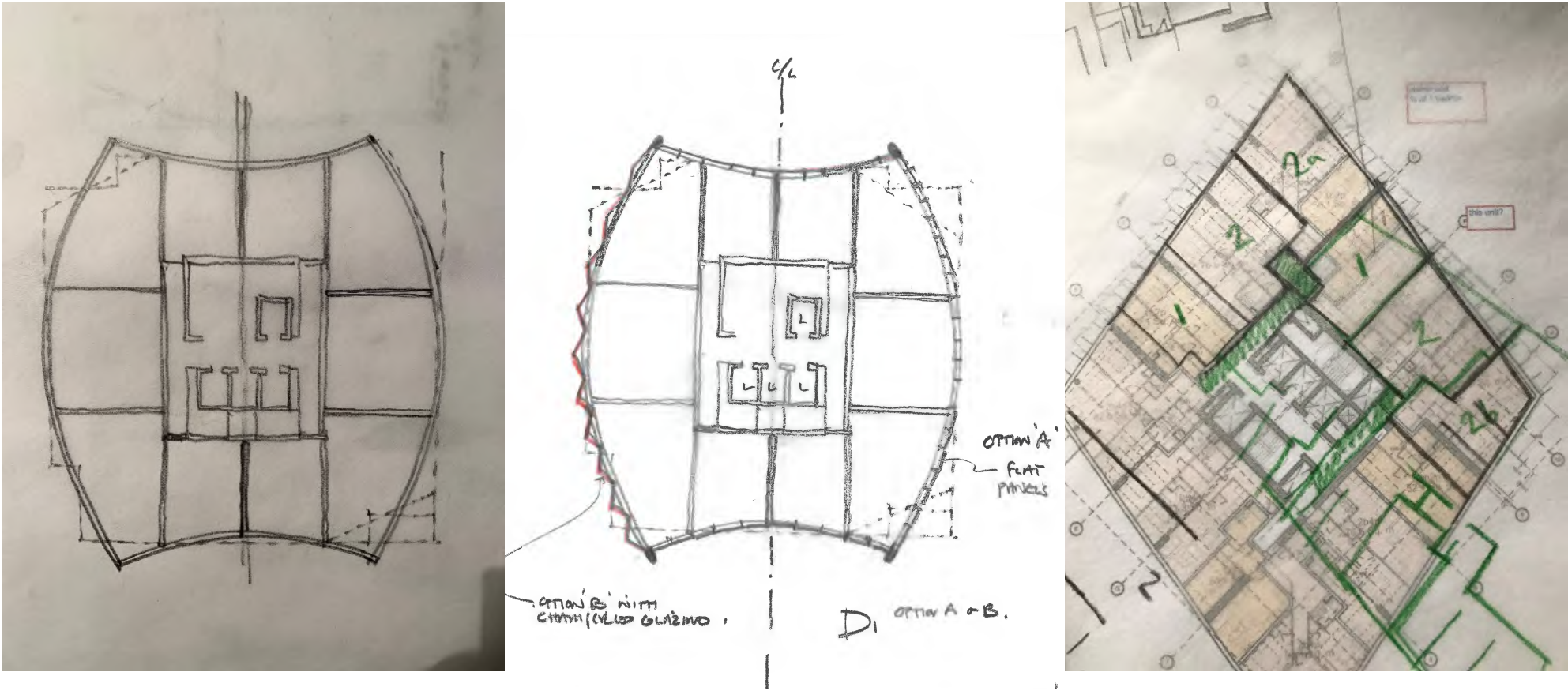
The towers on Site C utilise a diamond shaped plan. The different angles of the adjacent diamond corners express a ‘prow’ to each building, providing a sense of movement and expressing the orientation of the building form towards key views or adjacent context. As a pair of buildings the diamond forms rotate across the site, so the viewer appreciates the whole form through interpretation of both buildings simultaneously. The massing breaks down at the lower floors to express cut out amenity spaces, to step the sense of life and activity from ground floor landscape level into each building form. This is done within the footprint of each tower to retain a clean-cut, crystalline appearance to each building.

On Site D the tower forms are unique to the site, the curved geometry of opposing faces enabling the taller marker building to lock into the natural curvature of the River Irwell, or the opposing tower to do similar at the junction of Trinity Way and Regent Road. The inflected building faces accentuate the contrast with the outer curved face; these simple moves not only generate a more slender overall tower form but will encourage the moving daylight and shadow to render the building forms differently depending on time of day or year. Both towers are elevated above a series of exposed columns; responding to the rise in adjacent roads as they pass over the Irwell via their elevated bridges.

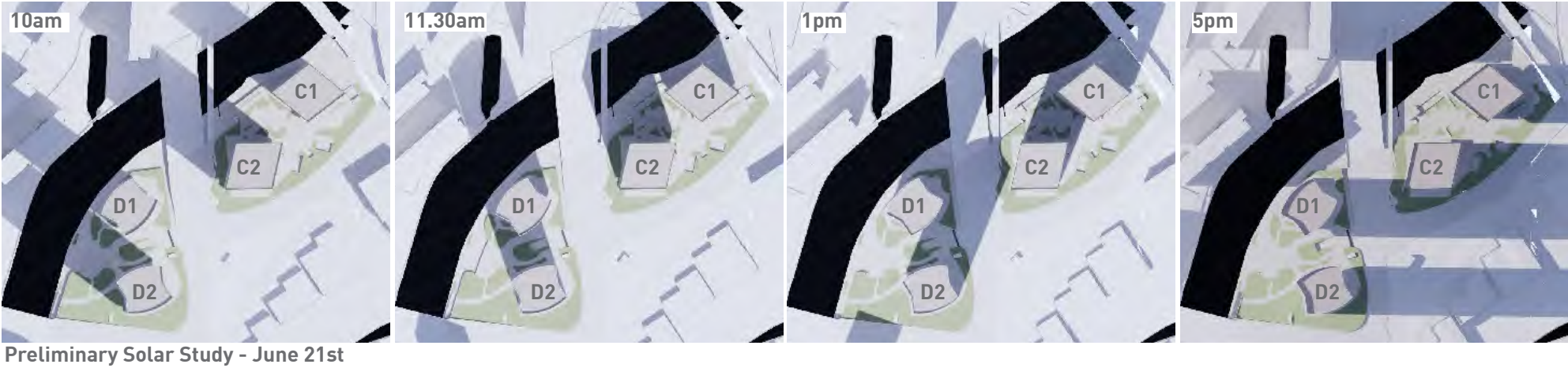
SCALE

The height of the towers varies by 21 storeys from C1 (39 storeys) to D1 (60 storeys) Buildings of this scale are consistent with the previous planning application for the site, albeit the tallest proposed towers in D1 is lower than the previously consented scale. Tower forms step down to adjacent context; on Site C the smaller tower sits adjacent to the Heritage assets located in and around Liverpool Road and the MOSI; whilst the step down in height on Site D continues beyond in the form of One Regent, the opposing side of Regent Road. The taller buildings sit either side of Trinity Way in a gateway setting; the tallest point of the development therefore creating a visual connection between the adjoining islands sites, which helps unify the two pairs of buildings to read as one development when viewed within the cityscape.

Scale, orientation and location of each tower has also been assessed to ensure all areas of the public realm benefit from direct sunlight at differing times of the day.



Sketches - Refining the Form





View looking North



View looking West

2017 ALLIED LONDON SCHEME - SUMMARY

The following figures summarise the proposed development quantum and uses against those defined in the 2017 Allied London committee approved scheme.

PUBLIC SPACE

The figures have been calculated for the entire site (Site C and Site D):

2017 Approved Scheme	1.69 Ha Total	0.4 Ha public	24%
Trinity Islands Proposal	1.69 Ha Total	1.29 Ha public	76%

The amount of public space across both sites has been substantially increased in comparison to the approved scheme (at three times the area). Whilst the St Johns SRF proposes improved connectivity to the River Irwell to create a newly formed waterside location, both proposals re-open the riverside edge as a pedestrian link across the site. Renaker’s proposal supplements this with significant areas of additional ground floor public realm at the heart of both land parcels, which strengthens connectivity to the surrounding area, increases biodiversity and provides a significant destination for high quality external public realm.

FORM & MASSING

The 2017 approval uses the same architectural approach across both sites, with individuality generated through use of coloured façade elements. The proposed development intends to use pairs of different and unique building forms, to provide identity to each site within a cohesive whole.

Whereas the 2017 approval utilised an above ground 3 storey podium across both land parcels, the proposals restrict lower level floors to within the tower footprints to maximise public realm space.

ACCOMMODATION

The number of residential apartments has increased by circa 40% compared to the existing planning permission, yet efficiencies in building form enable the larger quantum to be accommodated in fewer buildings over a comparable number of floor plates

2017 Approved Scheme	(180+306+454+270+180)	1,390 units
Trinity Islands Proposal	(414+521+532+483)	1,950 units

Therefore, the proposals represent a more efficient use of the City’s finite brownfield land supply and will make a greater contribution to the identified need for new homes.



Proposed Area of Public Realm



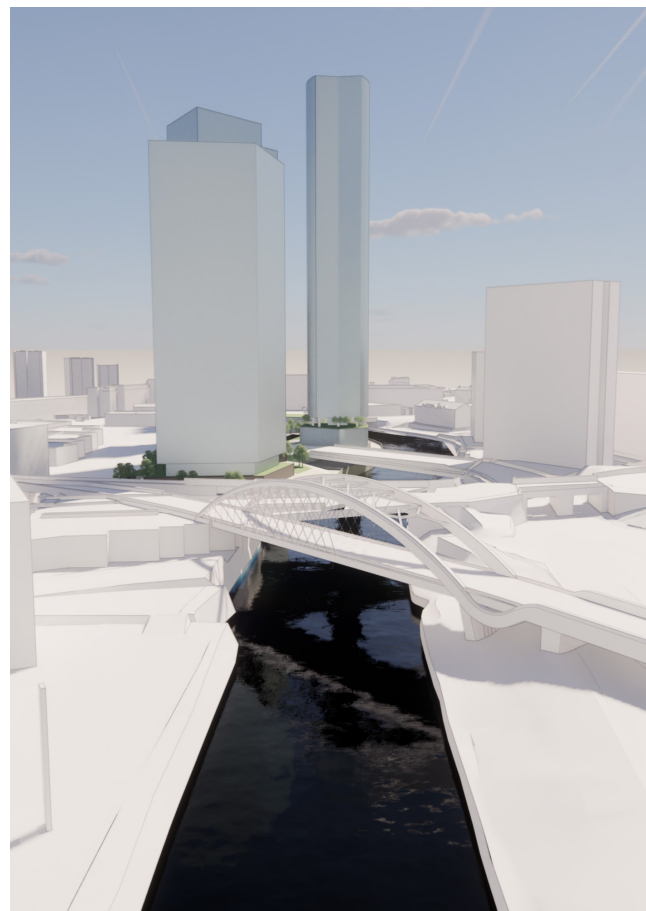
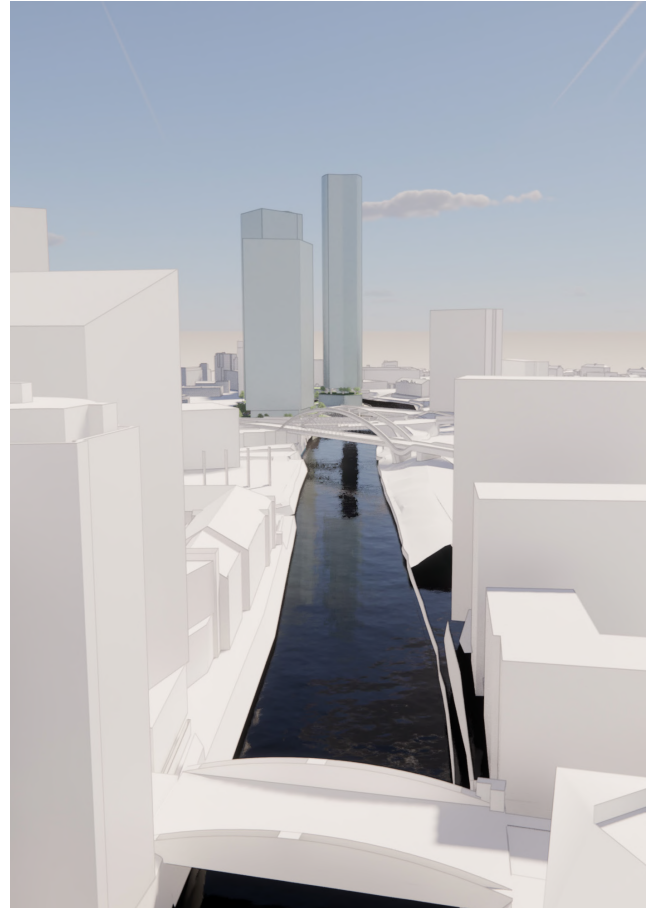
Area of Public Realm in Consented Scheme



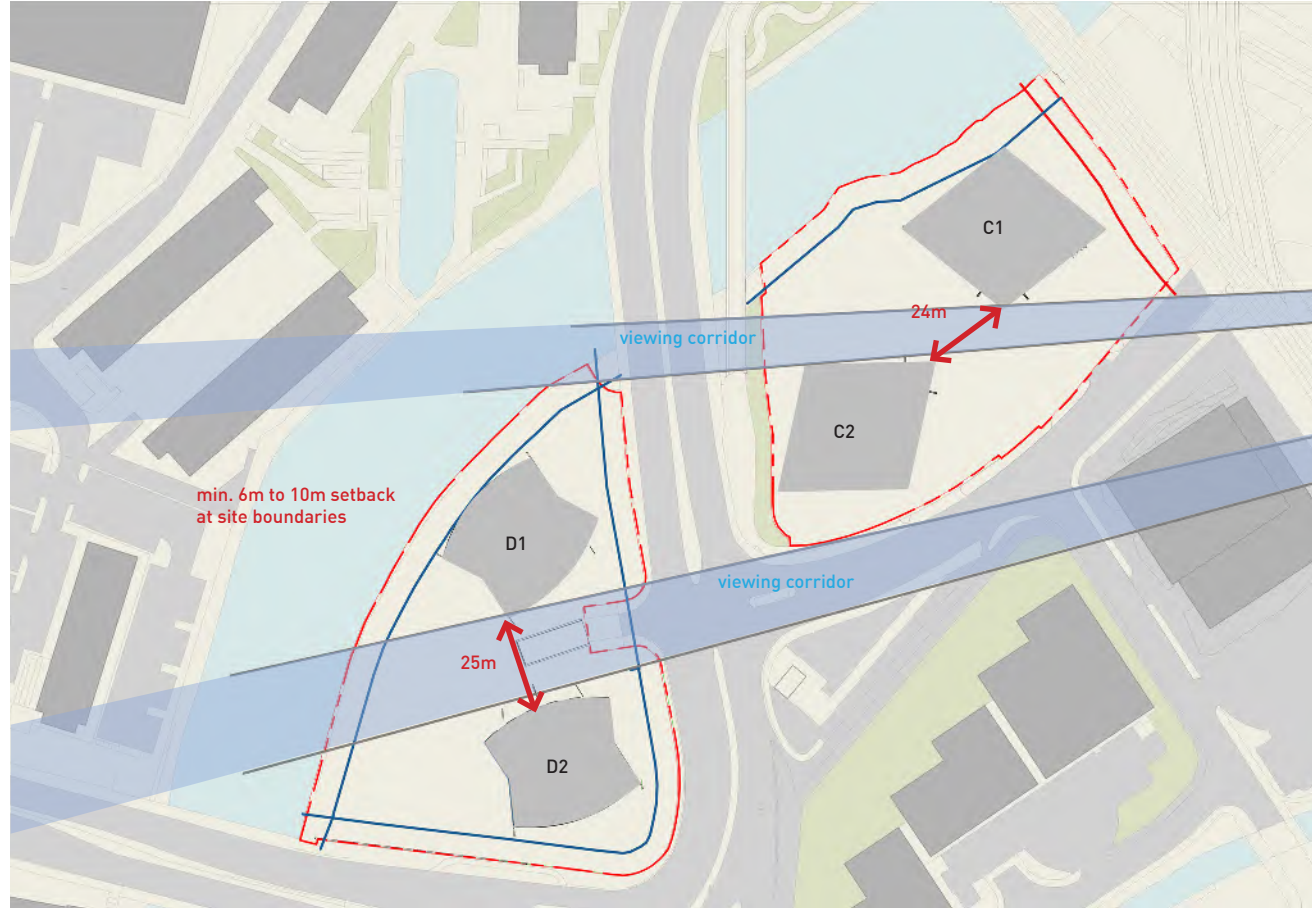
View of Trinity Way Bridge



View of Regent Road Bridge



Kinetic View along River Irwell



Relationship between the Towers

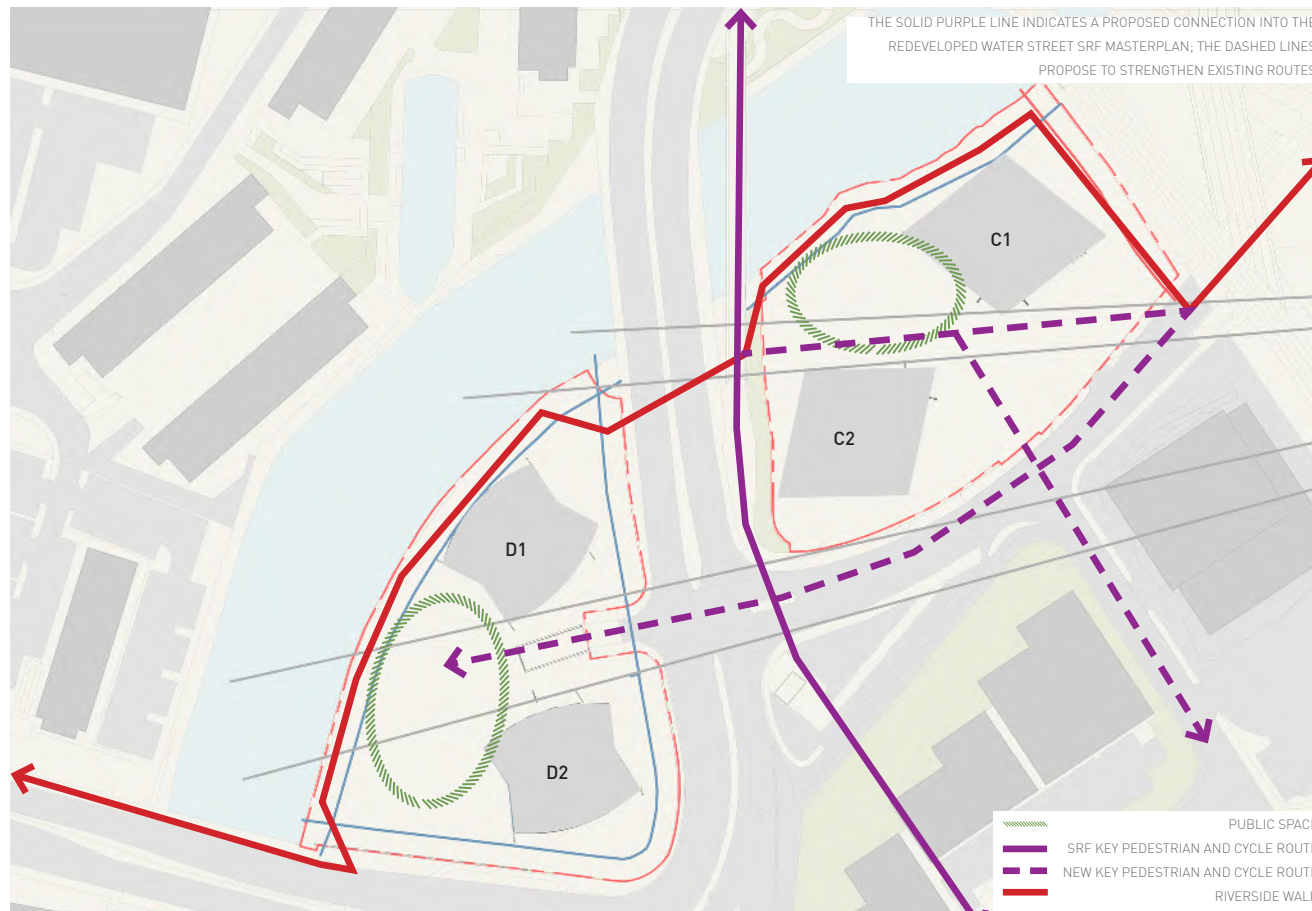


Figure Ground - Proposed Spaces and Connections

SCALE

Consolidating the accommodation into four towers from five has had little impact in the overall number of storeys when compared to the 2017 scheme, but delivers 40% more apartments in order to increase viability and ensure a high quality proposal.

2017 Approved Scheme	26 + 41 + 67 + 37 + 26	197 storeys
Trinity Islands Proposal	39 + 48 + 60 + 55	202 storeys

A larger number of apartments per floor has enabled this greater efficiency in the quantum of development.

USE

In line with the Water St and St Johns Frameworks the proposed uses are predominantly residential with associated car parking and significant public realm included. "

2017 Approved Scheme	Residential / Car parking / Public Park / Education / Boat Club / Gym / Commercial	
Trinity Islands Proposal	Residential / Car parking / Public Realm / Commercial	

CAR PARKING

The proposed number of parking spaces is slightly reduced from those proposed in the existing planning permission, with % provision reduced by 25%.

2017 Approved Scheme	581 spaces	(42% provision)
Trinity Islands Proposal	556 spaces	(29% provision)

BUILDING SEPARATION

Reducing the number of towers from five to four has allowed the separation distances to increase by 50% at the tightest points.

2017 Approved Scheme	16 metres
Trinity Islands Proposal	24 metres

The minimum face to face distances between the proposed buildings exceeds the minimum target distance of 20m, identified within the Manchester Residential Quality Guidance. Furthermore, the minimum distance between the proposed buildings and the nearest residential buildings measures 54m across the river, and 58m across Regent Road.

3.4 Consultation

The following section provides a high level overview of pre-application consultation undertaken in respect of these proposals. Please refer to the submitted Statement of Consultation for more details.

THIRD PARTIES

The scheme has been developed in consultation with the Local Planning Authority, Statutory Consultees, key stakeholders and adjoining owners and occupiers. As part of the consultation process, the following key stakeholders have been engaged:

- Manchester City Council
- Historic England
- Greater Manchester Police
- Local Ward Councillors
- Local businesses including MOSI and The Factory and local residents
- Places Matter Design Review

PLACES MATTER

The Proposed Development was subject to a virtual Places Matter Design Review on 14th July 2021, early enough in the design phase to allow comments and feedback to help improve the Proposed Development. The Places Matter Panel were very positive about the design quality of the Proposed Development concluding their feedback with the following:

“The Panel supports this scheme and the principle of tall buildings at this arrival point to the city. The extent of the public realm creates convincing and meaningful space in the figureground plan.

Overall, you are making the right moves to connect this new place back to Manchester.

In summary, the Panel thanked you for bringing the scheme to Design Review and was supportive of your overall approach and design ideas. It is evident that the design for the towers is well advanced and convincing”

The detailed feedback is shown overleaf and the design team’s response to their points have been summarised in the next couple of pages.

HISTORIC ENGLAND

In response to a virtual presentation made to Historic England on 25th August 2021:

“...we conclude...the plans appear to show a greater sense of separation between each of the tower units, thereby reducing further the potential for the development to be read as a homogenous block. This therefore partly reduces their potential overbearing nature...[Historic England} do not raise any additional concerns to those that were considered in the assessment of the previous application on the site...”

Please refer to the supplementary Planning Statement by Deloitte which demonstrates the public benefits of the scheme.

THE VISION

Over the past five years, Renaker Build has delivered some of the city’s highest quality residential schemes, which are creating new vibrant, safe, secure and sustainable communities within the City Centre. Renaker are now bringing forward proposals for a new development within the St Johns and Water Street Strategic Regeneration Framework (SRF) areas.

The transformation of St John’s and Water St is already well underway with a number of schemes under construction comprising a mixture of office, leisure and residential uses. These frameworks work in hand to create a vision for the Trinity Islands site, effectively helping to guide these current development proposals.

Renaker are seeking to extend these phases of regeneration by bringing forward a new landmark development opportunity, helping to extend the urban fabric of the City Centre. The four elegant towers proposed at Trinity Islands will provide a new landmark gateway to the city centre whilst also offering a high-quality place to live. At ground level, significant investment will integrate the scheme into this evolving part of the city.

Renaker’s proposals seek to provide up to 2,000 new, high-quality homes on the site, as well as a significant amount of public realm for the city to enjoy. The proposals continue the visions of the SRF’s and seek to enhance the neighbourhood with green spaces, as well as increasing pedestrian connectivity and enhancing the relationship with the River Irwell.

AERIAL VIEW - LOOKING NORTH



SITE LAYOUT, ACCESS AND SERVICING

The site layout provides a considerable quantity of public realm which is connected both to the surrounding streets and to a riverside walkway which will provide a pedestrian route along the River Irwell from Regent Rd, below Trinity Way and ultimately, subject to proposals being delivered by others, through the railway arches to the east of the site to St John’s.

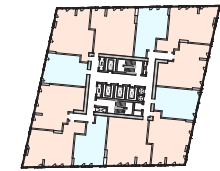
The scheme will deliver a sustainable transport strategy, providing circa 30% car parking, which will include capacity for 10% EV charging points and potential to increase this in future, subject to demand. It will deliver 100% cycle parking provision. All servicing will be carried out discretely, at grade, within the site boundary.



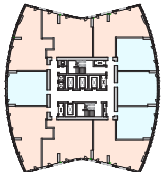
ACCOMMODATION

The building designs propose a mix of one, two and three bed apartments, with a range of residential amenities at the lower levels that will be accessible to all occupiers.

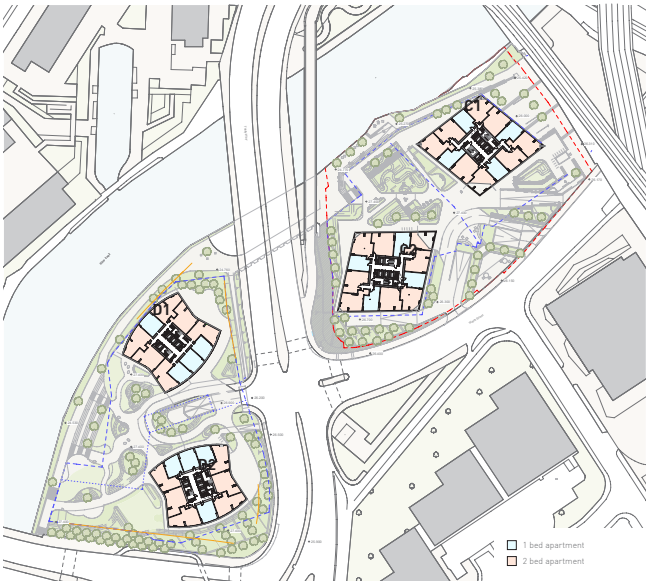
Renaker has a track record of delivering some of the City’s highest quality residential homes and, as is customary in their other developments, all apartments at Trinity Islands will exceed Manchester’s minimum residential space standards and will be fitted out to exceptionally high standards.



C TOWERS - TYPICAL FLOOR PLATES



D TOWERS - TYPICAL FLOOR PLATES



AMENITY SPACE IDENTITY / CHARACTER



Over the lower floors, each of the towers benefits from its own series of connected terraces and amenity spaces.

PUBLIC REALM SITE D



LANDSCAPE PRECEDENT



PUBLIC REALM SITE C



LANDSCAPE PRECEDENT



PUBLIC CONSULTATION

Renaker Build Ltd provided a public consultation website between the period 2nd to 31st August 2021, via which members of the public could find information related to the proposals and leave comments and feedback. In addition, a consultation webinar event was held on Thursday 12th August 2020 between 17:30 – 18:30, with invites being sent out to local residents (over 2,500), Ward Councillors and key stakeholders. This included a presentation of the proposals by the design team and enabled a Q&A session to be held with the team and client. The event was also publicised in a press release to maximise public awareness of the project.

Of the feedback received via forms or by email, 41.25% of respondents were in support of the Proposed Development with a further 25% unsure. Support for a residential led mixed use scheme was at 77.5%, with 90% supporting the inclusion of public realm and landscaping.

Details of the communications/engagement tools used can be viewed in the Statement of Consultation, along with a summary of the comments and queries raised and responses to those queries.

EVALUATION

Throughout the process of developing the vision across Trinity Islands, the team has taken on feedback and been available to clarify any queries.

DESIGN EVOLUTION

The existing planning approval for the Trinity Islands site, obtained by the previous site owner, comprises 5 residential towers, elevated above a 3 storey podium which included significant quantities of commercial space and two storeys of above ground car parking. There was an elevated, residents garden at level 3, although the proposals provided only a limited quantity of public realm at ground floor level. The five towers ranged in height between 25 and 66 storeys.

Renaker are keen to improve on the site layout to open up the development to the river, providing accessible public realm for the benefit of all, improving access to the riverside walkway and connections across the site and improving daylight and sunlight conditions at ground level. The drawings adjacent illustrate a few of the iterations of size, shape and position of buildings on the two sites that have been considered by the design team in relation to minimising environmental impacts as far as possible and supporting the key priorities of the SRF.

The developed proposal, now comprising two pairs of residential buildings, are considered to connect Trinity Islands better into its immediate context and to make a positive contribution to Manchester's changing skyline.

DESIGN DEVELOPMENT



BUILDING DESIGN & MATERIALS

Delivering a high quality design for such prominent sites is key and the emerging concept has been designed to make a positive contribution to Manchester's skyline. The scheme proposes four towers, ranging in height from 39 to 60 storeys, arranged to provide an interesting and varied profile that steps down in scale towards St Johns.

The designs for the two pairs of residential towers seek to define two separate developments each with their own specific identity. On site C the buildings are conceived as diamond forms with a crystalline façade, providing interesting and varied reflections. On site D, a design is being developed which seeks to emphasise the verticality of the buildings' elegant curved facades.

SITE C



SITE D



3.5 Places Matter!

Detailed responses to the Panel’s feedback has been provided below (Design team response in orange)

This is an arrival point to the city and a good location for tall buildings, on what is at present just a “gash site”. This gives it a background place feel at present and so how much of a destination it can become will be down to the uses which you add to attract people. In this respect, site C is more naturally connected to its hinterland and will draw people from the city. You will need to work much harder to avoid site D remaining an island site and the lack of control under the bridge could hinder this.

We agree that simpler opportunities for connectivity exist for Site C into the surrounding area, and provision of public commercial spaces at ground floor will encourage movement into this part of the site from it’s surroundings. Connections to Site D are proposed at Regent Road in two locations and at locations on Trinity Way that connect directly into the established road crossing positions. Our proposals also increase the depth of pavement in these locations to strengthen pedestrian connections from street level into Site D. Engagement has been undertaken with Network Rail to discuss potential improvements to the route underneath Trinity Way that connects both sites.

The connections being made to the river are much clearer and the sections helped to understand that. Overall, this looks like a convivial place to be, unlike the opposite bank, which does not. In terms of the well-being agenda the Panel asked you to consider opportunities for urban allotments and family play, which is lacking in the city, and which you could make a visible attraction of the scheme.

We have introduced an area for family play within the extensive public realm space on Site D, which also encourages people to utilise this part of the development site. Allotments were considered but discounted in order to maximise the offer of available public realm space.

From a strategic point of view, the Panel questioned the need for so much car parking in this city centre location.

The Site is located on the edge of the City Centre, adjacent to the Ring Road and surveys of similar locations show that there is a moderate levels of demand for car travel even following the effects of the COVID pandemic on travel behaviour. The Governments Transport Strategy is based around decarbonising car travel (such as the transfer to electric) and encouraging use of sustainable modes rather forcing a reduction in car use. Therefore there will continue to be a moderate level of parking demand at Trinity Islands and this level of parking provision is therefore compliant with National and Local Policy Guidance. The % car parking provision is significantly lower than the SRF envisaged, and less than that previously approved, whilst the % of cycle provision is 100%. This will result in a much higher update of more sustainable forms of transport, particularly walking and cycling

The public realm is truly presenting itself as a new waterfront park, accessible from the city. But the connections will be a challenge and you were asked to study this further to make sure you make a success of this. You have addressed the issue of

flooding in terms of uses within the towers, but there remains as question over what happens to the landscape itself when it floods. You need to consider the fine detail of how people who don’t live at the new place will deal with this.

The 1 in 100 year flood level will only flood the riverside walkway, with the majority of the site landscape elevated above existing pavement levels and the flood level. Access to the affected areas will be limited during these rare occasions and a management strategy agreed to temporarily close access during these events. This will not prohibit use of the site or any of the access and approaches to accommodation.

The key to the buildings will be your approach to the first four floors and you were applauded for the way in which you had broken these down. You were asked though to consider how you might blur the distinction between these and the public realm further in connecting these amenity floors and terraces to the landscape below. Don’t risk the ‘plinth’ disconnecting the towers from the landscape below in your efforts to ensure resident security.

Initial options to generate identity and character to the lower floor terraces are outlined in more detail in this DAS. The sheltered nature of these spaces alongside the mutli-functional nature strenghtens the ambition to ensure these are used throughout the day and the year - always ensuring activity overlooking the public realm. The spaces will be free to access for all residents, so security can be maintained whilst ensuring a wide range of functions and individuals can use the spaces all year round.

Wind modelling will be key to ensuring that the public realm feels comfortable and whilst your CGIs look great, they are not doing the landscape justice or representing the true scale of the and generosity of the public realm yet. You might also consider how the terraces might offer opportunities for small scale events as part of your destination strategy for the new place.

Renaker have shown significant foresight on previous programmes where extensive public realm is concerned. Using the now occupied and activated ‘Deansgate Square’ development as an example, the public realm space has been key in a responsive strategy where residents’ physical, social and mental wellbeing has been prioritised through a challenging period for those living in apartment accommodation. Small, intimate events designed to encourage community have proven successful, and have been given precedence over larger ‘placemaking’ type events designed to draw further crowds towards the space. Using pockets of space within the generous and extensive public realm, Renaker aim to create a dense programme of events which will allow residents to become advocates for their home. By focussing on them and their wants and needs, they will naturally encourage friends and acquaintances to join them in ‘their’ spaces - creating an organic attraction and a genuine ‘place’.Despite comprehensive indoor fitness spaces, outdoor fitness is popular and the fitness teams will be expected to deliver classes and clubs both inside and outside using the fixtures to create interesting and exciting activities - for example, the railings on the private gardens at Deangate Square are used to host barré classes and the flat, clean landscaping of the main square provides ample space for HIIT and circuit training

In terms of massing, the Panel did not have an issue with the height of the towers and in any case, the precedent has been set by the previous planning consent. The critical issues are the composition and the view from MOSI. The elliptical towers were thought to look elegant, but the diamond towers are broader and more horizontal in nature, so you were asked to explore more views from MOSI.

The Visual Impact Assessment covers 21 views - many of which are from MOSI and surrounding areas. Refer to the Heritage Report for detailed assessments on the level of impact generated by the proposals.

From a heritage impact perspective there will always be a balance to be struck and the overwhelming positive is the extent of the public realm provision. In the current proposed view from MOSI the combination of the width of the C1 and C2 diamond towers combined with the perspective aligning the top of the towers is risks creating the impression of a wall of development. In discussion you suggested that twisting C2 to present its slenderer side might help provide a visual breathing space between the towers in this view.

We believe the note above should read ‘twisting C1’, as C2 already has it’s slenderest side addressing the MOSI view? The current proposals achieve a breathing space between towers which is comparable to the existing planning permission. Having tested alternative orientations for C1, any rotation would reduce either the distance between the towers or the clearance required for servicing and access adjacent to the viaduct, at little additional benefit to the MOSI view in terms of minimal reduction in apparent width of the building form. The current ‘prow’ addressing MOSI offers the potential to read the building form as 2 distinct surfaces which will change in appearance as the lighting conditions evolve throughout the day which we feel will help to break down the perceived width of the tower. Subsequent feedback from Historic England felt the proposed massing was less over-hearing than the previously consented scheme.

Test the view from MOSI further, including the impact of the fenestration proposals. The fenestration pattern to C1 and C2 had a horizontal feel and the Panel was concerned that this may accentuate the width of the towers in the MOSI view.

Since presenting to PM! we have reviewed the fenestration proposals from this viewpoint and discussed during our further meetings with HE and MOSI. The stacked use of horizontal lines every three floors enables the building form to be read coherently.

The vertical groove running up the elliptical towers was felt to be strong. The proposals for these towers have two curved facades with a groove between them. There are fins on the curved sides and sheer glazing to the groove. You were asked to explore an alternative that kept the curved side smooth, which may express the curvature of the building better and use fins to further accentuate the verticality of the groove.

The form is a unique response that differs to potentially similar tower forms in the Great Jackson Street masterplan. The switch in texture from concave to convex face doesn’t enable the building form to be read any more clearly. The fins are nominal in size to add a verticality to the curved face and increased sense of depth.



Background

The site is the two existing surface car parks either side of Trinity Way, adjacent to the River Irwell, Regent Road and Water Street. It falls within the Water Street and St John’s SRF area within the boundary of the Castlefield conservation Area.

The proposal seeks to build four towers varying in height from ground + 38, to Ground + 59 storeys, a total 1922 apartments, together with significant new riverside public realm, over 76% of the red-line area. Some 580 basement car parking spaces will also be provided.

Design Review

The Panel thanked you for your very clear presentation, but noted that it would have been useful to have sight of this in advance of the Design Review to aid understanding of such a large scheme, given the context of the previous planning consent. It was also noted that Historic England had yet to be consulted.

This is an ambitious proposal which is striving to create a new place in Manchester and to connect that with River Irwell. The extent of the public realm creates convincing and meaningful space in the figureground plan, which is working very well. The Panel applauded the public realm strategy and the extent of space being provided.

This is an arrival point to the city and a good location for tall buildings, on what is at present just a “gash site”. This gives it a background place feel at present and so how much of a destination it can become will be down to the uses which you add to attract people. In this respect, site C is more naturally connected to its hinterland and will draw people from the city. You will need to work much harder to avoid site D remaining an island site and the lack of control under the bridge could hinder this.

The connections being made to the river are much clearer and the sections helped to understand that. Overall, this looks like a convivial place to be, unlike the opposite bank, which does not. In terms of the well-being agenda the Panel asked you to consider opportunities for urban allotments and family play, which is lacking in the city, and which you could make a visible attraction of the scheme.



From a strategic point of view, the Panel questioned the need for so much car parking in this city centre location.

The public realm is truly presenting itself as a new waterfront park, accessible from the city. But the connections will be a challenge and you were asked to study this further to make sure you make a success of this. You have addressed the issue of flooding in terms of uses within the towers, but there remains as question over what happens to the landscape itself when it floods. You need to consider the fine detail of how people who don’t live at the new place will deal with this.

The key to the buildings will be your approach to the first four floors and you were applauded for the away in which you had broken these down. You were asked though to consider how you might blur the distinction between these and the public realm further in connecting these amenity floors and terraces to the landscape below. Don’t risk the ‘plinth’ disconnecting the towers from the landscape below in your efforts to ensure resident security.

Wind modelling will be key to ensuring that the public realm feels comfortable and whilst your CGIs look great, they are not doing the landscape justice or representing the true scale of the and generosity of the public realm yet. You might also consider how the terraces might offer opportunities for small scale events as part of your destination strategy for the new place.

In terms of massing, the Panel did not have an issue with the height of the towers and in any case, the precedent has been set by the previous planning consent. The critical issues are the composition and the view from MOSI. The elliptical towers were thought to look elegant, but the diamond towers are broader and more horizontal in nature, so you were asked to explore more views from MOSI.

From a heritage impact perspective there will always be a balance to be struck and the overwhelming positive is the extent of the public realm provision. In the current proposed view from MOSI the combination of the width of the C1 and C2 diamond towers combined with the perspective aligning the top of the towers is risks creating the impression of a wall of development. In discussion you suggested that twisting C2 to present its slenderer side might help provide a visual breathing space between the towers in this view.

Test the view from MOSI further, including the impact of the fenestration proposals. The fenestration pattern to C1 and C2 had a horizontal feel and the



Panel was concerned that this may accentuate the width of the towers in the MOSI view.

The vertical groove running up the elliptical towers was felt to be strong. The proposals for these towers have two curved facades with a groove between them. There are fins on the curved sides and sheer glazing to the groove. You were asked to explore an alternative that kept the curved side smooth, which may express the curvature of the building better and use fins to further accentuate the verticality of the groove.

In summary, the Panel supports this scheme and the principle of tall buildings at this arrival point to the city. The extent of the public realm creates convincing and meaningful space in the figureground plan.

Overall, you are making the right moves to connect this new place back to Manchester. Explore alternatives that accentuate the vertical groove and consider twisting C2 to avoid any sense of a wall of development.

The Panel thanked you for bringing this scheme to Places Matter Design Review and for your constructive response to participating in the ‘remote’ format. We have the option for Desk Review once you have refined your proposition and the discussions with the Planning Authority are concluded on this current proposal.



SITE

The arrangement of 2 buildings on each parcel of land, 4 across the site, has been proposed to maximise the amount and quality of public realm space at ground level; whilst each of the buildings is located and orientated to address key views from, and of, the site.

C1 is rotated to enable the prow of the building to address the city and Conservation Area heritage assets; locking into the corner of the site between the viaduct and the river's edge.

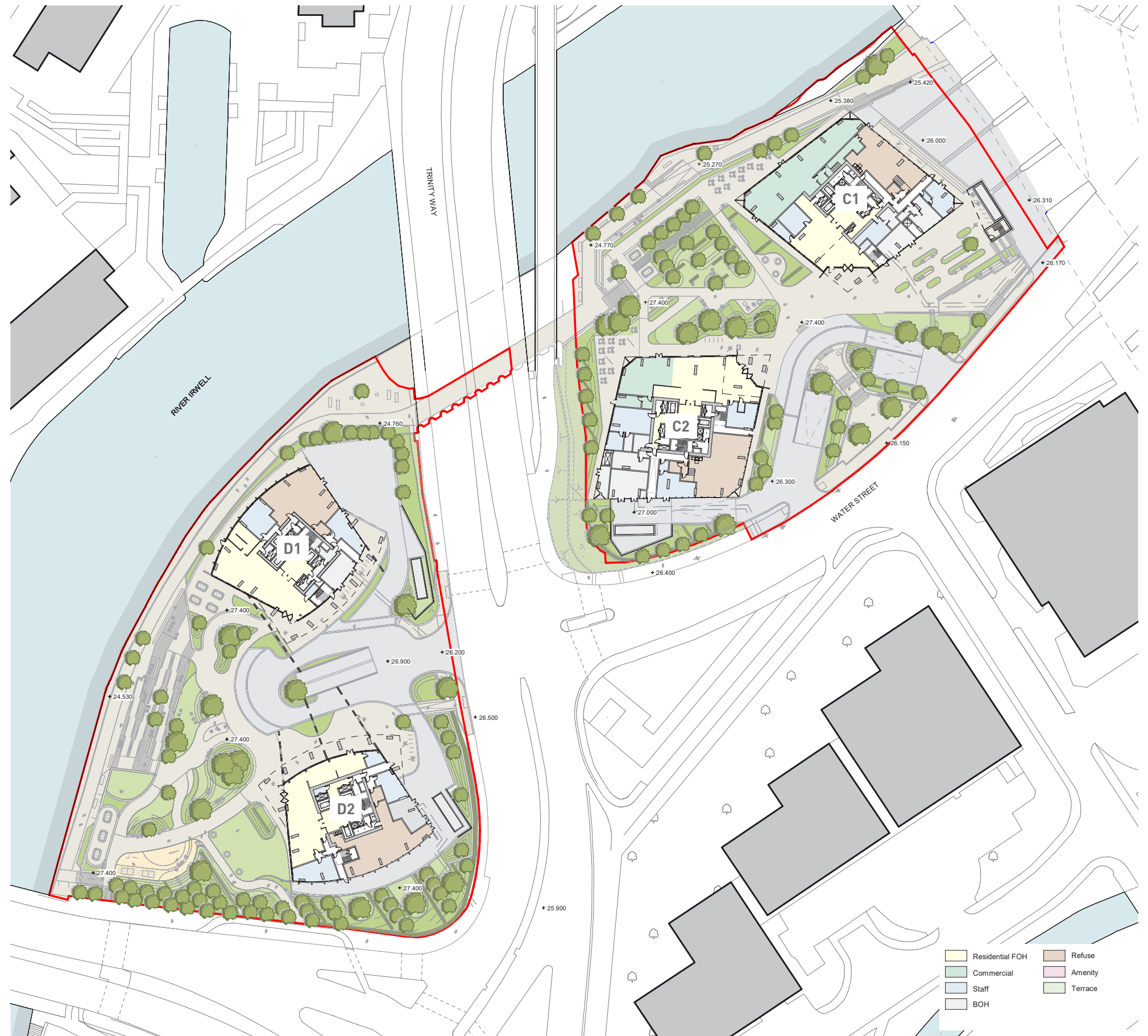
C2 rotates its long axis to align with the Water Street facing elevation of C1, juxtaposing alternative orientations of the repeated building form from any given elevation. The building provides a marker to the corner of the site addressing Trinity Way and Water St.

The setting of the 2 buildings enables servicing space to be adjacent to Water Street, giving public realm the benefits of being adjacent to the river.

D1 is orientated to follow the curvature of the River Irwell; with the inflected facade directed along the Irwell towards St Johns. It's relationship with C2 sets reinforces the gateway setting across the Trinity Way which divides the two sites. When viewed from the key heritage viewpoints these 2 buildings sit on a similar axis thereby reducing the visual appearance on the city scape to 3 building forms.

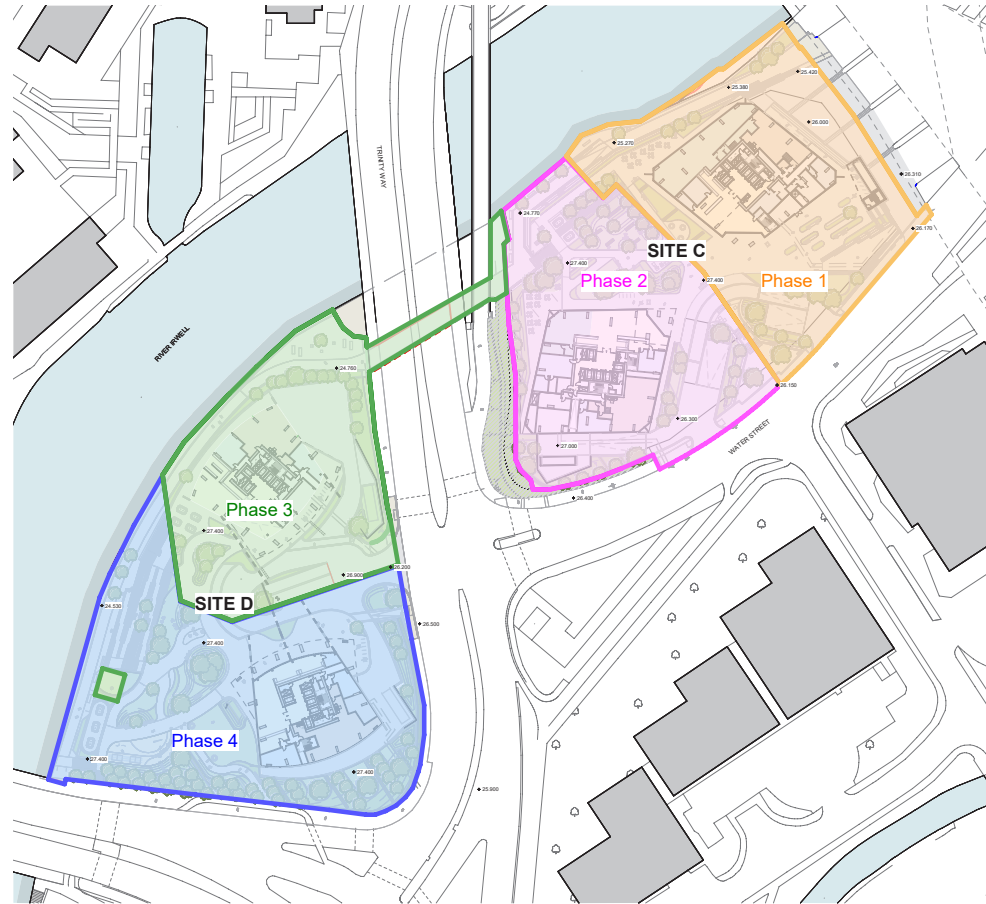
D2 uses the curved facade of the building to address the Trinity Way and Regent Road junction.

The relationship of the D towers enables them to address the drop off space in the heart of the site, which provides visual and physical permeability from the street to the large scale public realm created on the river's edge.

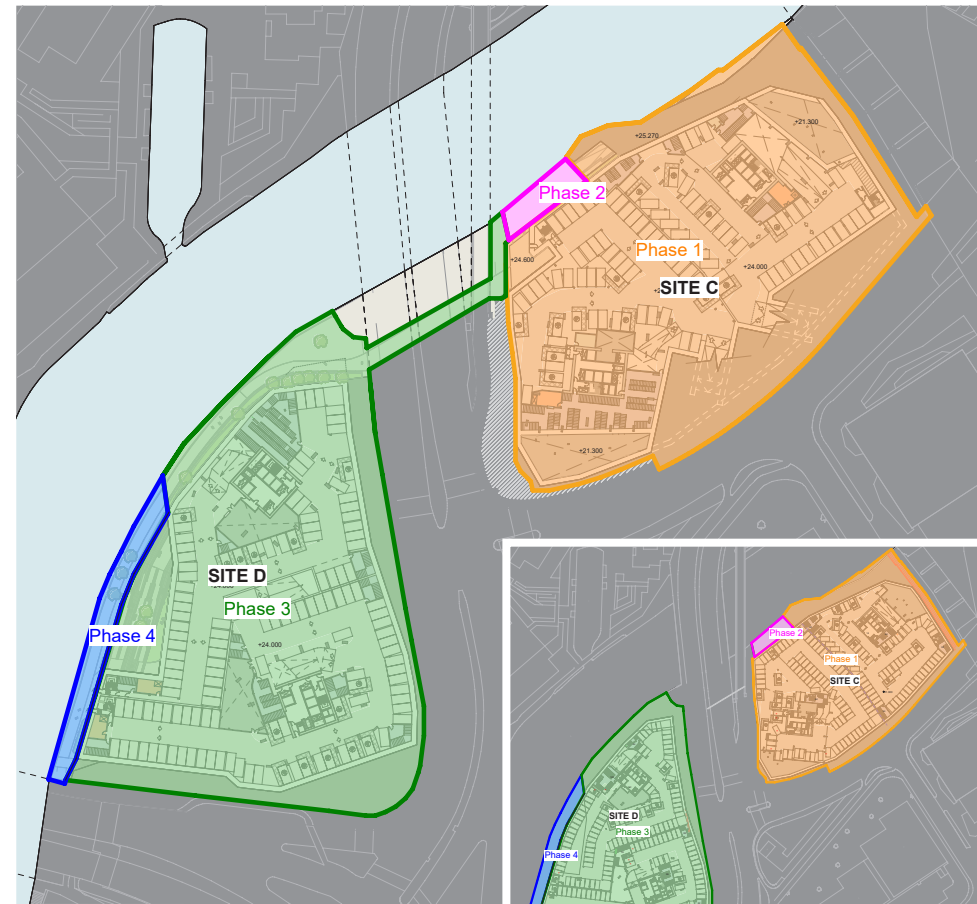


Site Layout Plan





Ground Floor Level



Basement Levels 01 & 02

PHASING

The Proposal enables each development plot to be delivered individually and in sequence. For further details regarding the phasing and sequencing of the development refer to the following drawings submitted as part of the application:

Z1-SHP-G000-PL-GRD-B5D802
Z1-SHP-G000-PL-B1-B5D801
Z1-SHP-G000-PL-B2-B5D801

PHASED DELIVERY - TEMPORARY VEHICLE ACCESS

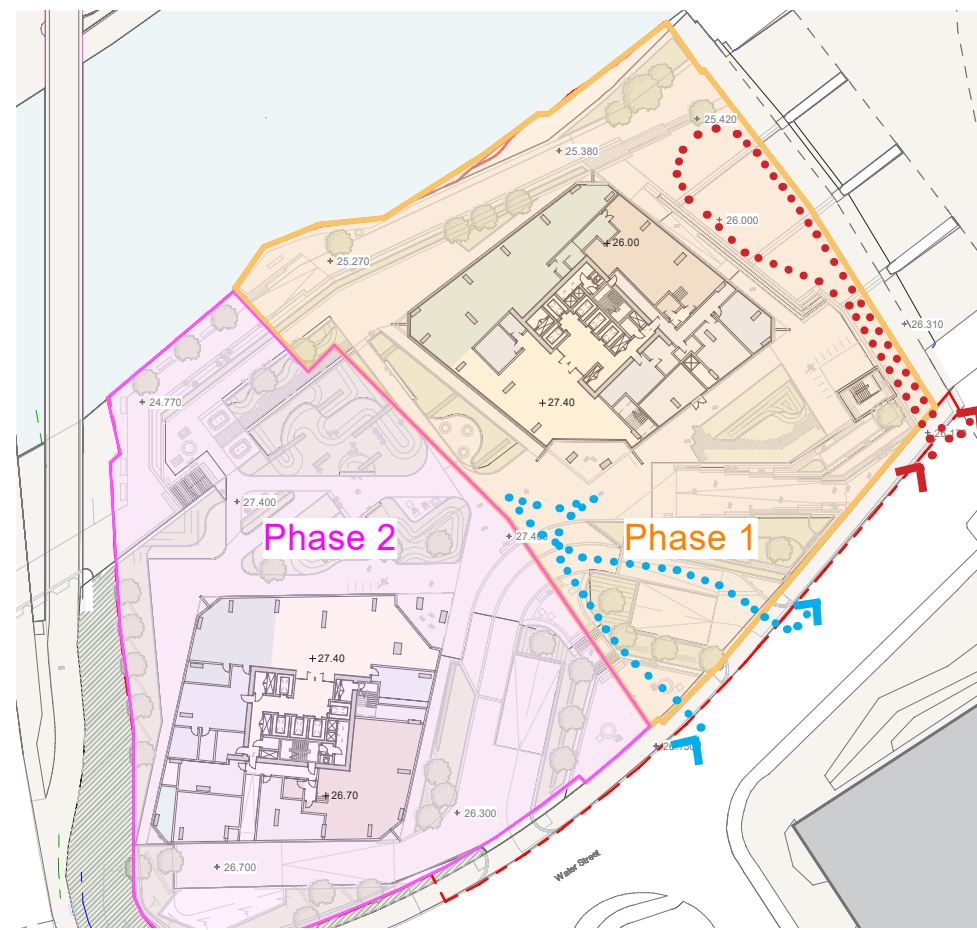
In the event that the first phase building on each site is completed prior to construction of handover of the adjoining building (i.e. C1 before C2; D1 before D2) Renaker have given consideration to a temporary means of vehicle access to each preliminary phase. Proposed operating solutions have been tracked and are described on the adjacent plans and as follows:

On Site C the service area adjacent to the viaduct will be complete and fully operational, and this will receive all servicing deliveries during the temporary condition. A dedicated front of house access for residential drop off and pick up will be created with a temporary landscaping and ramp solution around the C1 basement car park entrance as noted adjacent.

On Site D the service area to the east of the building will share both service and front of house residential drop off and pick up, still using the point of access into Site D opposing the Water Street junction.



Phase 3 (D1) Access - Phased Handover



Phase 1 (C1) Access - Phased Handover

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Service Access
- Resident Drop Off / Pick Up
- Shared Service / Resident Access



3.6 Layout (cont)

SITE C GROUND FLOOR

At ground floor accommodation has been arranged to maximise active frontage onto the large public realm areas, including close access to the drop off, and to ensure front of house space is overlooking the river. Each residential building benefits from a dedicated concierge entered directly from the new public realm, supplemented with associated residential lounge facilities within. Feature columns and a setback façade line mark the building entrance for the visitor and provide a sheltered arrival point.

Site C also proposes inclusion of commercial space, enjoying frontage onto the public park, and benefiting from river views. Located within C1 tower the potential bar and restaurant space is also positioned immediately adjacent to the viaduct arches, for optimum connectivity through to St Johns and the Factory.

Each building has a dedicated service bay area within the site boundary, which is separated from the front of house drop off and key pedestrianised spaces. This provides direct access to plant areas, bin storage and move in storage facilities.



Site C Ground Floor Layout





SITE D GROUND FLOOR

On Site D the front of house reception spaces are located to provide overlooking of the arrival / drop off space and the public realm and river. Each building entrance is situated beneath the overhanging tower form; on corners of the triple height colonnade which address the public realm. Entry is adjacent to the dramatic feature columns again beneath the sheltered overhang of the tower floorplates above.

Dedicated service areas are located between the buildings and Trinity Way; screened by green walls and planted edges and providing direct access to substations, bin storage and move in storage areas.

Site D Ground Floor Layout



3.6 Layout (cont)

The Site C lower floors are characterised by a series of interlocking and stepped internal amenity spaces and external roof terraces; cut into the building form to provide double height external volumes and to activate the lower floors and their relationship to the adjacent public realm. These are all fully accessible via the building core or via external steps which connect the various stepped forms.

SITE C FIRST FLOOR

The residential concierge benefits from a double height volume at the entrance, enabling a strong visual connection between the public realm and the reception and amenity spaces. At first floor, high quality residential amenity is arranged within the stepped forms and includes gymnasium & exercise rooms. Adjacent to each amenity space at Level 01 is a roof terrace that can be accessed from either the core or the adjoining amenity space. The character of the roof terraces is designed to complement the adjoining uses.

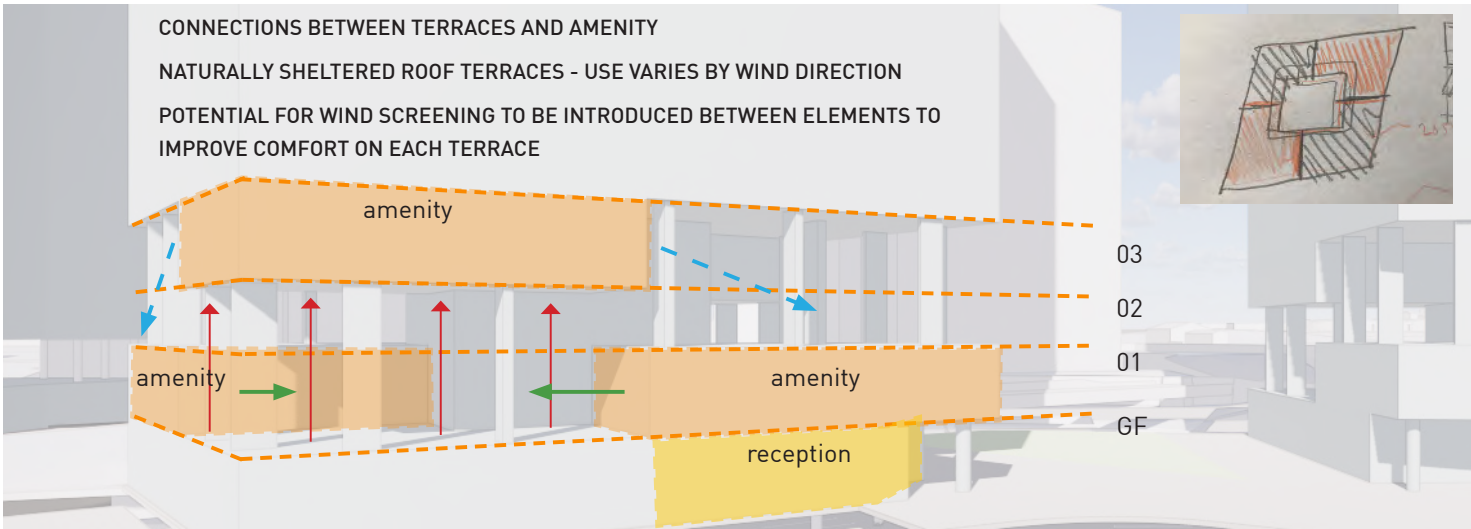
SITE C SECOND FLOOR

At second floor level there are no internal amenity spaces. At this level the building form is cut back to the core, to provide a continuous void of single or double height proportions. Access is possible from the core to the roof terraces located over the amenity spaces at Level 01 below.

SITE C THIRD FLOOR

Third floor provides residential amenity spaces in the form of lounge and meeting areas accessed from the core. These are connected to the roof terraces at Level 02 either via the core or dedicated external stairs. Glazed walls in the third floor amenity areas visually connect the spaces to the roof terraces below.

Residential floors are then introduced at Level 04 above within the main tower form, which is raised above on a series of external columns.



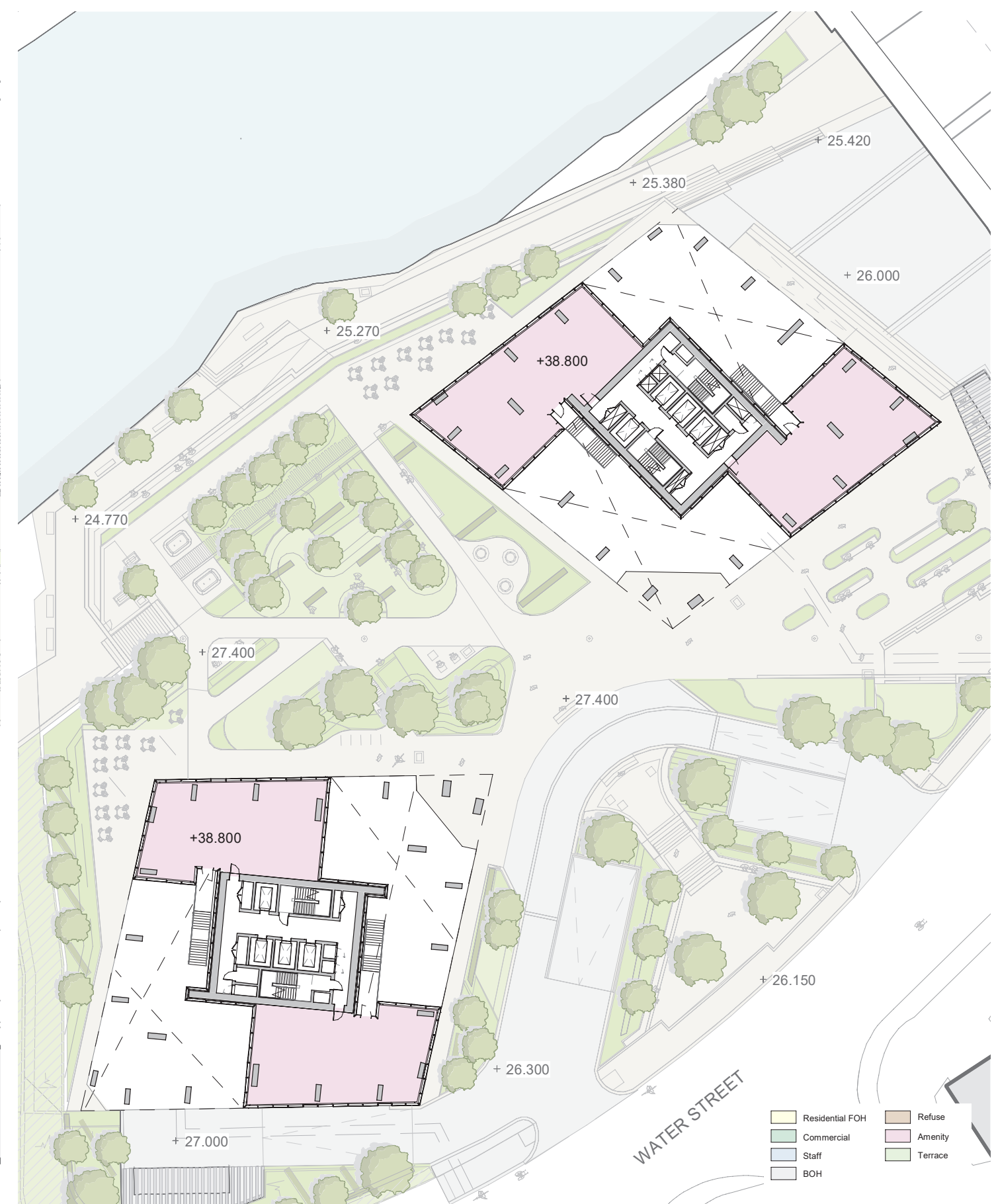
Stepped Amenity Floor Diagram



Site C First Floor Layout



Site C Second Floor Layout



Site C Third Floor Layout

3.6 Layout (cont)

The Site D lower floors are characterised by a series of interlocking and stepped internal amenity spaces and external roof terraces; cut into the building form to provide double height external volumes and to activate the lower floors and their relationship to the adjacent public realm. These are all fully accessible via the building core or via external steps which connect the spaces vertically.

SITE D FIRST FLOOR

The residential concierge again benefits from double height volumes at the entrance providing a dramatic sense of arrival. Overlooking the double height volume both buildings have an external residential roof terrace that sits sheltered underneath the tower footprint above. This space benefits from views towards the river and over the adjacent public realm and has a visual connection into the reception space below and adjacent.

The primary curved elevation of the first floor includes an amenity space with direct connection onto the roof terrace – offering river views on D1 and to the south of D2.

The remaining floor plate accommodates staff areas and plant spaces which are located adjacent to the service area facades.

SITE D SECOND FLOOR

At second floor level the building form is cut back to provide a continuous roof terrace around the core.

SITE D THIRD FLOOR

The third floor is the lowest floor of the main tower form. This benefits from an increased floor to floor height compared to a residential floor levels and houses amenity spaces such as gym area and business suite.

Residential floors are then introduced at Level 04 above.



Site D First Floor Layout





Site D Second Floor Layout



Site D Third Floor Layout



3.6 Layout (cont)

SITE C TYPICAL UPPER LEVELS - TYP1

From level four upwards both buildings provide an efficient and generously proportioned floorplate which repeats up each of the buildings. The specifics of each of these is covered in further detail in the following pages.

Building C1 & C2 12no. apts (8no. 2 bed apts & 4no. 1 bed apts)

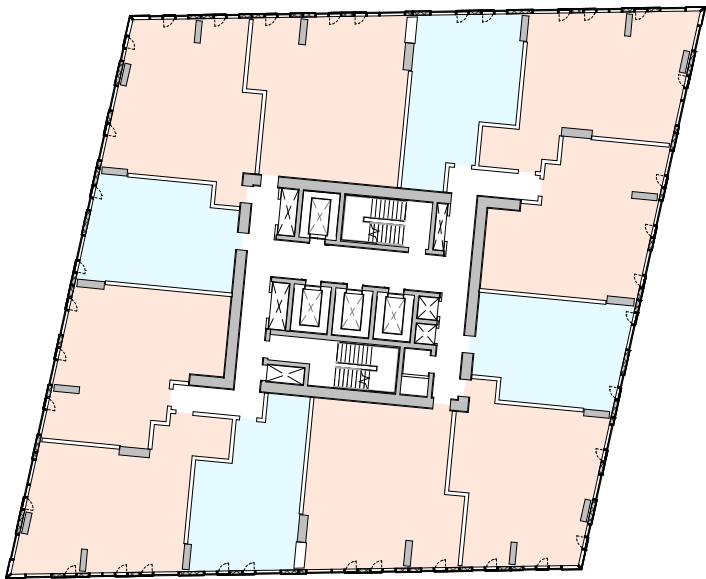
SITE C TYPICAL UPPER LEVELS - TYP2

At the upper levels of each tower larger apts are accommodated with the introduction of 3 beds.

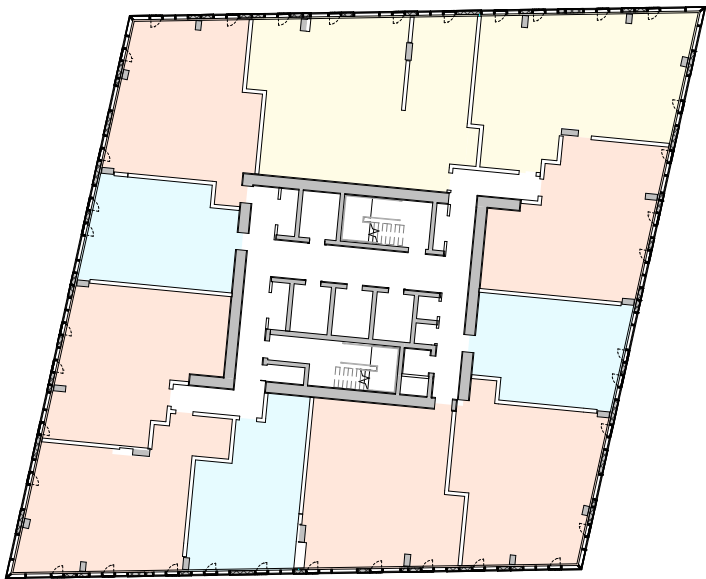
Building C1 & C2 11no. apts (2no. 3 bed apts, 6 no. 2 bed apts & 1no. 1 bed apts)

SITE C ROOF LEVELS

Above the duplex penthouse apts an enclosure has been provided for the Building Maintenance Unit, this is wrapped in the same elevational treatment as the tower below, screening it from view.



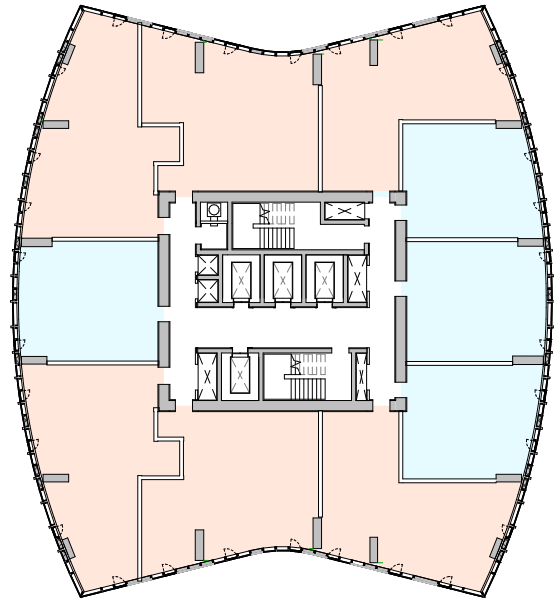
Levels 04-40
C2 - typically 12 apts / floor



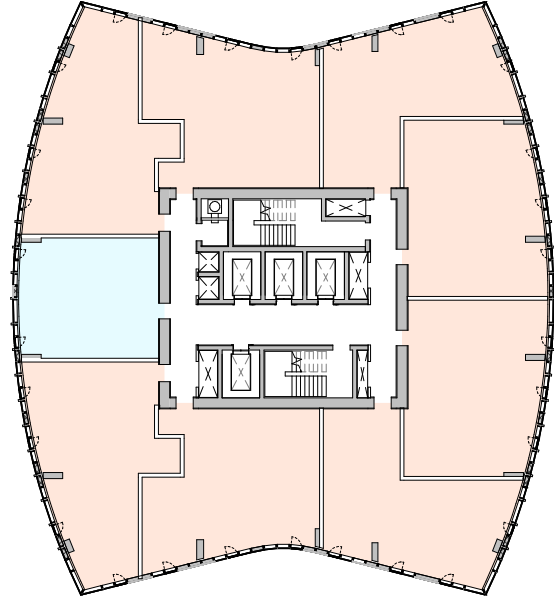
Levels 41-47

-  1 bed apartment
-  2 bed apartment
-  3 bed apartment

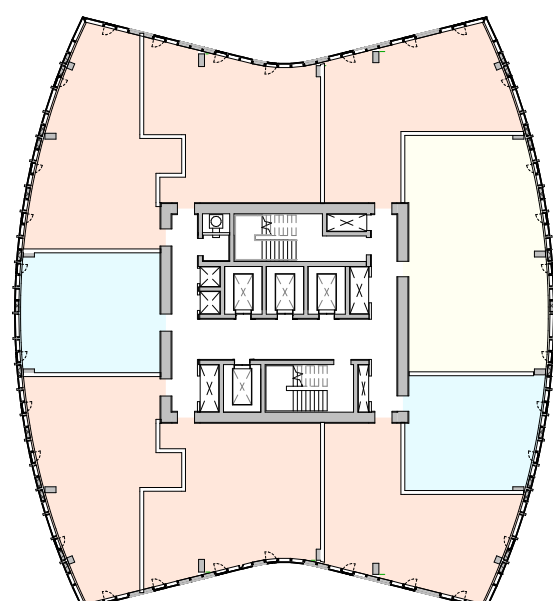
Site C Typical Floor Plates



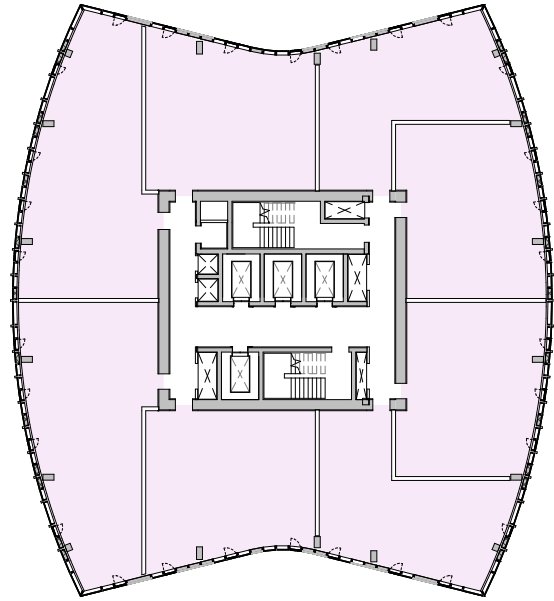
Levels 04-41
D1 - typically 10 apts / floor



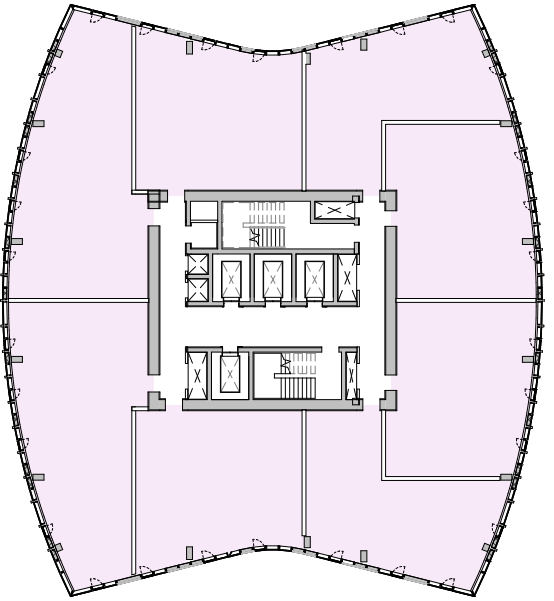
Levels 42-49



Levels 50-57



Level 58
Site D Typical Floor Plates



Level 59

- 1 bed apartment
- 2 bed apartment
- 3 bed apartment
- Penthouse apartment

SITE D TYPICAL UPPER LEVELS - TYP1

From level four upwards the D site buildings provide an efficient and generously proportioned floorplate which repeats up each of the buildings. The specifics of each of these is covered in further detail in the following pages.

Building D1 & D2 10no. apts (6no. 2 bed apts & 4no. 1 bed apts)

SITE D TYPICAL UPPER LEVELS - TYP2

In order to maintain a limit on the number of 1 bed apartments, 3 of the 1 bed apts are replaced by 2 bed apts on some of the upper floor plates

Building D1 & D2 9no. apts (8no. 2 bed apts & 1no. 1 bed apts)

SITE D TYPICAL UPPER LEVELS - TYP3

At the upper levels of each tower larger apts are accommodated with the introduction of 3 beds.

Building D1 & D2 9no. apts (1no. 3 bed apts, 6 no. 2 bed apts & 2no. 1 bed apts)

SITE D PENTHOUSE LEVELS

The uppermost levels of each tower contain generously proportioned duplex penthouse apts, some benefitting from double height living spaces and all benefitting from an increased floor to floor / floor to ceiling height.

Building D1 & D2 8no. apts across two floors (8no. 3 bed duplex apts)

SITE D ROOF LEVELS

Above the duplex penthouse apts an enclosure has been provided for the Building Maintenance Unit, this is wrapped in the same elevational treatment as the tower below, screening it from view.

3.6 Layout (cont)

SITE C BASEMENT LEVELS

The Proposed Development contains a significant element of basement excavation works. The basement levels will accommodate building plant, car parking and secure cycle stores allowing the maximum space for public realm to be provided at ground level.

SITE C PRIVATE CAR PARK

Basement ramps are in close proximity to Water Street (Site C), to minimise vehicle impact on the public realm. Each plot C1 and C2 has a dedicated vehicle entry and exit ramp with a dividing wall separating the basement at both levels to form individual plot boundaries. The private car park entrances will be secured by a bi-fold security gate arrangement with residential fob access. Residents will use a shuttle lift between the concierge and the basement levels. Each basement includes a secondary means of escape via stair to the public realm.

A dedicated smoke ventilation system serves each basement plot.

- Private car park C1
- Private car park C2



Site C Basement Level 01



Site C Basement Level 02

Tower C1

Total Car Parking Spaces	109 (28%)
Electric Vehicle Charging	20% @ 7kW*
Accessible Spaces	10%
Cycle spaces	414

Tower C2

Total Car Parking Spaces	152 (30%)
Electric Vehicle Charging	20% @ 7kW*
Accessible Spaces	10%
Cycle spaces	521

*Up to 20% demand-led Electric Vehicle Charge (EVC) provision (7kw each). Spaces will be future proofed with containment channels that enable cable connections to be installed as and when required.

3.6 Layout (cont)

SITE D BASEMENT LEVELS

Site D also contains two storeys of basement car parking with ancillary spaces including building plant and secure cycle storage.

SITE D PRIVATE CAR PARK

A singular shared basement ramp is located in close proximity to Trinity Way junction, to minimise vehicle impact on the public realm whilst enabling space for vehicles to be clear of the traffic control at this junction. Each plot D1 and D2 then has a dedicated vehicle entrance at basement level with a dividing wall separating both levels to form individual plot boundaries. The private car park entrances will be secured by a bi-fold security gate arrangement with resident fob access. Residents will use a shuttle lift between the concierge and the basement levels. Each basement includes a secondary means of escape via stair to the public realm.

A dedicated smoke ventilation system serves each basement plot.

Private car park D1 
Private car park D2 



Site D Basement Level 01



Site D Basement Level 02

Tower D1

Total Car Parking Spaces	154 (29%)
Electric Vehicle Charging	20% @ 7kW*
Accessible Spaces	10%
Cycle spaces	532

Tower D2

Total Car Parking Spaces	141 (29%)
Electric Vehicle Charging	20% @ 7kW*
Accessible Spaces	10%
Cycle spaces	483

*Up to 20% demand-led Electric Vehicle Charge (EVC) provision (7kw each). Spaces will be future proofed with containment channels that enable cable connections to be installed as and when required.

Residential - C Towers

FLOORPLATE DESIGN

The residential buildings have been developed to provide high quality, desirable spaces to live, with exceptional city and river views, well-proportioned and laid out apartments with adequate storage provision.

Room widths and frontages have been maximised to ensure a high level of natural daylight penetrates each habitable space, whilst corner units also benefit from dual aspect living spaces.

CORE DESIGN

Apartments are arranged around a central core. The arrangement allows for a generous landing within the lift lobby and with transfer of the secondary escape stair, an open and inviting arrival experience is generated at ground floor level.

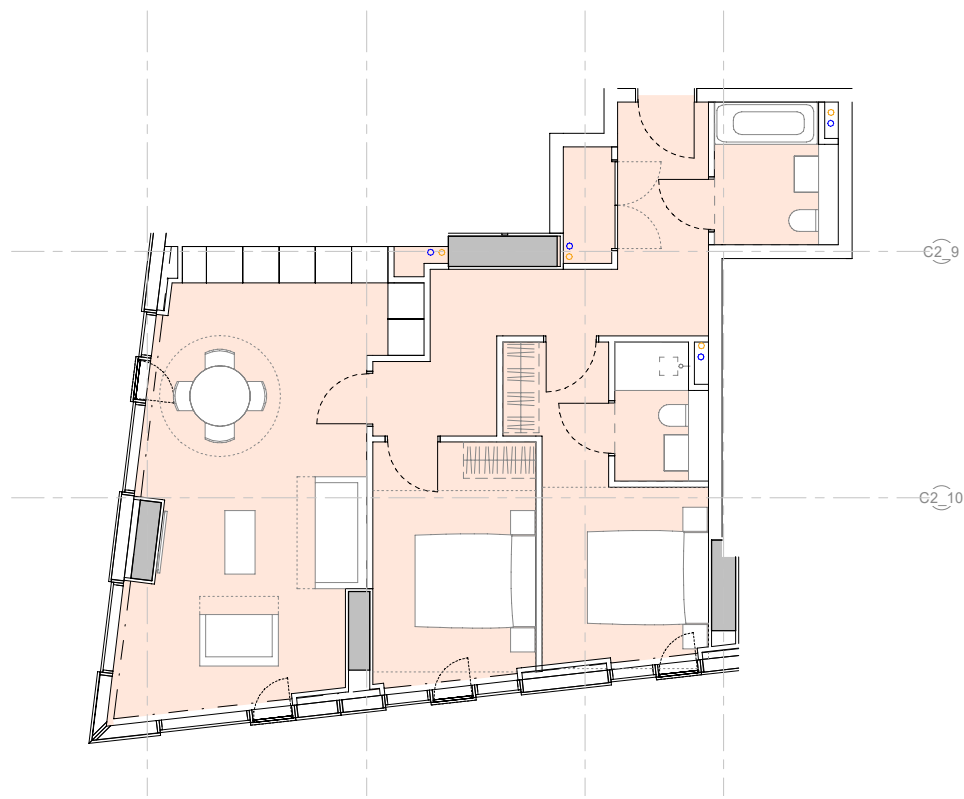
The core contains a refuse chute lobbied from the circulation space, serving a refuse store at ground level. The core benefits from two escape stairs, over and above current regulatory requirements for a residential building of this nature.



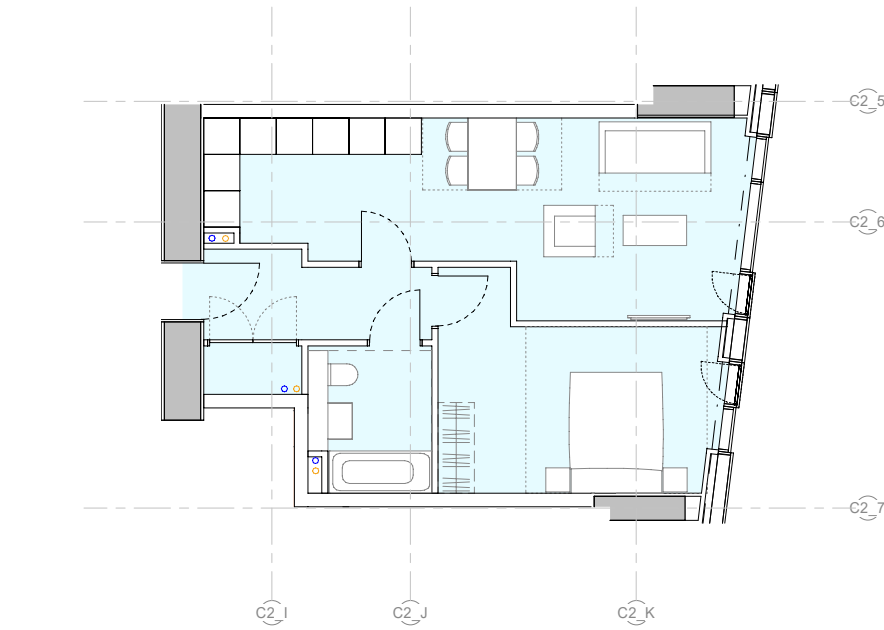
Building C1 / C2 Typical Level - 12 apts



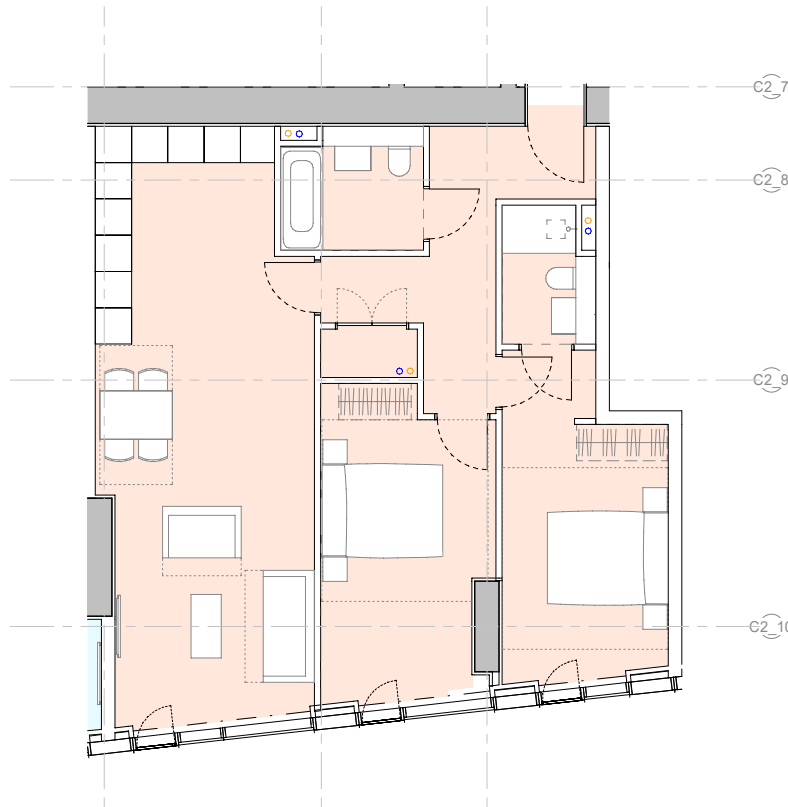
Building C1 / C2 3-Bed Upper Floor Level - 11 apts



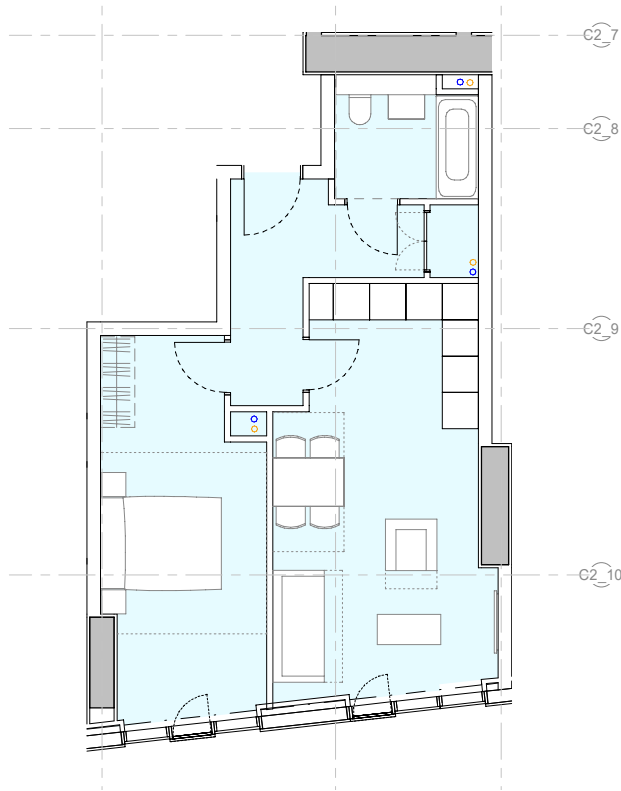
2 Bed - 4 Person (78.2 sqm)



1 Bed - 2 Person (51.4 sqm)



2 Bed - 4 Person (84.3 sqm)



1 Bed - 2 Person (53.2 sqm)

COMPLIANCE

The residential apartments have been designed to meet, and in some cases, exceed Manchester's Space Standards defined in the Manchester City Council Residential Quality Guidance 2017 (RQG).

The layouts shown demonstrate the range of apartment layouts on the typical floorplates, these are representative of the well planned and generously proportioned apartment layouts provided throughout the scheme. The GIA of the apartments are outlined below. Further details of all the apartment types and sizes can be found in the accompanying plan drawings.

Units have been designed for future adaption to accessible units wherever possible - further details of this are included in the section on 'inclusive access'.

PROPOSED SIZES

3B - 6P
Gross Internal Area: 97.2 sqm
Built in storage: 3.7 sqm

2B - 4P - TYP A
Gross Internal Area: 84.3 sqm
Storage: 2.7 sqm

2B - 4P - TYP B
Gross Internal Area: 78.2 sqm
Storage: 2.7 sqm

1B - 2P - TYP A
Gross Internal Area: 53.2 sqm
Storage: 2.0 sqm

1B - 2P - TYP B
Gross Internal Area: 51.4 sqm
Storage: 2.0 sqm

MANCHESTER'S EMERGING SPACE STANDARDS

3B - 6P
Gross Internal Area: 95 sqm
Built in storage: 2.5 sqm

2B - 4P
Gross Internal Area: 70 sqm
Storage: 2.0 sqm

1B - 2P
Gross Internal Area: 50 sqm
Built in storage: 1.5 sqm

Residential - D Towers

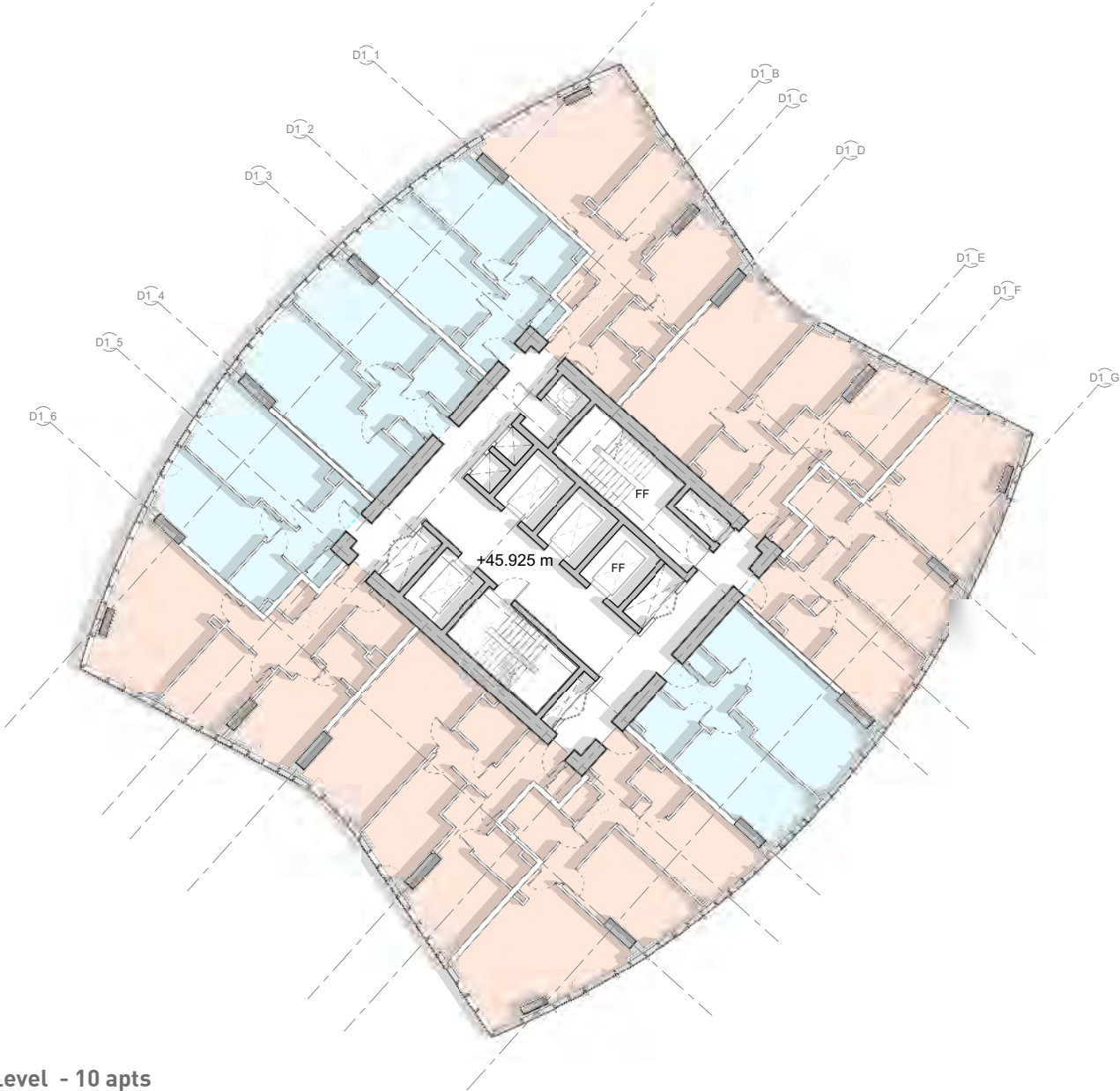
FLOORPLATE DESIGN

The residential buildings have been developed to provide high quality, desirable spaces to live, with exceptional city and river views, well-proportioned and laid out apartments with adequate storage provision.

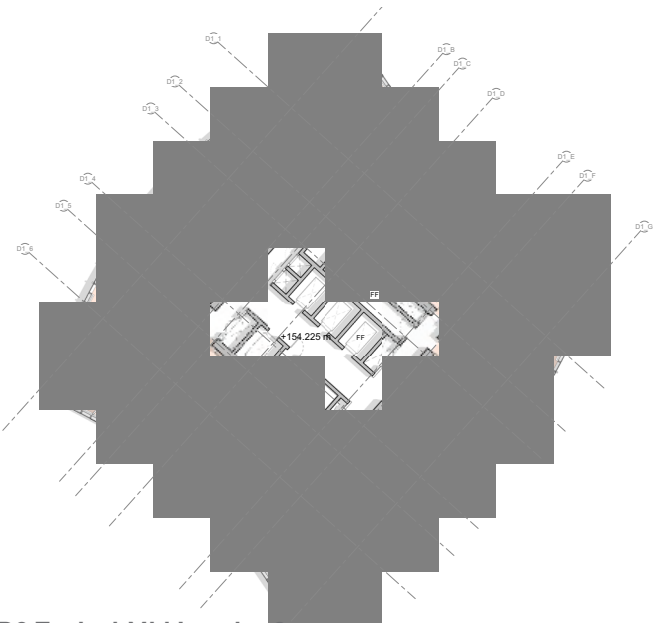
Room widths and frontages have been maximised to ensure a high level of natural daylight penetrates each habitable space, whilst corner units also benefit from dual aspect living spaces.

CORE DESIGN

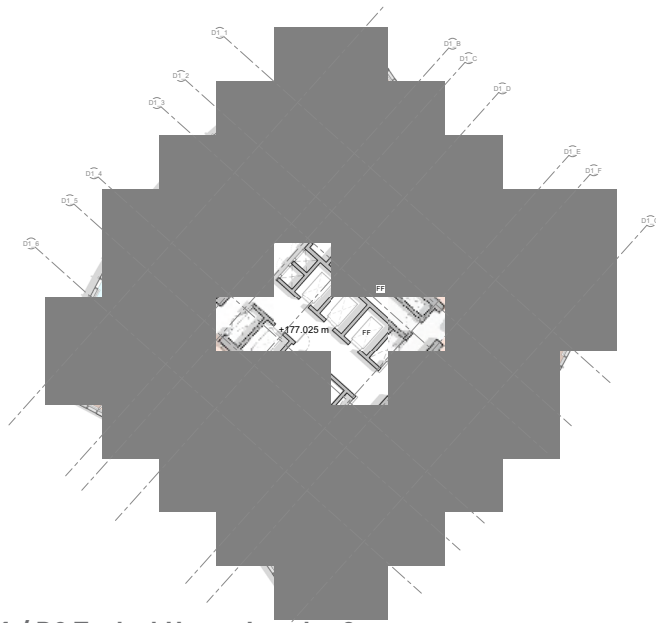
The D tower core is designed to be almost identical to the C tower core with all components set out to the same space planning, again including a second escape stair and lobbied refuse chute.



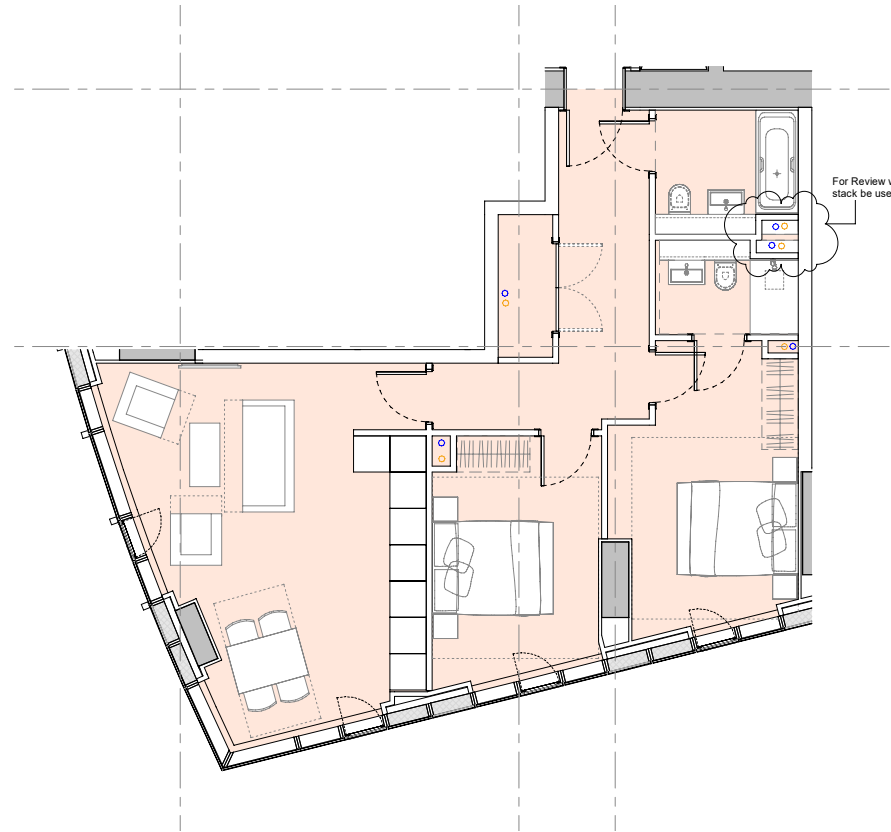
Building D1 / D2 Typical Floor Level - 10 apts



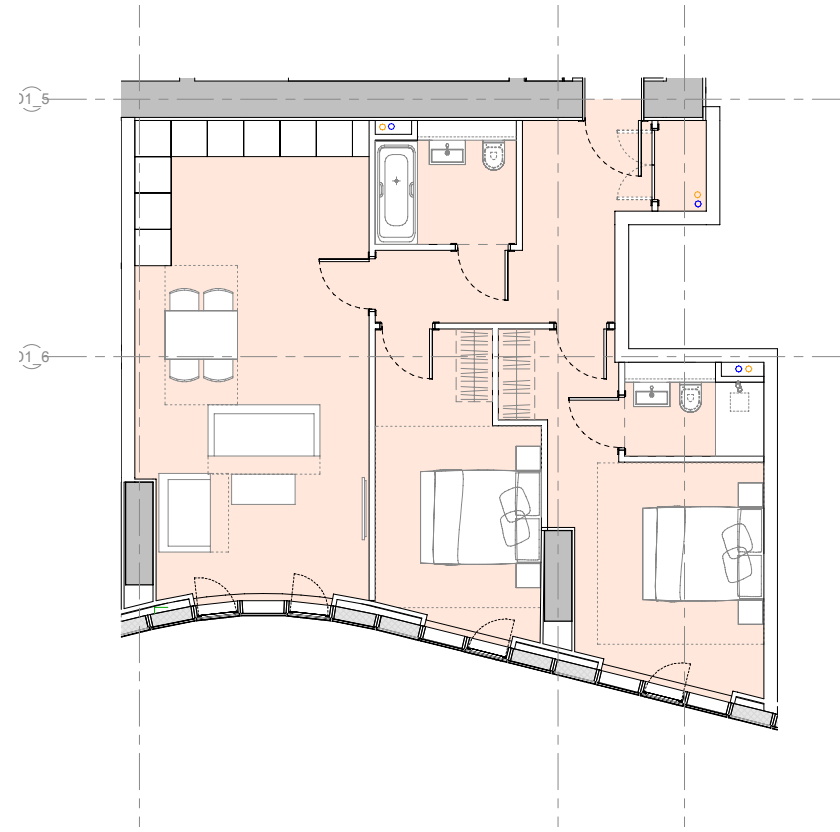
Building D1 / D2 Typical Mid Level - 9 apts



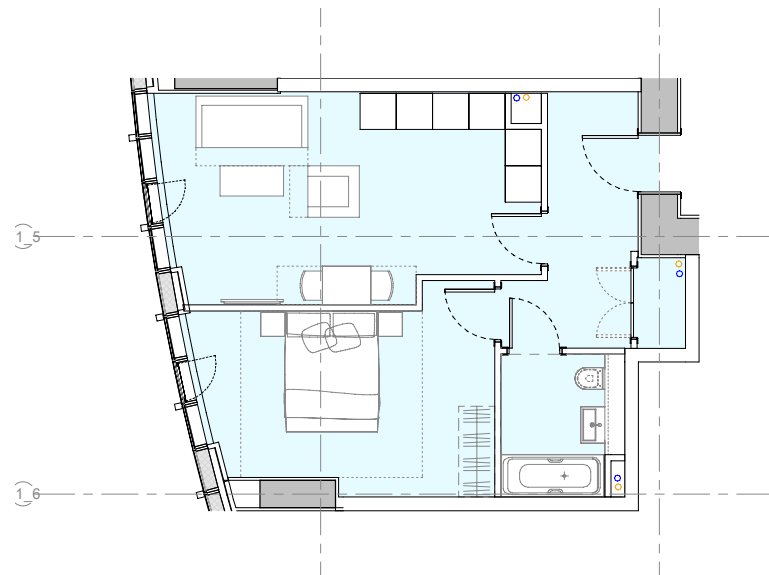
Building D1 / D2 Typical Upper Level - 9 apts



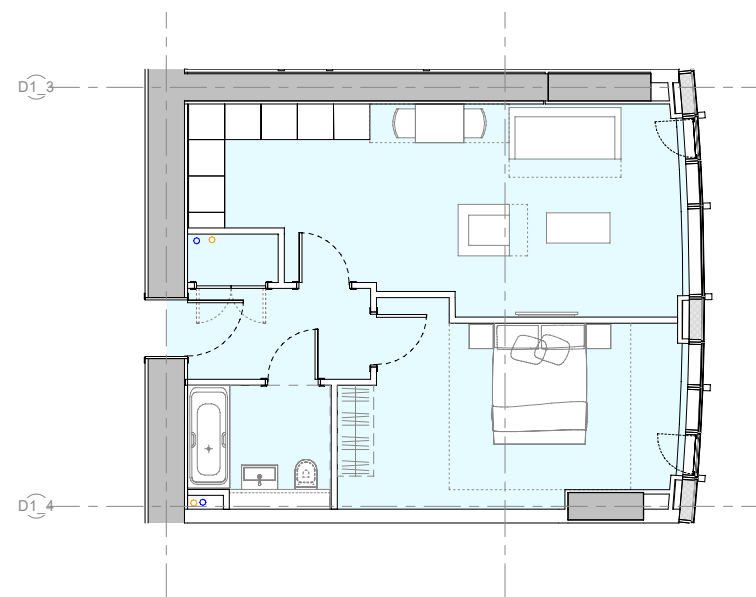
2 Bed - 4 Person (76.8 sqm)



2 Bed - 4 Person (80.6 sqm)



1 Bed - 2 Person (51.1 sqm)



1 Bed - 2 Person (55.2 sqm)

COMPLIANCE

The residential apartments meet the same criteria described for Site C and adaptable units are described in further detail in the section on 'inclusive access'.

The layouts shown demonstrate the range of apartment layouts on the typical floorplates, these are representative of the well planned and generously proportioned apartment layouts provided throughout the scheme. The GIA of the apartments are outlined below. Further details of all the apartment types and sizes can be found in the accompanying plan drawings.

PROPOSED SIZES

3B - 6P

Gross Internal Area: 110.9 sqm
Built in storage: 3.7 sqm

2B - 4P - TYP A

Gross Internal Area: 80.6 sqm
Storage: 2.7 sqm

2B - 4P - TYP B

Gross Internal Area: 76.8 sqm
Storage: 2.7 sqm

1B - 2P - TYP A

Gross Internal Area: 55.2 sqm
Storage: 2.0 sqm

1B - 2P - TYP B

Gross Internal Area: 51.1 sqm
Storage: 2.0 sqm

MANCHESTER'S EMERGING SPACE STANDARDS

3B - 6P

Gross Internal Area: 95 sqm
Built in storage: 2.5 sqm

2B - 4P

Gross Internal Area: 70 sqm
Storage: 2.0 sqm

1B - 2P

Gross Internal Area: 50 sqm
Built in storage: 1.5 sqm

3.7 Use

RESPONSE

The Proposed Development seeks to provide high-quality residential accommodation befitting a city centre location, recognising the opportunity for the Site to deliver a critical mass of exemplar accommodation and car parking to support the economic growth of Manchester. The proposed uses meet the objectives set out in the St John’s and Water Street Frameworks.

RESIDENTIAL

The Frameworks identify the Site as being a proposed residential location that forms part of a series of connected neighbourhoods. The connected central location and the opportunity for scale both suit a residential usage.

The Manchester Residential Growth Strategy (2016) cites the need to locate higher density developments towards district centres and transport hubs. The Site is well connected to both heavy and light rail and a short walk to the city centre.

COMMERCIAL

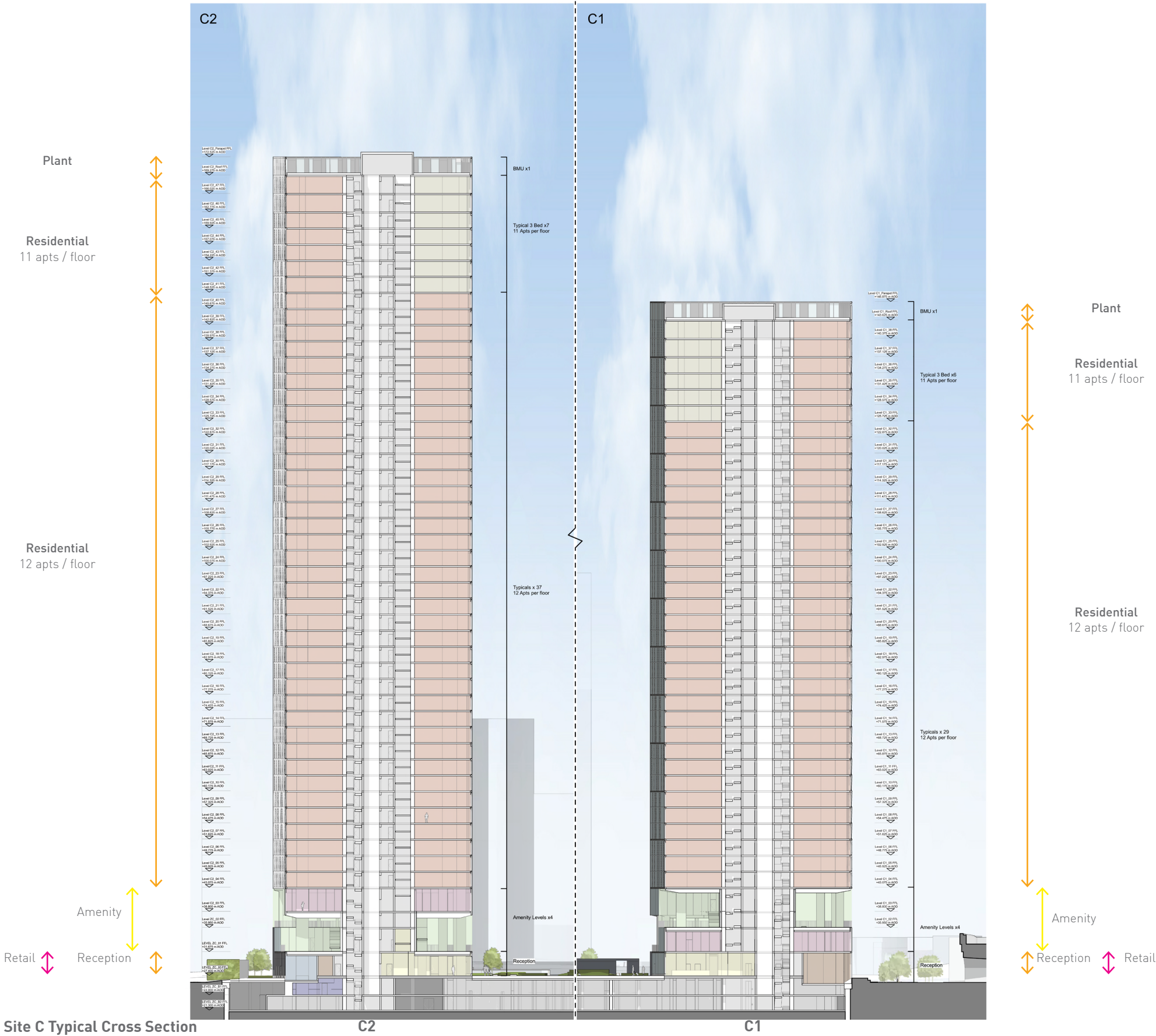
Commercial units have been positioned within the ground floor of each C tower building. The self-contained units combined have an area of approximately 361m2 / 3,886 sqft. The use of the unit is as yet undefined, and the Applicant is seeking flexible consent (Use Class E). The ultimate use aims to reflect the demand and connections to the adjacent St Johns development and will complement the riverside setting within a new residential neighbourhood.

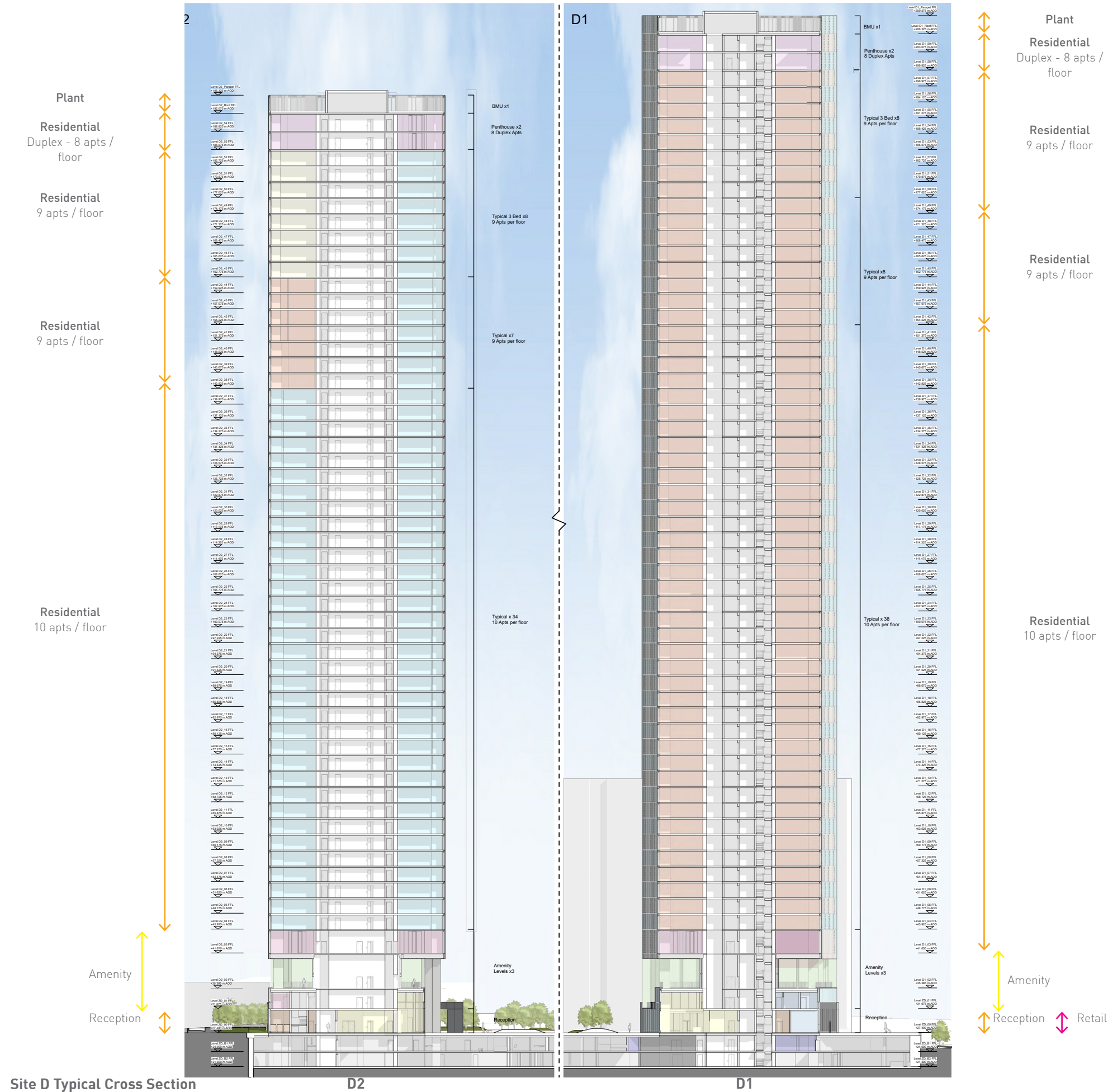
PARKING

Private car parking has been included to serve the anticipated demand arising from the residential development, including electric vehicle charging. 100% cycle parking is also provided to ensure all apartments have access to secure bike storage facilities.

PUBLIC REALM

The provision of a significant public realm offer is in line with the connectivity proposed in the St Johns SRF to create a new riverside neighbourhood, and will benefit the wider community. Provision has been made for shared amenity spaces and gardens for all residents of each tower to access.





3.8 Scale & Massing

RESPONSE

The scale of the buildings has been used to generate a variety of building heights which form a dynamic townscape setting and evolve in appearance depending on the viewing location. The pairing of taller towers across Trinity Way, that divides the site into 2 parcels of land, forms a dramatic gateway setting which will see significant public movement in and out of the city centre. The scale of the development is lower towards the heritage assets within the Conservation Area and similarly drops down towards Regent Road bridge to form a stepped arrangement with the adjacent context. Building forms are orientated towards key vistas and routes to provide a clear identity to the four gateway towers that provide a significant number of high-quality dwellings with dynamic views towards the city and the river.

The residential towers are between 39 and 60 storeys tall, rising upto c. 180m above ground level. The lower floor activities are contained within the tower footprints to enable delivery of the maximum possible area of public realm space.

BUILDING HEIGHTS

A series of massing compositions were appraised through the design development of the scheme before arriving at the proposed massing (page 18-19).

The brief for the quantum of accommodation had been developed based on Renaker's proven track record for delivering high quality residential developments. Necessary commercial considerations with regard to quantum of development per residential development plot were considered by the development team in order to provide a robust and viable offer. The brief therefore required for a similar sized quantum of accommodation in each plot.

The strength of the plan form in providing a distinctive massing arrangement is felt to provide a striking variety to the composition of the towers with the variation in height used to articulate the cluster on the skyline.

STRATEGIC REGENERATION FRAMEWORKS & CURRENT PLANNING PERMISSION

Both the St Johns and Water Street SRFs propose tall buildings on this site to provide landmark buildings adjacent to a key gateway into the city and to complement the larger urban grain in this area.

The framework also promotes maximizing a newly formed waterside location, which can be provided with the proposal for tall buildings to maximise the amount of public realm space.

The suitability of tall residential buildings is also already established by the 2017 approval on the site.

3.9 Amount

RESPONSE

The overall quantum of accommodation contained within the development has been derived as a product of the composition and massing of building elements in response to location, orientation and programme.

QUANTUM

- 193,000 sq m / 2,077,432 sq ft gross internal residential total
- 361 sq m / 3,886 sq ft gross internal commercial total

RESIDENTIAL MIX

- 1,950 Total residential apartments, comprising;
- 638 (32.7%) One bedroom residential apartments
- 1,254 (64.3%) Two bedroom residential apartments
- 42 (2.2%) Three bedroom residential apartments
- 16 (0.8%) Duplex apartments (Three bedroom)

PARKING

For a detailed breakdown of parking provision refer to pages 39 and 41

- 556 (29% provision) Private parking spaces for residents, located across two basement levels.
- 10% disabled parking
- upto 20% EVC provision

CYCLES

- 1,950 (100% provision) secure cycle spaces are located in double stacked units across ground and basement levels.



View from Quay Street Bridge



Floor Plan Type	Storeys	Apartments Per Storey	Apartment Type	NIA (sqm)	1 Bed		2 Bed		3 Bed		Penthouses		Apartments Total		NIA (sqm) Area Type	NIA (sqm) per storey	GIFA (sqm) per storey	Notes		
					Per Storey	Total	Per Storey	Total	Per Storey	Total	Per Storey	Total								
00	1	x	x	x	x	x	x	x	x	x	x	x	x	Entrance/Lounge	220	475	1060.74			
														Commercial	255					
														BOH						
														Refuse/Plant		N/A				
01	1	x	x	x	x	x	x	x	x	x	x	x	x	Amenity	333	333.0	570.48	External Terrace: 416 sqm		
02	1	x	x	x	x	x	x	x	x	x	x	x	x	Core		N/A	194.96	External Terrace: 427 sqm		
03	1	x	x	x	x	x	x	x	x	x	x	x	x	Amenity	369	369.0	588.50			
TYA 04-32	29	12	XX-02	51.42	1	116		232						348	x	834.9	1086.4			
				53.04	1															
				XX-08	51.54		1													
				XX-11	53.19		1													
				XX-01	76.23				1											
				XX-03	72.38				1											
				XX-04	78.59				1											
				XX-06	84.49				1											
				XX-07	76.37				1											
				XX-09	75.03				1											
				XX-10	78.23				1											
				XX-12	84.34				1											
TYB 33-38	6	11	XX-02	51.42	1	18		36		12			66	x	837.7	1,087.2				
				XX-07	51.54		1													
				XX-10	53.19		1													
				XX-01	76.23				1											
				XX-03	72.38				1											
				XX-06	76.37				1											
				XX-08	75.03				1											
				XX-09	78.23				1											
				XX-11	84.34				1											
				XX-04	97.24						1									
				XX-05	121.77						1									

Basement Level B1: 2,224.0
Basement Level B2: 3,067.0

Number:	Number:	Number:	Number:	Units	Total GIFA: 40,443.5 (Excluding Basement Area)
134	268	12	0		Total GIFA: 45,734.5 (Including Basement Area)
1 Bed:	2 Bed:	3 Bed:	Penthouses:	414	
Mix:	Mix:	Mix:	Mix:		
32.4%	64.7%	2.9%	0.0%		

Tower C1 Area Schedule

Floor Plan Type	Storeys	Apartments Per Storey		Apartment Type	NIA (sqm)	1 Bed		2 Bed		3 Bed		Penthouses		Apartments Total		NIA (sqm) Area Type	NIA (sqm) per storey	GIFA (sqm) per storey	Notes	
						Per Storey	Total	Per Storey	Total	Per Storey	Total	Per Storey	Total							
00	1	x	x	x	x	x	x	x	x	x	x	x	x	x	Entrance/Lounge	240	346	1063.24		
																Commercial				106
																BOH				
																Refuse/Plant				
01	1	x	x	x	x	x	x	x	x	x	x	x	x	x	Amenity	318	318.0	537.7	External Terrace: 459 sqm	
02	1	x	x	x	x	x	x	x	x	x	x	x	x	x	Core		N/A	194.4	External Terrace: 387 sqm	
03	1	x	x	x	x	x	x	x	x	x	x	x	x	x	Amenity	331	331.0	546.8		
TYA 04-40	37	12	XX-02	51.42	1	148		296						444	x	834.9	1086.4			
				53.04	1															
				51.54	1															
				53.19	1															
				76.23			1													
				72.38			1													
				78.59			1													
				84.49			1													
				76.37			1													
				75.03			1													
				78.23			1													
				84.34			1													
TYB 41-45	7	11	XX-02	51.42	1	21		42		14		77	x	837.7	1,087.2					
				51.54	1															
				53.19	1															
				76.23			1													
				72.38			1													
				76.37			1													
				75.03			1													
				78.23			1													
				84.34			1													
				97.24							1									
				121.77							1									

Basement Level B1: 2,538.0
Basement Level B2: 3,497.0

Number:	Number:	Number:	Number:	Units	Total GIFA: 50,149.4 (Excluding Basement Area)
169	338	14	0		Total GIFA: 56,184.4 (Including Basement Area)
1 Bed:	2 Bed:	3 Bed:	Penthouses:	521	
Mix:	Mix:	Mix:	Mix:		
32.4%	64.9%	2.7%	0.0%		

Tower C2 Area Schedule

All areas measured to IPMS Standards

Basement Level B1:	2,649.0
Basement Level B2:	3,372.0

Tower D1 Area Schedule

Basement Level B1:	2,734.0
Basement Level B2:	2,734.0

Tower D2 Area Schedule



	C1	C2	
Units:	414	521	
Total:	935		
	1 Bed	2 Bed	3 Bed
Total Mix:	32.4%	64.8%	2.8%
			Pent.
			0.0%

	D1	D2	
Units:	532	483	
Total:	1,015		
	1 Bed	2 Bed	3 Bed
Total Mix:	33.0%	63.8%	1.6%
			Pent.
			1.6%

	C1	C2	D1	D2	
Units:	414	521	532	483	
Total:	1,950				
	1 Bed	2 Bed	3 Bed	Pent.	
Total Mix:	32.7%	64.3%	2.2%	0.8%	

Full Scheme GIFA (sqm): (Excluding Basement Area)	90,592.9
--	----------

Full Scheme GIFA (sqm): (Excluding Basement Area)	102,791.1
--	-----------

Full Scheme GIFA (sqm): (Excluding Basement Area)	193,384.0
--	-----------

Full Scheme GIFA (sqm): (Including Basement Area)	101,918.9
--	-----------

Full Scheme GIFA (sqm): (Including Basement Area)	114,280.1
--	-----------

Full Scheme GIFA (sqm): (Including Basement Area)	216,199.0
--	-----------

Site C Development Totals

Site D Development Totals

Combined Development Site Totals (C & D)



3.10 Appearance

APPROACH

The 2016 St Johns SRF states that the site has the “potential to introduce taller, elegant residential buildings... The buildings would be of the highest architectural quality...”

It continues to state that, “architectural diversity is encouraged, to create a neighbourhood that is varied in character and reflects its organic, historic development”.

The proposal utilizes a lightweight unitized façade solution to ensure installation from within the building footprints; particularly important when working at height and enabling slim structural slab thicknesses with lightweight curtain wall construction; important to delivering an efficient residential model.

The combination of vision glass, insulated panels and perforated rapid vent panels for ventilation have been expressed on both land parcels in different ways, to generate facades which complement and enhance the unique tower forms proposed on either part of the site.

The façades will reflect the light and provide changing backdrops to the adjacent ‘village’ elements of the Masterplan. The subtle use of texture and unique anodised aluminium colours provides the buildings with character that defines them from any others within the context of the city.

DETAIL

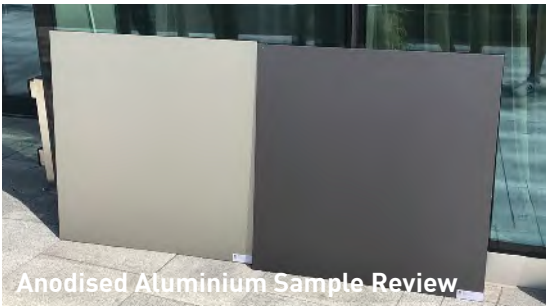
The materiality of the building is summarised on the following drawings submitted as part of the planning application:

- C1-SHP-G200-EL-XX-B5D801
- C1 Tower - Elevations 01
- C1-SHP-G200-EL-XX-B5D802
- C1 Tower - Elevations 02
- C2-SHP-G200-EL-XX-B5D801
- C2 Tower - Elevations 01
- C2-SHP-G200-EL-XX-B5D802
- C2 Tower - Elevations 02

- D1-SHP-G200-EL-XX-B5D801
- D1 Tower - Elevations 01
- D1-SHP-G200-EL-XX-B5D802
- D1 Tower - Elevations 02
- D2-SHP-G200-EL-XX-B5D801
- D2 Tower - Elevations 01
- D2-SHP-G200-EL-XX-B5D802
- D2 Tower - Elevations 02

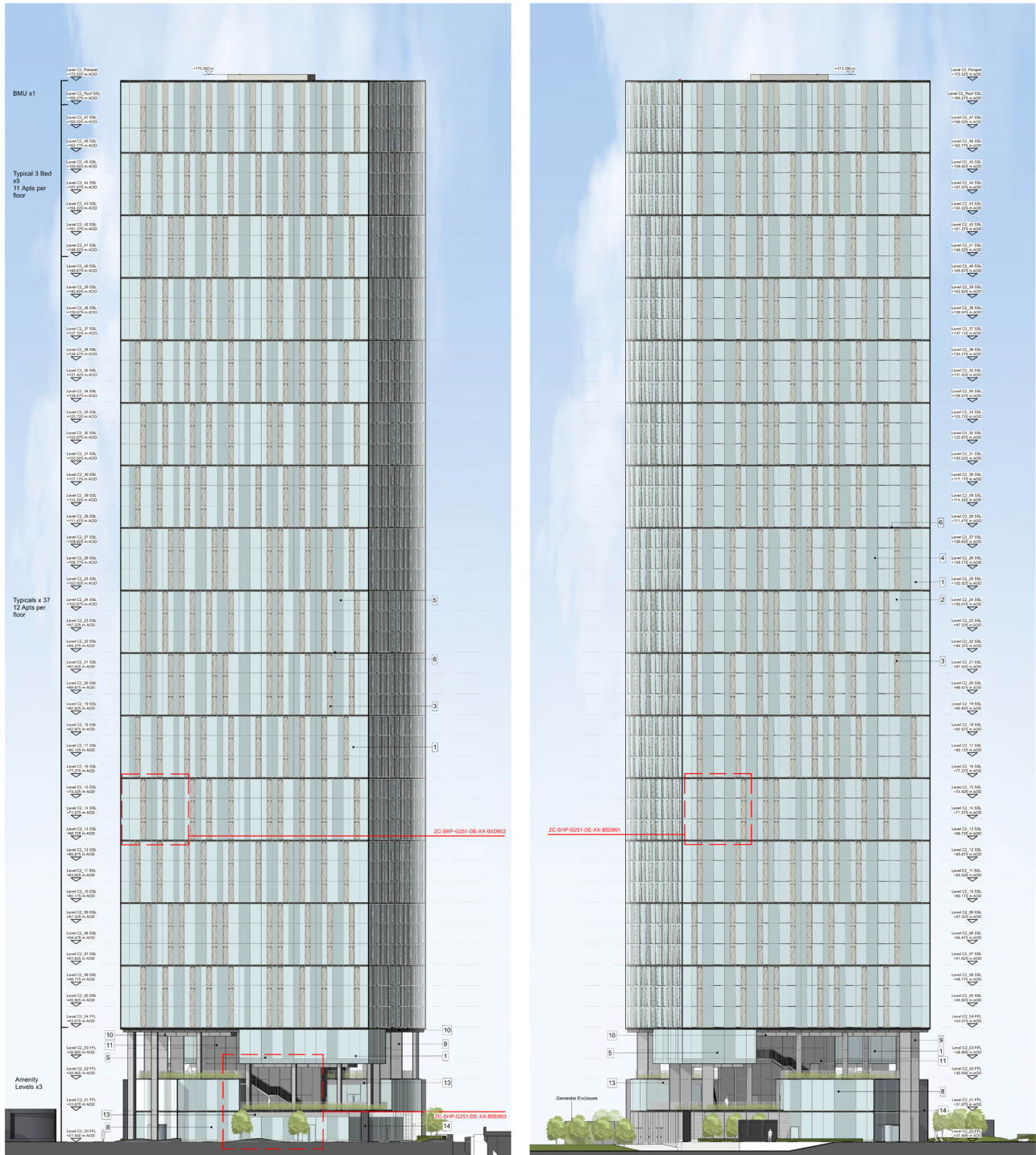


View from MOSI Courtyard

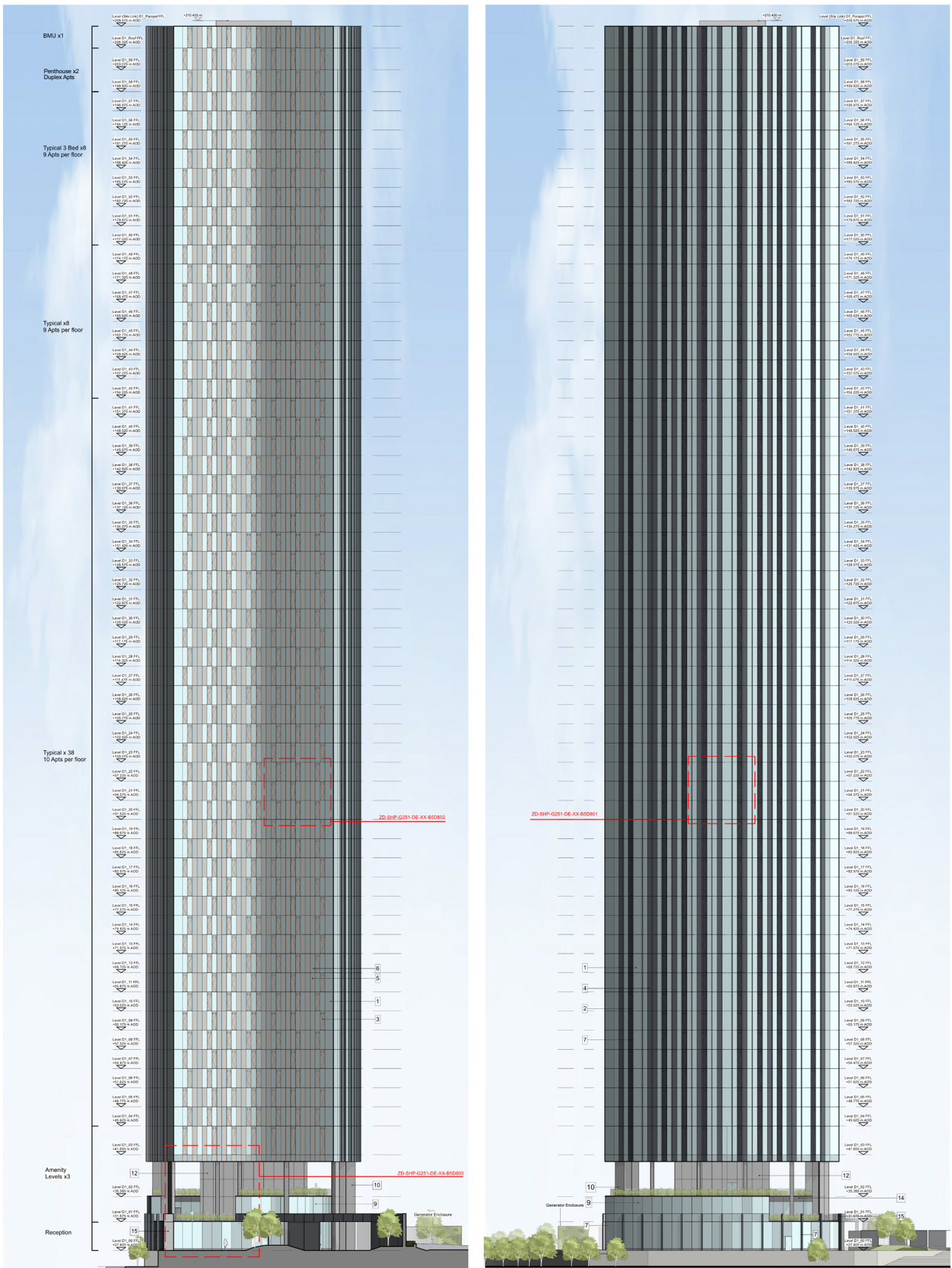


Anodised Aluminium Sample Review





Typical Site C Elevations (C2 shown)



Typical Site D Elevations (D1 shown)

3.11 C Towers

APPROACH

The elevations of the Site C towers (C1 and C2) have been developed to provide unique façade solutions for the site. Working with the efficiencies of a unitized curtain walling solution, the façades have been developed to ensure that the form of the buildings is reinforced; the diamond plan with its variation in corner angles remains legible when viewed from any position around the city.

In addition, the facades utilize a unique solution of inflected glass vision panels across certain elevations, providing a richness of texture that enhances the crystalline aesthetic, and becomes more prominent when in close proximity to each building. The subtle inflection will enable the glass fronted facades to read differently depending on viewing angle, time of the day or year thereby always creating a rich tapestry that reinforces the form of the diamond. Gentle inflection and changes in glazing angle also reduce the risk of solar glare impacting on adjacent road junctions and railway lines.

Whereas the corner glazed units are vertically aligned to provide a sharp glass point to each diamond, the vision panels across the single aspect main elevations are inflected downwards. This happens on all facades except the north-east facing C2 and south-west facing C1 elevations, which use only vertical glazed surfaces to frame the space between the two buildings.

All façades are composed of a combination of glazed vision panels, back painted insulated glazed panels and perforated aluminium rapid vent panels. Set out in bands of 3 storeys the floor plates include a dark grey horizontal aluminium detail every 3 floors, that provides a repeated datum to enhance the legibility of the diamond form whilst providing a sense of proportion and scale to both towers. Within this banded framework the distribution of panel types varies to suit the internal layouts. Rapid vent panels are finished in a warm, light grey anodised aluminium finish that offers a subtle champagne tone when viewed in sunlight. Vents located on south facing facades include glazed panels to benefit from solar gain in winter months and reduce heating loads, whereas north facing vents include solid internal door panels.

PRECEDENT & MATERIAL SAMPLES

A thorough analysis of precedent has informed the design process. A series of samples have been procured throughout the design development to test the relationship of varying material combinations.

DETAIL

The materiality of the C towers is summarised on the following drawings submitted as part of the planning application:

- ZC-SHP-G251-DE-XX-B5D801 - External wall detail (Inflected Glass Facade)
- ZC-SHP-G251-DE-XX-B5D802 - External wall detail (Vertical Glass Facade)



Vertical Glazing
Inflected Glazing

4

5

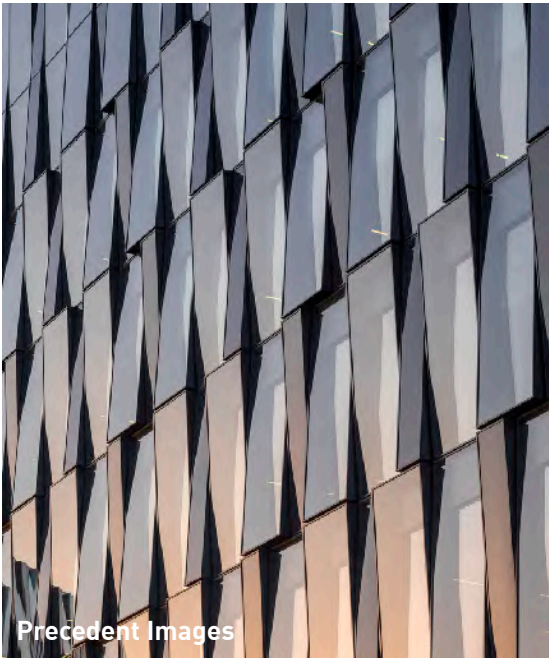
2

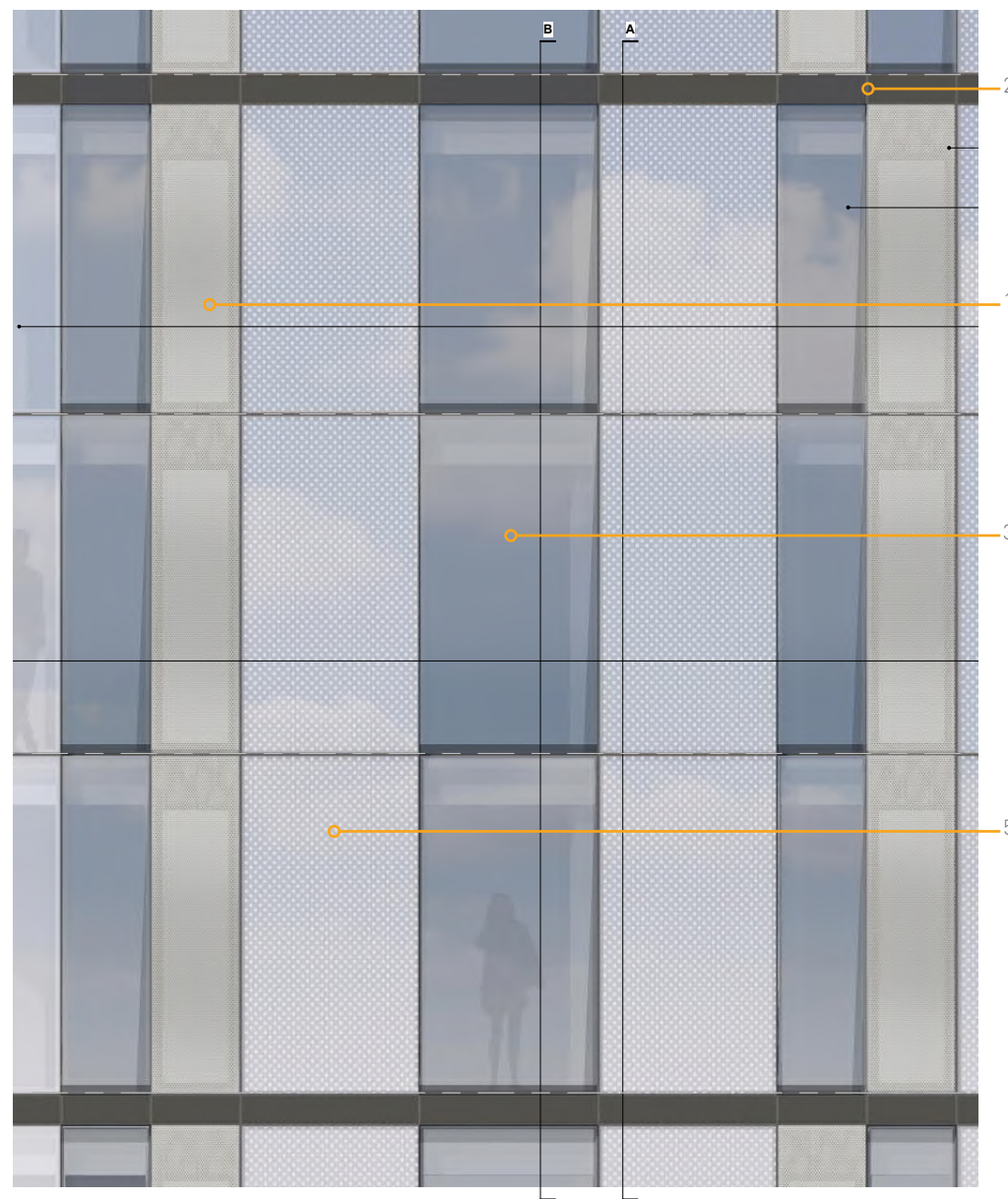
1

3

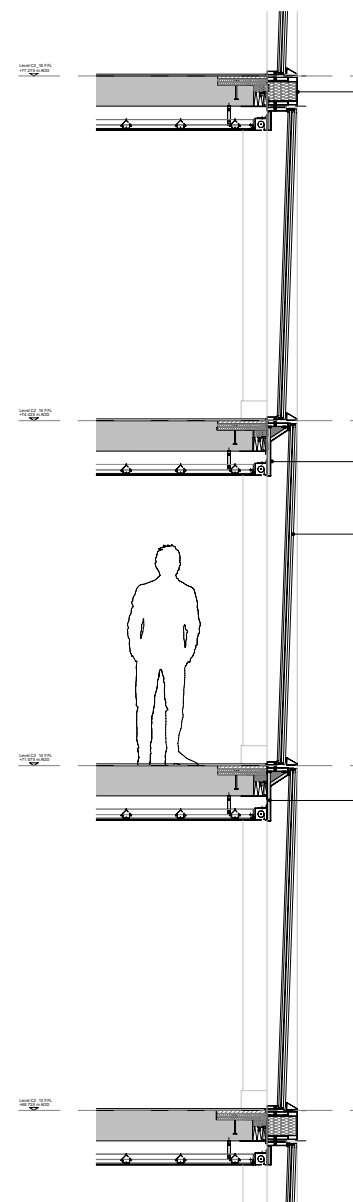


Site C Facade Make-Up / Distribution



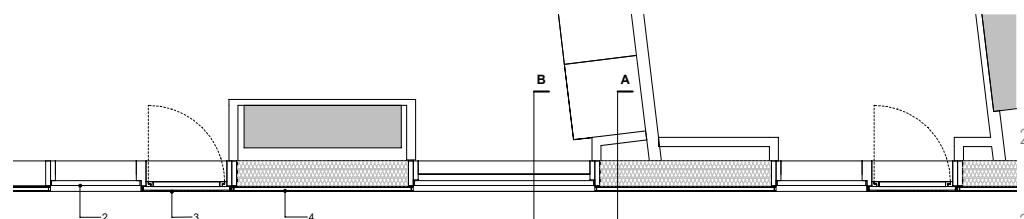


Detailed Elevation



Detailed Section

- 1 Purge Vent – (Steel Effect):
Steel effect anodised aluminium perforated sheet in plane of façade, concealing a glazed or solid door behind (unitised)
- 2 Aluminium Fascia – (Dark Grey): Extruded anodised aluminium profile (unitised)
- 3 Vision Unit – TYPE 2 (Sloping): Full height clear vision unit (unitised)
- 4 Vision Unit – TYPE 1 (Vertical): Full height clear vision unit (unitised)
- 5 Opaque Unit – TYPE 1: Full height opaque (grey back painted) unit with 50% frit (light grey) to Face #1 (unitised)



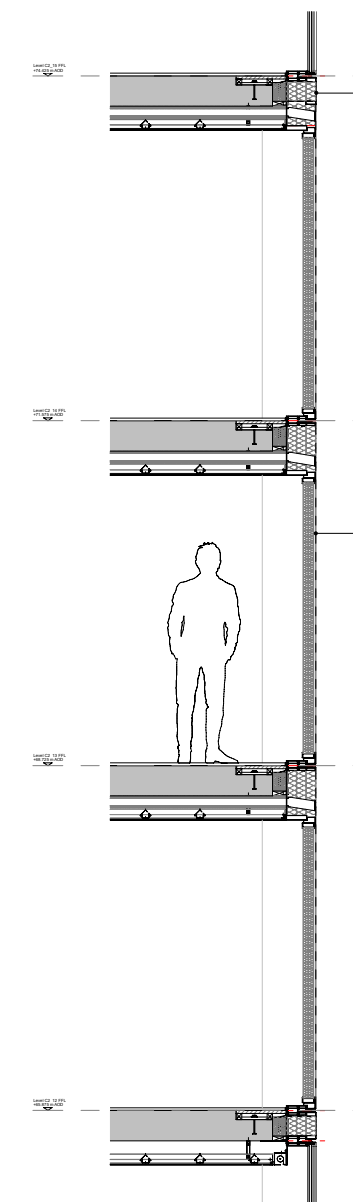
Inflected Elevations
3 out of 4 facades



Detailed Plan

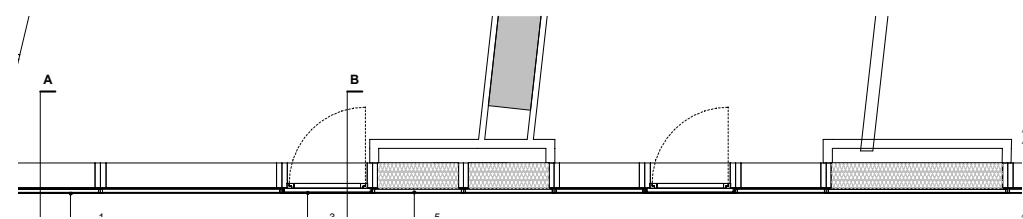


Detailed Elevation



Detailed Section

- 1 Purge Vent – (Steel Effect):
Steel effect anodised aluminium perforated sheet in plane of façade, concealing a glazed or solid door behind (unitised)
- 2 Aluminium Fascia – (Dark Grey): Extruded anodised aluminium profile (unitised)
- 3 Vision Unit – TYPE 2 (Sloping): Full height clear vision unit (unitised)
- 4 Vision Unit – TYPE 1 (Vertical): Full height clear vision unit (unitised)
- 6 Opaque Unit – TYPE 1: Full height opaque (grey back painted) unit (unitised)



Vertical Elevations
1 out of 4 facades



Detailed Plan

3.12 D Towers

APPROACH

The façade solution for the D towers also enhances the form of the buildings in a unique and site-specific manner. There is a visual continuity between both Sites C and D, with both using a unitized façade solution and the same palette of colours for aluminium components; however, the arrangement of panels has been developed on Site D to provide contrast between the outer curved façade and the internally inflected facades, to ensure the building forms can be read clearly from both distant and nearby views. This contrast is further expressed through considering one façade as ‘darker and textured’ and the other as ‘lighter and smooth’, through variety in use of colour palette and depth.

OUTER CURVED FAÇADES

The façade language used on the curved elevations uses a texture and dark grey palette of aluminium finishes to express the curvature of the building form. The glazed vision panels, perforated rapid vent panels and metal faced insulated panels are arranged vertically, and the extent of metal faced panels is limited to narrow widths or split with a vertical capping profile.

The vertical caps, or fins, arranged at consistent 1.5m centres visually increases or decreases in spacing when viewed from any given location due to the façade curvature, and therefore reinforces the form of the tower through introduction of a repeated vertical element. This sense of depth and texture will also enable the face of the tower to vary depending on the daylight and sunlight, with shadows cast across the variety of façade panels that make up this elevation. Two tones of dark grey anodized aluminum are used to express the vents and metal panels, with the vertical fins respectively being a shade darker. The textured perforation in the rapid vent provides a further subtle variation in the finish when viewed alongside a solid aluminum panel of the same colour and width, adding variety and texture to the envelope.

INFLECTED FAÇADES

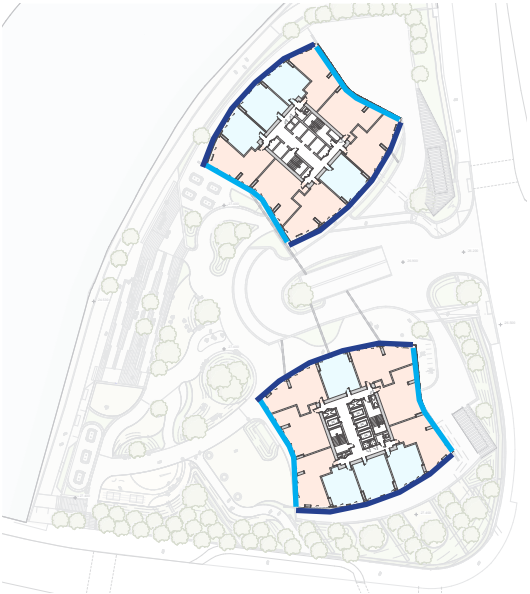
The inflected facades read as a smooth finish composed of hit and miss perforated aluminum and glazed panels. The repeated surface treatment provides a uniformity that enables the façade to be interpreted as a whole surface. The perforated panels, in the same light aluminum tone used on the C towers, are either active rapid vent panels or textured solid panels, whilst glass fronted units are vision panels or back painted insulated panels to provide the necessary mix of panel types for overall thermal compliance and to interface with internal wall locations in certain instances.

DETAIL

The materiality of the D towers is summarised on the following drawings submitted as part of the planning application:

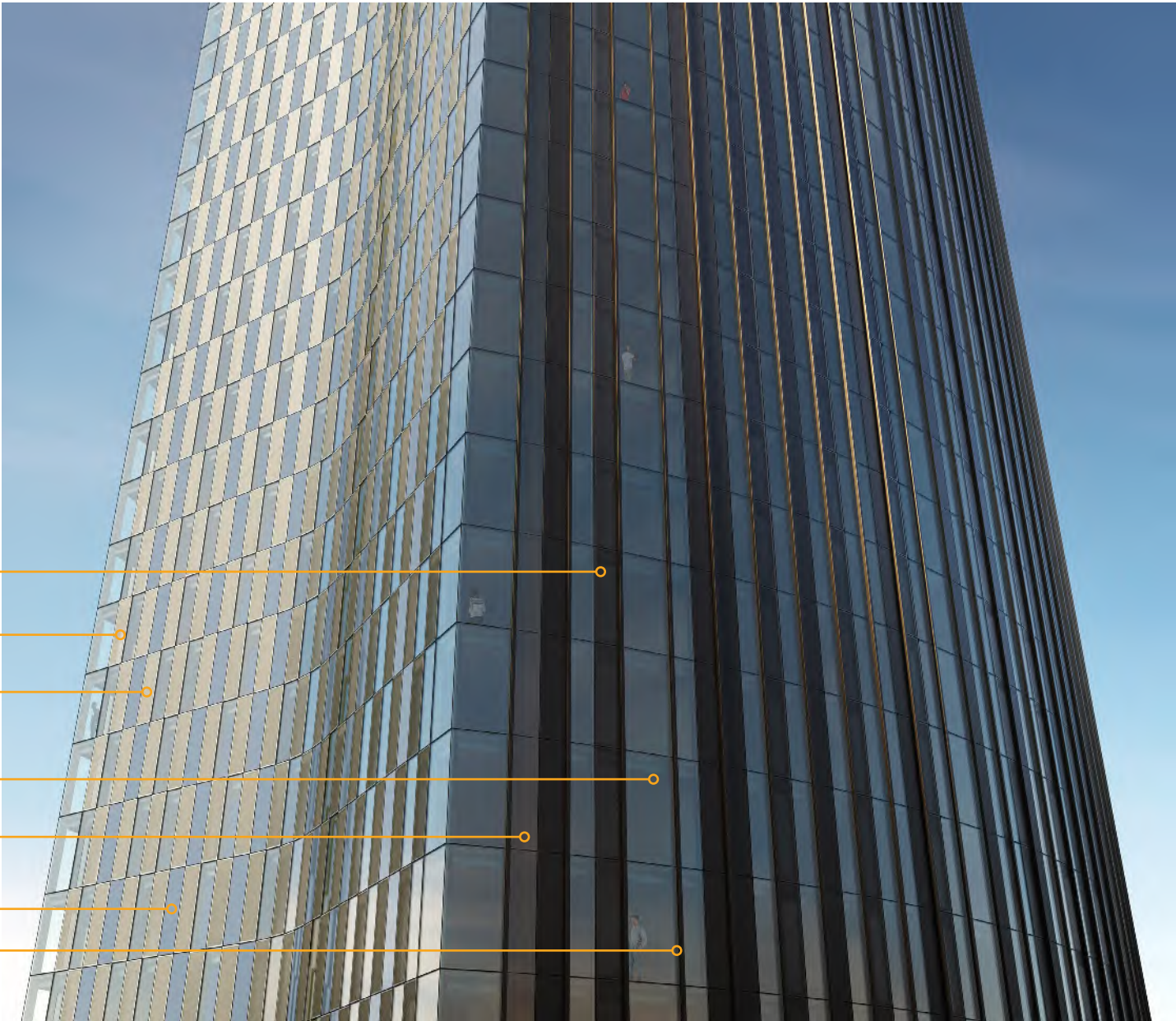
ZD-SHP-G251-DE-XX-B5D801 - External wall detail (Outer Curved Facade)

ZD-SHP-G251-DE-XX-B5D802 - External wall detail (Inflected Facade)



Dark Elevation
Light Elevation

- 1
- 3
- 2
- 4
- 5
- 6
- 7

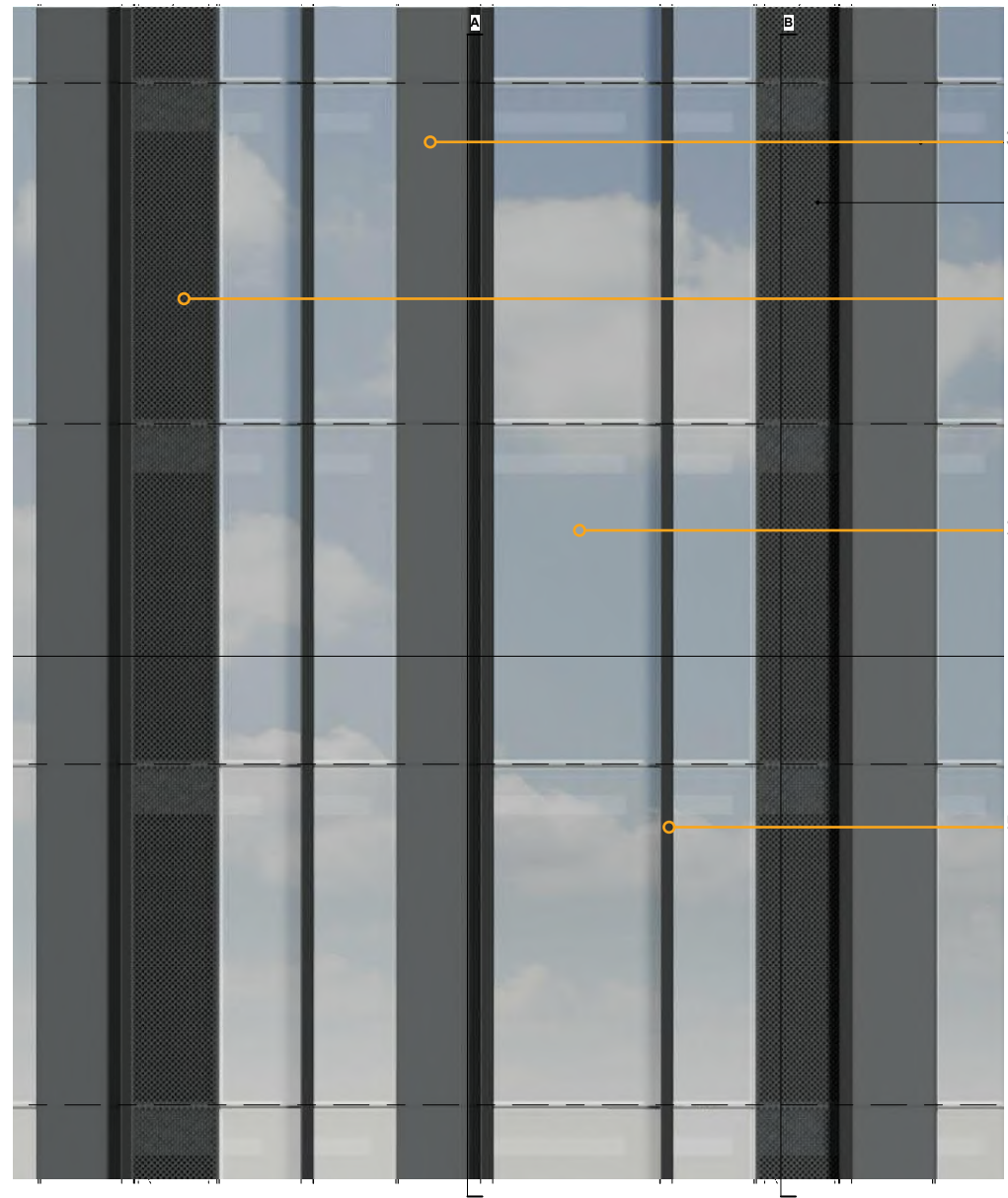


Site C Facade Make-Up / Distribution

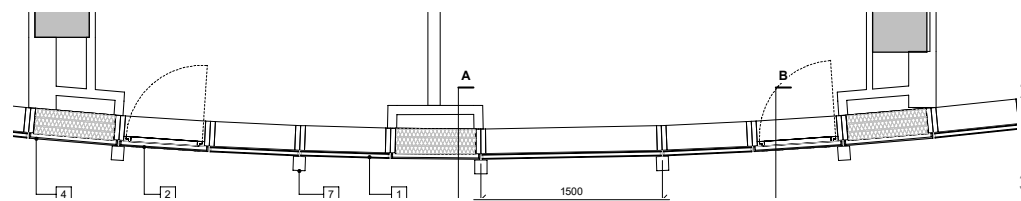


Precedent Images

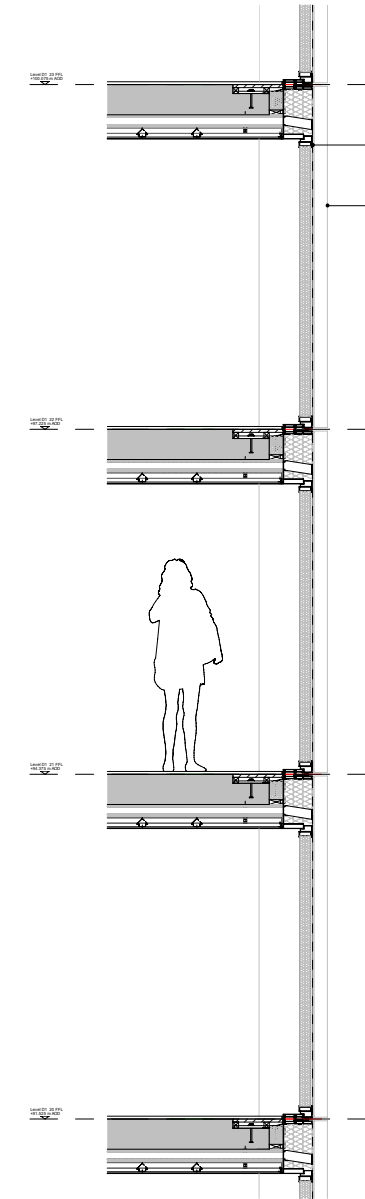




Detailed Elevation



Detailed Plan

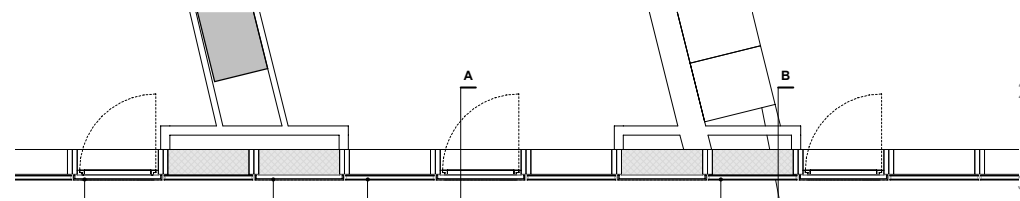


Detailed Section

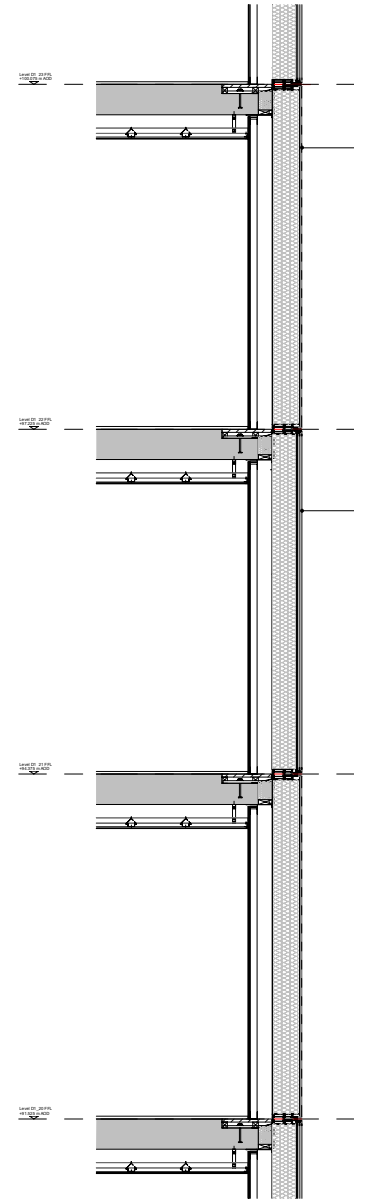
- 1 Purge Vent – TYPE 1 (Dark Grey): Dark Grey anodised aluminium perforated sheet in plane of façade, concealing a glazed or solid door behind (unitised)
- 2 Vision Unit – (Vertical): Full height clear vision unit (unitised)
- 3 Opaque Unit – TYPE 1 (Dark Grey): Dark Grey anodised aluminium sheet (unitised)
- 4 Opaque Unit – TYPE 3: Full height opaque (grey back painted) unit (unitised)
- 5 Vertical Aluminium Fin – Very dark grey extruded aluminium profile



Detailed Elevation



Detailed Plan



Detailed Section

- 1 Purge Vent – TYPE 2 (Steel Effect): Steel effect anodised aluminium perforated sheet in plane of façade, concealing a glazed or solid door behind (unitised)
- 2 Vision Unit – (Vertical): Full height clear vision unit (unitised)
- 3 Opaque Unit – TYPE 2 (Steel Effect): Steel effect anodised aluminium perforated or embossed sheet in plane of façade (unitised)
- 4 Opaque Unit – TYPE 3: Full height opaque (grey back painted) unit (unitised)

Dark elevation
Outer curved facades

Light elevation
Inflected facades

3.13 Lower Floors

C TOWERS

The appearance of the Site C towers is characterized by the stepped arrangement of residential amenity spaces and terraces. The façade treatment of the lower floors is designed to express these unique stepped and cantilevering forms. The introduction of a horizontal aluminium band at Level 01 enables the ground floor cladding to read as a series of different surfaces separate from the carved forms above – themselves reading as a 3 storey element before the banding of the residential floors starts at Level 04 above. The ground floor is composed of tall glazed vision units to front of house reception and commercial spaces, with integrated band of horizontal louvre at high level to the latter for long term flexibility of fitout. Back of house areas are mainly composed of full height louvre panels, with back painted glazed units utilized in public areas where back of house functions exist in plan.

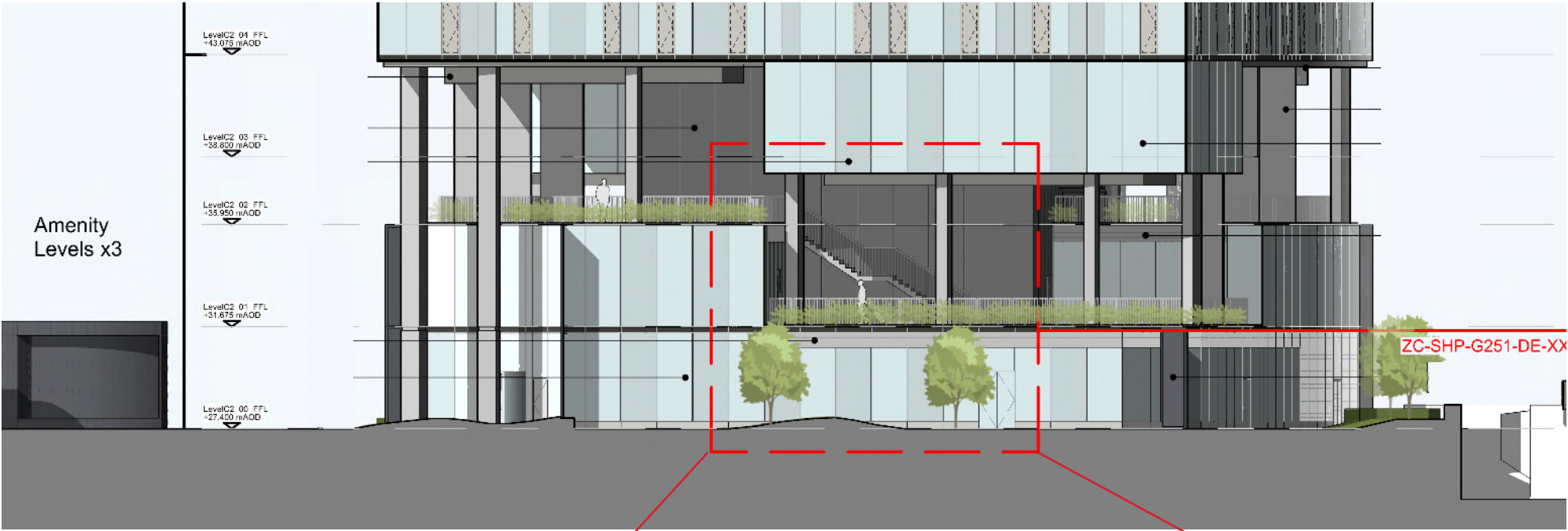
The double height entrance space to reception is expressed as a glazed box located behind three-storey entrance columns, and set back under the tower form cantilevering above – to provide a sense of canopy and enclosure whilst marking the entrance.

The amenity spaces themselves retain glazed panels to the external facades, to maximise the sense of activity at street level and optimize views in and out of the building. Ventilation louvres are located on the façade reveals back to the exposed stair core to be sited discreetly away from street views.

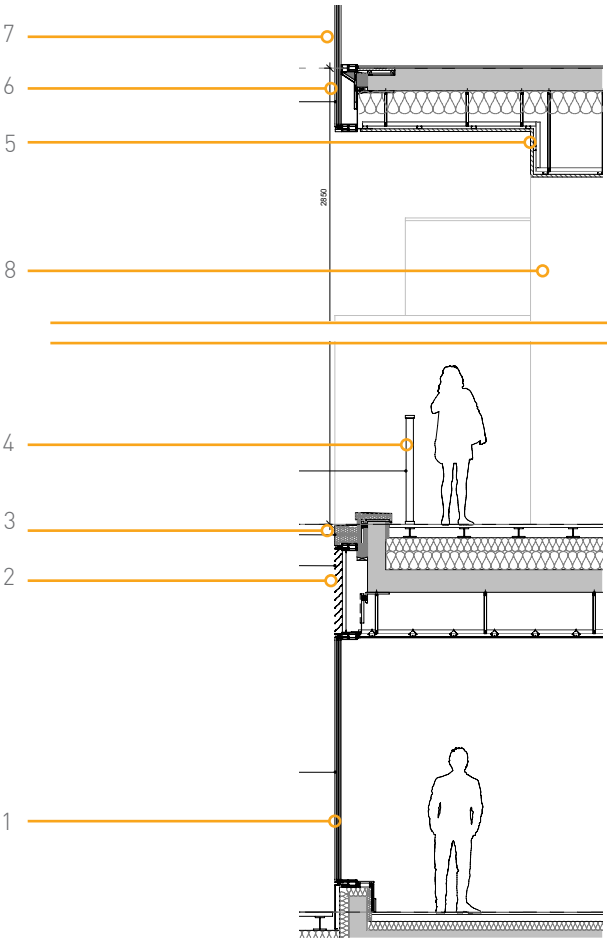
The terraces themselves are described in more detail in the Landscape Section of this document. Balustrades are open metal designs to maximise wind movement and therefore mitigation through these carved out recesses; and the exposed concrete columns track through the volumes to meet the metal soffit panels at the base of the tower form above.

Material Key

- 1 Uncapped glass curtain wall with up to 50% opaque (back painted) units
- 2 Aluminium Louvre – (Dark Grey)
- 3 Aluminium Fascia – (Dark Grey): Extruded anodised aluminium profile
- 4 Metalwork Balustrade – (Painted Dark Grey)
- 5 Aluminium Soffit Panel – (Steel Effect) in ppc
- 6 Opaque Unit – TYPE 2: Opaque (grey back painted) unit (unitised)
- 7 Vision Unit – TYPE 1 (Vertical): Full height clear vision unit (unitised)
- 8 Aluminium Cladding Panel – (Steel Effect) in ppc



C towers - C2 North Elevation Lower Floors



C towers - Section through typical lower floors



C towers - Detailed bay study - part elevation



Lower Floor Massing Design Development Images

D TOWERS

In similar fashion to the C towers, the principle expression of the D tower lower floors is also of stepped amenity terraces with direct connection to residential space such as gym and lounge areas adjacent.

A similar language of finishes is used, with glazed areas maximized to front of house reception and amenity spaces, that maximise views over the adjacent public realm and river. Louvres are limited to back of house spaces and utilized to entire façade surfaces to generate clean lines and the expression of individual planes.

A generous 3 storey colonnade expresses the elevations facing towards the drop off and arrival, with entrance to reception set back under the feature columns and overhanging tower form above.

Where wind baffles are designed into the landscape, not only do these mark and frame the arrival and drop off sequence to each building, but they are orientated to the form of the building, and connect into each ground floor facade through similar use of framed panels, translating from landscape screens into balustrade elements framing the level 01 terraces.

The larger curved façade at ground floor, set in the same plane as the tower façade over, includes vertical louvre elements at regular intervals that continue the language of screens around the ground floor form of the building; and are suggesting of the vertical fin elements that accentuate the curved elevation of the tower form above.

DETAIL

The materiality of the podium building is summarised on the following drawings submitted as part of the planning application:

ZC-SHP-G251-DE-XX-B5D803 - (Detailed bay study - C Towers)

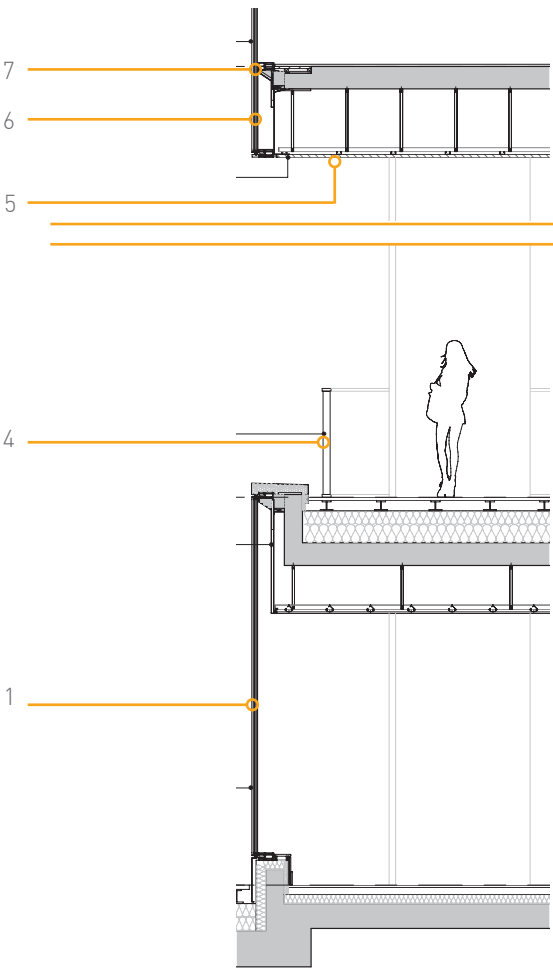
ZD-SHP-G251-DE-XX-B5D803 - (Detailed bay study - D Towers)

Material Key

- 1 Uncapped glass curtain wall with up to 50% opaque (back painted) units
- 2 Aluminium Louvre – (Dark Grey)
- 3 Aluminium Fascia – (Dark Grey): Extruded anodised aluminium profile
- 4 Metalwork Balustrade – (Painted Dark Grey)
- 5 Aluminium Soffit Panel – (Steel Effect) in ppc
- 6 Opaque Unit – TYPE 2: Opaque (grey back painted) unit (unitised)
- 7 Vision Unit – TYPE 1 (Vertical): Full height clear vision unit (unitised)
- 8 Aluminium Cladding Panel – (Steel Effect) in ppc



D towers - D1 South West Elevation Lower Floors



D towers - Section through typical lower floors



D towers - Detailed bay study - part elevation



View west from the park - afternoon



Lower Floor Massing Development Images

3.14 Landscaping

APPROACH

The proposals have sought to create residential and mixed use developments set within high quality public realm; a unique opportunity to create two new landscape areas within the City Centre. The spaces will contribute to the accessible green infrastructure provision within the city and help people to enjoy the riverside setting.

The towers will be grounded within a verdant parkland setting and form ‘Green Lungs’ at the entrance to the city. The sites are located at traffic dominated ‘Islands’ locations where there is the opportunity to change the character and nature of these spaces from concrete car park wastelands to green and open amenity landscapes. The soft landscaping will assist with air and noise pollution and seek to deliver spaces both attractive to people and wildlife.

One of the key drivers of the design of the spaces is to provide walkway access along the under-utilised River Irwell and create new walkways and routes through the two sites; creating a continuous route and urban riverside environment. The proposed split level of the landscape from the lower level river walkway to upper podium landscape maximises on the river setting with a continuous walkway at the lower level and elevated river views from the upper podium landscape. There are well known benefits of connecting people to water will positive cognitive and physical effects.

The design approach to the spaces seeks to create open and inviting access points leading into the developments at strategic junctions and locations to where it is envisaged people will want to move through and between the spaces. Pedestrian priority within the spaces has helped shape the access and servicing strategy, with the aim of minimising the impact of vehicles within the spaces to create more usable and attractive public realm. The design has been influenced by existing adjacencies and future masterplan proposals that are part of the St Johns and Water Street SRF’s.

Site C and Site D architecture is different in form and palette and the landscape has sought to respond to the changes with design differences to ensure each site has its own character and anticipated uses. The prominent location of the gateway sites requires the public realm to be of high quality and character to form part of the arrival setting to the city.



Site C Visualisation



Site C - Riverside Section



Site D - Riverside Section



HARD LANDSCAPE MATERIALS PALETTE

The hard landscape palette will be limited to only several hard landscape materials per site. The hierarchy of materials will transition from entering the site with flag paving to a homogenous paving treatment along the river walkway area.

The footways at the entrance to the sites are proposed to be paved in local authority adoptable stone paving flags. On Site C an existing double row of small scale blocks form the back of the footway. This will be continued along the footway with the blocks acting as a demarcation to the site ownership line.

Asphalt carriageways will form the material leading to the residents basement parking areas and service lay-bys. The drop off access routes will have a shared surface treatment with subtle banding of paving blocks with block paved carriageways e.g herringbone / fish scale pattern.

The main public realm material for pedestrian only spaces is proposed to be a homogenous porous resin bound gravel treatment. The material creates a parkland character with a soft warm aggregate grain and texture. Metal edging will form the interface between the homogenous material and the lawn / planting areas.

The level changes across both sites require steps and ramps to be incorporated. These will be in the form of solid unit steps to create robust edges to the development. Subtle anti skate measures will be incorporated to ensure the edges aren't deteriorated by skate boards.

SOFT LANDSCAPE TREES AND HEDGES

A mixture of evergreen and deciduous trees will be planted throughout Site C and D to create a verdant character to the landscape. Trees tolerant of wind have been selected to ensure they thrive. Varying heights and forms of trees will create variety to create a parkland character. Groupings of trees will help to create avenues and points of interest throughout the landscape. Trees along the river walkway are proposed to have flowers which are good for invertebrates and the flowers will attract bees and butterflies.

PLANTING STYLE

Both sites have extensive areas of amenity lawn and ornamental planting. The planting style of Site C has dissecting hedges cutting through with Site D being more sinuous and flowing. Herbaceous perennials and grass planting is proposed to create a softness, seasonal interest and a true parkland character. Mounded lawns create areas for resting and relaxing.

TPM Landscape drawing (top); Finishes Precedent (below):



ARCHITECTURAL METALWORK

Both Site C and D have architectural metalwork wind baffles within the public realm proposals. These have been integrated into the landscape to create visually attractive screens that frame and guide users through the developments.

The metalwork furniture will become prominent elements within the landscape and have the opportunity to integrate artwork and to be lit in the evening to create drama and excitement.

On Site C the gateway curved structure aligns with the identified Water Street SRF keys views towards the viaduct at the end of New Elm Road. The structures have the opportunity to integrate seating at the base to become a focal area.

On Site D the metalwork baffles have been designed to be linked to the architecture of the building and appear as extensions to the facade. An industrial character that creates gateway forms over the drop off lay-by and architectural 'Windows towards the Waterfront'.

The screens vary in height and form and are illustrated in the sketch views. The infill metal panels require a 50% porosity.

PLAY OPPORTUNITIES - SITE C

The landscape within the Site C development is informal yet controlled in character. As a playful addition to the landscape industrial style swings seats are proposed at the corner of the development. These are located to provide views over the river and be an architectural addition to the site from pedestrians crossing the Trinity Way bridge looking into the site. The swings (or similar) will create animation to the space.

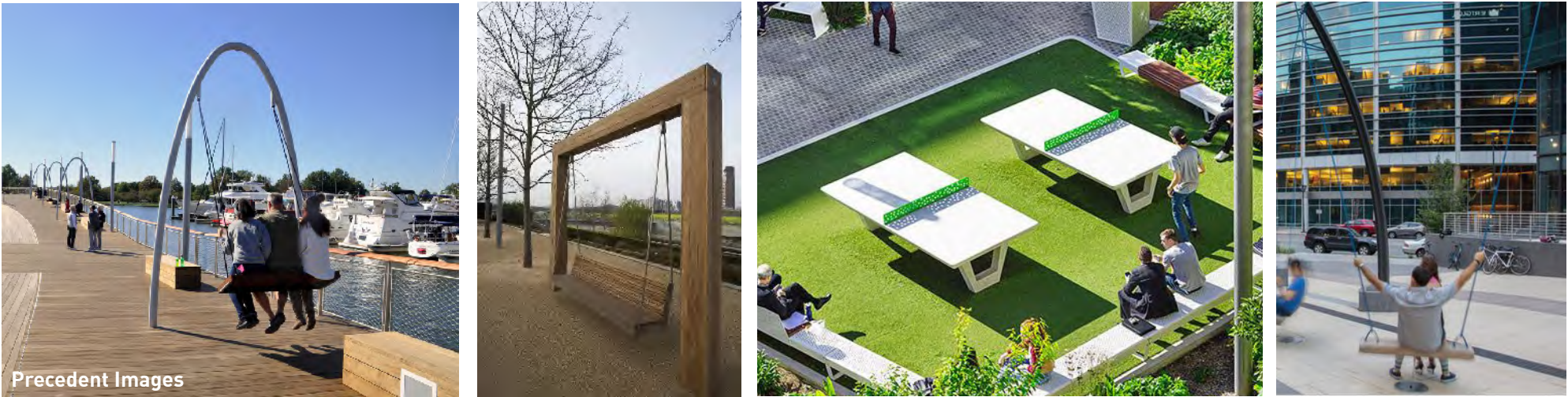
PLAY OPPORTUNITIES - SITE D

Informal play is proposed within Site D. A sculptured play space with seating areas for parents is proposed between the stepped access and pedestrian link off Regent Road. The connections will make the play space accessible to the wider community and the residents.

The play features will be designed for smaller children. The precedent images included in the landscape DAS show sculptured play within a parkland setting.



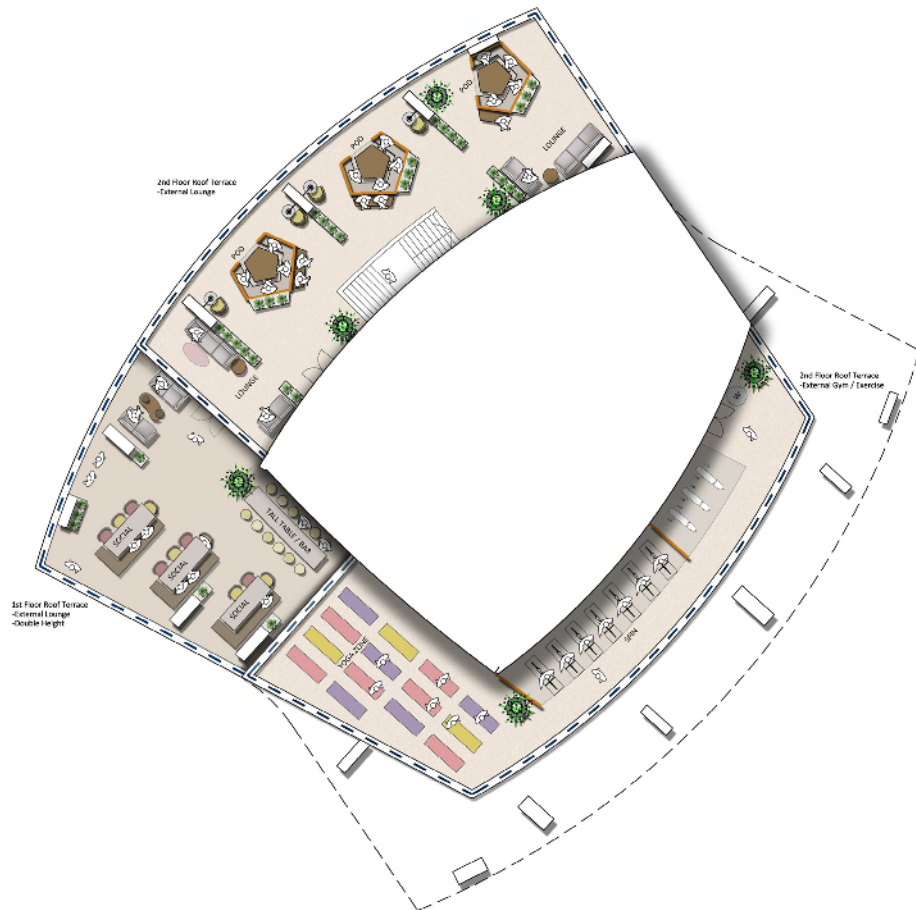
Metalwork baffles



Precedent Images



Site C - Roof Terrace Preliminary Space Planning



Site D - Roof Terrace Preliminary Space Planning



EXTERNAL TERRACE AMENITY

The openings in the building floor plates create the opportunity for amenity terraces with varying aspects and uses. The active usage of the spaces creates animation at the lower building and provides a human character to the towers.

The terraces provide areas of external amenity with views directly over the public realm and are directly linked to the internal uses within the building, allowing the occupants to have accessible external space for socialising, relaxing, exercise and working.

The proposals are indicative only and subject to future operators. The precedent images and typical plans for Tower C1 and D1 give a flavour of what the spaces could become with high quality materials and attractive detailing.

Lighting will play an important part within the spaces due to them being contained within the building envelope and undercover.

3.15 Environmental

A full suite of environmental technical assessments have been submitted with the planning application, including an Environmental Impact Assessment, details of which are provided within the Planning and Tall Building Statement and supporting documents.

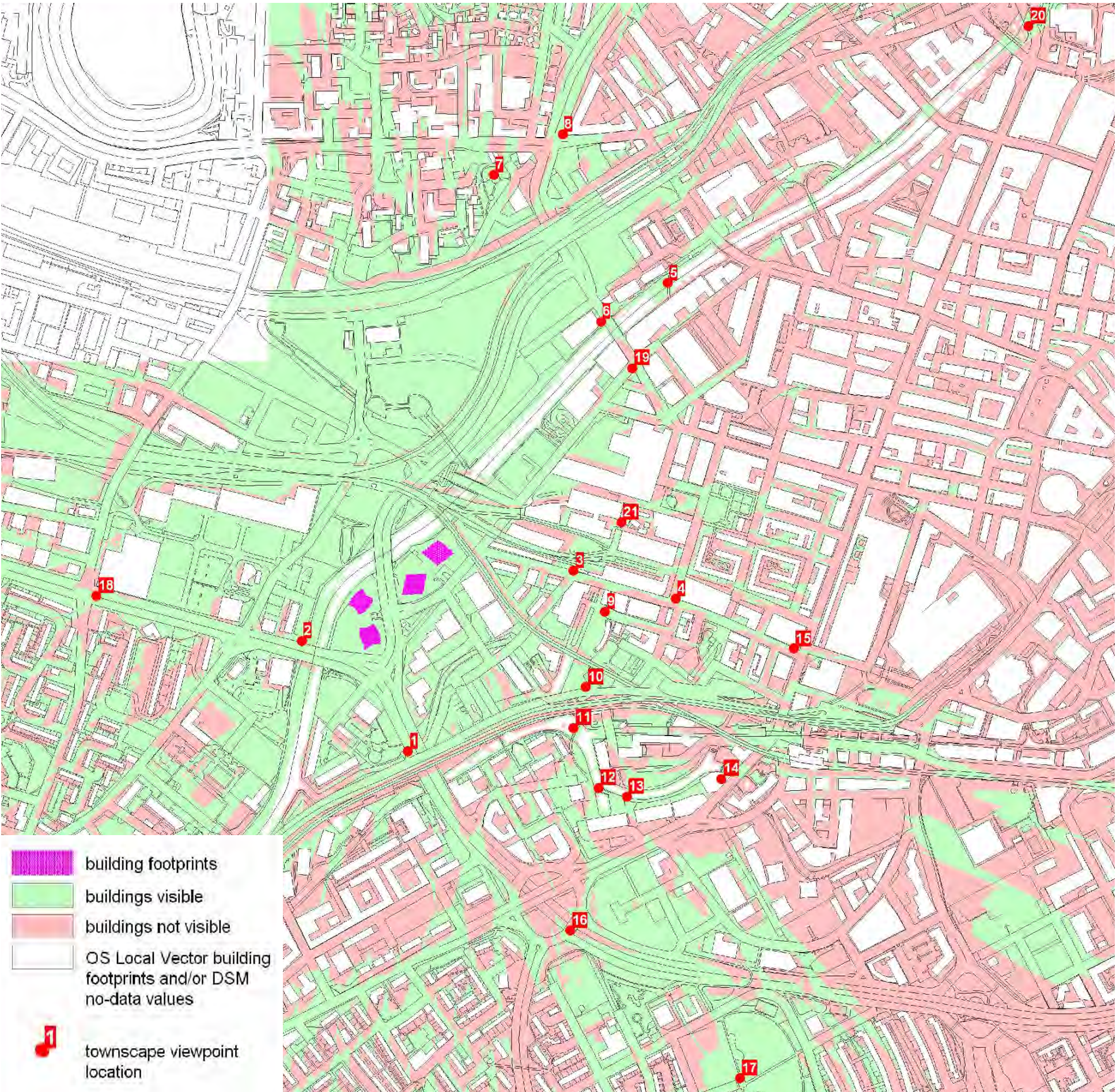
3.16 Townscape Impact

The architectural composition of the Proposed Development takes account of the impact of the buildings at both local level and within the context of the wider city centre and also takes into account both the current and emerging future context.

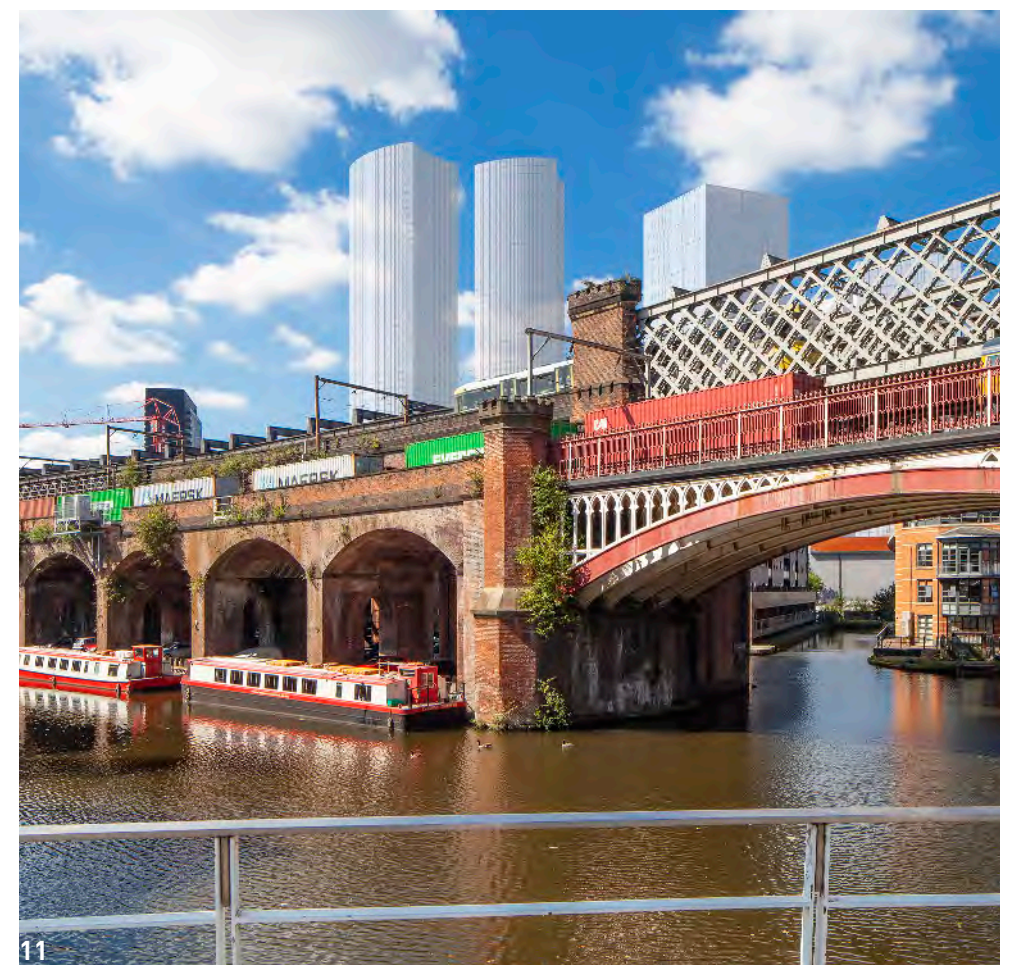
The scale and massing of the scheme has been designed to relate to, and connect with, both the immediate surroundings and also with due regard to the setting of and views to the city of Manchester.

The impact of the proposals has been tested through engagement with Historic England and other key stakeholders, during which key views have been established. The impact of the development on townscape, visual impact and built heritage assets is included within the submitted Environmental Statement and discussed in the Planning and Tall Building Statement.

A selection of the nearest views are included on the following page; please refer to the accompanying Visual Impact Assessment for a full set of views



Plan Locating Key Views





4.1 Inclusive Access

OVERVIEW

This section of the report sets out details of the measures that have been employed with regard to inclusive access within the Proposed Development. The design team have adopted the following measures to facilitate suitable access and use by people who occupy or move around the buildings.

The design has been developed in consideration of national legislation. The considerations seek to avoid discrimination regardless of disability, age or gender. These cover the access within the new buildings and the public realm within the application site.

ACCESS AT SITE BOUNDARY

The setting out of the building levels has been driven by mitigation of the flood risk associated with the sites, and coordination with the existing pavement levels. Taking into account these constraints, the design ensures that all primary entrances (either to commercial units, residential lobbies, and car parking entrance lobbies) can be accessed from flat and level approaches.

CIRCULATION AND ACCESS TO PRIMARY ENTRANCES

The clear width of all access routes from pavement to main entrances are at least 1500mm wide; and comply with or exceed statutory guidance. Similarly, the gradient of access routes are ‘flat’ (cross falls introduced for drainage only) and will be set at no more than 1 in 21.

Access routes will be finished in hard landscaping with appropriate slip resistance and textured surfaces to thresholds as required. In addition, access to primary entrances will include the following;

- › Clearly defined pedestrian route to main entrance.
- › Signs to identify building and entrances.

RECEPTION DESK / WAITING AREA / ENTRANCE LOBBIES

Main reception areas and concierge facilities are located at ground floor of each tower with self contained facilities.

Further detailed design will be undertaken with the end users to determine a suitable fit out and interior design for these spaces. Reception desks will include a low-level desk area for wheelchair users. Any seating or waiting areas will be spaced to enable suitable clear circulation and passing places in line with statutory guidance. In addition, waiting areas and entrance lobbies will include some of the following;

- › Materials selected to reduce surface glare.
- › Upon entrance the interior layout will be clearly signposted .
- › The use of lighting and signage to aid way finding. .
- › Solid floor surfaces to access routes to facilitate ease of wheel chair movement.

From the entrances, level access is provided throughout the communal areas of each building. Every floor can be accessed via one of four passenger lifts in each residential tower. A separate shuttle lift provides level access from the concierge spaces to the basement car parking levels.

Step free level access is also provided for access on to the shared level 01 and 02 amenity terraces.

COMMUNAL STAIRS AND LIFTS INCLUDING LOBBIES

Communal stairs to all cores will be designed to comply with all appropriate Building Regulations. All buildings will be provided with a designated Fire Fighting lift which can be used at the Fire Officers discretion for wheelchair users in an evacuation event. There are wheelchair refuges with intercom access to the concierge provided to the car park stair and amenity floors.

WIDTH OF INTERNAL CIRCULATION ROUTES

All primary circulation corridors are a minimum 1500mm wide. Although not all circulation corridors therefore comply with DFA2, they are considerably in excess of the 1200mm minimum clear width required by Approved Document M. The layout of the apartments ensures there are no facing front door apartment entrances in either tower form.

The main residential lift lobby has a minimum 2160mm width and exceeds the requirements of DFA2 and Approved Document M, and fulfils a considerable proportion of the main circulation space providing a large area for passing and to accommodate waiting.

LEVEL ACCESS APARTMENTS

Single Level Apartments
1,934 of the 1,950 apartments (99.2%) proposed are single level apartments - all can be accessed via level ‘step-free’ access via passenger lifts.

Duplex Apartments
On Site D, 16 apartments are two storey duplexes, the entrance storey can be accessed ‘step free’ and is served via passenger lift. Additionally, in line with the requirements of AD M4(1) the entrance storey of each apartment will provide the following;

- › A room (which may be a WC/cloakroom or a bathroom) containing a WC is provided on the entrance storey or, where there are no habitable rooms on the entrance storey, on the principal storey or the entrance storey.
- › Duplex apartments have a private stair providing access from the entrance storey to the bedrooms above. The stair will be designed in accordance with AD K.

INTERNAL LAYOUT OF APARTMENTS

Please refer to the following pages for a detailed description.

EMERGENCY EGRESS

Evacuation of disabled people will be a liaison between building managers and occupants; driven by a combination of physical fire safety measures and management procedures. This will be developed in conjunction with the fire strategy and management policies with reference to statutory guidance. A fire strategy report will be prepared to include egress of people with disabilities, children and elderly people. Alarm systems will provide visual as well as audible signals in an emergency. In addition, Emergency Egress provision will include the following;

- › Visual fire alarms especially where people may be alone
- › Improvements in legibility of evacuation procedure signs
- › Direction and location signs to circulation cores

FIRE FIGHTING ACCESS

The detailed design will adopt a fire engineered solution utilising references from BS9991.

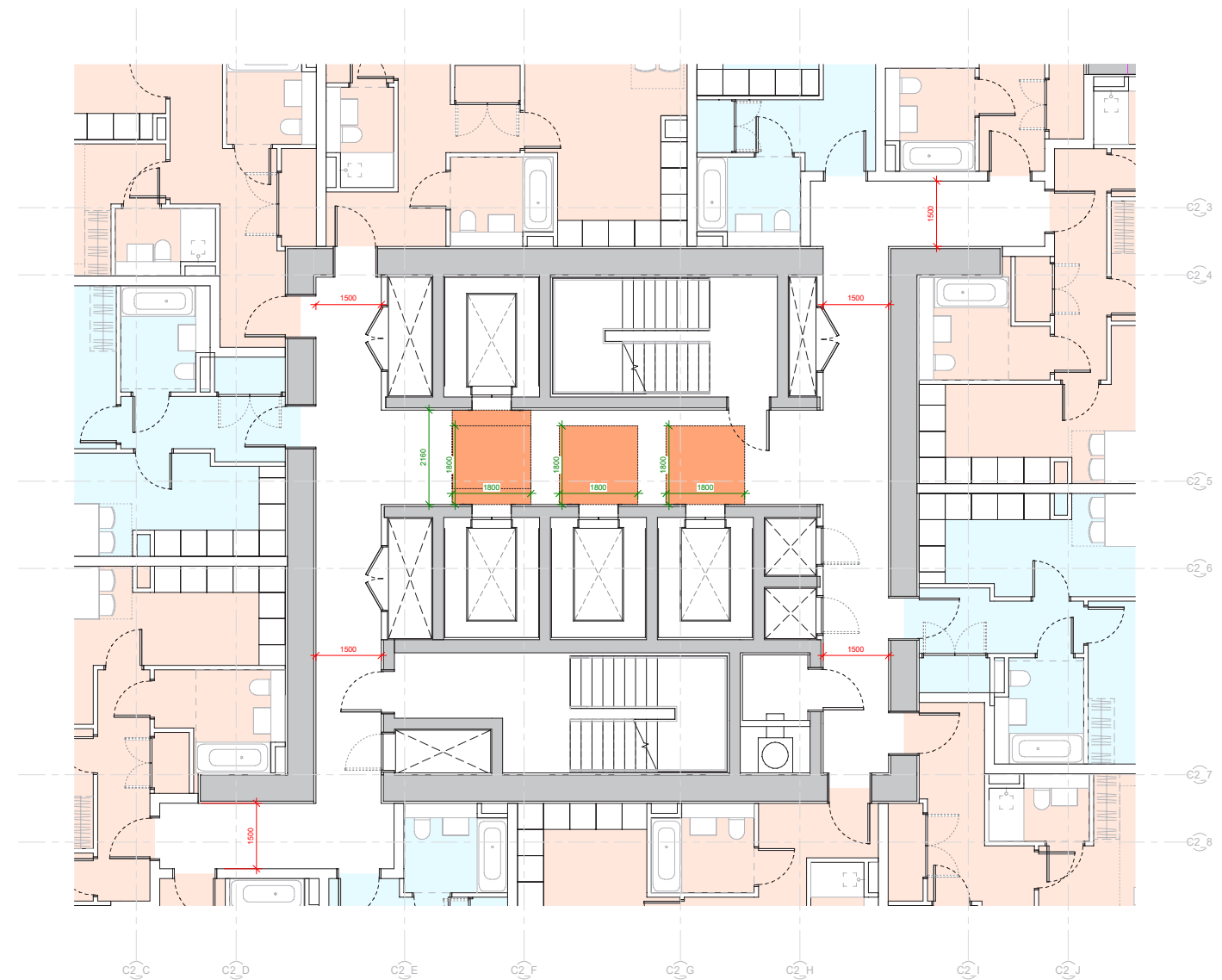
ACCESSIBLE PARKING SPACES

Accessible parking spaces are located across basement levels 01 & 02. Accessible space provision has been calculated based on 10% of the total private parking provision.



- Accessible (step free route) - - - - -
- Reception Entrance ○
- Commercial Entrance ○

Site Plan - Access Arrangements



- Clearance in front of lifts ■

Core / Corridor Accessibility

4.1 Inclusive Access (cont)

INTERNAL LAYOUT OF APARTMENTS

OVERVIEW

The apartment layouts in both buildings have been guided by the optional requirements outlined in Approved Document M4(2) Category 2: ‘accessible and adaptable dwellings’ (AD M4 2) wherever possible.

By meeting criteria, it is anticipated that it will be possible to deliver homes that allow adaptation to meet the changing needs of occupants over time, including those of some older and disabled people.

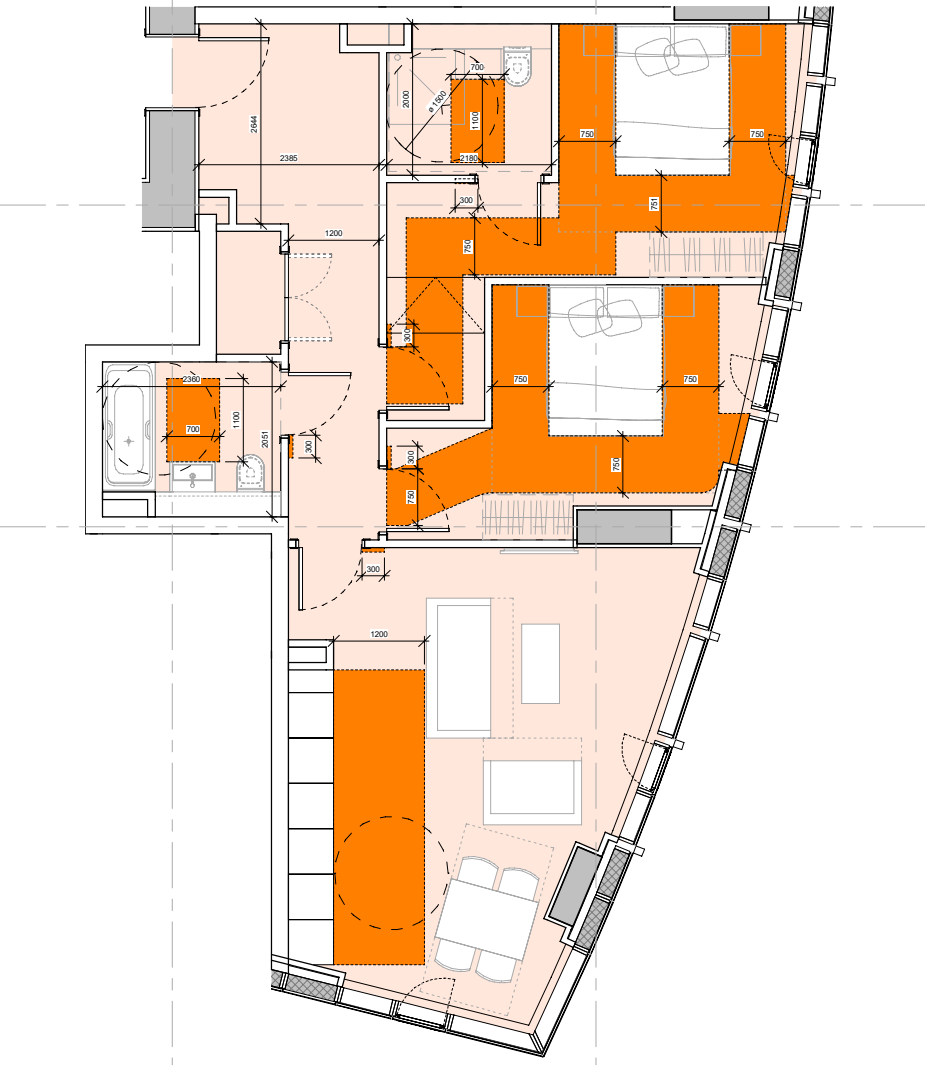
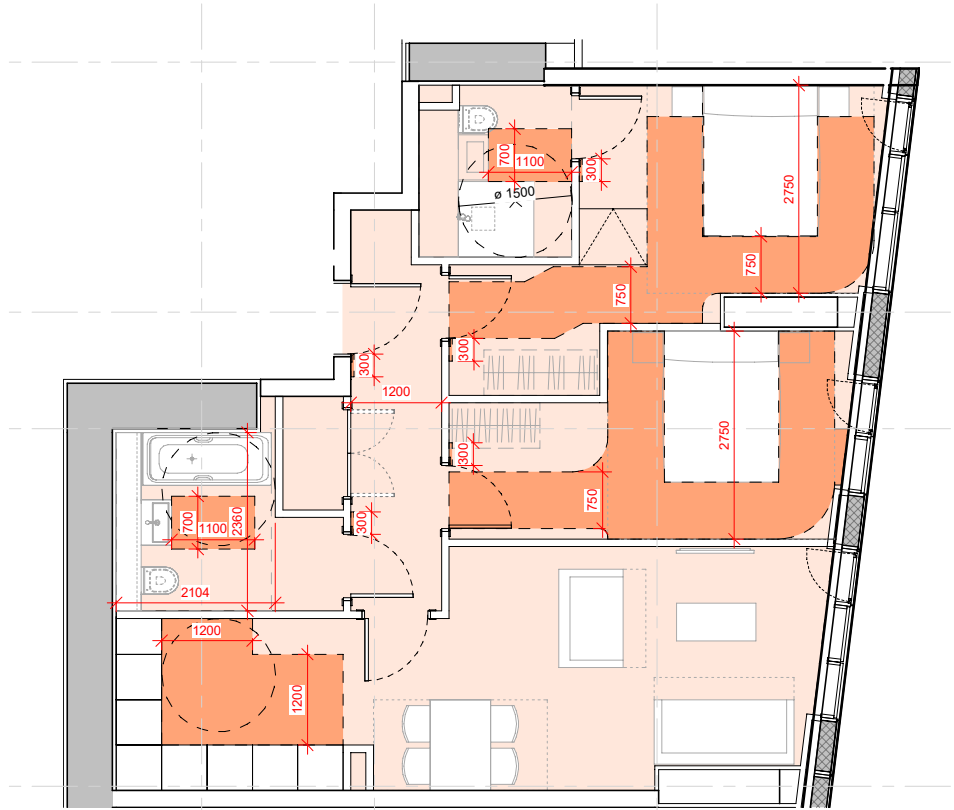
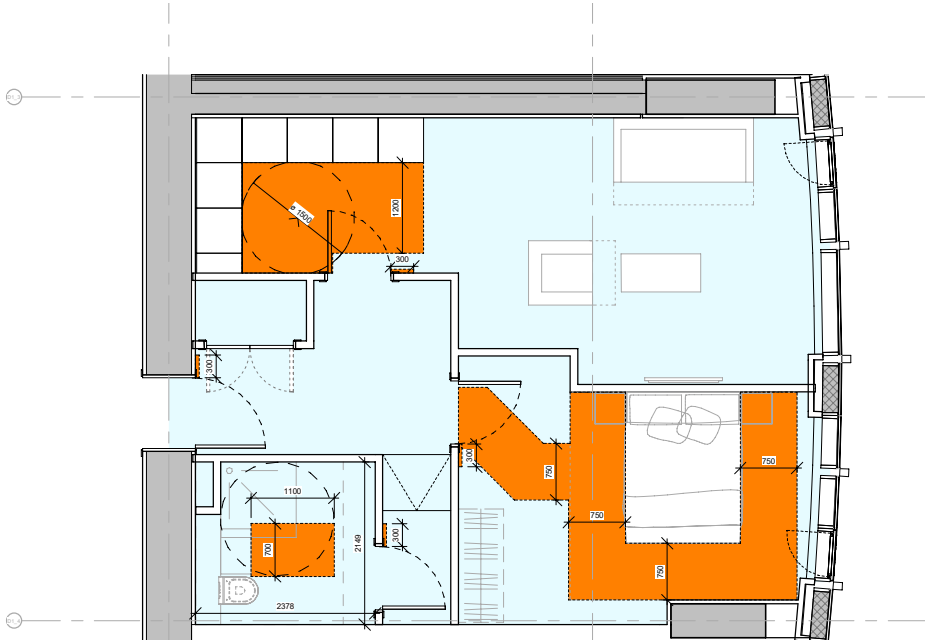
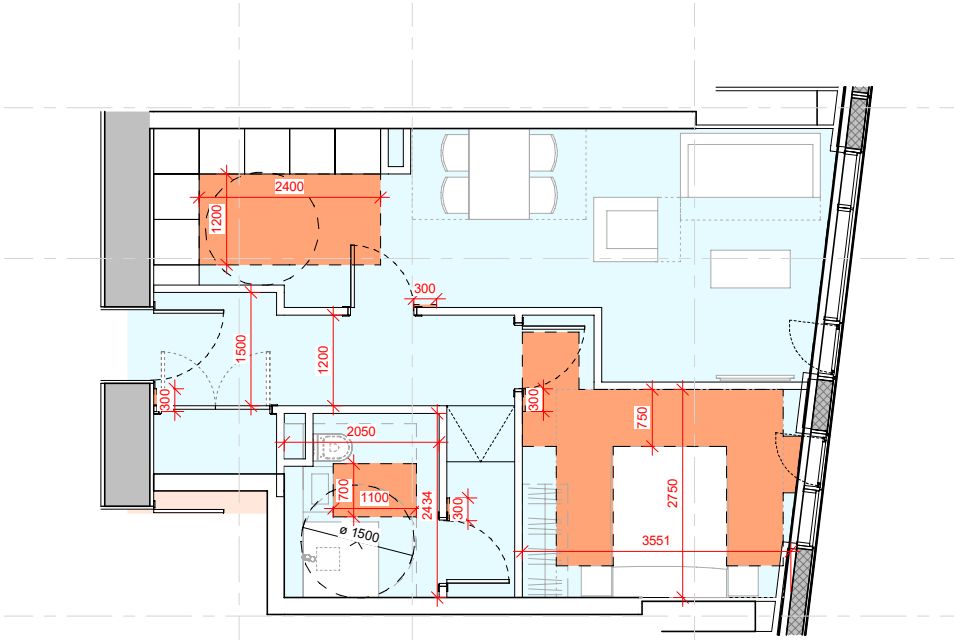
Additionally, apartments have been guided to achieve the additional requirements within Design for Access 2 (DFA2).

TYPICAL RESIDENTIAL APARTMENTS

Both a typical one bedroom and two bedroom apartment from each tower type (Site C and Site D) have been used to test compliance against both Approved Document M4 - Category 1 and 2 and against DFA 2 in the drawings and tables on the following pages. The plan drawing also illustrates the way in which the apartments could be adapted, in accordance with M4(2) to be fully accessible.

The main adaption required centres around the need to provide a level access shower. The minimum feasible depth for a shower is 75mm, however due to limitations on the depth of the floor finishes zone at only 23mm, it would be necessary to provide a 1:21 incline to allow step free wheelchair access up 37mm (plus 15mm threshold) in to the shower room, the overall dimensions for the en suite shower room have been increased to facilitate a 1500mm turning circle.

In all apartments full height glazing will provide clear unobstructed views, and solid opening vent panels will be easy to operate. Switches, sockets and controls will be fitted at a height which is usable by all (i.e. between 450mm and 1200mm from the floor).



Indicative Plans - Illustrating Compliance with Approved Document M4(2)



Description	M4(1)	M4(2)	ZC 1B_01	ZC 2B_01
Doors				
Private external entrance clear width	775mm	850mm	880mm	880mm
Internal door clear width	750mm	750mm	780mm	780mm
Nib to leading edge of every door within the entrance storey		300mm	300mm	300mm
Circulation				
Hall (minimum - excluding projections)	900mm	900mm	1200mm	1200mm
Living, Kitchen and Eating Areas				
Kitchen				
Clear space provided in front of and between all kitchen units and appliances		1200mm	1200mm	1200mm
Bedroom				
Master				
Width		2750mm	2750mm	2750mm
Length		3000mm	3550mm	4490mm
Clearance to the foot of the bed		750mm	750mm	750mm
Clearance to both sides of bed		750mm	750mm	750mm
Clear access route from the doorway to the window		750mm	750mm	750mm
Second Bedroom				
Width		2750mm		2750mm
Clearance to foot of the bed		750mm		750mm
Clearance to one side of bed		750mm		750mm
Clear access route from the doorway to the window		750mm		750mm
Sanitary Facilities				
Master				
Dimensions		1950x2150mm	2050x2435mm	2354x1750mm
Second				
Dimensions	850 x 1600mm	1450 x 1800mm		2360x2105mm

COMPLIANCE

As illustrated in the adjacent table and plan drawing, the apartment follows the guidance of AD M4(2) and can be adapted over time to meet the changing needs of occupants.

Without the adaption to the shower the base apartment design still adheres to the vast majority of requirements of AD M4(2) in excess of the minimum statutory requirements, in a number of instances requirements in M4(2) are also exceeded.

Site C - Table illustrating compliance against key dimension criteria in Approved Documents

Description	M4(1)	M4(2)	ZD 1B_08	ZD 2B_07
Doors				
Private external entrance clear width	775mm	850mm	880mm	880mm
Internal door clear width	750mm	750mm	780mm	780mm
Nib to leading edge of every door within the entrance storey		300mm	300mm	300mm
Circulation				
Hall (minimum - excluding projections)	900mm	900mm	1400mm	1200mm
Living, Kitchen and Eating Areas				
Kitchen				
Clear space provided in front of and between all kitchen units		1200mm	1200mm	1200mm
Bedroom				
Master				
Width		2750mm	2750mm	3359mm
Length		3000mm	4822mm	3350mm
Clearance to the foot of the bed		750mm	750mm	750mm
Clearance to both sides of bed		750mm	750mm	750mm
Clear access route from the doorway to the window		750mm	750mm	750mm
Second Bedroom				
Width		2750mm		2925mm
Clearance to foot of the bed		750mm		750mm
Clearance to one side of bed		750mm		750mm
Clear access route from the doorway to the window		750mm		750mm
Sanitary Facilities				
Master				
Dimensions		1950x2150mm	2050x2435mm	2354x1750mm
Second				
Dimensions	850 x 1600mm	1450 x 1800mm		2360x2105mm

Site D - Table illustrating compliance against key dimension criteria in Approved Documents

4.1 Inclusive Access (cont)

INTERNAL LAYOUT OF APARTMENTS

DESIGN FOR ACCESS 2

The apartment layouts are identical to those used to review against AD M4 (2) but in this instance they are appraised against relevant criteria from Design for Access 2, with the layouts incorporating the same indicative adaption to the en-suite bathroom.

QUANTUM

The approach outlined on the previous pages would provide the following adaptable apartments that (through necessary adaption) could comply with AD M4(2) and with the majority of key criteria from DFA 2:

C1 & C2 Number of adaptable apartments - Typical 1 bed / Typical 2 bed
Total number of adaptable apartments: 332 (out of 935)
Percentage of total: 36%

D1 & D2 Number of adaptable apartments - Typical 1 bed / Typical 2 bed
Total number of adaptable apartments: 384 (out of 1,015)
Percentage of total: 38%

Total number of adaptable apartments: 716 (out of 1,950)
Percentage of total: 36.7%

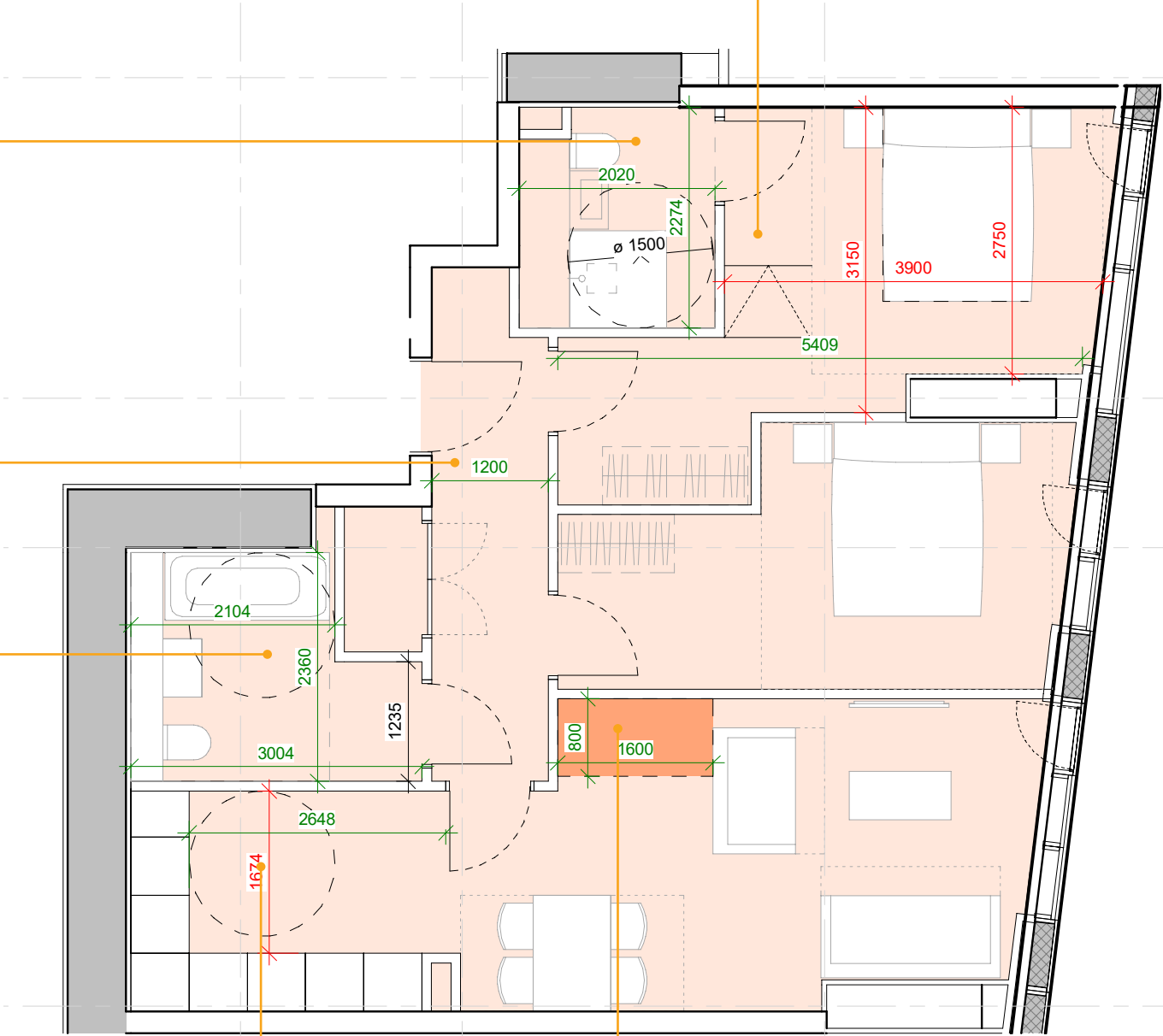
21.2.5
Where possible, ensuite facilities should be provided, of minimum dimensions 2000mm x 2000mm.

21.1.10
For single family dwellings, the minimum width of halls and lobbies should be 1200mm, with minimum clear width to passageways 900mm

2.29a
Every dwelling has a bathroom that contains a WC, basin and a bath, that is located on the same floor as the double bedroom

21.2.09
Circulation space of minimum 1800mm x 1800mm should be available in kitchens after fitting out

21.2.3
At least one accessible bedroom should be provided in each dwelling, of minimum dimensions 4000mm x 4000mm.



21.2.1
A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter, 1600mm long x 800mm wide

Indicative Plan - Illustrating Compliance with Design for Access 2

Design For Access 2		Compliance
21.1.2	At least one accessible parking space should be provided for each dwelling.	Yes 10% accessible spaces provided in basement
21.1.3	A level access route of minimum 1800mm wide should be provided to the principal entrance of each dwelling.	Yes
21.1.4	Single leaf external doors to have minimum clear opening of 1000mm, for double doors at least one leaf should have a clear opening not less than 1000mm. Lobbies should have 2000mm turning circle (clear of door swings). Corridors should be minimum 1800mm wide.	Partially Compliant
21.1.5	Facilities for parking and charging power wheelchairs and scooters should be provided close to function rooms, meeting rooms and communal areas.	Yes
21.1.6	Internal dimensions of passenger lift to be a minimum of 2000 wide x 1400mm deep x 2000mm high. For constrained circumstances minimum internal size of 1100 wide x 1400mm deep is sufficient. There should be an unobstructed area in front of the lift entrance of 1800x1800mm.	Yes Lift car 1125 x 2100mm Yes 1800 x 1800mm in front of lift
21.1.7	For single family dwellings, external doors should have a minimum clear opening of 850mm.	Yes
21.1.8	All dwellings that have access to an outside area, for example a garden or balcony should provide level or ramped access	Yes Shared access
21.1.9	Where the accommodation is split level, provision should be made for visitors to access the main living areas.	N/A Accomodated within penthouse units
21.1.10	For single family dwellings, the minimum clear width of halls and lobbies should be 1200mm, with minimum clear width to passageways 900mm.	Yes
21.1.11	An accessible WC, with minimum dimensions 1500x2000mm, should be provided in the entrance level within each dwelling.	Yes
21.2.1	A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter, 1600mm long x 800mm wide	Yes
21.2.3	At least one accessible bedroom should be provided in each dwelling, of minimum dimensions 4000x 4000mm.	Partially Compliant master bedroom max dim. 3150 x 5409mm master bedroom min dim. 2750 x 3900mm
21.2.5	Where possible, ensuite facilities should be provided, of minimum dimensions of 2000x2000mm	Yes (through adaptation)
21.2.6	Where only one bathroom is provided it should have minimum 2700 x 2500mm	No 2378 x 2149mm
21.2.9	Circulation space of minimum 1800x1800mm should be available in kitchens after fitting-out.	Partially Compliant 2648 x 1674 mm
21.2.10	On each floor there should be no stepped changes of level	Yes
21.2.11	Internal doors should have clear opening of 800mm.	Yes

COMPLIANCE

As illustrated in the adjacent table, the apartments (with necessary adaption) comply with the majority of criteria within DFA 2; Section 21 - Dwellings. The items highlighted as partially complaint are considered in further detail below:

CORRIDORS

Covered in the previous chapter communal corridors in some instances exceed DFA 2 criteria by up to 360mm and in some areas are 300mm under the DFA 2 requirement. In all cases they are well in excess of the requirements of Approved Document M.

BEDROOMS

The master bedroom is below the criteria of 4000x4000 however due to the irregular shape of the bedroom it in fact exceeds this measurement in some areas. When considered on a floor area basis the 4000x4000mm bedroom provides 16sqm of accommodation, the bedroom area proposed in the adjacent apartment by comparison provides 15.7sqm of floor area.

Table Illustrating legislative compliance against relevant DFA2 criteria

4.2 Security

GREATER MANCHESTER POLICE

Greater Manchester Police liaison were consulted during the design process in order to review the scheme design in relation to security issues. This generated a useful discussion and a positive response to the proposed design.

The ground floor layout has been designed to maximise opportunities for passive surveillance of the public realm spaces. Residential entrance lobbies are situated adjacent to the public realm, which will be well lit and overlooked.

The development will benefit from 24 hour on-site concierge/management staff in each tower. The car park entrance will be provided with a security shutter / bi fold gate arrangement.

The ground floor layout provides good visibility to access routes and spaces. Entrances will be well lit and the development will incorporate CCTV.

A Crime Impact Statement has been produced by GMP in relation to the Proposed Development containing useful recommendations to inform the process of design development.

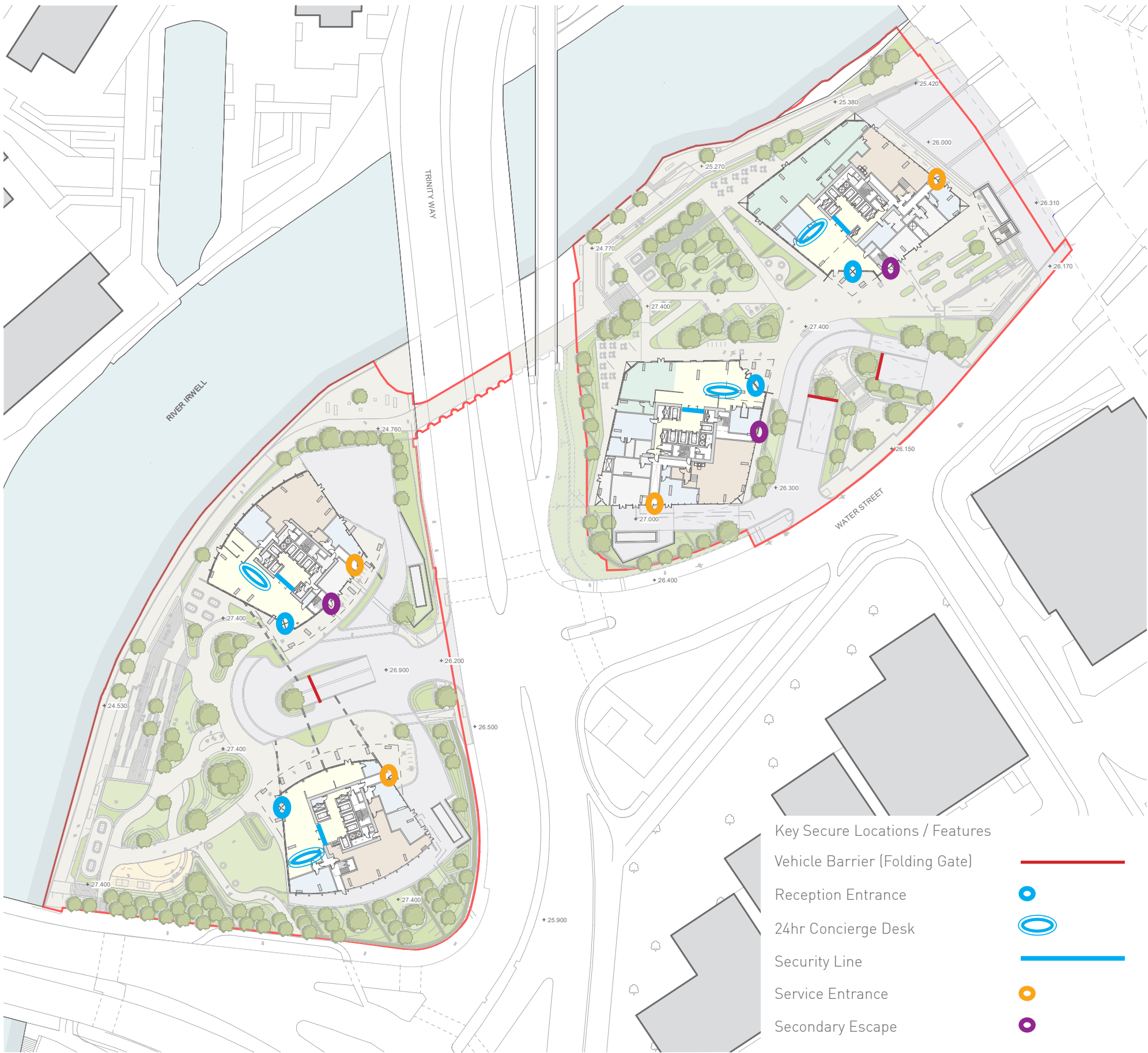
4.3 Management

MANAGEMENT APPRAISAL

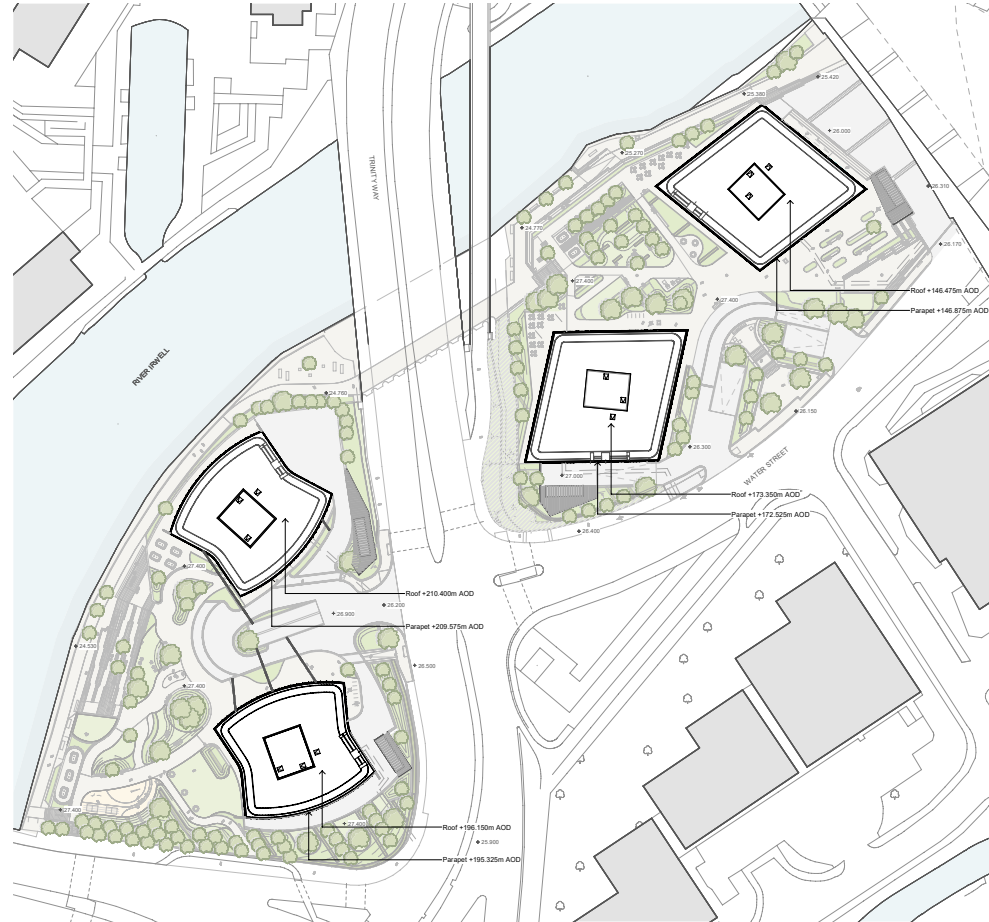
A supplementary Management Evaluation has been prepared by Zenith Property Management; ARMA accredited Management Agents specialising in large city centre residential schemes and is included within the Appendices.

The report identifies the scheme has been designed such that an effective management structure is in place from day-one and is able to provide a high-quality resident experience, meeting the expectations and challenges that are common to large residential developments.

The appraisal concludes that the proposed scheme and its management facilities will be well placed to deliver a comprehensive service to future residents and visitors. The design anticipates and accounts for the operational needs of the management team and will ensure that a robust service is delivered to the resident as the ultimate end user.



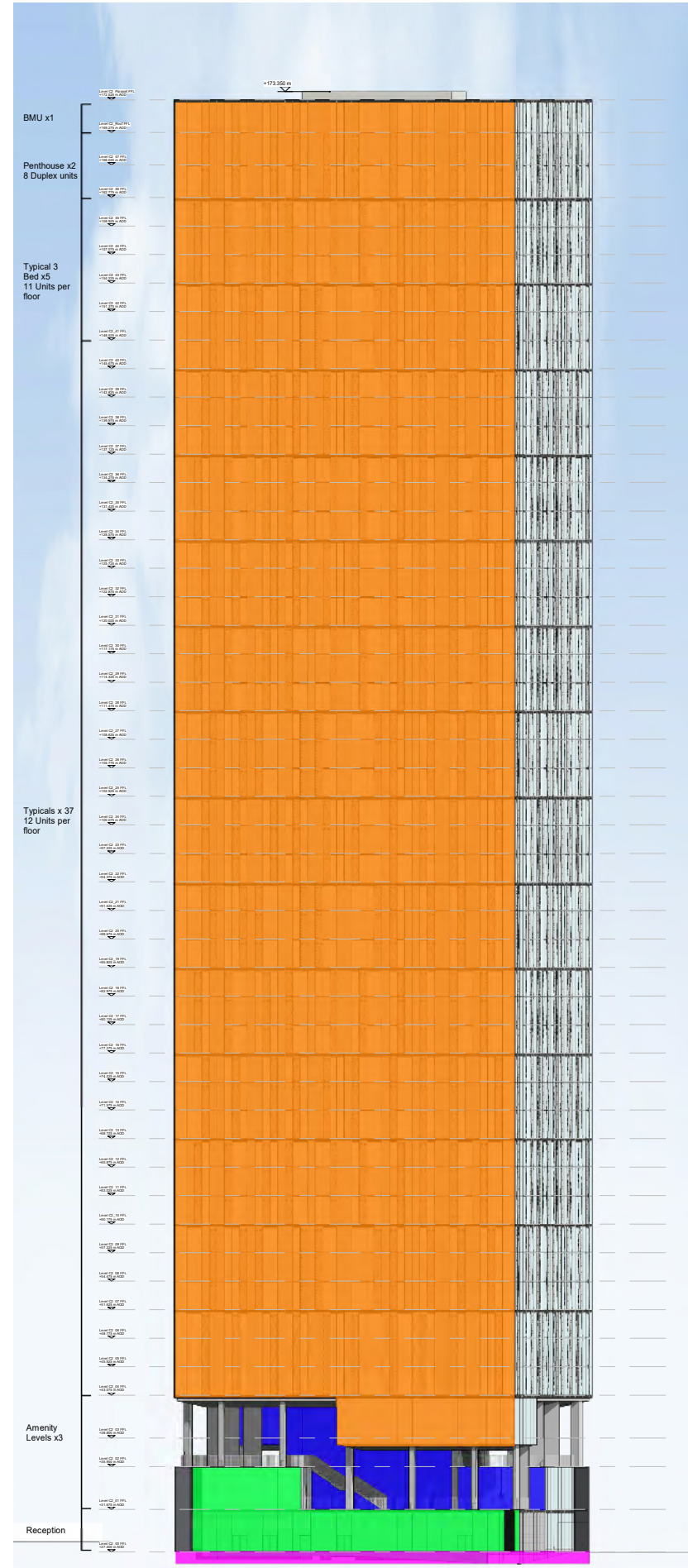
Security - Site Plan



BMU - Roof Plan



C2 - Example Ground Access Plan



C2 - Example Elevational Access Strategy

4.4 Access & Maintenance

OVERVIEW

The primary means of access, cleaning and maintenance to all four buildings is via a roof mounted BMU (Building Maintenance Unit) which is located at roof level on each building.

This is accessed via the stair and lift motor room enclosure at roof level and is located within a full storey of edge protection provided by the continuation of the envelope cladding to c. 3m above finished roof level.

The BMU can reach all areas of façade on all buildings by lowering a cradle for 2 operatives. The BMU will also be provided with the additional capacity to carry a full height replacement glass panel or similar for long term maintenance and replacement of any cladding panels that may be required during the life span of the buildings.

At ground level the landscape design has been considered to enable a clear landing zone around the perimeter of each building for the BMU cradle onto hard landscaping for escape purposes. Similarly, this clear zone about the perimeter of each building will enable ground based cleaning and maintenance operations to take place for lower floors, such as access by MEWP or pole washing from building perimeters.

Access is available onto all lower floor roof terraces to clean and maintain any inset façade areas or to access soffit areas via scaffold, cherry picker or MEWP.

- Access from scaffold / MEWP within roof terraces
- Ground based access methods (pole cleaning / MEWP etc)
- BMU cradle access
- BMU Loading Zone
- Localised ground level obstructions to be coordinated in detailed design

4.5 Servicing

TRANSPORT CONNECTIONS

The Site is within easy walking distance of the central retail and commercial districts of Manchester city centre, and benefits from being 5 minutes walk from Deansgate Railway Station and Deansgate-Castlefield Metrolink Stop. Bus stops are located close by on Water Street, Regent Road and Liverpool Road.

SERVICING - SITE C

Servicing of each plot has been considered independently, so that each can operate in its complete state whilst the adjacent site is under construction in a phased handover.

Large service vehicles (e.g. refuse collections) - (A)

Dedicated servicing bays are located outside the back of house areas for each tower. Large deliveries will be handled by the 24 hour management team, dedicated 'moving in stores' are located with direct access to each core.

For Building C1 refuse vehicles, removals etc will enter the site via Water Street adjacent to the viaduct on the Eastern boundary and pull into the dedicated loading bay area adjacent. Vehicles will perform a multi-point turn to return via the shared surface to exit back onto Water Street.

Building C2 vehicles will enter the site via Water Street into a dedicated layby at the side of the Site C drop off area. The vehicle will then reverse back around the corner of building C2 into the dedicated loading bay area with the assistance of a banksman from the facilities management team.

Small service vehicles (Deliveries) - (B)

For both buildings C1 and C2, smaller vehicles will be able to turn into the drop off road serving Site C and pull into the waiting laybys, making deliveries via the receptions before exiting back onto Water Street

Taxi - (C)

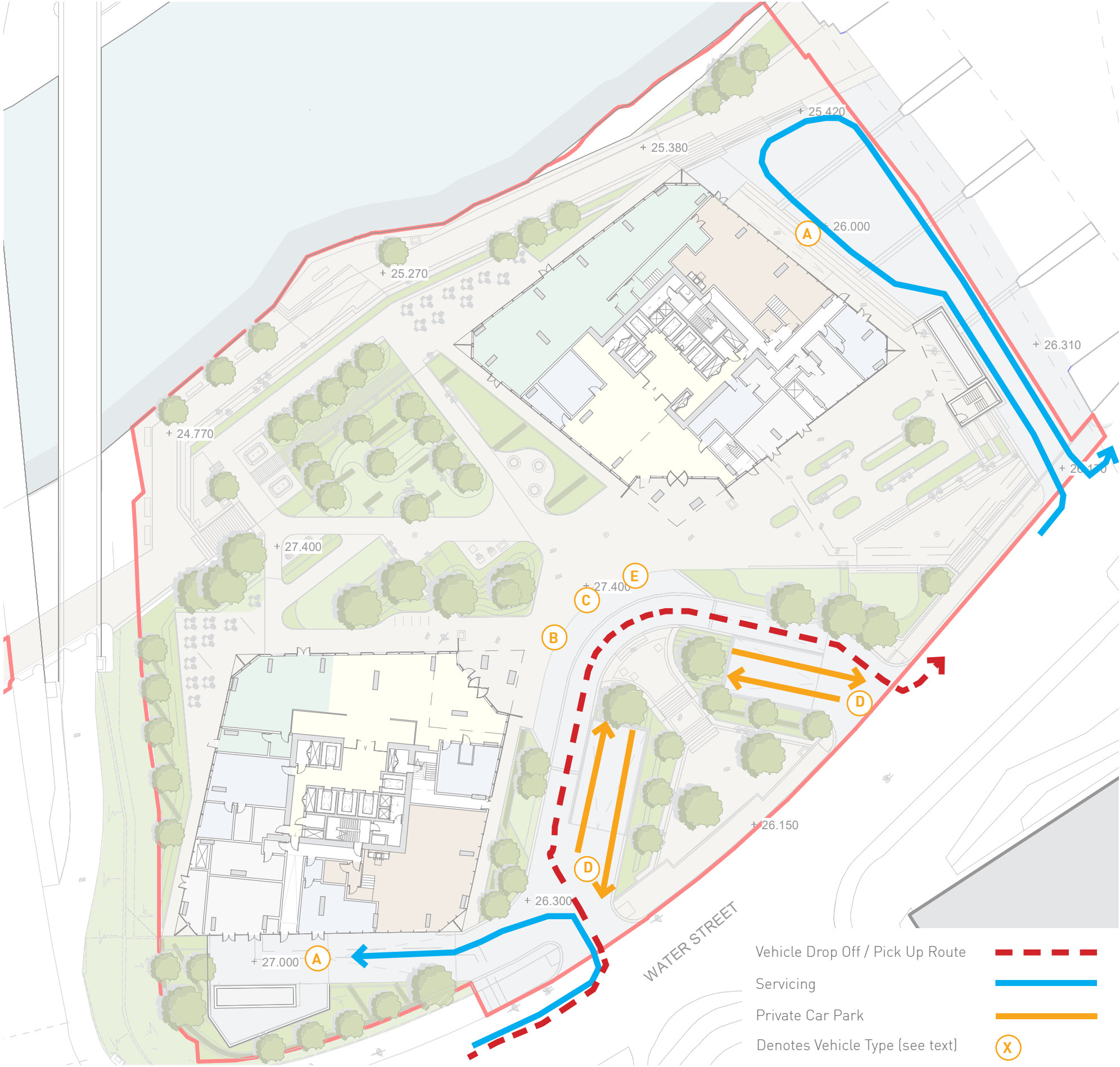
Taxi drop offs for both towers C1 & C2 will utilise the layby areas adjacent to the drop off route outside the Site C reception areas.

Cars / Parking - (D)

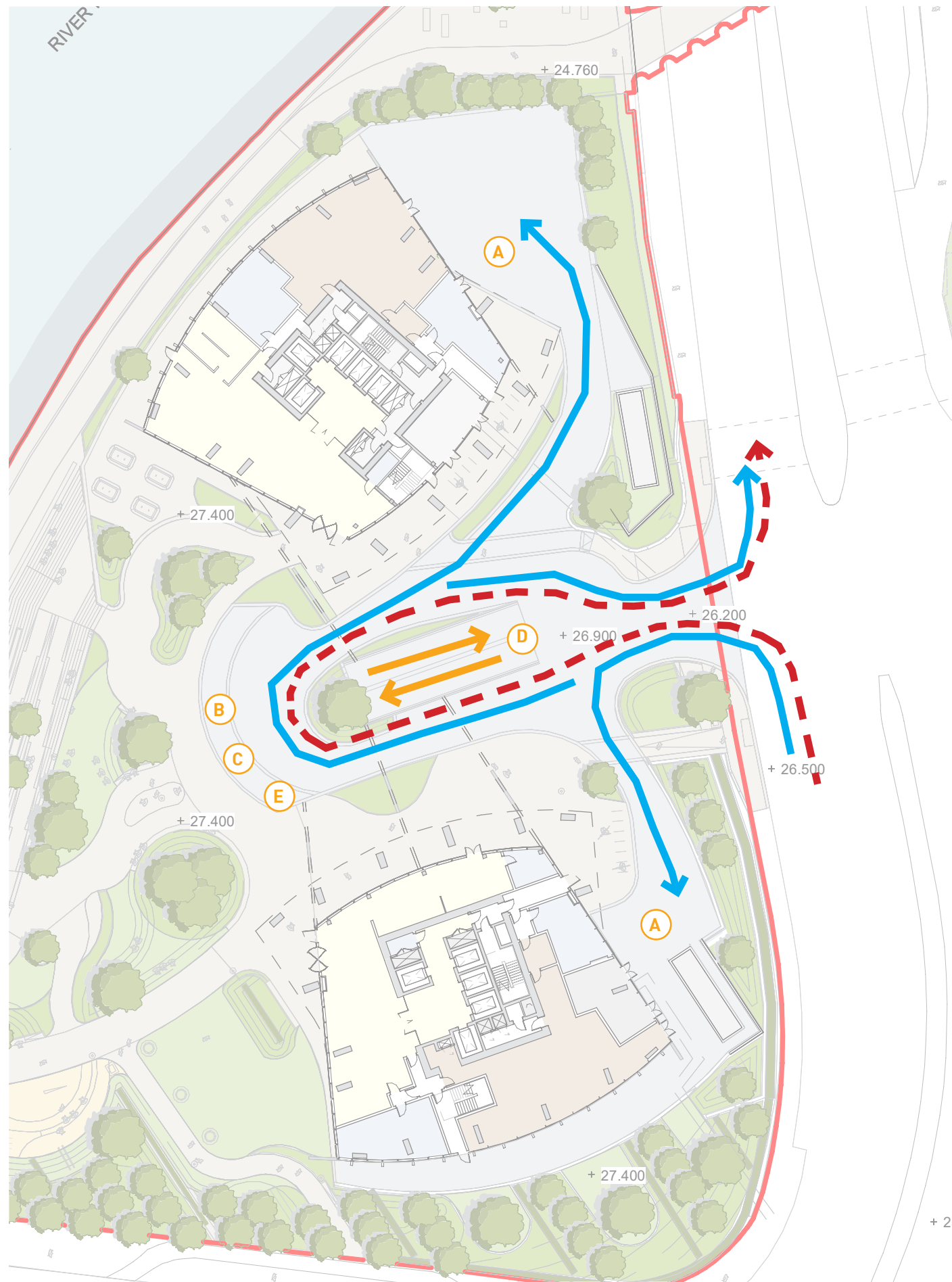
Both C1 and C2 have dedicated two way basement vehicle ramps into the secure basement car parks accessed via bi-fold gate arrangement with key fob. Vehicles entering C1 basement do so from Water St at the same entry location to the Site C drop off; whilst entry to C2 basement is adjacent to the exit from the Site C drop off a little further east on Water St.

Emergency Vehicles - (E)

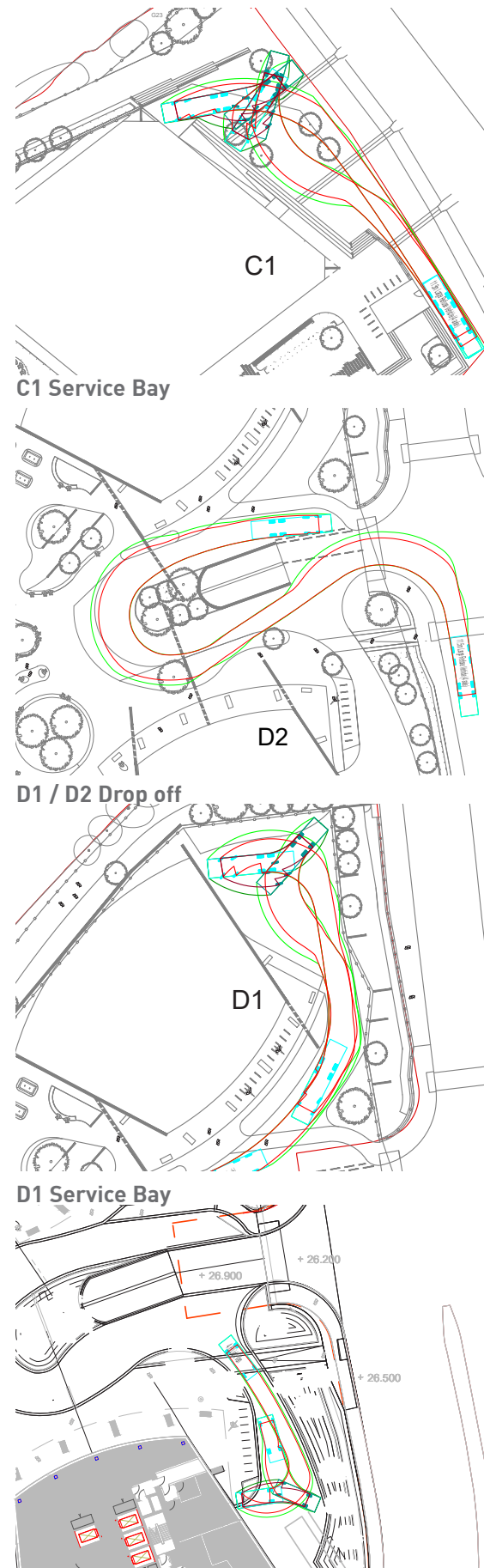
Emergency vehicles will be able to access the development from the drop off and access the concierge of either building C1 or C2 via the front door. The service road adjacent to the viaduct could be used for better access to the river edge or viaduct setting.



Site C Servicing Plan



Site D Servicing Plan



D2 Service Bay

Vehicle Tracking Details

SERVICING - SITE D

This section outlines the servicing strategy for Site D in isolation. All vehicle access onto site is limited to the existing junction location from Trinity Way facing Water St. Where wind baffles are included in the Site D landscape the height of these has been designed to enable 4.5m clearance for vehicles and included in tracking studies to ensure clearance from all vehicle routes. (Note here on RH turn and junction improvements)

Large service vehicles (e.g. refuse / removals) - (A)

Refuse vehicles will enter the site via Trinity Way. Dedicated servicing bays are located outside the back of house areas for each tower. Large deliveries will be handled by the 24 hour management team, dedicated 'moving in stores' are located off the concierge spaces, with direct access to each core.

To service D1 vehicles will reverse back around the corner of building D1 into the dedicated loading bay area with the assistance of a banksman from the facilities management team. Upon exiting vehicles can turn left out of the service bay area and navigate the drop off circulation to exit via traffic lights back onto Trinity Way.

To service D2 vehicles will enter from Trinity Way, navigate the drop off and enter the service bay area at the rear of D2. This offers space for a vehicle to turn around before exiting back via the drop off to the Trinity Way junction.

Small service vehicles (Deliveries) - (B)

Smaller vehicles; vans etc, will turn enter the Site D drop off route from Trinity Way and stop in the dedicated layby areas prior to making deliveries to the front of house reception of either building D1 or D2. Alternatively smaller vehicles could also drive into either service bay location and make a multi-point turn before exiting back onto the drop off circulation route for exit to Trinity Way.

Taxi - (C)

Taxis for both towers D1 & D2 will enter and exit the site via the drop off route with good access and visibility of both reception spaces.

Cars / Parking - (D)

On Site D cars will circulate down a shared two-way basement ramp into the secure basement car parks accessed via bi-fold gate arrangement with key fob. All cars will enter and exit via Trinity Way junction, with the latter subject to waiting for traffic lights before entering the highway.

Emergency Vehicles - (E)

Emergency vehicles will be able to access the development from the drop off route and access the concierge via the front door.

SUPPLEMENTARY REPORT

For further detail refer to the Travel Plan and Transport Statement submitted as part of the application.

For servicing during the phased delivery of plots please refer to page 29 in this document.



4.6 Waste Management Strategy

INTRODUCTION

A supplementary report; ‘Site Waste Management Strategy’ prepared by Vectos Transport Panning Specilaists, accompanies the application and identifies in detail the waste management strategy for the Proposed Development.

This document provides a Waste & Servicing Strategy for the Trinity Islands development incorporating 4 large residential towers with some additional ancillary commercial premises.

The report has set out the policy context for waste management and has provided a calculation for the various waste streams generated by the development and associated the refuse storage provision by establishing a clear strategy for minimising waste generation.

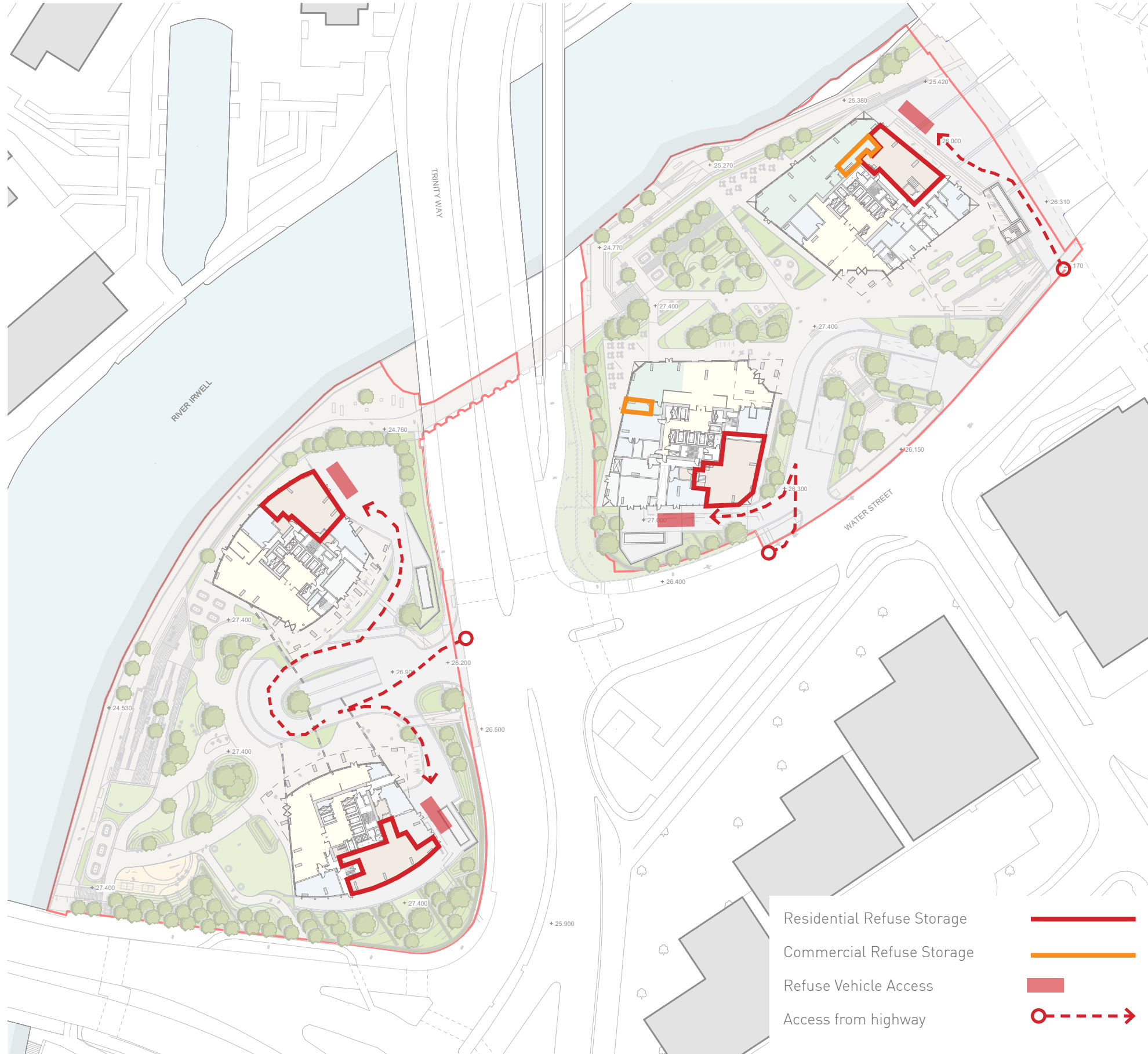
It is concluded that the waste management and refuse collection strategy proposed is appropriate for this scale of development and that servicing and waste collection can be undertaken in an efficient manner, in line with Manchester City Council Guidance GD04.

WASTE FORECASTS

Residential waste forecasts have been calculated using MCC Waste Storage and Collection guidance for New Developments (GD04 V6). The figures for the residential forecast are outlined in Table 5.1 (right).

Table 5.1 Waste Generation & Recycling Rates					vectos.						
Trinity Islands		14.10.21 (v2)									
Waste Forecast Based on Area Schedule		Z1-SHP-F900-SC-XX-0002									
RESIDENTIAL WASTE FORECASTS											
RESIDENTIAL APARTMENTS C1											
Number of Units		= 414									
Weekly Waste Forecast											
MCC Waste Forecast (110 litres per Apartment per Week)		= 45540 litres per week									
GD04 Bin Storage Requirement of 0.43 sqm per apartment		= 178 sqm									
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on MCC rule of Thumb		Waste Recycling %			50%		25%		25%		100%
		Litres per Week			22770		11385		11385		45540
		Bin Lifts Per Week			21		11		11		
RESIDENTIAL APARTMENTS C2											
Number of Units		= 521									
Weekly Waste Forecast											
MCC Waste Forecast (110 litres per Apartment per Week)		= 57310 litres per week									
GD04 Bin Storage Requirement of 0.43 sqm per apartment		= 224 sqm									
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on MCC rule of Thumb		Waste Recycling %			50%		25%		25%		100%
		Litres per Week			28655		14328		14328		57310
		Bin Lifts Per Week			27		14		14		
RESIDENTIAL APARTMENTS D1											
Number of Units		= 532									
Weekly Waste Forecast											
MCC Waste Forecast (110 litres per Apartment per Week)		= 58520 litres per week									
GD04 Bin Storage Requirement of 0.43 sqm per apartment		= 229 sqm									
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on MCC rule of Thumb		Waste Recycling %			50%		25%		25%		100%
		Litres per Week			29260		14630		14630		58520
		Bin Lifts Per Week			27		14		14		
RESIDENTIAL APARTMENTS D2											
Number of Units		= 483									
Weekly Waste Forecast											
MCC Waste Forecast (110 litres per Apartment per Week)		= 53130 litres per week									
GD04 Bin Storage Requirement of 0.43 sqm per apartment		= 208 sqm									
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on MCC rule of Thumb		Waste Recycling %			50%		25%		25%		100%
		Litres per Week			26565		13283		13283		53130
		Bin Lifts Per Week			25		13		13		
Site C1 Commercial Space (A1/A2/A3/A4) Assume Retail											
RETAIL - Convenience Store											
BS5906:2005 10 litres per sqm per week											
Area		230 sqm		@ 10 litres per sqm per week							
				= 2300 Litres of Waste per Week							
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on WRAP Waste Ratios		Waste /Recycling			50%		25%		25%		100%
		Litres Per Week			1150		575		575		2300
		Bin Lifts Per Week (1100litre)			2		1		1		
Site C2 Commercial Space (A1/A2/A3/A4) Assume Retail											
RETAIL - Convenience Store											
BS5906:2005 10 litres per sqm per week											
Area		90 sqm		@ 10 litres per sqm per week							
				= 900 Litres of Waste per Week							
Recycling Streams					General Refuse (inc Organic)		Paper/ Card		Plastic/ Metal/ Glass		Total
* Based on WRAP Waste Ratios		Waste /Recycling			50%		25%		25%		100%
		Litres Per Week			450		225		225		900
		Bin Lifts Per Week (1100litre)			1		1		1		

Table 5.1 Residential waste forecast - based on MCC GD04 - V6 (September 2017)



BIN STORES & REFUSE COLLECTION

The bin stores for each residential building are located at ground floor, with residents using tri-separator waste chutes to deposit their rubbish. The bin store locations are shown in the adjacent drawing.

Waste collection for Trinity Islands will be supervised by the on-site building management team and involves bins being brought out immediately prior to collection and returned immediately after and to ensure areas are kept clean.

It is proposed that Residential Waste will be collected by the local Authority waste collection company. The waste from the ancillary Commercial units will be collected by a licensed waste carrier in accordance with government legislation requiring the appropriate documentation to ensure that waste is disposed of in a hygienic and environmentally sustainable way.

RESIDENTS WASTE STRATEGY (TOWERS)

Residents will benefit from three colour coded waste bins within each residential unit. The development will employ a waste chute system with an automated tri-separator located at the bottom of the chute to separate each different form of waste. There would therefore be three waste streams created, colour coded to assist management and compliance.

On all residential floors (04-60) there will be lobbied access to a waste chute from the main circulation core. The chute will incorporate a series of buttons relating to the type of recycling, allowing the tri-separator to deposit the waste in the correct bin in the store. The building management company will monitor the bins as they fill and replace with empty bins when required.

Following advice from Zenith Property Management - food waste will be bagged and brought to a purpose built bin store enclosure in each building close to the lift cores at ground level.

BIN STORE LOCATIONS

All Buildings (C1, C2, D1 and D2)

The refuse stores open out into the service bays providing straightforward access on collection day.

Commercial Units

Each commercial unit has a self-contained refuse store within the demise with direct access out towards the building service bays. Stores will benefit from natural ventilation through the building facade.



5.2 Planning Drawing List

DRAWING NUMBER	DRAWING TITLE	SCALE @ A1	REVISION
Z1-SHP-G000-PL-GRD-B5D801	SITE WIDE LOCATION PLAN	1:2500	P01
Z1-SHP-G000-PL-GRD-B5D802	SITE WIDE PHASING GROUND FLOOR PLAN	1:500	P01
Z1-SHP-G000-PL-GRD-B5D803	SITE WIDE REFERENCE PLAN	1:500	P01
Z1-SHP-G000-PL-GRD-B5D804	SITE WIDE EXISTING TOPOGRAPHY PLAN	1:500	P01
Z1-SHP-G000-PL-B1-B5D801	SITE WIDE PHASING BASEMENT LEVEL 01	1:500	P01
Z1-SHP-G000-PL-B2-B5D801	SITE WIDE PHASING BASEMENT LEVEL 02	1:500	P01
Z1-SHP-G100-EL-XX-B5D801	SITE WIDE ELEVATION NORTH EAST	1:500	P01
Z1-SHP-G100-EL-XX-B5D802	SITE WIDE ELEVATION NORTH WEST	1:500	P01
Z1-SHP-G100-EL-XX-B5D803	SITE WIDE ELEVATION SOUTH EAST	1:500	P01
Z1-SHP-G100-EL-XX-B5D804	SITE WIDE ELEVATION SOUTH WEST	1:500	P01
Z1-SHP-G100-PL-B2-B5D801	SITE WIDE BASEMENT LEVEL 02 PLAN	1:500	P01
Z1-SHP-G100-PL-B1-B5D801	SITE WIDE BASEMENT LEVEL 01 PLAN	1:500	P01
Z1-SHP-G100-PL-GRD-B5D801	SITE WIDE GROUND LEVEL PLAN	1:500	P01
Z1-SHP-G100-PL-01-B5D801	SITE WIDE LEVEL 01 PLAN	1:500	P01
Z1-SHP-G100-PL-02-B5D801	SITE WIDE LEVEL 02 PLAN	1:500	P01
Z1-SHP-G100-PL-03-B5D801	SITE WIDE LEVEL 03 PLAN	1:500	P01
Z1-SHP-G100-PL-XX-B5D801	SITE WIDE TYPICAL LEVEL PLAN	1:500	P01
Z1-SHP-G100-PL-RF-B5D801	SITE WIDE ROOF LEVEL PLAN	1:500	P01
Z1-SHP-JC20-PL-GRD-B5D801	SITE WIDE EXISTING DEMOLITION PLAN	1:500	P01

NOTE: NO EXISTING SITE ELEVATIONS HAVE BEEN SUBMITTED DUE TO THE APPLICATION SITE BEING CLEARED WITH NO EXISTING STRUCTURES





5.2 Planning Drawing List (cont)

DRAWING NUMBER	DRAWING TITLE	SCALE @ A1	REVISION
ZC-SHP-G100-PL-B2-B5D801	SITE C BASEMENT LEVEL 02 PLAN	1:250	P01
ZC-SHP-G100-PL-B1-B5D801	SITE C BASEMENT LEVEL 01 PLAN	1:250	P01
ZC-SHP-G100-PL-GRD-B5D801	SITE C GROUND LEVEL PLAN	1:250	P01
ZC-SHP-G100-PL-01-B5D801	SITE C LEVEL 01 PLAN	1:250	P01
ZC-SHP-G100-PL-02-B5D801	SITE C LEVEL 02 PLAN	1:250	P01
ZC-SHP-G100-PL-03-B5D801	SITE C LEVEL 03 PLAN	1:250	P01
ZC-SHP-G100-PL-XX-B5D801	SITE C TYPICAL LEVEL PLAN	1:250	P01
ZC-SHP-G100-PL-RF-B5D801	SITE C ROOF LEVEL PLAN	1:250	P01
ZC-SHP-G200-PL-14-B5D801	SITE C GENERAL ARRANGEMENT PLAN LEVEL 14	1:100	P01
ZC-SHP-G200-PL-15-B5D801	SITE C GENERAL ARRANGEMENT PLAN LEVEL 15	1:100	P01
ZC-SHP-G200-PL-41-B5D801	SITE C GENERAL ARRANGEMENT PLAN LEVEL 41	1:100	P01
ZC-SHP-G200-SE-XX-B5D801	SITE C SECTIONS	1:250	P02
ZC-SHP-G251-DE-XX-B5D801	SITE C TYPICAL EXTERNAL WALL DETAILS 01	1:25	P02
ZC-SHP-G251-DE-XX-B5D802	SITE C TYPICAL EXTERNAL WALL DETAILS 02	1:25	P01
ZC-SHP-G251-DE-XX-B5D803	SITE C TYPICAL EXTERNAL WALL DETAILS 03	1:25	P01
C1-SHP-G200-PL-B2-B5D801	SITE C BUILDING 1 BASEMENT LEVEL 02 PLAN	1:100	P01
C1-SHP-G200-PL-B1-B5D801	SITE C BUILDING 1 BASEMENT LEVEL 01 PLAN	1:100	P01
C1-SHP-G200-PL-GRD-B5D801	SITE C BUILDING 1 GROUND LEVEL PLAN	1:100	P01
C1-SHP-G200-PL-01-B5D801	SITE C BUILDING 1 LEVEL 01 PLAN	1:100	P01
C1-SHP-G200-PL-02-B5D801	SITE C BUILDING 1 LEVEL 02 PLAN	1:100	P01
C1-SHP-G200-PL-03-B5D801	SITE C BUILDING 1 LEVEL 03 PLAN	1:100	P01
C1-SHP-G200-PL-RF-B5D801	SITE C BUILDING 1 ROOF LEVEL PLAN	1:100	P01
C1-SHP-G200-EL-XX-B5D801	SITE C BUILDING 1 ELEVATIONS 01	1:250	P02
C1-SHP-G200-EL-XX-B5D802	SITE C BUILDING 1 ELEVATIONS 02	1:250	P02
C2-SHP-G200-PL-B2-B5D801	SITE C BUILDING 2 BASEMENT LEVEL 02 PLAN	1:100	P01
C2-SHP-G200-PL-B1-B5D801	SITE C BUILDING 2 BASEMENT LEVEL 01 PLAN	1:100	P01
C2-SHP-G200-PL-GRD-B5D801	SITE C BUILDING 2 GROUND LEVEL PLAN	1:100	P01
C2-SHP-G200-PL-01-B5D801	SITE C BUILDING 2 LEVEL 01 PLAN	1:100	P01
C2-SHP-G200-PL-02-B5D801	SITE C BUILDING 2 LEVEL 02 PLAN	1:100	P01
C2-SHP-G200-PL-03-B5D801	SITE C BUILDING 2 LEVEL 03 PLAN	1:100	P01
C2-SHP-G200-PL-RF-B5D801	SITE C BUILDING 2 ROOF LEVEL PLAN	1:100	P01
C2-SHP-G200-EL-XX-B5D801	SITE C BUILDING 2 ELEVATIONS 01	1:250	P02
C2-SHP-G200-EL-XX-B5D802	SITE C BUILDING 2 ELEVATIONS 02	1:250	P02



DRAWING INDEX		DRAWING INDEX	
DRAWING NUMBER	DRAWING TITLE	SCALE @ A1	REVISION
ZD-SHP-G100-PL-B2-B5D801	SITE D BASEMENT LEVEL 02 PLAN	1:250	P01
ZD-SHP-G100-PL-B1-B5D801	SITE D BASEMENT LEVEL 01 PLAN	1:250	P01
ZD-SHP-G100-PL-GRD-B5D801	SITE D GROUND LEVEL PLAN	1:250	P01
ZD-SHP-G100-PL-01-B5D801	SITE D LEVEL 01 PLAN	1:250	P01
ZD-SHP-G100-PL-02-B5D801	SITE D LEVEL 02 PLAN	1:250	P01
ZD-SHP-G100-PL-03-B5D801	SITE D LEVEL 03 PLAN	1:250	P01
ZD-SHP-G100-PL-XX-B5D801	SITE D TYPICAL LEVEL PLAN	1:250	P01
ZD-SHP-G100-PL-RF-B5D801	SITE D ROOF LEVEL PLAN	1:250	P01
ZD-SHP-G200-PL-04-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 04	1:100	P01
ZD-SHP-G200-PL-22-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 22	1:100	P01
ZD-SHP-G200-PL-42-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 42	1:100	P01
ZD-SHP-G200-PL-50-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 50	1:100	P01
ZD-SHP-G200-PL-58-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 58	1:100	P01
ZD-SHP-G200-PL-59-B5D801	SITE D GENERAL ARRANGEMENT PLAN LEVEL 59	1:100	P01
ZD-SHP-G200-SE-XX-B5D801	SITE D SECTIONS	1:250	P01
ZD-SHP-G251-DE-XX-B5D801	SITE D TYPICAL EXTERNAL WALL DETAILS 01	1:25	P01
ZD-SHP-G251-DE-XX-B5D802	SITE D TYPICAL EXTERNAL WALL DETAILS 02	1:25	P01
ZD-SHP-G251-DE-XX-B5D803	SITE D TYPICAL EXTERNAL WALL DETAILS 03	1:40	P01
D1-SHP-G200-PL-B2-B5D801	SITE D BUILDING 1 BASEMENT LEVEL 02 PLAN	1:100	P01
D1-SHP-G200-PL-B1-B5D801	SITE D BUILDING 1 BASEMENT LEVEL 01 PLAN	1:100	P01
D1-SHP-G200-PL-GRD-B5D801	SITE D BUILDING 1 GROUND LEVEL PLAN	1:100	P01
D1-SHP-G200-PL-01-B5D801	SITE D BUILDING 1 LEVEL 01 PLAN	1:100	P01
D1-SHP-G200-PL-02-B5D801	SITE D BUILDING 1 LEVEL 02 PLAN	1:100	P01
D1-SHP-G200-PL-03-B5D801	SITE D BUILDING 1 LEVEL 03 PLAN	1:100	P01
D1-SHP-G200-PL-RF-B5D801	SITE D BUILDING 1 ROOF LEVEL PLAN	1:100	P01
D1-SHP-G200-EL-XX-B5D801	SITE D BUILDING 1 ELEVATIONS 01	1:250	P01
D1-SHP-G200-EL-XX-B5D802	SITE D BUILDING 1 ELEVATIONS 02	1:250	P01
D2-SHP-G200-PL-B2-B5D801	SITE D BUILDING 2 BASEMENT LEVEL 02 PLAN	1:100	P01
D2-SHP-G200-PL-B1-B5D801	SITE D BUILDING 2 BASEMENT LEVEL 01 PLAN	1:100	P01
D2-SHP-G200-PL-GRD-B5D801	SITE D BUILDING 2 GROUND LEVEL PLAN	1:100	P01
D2-SHP-G200-PL-01-B5D801	SITE D BUILDING 2 LEVEL 01 PLAN	1:100	P01
D2-SHP-G200-PL-02-B5D801	SITE D BUILDING 2 LEVEL 02 PLAN	1:100	P01
D2-SHP-G200-PL-03-B5D801	SITE D BUILDING 2 LEVEL 03 PLAN	1:100	P01
D2-SHP-G200-PL-RF-B5D801	SITE D BUILDING 2 ROOF LEVEL PLAN	1:100	P01
D2-SHP-G200-EL-XX-B5D801	SITE D BUILDING 2 ELEVATIONS 01	1:250	P01
D2-SHP-G200-EL-XX-B5D802	SITE D BUILDING 2 ELEVATIONS 02	1:250	P01



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