

Assael



D&A

Manor Road / Richmond
Design and Access Statement

February 2019 | A3004

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1.1 The purpose of this document

This Design and Access Statement has been prepared by Assael Architecture on behalf of the Avanton (the 'Applicant') in order to describe the design for the proposed development of their property on the western side of Manor Road (the 'Site') in the London Borough of Richmond upon Thames. This document assesses the development proposal for the Site in respect to design and access.

1.2 The opportunity

This project provides an exciting opportunity for a new residential quarter within the Borough and seeks to obtain detailed planning permission for a mixed-use development comprising retail and residential units with associated landscaping, parking and public realm improvements.

This document illustrates how the design has been developed leading up to the planning application and describes the design rationale behind the submitted scheme.

1.3 The professional team

Developer

Avanton

Developer

ICG Longbow

Architect

Assael Architecture

Planning Consultant and Project Manager

GVA / Second London Wall

Structural & Civil Engineer

Fairhurst

MEP, Fire Engineer, Sustainability, Acoustics and Air Quality Consultant

Hoare Lea

Transport Consultant

Sanderson Associates

Landscape Architect

Gillespies

Townscape Consultants

Arc

AVANTON:



1.4 Avanton

Avanton is a new, dynamic and progressive London property development company. We collaborate with the finest architects, landscapers, designers and contractors, to create places where people love to live, work and enjoy. We develop places that are innovative and inspiring, appreciated both for their design and for their quality.

Current projects include a landmark residential scheme in Wandsworth which incorporates the headquarters for the Royal Academy of Dance and the creation of a new enclave of contemporary townhouses and apartments, in the heart of Battersea Village.

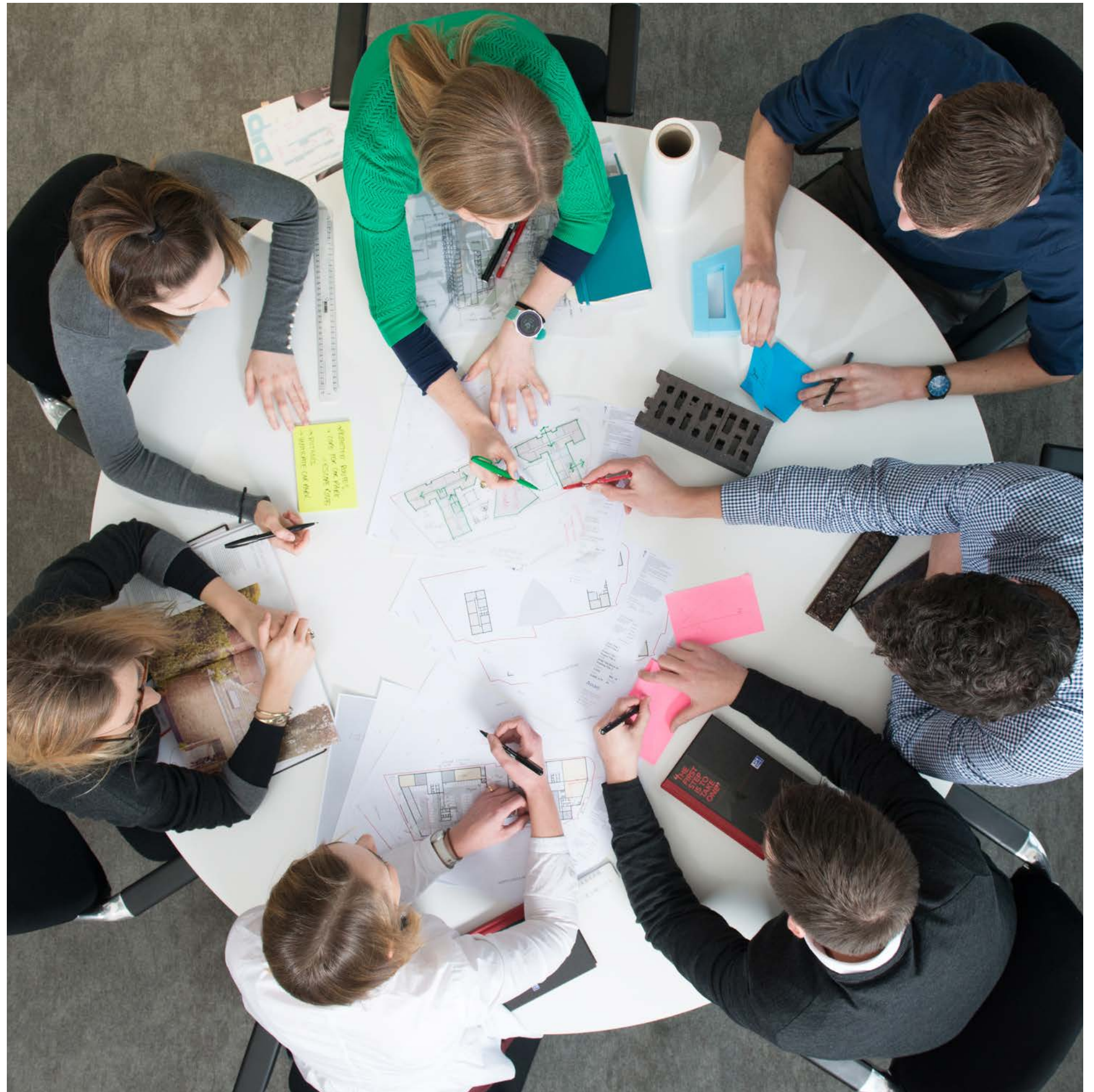
1.5 Assael Architecture

Assael Architecture is an award-winning practice providing urban design, architectural, landscape design and interior design services to a range of developers, investors, institutions and local authorities in the UK and overseas. Based in design studios in London, we work across a variety of sectors including residential, hotel, leisure, mixed-use and masterplanning.

Our approach brings together innovation and creative design, informed by research, thorough site analysis and years of experience. We're committed to providing a high quality professional service that suits our clients' individual requirements and project timescales.

We are well respected for our responsive and flexible approach to design particularly in difficult or challenging circumstances, and our expertise is most often called upon to realise the full potential and value of complicated sites, often in sensitive locations. We have therefore amassed many years of experience in the design and implementation of successful new-build mixed-use developments on tight urban brownfield sites, often involving the refurbishment of listed or historic buildings.

We regularly win awards for our projects, treatment of staff and business success. We were named Architect of the Year at The Sunday Times British Homes Awards in 2016 and 2014, and our work in Build to Rent has recently been rewarded; we won the Housing Project Award at the 2015 British Homes Awards and a Housing Design Award in 2016, both for Creekside Wharf, plus another Housing Design Award for 19-27 Young Street in 2014. We've also won the AJ100 Employer of the Year in 2017, Building Magazine's Good Employer Guide for two years in a row, the AJ's Business Pioneer of the Year in 2014 and have consistently been on The Sunday Times Best Small 100 Companies to Work For list. This recognition by our peers is important to us, and drives our continual improvement.



1.6 Assael experience

Assael has a wealth of experience within the residential sector and have previously worked with Avanton on various schemes including Battersea Square in the London Borough of Wandsworth and Queens Wharf in the London Borough of Hammersmith and Fulham.

1.6.1 Battersea Square

This scheme comprises 34 apartments and 5 new townhouses within a reconfigured, extended and refurbished granary building which previously housed the 1970s dance studios for the Royal Academy of Dance. The contemporary architectural style is influenced by the local industrial character.

Location: London Borough of Wandsworth

Client: Avanton

Scope of works: RIBA Stage 0-3

Site area: 0.24 ha

No. of homes: 39

Gross internal area: 4, 280 sq m.

Construction value: £25m

Awards: The Sunday Times British Homes Awards - Winner of Housing Project, 2016



Battersea Square, London Borough of Wandsworth

1.6.2 Queens Wharf and Riverside Studios

This project unites two disparate sites along the Thames to create a new waterfront destination in the setting of the Grade II listed Hammersmith Bridge.

Location: London Borough of Hammersmith and Fulham

Client: Mount Anvil and A2Dominion

Scope of works: RIBA Stage 0-4

Site area: 1.01 ha

No. of homes: 165

Gross internal area: 11, 000 sq m.

Construction value: £20m

- Awards:**
- Brick Awards - Finalist for Large Housing Development, 2018
 - The Hammersmith Society Environment Award - Winner, 2018
 - RESI Awards – Finalist for Development of the Year, 2018
 - Evening Standard Awards – Highly Commended for Best Apartment, 2018
 - Evening Standard Awards – Finalist for Outstanding Architectural Merit, 2018



Queens Wharf, London Borough of Hammersmith and Fulham

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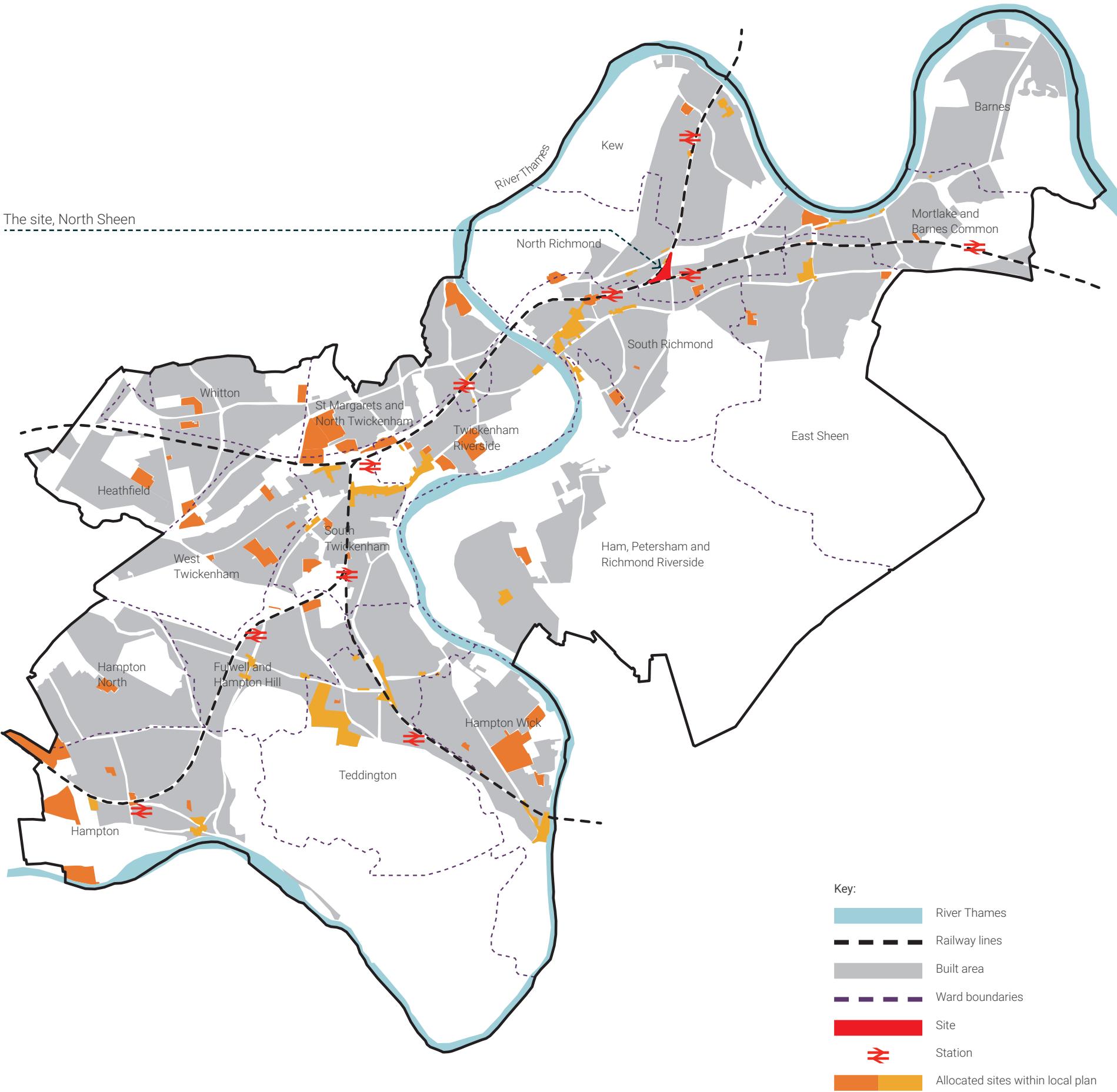
2.1 London Borough of Richmond upon Thames

2.1.1 Position within the Borough

The site is located within the London Borough of Richmond (North Richmond ward) at the confluence of two railway lines to the south of the arterial Lower Mortlake Road.

The site is not allocated within the local plan and is well served by public transport, including North Sheen station which is located within approximately 100m from the site. North Sheen station is classified as a secondary transport node within the Richmond and Richmond Hill Village Plan.

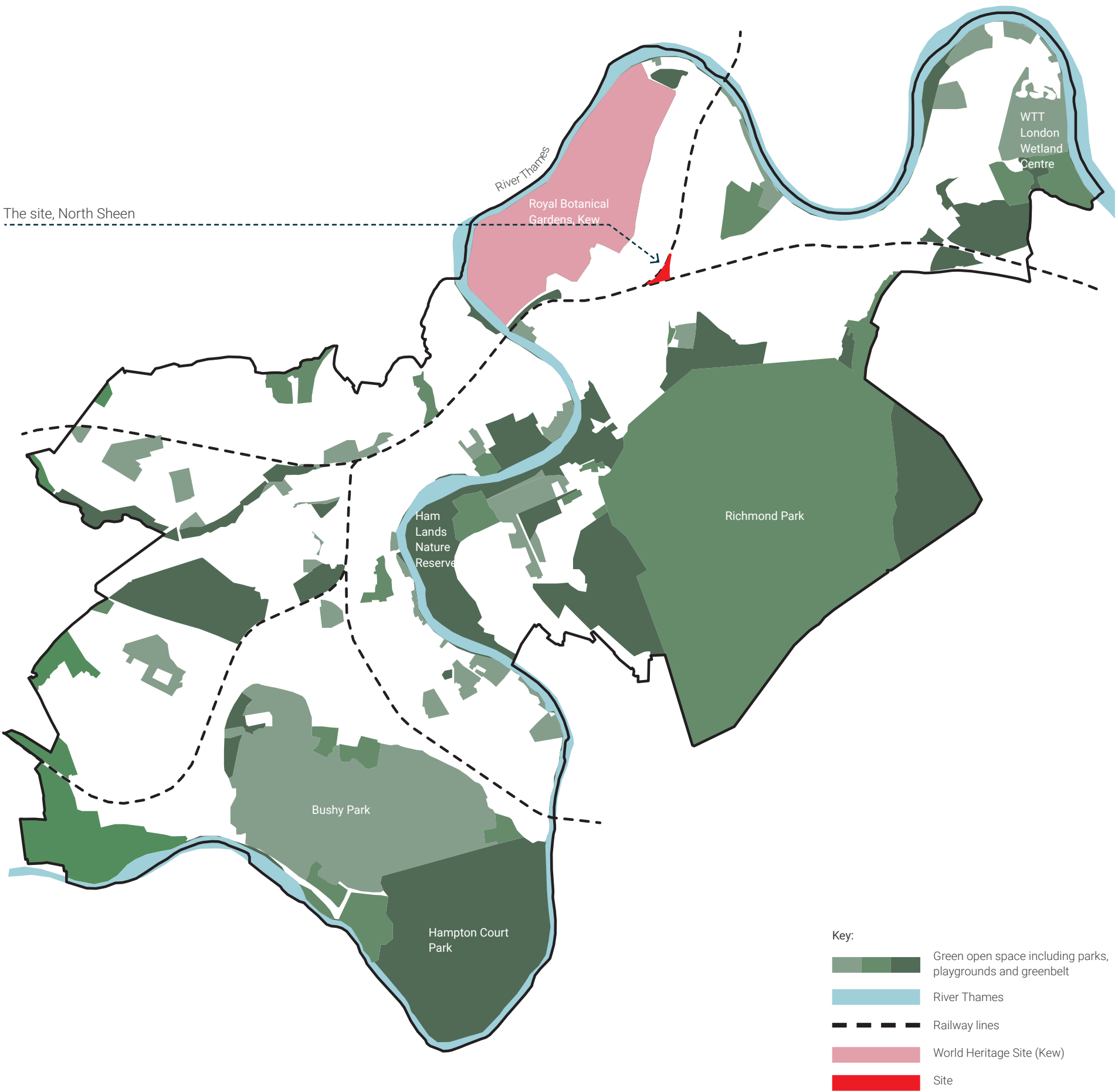
The site provides an excellent opportunity for a new residential development to aid Richmond in achieving their target of 8110 new homes by 2029.



2.1.2 Proximity to open space

Richmond, sometimes referred to as ‘The Garden of London’, is famous for its greenery and boasts over 500 ha of formal parks, sports grounds, playgrounds and nature conservation sites.

The site is located within a 10-15 minute walk to both Kew Gardens and Richmond Park, however there are no areas of protected open land in the immediate vicinity of the site.



2.1.3 Heritage context

Much of the Borough of Richmond upon Thames is covered by conservation areas (76 individual conservation areas in total).

However, the site is not located within a conservation area. The nearest one is the Sheendale Road conservation area, across the road from the site boundary.

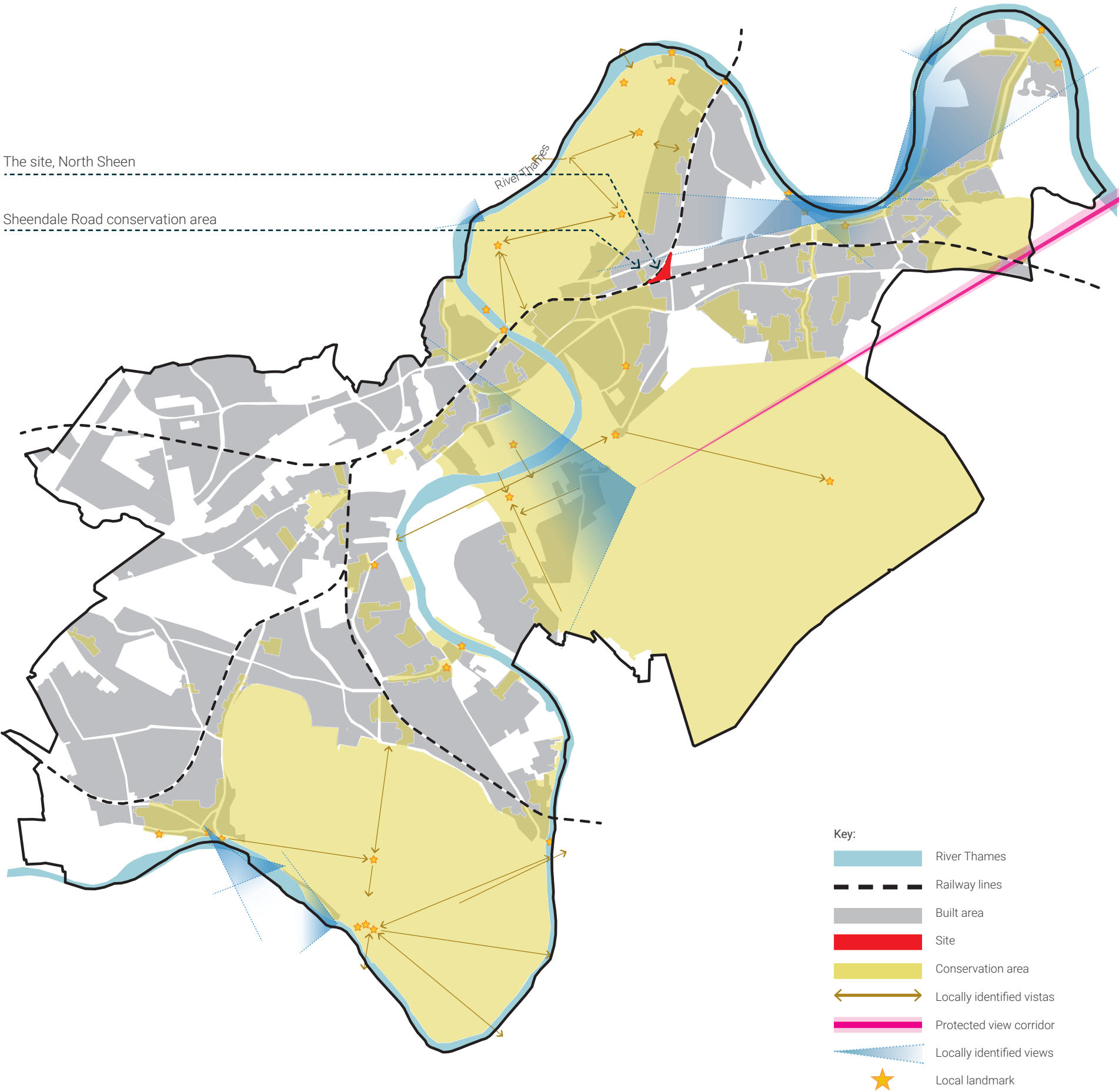
Sheendale Road is given this status due to the consistency of the villas themselves and due to the clear, enclosed vista they create along Sheendale Road.

The character and materiality of the *‘small and distinctive development of attractive and largely unspoilt semi-detached miniature villas’* have informed proposals on the site.

1 http://www.richmond.gov.uk/media/13298/conarea50_a3_rgb.pdf



Villas along Sheendale Road



2.2 The Site



2.2.1 Site location

The site is located to the south of the A316 arterial Lower Mortlake Road and is shaped by the railway lines and by Manor Road on each of its three sides. Only one side of the site has street frontage, along Manor Road.

The closest buildings to the site are the 11 houses along Manor Road, approximately 15m away from the site boundary and along the railway to the west.

The site's surroundings are dominated by large amounts of surface level car-parking that service the Sainsbury's store to the east of the site and the site itself. There is a small pocket park adjacent to the Sainsbury's car park and some allotments to the south of the railway.

There are various bus stops along Manor Road and Lower Mortlake Road, and North Sheen station is just 100m away. The site benefits from a PTAL rating of 5.

2.2.2 Existing site description

The site is currently occupied by a Homebase retail unit and supplementary surface level parking. It has a singular point for vehicular access from Manor Road and an easement along the railway line to the west for Network Rail to access a gate at the south-western tip of the site. There is an existing bus depot occupying the northern section of the site.

The site is 1.8 ha in area (including the area occupied by bus depot).

Key:

Planning application boundary

Railway lines

Roads and car-parks

Buildings

Gardens

Green open space

Level crossing

Vehicular access into site

Network Rail gate and access

Bus depot

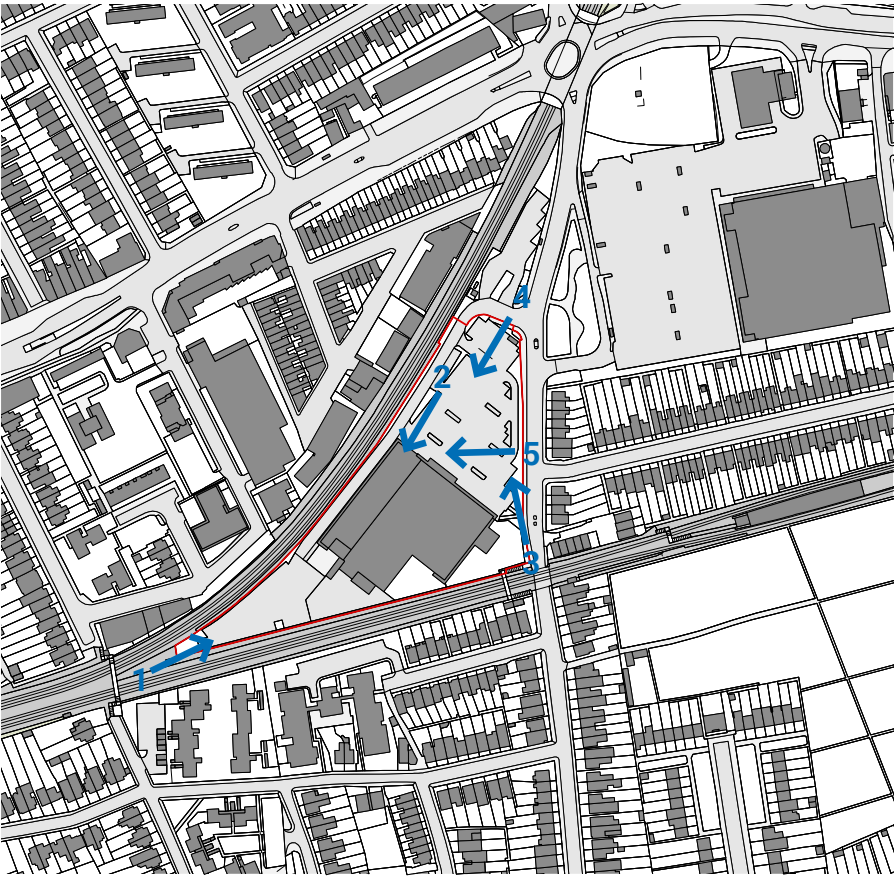


Map showing site location



Aerial photo of the site

2.3 Existing site photography



1. View looking east towards the site



2. View looking south west towards the site



3. View looking north along Manor Road towards the site



4. View looking south along Manor Road towards the site



4. View looking west towards the site from Manor Road

2.4 Developments of retail parks

- Retail warehouse parks represent low density out of centre developments supported by expansive car parking.
- Sites have no protected land use. Since the site is an out of centre retail development, the LPA confirmed in their written pre-app advice that there is no specific policy which would protect the retail floorspace and no objections are raised to its loss.
- The Mayor of London has identified “car parks and low-density retail parks” as one of six strategic sources of housing delivery within his principal housing policy (“H1”) within his Draft New London Plan (2017).
- Policy SD7 Town Centre network contains a similar policy objective to “realise the full potential of existing out of centre retail and leisure parks to deliver housing intensification through redevelopment”.



1 - Former B&Q site, Swandon Way, Wandsworth.
London Square and Hawkins/Brown



2 - Former Homebase site, Swandon Way, Wandsworth.
DTZi and Allies and Morrison



3 - Former Homebase site, York Way, Wandsworth.
Avanton and Patel Taylor

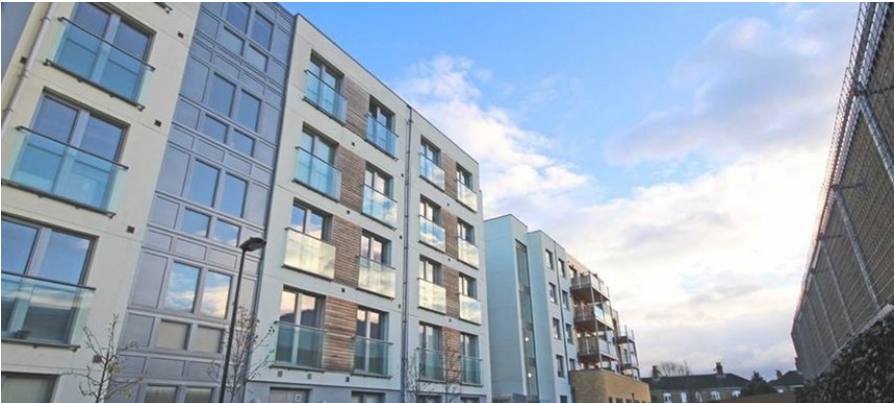


4 - Former Homebase site, Acton, Hammersmith and Fulham
Barratt London and TP Bennett

2.5 Existing & emerging context

The surrounding context comprises a mix of uses including Victorian terraced houses, post-war blocks, industrial buildings and out of town shopping retail parks.

Much of the recent development is centred along the western side of the railway and towards Lower Mortlake Road. This has been predominantly residential led development and conversions of existing industrial buildings. These developments have been taller than the surrounding Victorian terraced houses and have contributed a varied palette of architectural styles and materials.



A - Orchard Rd



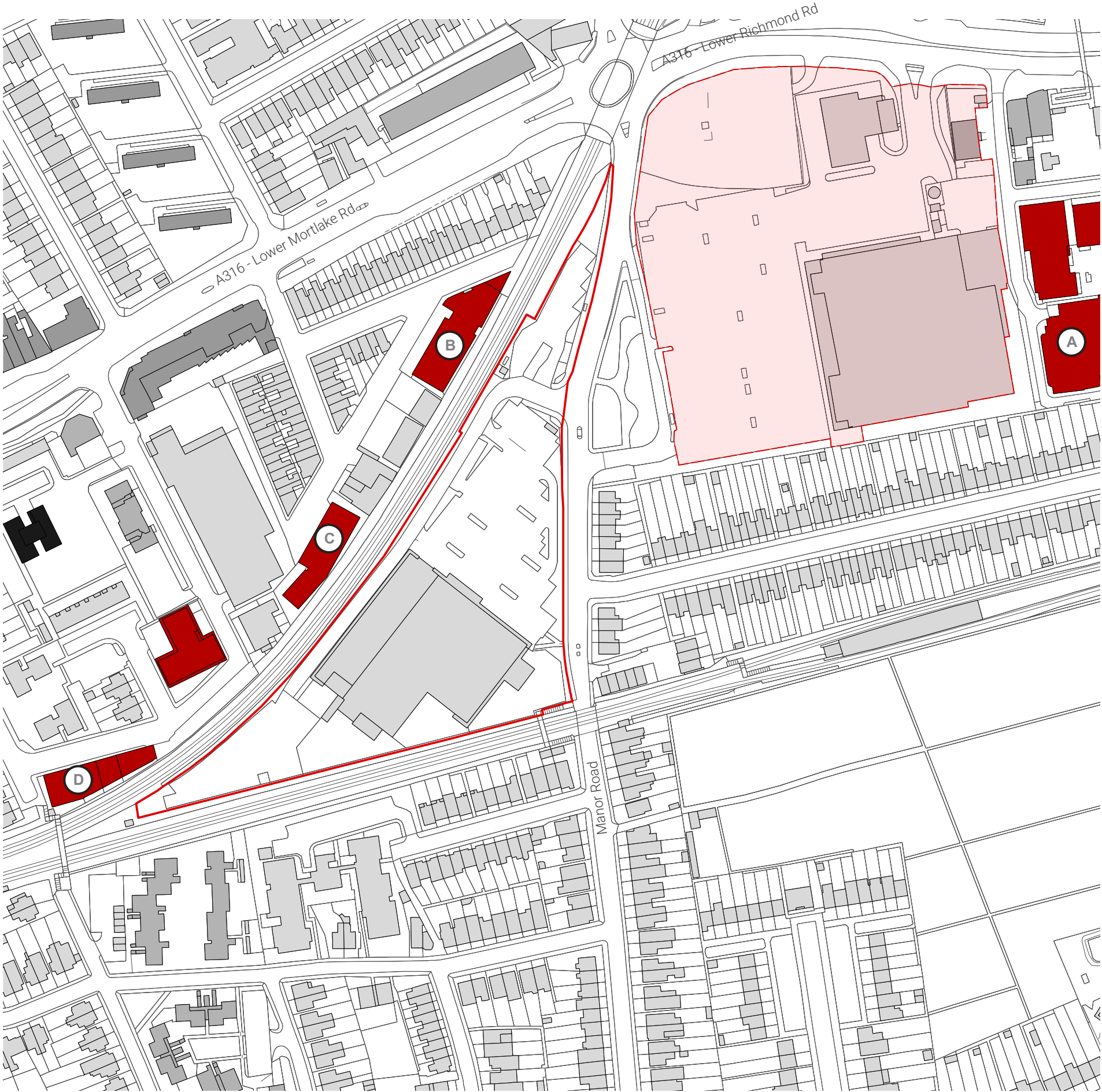
B - Falstaff House



C - Manor House, Bardolph Road



D - Clarence Court, Dee Road



2.6 Historic context

The sites shape comes from the intersection of the South Western Railway line and the District line along with Manor Road to the east.

In the 1800s the site was farmland. During the 20th Century, as the surrounding area developed the site was occupied by buildings for industrial uses. The current Sainsbury's site, to the east of Manor Road, was a former Gas Works.

In 1892 William Thompson gained planning permission for a series of council houses, the first in London, known as the 'Richmond Experiment'. 62 dwellings were built on six acres of land adjacent to the London and South West Railway and close to the gasworks.

Based on the success of the first houses a further 70 were built, completed by 1900.



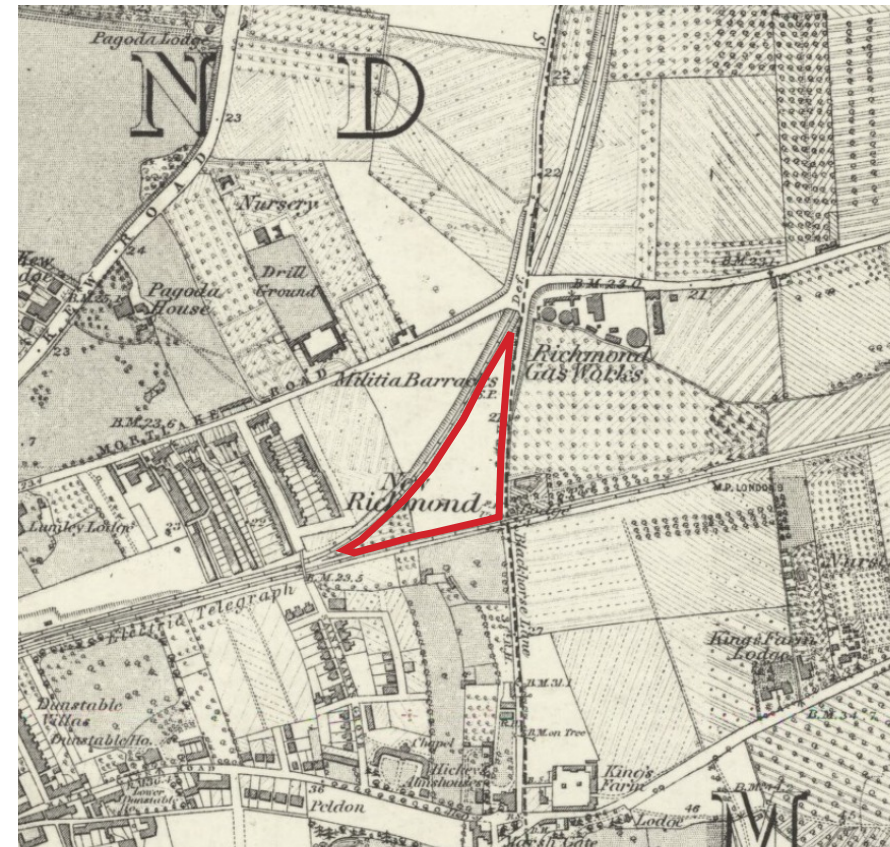
First council houses - Municipal cottages, Manor Grove



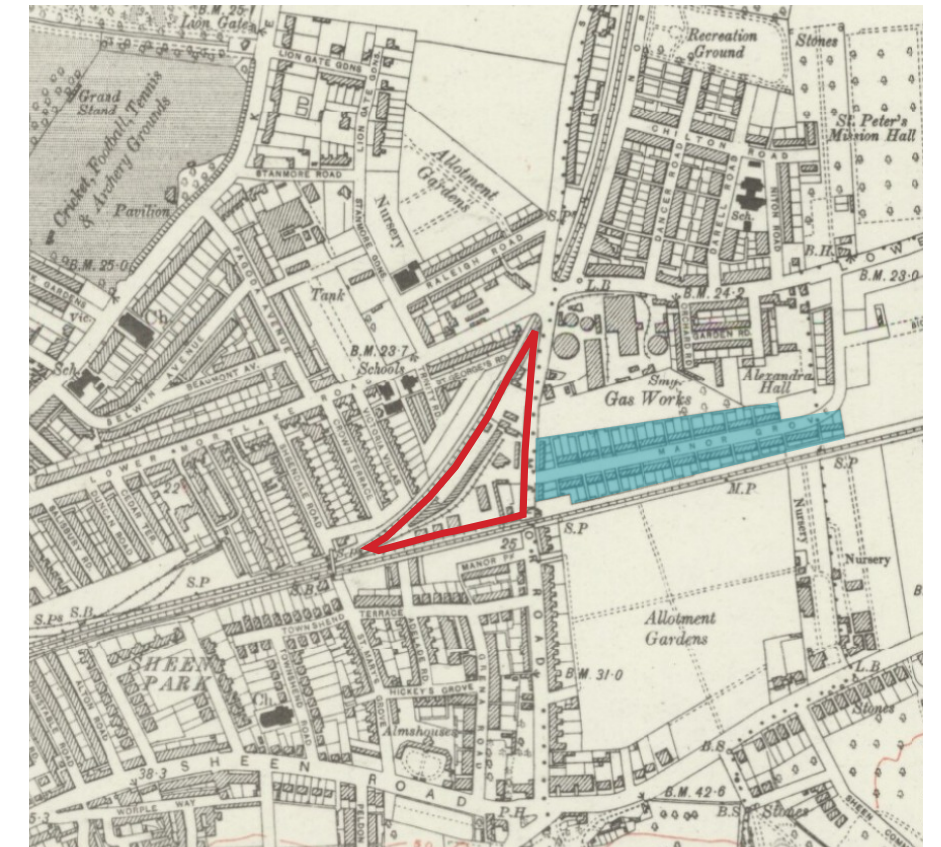
North Sheen station 1974

Key:

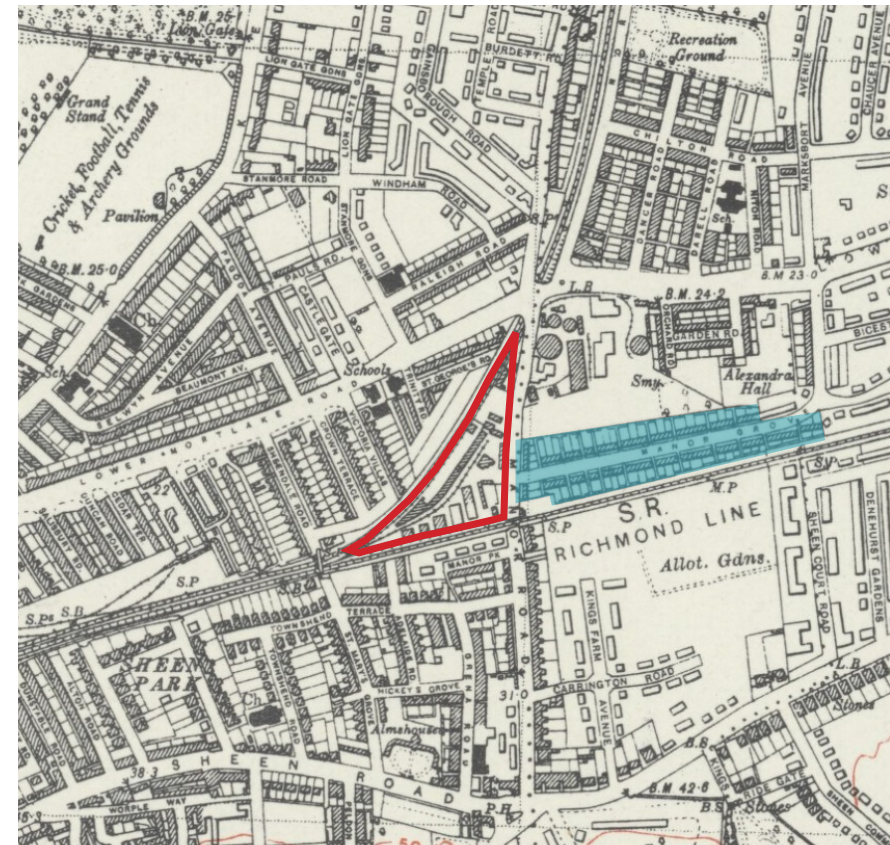
The 'Richmond experiment'



1873



1920



1946




1957

2.7 Existing and proposed urban grain


The site sits within character area 6, as defined in the Richmond and Richmond Hill Village Planning Guidance SPD, 2016.

The Character Area is defined by the two busy throughfares of Lower Mortlake Road and Manor Road. The SPD acknowledges that 'there is no coherent frontage to either road and the whole area has an irregular, adhoc character due to its industrial past.'


Key:



Large areas of hard landscaping and car park create gaps in urban grain




Railway intersection bisects local area and makes it difficult to establish predictable street grid



Post war housing disrupts existing terrace grain



Light industrial uses interrupt Victorian residential grain



Green space



Character Area 6 Boundary
Richmond and Richmond Hill Village Planning Guidance.

1 Richmond and Richmond Hill Village Planning Guidance (2016) pg. 26



2.8 Adjoining buildings

2.8.1 Existing building uses

The surrounding area is largely residential with some industrial and commercial uses concentrated around the railway lines and along Manor Road.

Key:

[Red]	Industrial/commercial/retail
[Purple]	Residential
[Yellow]	Mixed - Ground floor retail with residential above
[Pink]	Garage/shed
[Orange]	Train station

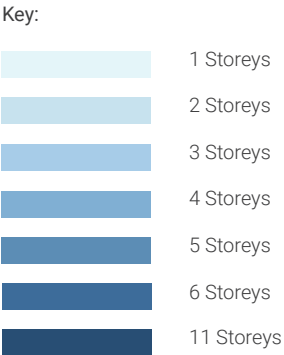


Sainsbury's and petrol station



2.8.2 Existing building heights

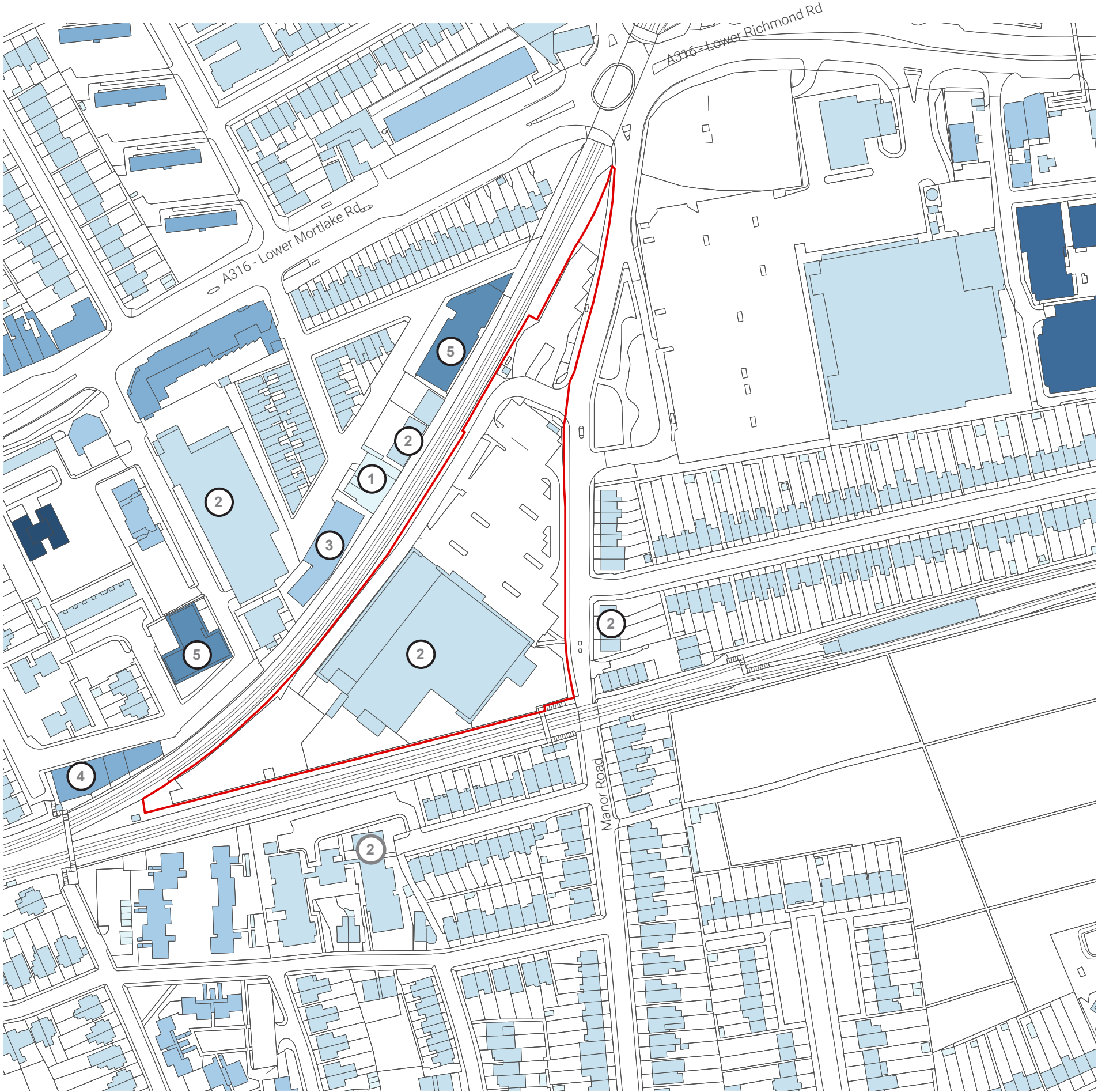
The surrounding area has a mix of building heights, ranging from the 2 storey pitched cottages along Manor Grove and Manor Road to the 11 storey 'Towers'. Much of the height is concentrated along the railway edge with the exception of the new development on Orchard Road which is 6 storeys.



Orchard Road, 6 storeys



The Towers, 12 storeys



2.9 Transport

The site is within easy walking distance of North Sheen train station, categorised as a secondary transport node within the local plan, providing a direct service into London Waterloo and to the west.

This site benefits from a PTAL rating (public transport accessibility level) of 5 of 6, and is within 100m of North Sheen railway station.

There are various bus stops within close proximity to the site with bus routes towards Richmond Town Centre, Kingston, Twickenham, Barnes, Chiswick and Kew.

Key:

Site

Train line

Road

Railway Station

Bus-stop



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3.1 Constraints

Key:

- Site Boundary
- Neighbouring buildings - overlooking
- Noise
- Traffic
- Site access for Network Rail
- Conservation area
- Train
- Existing TFL bus depot



3.2 Opportunities

- Key:
- Site Boundary
 - Pedestrian access into site
 - Opportunity for height
 - Surrounding building storeys
 - Sun path
 - Opportunity for new public square
 - Opportunity to terminate view from Manor Grove
 - Opportunity for new tree-lined streets
 - Opportunity to repair street edge
 - North-south orientated blocks
 - Opportunity to service the site from access road
 - Opportunity for new public amenity space
 - Opportunity to provide green edge to railway
 - Buildings of Townscape Merit



3.3 Design principles



1 - Create new, high quality public realm.



2 - Create new active frontages and flexible retail facilities.



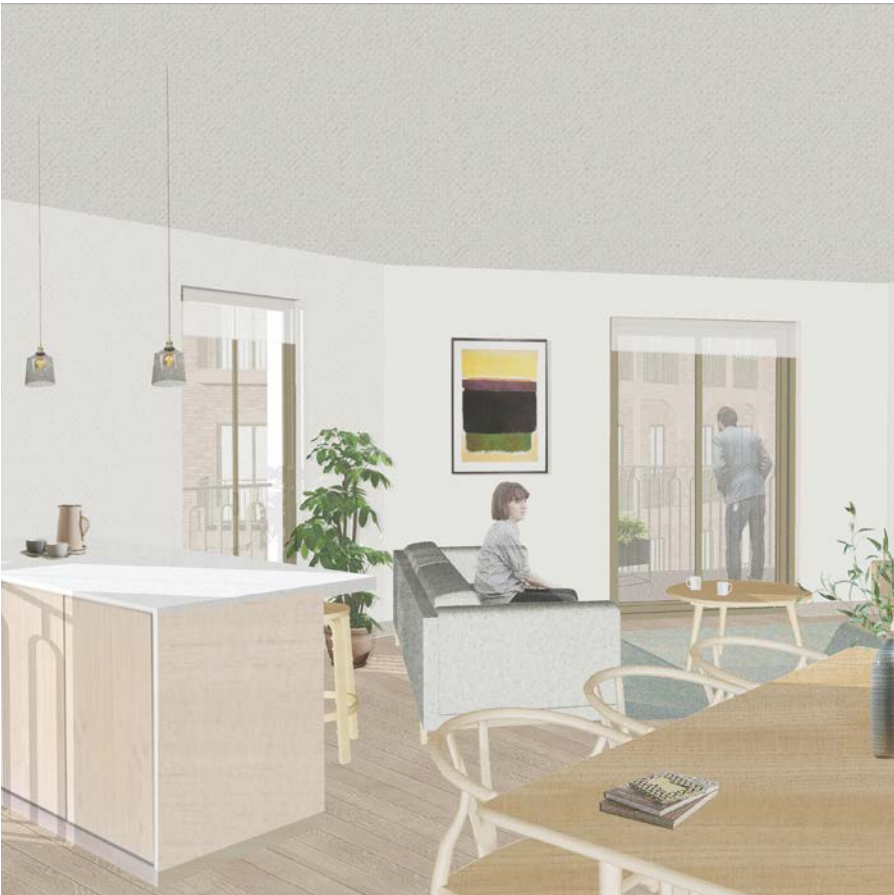
3 - Reference local architectural styles and character.



4 - Establish new street frontage on Manor Road and tree-lined street.



5 - Create new areas of soft landscaping and increase on-site biodiversity.



6 - Provide high quality new homes

3.4 Design concept

Residential blocks to be orientated north-south to maximise high quality daylight and sunlight into new apartments

Height to be concentrated in the centre of the site

Building edge to provide termination point to new public square

Blocks connected to create shared entrances and shelter pockets of landscape

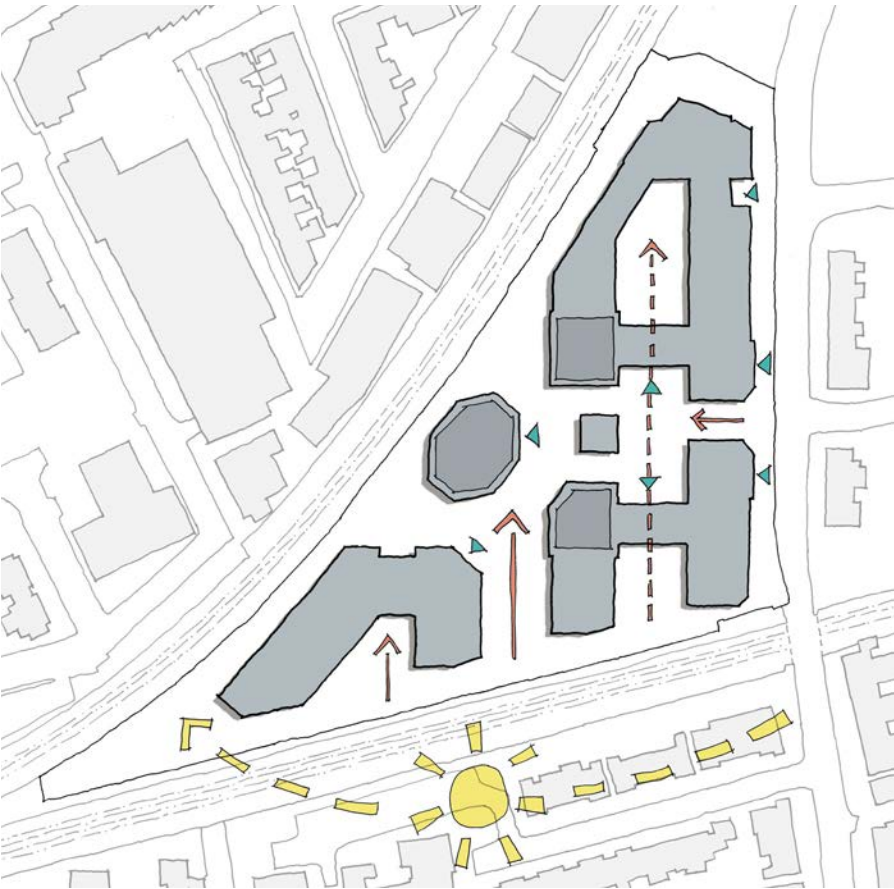
Green buffer zone along edges of railway lines

Key

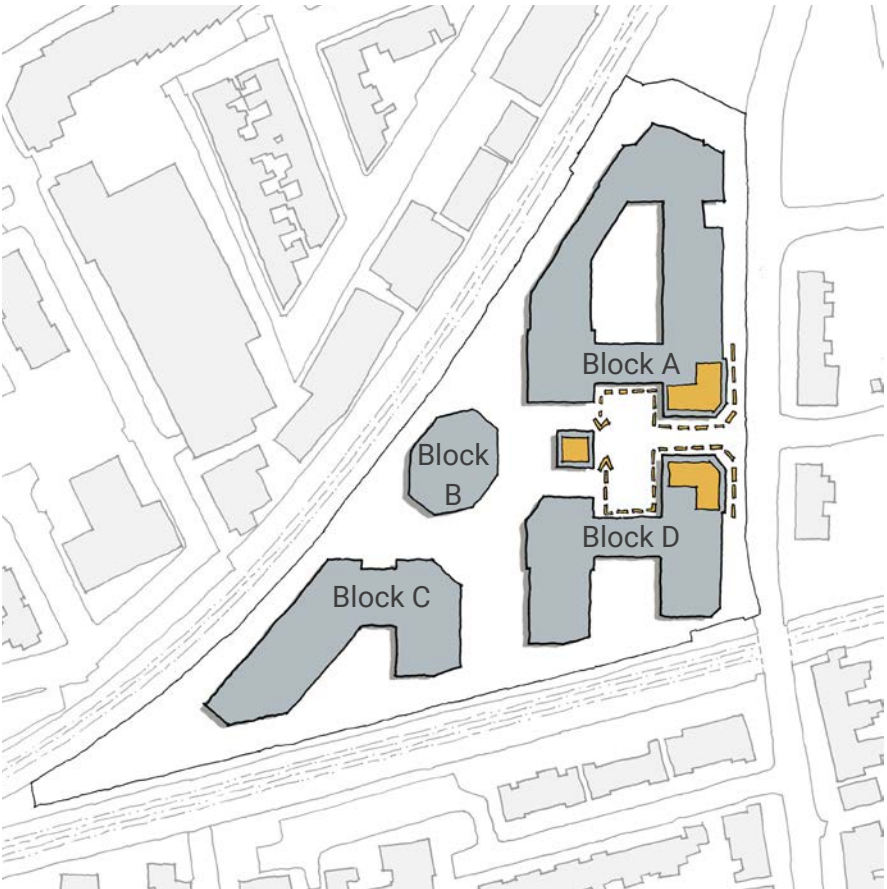
- Permeability between squares
- Main pedestrian access into site
- Secondary pedestrian access into site
- Commercial frontage
- Offset distances
- Limited vehicular movement
- Re-instate street frontage along Manor Road
- Soft landscaping
- Service road
- Reinstated street edge along Manor Road
- Retain existing bus depot



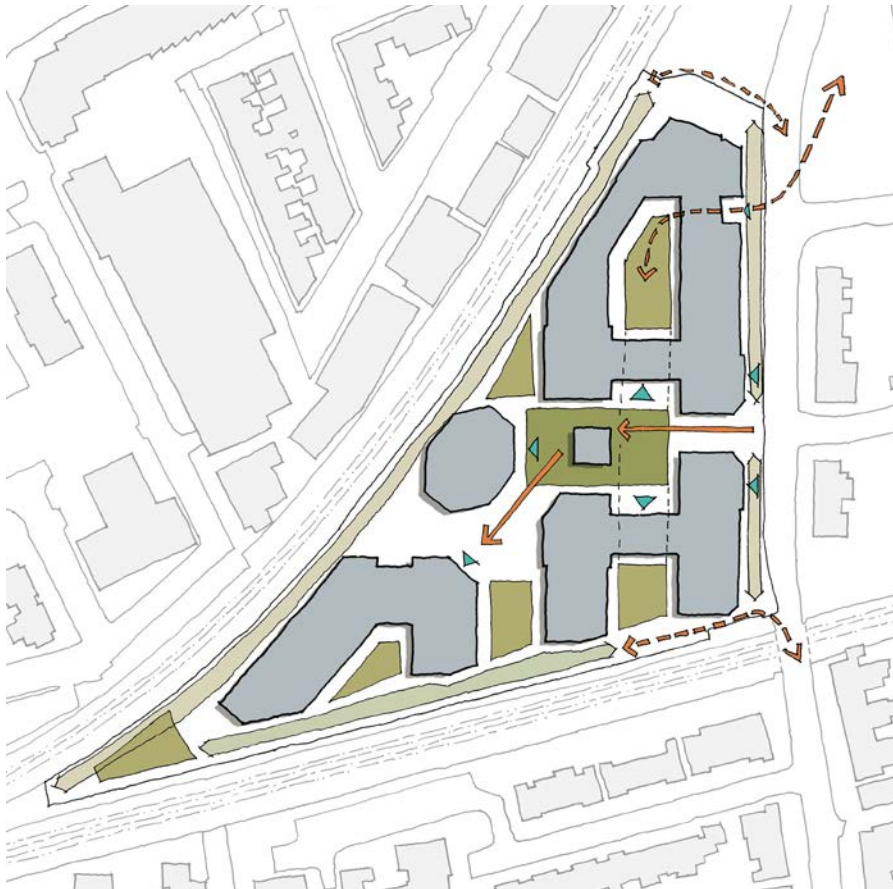
3.5 Design objectives



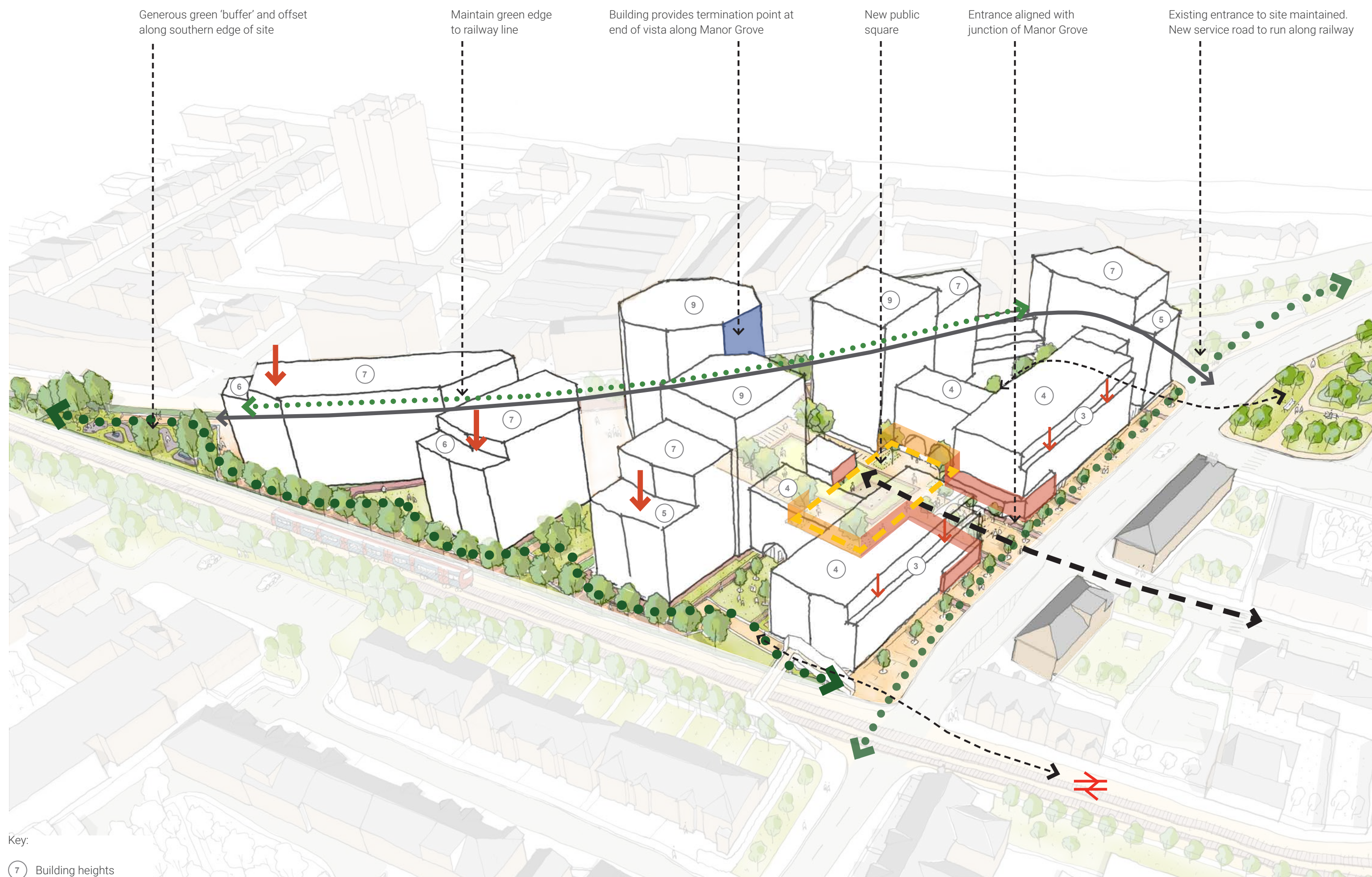
1. Orientate blocks north-south to maximise sunlight across new public realm.



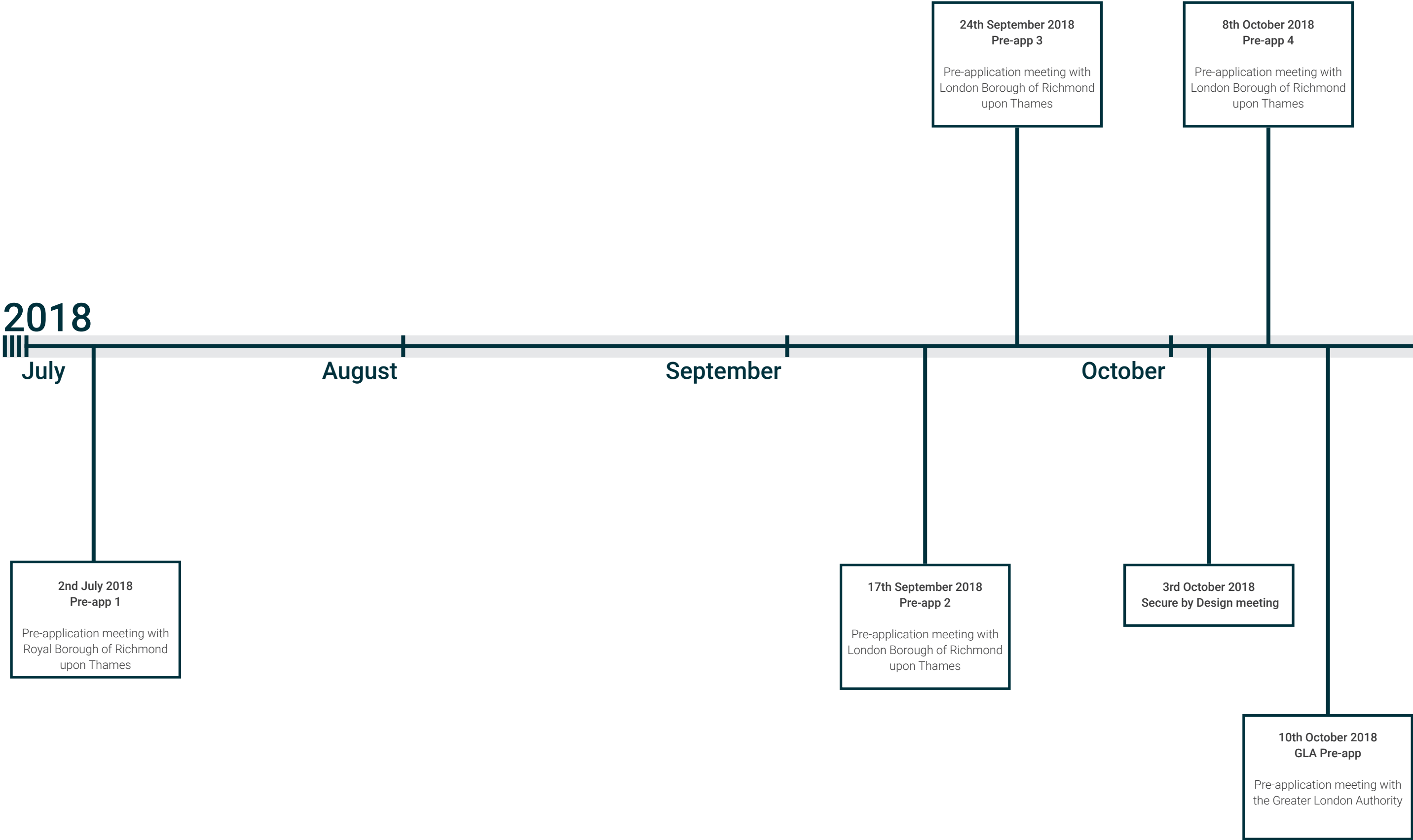
2. Align entrance to the site with Manor Grove junction. Propose new active retail uses around new public square.

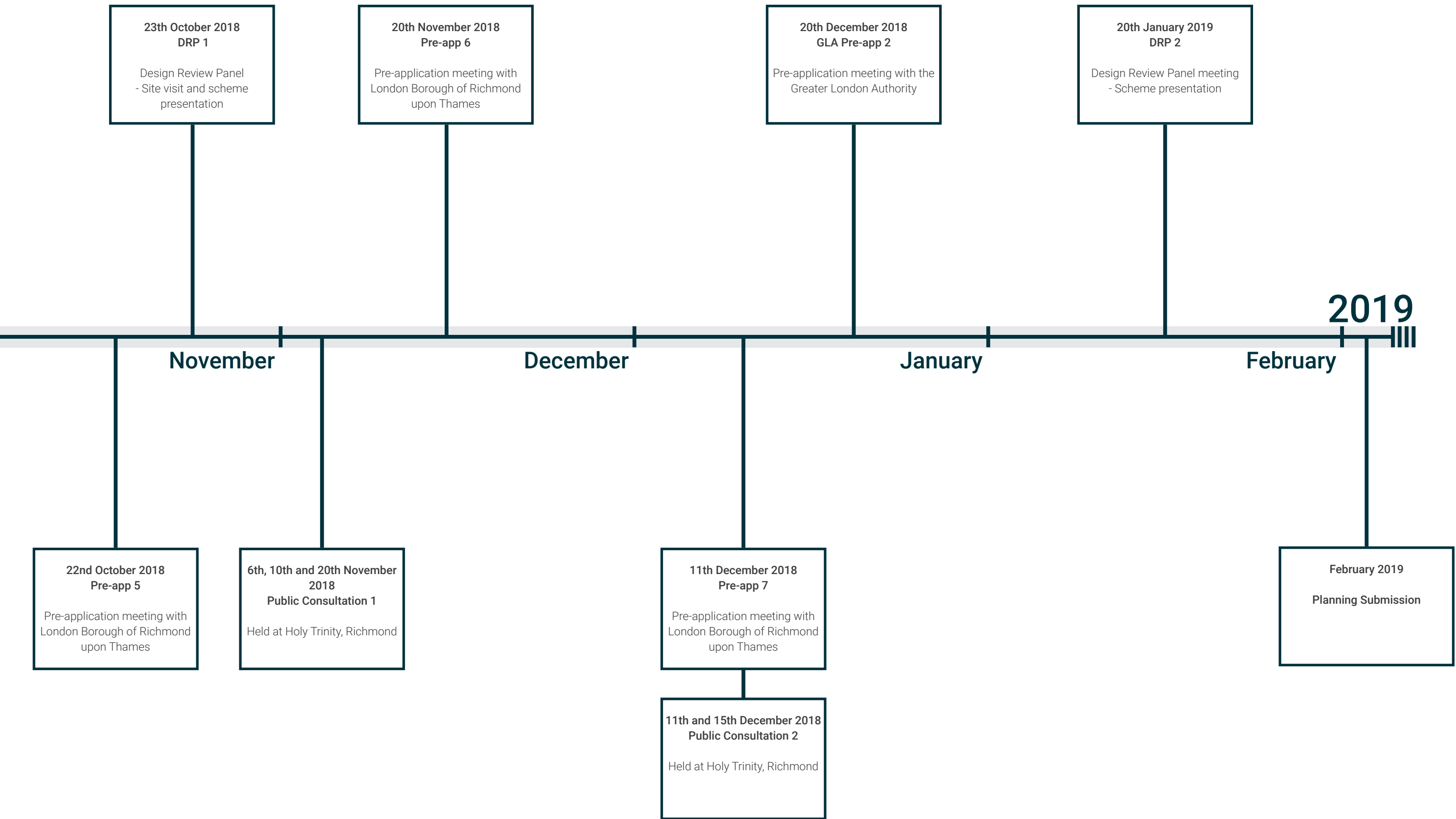


3. Create new soft landscaping and 'buffer' to railway. Increase biodiversity on site.



3.6 Design development & consultation





3.7 Pre-application meeting 1: 2nd July 2018

3.7.1 Proposals presented at pre-application meeting 1

364 units (35% of C3 tenure affordable / 20% total units C2 assisted living)

1 beds - 145 units (40%)
2 beds - 167 units (46%)
3 beds - 52 units (14%)

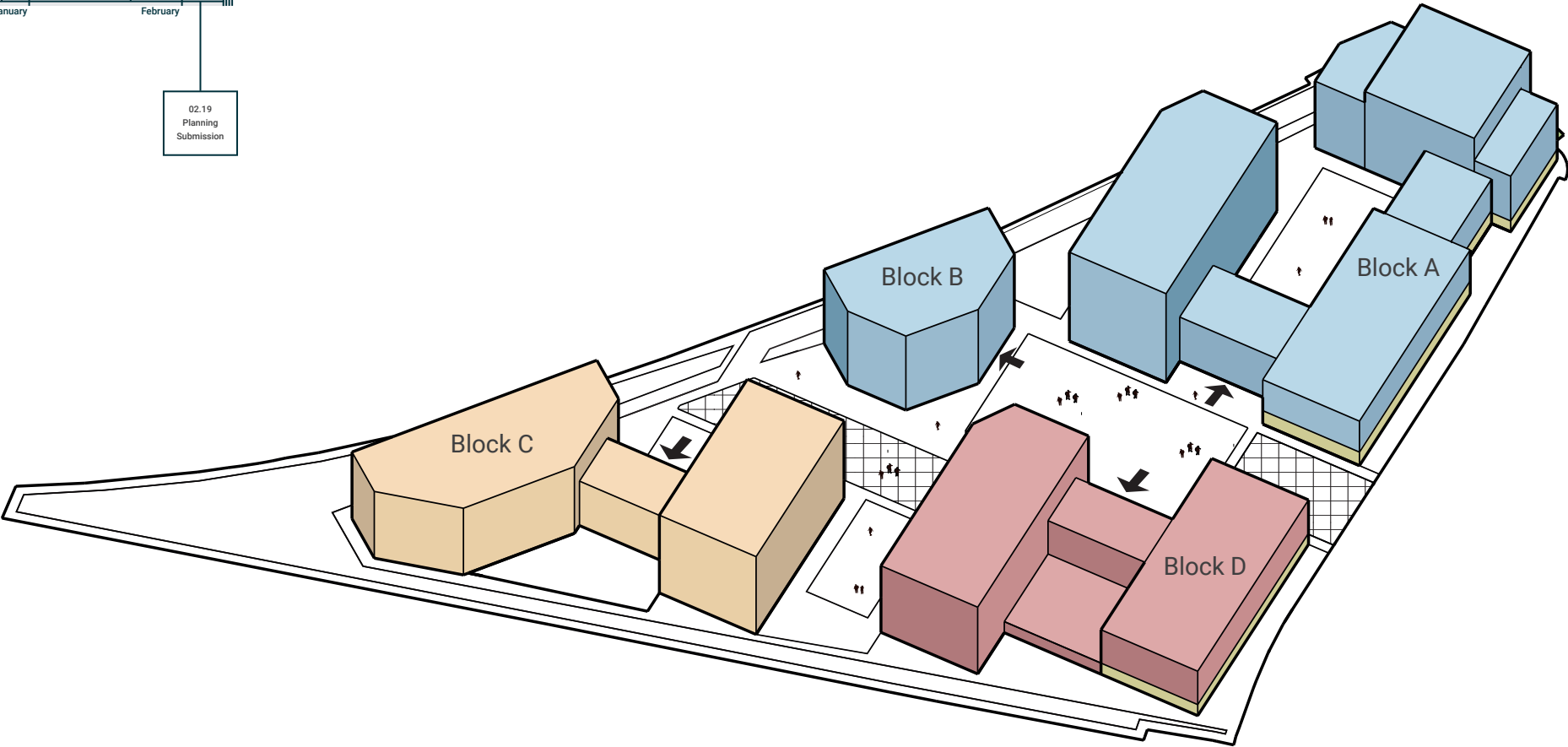
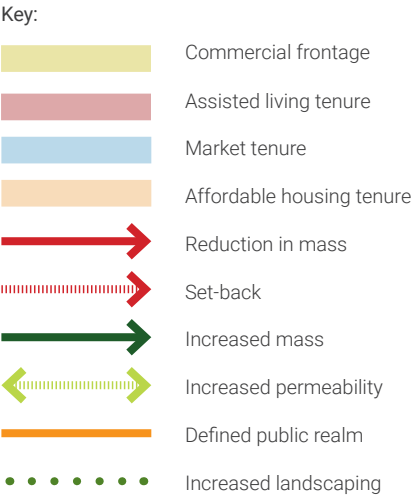
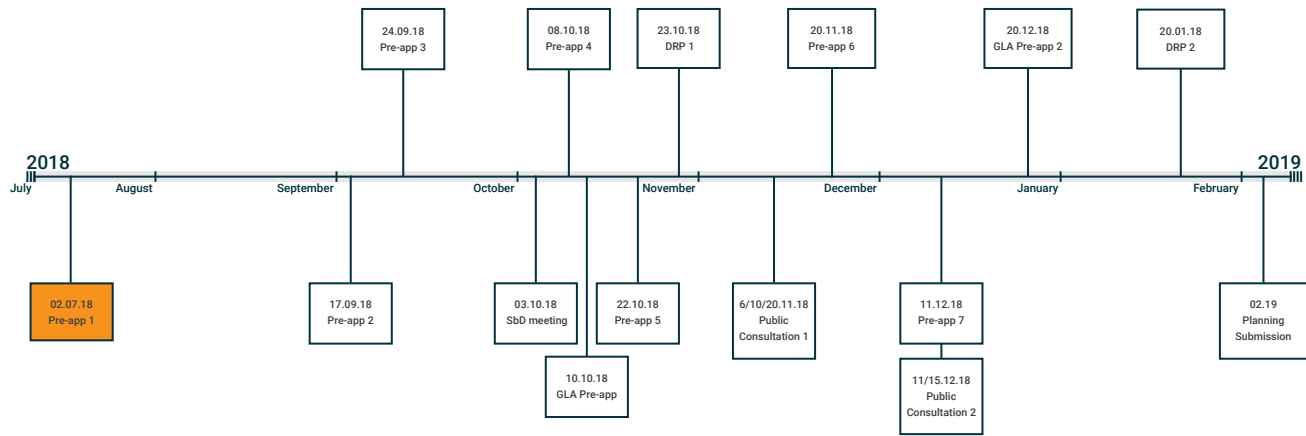
24,182 sq m (260,286 sq ft) NIA residential accommodation

1,492 sq m (16,060 sq ft) NIA commercial accommodation

144 parking spaces

- 3.7.2 Comments from pre-application meeting 1
- Hard-landscape public square
 - Improve frontage / accessibility to Block C
 - Remove later living tenure
 - Set-back massing along Manor Road to increase distance between houses on other side
 - Minimise on-site parking provision - just blue badges
 - Increase offset distances between buildings to 20m

- 3.7.3 Response to pre-application meeting 1
- Public square to be primarily hard-landscaped
 - Block C reconfigured to provide more frontage to public realm
 - Later living tenure removed in lieu of market and affordable accommodation
 - Block B reconfigured to reduce footprint and lessen impact on buildings to the west of the railway line
 - Buildings along Manor Road to have 3rd floor set-back
 - On-site parking reduced (10%)
 - Offset distances between buildings increased to 20m



3.8 Pre-application meeting 2: 17th September 2018

3.8.1 Proposals presented at pre-application meeting 2

410 units (35% affordable)
1 beds - 175 units (43%)
2 beds - 179 units (44%)
3 beds - 56 units (13%)

27,375 sq m (294,662 sq ft) NIA residential accommodation

316.9 sq m (3,411 sq ft) NIA commercial accommodation

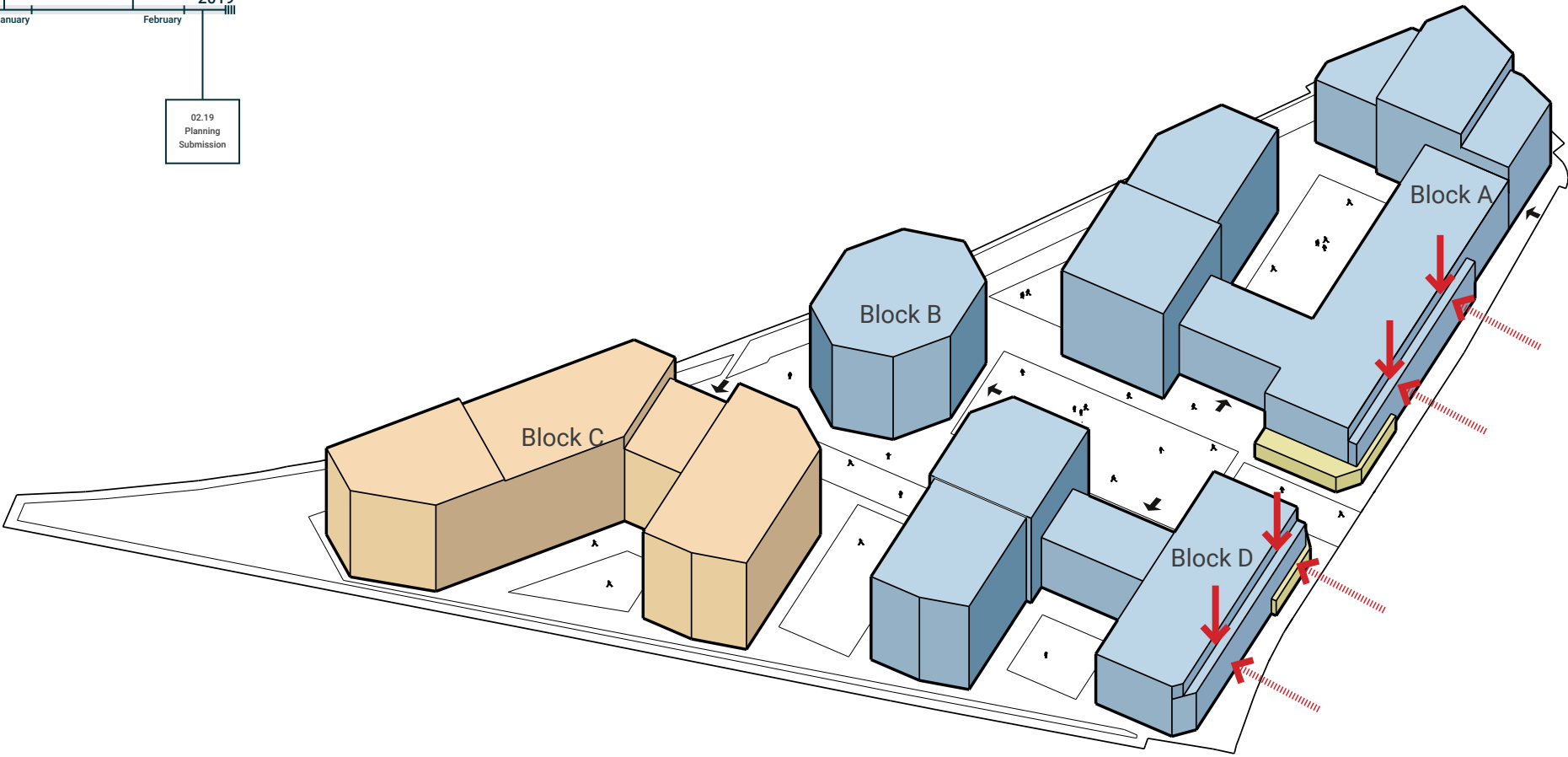
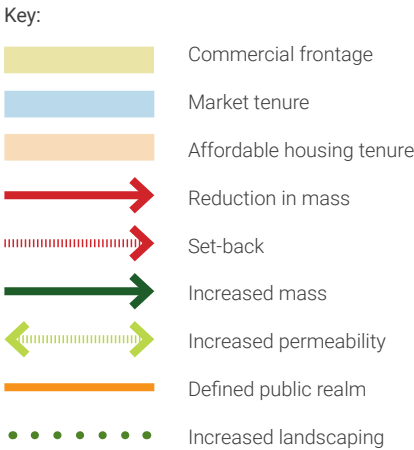
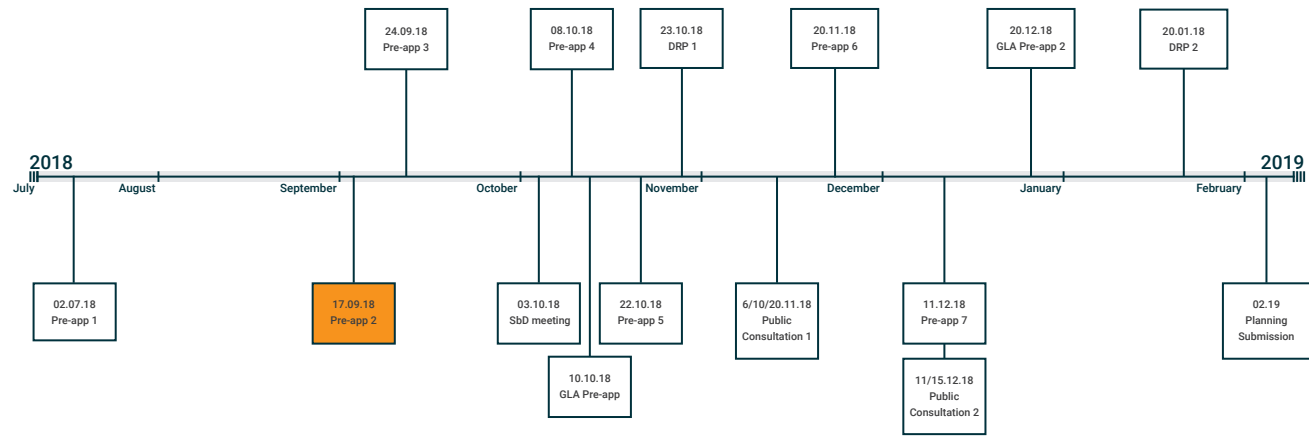
24 parking spaces

3.8.2 Comments from pre-application meeting 2

- Reduce height along southern boundary
- Concentrate height in centre / north of site
- Increase commercial floorspace at entrance on Manor Road
- Increase permeability through link blocks
- Create secondary residents' access to Manor Road
- Create more defined areas of public realm

3.8.3 Response to pre-application meeting 2

- Reduced height along southern boundary
- Increased height of building to the north of the site
- Stepped out commercial floor space at entrance to site, introduced new community pavilion
- Introduced arched openings at base of link building
- Introduced new residential entrance to northern part of the site
- Enclosed residents courtyard to building A with three townhouses



3.9 Pre-application meetings 3&4: 24th September 2018 and 8th October

3.9.1 Proposals presented at pre-application meeting 3&4

378 units (35% affordable)
1 beds - 119 units (31%)
2 beds - 181 units (48%)
3 beds - 81 units (21%)

27,402 sq m (294,953 sq ft) NIA residential accommodation

522 sq m (5,619 sq ft) NIA commercial accommodation

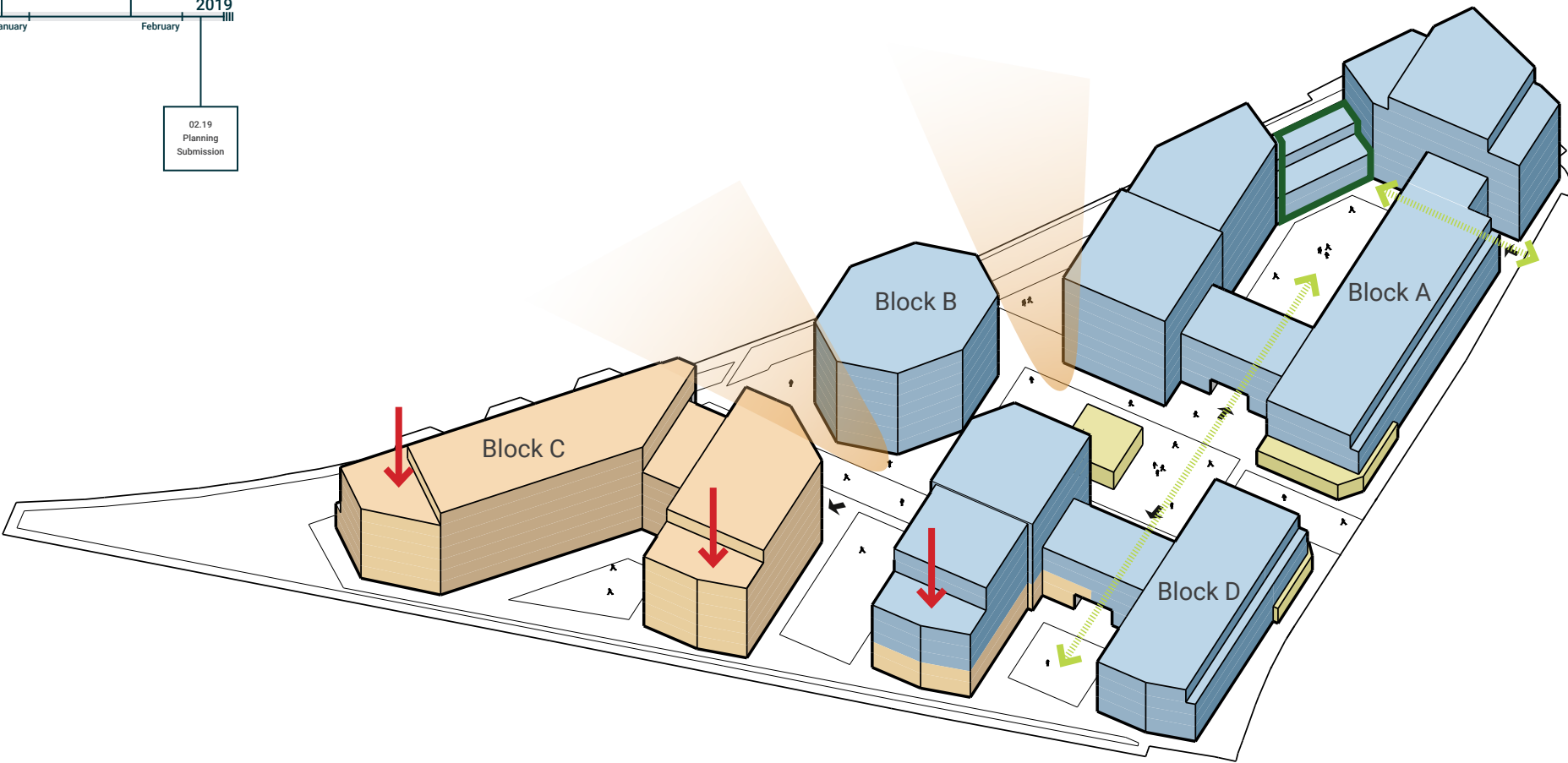
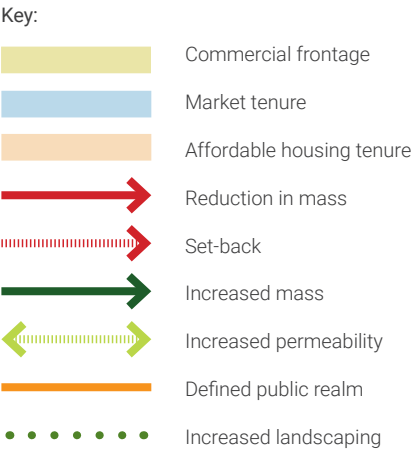
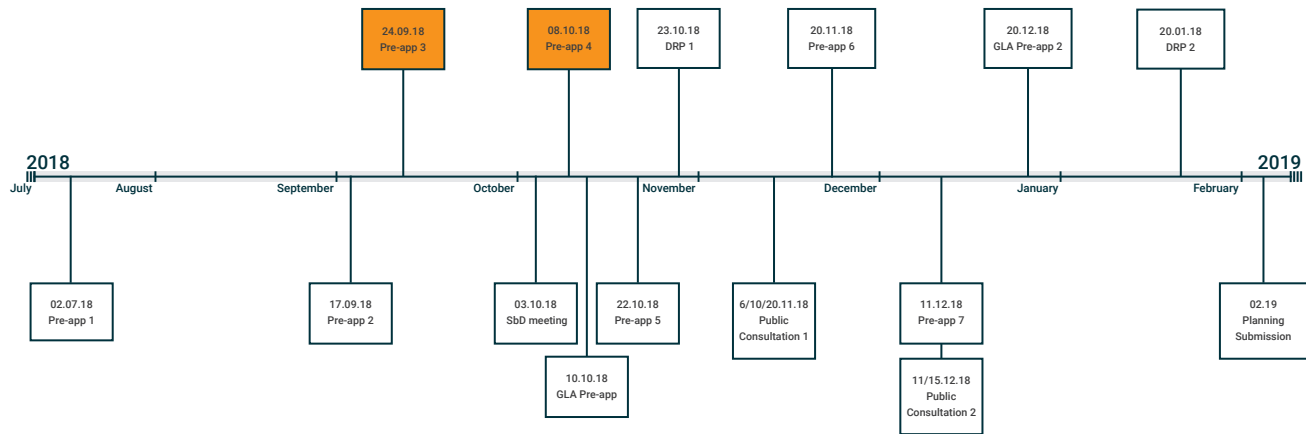
20 parking spaces

3.9.2 Comments from pre-application meetings 3 & 4

- Increase width of landscaping along southern railway edge
- Introduce new trees along Manor Road
- Reduce massing along southern boundary opposite Manor Park. Concentrate height in centre of site
- Extended set-back 4th storey along Manor Road
- Pavilion to have a community use
- Disperse cycle storage across the scheme. Include short stay spaces within landscape

3.9.3 Response to pre-application meetings 3 & 4

- Increased width of soft landscaped corridor along southern boundary
- Proposed new street trees along Manor Road
- Extended set-back along Manor Road
- Proposed community use for pavilion
- Added additional bike store on ground floor of building C



3.10 GLA Pre-application meeting 1: 10th October 2018

3.10.1 Proposals presented at GLA pre-application meeting 1

378 units (35% affordable)
1 beds - 119 units (31%)
2 beds - 181 units (48%)
3 beds - 81 units (21%)

27, 402 sq m (294,953 sq ft) NIA residential accommodation

522 sq m (5,619 sq ft) NIA commercial accommodation

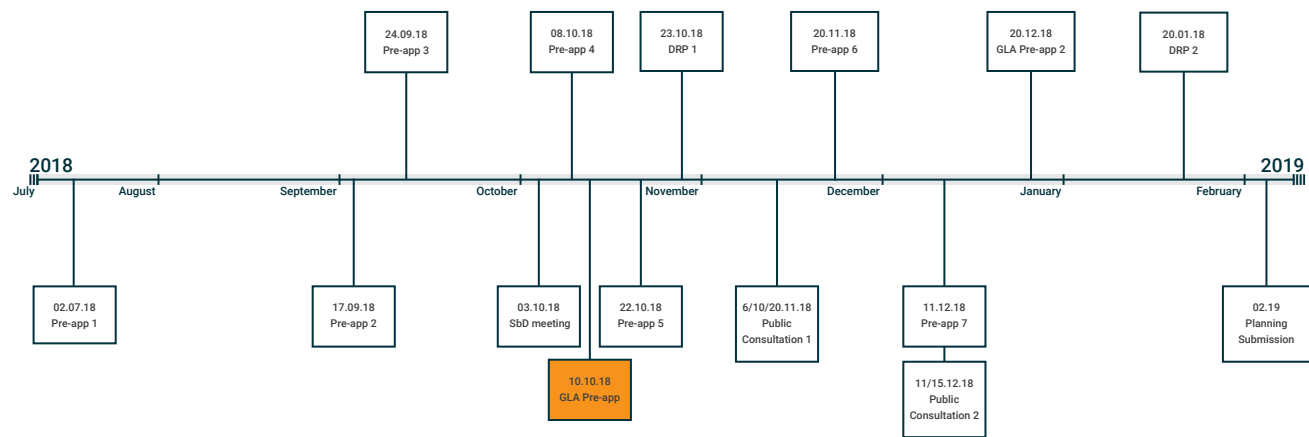
20 parking spaces

3.10.2 Comments from GLA pre-application meeting 1

- Support for proposed quantum of commercial area
- Support for 35% affordable tenure provision
- Support for proposed housing mix
- Confirm rationale behind pavilion - public square to be designed as civic space
- Landscape design in SW corner of site to be developed
- Winter gardens to be considered for units facing railways
- Create more variety in height across the site, increase density in least sensitive areas of site (centre)

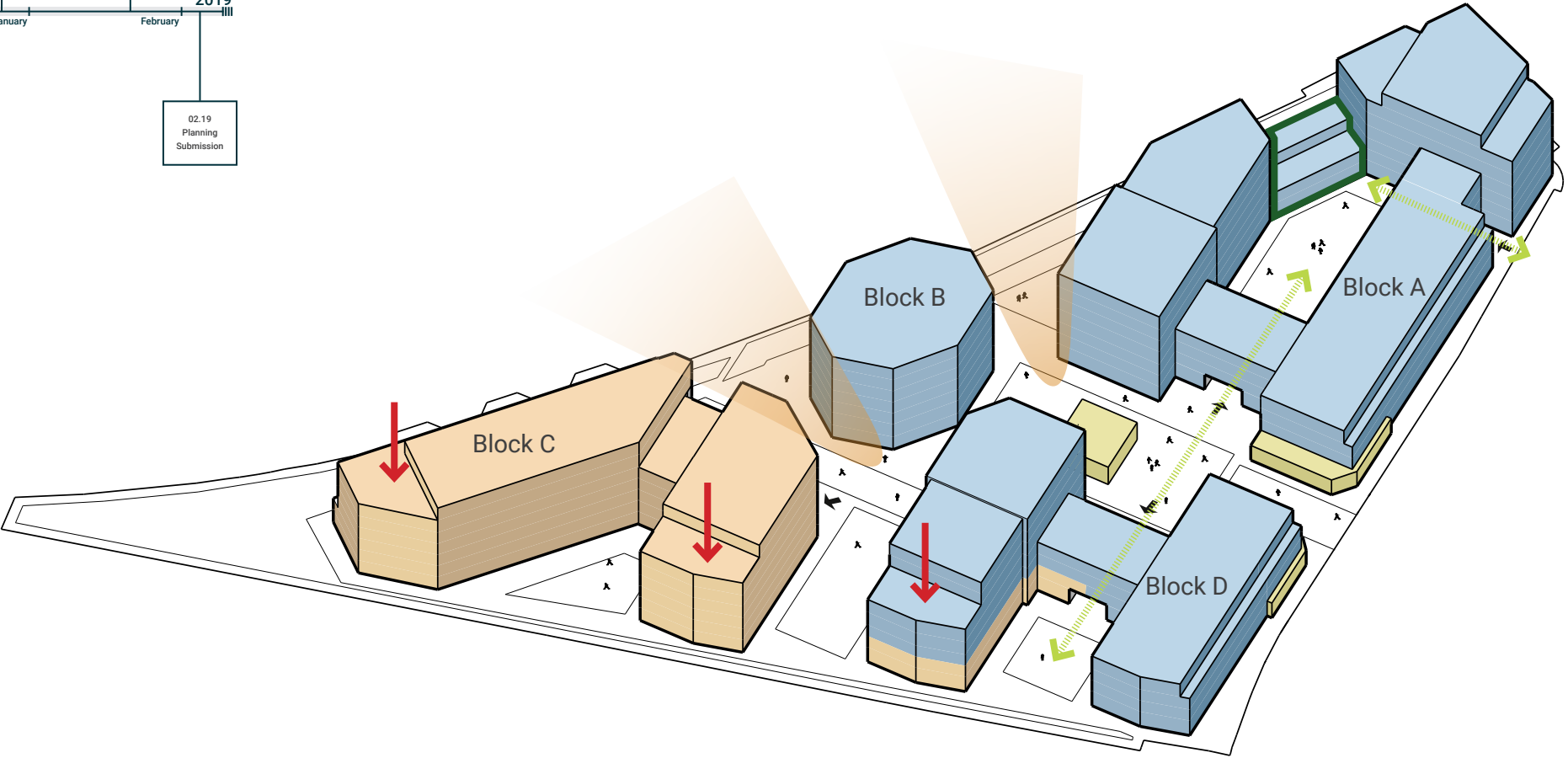
3.10.3 Response to GLA pre-application meeting 1

- Provided rationale for pavilion as a sub-division between new public square and residential court
- Developed landscape proposals for SW tip of site
- Introduced bay windows and winter gardens along railway facing façades
- Increased density of proposals towards the centre of the site
- Car free development supported



Key:

- Commercial frontage
- Market tenure
- Affordable housing tenure
- Reduction in mass
- Set-back
- Increased mass
- Increased permeability
- Defined public realm
- Increased landscaping



3.11 Pre-application meetings 5: 22nd October 2018

3.11.1 Proposals presented at pre-application meeting 5

397 units (35% affordable)
1 beds - 135 units (34%)
2 beds - 160 units (40%)
3 beds - 102 units (26%)

28,885 sq m (310, 915 sq ft) NIA residential accommodation

471 sq m (5,068 sq ft) NIA commercial accommodation

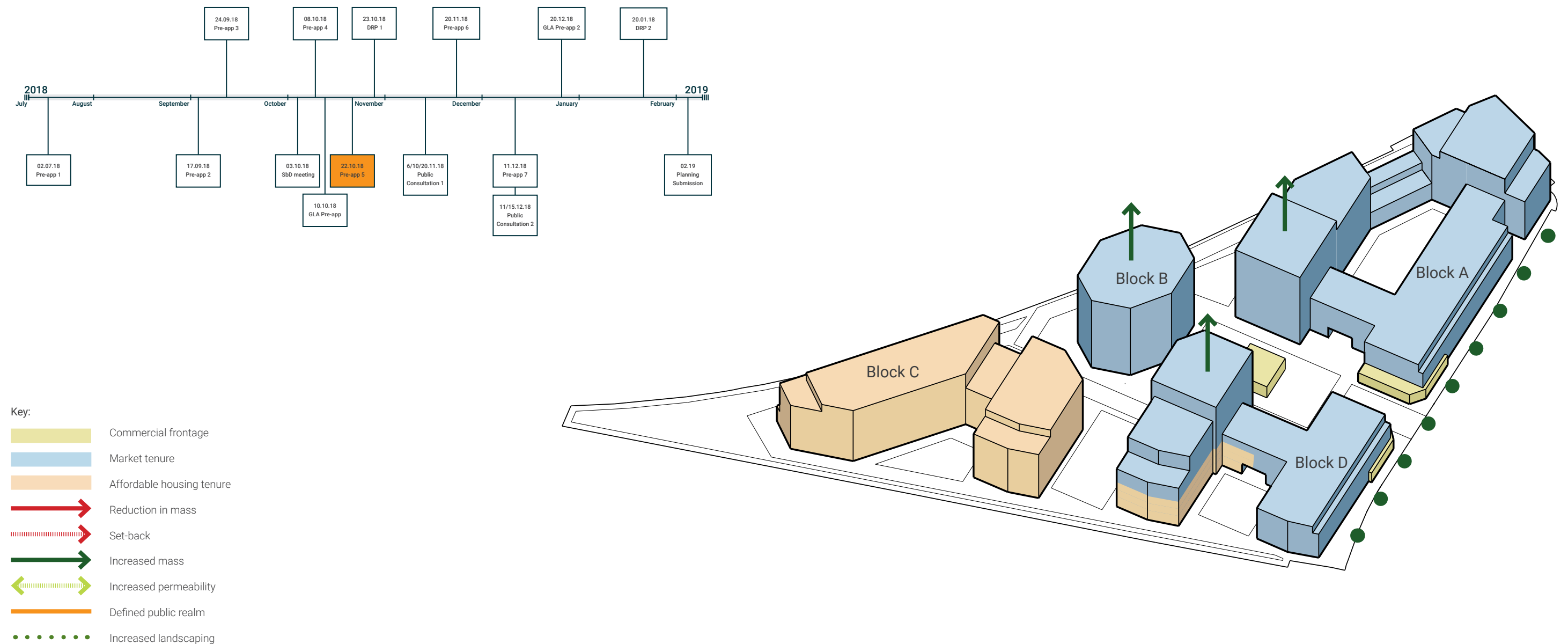
12 parking spaces

3.11.2 Comments from pre-application meeting 5

- Reduce height along southern boundary
- Concentrate height in centre / north of site
- Increase commercial floorspace at entrance on Manor Road
- Increase permeability through link buildings
- Create secondary residents' access to Manor Road
- Create more defined areas of public realm

3.11.3 Response to pre-application meeting 5

- Set-back massing along southern boundary
- Rationalised ground floor plan to increase commercial floor space offer
- Increased width of opening on ground floor of link buildings to increase N-S permeability across site
- Introduced new residents' access on Manor Road towards the north of site
- Provided further clarification on the zoning of proposed public realm



3.12 Design review panel 1: 23rd October 2018

3.12.1 Proposals presented at DRP 1

397 units (35% affordable)
1 beds - 135 units (34%)
2 beds - 160 units (40%)
3 beds - 102 units (26%)

28, 885 sq m (310, 915 sq ft) NIA residential accommodation

471 sq m (5,068 sq ft) NIA commercial accommodation

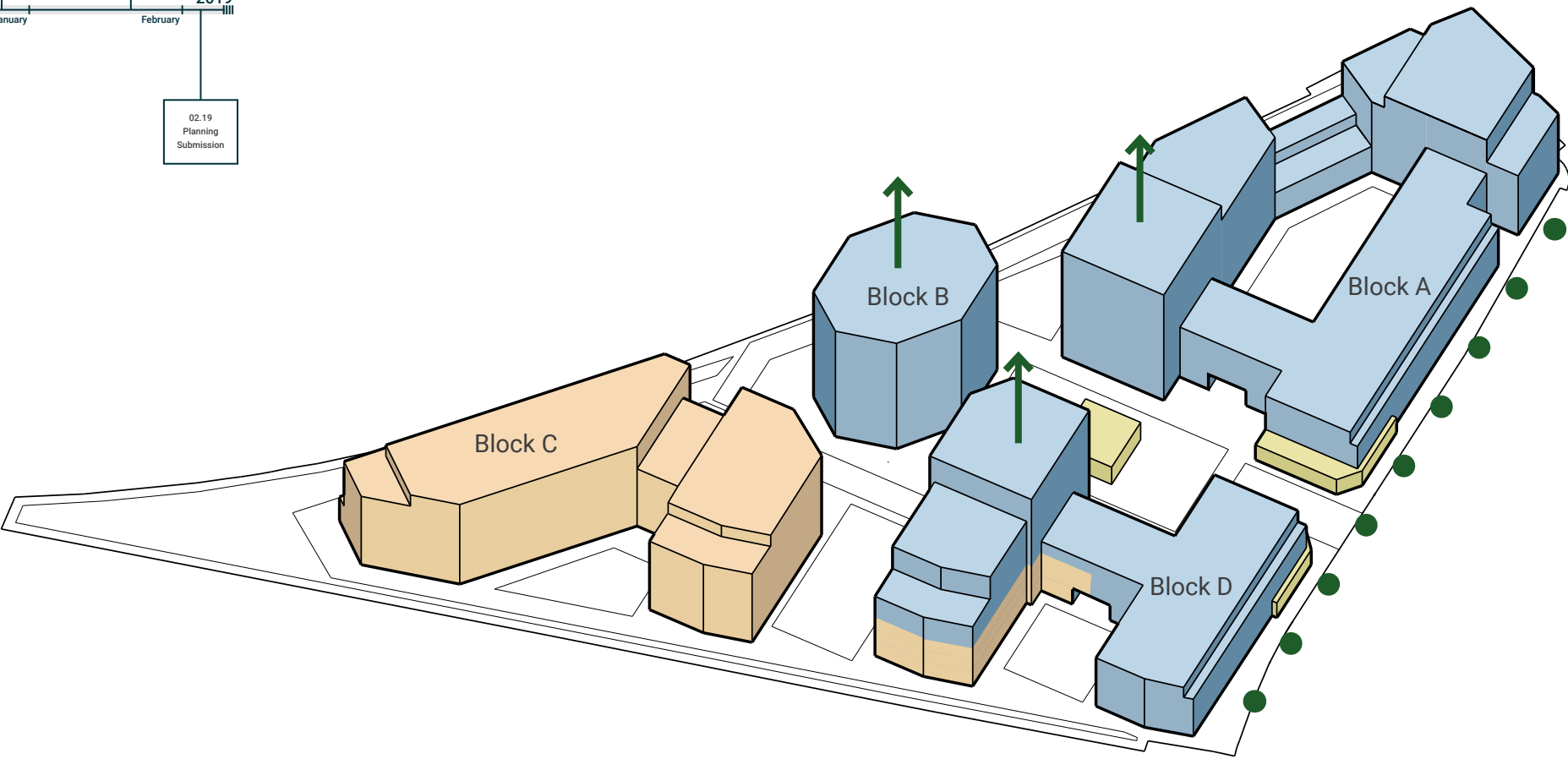
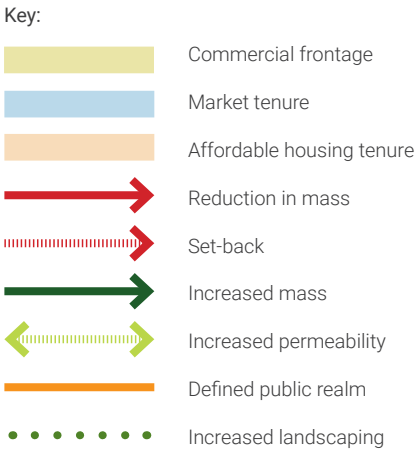
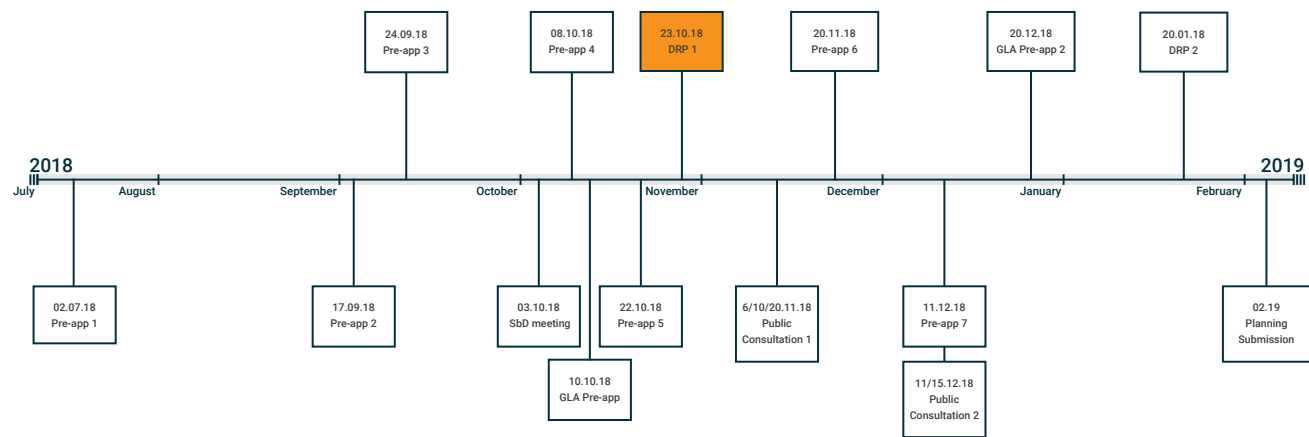
12 parking spaces

3.12.2 Comments from Design review panel 1

- Consider the rationale for the taller buildings', is there a stronger narrative?
- Support the height along Manor Road, however question the height of building B which will be visible from the conservation area
- Develop a clearer hierarchy of public and private spaces
- Confirm the use of the pavilion and how it will be serviced
- Consider the location of the affordable homes, can they be integrated within the site?
- Re-establish the key design principles

3.12.3 Response to Design review panel 1

- Provided more contextual analysis and justification for height;
 - To signify new public square
 - To provide a termination point to vista along Manor Grove
 - To respond to the taller buildings on the western side of the railway boundary
- Provided further clarification on the zoning of proposed public realm
- Redistributed affordable housing - some to be located to the north of the site



3.13 Public consultation 1

Held on: 6th November, 10th November and 20th November 2018

Approximately 200 residents attended the three sessions.

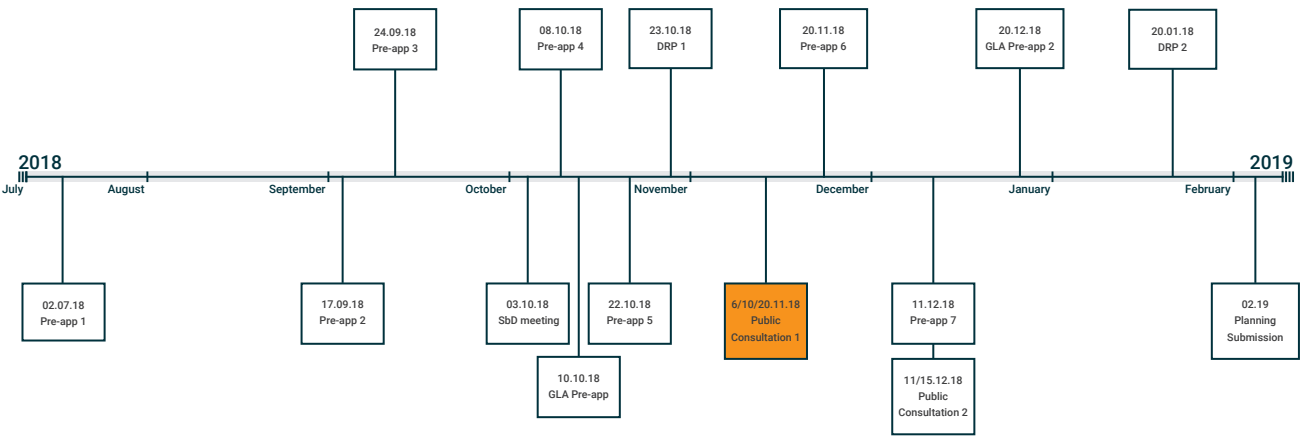
Attendees included:

- North and South Richmond Ward Councillors
- Representatives from the Richmond Society
- Representatives from the Mortlake Society
- Representatives from the East Sheen Society
- Representatives from the Sheen Society

The website and dedicated email address has received a considerable amount of feedback. We have received over 170 comment forms (both from the exhibitions and online) that we are still reviewing.

We received mixed public opinion about the redevelopment of the site in principle. Concerns were raised in relation to the lack of car parking as well as comments about height/massing. They would also like to see an improvement to the existing community infrastructure.

There is however a degree of support for the improvement of the site and provision of affordable housing.



Welcome01

Welcome to this exhibition that sets out our emerging plans to redevelop the Homebase site on Manor Road.

Avanton, a UK based residential developer, proposes to provide a high quality residential-led development on the site. The current proposals include space for local independent retailers and the introduction of a new public square.

Together with Assael Architecture, we would like to work with residents and businesses to deliver a scheme that makes a lasting contribution to the local community.

The purpose of the exhibition is to show you our proposals and listen to your feedback as we continue to evolve the design of our scheme. We plan to hold a further public consultation event later this year to keep residents updated on our progress.

We welcome comments from you. Please do not hesitate to give us your views on our proposals or ask any questions you may have. On leaving the exhibition, we would be grateful if you could complete one of the comment forms.



Manor Road, Richmond

AVANTON: Assael

The team02

The professional team

AVANTON:	Developer Avanton	HOARE LEA	MEP Fire Engineer, Sustainability, Acoustics and Air Quality Consultant Hoare Lea
Assael	Architect Assael Architecture	sanderson	Transport Consultant Sanderson Associates
GVA	Project Manager and Planning Consultant GVA Second London Wall	GILLESPIES	Landscape Architect Gillespies
FAIRHURST	Structural & Civil Engineer Fairhurst	ARC	Townscape Consultants Arc

Avanton

Avanton is a new, dynamic and progressive London property development company. We collaborate with the finest architects, landscapers, designers and contractors, to create places where people love to live, work and enjoy. We develop places that are innovative and inspiring, appreciated both for their design and for their quality.

Current projects include a landmark residential scheme in Wandsworth which incorporates the headquarters for the Royal Academy of Dance and the creation of a new enclave of contemporary townhouses and apartments, in the heart of Battersea Village.

Assael Architecture

Assael is passionate about architecture. An award-winning practice providing planning, urban design and architectural services to clients in the UK and overseas, our team operates from modern design studios in Putney. We work in a number of sectors including hotel, leisure, office, mixed-use, residential across all tenures and masterplanning.

Our approach brings together innovation and creative design, informed by research, thorough site analysis and years of experience. We're committed to providing a high quality professional service that suits our clients' individual requirements and project timescales.

We're known for our responsive and flexible approach to design, particularly in difficult or challenging circumstances. Our expertise is most often called upon to realise the full potential of complicated sites in sensitive locations. We have therefore amassed many years of experience both in the refurbishment of listed buildings and the implementation of new build developments on redundant or brownfield sites.



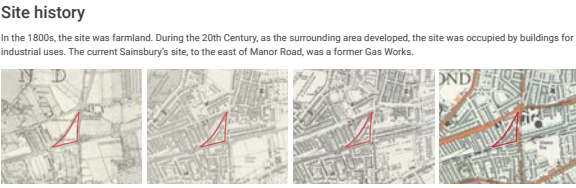
Manor Road, Richmond

AVANTON: Assael

The site03

Current site

The current Homebase sits on a 1.5 ha site shaped by the intersection of the South Western Railway line and the District line. The surrounding area is defined by the two busy thoroughfares of Upper Richmond Road and Manor Road.



Local precedent's and materiality

The basis for the proposed material palette is derived from analysing the surrounding context. Materiality and architectural details, including paired entrances, arches and detailed window surrounds, will inform developing proposals for the site.

Manor Road, Richmond

AVANTON: Assael

Design principles and masterplan04

Constraints

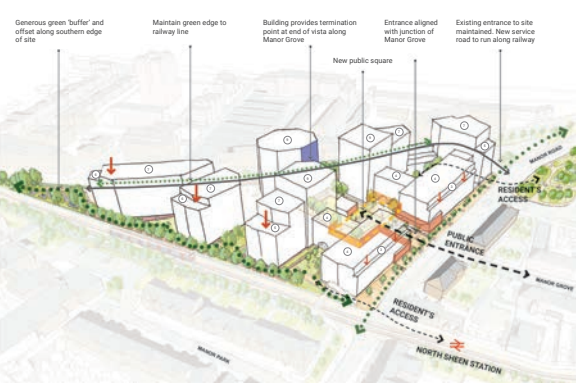
Opportunities

Masterplan strategy

Manor Road, Richmond

AVANTON: Assael

Developing proposals05

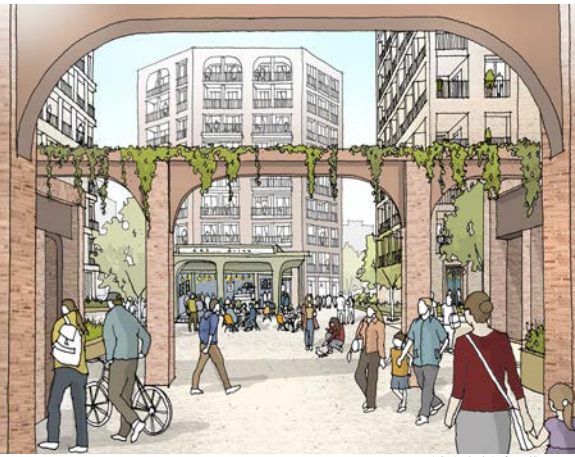


Design principles

Manor Road, Richmond

AVANTON: Assael

Benefits to local residents06

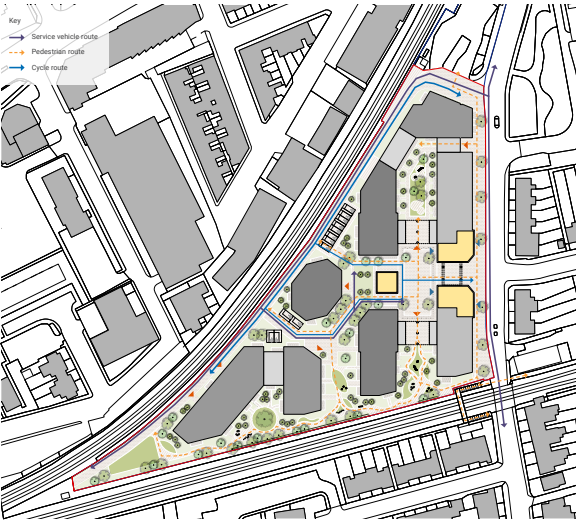


- Improvement over existing tired and unattractive DIY store
- Circa. 400 homes for local people of which 130 will be affordable
- Less vehicle movements, traffic and pollution
- New public square and hub for local community
- Improved biodiversity with generous landscaping and green spaces designed to provide year-round colour and interest
- Introduction of new local retail opportunities
- Sustainable site strategy to minimise environmental impact of development:
 - Be Lean: Use less energy
 - Be Clean: Supply energy efficiently
 - Be Green: Energy to be supplied by Air Source Heat Pumps and Solar Photovoltaics

Manor Road, Richmond

AVANTON: Assael

Transport07



- Scheme to be virtually car-free, reducing traffic levels.
- Discussions with South Western Rail and TfL in relation to North Sheen station are on-going.
- All site servicing, including waste collection and site deliveries, will be done from within the boundary of the site, minimising traffic along Manor Road.
- Cycle parking is proposed in line with local standards with a secure basement area for residents and street level provision for visitors and staff/customers of the commercial units.
- A parking stress survey will be undertaken, the results of which will be analysed and we will secure any necessary restrictions and/or amendments to the current Controlled Parking Zones in the vicinity of the site.
- We are looking to include footpath upgrade and street trees to Manor Road. We are also reviewing pedestrian crossing provision on Manor Road and liaising with TfL in relation to its A316 London Road roundabout upgrade scheme.

Manor Road, Richmond

AVANTON: Assael

Next steps08



We are committed to consultation with local residents and the local community. It is important for us to understand your opinions and we appreciate you taking the time to visit this exhibition and for sharing your views on the proposed development.

To ensure that we understand the views of the local community as we continue to evolve our proposals, we would be grateful if you would take a few minutes to complete a comment form.

If you have any questions or would like to tell us about any further local issues affecting the site, please do not hesitate to contact us on feedback@avanton.manorroad.com or you may write to us or return the comment form to:

FREEPOST RESIDENT CONSULTATION (a stamp or other wording on the envelope is not required)

We have also established the following website which will include a copy of the exhibition boards you've viewed today:

www.avanton-manorroad.com

Manor Road, Richmond

AVANTON: Assael

3.14 Pre-application meeting 6: 20th November 2018

3.14.1 Proposals presented at pre-application meeting 6

398 units (35% affordable)
1 beds - 140 units (35%)
2 beds - 175 units (44%)
3 beds - 83 units (21%)

28,405 sq m (305,749 sq ft) NIA residential accommodation

495 sq m (5,328 sq ft) NIA commercial accommodation

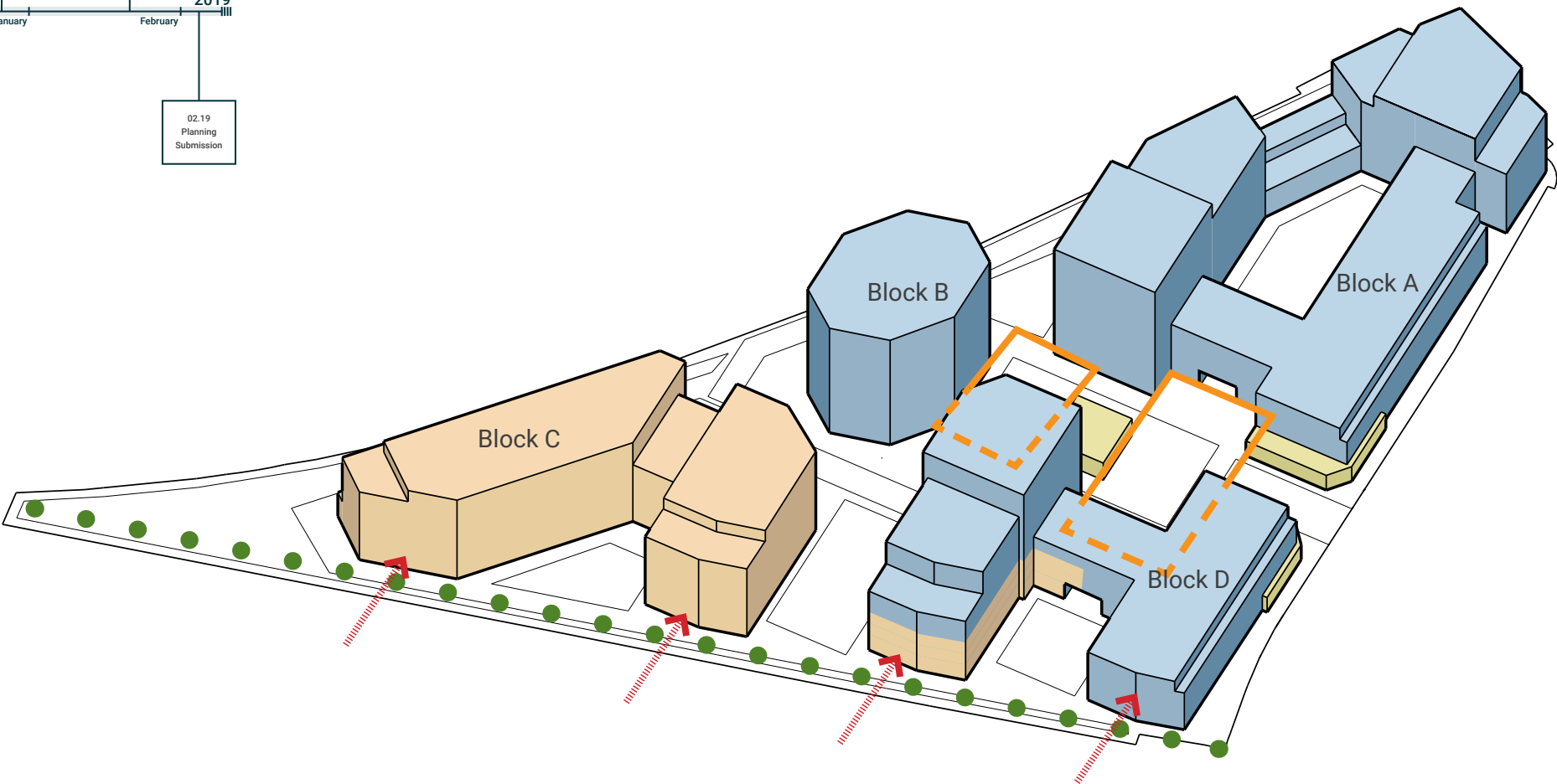
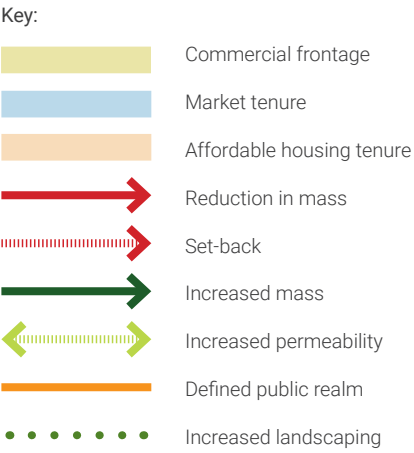
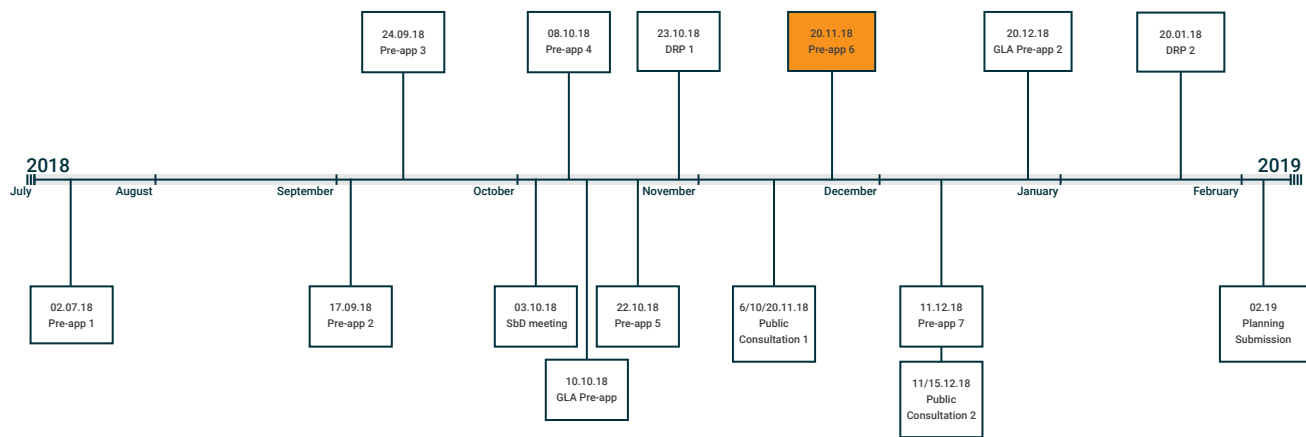
14 parking spaces (including 2 x car-club spaces)

3.14.2 Comments from pre-application meeting 6

- Queried quantum of non-residential floorspace could this be increased? Queried the pavilion
- Queried offset distances between buildings
- Single aspect units at basement level are not acceptable
- Questioned the façade treatments across scheme
- Impact of height above 4 storeys should be reduced / set-back
- Queried ‘gaps’ through the site
- Queried location of playspace in SW corner of site
- Questioned cycle store provision to the south of the site

3.14.3 Response to pre-application meeting 6

- Provided justification for the pavilion and its role in dividing the proposed public realm into public and residential squares
- Reviewed offset distances between buildings and increased this to 20m
- Replaced lower ground accommodation units with duplex apartments
- Reviewed façade design across proposals
- Top storeys of buildings to have change of material / detail
- Landscape design to provide more information on the arrangement of new public realm
- Reviewed location of playspace across scheme. Play space to be concentrated within residential courtyards and public realm
- Provided additional cycle storage in building D (to the south of the site)



3.15 Pre-application meeting 7: 11th December 2018

3.15.1 Proposals presented at pre-application meeting 7

384 units (35% affordable)
1 beds - 151 units (39%)
2 beds - 161 units (42%)
3 beds - 72 units (19%)

27,944 sq m (300,792 sq ft) NIA residential accommodation

480 sq m (5,167 sq ft) NIA commercial accommodation

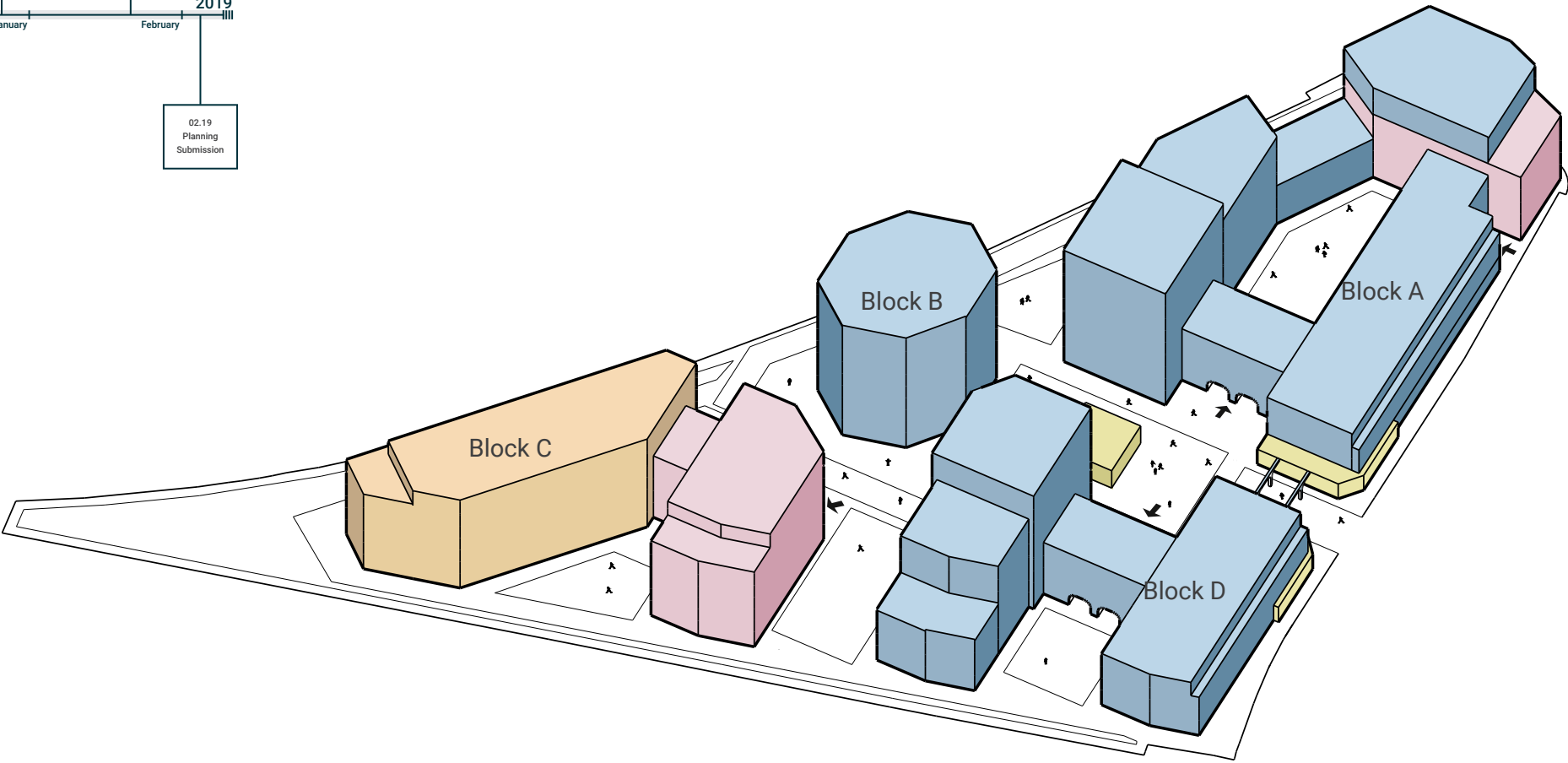
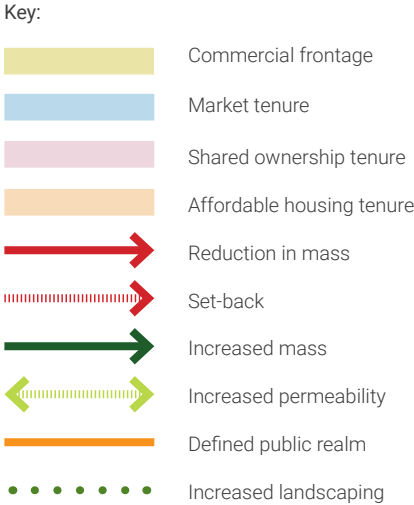
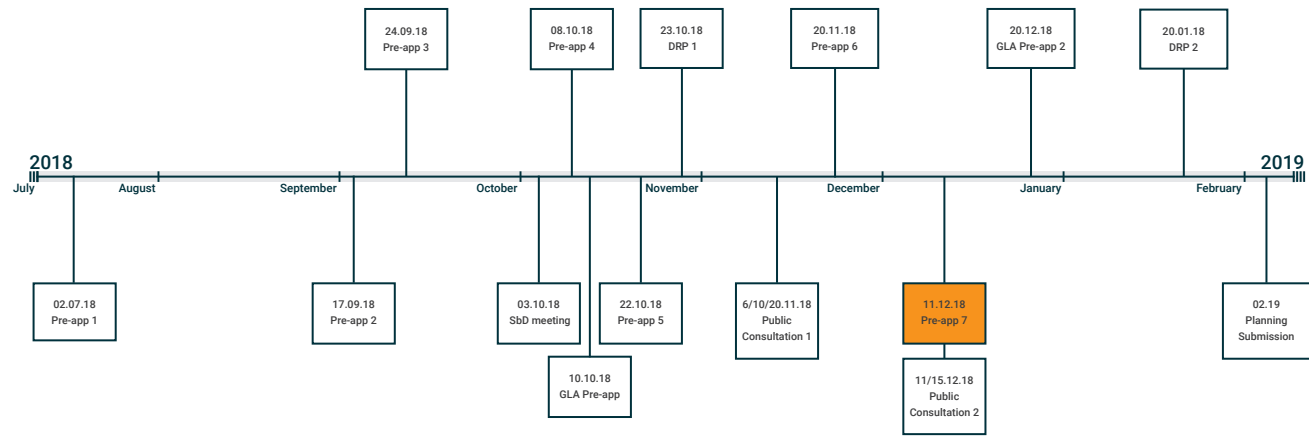
14 parking spaces (including 2 x car-club spaces)

3.15.2 Response to pre-application meeting 7

- Welcomed changes to lower ground accommodation (now duplexes)
- Queried variety in materials and questioned whether there was a possibility for greater contrast between brick and stone colours, including on bay windows
- Questioned proximity of buildings B and D
- Welcomed developing landscape proposals and questioned whether there was an opportunity for increasing planting buffer along NW railway line
- Questioned location of affordable housing

3.15.3 Comments from pre-application meeting 7

- Reviewed stone colour to provide greater contrast between stone and brickwork
- Developed bay window design
- Study of facing apartments between buildings B and D
- Reviewed landscape strategy along NW boundary, increased distance between building C and railway edge
- Location of affordable homes changed to provide greater distribution across site

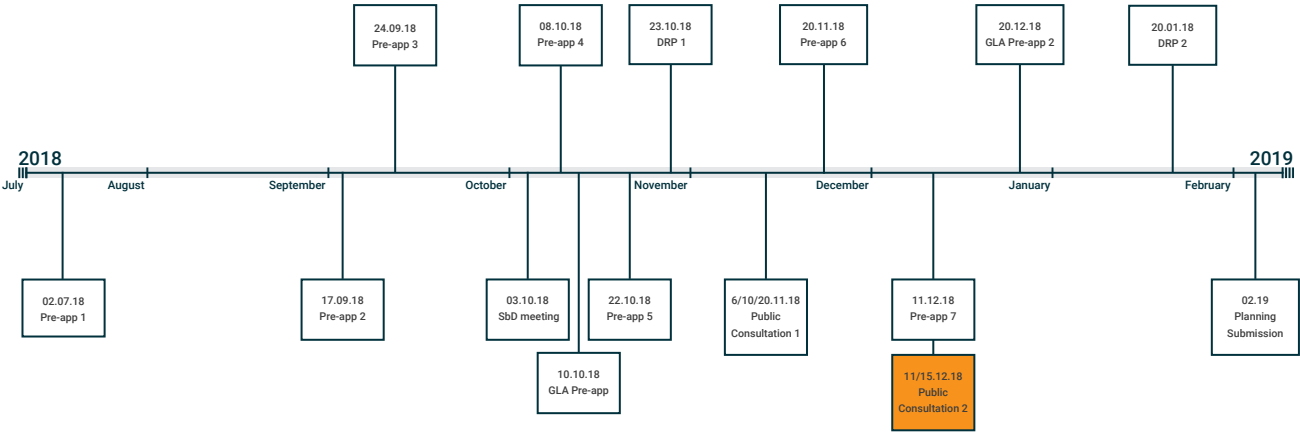


3.16 Public consultation 2

Held on: 11th December and 15th December 2018

The second exhibition focused on detailed proposals to be submitted for planning. The boards were supplemented by a large physical model and sample material palette.

Representatives from Avanton, Assael, GVA, Hoare Lea and Sanderson Associates attended the exhibition and were available to answer any questions from the public.



Welcome01

Welcome to our latest public exhibition to show the final proposals prior to submission for the Homebase site on Manor Road.

The purpose of this exhibition is to display the scheme in more detail and to answer queries that have been raised throughout public consultation.

Avanton and Assael Architecture are both committed to ensuring a high quality scheme is delivered.

We continue to welcome comments from you. Please do not hesitate to give us your views on our proposals or ask any questions you may have.

On leaving the exhibition please do complete one of the comment forms. This can be completed at the exhibition, online, by email or freepost.



Manor Road, Richmond AVANTON: Assael

The team02

The professional team

AVANTON:	Developer Avanton	HOARE LEA	MEP, Fire Engineer, Sustainability, Acoustics and Air Quality Consultant Hoare Lea
Assael	Architect Assael Architecture	sanderson	Transport Consultant Sanderson Associates
GVA	Project Manager and Planning Consultant GVA Second London Wall	GILLESPIES	Landscape Architect Gillespies
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Our approach brings together innovation and creative design, informed by research, thorough site analysis and years of experience. We're committed to providing a high quality professional service that suits our clients' individual requirements and project timescales.

We're known for our responsive and flexible approach to design, particularly in difficult or challenging circumstances. Our expertise is most often called upon to realise the full potential of complicated sites in sensitive locations. We have therefore amassed many years of experience both in the refurbishment of listed buildings and the implementation of new build developments on redundant or brownfield sites.



Manor Road, Richmond AVANTON: Assael

Design principles03



- Since our last public exhibition we have:
- Completed a parking stress survey on the surrounding streets and are in dialogue with the Council about extending the controlled parking zones in the area.
 - Engaged with car-club providers about including new car-club bays as part of the proposals.
 - Begun discussions about contributions to local infrastructure including public transport and providing Electric Vehicle Charging Points.
 - Developed our landscape strategy to include additional soft landscaping and tree planting along all edges of the site.
 - Increased the distances between our proposed residential blocks to allow for new enhanced public realm.

Manor Road, Richmond AVANTON: Assael

Developing proposals04

384 new homes

151 1 bed-flats (43%)
161 2 bed-flats (46%)
72 3 bed-flats (21%)

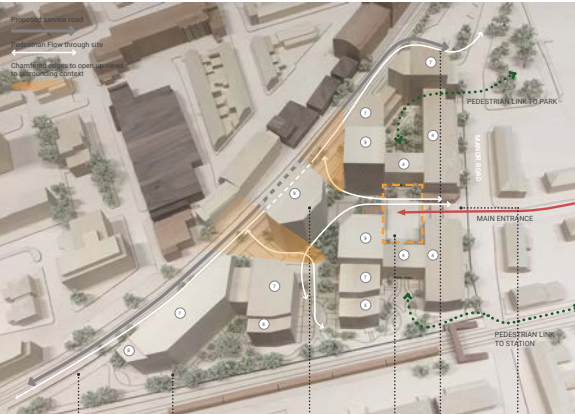
35% of new flats are 'affordable units', a term that includes rented and shared ownership homes.

480 sqm. of new commercial floorspace to support new independent shops and cafes.

Energy and Sustainability

The energy strategy is following the energy hierarchy: Be Lean – Be Clean – Be Green by taking a fabric-first approach to energy savings, supplying energy via efficient means, and implementing Air Source Heat Pumps and Solar Photovoltaics. This strategy is expected to result in significant carbon emission reductions for the scheme. This zero combustion solution is also expected to provide air quality benefits compared with more traditional gas-fired solutions.

The commercial units are targeting a rating of 'Excellent' using the Building Research Establishment's Environmental Assessment Method (BREEAM).



Manor Road, Richmond AVANTON: Assael

Appearance05



- Reconstituted stone set-back - fenestration to align through with main body of building.
 - Reconstituted stone details to break up facade and create lintels and balconies.
 - Red brick selected to reflect buildings along Manor Road.
 - Detailed metal columns to provide support and division to balconies.
 - Bronze coloured metalwork to create handrails, railings and Juliet balconies.
 - New trees to be planted along street.
 - Timber front doors to give increased privacy to residents on the ground floor.
 - Precast concrete stairs to elevate ground floor flats and increase privacy for residents.
- Materiality and architectural details reflect local context including paired entrances and arched openings and bay windows.
- Material palette to reflect local brick tones which are predominantly red/yellow brick. Darker brickwork with lighter stone detailing reference buildings on Sheendale Road and on St. Mary's Grove.
- Key: Plan view of new public square
- Key: Plan view of new public square

Manor Road, Richmond AVANTON: Assael

Transport06

- The site is highly accessible (PTAL 5) therefore, in line with the Policies and aims of Richmond Council and the London Plan this is a virtually car-free development.
- Encouraging the use of local transport facilities will help alleviate the congestion Manor Road and will assist in improving air quality.
- Discussions with South Western Railway, Network Rail and TfL are on-going regarding North Sheen Station.
- Cycle parking is proposed in line with standards set out in the London Plan and is provided for both residents and visitors to the site.
- A Construction Traffic Management Plan will be agreed with the Council ahead of any works and will enforce that working hours for the construction works will be restricted to those agreed with the Council.
- Safety is our main concern. We will insist that the main contractor will provide 24-hour security and that deliveries to/from the construction site will be carefully managed.
- A parking stress survey has been undertaken and the results analysed. It is highly likely that amendments to/exansion of existing Controlled Parking Zone regulations will be required and we will work closely with the Council to secure any such amendments. This process will of course be subject to public consultation processes.
- We are looking to include a footpath upgrade and street trees to Manor Road. We are also reviewing pedestrian crossing provision on Manor Road and liaising with TfL in relation to its A316 London Road roundabout upgrade scheme.

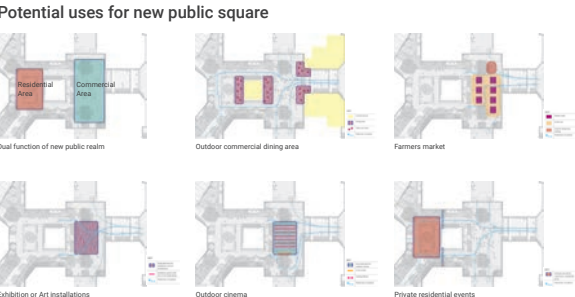


Manor Road, Richmond AVANTON: Assael

Public Square07



- Key**
- Manor Road access pedestrian / cycle access
 - Main entrance pedestrian / cycle access
 - Public Square
 - Commercial / dining area
 - Entrance to residential blocks
 - Residential space
 - Pavilion
 - Lawn area with play elements
 - Access to the concierge
 - Access to semi-private space
 - Access to the accessible car-park spaces
- Key: Plan view of new public square



Manor Road, Richmond AVANTON: Assael

Next steps08



We hope to submit a planning application to Richmond Council in the New Year.

We are keen that our application responds to the views of local residents and we welcome your comments. We would therefore be grateful if you could complete one of the comment forms provided. It is our intention to keep both local residents and community groups fully consulted throughout the planning process.

If you have any questions or would like to tell us about any further local issues affecting the site, please do not hesitate to contact us on feedback@avanton-manorroad.com or you may write to us or return the comment form to:

FREEPOST RESIDENT CONSULTATION

We have also established the following website which includes a copy of all exhibition boards and a comment section:

www.avanton-manorroad.com

Manor Road, Richmond AVANTON: Assael

3.17 GLA pre-application meeting 2: 20th December 2018

3.17.1 Proposals presented at GLA pre-application meeting 2

385 units (35% affordable)
1 beds - 152 units (40%)
2 beds - 178 units (46%)
3 beds - 55 units (14%)

27,680 sq m (297,954 sq ft) NIA residential accommodation

480 sq m (5,167 sq ft) NIA commercial accommodation

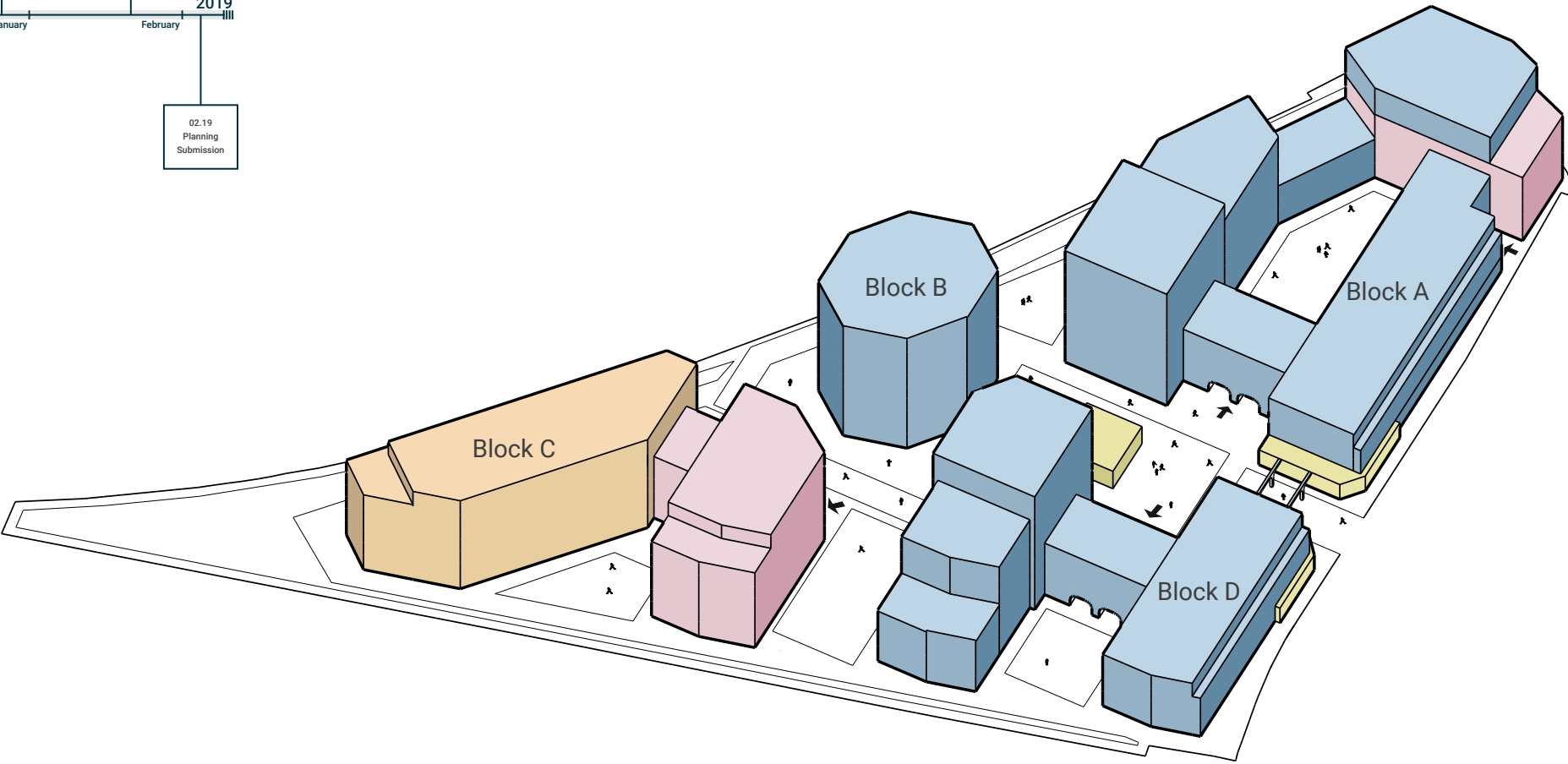
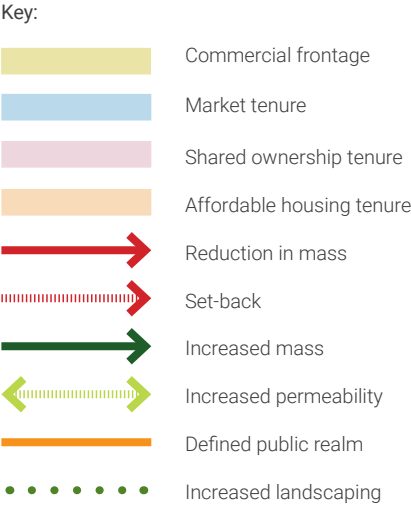
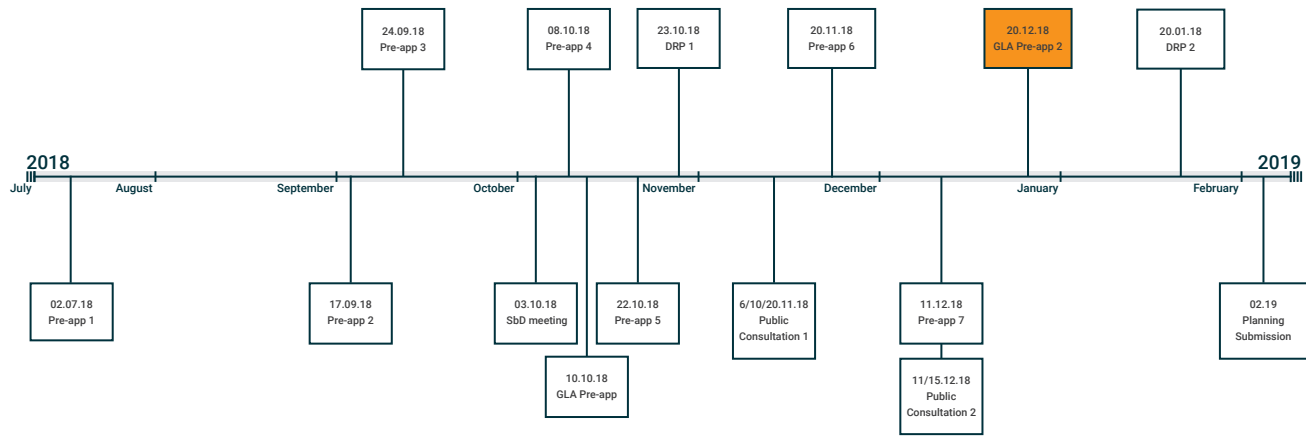
14 parking spaces (including 2 x car-club spaces)

3.17.3 Comments from GLA pre-application meeting 2

- Concern raised over 4 no. single aspect north facing units.
- Approved of duplex units along internal mews street.
- Understood the role of the pavilion within the new public realm.
- Approved of unit mix.
- Queried whether PV panels had been maximised on roofs.
- Queried whether height could be increased, specifically on the ‘marker building’ to create more variety in height in the centre of the scheme.

3.17.2 Response to GLA pre-application meeting 2

- Single aspect north facing units removed and designed to have a bay window to provide for views other than just north. Landscaping scheme proposed on the bus depot to improve outlook for these units.
- Where appropriate and efficient PV panels to be included on south facing roof-tops.
- Maintained building heights however detailed the top two floors on the buildings either side of the public square as tops to give more presence to the marker building, block B.



3.18 **DRP 2: 11th December 2018**

3.18.1 Proposals presented at Design review panel 2

385 units (35% affordable)
1 beds - 152 units (40%)
2 beds - 178 units (46%)
3 beds - 55 units (14%)

27,680 sq m (297,954 sq ft) NIA residential accommodation

480 sq m (5,167 sq ft) NIA commercial accommodation

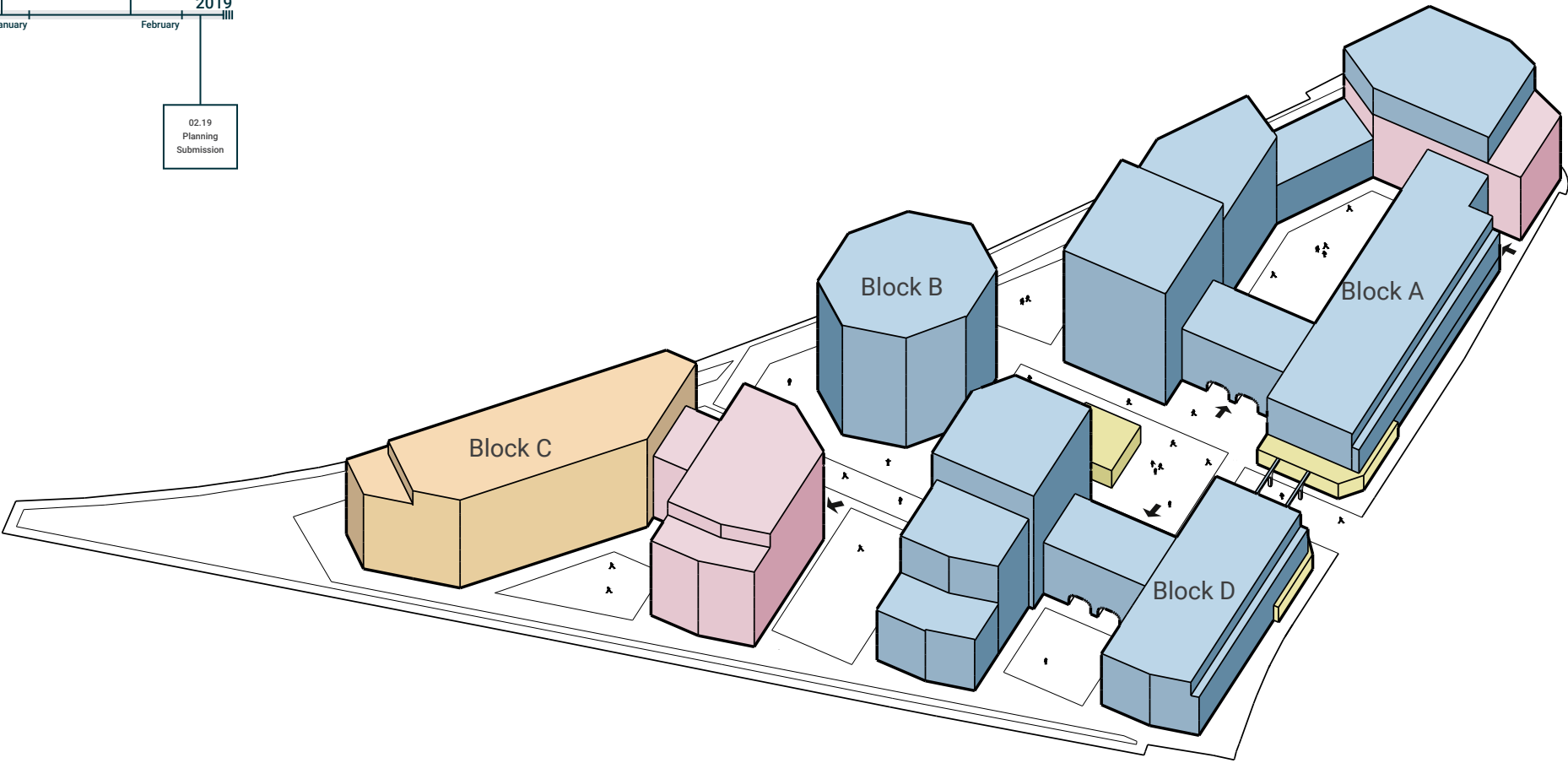
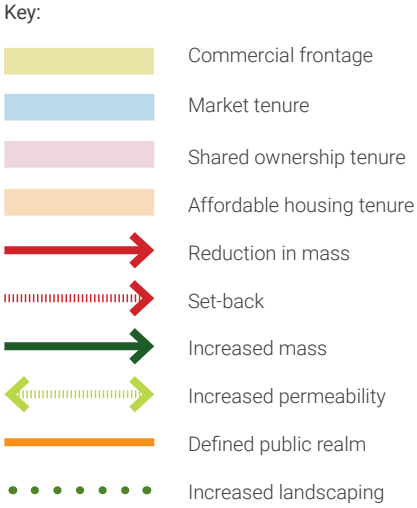
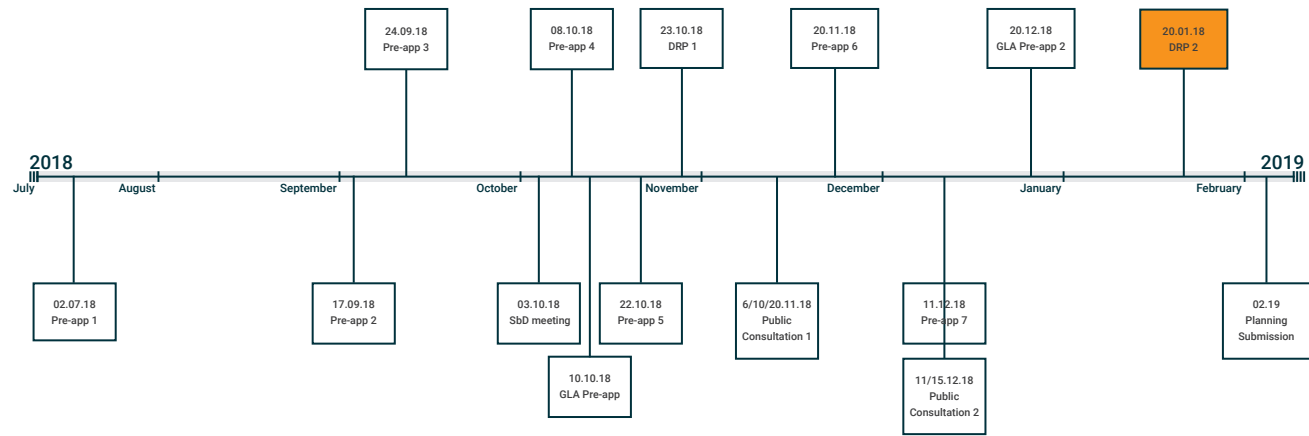
14 parking spaces (including 2 x car-club spaces)

3.18.2 Comments from Design review panel 2

- View from Manor Grove challenged, the tops of blocks A and D viewed as imposing at end of vista.
- Queried the function of the pavilion.
- Noted that the single aspect north facing units were not acceptable, as GLA.

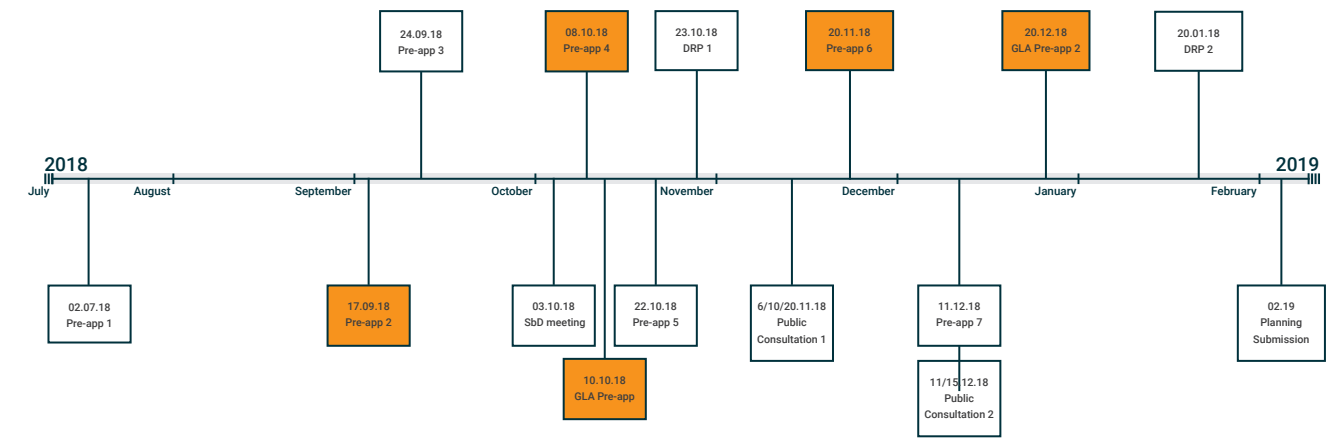
3.18.3 Response to Design review panel 2

- Redesigned the 'courtyard' blocks, including tall elements of blocks A and D to present better from the vista along Manor Road.
- Ratified use of pavilion as community cafe and terrace.
- Single aspect north facing units removed and designed to have a bay window to provide for views other than just north. Landscaping scheme proposed on the bus depot to improve outlook for these units.



3.19 Manor Road façade development

Throughout the pre-application process, the detail of the frontage building on Manor Road has been refined, the process of which is documented below.



3.19.1 Pre-application meeting 2

- Buildings designed to appear as a series of townhouses with connecting elements (inset balconies)
- Commercial frontage to stretch along the length of Manor Road
- Street trees proposed along Manor Road



3.19.2 Pre-application 4 and GLA pre-application meeting 1

- Extended mansard along length of Manor Road, with the exception of two brick 'bookends' to signal the entrance to the site
- Increased top storey setback
- Commercial frontage reduced and concentrated at site entrance
- Street trees proposed along Manor Road



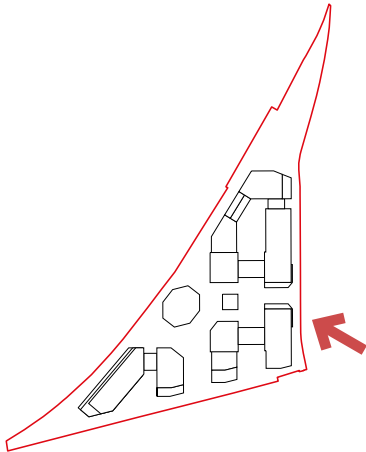
3.19.3 Pre-application meeting 6

- Extended setback the full length along Manor Road
- Created greater separation between townhouse elements and in-set balconies
- Raised ground floor residential apartments above street level to increase sense of privacy
- Street trees proposed along Manor Road



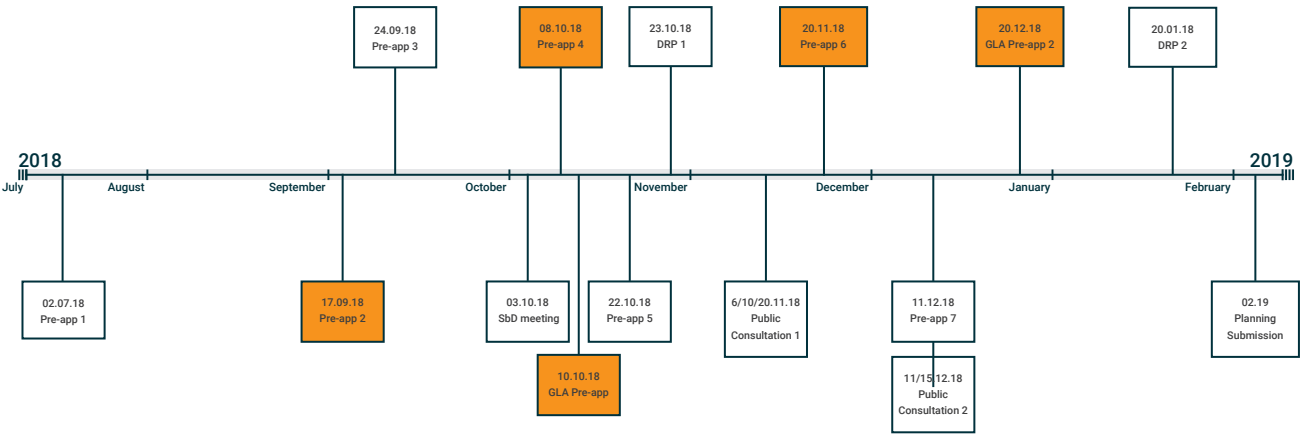
3.19.4 GLA meeting / final pre-application meeting

- Change of material on upper storey
- Changed tone of brickwork to reflect red tones on Manor Road
- Street trees proposed along Manor Road



3.20 Development of the marker building form

Throughout the pre-application process, the design of the ‘marker’ building has been refined, the process of which is documented below.



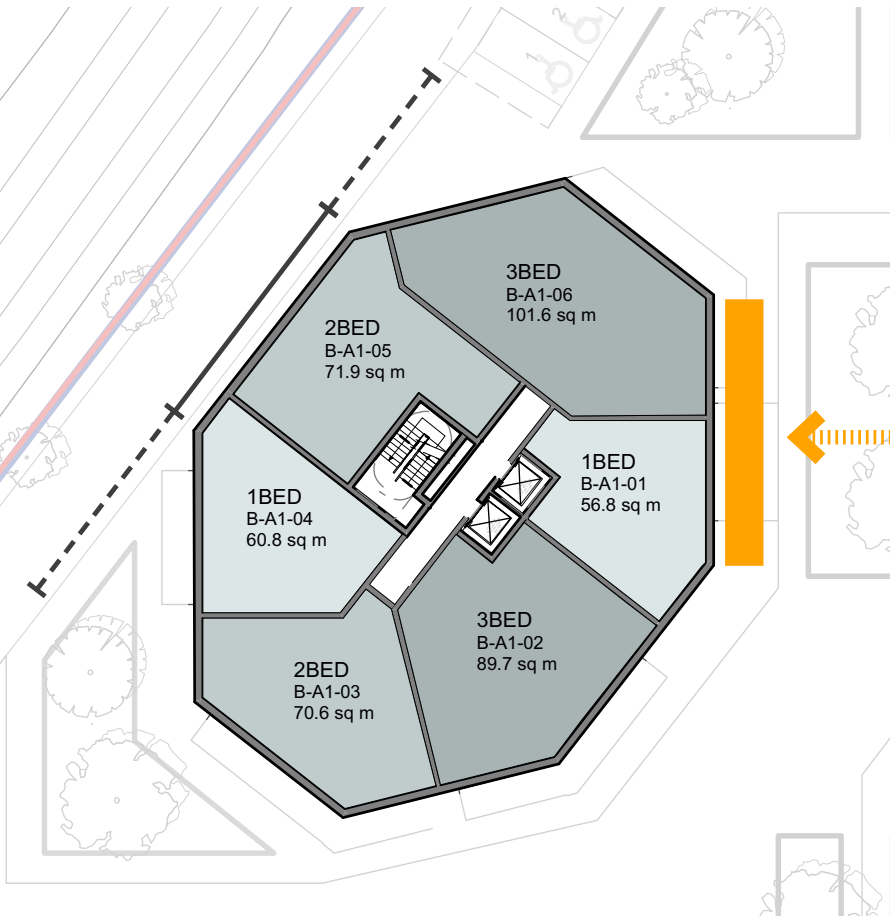
3.20.1 Pre-application meeting 2

- Form of ‘marker’ building to provide ‘full-stop’ at the end of the vista along Manor Grove and across public square
- Chamfered edge to open up views and access to the SW corner of the site



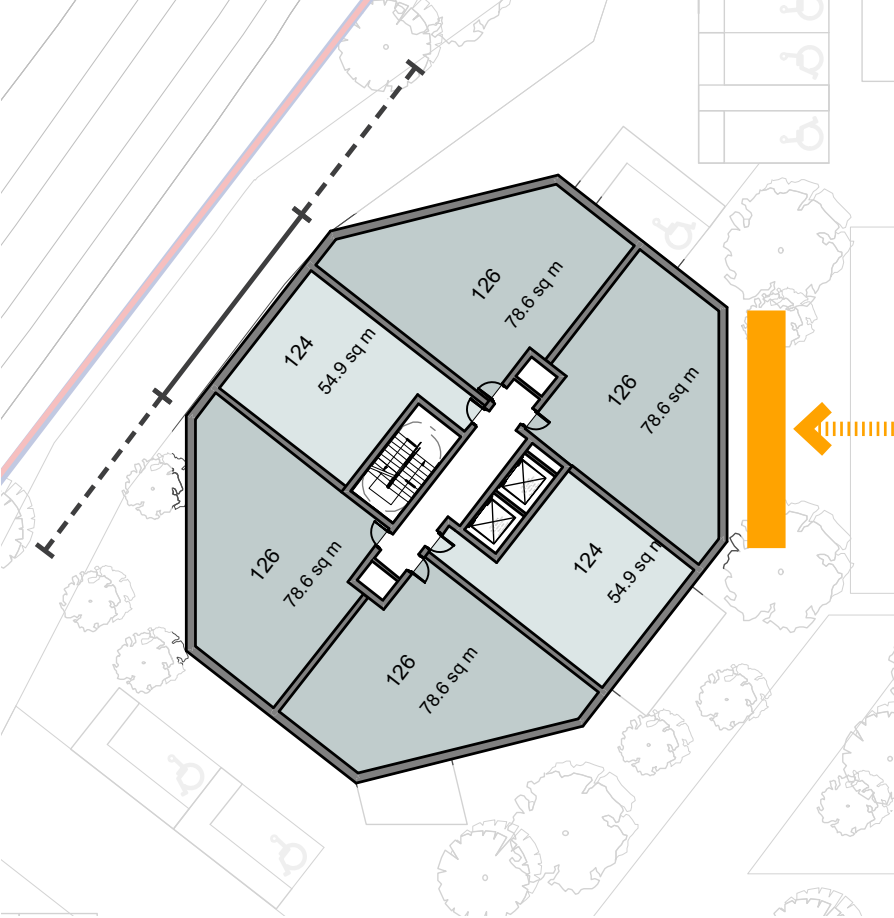
3.20.2 Pre-application 4 and GLA pre-application meeting 1

- Reduced the length of the western elevation along railway to reduce impact of proposals on buildings opposite and to aid better access into the site from the service road



3.20.3 Pre-application meeting 6

- Rationalised form of plan to create a more regular arrangement in response to local building studies of the First Church of Christ Scientist, Sheen Road, Richmond
- Compact plan results in a well proportioned, slender, building form

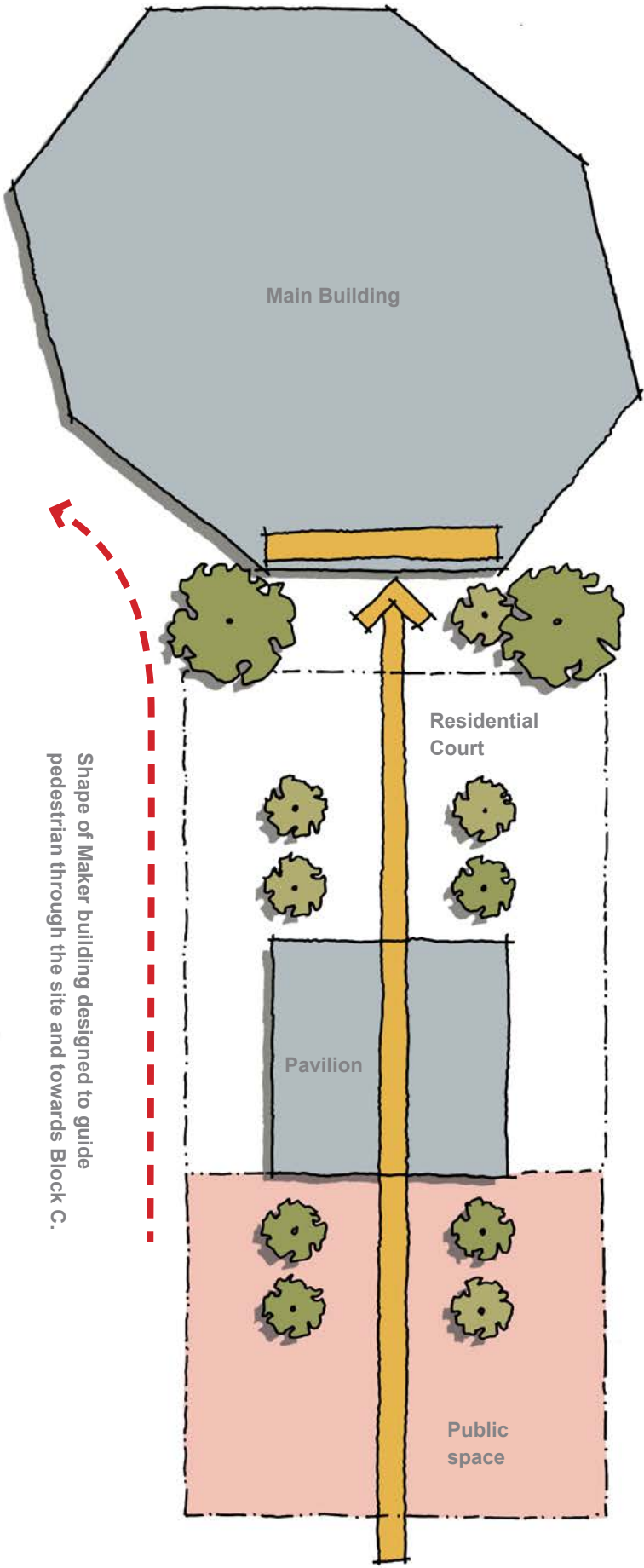
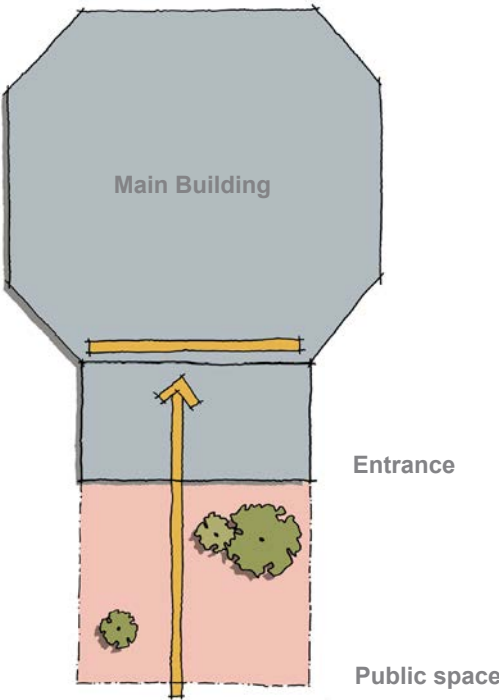


3.20.4 GLA meeting / final pre-application meeting

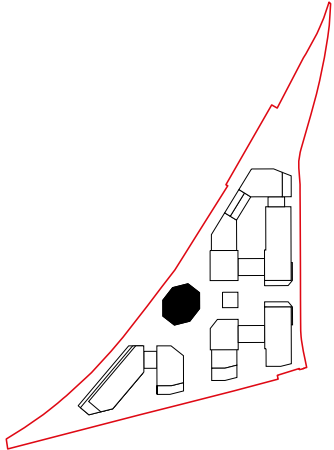
- Rational plan form to create good quality, well proportioned units
- Building form fronts new public square whilst also opening up views and pathways to the SW corner of the site
- Chamfered form creates slender building silhouette when viewed from all angles
- Narrow façades minimise impact on neighbouring properties to the NW of the railway line
- Dense landscaping at the base of the 'marker' building helps to contain new public realm



First Church of Christ Scientist, Richmond

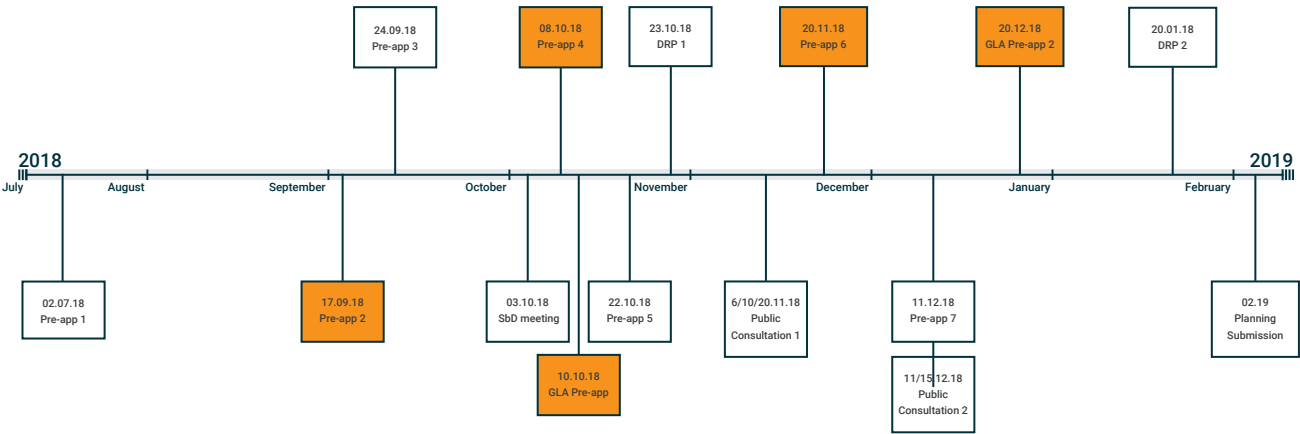


Plan diagram of proposed 'marker' building.



3.21 Marker building and entrance development

Throughout the pre-application process the design of the Marker building has been refined, the process of this is documented below.



3.21.1 Pre-application meeting 2

- 7 storey building proposed of reconstituted stone and brickwork
- Arches at the top of the building to reference entrance arches into the new development

3.21.2 Pre-application 4 and GLA pre-application meeting 1

- Marker building narrowed in form to create a more slender proportioned building
- Comments in the first GLA pre-application meeting suggested the building should be a couple of storeys taller as it presented as quite squat

3.21.3 Pre-application meeting 6

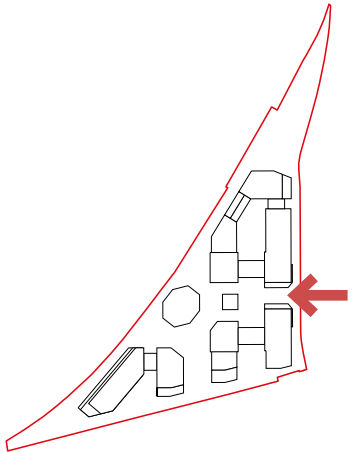
- Marker building proposed as 9 storey building providing a more slender proportioned building form





3.21.4 GLA meeting / final pre-application meeting

- Changes in brickwork and re-constituted stone to reflect the conservation area on Sheendale Road
- Arch motifs at 7th storey datum to allow for a change in language and give a sense of a 'top' the building



Introduction

Context

Design process

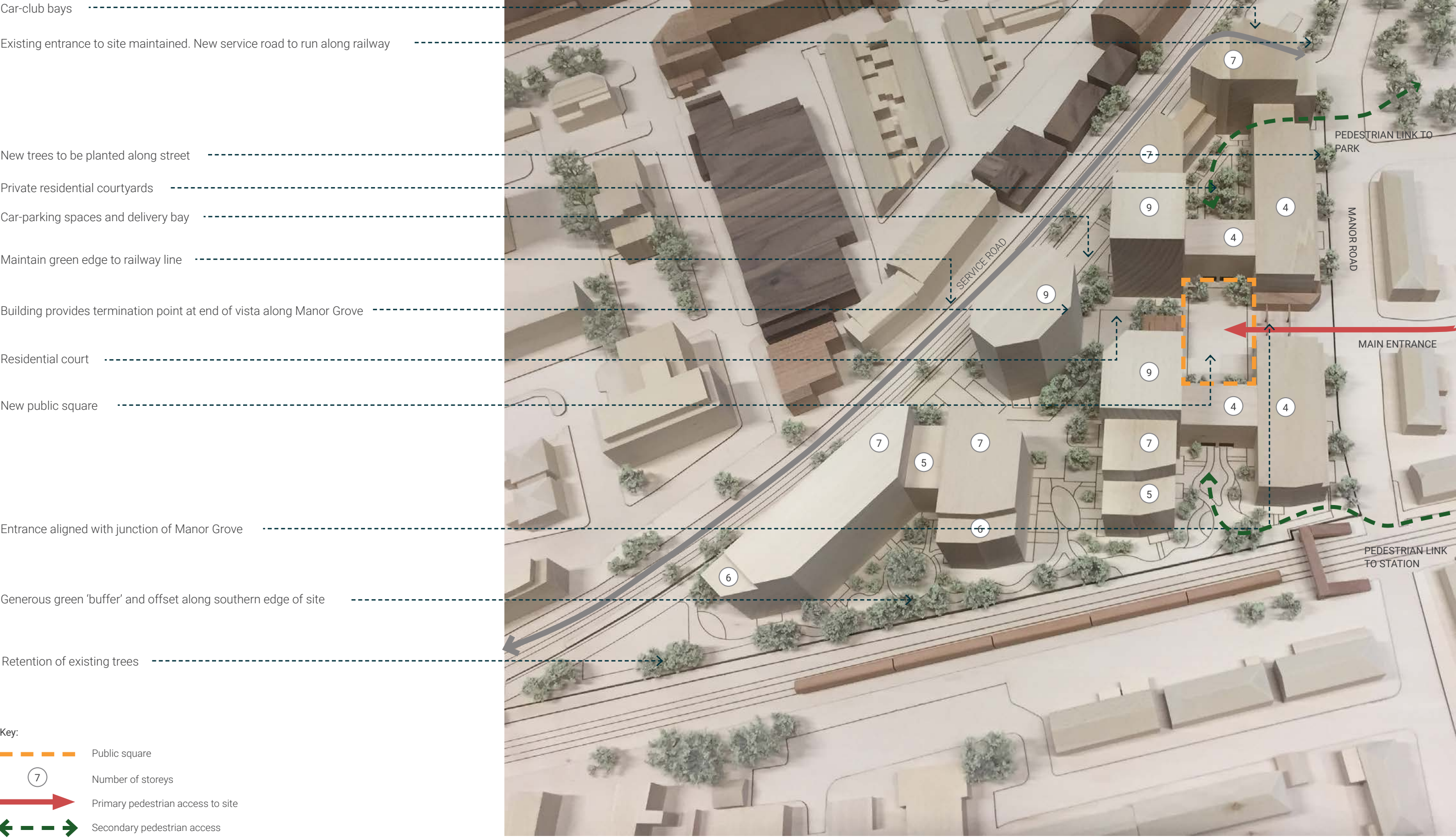
4.0 Design response

Landscape

Access

Appendices

4.1 Scheme proposals



4.2 Use and amount

The scheme comprises a residential-led mixed-use development with an appropriate residential density for its location.

4.2.1	Density
1.8ha	site area
214	units/hectare
588	habitable rooms/hectare
1,057	total habitable rooms

The proposed massing and land uses were subject to extensive testing at masterplan stage and as part of this application to assess the impact of the development in terms of transport, access, heritage and/or environmental effects. In addition, the site is located in close proximity to transport links and other services and capable of accommodating the proposed number of homes and future residents.

4.2.2 Quantum

Residential totals:

1 bed:	153 (40%)
2 bed:	177 (46%)
3 bed:	55 (14%)

Total: 385

Residential areas:	NIA: 27,645 sq m (297,582 sq ft)
Area of built form on site:	6,633 sq m (71,397 sq ft) - 36% of site
Commercial areas:	GIA: 480 sq m (5,167 sq ft)

Car parking:	
Disabled car parking spaces	12
Car club parking spaces	2
Car parking total	14
Potential additional spaces	25
Potential car parking total	39

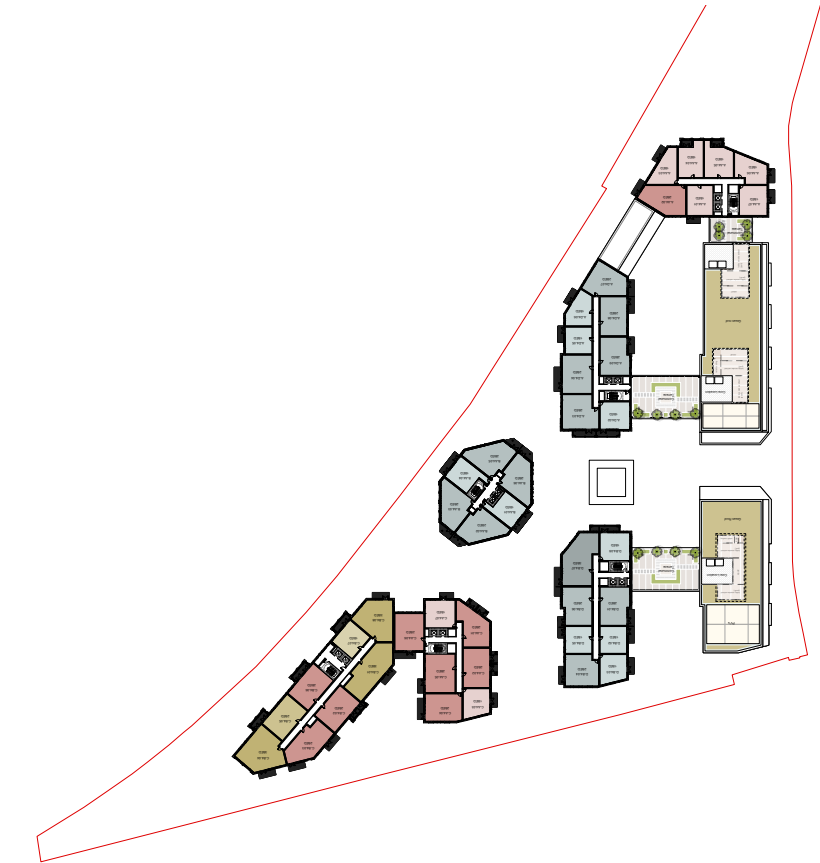
Cycle storage:	
Underground cycle storage	720
Cycle storage block C	120
Cycle storage block D	64
Public realm cycle storage	24
Cycle storage total	928



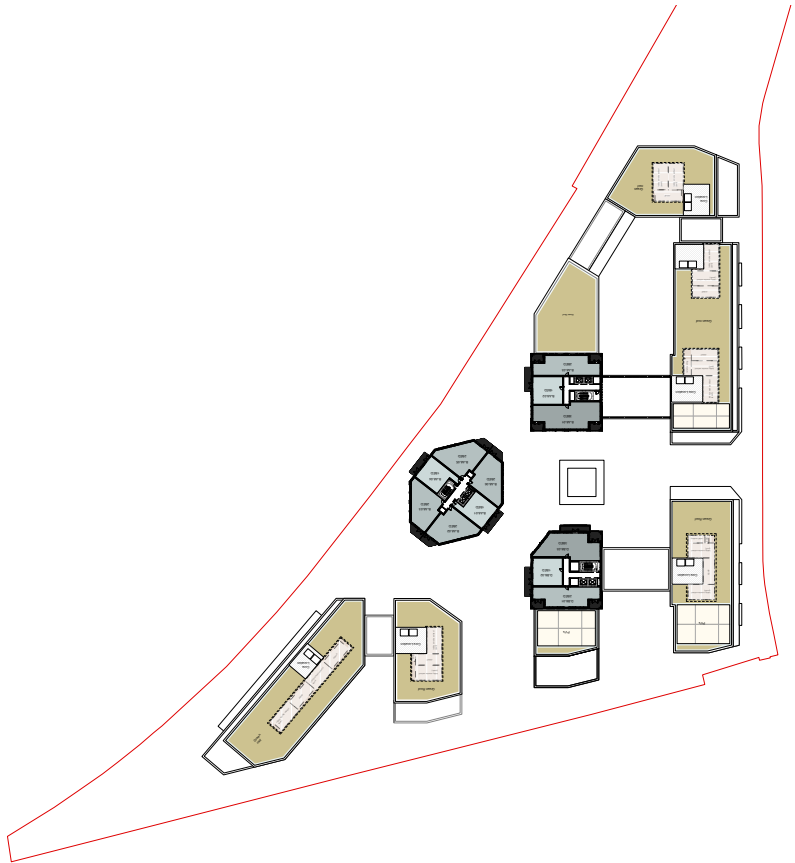
Ground floor plan



First floor plan



Fourth floor plan



Seventh and eighth floor plan



4.3 Layout

The development of the masterplan has evolved over the course of the project, it was formed from a series of principles set-up at the outset.

Step 1:

- All residential buildings should be orientated north-south to minimise single-aspect north-facing units and provide high quality new residential apartments.
- New residential buildings should front Manor Road, the only street-facing edge of the site, and repair the broken urban grain along this road.
- Entrance to the site should align with the junction of Manor Grove to continue the vista along Manor Grove.

Step 2:

- Buildings along railway edge rotated to react to boundary.
- Create large central area for new proposed public realm.
- Buildings adjusted in length to retain 20m offset distances between buildings.

Step 3:

- Link buildings introduced to create sheltered pockets for public realm for residential amenity gardens.
- Maximise ground floor green space, providing new areas of public realm through the site.
- New public realm categorised into new character areas.
- Height of buildings altered in response to surrounding context.

Through the regular pre-application process with the London Borough of Richmond upon Thames, the exact location of the buildings has been developed. Additional entrances in addition the existing vehicular access and proposed pedestrian and cycle access opposite Manor Grove have been introduced to enable greater levels of permeability into the site.

20m offset distances between buildings have been maintained wherever possible. When this has not been achieved, specific attention to the façade design and apartment layouts have been taken to minimise overlooking issues.

Key:

Pedestrian / cycle entrance

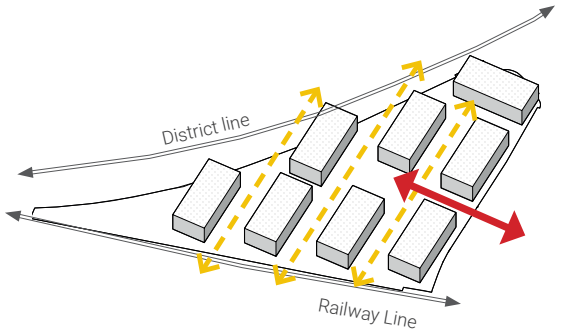
Vehicle entrance

Termination point to view down Manor Grove

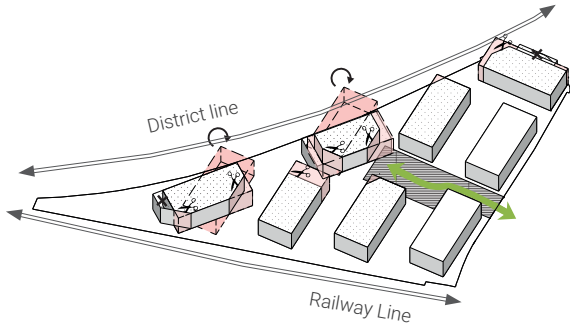
Offset distance

Communal entrance

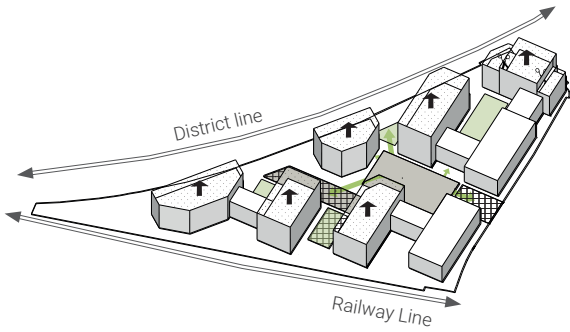
Private entrance



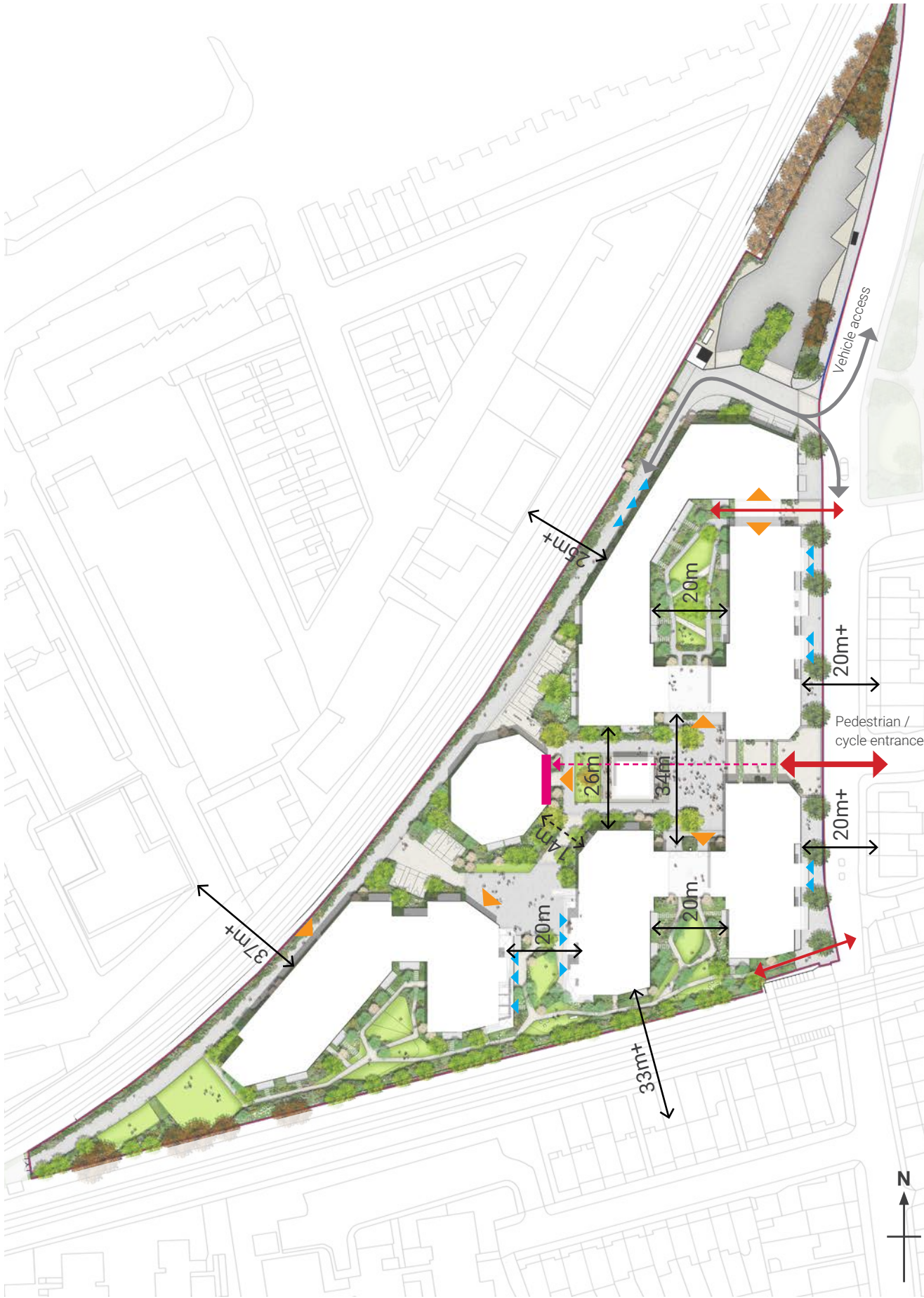
Step 1:



Step 2:



Step 3:



4.4 Scale

The massing of the proposal has been developed in response to the sensitivities of the surrounding context. The relationship of the proposed development to Manor Road and along the southern railway boundary are particularly sensitive with the massing stepping down along these edges.

Height is therefore concentrated towards the centre of the site.

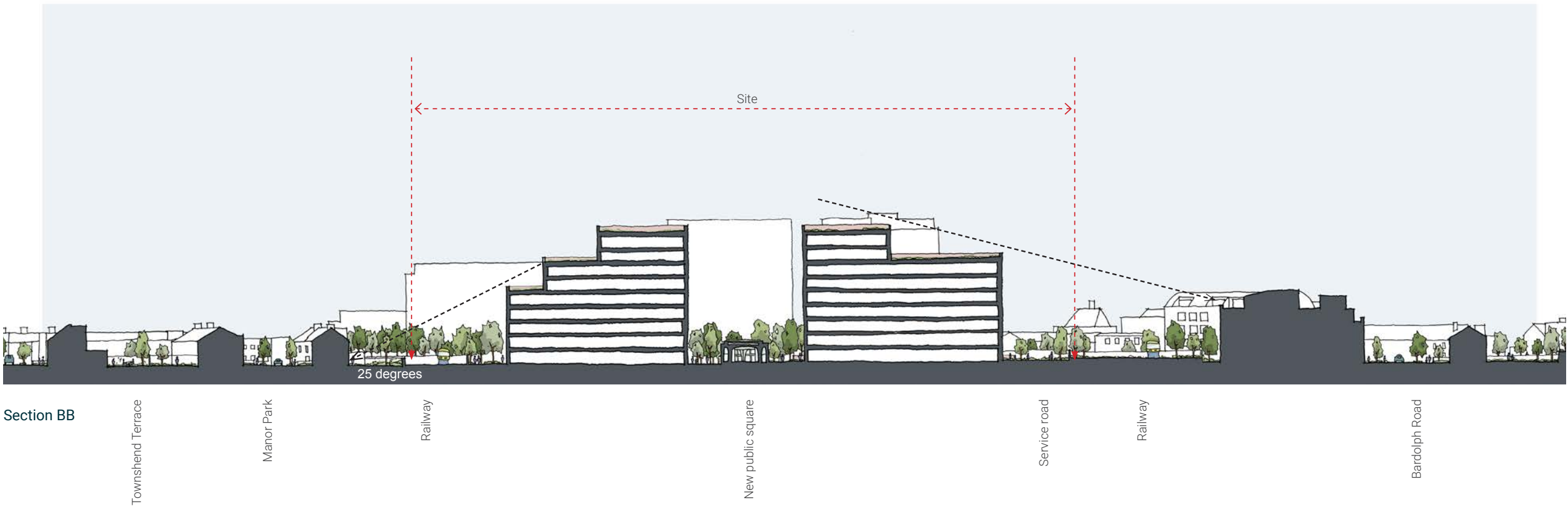
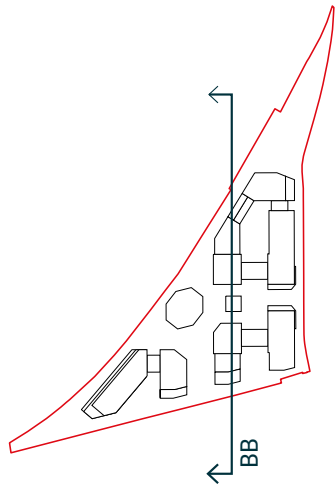
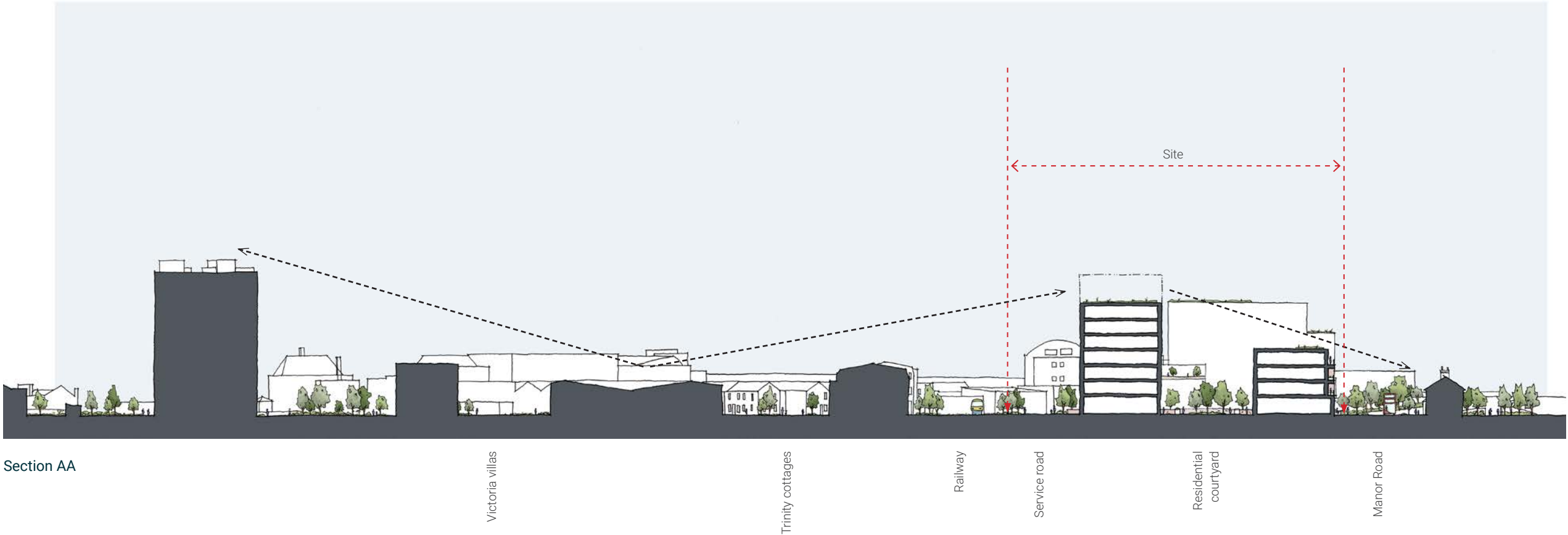
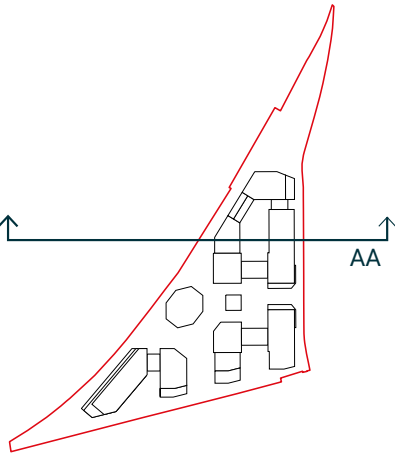


Model photograph - View south along Manor Road



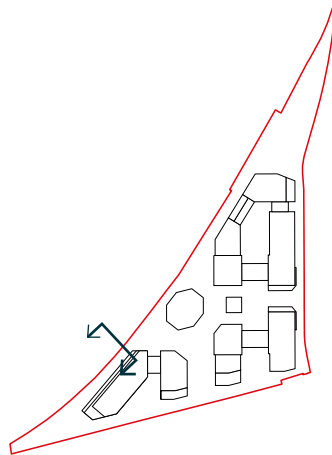
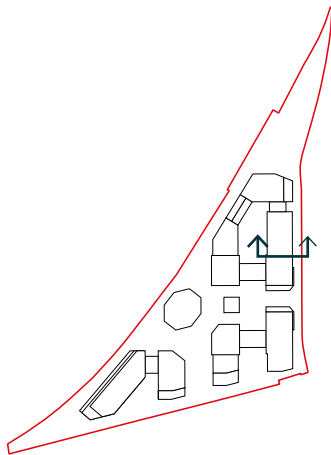
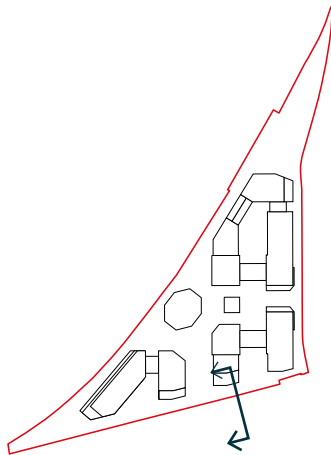
Model photograph - View from pedestrian railway bridge

4.4.1 Long sections through site



4.4.2 Street sections to show the relationship of the proposals to the surrounding context

An offset distance of 20m+ has been adopted along the length of Manor Road which is in line with road widths on adjacent streets. Where building heights exceed four storeys, offset distances between the context and proposals are generally in excess of 30m+.



4.4.3 Linking blocks and townhouses

To create variety in building heights across the scheme 'linking' blocks and townhouses are proposed between the larger residential blocks. These structures are between 3 and 4 storeys in height and are used to enclose private residential courtyards, creating pockets of sheltered space for the residents.

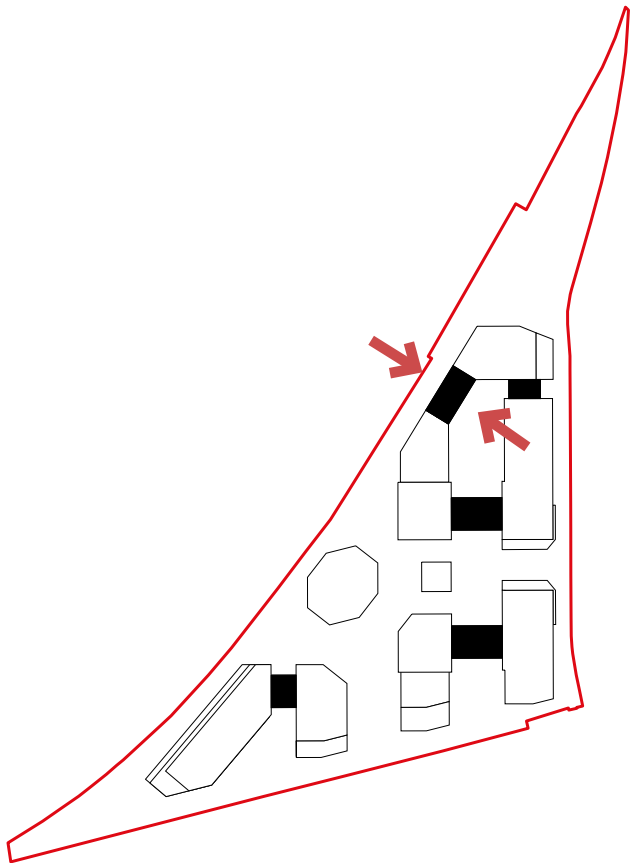


Diagram showing location of link blocks and townhouses



Front view of townhouses fronting shared surface and access road.



Generous private amenity space and roof terraces

Entrances onto shared communal courtyard

Rear view of townhouses opening onto communal courtyard garden

4.5 Form



4.6 Amenity

4.6.1 Communal amenity

The overall landscape and public realm has been divided into a series of character areas related to location and adjacent built form access or uses. Amenity space between the buildings is positioned to maximise use by residents and passive surveillance from the surrounding apartments.

Public access and functions within the site are key components of the overall concept for the Manor Road development and the central courtyard has been developed to function as a new attractive public realm facility for the local area.

In addition to new public realm external amenity space for residents is also provided in the form of communal courtyards and rooftop gardens.

The landscape proposals have been designed to suggest thresholds between public and private space so as to limit the use of physical barriers like gates. Where gates are necessary (into private residential courtyards), delicate metal gates are used to maintain visual permeability across the site.

Key:

- Existing bus depot
- Existing public pocket park
- New public realm
- Private residents courtyards
- Semi-public space and access road
- Semi-private space
- Gate line (resident access only)
- Landscaped threshold
- Arched public entrance to site



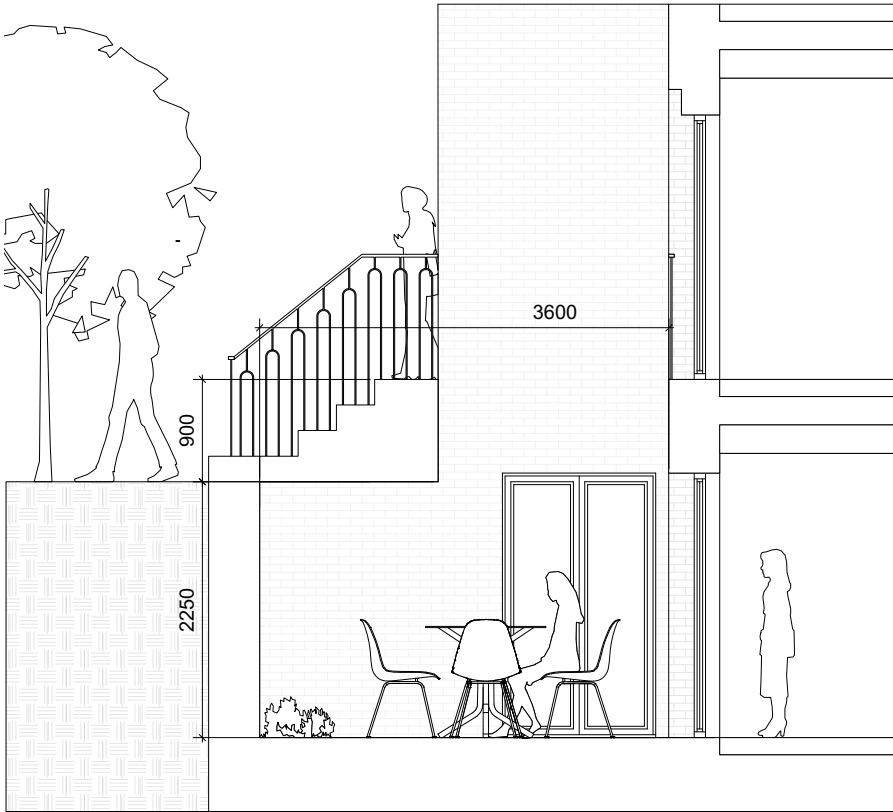
Design Principle 5: Create new areas of soft landscaping and increase on-site biodiversity.

4.6.2 Private Amenity

Alongside communal amenity space within the public realm, external private amenity space is provided for each apartment as a balcony, terrace or garden.

Each balcony or terrace will be a minimum of 1.5m deep to allow for a wheelchair turning circle and to comfortably accommodate a table and chairs.

All private amenity provision is in line with the local policy requirements.



Section through private amenity terrace of duplex apartments



Private entrance

Generous private amenity space and lightwell

Garden steps up to public realm

View of ground floor duplex flats

4.7 Appearance and materials

The basis for the proposed material palette is derived from analysing the surrounding context and in response to the Richmond and Richmond Hill Village Guidance Plan for Character Area 6.

Key design features observed within the local context include;

- The use of bay windows and entrances porches to provide articulation and maximise dual aspect homes.
- The use of arches to define important entrances.
- The local material palette comprises a multitude of brickwork tones, stone detailing, render and hung tiles.
- Typically entrances are paired on terraced houses.
- Brickwork detailing used on window and door surrounds.



Detailed brickwork surrounds on Almshouses on Sheen Road



Bay windows - Full height square bay windows on Raleigh Road



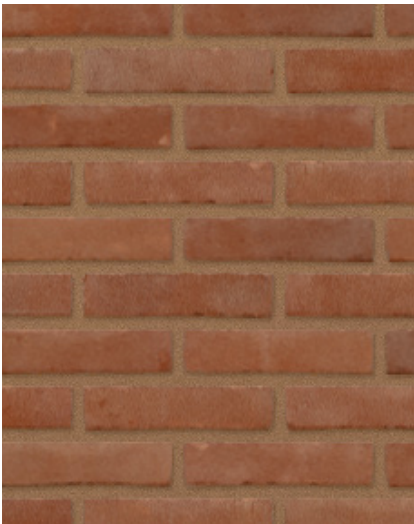
Brick arches - Ground floor bay windows along Manor Grove



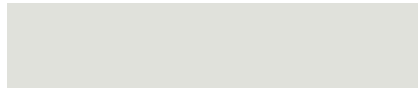
Stone window surrounds - Brick villas within Sheendale Conservation Area



Design Principle 3: Reference local architectural styles and character.



London stock and red-brick cottages along Manor Grove



Brown brick and white stone detailing on villas on St. Mary's Grove

4.8 Material response

The scheme is made up of four new residential building, arranged around three new residential courtyards and a new public square.

A variety of brick tones, fenestration and balcony details are repeated across all buildings so the scheme reads as a unified quarter.

Brickwork:

Two brick tones have been selected for the proposals: a light red brick to reference the buildings on Manor Road and a darker, greyer brick to reflect the buildings within the local conservation areas.

The bricks selected are produced in the same factory and are water-struck, giving them an uneven and handmade quality.

Stone:

Two tones of reconstituted stonework have been selected: a lighter, whiter stone to contrast with the selected brickwork and an earthy coloured stone to reference the red brick detailing of the local houses.

The stone should be acid-etched to give a tactile quality and uniformity but not over-expose the aggregate.

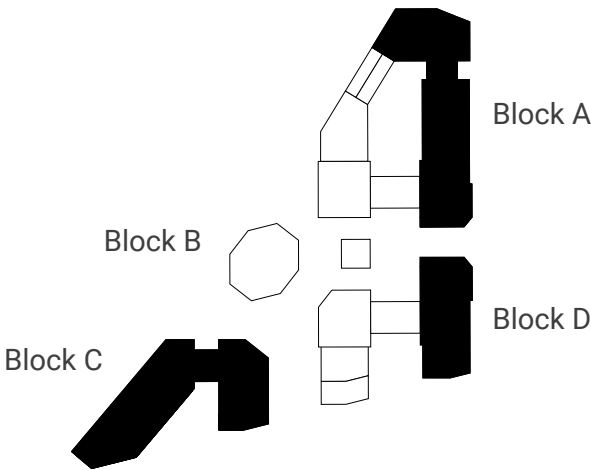
Stonework arches represent thresholds and entrances throughout the scheme, above private entrances, into residential courtyards and lobbies and above commercial frontages.

Metalwork:

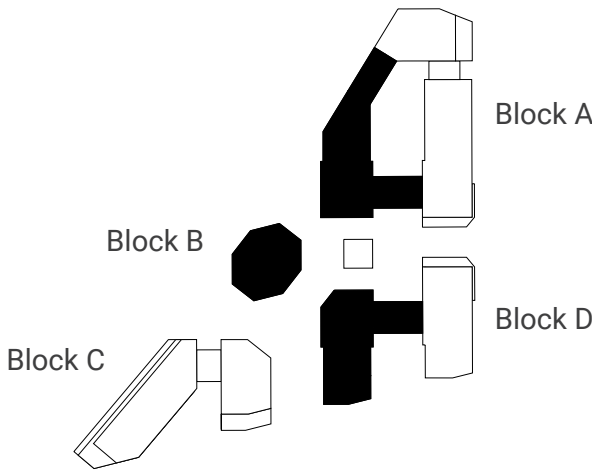
All metalwork, including windows, doors and commercial frontages should be competed in a powder-coated aluminium in RAL colour 1035.

Metalwork is used on the balustrades, fenestration and shop fronts as a 'thread' which ties all buildings together into a cohesive new residential quarter.

Manor Road, and Block C



Link blocks, town houses and public square facing buildings



Birtley Olde English Buff - IBSTOCK Birtley



Cayenne - acid etched reconstituted stone - DECOMO



Metalwork RAL 1035



Olde English Grey - IBSTOCK Birtley



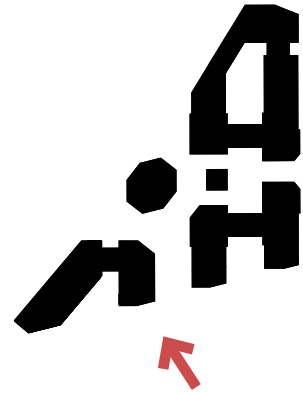
White Grey - acid etched reconstituted stone - DECOMO



Metalwork RAL 1035

4.9 Contextual material palette

- Brick tones selected to reflect red/buff brick tones in local context
- Red coloured reconstituted stone string courses and lintels reference existing buildings along Manor Road surrounding streets.
- Stepped massing along southern railway boundary reduces impact on neighbouring properties.
- Proposed balconies located on eastern and western façades of residential buildings to reduce overlooking onto the southern railway line.



Houses along Manor Road, Richmond.



CGI View from Manor Park.

4.10 Pavilion

The pavilion acts as a focus point in the new public square. It provides 49sqm. of commercial floor space to support a community use in the form of a cafe, or similar.

The pavilion also acts as a separation device to divide the large area of public realm into a public square and smaller, more private residents court to the rear.

The pavilion is a single storey structure however a small roof terrace is accessible to users of the cafe and for residents and can be used as an area to grow herbs by the residents or as a communal seated area, this would be managed by the tenants of the cafe or by the residential concierge located at the base of block B.

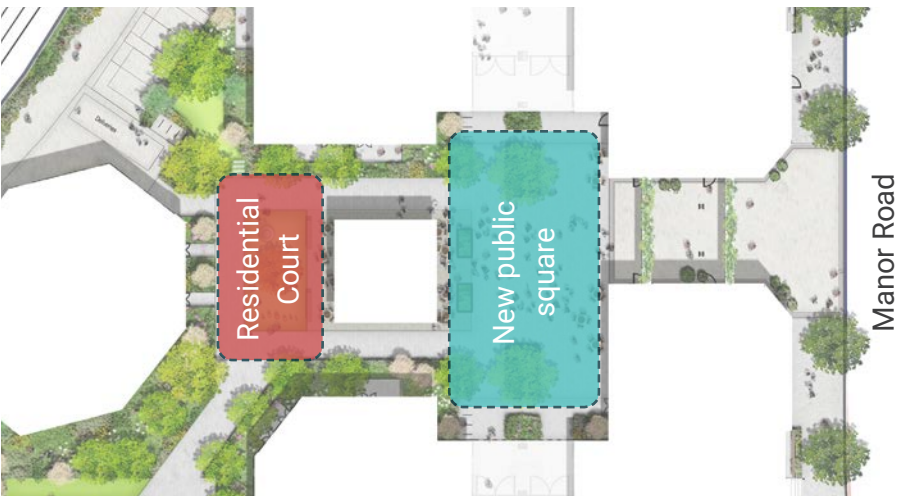
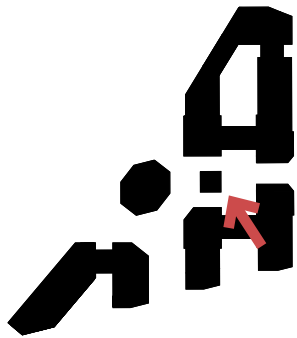
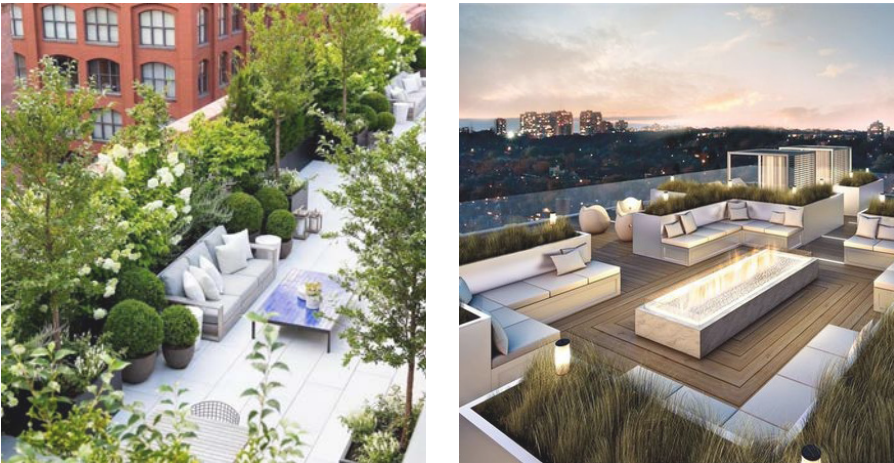


Diagram showing how the pavilion creates multiple spaces within new public realm.



Precedent images of the pavilion space and roof terrace.



CGI View of pavilion

4.11 Commercial Frontages

The proposals provide 480sqm. of commercial frontage, the majority of this is concentrated around the main pedestrian entrance at the junction with Manor Grove.

In addition to the new commercial frontage on Manor Road a central pavilion space, to house a community use, like a cafe sits within the new public square. The pavilion is visible from the street drawing the public into the new public square.

In reference to Lichfield Court, Richmond the commercial frontage on Manor Road is stepped out from the building line above to create a sense of intimacy and to frame the new entrance to the site.



Precedent image of shopfront



Lichfield Court, Richmond

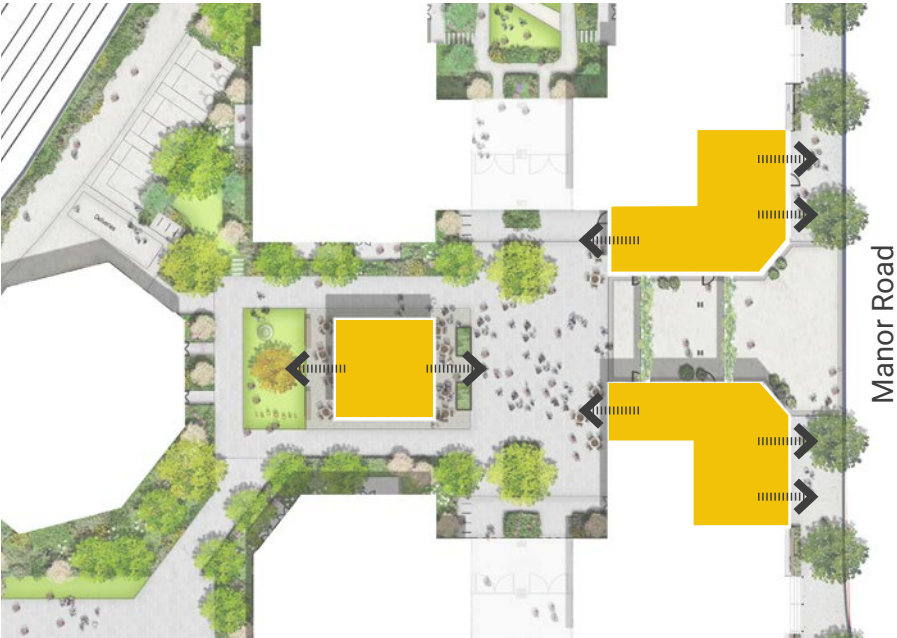


Diagram showing location of commercial floor space and entrances fronting Manor Road and public square.



Design principle 4: Establish new street frontage on Manor Road and tree-lined street.



CGI View of commercial frontage along Manor Road

4.11.1 Commercial frontage bay study
Detail of commercial frontage along Manor Road.

Brickwork detailing to signify the transition between commercial and residential frontage

Consistent signage zone across commercial frontages

Integrated lighting in bronze finish

Arched metalwork fenestration to reference arched threshold details elsewhere on site

Large glazed openings to maximise active frontage and street presence

Bronze coloured metalwork frontages to match balustrades and fenestration

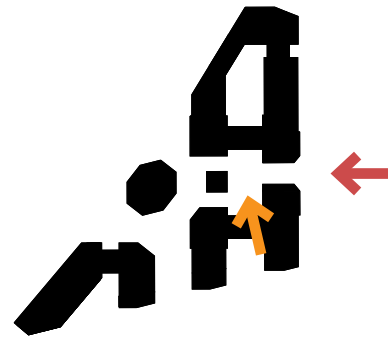
Metalwork base to provide robust interface with street



Design principle 2: Create new active frontages and flexible retail facilities.

4.12 Arched entrances

- Arches used as a tool to demonstrate an active frontage, entrance or threshold.
- Arch motif references local context, including the entrance to St. John's studios, Richmond, and the Almshouses on Sheen Road.
- Large openings at base of link buildings form part of entrance lobby for residential buildings and open up views across the public squares and into the residential courtyards.
- Arch motif used at seventh storey datum to help define the 'top' of the building above.
- Large openings fronting public square denote residential concierge entrance.



St. John's studios, grade II listed church, Richmond.



Almshouses, Sheen Road



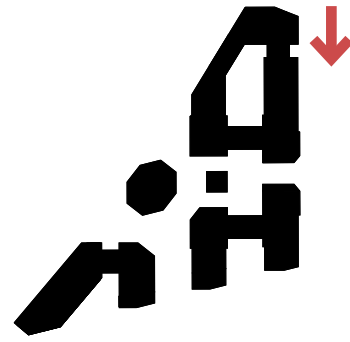
CGI View from main pedestrian entrance to site



CGI View across new public square.

4.13 Paired entrance porches

- Ground floor entrances along Manor Road are paired to reflect the existing houses along Manor Grove.
- Street-facing residential apartments to be raised above ground level to provide increased privacy for residents.
- Balconies on 1st and 2nd floors to be inset to create greater sense of privacy for residents on Manor Road.
- Elevation along Manor Road split into vertical proportions resembling townhouses to reference the residential quality of the street.
- Brick and stone arches denote private entrances into new apartments.
- New street trees proposed along Manor Road.



Ground floor entrances along Manor Grove



CGI View along Manor Road

4.13.1 Manor Road bay study: residential entrances



Maquette study of Manor Road residential entrance

4.14 Bay windows

- Bay windows form winter gardens along railway-facing elevations to provide residents with a sheltered external amenity space.
- Bay windows reference architecture in neighbouring streets, including on Raleigh Road, right.
- Bay windows used to break up façades and introduce vertical elements to longer building elevations.



Detail of bay window along western railway.



Houses along Raleigh Road, Richmond.



CGI View from pedestrian footbridge across railway.

- Bay windows reference architecture in neighbouring streets, including on Manor Road, right.
- Bay windows used to break up façades and introduce vertical elements to longer building elevations.
- Bay windows provide additional frontage to apartments with otherwise single-aspect outlooks.



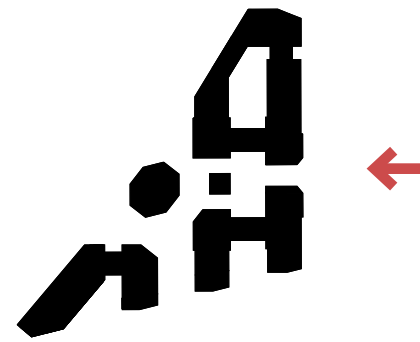
Houses along Manor Road, Richmond.



CGI View from Lower Richmond Road.

4.15 Marker building

- Faceted edges of block B 'marker building' creates a termination point to the view along Manor Grove whilst allowing for split views.
- Octagonal form used to direct residents towards the block C, which doesn't directly front the new public square.
- Regular form references the octagonal plan of First Church of Christ Scientist in Sheen, Richmond and provides a floor plate of 6 new apartments, 4 of which are dual aspect.
- Arched entrances along Manor Road frame pedestrian entrance into site.
- Taller buildings signify new area of public realm.



First Church of Christ Scientist, Richmond.



Block B apartment layouts.



Design principle 1: Create new, high quality public realm.

4.16 Affordable mix

The scheme proposes 35% affordable housing across the site. This is to be a mix of intermediate and affordable rent tenures as an approximate 70/30 split, respectively.

Where possible, affordable homes are served by their own core. However, to allow the affordable units to be distributed across the site we are currently proposing one core to have an overlap between private and intermediate apartments.

Larger homes have been allocated to the affordable rent tenure, while the intermediate tenure is made up of 1 and 2 bed units.

Affordable unit totals:

1 bed:	52 (39%)
2 bed:	61 (45.5%)
3 bed:	21 (15.5%)

Total: 134

Affordable Rent:

1 bed: 6 (11%)
2 bed: 13 (51%)
3 bed: 21 (38%)

Total: 40

Shared Ownership:







1 bed: 46 (49%)
2 bed: 48 (51%)
3 bed: 0 (0%)

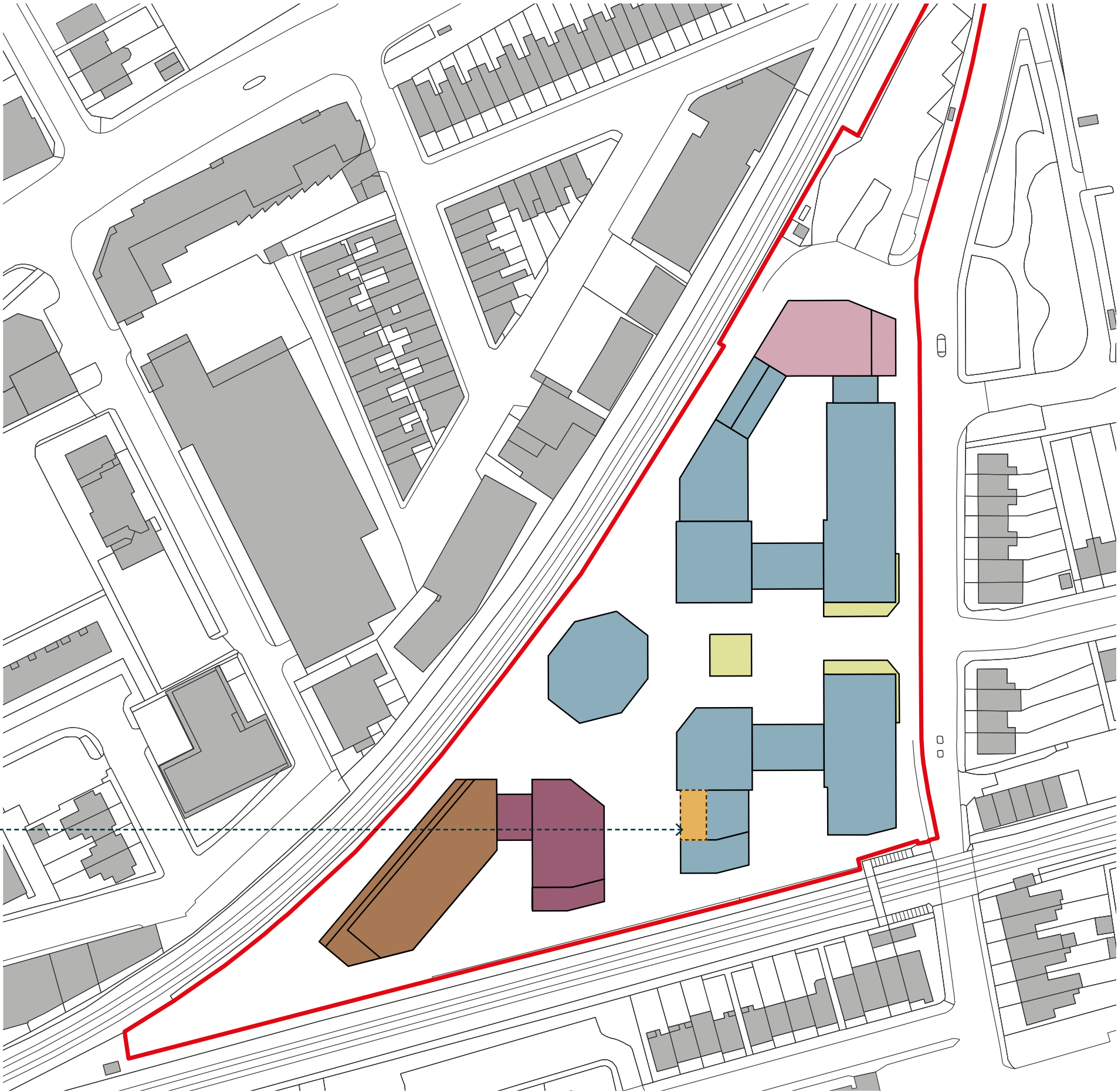
Total: 94

Residential area: NIA: **9,696 sq m** (104,368 sq ft)

2 no. ground floor, self contained, duplex flats to be affordable rent tenure

Key:

	Commercial area
	Market tenure
	Mixed core - affordable rent and intermediate tenure
	Affordable rent tenure
	Intermediate tenure
	Mixed core - market and intermediate tenure



4.17 High quality residential apartments

The design proposals seek to create high quality new apartments for the borough. Where possible proposed residential blocks have been orientated along a North-South axis to maximise eastern and western outlooks for the new flats.

The proposals achieve a high proportion of dual aspect units (58%), this figure increases to 68% when apartments with bay-windows are included in this count.

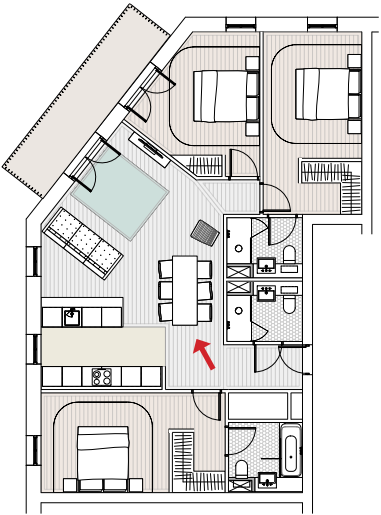
Proposals have sought to mitigate the requirement for single aspect, north facing units and there are no occurrences across proposals.

Where possible long residential corridors have been avoided and generous, day-lit cores have been designed. There are 9 cores across the scheme providing access to

an average of 6.3 units per floor, below the advised maximum of 8 as specified in the draft London Plan.

Wherever possible residential accommodation has been located away from areas of public realm however when this has not been achievable ground floor units have been raised above the ground plane and given generous external amenity space to increase privacy for the residents of these units.

Railway fronting apartments have been designed with sheltered private amenity space in the form of winter gardens rather than open balconies.



Design principle 6: Provide high quality new homes.

Introduction

Context

Design process

Design response

5.0 Landscape

Access

Appendices

5.1 Introduction

This Design and Access Statement chapter has been prepared by Gillespies on behalf of Avanton Richmond Development Ltd (the Applicant). The document presents the design proposals for the new masterplan development at Manor Road in Richmond. This Landscape Masterplan Design and Access Statement should be read in conjunction with the submitted set of drawings and other consultant's reports. The site is the former Homebase Centre and the new masterplan responds to the constraints and opportunities of its changing context and enhances the connection with the surrounding infrastructure and facilities, providing a mixed-use scheme that comprises:

- Residential units
- Commercial space
- Community uses and facilities
- Accessible Car parking spaces
- New public realm and courtyards
- Open spaces and play spaces
- Landscape setting to building surrounds and roof tops



Landscape masterplan

5.2 Brief and objectives

This document explains the design process for the development of the landscape, open space and public realm from the initial sketches to the developed scheme as a high quality residential development. The proposed scheme supports the future vision for Richmond, contributing towards improving the town’s public realm, providing new homes and commercial spaces, all within a high quality and sustainable landscape setting.

This planning application is a result of multi-disciplinary teamwork, where a large team of architects and consultants came together with the London Borough of Richmond upon Thames and Great London Authority (GLA) to produce a coherent response to the site.

Landscape concept development

This section of the Design Access Statement outlines the vision, principles and concepts that have guided the development of the landscape and public realm for this residential led, mixed-use project. The principles for the scheme are based on those set out in the master planning section of this report and reflect a clear intent by the Applicant to create a new residential community, with a variety of functions and character areas in this key redevelopment opportunity for Richmond.

5.3 Design constraints



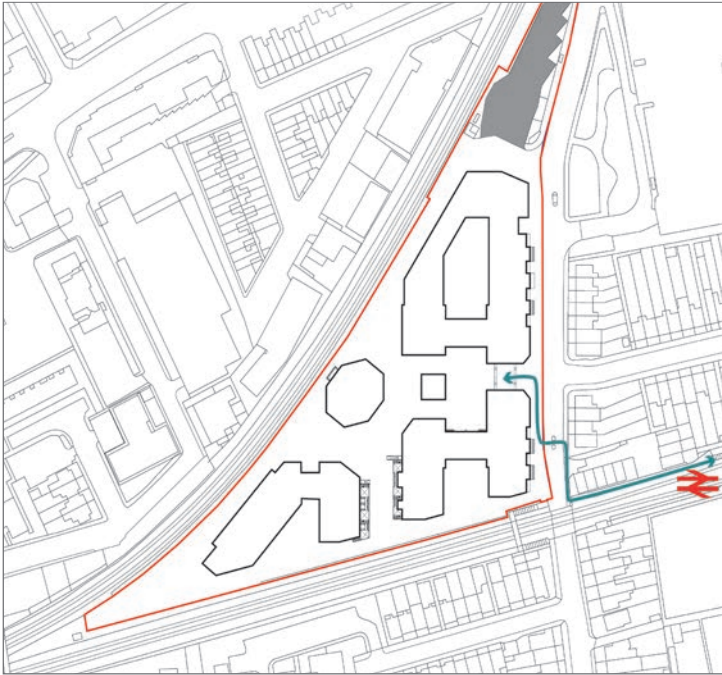
Pedestrian accessibility

- Lack of access between site and Sainsbury shopping centre and railway station (North Sheen) across Manor Road;
- Busy arterial road and railway level crossing causing traffic congestion along frontage of site
- Lack of defined entry and access routes between the Site and the adjacent Sainsbury centre;
- Access between the Site and the railway station needs to be improved;
- Pedestrian experience along Manor Road needs to be improved.



Design constraints

- Network Rail maintenance access route to be maintained along western rail corridor;
- Rail Corridors on two sides of site with busy road and level crossing on third side;
- Rainwater drainage required to be accommodated on site.



Transport proximity

- The short distance between the Site and the North Sheen Railway Station for Overground lines (Southwestern Rail). Approximately 100m;
- Good bus network connections adjacent to the site;
- Bus Layby in northern section of site to be retained;
- Upgrade to cycle network underway to north.



Existing trees / vegetation

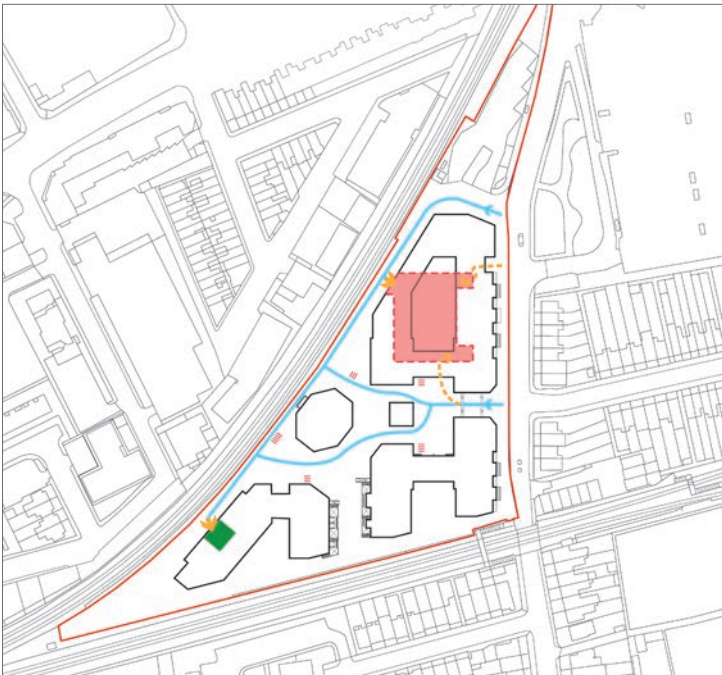
- Tree Preservation Order covering some of the vegetation on site;
- Poor quality trees generally within carparking area;
- Well established green screen (hedge) to western railway corridor;
- No existing street trees to frontage of Manor Road;
- Small pocket park opposite - beneficial open space and vegetation.

5.4 Design opportunities



Pedestrian accessibility

- Improved access and connection with Sainsbury shopping centre and Railway Station;
- Upgrade to pedestrian and cycle access through roundabout (north);
- Improved streetscape to Manor Road;
- Permeable and connected circulation into new site;
- Creation of a green infrastructure link (street trees and landscape, improved pavement) which will improve the pedestrian experience along Manor Road and beyond.



Cycle Accessibility

- Access into site and provision of short and long term cycle parking facilities distributed through site;
- Pathway network and service road allowing residents cyclists access throughout site;
- Short term parking stands provided in convenient locations for commercial and residential visitors.



Play Opportunities

- Provision of Play Facilities and playable landscapes throughout site;
- Inclusion of Doorstep Play and Local Play within site landscape design;
- Access (walking or cycling) to a range of existing recreational facilities in the local area - for older children (12 yrs+).



Character Areas

- Establishment of a range of character areas across the site;
- Visual connection with materials and furniture palette providing a consistent character to the site development;
- Textures and materials are simplified in a lighter palette;
- Definition of public courtyard within site
- Definition of private amenity courtyards within each building cluster

5.5 Concept

Development of the site includes a number of residential apartments arranged in a series of perimeter building forms enclosing amenity courtyards. The design concept was to provide an accessible and varied public and private realm with a network of multipurpose green courtyards and open spaces distributed through the site and interconnected with the main legible access routes, providing gathering spaces, relaxation and recreational opportunities for residents and visitors to the site.

Play

Play facilities, community functions and flexibility for a wide range of uses are integral to the landscape design of this range of spaces, linking communal functions with recreational needs and capacity for the community to utilise the public realm in a wide range of ways.

Commercial activation

The project contains some commercial space on the street frontage and lining the entry to a central courtyard space. A small pavilion is proposed in the centre of this space with potential for commercial or community based activity, including a restaurant or cafe to serve the general public and residents/workers within the site.

Secure private amenity space

The private courtyards are enclosed by the buildings in each group and are accessed by residents using a secure fob / swipe key system. Each courtyard includes planting and open space for relaxation and child's play facilities. Circulation through the space allows access to lobbies from the street or central courtyard.

Roof terraces are provided on each Link Building and on the roof of the central Block B, with residents communal amenity space provided, including lounge seating, planting for residents grow gardens / kitchen garden planting. Green and blue roofs are provided on all other building roofs to assist attenuation of rainwater from each building and to add biodiverse habitat and flowering plants at the roof level.

Public realm

The design of the public realm employs a contemporary language in the composition and distribution of places to create an identity for the new precinct. The design and materiality also reference the heritage of the site and location to provide a richly detailed sense of place. The street frontage is activated with commercial offer in the central access point opposite Manor Grove. Residential ground floor units have front doors on the street, slightly raised above the footpath level with a small defensible terrace and planting at each frontage.

Permeability

Consideration of multiple access points and a clear circulation hierarchy has formed the basis for access through the site, progressing via a series of increasingly private spaces as one approaches apartment entries. Pedestrians, cyclists and drivers are catered for and service and emergency vehicles, deliveries and loading are allocated to shared pavements and the main service road.

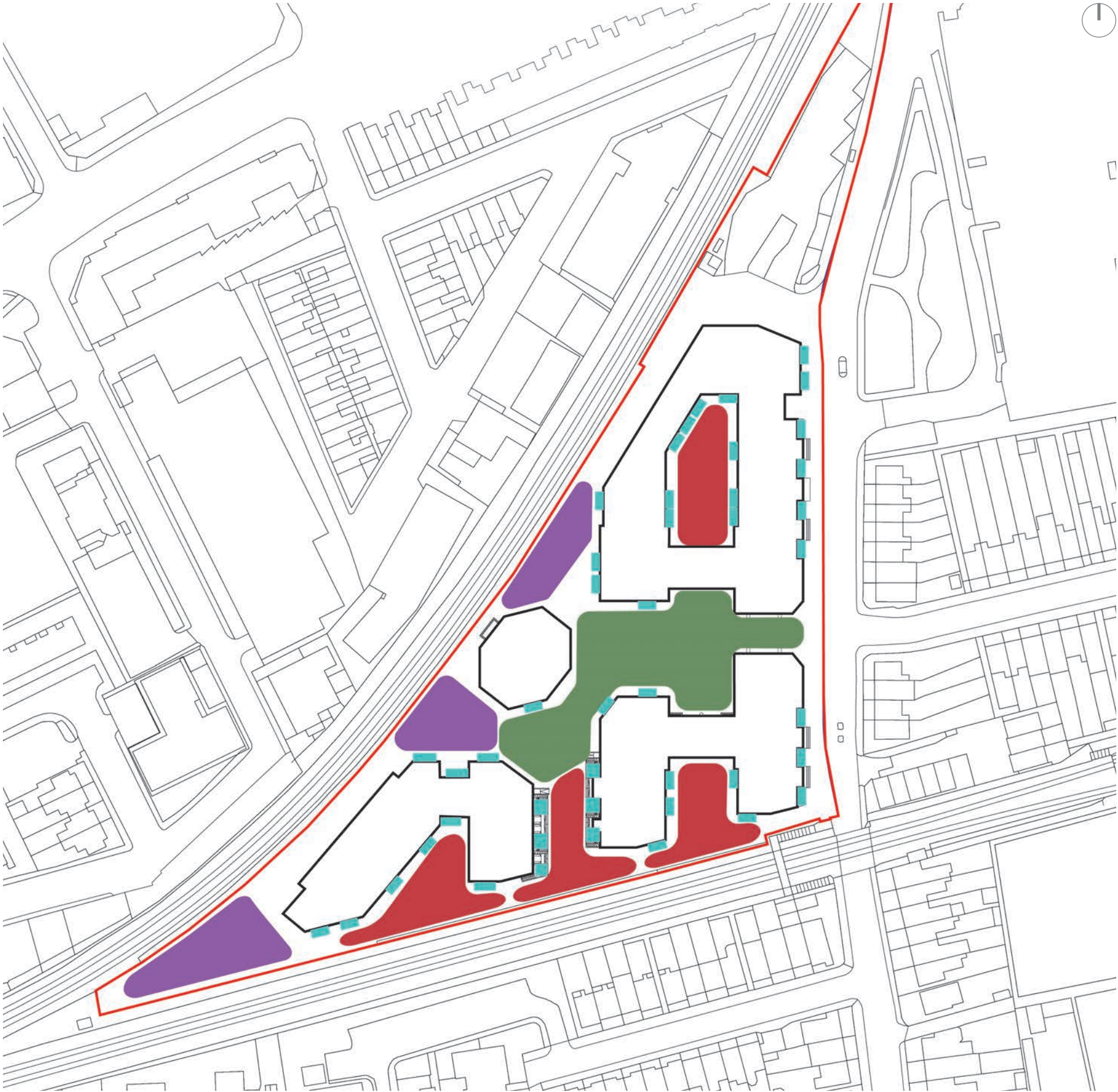
5.6 Character areas

The overall landscape and public realm has been divided into a series of character areas related to location and adjacent built form access or uses, providing a coherent but distinctive landscape proposal.

Public access and functions within the site are key components of the overall concept for Manor Road development and the central courtyard has been developed to function as a new attractive public realm facility in the local area. Treatment of the public frontage to Manor Road and central courtyard relates the site development to the public realm and associated neighbourhood, while the range of semi-public and private amenity spaces create an increasingly secure and domestic character as one moves into the site.

Each character area (function and materiality) is explored in more detail in the following sections.

Key	
<div></div>	Public Open Space
<div></div>	Residential Amenity Courtyards
<div></div>	Homezones / Shared Space
<div></div>	Private Gardens / Terraces

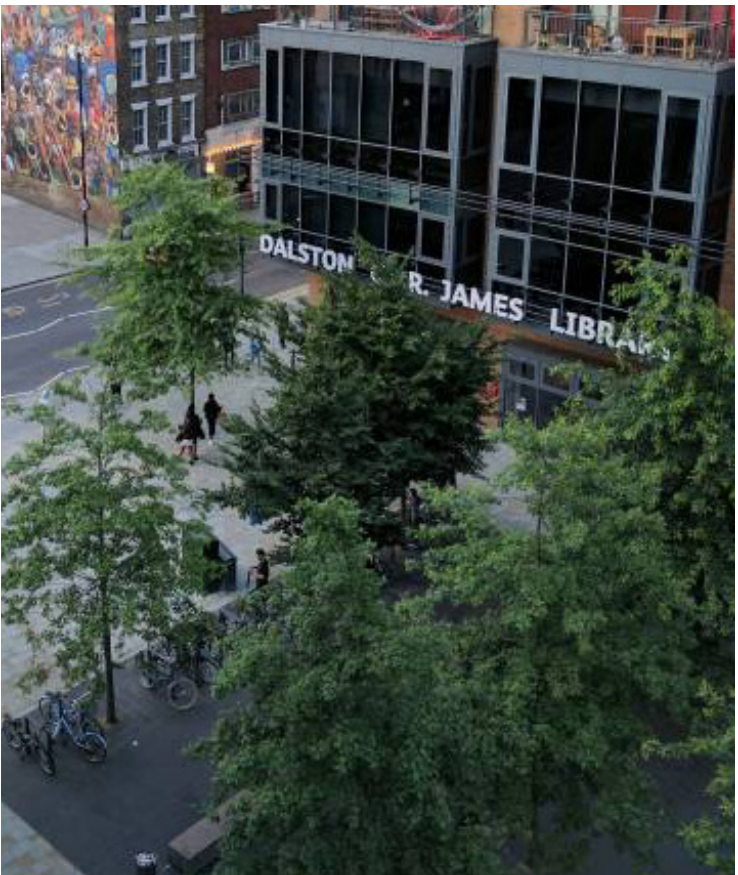


Character areas

5.7 Character area 1 - public open space

The key public space within the site is the central Courtyard, accessed directly from Manor Road and providing an extended commercial space related to the ground floor commercial units either side and within the central Pavilion. This space is envisaged as a comfortable intimate space for residents and visitors, with a predominantly hard landscape combined with feature trees and colourful planting to the edges and building frontages enclosing the space.

A number of use areas are loosely defined by the layout and position of the Pavilion and access routes through the space to the building entrances and the remainder of the site.



Key plan

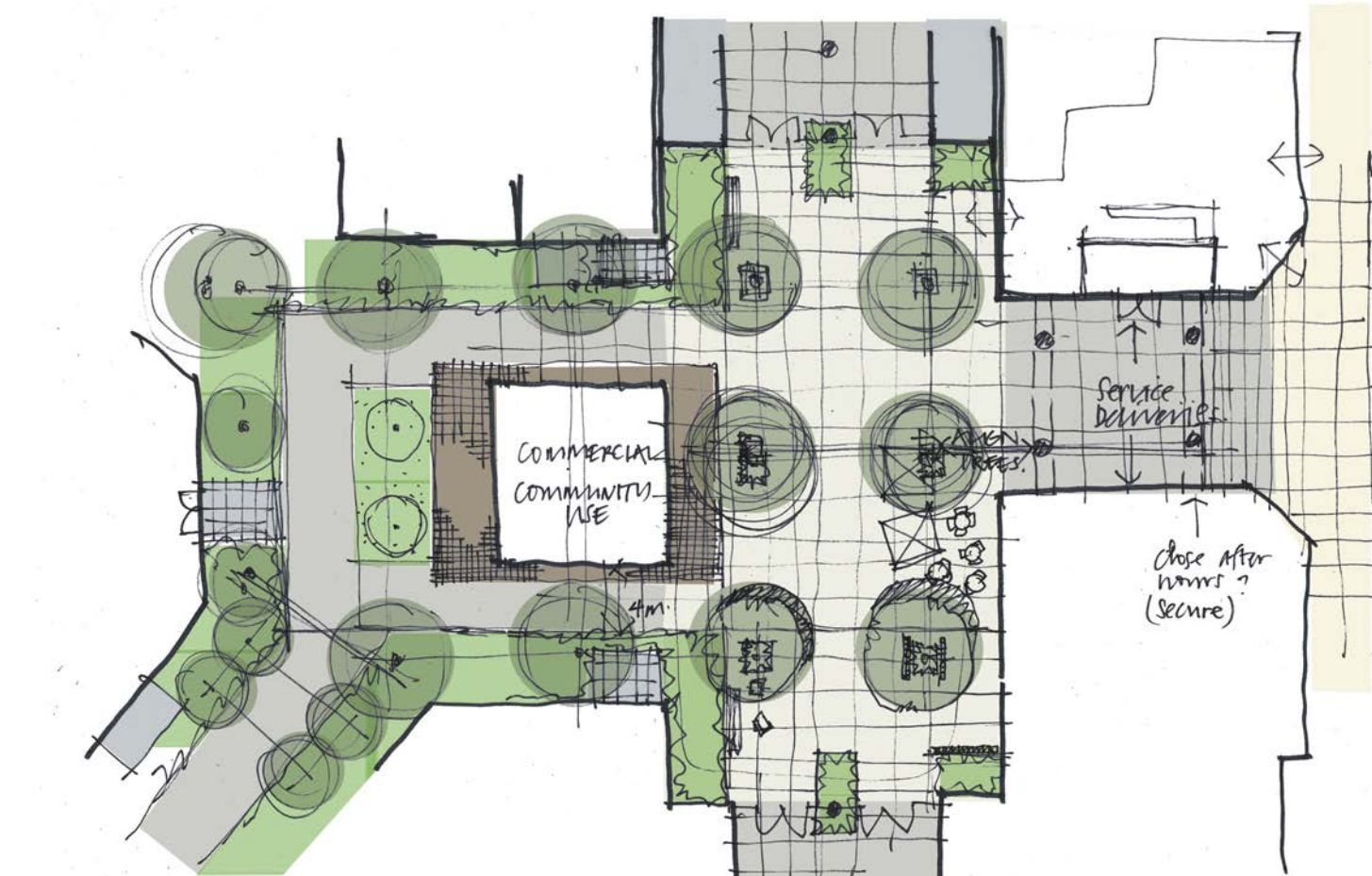
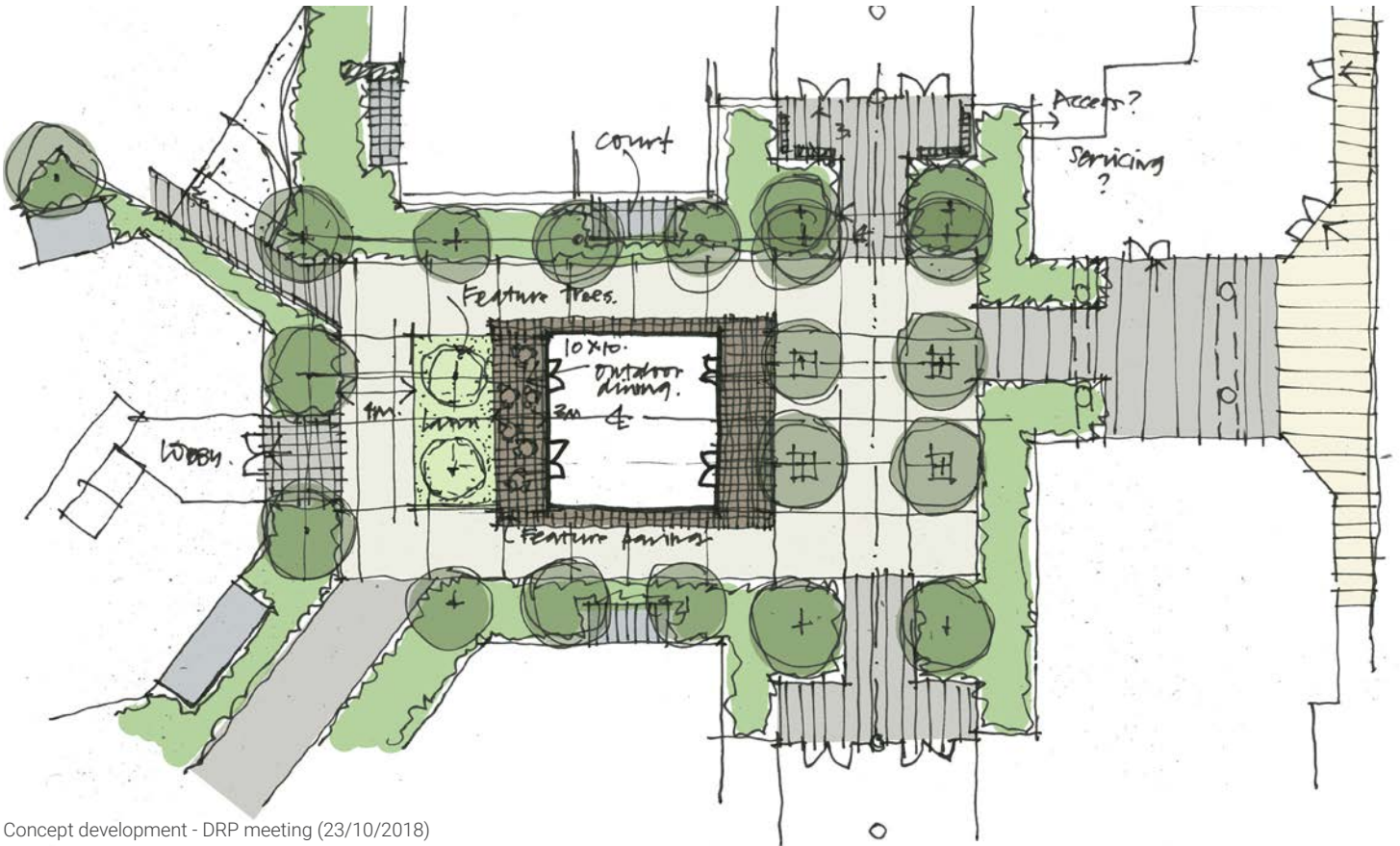
5.8 Public open space - design development

A number of design iterations were developed with the Applicant and Design Team to establish the most appropriate functional layout and relationship to surrounding uses. The scale and number of trees and ornamental planting, degree of hard and soft landscape and creation of separate use areas and circulation routes were considered in development of the final design. Access for service and emergency vehicles was also accommodated in the layout.

Scale comparisons to other similar and familiar spaces were undertaken to assist in the development of function and layout.

This hard paved plaza provides a comfortable seating and congregation area and a key circulation space with access into the main residential entrances and to carparking areas, as well as providing a breakout space for the commercial ground floor uses flanking the access from Manor Road. Two main functions - commercial and residential - are identified and illustrated in the layout analysis.

Children's play facilities and a range of use functions are accommodated in the flexible layout, along with seating and a small lawn area.



5.9 Public open space - scale comparisons



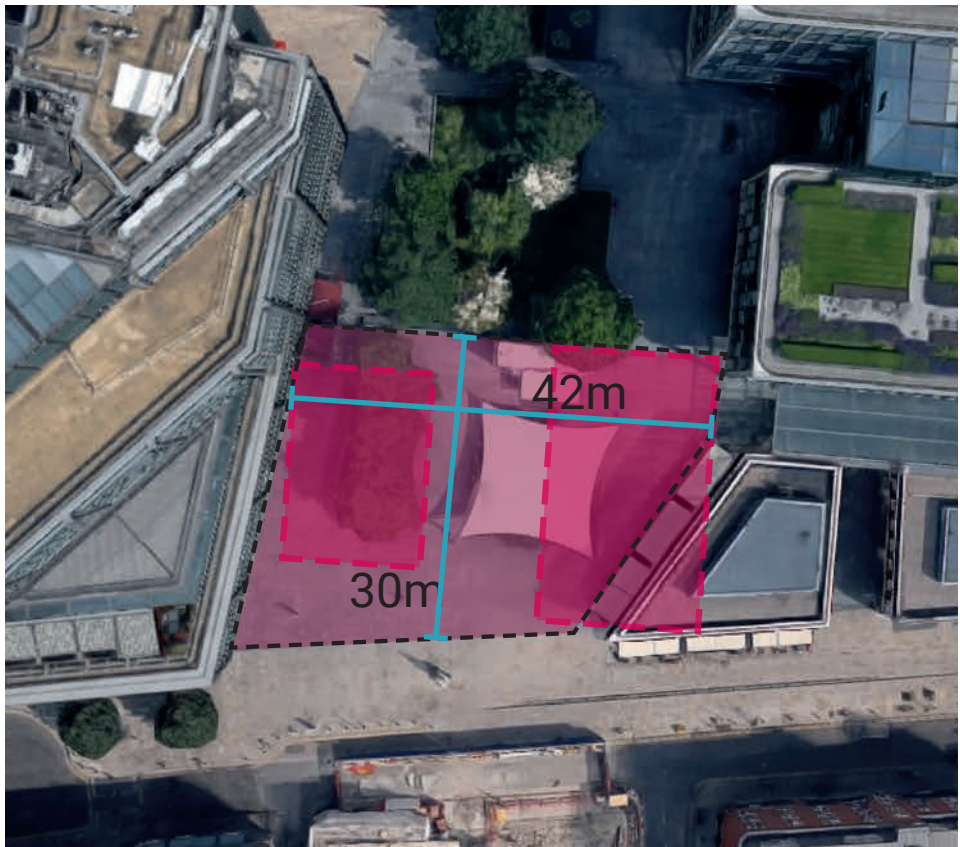
Key plan
Manor Road Square = 890m²



Dalston square



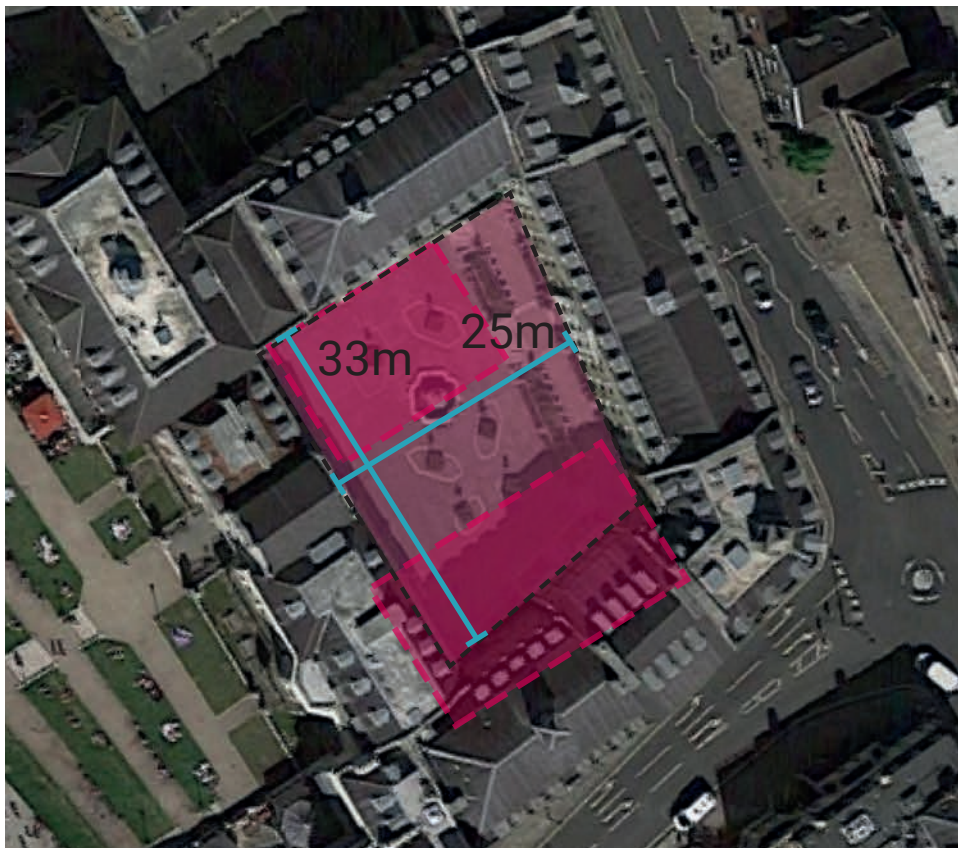
Gillett Square, Dalston



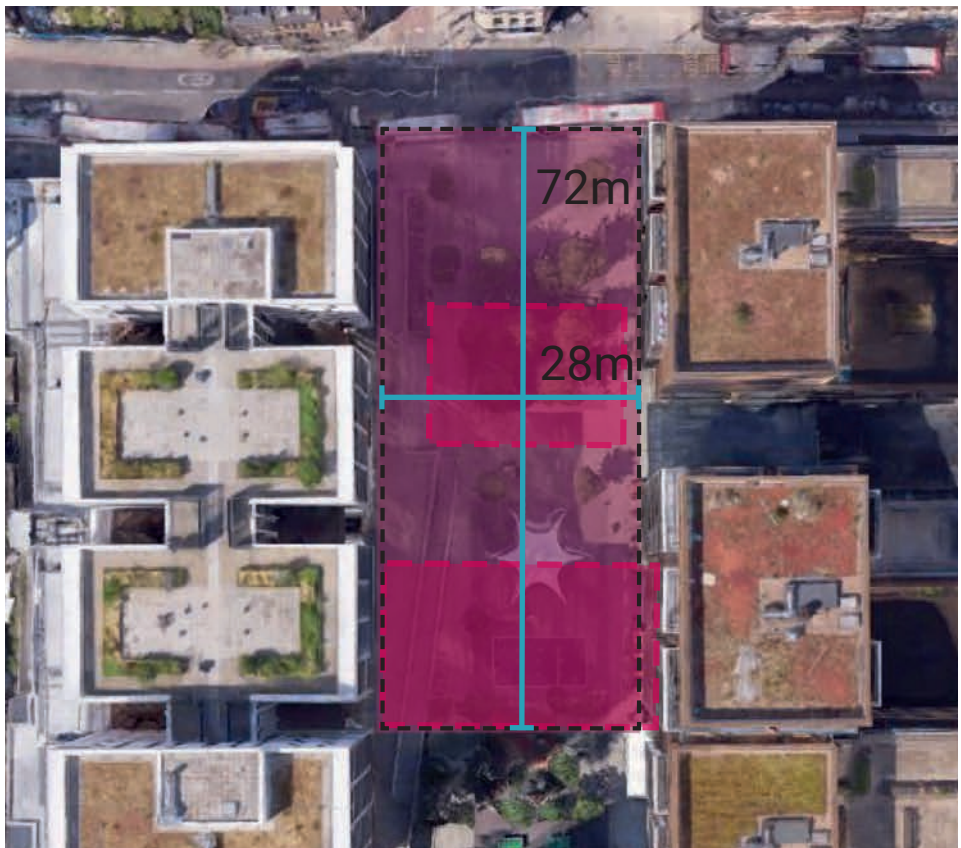
Bishop's Square, Spitalfields



Gillett Square, Dalston



Heron Square, Richmond

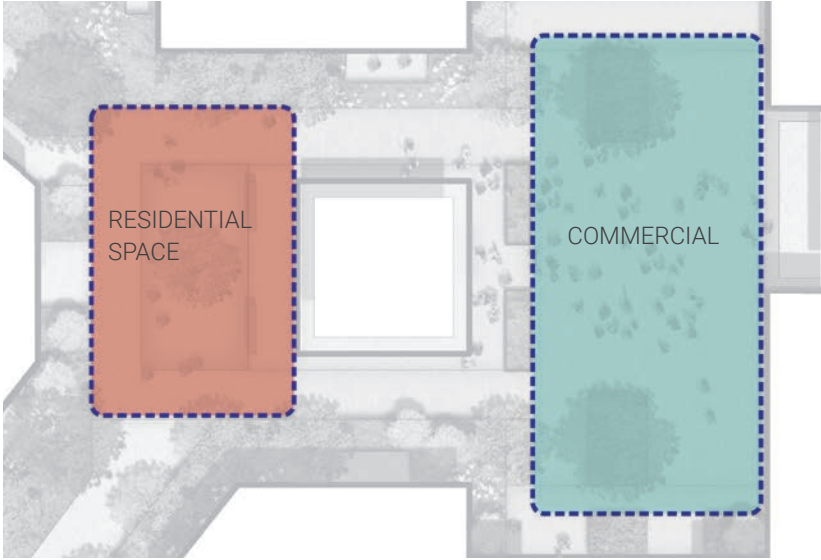


Dalston square

5.10 Public open space - design










Key

1	Manor Road Access - Pedestrian/Cycle Access
2	Main Entrance - Pedestrian/Cycle Access
3	Public Square
4	Commercial Spill Out/ Dining Areas
5	Entrance to Residential Blocks
6	Private Residential Terraces
7	Pavilion
8	Lawn Area with Play Elements
9	Lobby Access
10	Semi-Private Space Access
11	Accessible Parking Spaces

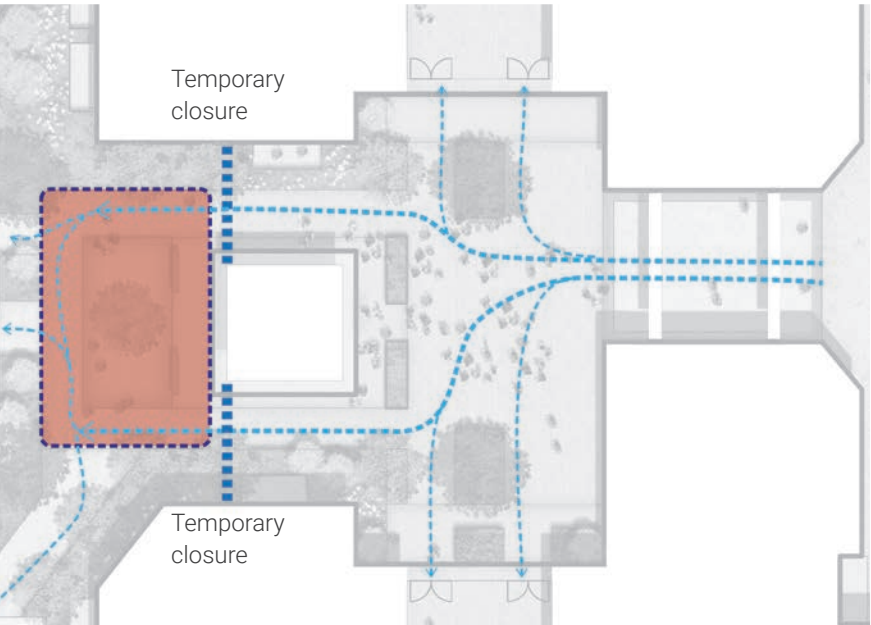
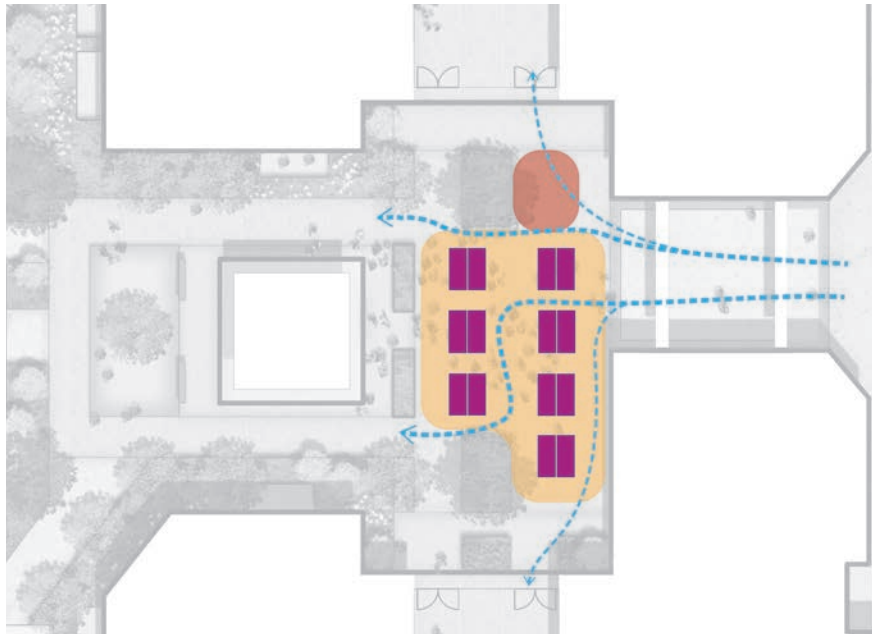
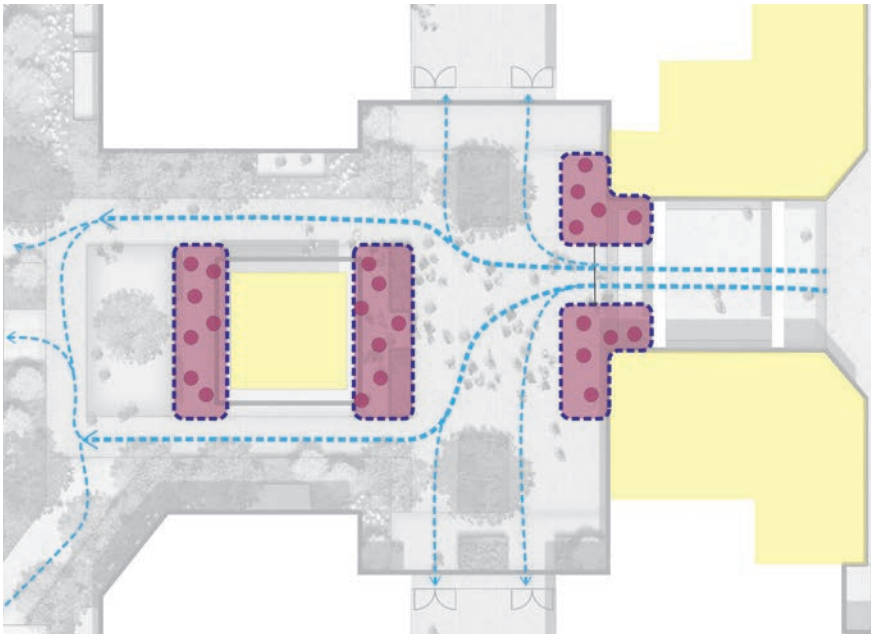


5.11 Public open space - programme of uses

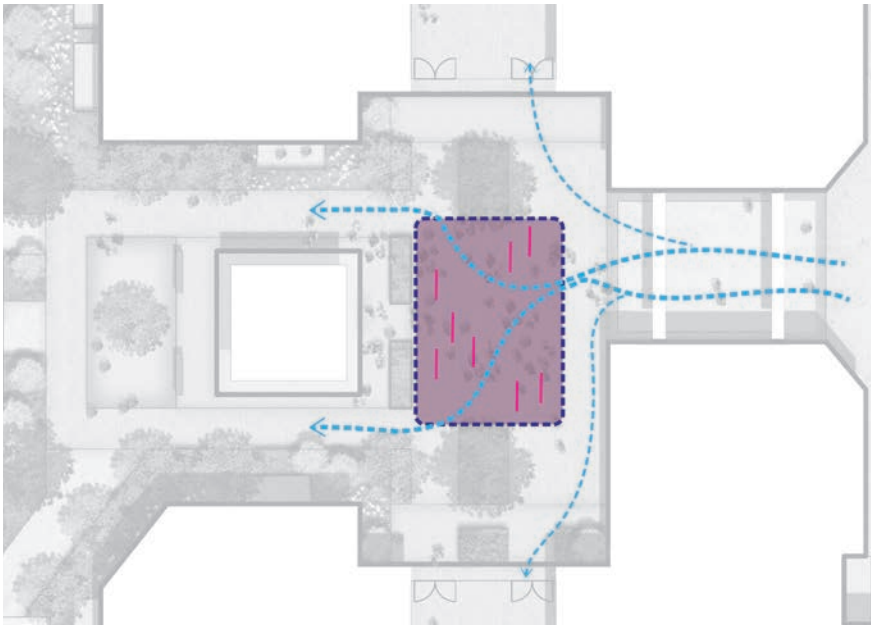
Key

	Commercial Areas		Exhibition Panels (Indicative)
	Dining Areas		Outdoor Cinema Area
	Tables & Chairs		6.5m Screen
	Market Stalls		Seating (98no.)
	Active Use		Residential Street Party
	Temporary Seating Area		Pedestrian Circulation
	Area for Exhibitions & Installations		

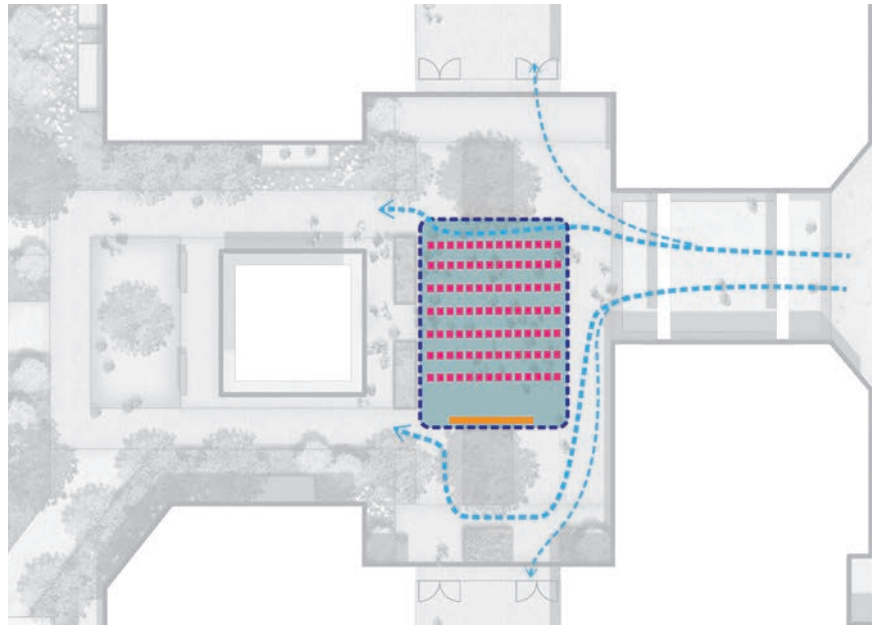
The public open space is designed to be a flexible, predominantly hard paved area to provide opportunities and facilitate various types of uses and activities. The following diagrams give examples of different types and range of activities and functions.



Residential parties



Exhibition/art installations



Cinema screen

5.12 Public open space - visuals



Views of central square



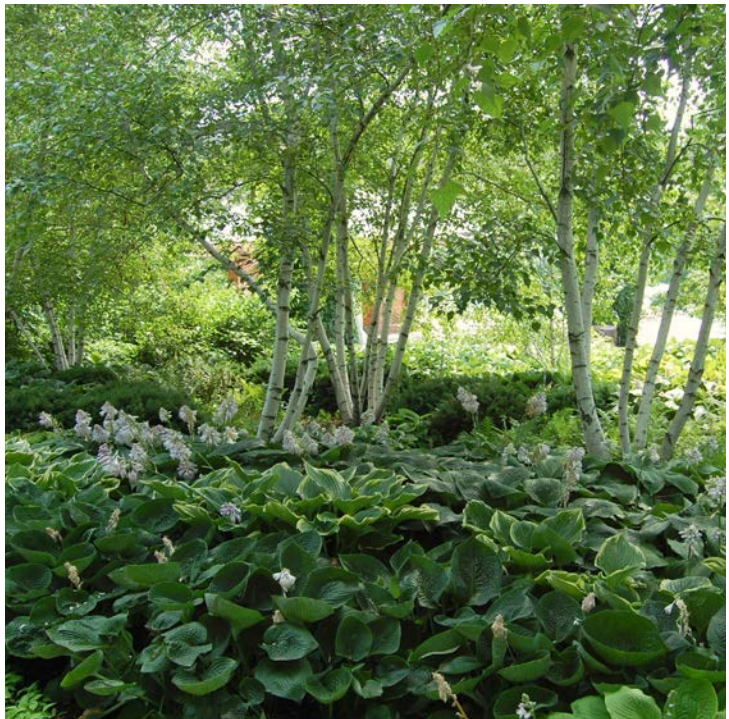
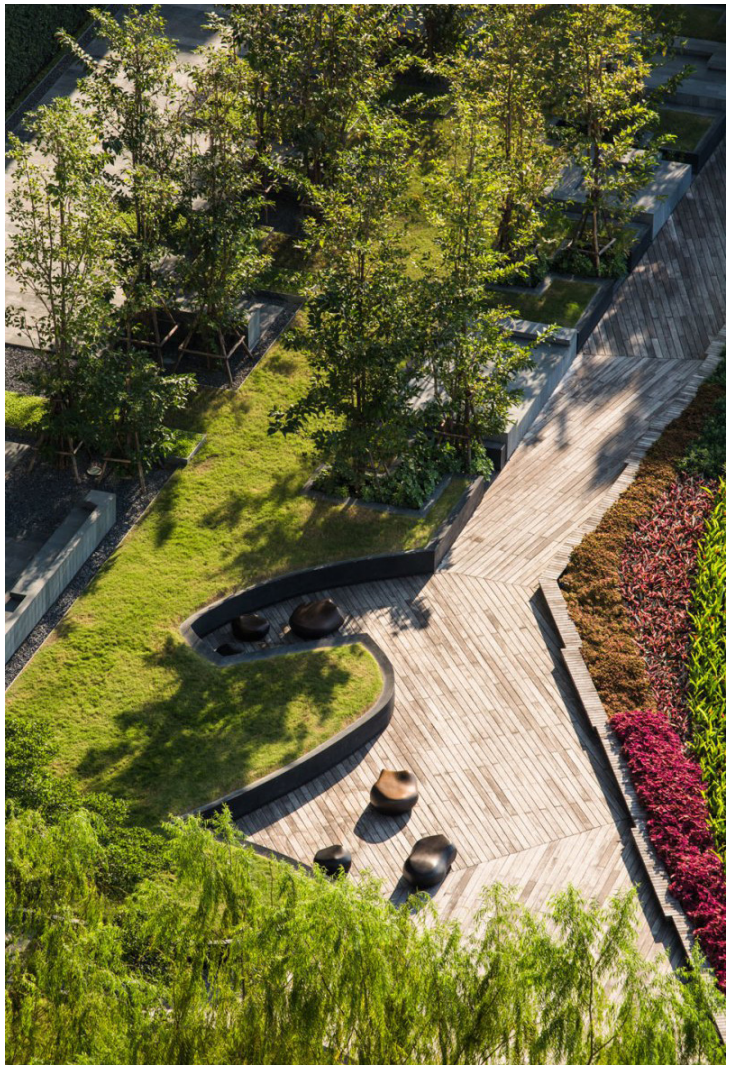
Views of central square

5.13 Character area 2 - residential amenity courtyards

The built form layout of the development establishes a series of private enclosed courtyard spaces within each building cluster, providing secure communal amenity spaces for use by residents. Play facilities and a playable landscape has been designed to provide the required Doorstep Play and some Local Play facilities as recommended under the SPG (refer to the Play Strategy).

A mix of planting and open grassed and paved areas provide a range of quieter and more active areas, seating and feature planting to create a colourful and seasonal backdrop for residents.

Circulation and access to individual apartments (ground floor) and building foyers are provided with a low key permeable bound gravel pavement to maximise permeable surfaces and accentuate sustainable drainage opportunities.



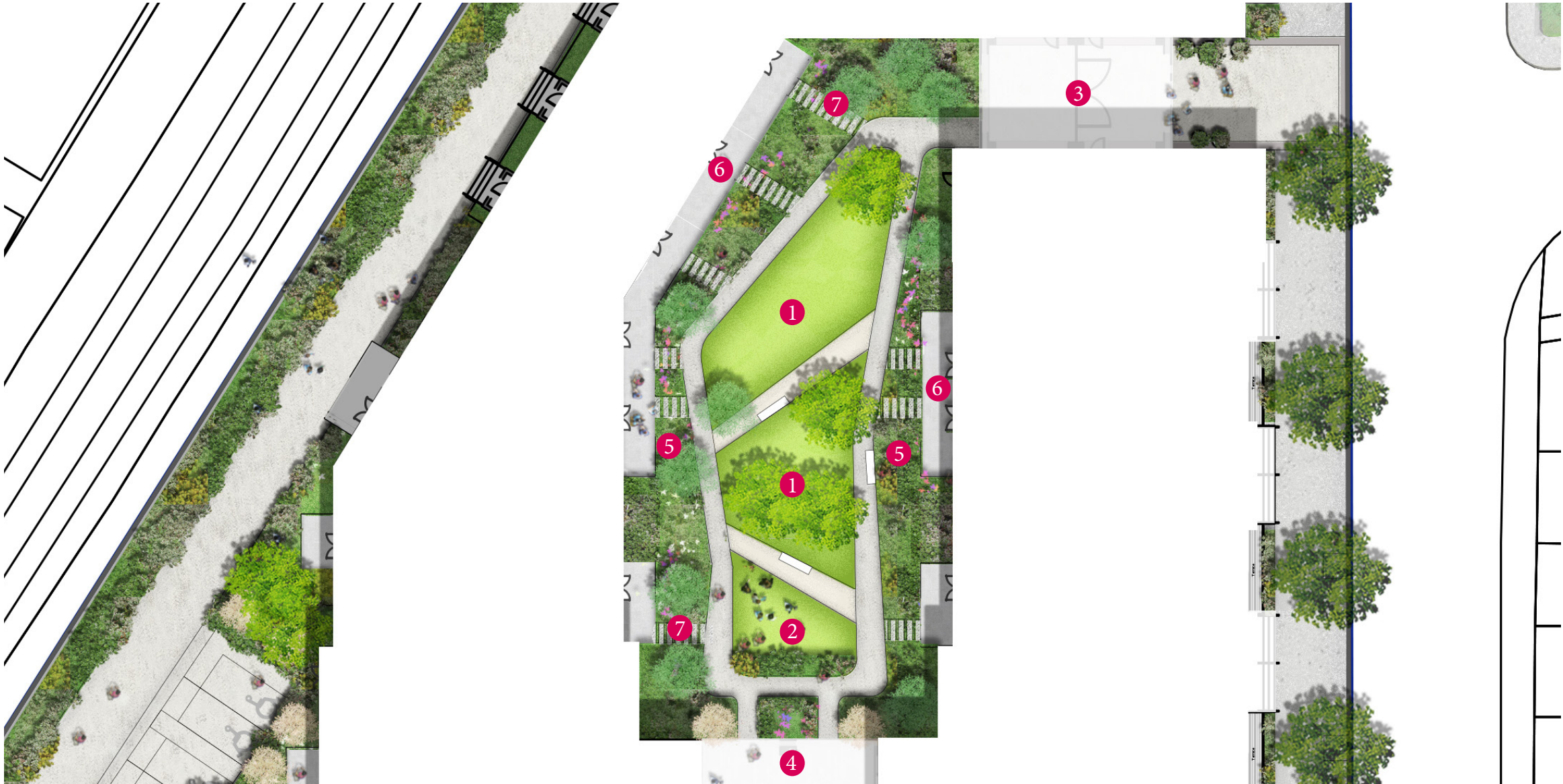
Key plan



5.14 Residential amenity courtyards - Block A design

Key

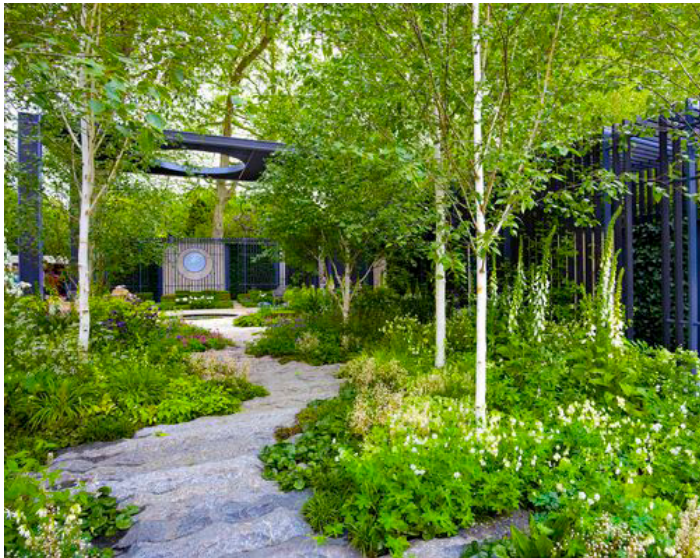
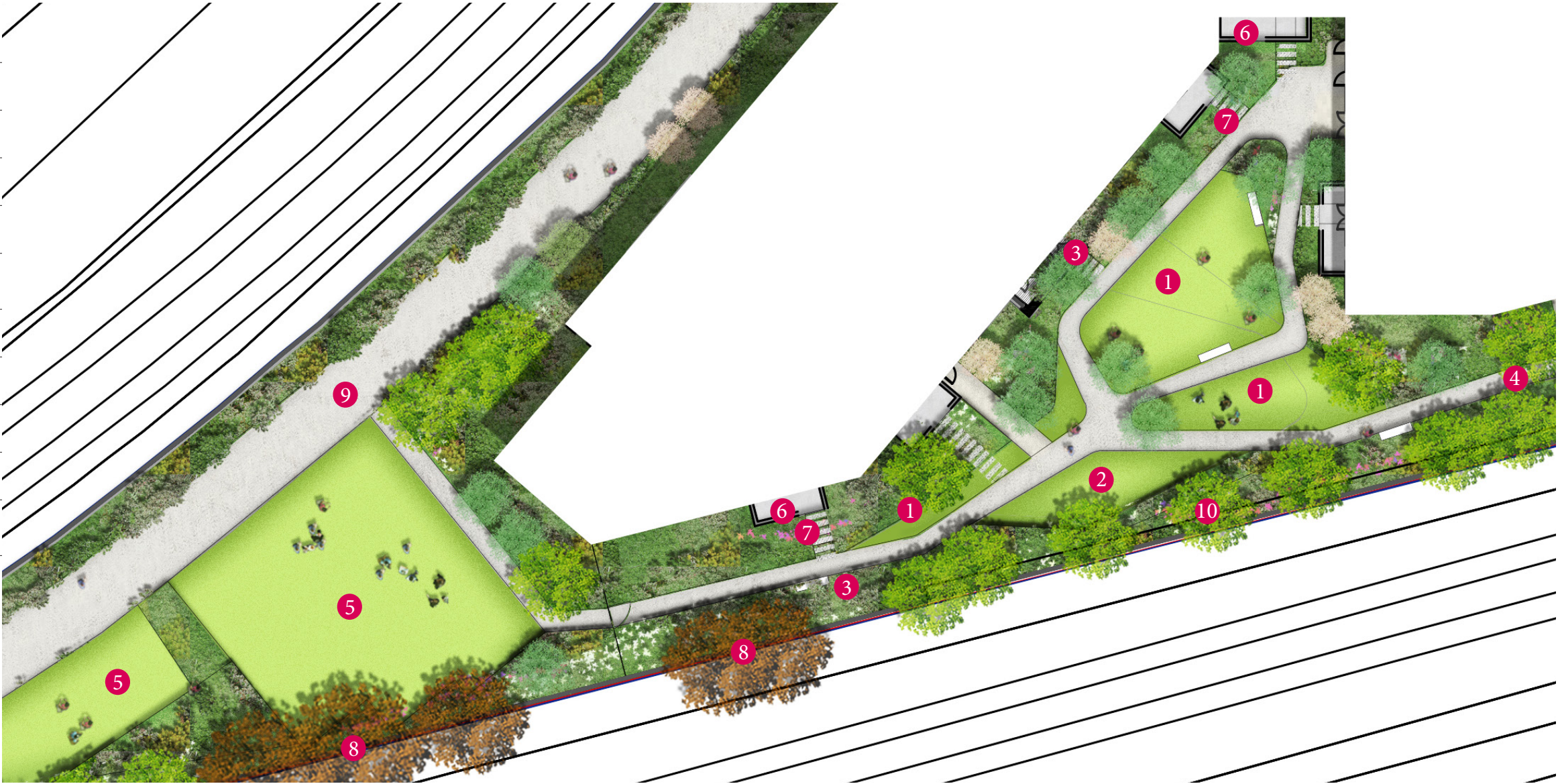
1	Residential Amenity Space & 5-11 Years Play
2	0-5 Years Play
3	Manor Road Courtyard Entrance
4	Public Square Entrance
5	Planted Borders
6	Private Residential Terraces
7	Stepping Stone Paths



5.15 Residential amenity courtyards - Block C design

Key

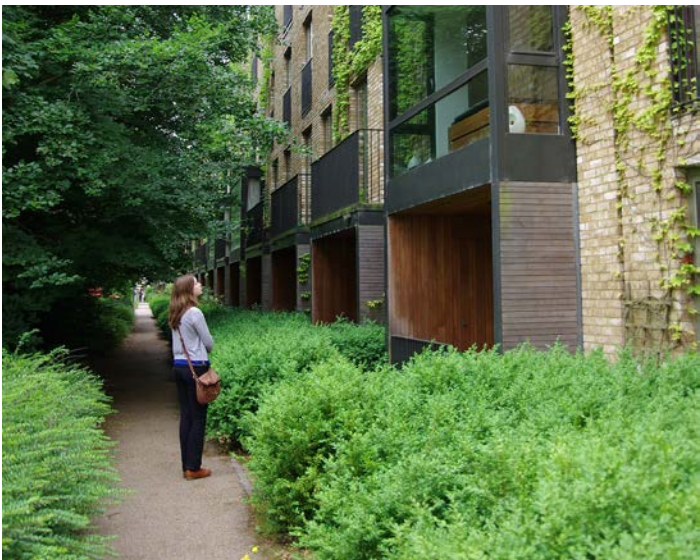
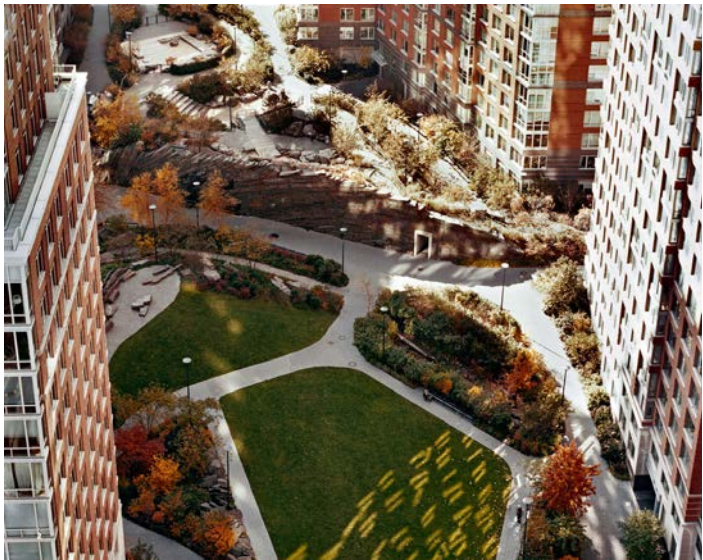
1	Residential Amenity Space & 5-11 Years Play
2	0-5 Years Play
3	Planted Borders
4	Access to Adjacent Courtyards
5	Recreational Lawn / Potential Additional Parking Spaces
7	Private Residential Terraces
6	Stepping Stone Paths
8	Existing Trees
9	Service Access Road
10	Screening to Southern Boundary



5.16 Residential amenity courtyards - Block D design

Key

1	Residential Amenity Space & 5-11 Years Play
2	0-5 Years Play
3	Planted Borders
4	Access to Adjacent Courtyards
5	Access to Courtyard from Manor Road
6	Access to Homezone
7	Private Residential Terraces
8	Private Residential Basements
9	Stepping Stone Paths
10	Screening to Southern Boundary



5.17 Character area 3 - homezones/shared space

The required Network Rail maintenance access is provided via the main vehicular access route into the site and includes accessible carparking to suit Transport for London (TfL) recommendations (3% min). As a low traffic space, this area is envisaged as a 'shared zone' or 'home zone' providing the opportunity for additional play space for children and shared access for pedestrians and cyclists into the main body of the site.

Trees and other planting are integrated into the corridor and provides a softening and screening to separate this zone from the residential buildings.

An existing hedge / 'green wall' is retained and extended along the western boundary to the rail corridor, providing effective visual screening to this aspect.



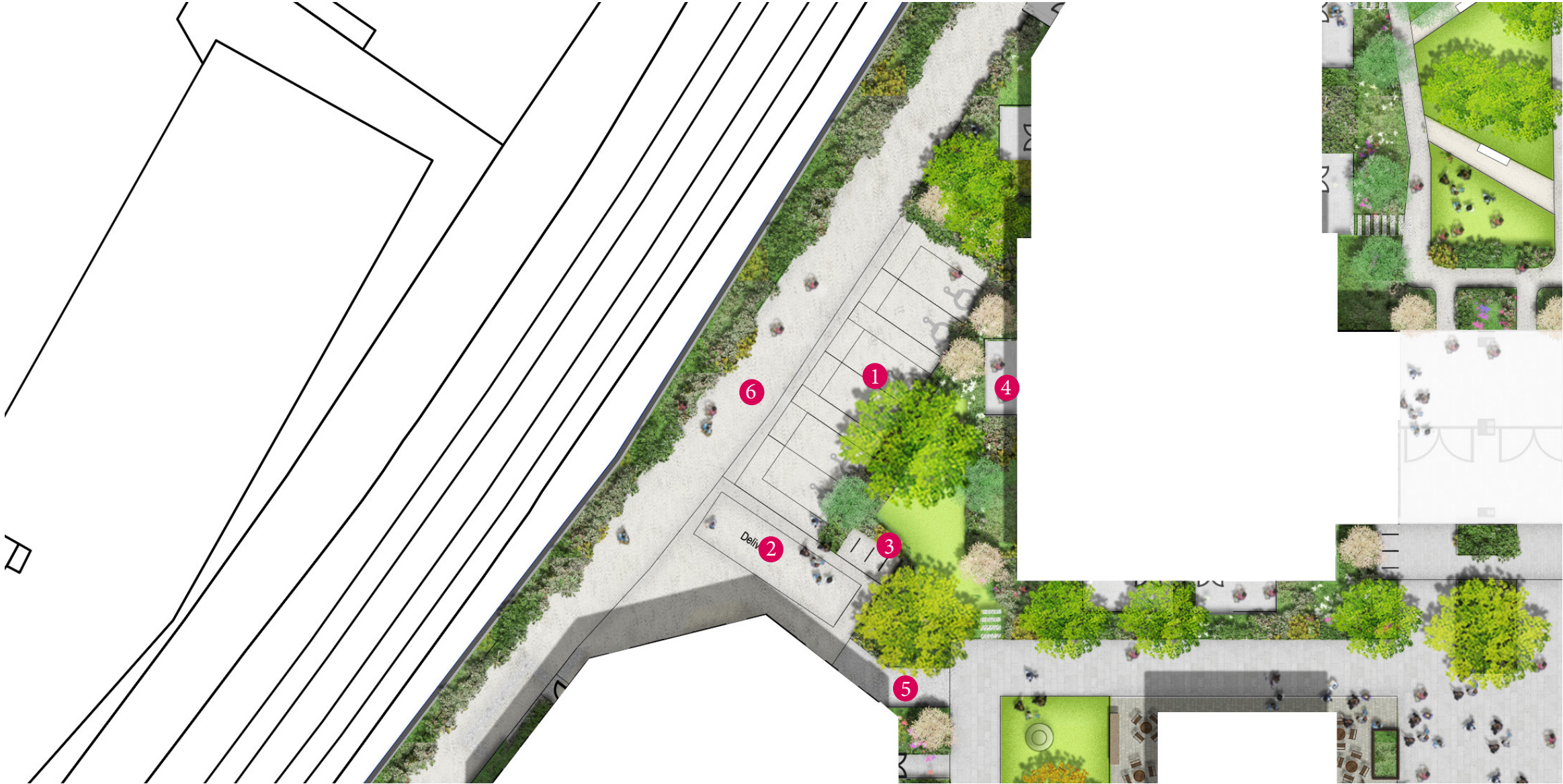
Key plan



5.18 Homezones/shared space - carpark 1 design

Key

1	Accessible Parking Spaces
2	Delivery Bay
3	Planted Borders
4	Private Residential Terraces
5	Access to Central Public Space
6	Service Access Road



5.19 Homezones/shared space - carpark 2 design

Key

1	Semi-Private Central Plaza
2	Accessible Parking Spaces
3	Planted Borders
4	Private Residential Terraces
5	Private Residential Basements
6	Access to Central Public Space
7	Access to Residential Amenity Courtyards
8	Service Access Road



5.20 Character area 4 - private gardens / terraces

Individual private amenity space is provided to each unit in accordance with Local Authority requirements. Ground floor units have a private terrace or small court outside their main living space and sized to suit the number of bedrooms - min. 5 sqm with a minimum internal width of 1.5m. Each space is partially screened with planting or built screen or fence to reinforce defensible character.

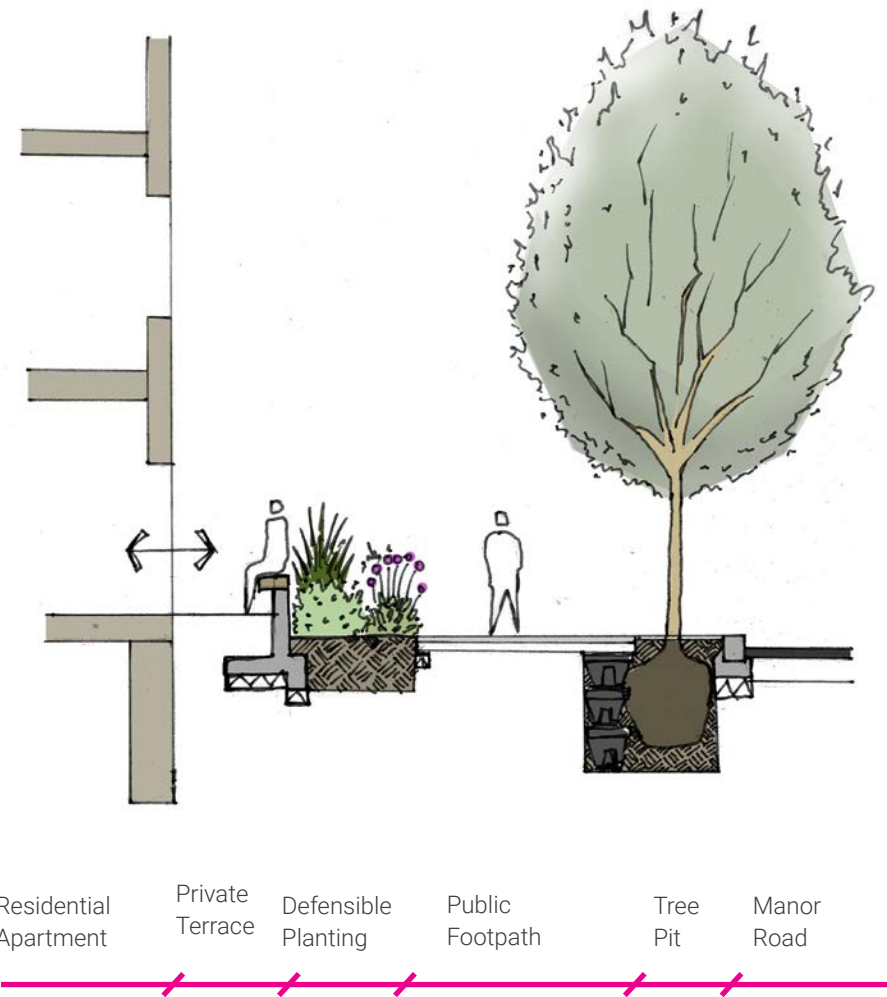
Upper floor units are provided with a balcony to suitable size based on accommodation within each unit (refer Architectural chapter).



5.21 Private streetfront terraces

Streetfront and internal units in Blocks C and D are raised above the adjacent ground level by 600mm to separate the units from adjacent circulation and public access, and improve privacy and sense of defensible space. Each unit on Manor Road frontage has a defined entrance from the street and a terrace with planting area and a low brick wall / seat.

Access to Plant rooms /Substation to the corner of Block D is provided in the streetscape design.



KEY	
1	Building entrances
2	Substation entrance
3	Private Residential Terraces
4	Seating element
5	Planting area
6	Benches
7	Tree planting



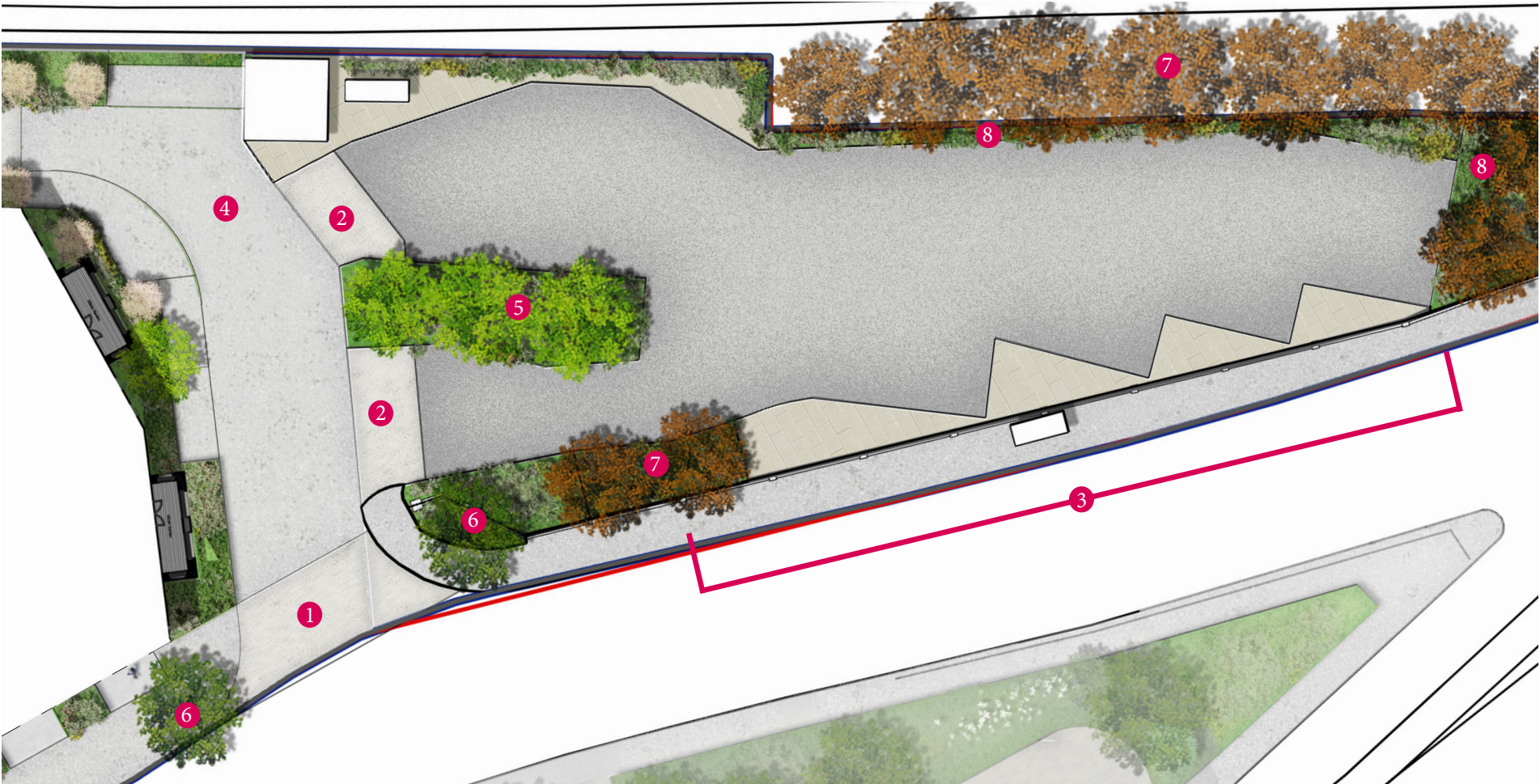
5.22 Character area 5 - northern bus layby

KEY

1	New Threshold Crossing
2	New Paving / Threshold
3	New Screening Panel Infill to Existing Wall
4	Service Access Road
5	New Trees to Traffic Island
6	New Street Trees
7	Existing Trees Retained
8	New Understorey Planting

Proposed landscape upgrade - bus layby

Landscape improvements to the TfL Bus Layby are proposed as part of the redevelopment of the site, including some additional understorey planting to provide a greener visual effect and to balance the visual impact of the large areas of pavement. Current use of the northern end of the site by Transport for London local buses has been maintained, with a number of landscape improvements proposed to improve the general appearance of this area, while maintaining current functionality for TfL.



Northern bus layby - proposed refurbishment



Northern bus layby - existing condition photographs

5.23 Northern bus layby - proposed infill to existing fence

KEY

1	Existing Wall with Metal Infill Panels
2	Hedge Infill
3	Timber Fence Infill
4	Vertical Fin Railing Infill
5	Horizontal Fin Railing Infill (Preferred option)

Existing trees and planting to the surrounds of the site are retained and reinforced with additional understorey planting, as an extension of the proposed planting palette on the main part of the site.

A replacement feature tree is proposed on the corner of Manor Road and the vehicle entry, to extend the line of street trees and frame the entrance. Planting to the central island will also significantly improve the visual enclosure of the layby and benefit the outlook from the main site development, especially those adjacent units facing north. New infill panels are proposed to the existing brick fence/wall along the Manor Road frontage to increase the height and visual screening benefits of this barrier.

Contrast paving is also proposed across the driveway entry and to both entrances to the layby area, to define the paved zone and access and to contain the Layby functional area.

All current operations and circulation within the bus layby area are to be maintained during refurbishment works.



5.24 Functional areas strategy

Courtyards and the central public space are defined by the built form and residential courts are enclosed with controlled access (fob key) to maintain privacy and secure private spaces.

The service road / access along the western side is open but there is limited access from Manor Road and a more domestic scale driveway character to discourage general public access.

A 2.4m brick screen wall has been included at the southern edge to meet Acoustic report recommendation, and a timber fence infill has been proposed to replace the existing on the northern bus lay-by.

Examples of the partially enclosed areas:



Transition to semi-private areas

Key	
	Public
	Semi-public
	Private
	Semi-private
	Service / Access
	Transition
	Gated
	Partially enclosed
	2.4m max brick screen wall
	Timber fence infill








Function areas

5.25 Access strategy

Clear circulation routes with a legible hierarchy and maximum permeability for the site have provided the basis for the Access Strategy, with multiple access points from the public realm into and through the site.

Controlled access points to residential lobbies and ground level access to private front doors provide legibility in the site plan and clarity and security to defensible private spaces.

KEY

	Public access
	Semi-public
	Ground floor residential access - building frontages
	Access to residential carpark
	Services/delivery access



Access routes










5.26 Vehicle and service access strategy

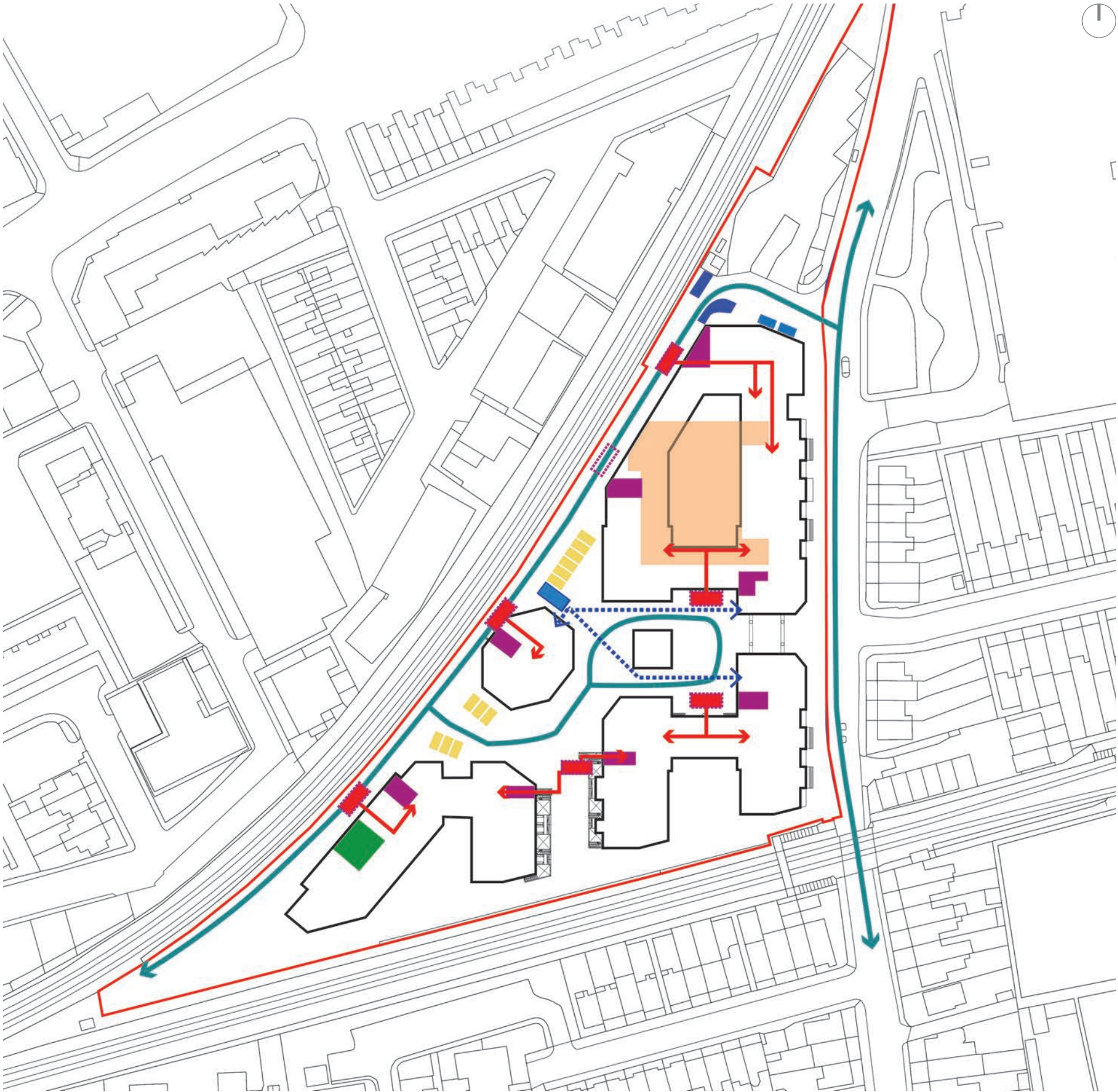
Limited access for vehicles via the service zone provides a car-free environment for residents and restricts vehicles entering the new areas of public realm. Fire and emergency vehicles can use this route and pedestrian pathways will be designed for occasional traffic and required turning movements.

Waste collection is also along this route, with designated collection points at key bin store locations in Building A (basement Bin Store) and Building C (at grade bin store). A managed collection system will be implemented to facilitate an efficient collection process.

Loading and deliveries for the residents is centred on the Concierge location in Building B and allows centralised collection or managed distribution throughout the site.

KEY

	Vehicle Access Routes
	Emergency Vehicle Stops & Access
	Waste Collection truck
	Bin Stores
	Bin holding area
	Deliveries
	Accessible Parking Spaces (12no)
	Bins/Cycles Basement
	Cycle store at groundfloor



Vehicle access - parking, service and emergency

5.27 Carparking strategy - 3% provision



The site design is effectively car free, reducing congestion and air pollution, in accordance with the preferred direction of the local authority (LBRuT), GLA and in consideration of the high PTAL rating for the site (PTAL 5).

Accessible car parking spaces are provided on site to comply with TfL recommendations for 3% of units (12 No spaces) to be provided with an accessible space.

There are also two Car Club spaces provided adjacent to the entrance to the site, and discussions are underway with local Car Clubs to deliver this option for the site and surrounding residential area.

Electric vehicle charge points (EVCP) will be provided in carpark areas, including Car Club spaces (1 No.) as outlined in Electrical Services section of this report, with the capacity to increase the number of charge points in the future, with expanded provision of parking spaces or increased prevalence of electric vehicles.

KEY

	Accessible Parking Spaces (12no)
	Car club spaces (2no)



Car parking layout (3% provision)

5.28 Carparking strategy - 10% provision

The Local Authority recommendations provide for allowance to expand the parking provision to accommodate 10% of units with an accessible parking space (39 No.). This has been considered in the site layout and can be accommodated if required in the future.

The additional parking spaces can be accommodated as indicated, with some loss of landscaped areas (lawn) in the southern corner of the site and some paved circulation space in the secondary public space between Buildings B, C and D.









KEY

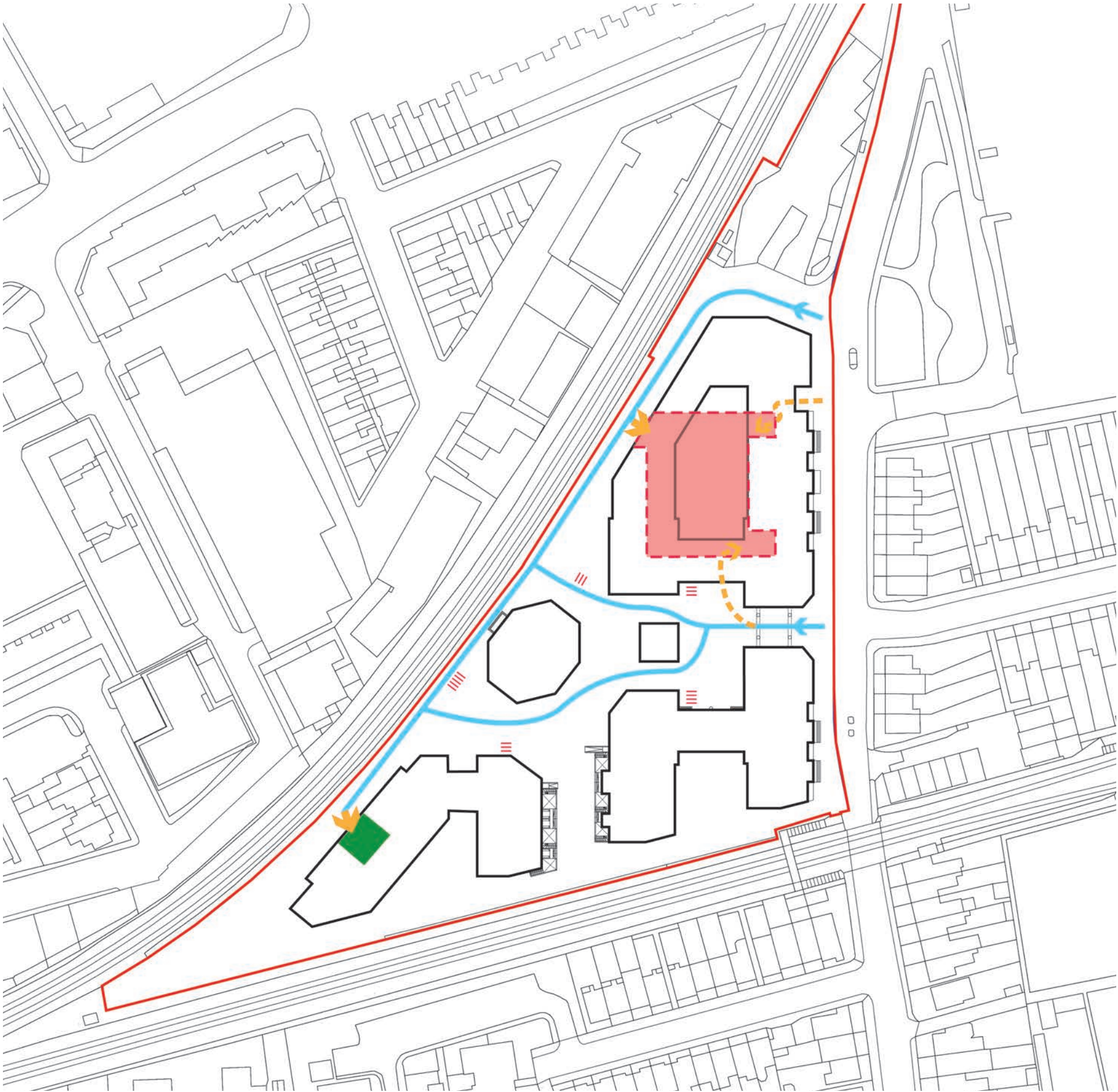
	Accessible Parking Spaces (12no)
	Car club spaces (2no)
	Additional Accessible Parking spaces (27)*

Car parking layout (10% provision)

5.29 Cycle Strategy

The site allows cycle access through different points along Manor Road. It provides short and long term cycling parking, being the long-stay dedicated for residents within Block A basement and Block C cycle store at ground-floor. For the short term 35 bicycle spaces have been located in convenient locations along the site to cover both commercial and residential visitors. The commercial long-stay will be accommodated within each unit with a provision of a cycle hanger in a storage area.

KEY	
	Cycle Access Routes
	Bins/Cycles Basement
	Cycle store at ground floor
	Main cycle access to the Basement and Cycle store at ground floor
	Secondary cycle access to the Basement
	Short-term cycle stands (18 no. - 35 cycle spaces)



Cycle strategy

5.30 Hardscape strategy

The landscape design aims to build upon the masterplan design concept to ensure that both the public and private realm are of a quality and robustness that is appropriate to the physical disposition of the site, as well as conveying a unifying character within the context of the existing surroundings. Importance is given to the appropriateness of the materials with regard to place making and their long term performance, including the selective use of high quality materials to enhance the settings of the buildings and footways.

Design principles:

- Elements in the public areas reflect the different uses, assist orientation around the site and tie the space together into a cohesive whole.
- The design and placement of all the elements respond to the architecture of the development through sympathetic, appropriate and consistent materials, textures and scales.
- The combined suite of high quality elements create a positive, inclusive and inspiring residential environment.
- The designed components of the residential realm include an appropriate level of lighting and contribute to the creation of a secure environment by minimising the potential for concealment.
- All elements are suitably robust and able to tolerate the stresses of a residential environment over a long period of time.

All elements are to provide a sufficient level of comfort and amenity but also aim to minimise clutter and visual confusion. The broader public realm offers continuous, distinct civic spaces. High quality landscaping will carry across all aspects of the urban realm within the site. A palette of materials is identified which, together with the streetscape elements specified, define the character of the area. Surface treatments will be continuous across the scheme to unify the area and assist in orientation. The materials and finishes will complement the paving materials.

Typical hard materials

A robust palette of materials is proposed. The materials selected are hard wearing, easy to maintain, and responsive to the site design concept. The durability of materials is vital due to the high levels of anticipated footfall, vehicular movements and regular cleaning of the hard landscape areas. Vehicle access routes (service and emergency) into the site will use a consistent finish to link between the Service Access Road and central courtyard, while prioritising pedestrian movement along these routes. These shared surfaces are proposed as permeable (resin bound gravel) to increase permeability of overall site and improve water infiltration as well as delineate shared areas for pedestrian use.

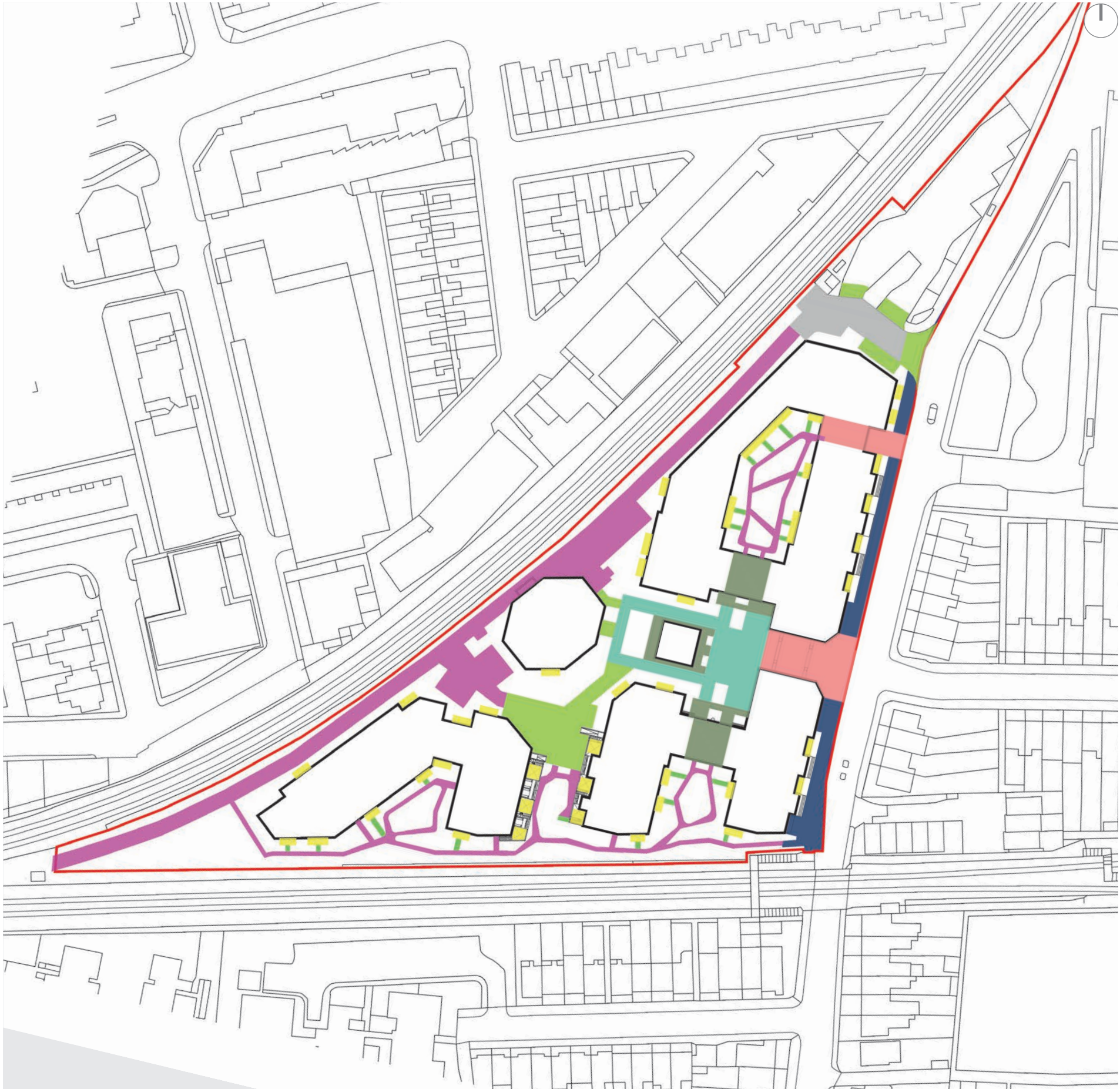
Pedestrian pathways through courtyards and soft landscape areas are also permeable resin bound gravel or stepping stone paths through planting.

The central public courtyard which forms the ‘front entrance’ to the development will be paved using high quality paving linking with the predominant public realm pavement materials. Communal courtyard areas and private terraces will use complementary paving. Furniture within the public realm will be simple and solid, capable of withstanding large amounts of wear and tear. The materials and finishes will complement the paving and building materials palette.

5.31 Hardscape strategy - materials palette

Key

Concrete flags	Granite paving with frame
Granite slabs	Granite setts
Granite setts (colour mix)	Resin bound gravel (permeable)
Granite stepping stones	Decking (private terraces)
High quality block paving	



Materials layout



Concrete flags



Granite paving with frame



Granite slabs



Granite setts



Granite setts (Coloured mix)



Resin bound gravel



Granite stepping stones



Decking



High quality block paving

5.32 Planting strategy

5.32.1 Soft landscape strategy

Tree planting

Planting softens the built form, humanises space, mitigates the microclimate and provides a seasonal sense of place. Tree planting can respond to residential structures and the choice of a particular tree species for an area is intended to establish an association for each. Planting plays a central role in softening the structure of outdoor spaces. The contrasts between soft and hard materials create diversity of experience.

Street tree planting forms a key element within the public realm. The selected tree species are located long the length of the frontage to provide a coherent streetscape and have been carefully located to ensure that they make a positive contribution to the public realm without impeding pedestrian flow or conflict with existing services. The trees within the public realm have been specified sufficiently large to resist vandalism from day one and also provide an immediate visual impact.

Trees within the site courtyards will be established at smaller sizes and will be selected from a palette of smaller growing, more ornamental trees with attractive forms, good flowering, autumn colour or winter bark colour to provide residents with interest through the year by giving a sense of changing seasons and to improve biodiversity. The tree species proposed are illustrated in the palette on the following pages.

Design principles

- Suitability in the form and eventual scale of the planting in relation to the spaces and elevations.
- The use of tree, shrub and perennial planting to enhance the design by strengthening the articulation of the space through helping to frame views and provide wayfinding.
- Appropriate in terms of settings and not pose threat or nuisance, for example with the specification of clear stem trees adjacent to public routes.
- Use of planting for wildlife enhancement
- The planting will be designed to promote a low maintenance regime that requires minimal attendance and watering once established.
- Follow National Joint Utilities Guidelines requirements when planting trees in the vicinity of services and buildings.

Ornamental planting

Distinct plant lists have been prepared to support the aspirations of the character of each space and are selected to be suitably robust and appropriate to the specific microclimate of the spaces. Native plants will be used where possible, and supplemented by additional drought, shade and wind tolerant species as the conditions dictate.



PERENNIALS

Carex laxiculmis 'Bunny Blue'
(Creeping sedge 'Bunny Blue')



Phlox divaricata 'Blue Moon'
(Sweet william 'Blue Moon')



Carex divulsa
(Grey sedge)



Tiarella cordifolia
(Foam flower)



Liriope muscari 'Ingwersen'
(Big blue lilyturf 'Ingwersen')



Hakonechloa macra
(Japanese Forest Grass)



Euphorbia amygdaloides
var. robbiae
(Mrs Robb's bonnet)



Penstemon digitalis 'Husker Red'
(Penstemon 'Husker Red')



Carex pendula
(Pendulous sedge)



Pachysandra terminalis
(Japanese spurge)



Polystichum polyblepharum
(Japanese lace fern)



Campanula trachelium
(Nettle-leaved bellflower)



Dryopteris affinis
(Golden shield fern)



Helleborus foetidus
(Stinking hellebore)



SHRUBS

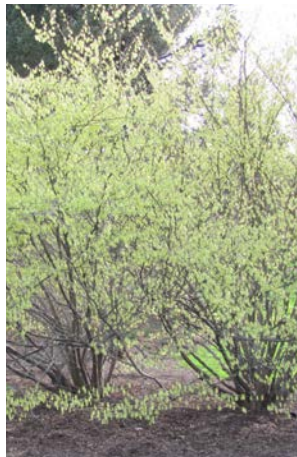
Sarcococca hookeriana
'Winter Gem' (Sweet box
(Winter Gem))



Hydrangea quercifolia 'Sikes Dwarf'
(Oak-leaved hydrangea 'Sike's Dwarf')



Corylopsis glabrescens
(Fragrant winter hazel)



Sarcococca confusa
(Sweet box)



Cornus mas
(Cornelian cherry)



Viburnum opulus
(Guelder rose)



Hamamelis x intermedia
'Arnold Promise'
(Witch hazel 'Arnold Promise')



5.33 Tree planting strategy





Tree planting across the site relates closely to the character areas described above. Tree species will be selected from the recommended palette to suit the purpose and situation within each location and to achieve the desired effect.

Street trees will comply with Local Authority recommendations. Central courtyard tree layout is based on a grid of feature trees framing the space and supported by a secondary range of planting to the edges, containing the visual extent of this area.

Screen planting trees have been used to augment retained existing trees and hedge vegetation along the rail corridors and to create a visual buffer to the edges of the development.

Courtyards contain a range of colourful deciduous trees to add feature and colour to the landscape and to shade and frame use areas.

KEY

	Streetscape trees (Semi-mature trees - 5-7m height)
	Feature trees in Public square (Semi-mature trees - 5-7m height)
	Mix of medium size Single-stem and Multi-stem trees (3-5m height)
	Existing trees to be retained



Tree strategy plan



Amelanchier lamarckii



Acer ginnala



Malus everest



Prunus serrula



Betula nigra 'heritage'



Gleditsia triacanthos



Acer freemanii



Acer campestre 'Elsrijk'

5.34 Living roof strategy

The architectural forms of the buildings across the site are based on perimeter block forms around a central courtyard, offering a number of elevated spaces for residential amenity for private and communal use. The link buildings provide a landscaped terrace space for relaxation, active and passive recreation at fourth floor level, retaining a visual and physical connection to the ground level and adjacent landscape.

A number of taller buildings step back as they rise, creating additional private terraces at upper levels, typically facing south. The majority of these are private terraces for the contiguous units, while the larger space on Building B provides communal amenity for the residents of the development. Roof terraces are combined with building plant and equipment and sustainable energy devices (photovoltaic cells), as well as areas for living roofs.

The living roofs across the site contain wildflower mixes, which provide a large biomass with a range of plant species, offering biodiversity in flowers, habitat and food sources for a variety of local fauna.

KEY

<div></div>	Living roof
<div></div>	Flats/Townhouses Private Terraces
<div></div>	Communal Residential Amenity
<div></div>	PhotoVoltaic cells with brown roofs
<div></div>	Core/Plant area



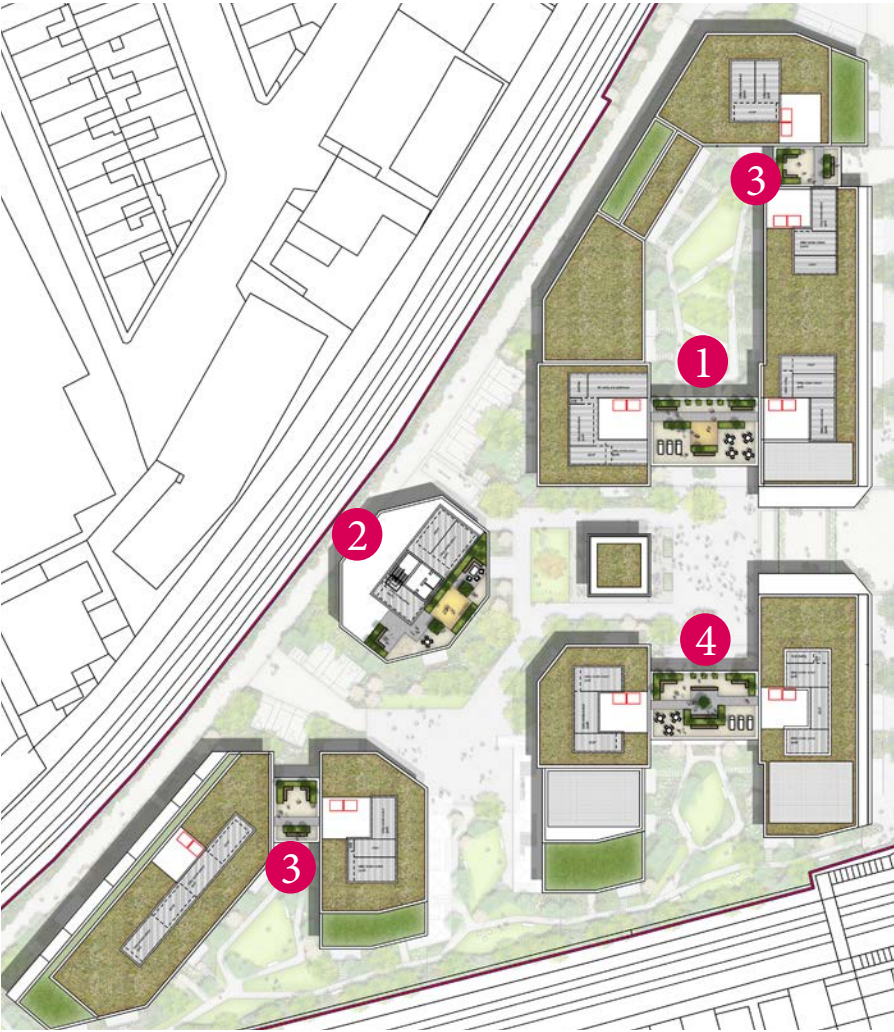
Living roofs and amenity terraces

5.35 Communal roof terraces

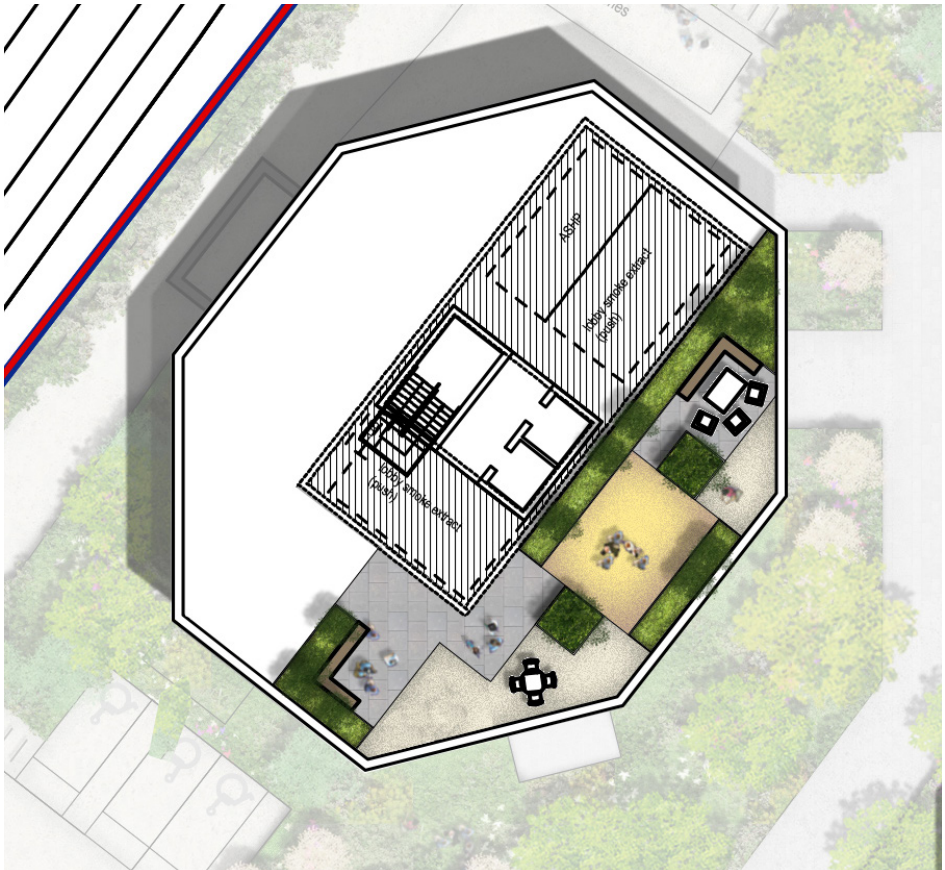
The roof terraces offer a private outdoor amenity space for residents, providing a unique and tranquil place on the top of the buildings. The design of each, feature a series of enclosed spaces defined for different uses. The simplicity of shapes is delineated by the disposition of raised planters which will provide protection from the wind while adding seasonal interest.

A combination of dining areas, with flexible spaces that could be either dedicated for yoga classes or other types of sports, or either as a stage for small theatre shows for children, is proposed. Calm spaces are provided with chaise longues to contemplate the view, or enclosed spaces with seating elements.

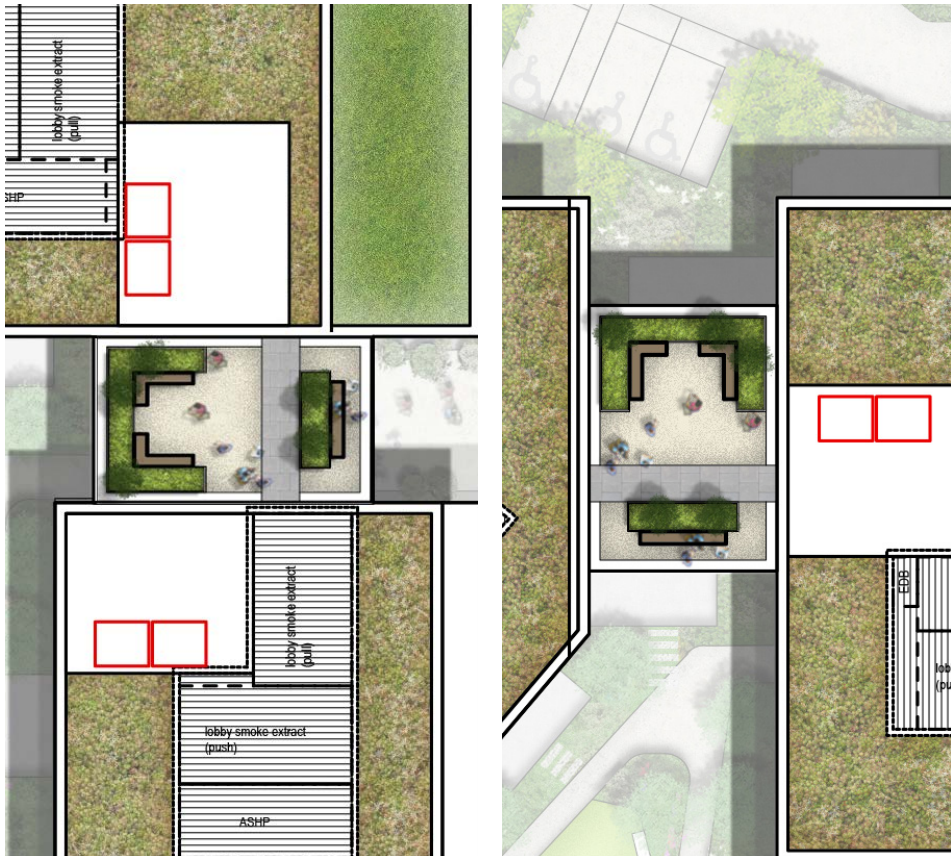
The material palette is simple, with the use of timber decking, concrete textured paving on pedestals, and timber in all the furniture.



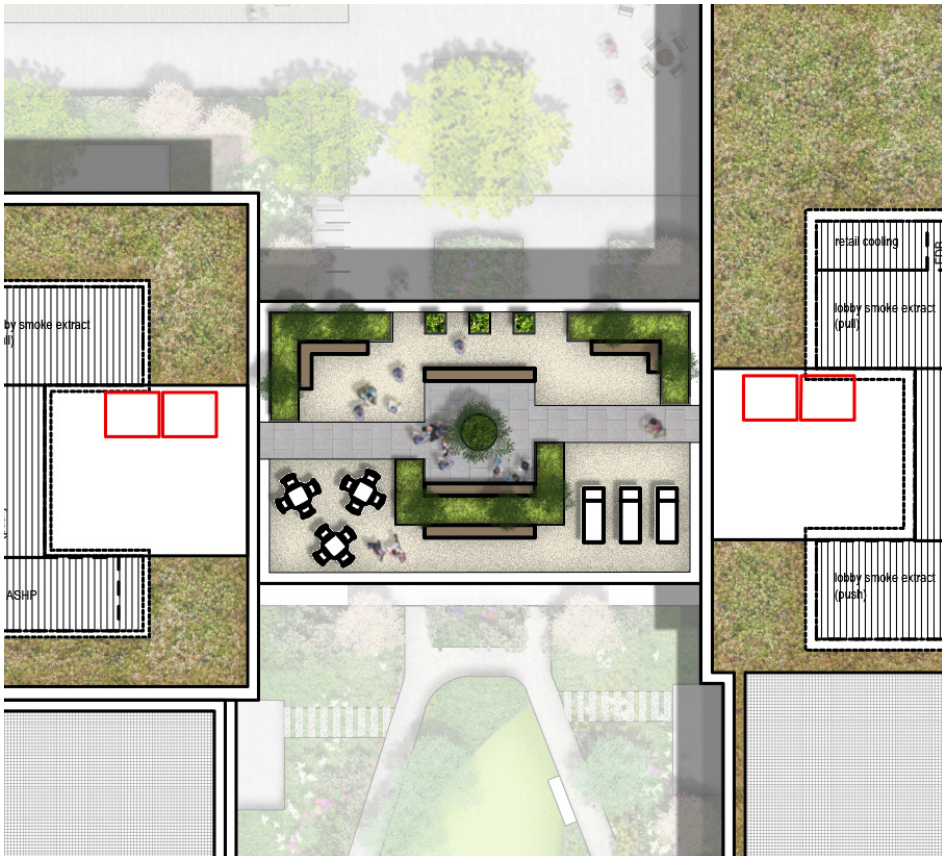
1 Block A communal roof terrace



2 Block B communal roof terrace



3 Block A and C communal roof terrace

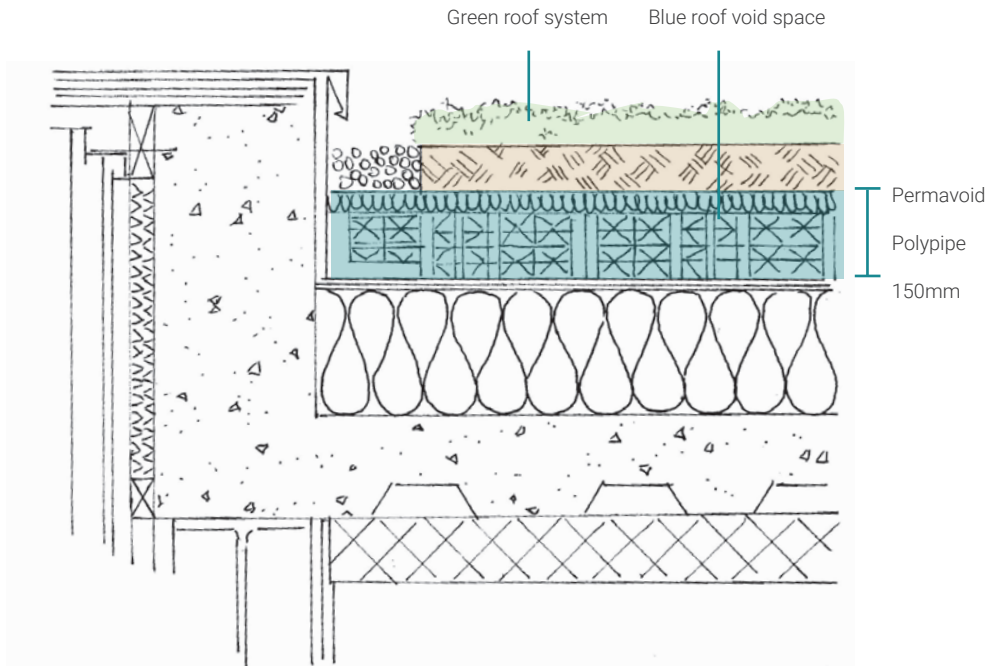


4 Block D communal roof terrace


5.36 Rain water attenuation

The drainage strategy for the site is predicated on the lack of a connection to Mains Sewer and the need to capture and infiltrate all storm water on site. (Refer Building Services section of this report)

All building roofs contain a blue roof storage capacity and two Attenuation tanks are provided in locations as shown to hold and infiltrate captured storm water. The blue roof storage extends under all other roof finishes - Living roofs, plant areas or communal terrace pavements and planting. Refer to Engineer's Preliminary Drainage Strategy Drawing.



Blue roof detail

KEY	
	Blue Roofs
	Attenuation tank



Blue roofs and attenuation tank

5.37 Existing local play provision

KEY

	Site Boundary
	Allotments
	Recreational Green Spaces
	Park/Gardens
	Multi-Sports Pitches
	Golf Courses
	Rugby Pitches
	Cricket Pitches
	Archery Pitches
	Tennis Pitches
	Pool
	Cemetery
	Woodland
	Actual Walking Distance
	Playgrounds



5.38 Play strategy

KEY

<div></div>	0-5 Play (Doorstep)	854 m2
<div></div>	5-11 Play (Local)	555 m2
<div></div>	12+ Play	0 m2

Play space benchmarks used :
0-5yrs Play (Doorstep) - 10 sqm per child
5-11yrs Local Play - 10 sqm per child

Assessing child occupancy and play space requirements

Size of your development:

Number of FLATS

	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	46	50	40	0	0	136
Intermediate	0	0	0	0	0	0	0
Market	0	89	110	62	0	0	261
Total	0	135	160	102	0	0	397

Number of HOUSES

	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0
Market	0	0	3	0	0	3
Total	0	0	3	0	0	3

Proportion of children

	Number of children	%
Under 5	85	49%
5 to 11	55	32%
12+	32	19%
Total	173	100%

Play space requirements

GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sqm play space) required
10		853.9
10		554.4
0		0.0

* GLA benchmark standard=minimum of 10sqm of dedicated play space per child

** 5sqm - Borough's local benchmark



Play spaces - doorstep and local play

5.39 Play strategy - required areas

Open Space and Play

The site lies in close proximity to a number of open spaces and recreational facilities in the immediate area. Extensive open space and recreational grounds south of the canal can be readily accessed from the site and offer a variety of sporting facilities for the older children (12yrs +) from the site.

The preceding diagram indicates locations and travel distances from the site to each of these open spaces and details the facilities available at each location.

Site Play Provision:

Allocation has been made within each courtyard, including the public central space, for provision of play facilities and a playable landscape treatment incorporating a range of furniture and play elements for children aged from 0-11yrs. The designated areas (as recommended by SPG ‘Shaping Neighbourhoods: Play and Informal Recreation’) have been distributed across the site to suit current unit numbers and mix. (Refer diagram)

Doorstep Play:

- Required within 80M of all units front doors
- Age group (0-5 yrs)
- Climbable / balancing elements
- Playable landscapes
- Informal play in public spaces

This age group is fully catered for, at required 10 Sqm / child (854 Sqm) with on-site areas distributed through the courtyards as indicated.

Local Playable Space:

- Required within 400m of unit / site
- Age group (0-11 yrs)
- Recommended space based on child numbers (10 Sqm / child) – 555 Sqm

The design includes recommended space for this age group within the site (555 Sqm), distributed in private courtyards and common spaces, including the central public courtyard. In addition to this, some public playgrounds exist within proximity of the site as indicated on plan - at Raleigh Road (500m walk) and North Sheen Recreation Ground (550m walk) – just outside the recommended travel distances for this type of facility.

Neighbourhood Play:

- Required within 800m walk of the site
- Age Group (12 yrs +)
- Adventure playgrounds, Sport and recreation space – ball courts, pitches, MUGA fitness trails etc
- Provision recommended based on unit mix and numbers – 320 Sqm

No Neighbourhood Play Space is provided on site due to restrictions in available site area and the intent to cater for a more organised sports form of recreation for this age group, as well as casual gathering spaces and informal play activities.

Wider Context open space:

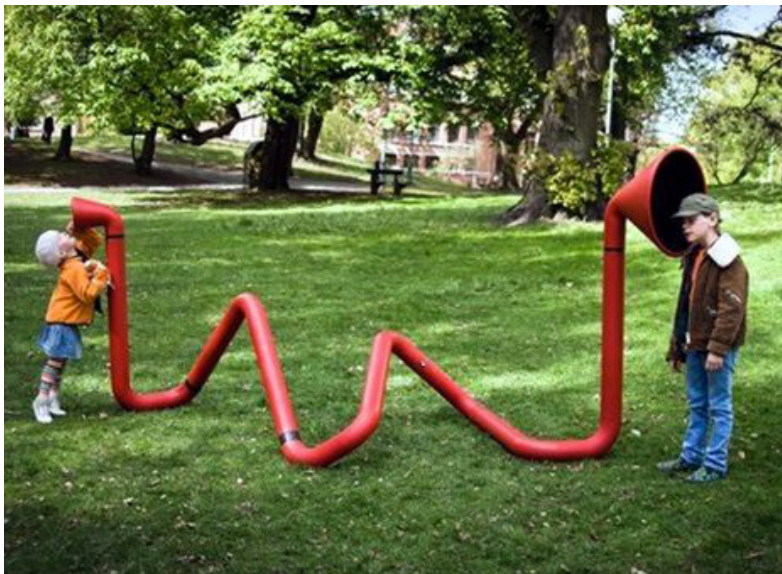
Consideration has been made of the existing available play and recreational facilities for older children (12 yrs +) in the local area and the Context Plan indicates existing facilities within the recommended travel distances for the site and the current recreational and play facilities included at each location. These facilities predominantly cater for older children (10yrs +) with organised sports and recreation (cricket, rugby, archery, golf, swimming classes etc).

It is considered that a wide range of facilities exist in the locality and these are generally accessible from the site via local streets, with proposed improvements to the existing cycle path network assisting in providing safer and easier access. Given the constrained nature of the site layout and the creation of a series of private courtyards wrapped by built form, the strategy for play is based on the following provisos and the current unit mix and numbers:

Existing facilities within the catchment of the site:

- Richmond Cricket/Archery/Tennis Clubs
- Richmond Green
- Little Green
- Old Deer Park Pool
- Richmond Athletic Association
- Richmond Rugby
- Royal Mid Surrey Golf Club
- Royal Botanic Gardens Kew
- Richmond Park

5.40 Play strategy - reference images





Introduction

Context

Design process

Design response

Landscape

6.0 Access

Appendices

6.1 Access principles

Inclusive design is about breaking down barriers and exclusion through creating places that everyone can use. It enables everyone to participate equally, confidently and independently in everyday activities. The term 'inclusive design' relates as much to the design process as to the final product and just as equally to management, operation and information, bonding user experience with professional expertise.

This section outlines the Access strategy for the proposed development on Manor Road, Richmond. It supports the drawings prepared for this planning scheme. The aim is to provide a clear description of how the users of the proposed development will access, and be guided through the building and the site, without discrimination or limitation. This Access section deals with the design, up to planning, and the aspirations of the design for its development and final realisation through the construction process.

39 (10%) of the residential apartments identified as wheelchair Part M4(3) units. Wheelchair apartments have been chosen at various floor levels throughout the development, accessible via two lifts, and provide a balanced mix of unit sizes and tenure. These apartments are designed specifically for ease of use for visually impaired, ambulant disabled and wheelchair bound residents.

6.2 Legislation, standards and guidance

Policies, legislation and guidance followed in the preparation of the Access Statement include:

- London Legacy Development Corporation planning policies on inclusive design and access and relevant housing policies
- Building Regulations: Approved Documents M 2015 and K 2013 (hereafter referred to as AD M and AD K)
- Technical Housing Standards- Nationally Described Space Standard March 2015
- Mayor of London Plan 2016
- BS 8300: 2009 + A1:2010
- Building Regulation Part B/BS 9999:2017
- The Human Rights Act 1998
- Equality Act 2010



6.3 Masterplan access principles



6.4 Access philosophy

6.4.1 Introduction

The development is easily accessible by foot, cycle, public transport and car.

Pedestrian approach:

The site is located on Manor Road, Richmond upon Thames.

Principle residential entrances, located at the bases of buildings A, B, C and D provide access to the development from the new public realm.

From here all building cores can be accessed. Entrances to the townhouses and duplex units are via the western access road or from the public realm.

The proposals include residents’ cycle and refuse stores, located adjacent to cores.

Public transport:

The closest train station to the site is North Sheen, which is located 150m to the south-east of the site where destinations such as Richmond, Chiswick, Wimbledon and London Waterloo can be reached directly.

The nearest bus stop to located on Manor Road (circa. 1 minute walk) which provides frequent services to Richmond town centre, Kingston, Twickenham, Barnes, Chiswick and Kew.

The site has a PTAL rating of 5.

Vehicular and cycle access:

The site will have surface parking along the access road, to the western site boundary. 12 wheelchair accessible parking spaces, alongside 2 car-club spaces, have been provided across the development with space allocated for an additional 19 spaces if required. These spaces have a 1200mm clear access zone to at least one side of the parking space. The parking spaces are level with a suitable ground surface.

A loading bay is provided adjacent to the concierge at the base of Building B. Servicing for the commercial units will happen from within the site boundary to alleviate pressure on the already congested Manor Road. Deliveries to the commercial units will need to be wheeled across the public square from the loading bay.

Vehicular access to this will be provided from Manor Road using the existing site entrance.

Secure internal cycle parking will be provided adjacent to entrance lobbies in blocks C and D and within a basement cycle store below block A. A small amount external cycle parking will also be provided within the public realm for visitors and for the commercial units.

Public Realm:

The public realm will be accessible to all as part of an inclusive design philosophy. Users with disabilities are not segregated and are able to move through the public realm and the buildings. They will use the same entrance, corridors and rooms as everyone else without detour.

Residential Access:

Where possible ground floor flats will have front door access from the street and new public realm to maximise activity at ground floor and to help animate the street. Every ground floor unit has dedicated defensible space to aid privacy and provide a buffer. To increase privacy to ground floor units most are raised off the ground and accessed via a couple of steps. In these instances level access is provided to the communal corridor via the back of the flat.

The entrances to all buildings and apartments have been designed and located in such a manner as to make them obvious and easily accessible from the public realm. This is the same for disabled access. All shared residential lobbies and entrances are large spaces with secure post boxes and are located in prominent positions on plan.

All entrances are designed to provide level access from the public realm, as required by Part M, with a clear open space in front of the doors. This accessible approach leads to a level entry threshold and to the internal lobby. A slip resistant material for this walkway will be provided. The routes to the entrance, from the public footpath, will be well lit.

A similar approach is applied to the entrances of all no residential uses. Access to the elevated terrace spaces is via apartment cores. Access to the play spaces and communal gardens is via well designed and overlooked paths to help forge a legible and secure environment for residents.

Concierge:

A 24hr concierge will be present in the base of Building B within the main entrance lobby. The position on site allows surveillance of the surrounding buildings and new public square.

Post will be delivered to individual post boxes located on the ground floor of each core entrance. Larger packages will be delivered to the concierge and stored accordingly.

External landscaping:

A series of amenity spaces are provided throughout the scheme, some with public access, some semi-private and some for residents only. The terraces of the link blocks at the upper levels will be landscaped as amenity space for residents to enjoy, offering more privacy and security than at ground level.

The hard and soft landscape design is based on a strategy to ensure ease of long-term maintenance and management. Practical considerations will include the use of durable, non-slip hard landscape materials, benefitting not only disabled, but older people and children too.

The provision of direct routes between well-used locations, regular placement of seating and resting points along paths, the use of quality tactile and textured surfaces, contrasting colours, appropriate lighting and signage will be utilised to aid navigation around the site. Visual clutter and obstructions will be minimised, where possible.

See Landscape and public realm section of this document for all details regarding hard and soft landscaping materials and design.

Surface materials:

The entire public realm will be accessible, with the pavement textures selected in order to balance the needs of wheelchair users (who require a low resistant surface) with the needs of crutch and stick users (who require more purchase during wet weather).

The key principles for the palette of considered surface materials will include the following:

- A visual contrast in colour between the pedestrian and vehicular access
- Tactile paving defining pedestrian and vehicular areas
- Surfacing designed to aid way-finding

Surface textures:

Manual wheelchairs require smoother surfaces to move across. The more tactile the surface, the harder it is for the user. Counter to this is the need for ambulant disabled people to gain some purchase for their sticks or crutches.

Where footpaths and road surfaces are flush, careful consideration of the transition between the two needs to take place. Flush transitions cause guide dogs difficulty in sensing the change in condition.

One proposal is a change in pavement colour mix, used to give the appearance of a level surface whilst defining the public and private realm.

Width/gradient to footways:

Pedestrian routes will follow desire lines as much as possible; footpaths will be of a suitable width as to allow users at all mobility levels to pass comfortably, including wheelchair uses and adults with children. Street furniture such as directional signs, lighting and seating will be located just off the perimeter of the access routes to minimise obstructions. All signage will be colour contrasted.

Where required, ramps have been used in favour of steps when changes in level are required, avoiding segregation of users with disabilities and allowing access for wheeled vehicles. All external ramps within the public realm are of a gradient no steeper than 1:20.

Landings will be provided along all long lengths of steps or ramps to allow resting points. Hand rails are provided to all ramps and steps where required to provide support and guidance. They will be colour-contrasted to make them easily visible, easy and comfortable to grip and they will have no sharp or protruding edges and will be located at the correct height (900mm) and will extend for 300mm.

Cross falls to footpaths:

Cross falls are important on footpaths to move standing water to the edges, stopping ice from forming on cold days. The need for this surface drainage must be balanced with the difficulty a manual operated wheelchair has moving across a cross fall. The design of the footpaths around the site have minimal cross fall to balance both needs.

External street lighting & CCTV:

A balanced level of lighting has been considered. This will be designed to avoid strong contrasting pools of light and silhouette. The lighting design supplied will be of a safe and comfortable illumination level, assisting access and improving security.

Routes across the site will be lit in accordance with BS 5489 and CIBSE Standards, subject to planning. The spread of light will be even and the lamp type chosen will provide a light with good colour rendering properties. Timing controls will be introduced to allow the switching off of certain parts of the lighting at key times to save energy and discourage use at night close to residential areas. Key entrances to the buildings, will remain illuminated.

All open spaces such as the podium and other accessible areas within the development will be illuminated at both high and low levels at the appropriate lux figure for their contextual setting.

Please refer to the Lighting design masterplan and report, which has been prepared by Hoare Lea.

Plant and Utilities:

The majority of the plant will be located on the roof tops, and will be accessible via a roof hatch. High parapets or balustrades will provide protection during maintenance of this plant. Plant replacement will be via the roof hatch and cores.

Additional plant rooms are located on the ground floor and within a basement, the majority of these are accessed along the service road along the western site boundary. Lifts from the basement are also located along this access road.

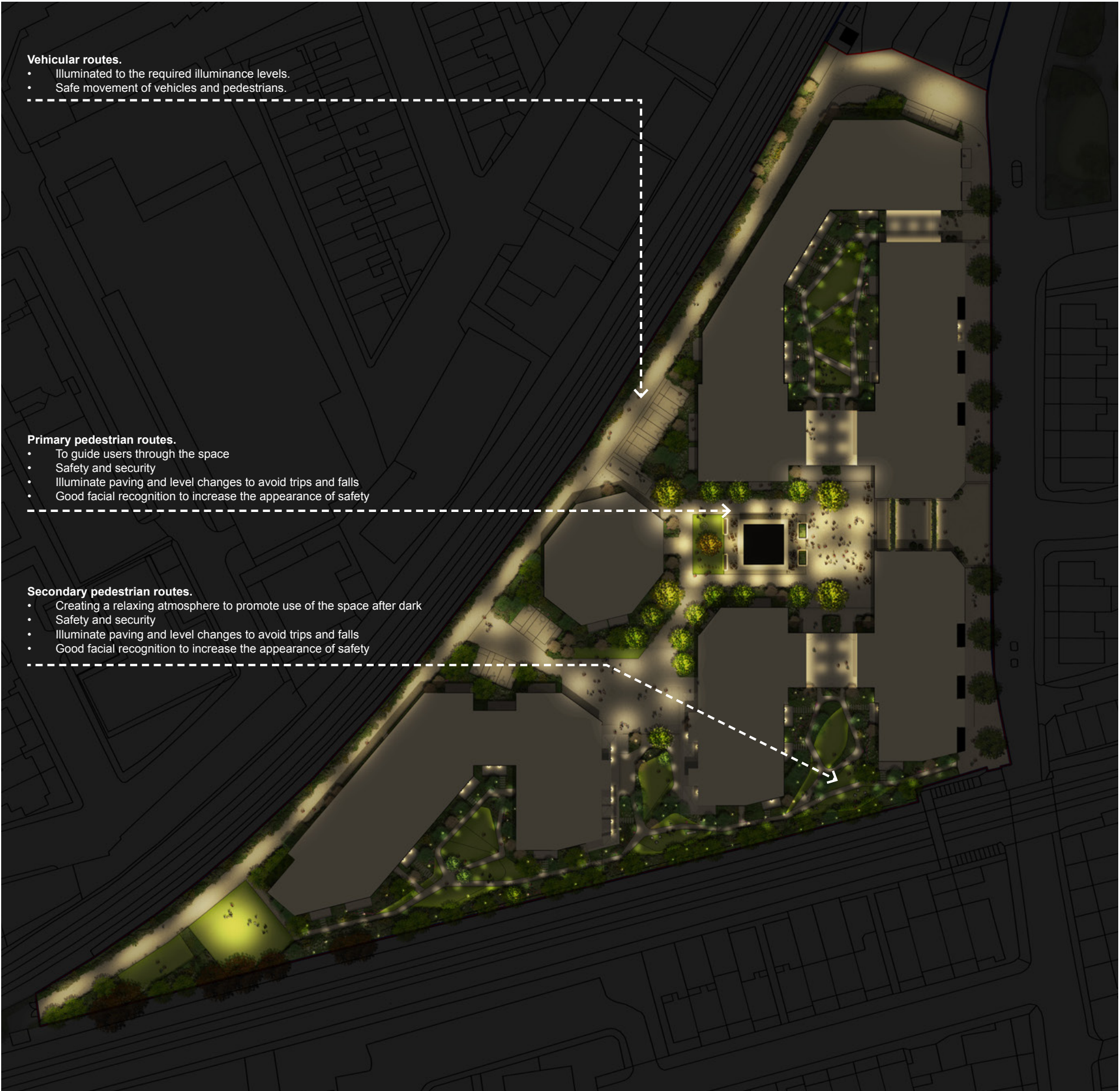
Refuse:

Bin stores for each block are located adjacent to cores and within 30m of flats as per Approved Document H. For private apartments there will be a managed refuse solution on site and refuse will be moved and stored within a central refuse store in the basement below block A. A refuse holding area is located along the access road near the vehicular entrance to the site.

Access for refuse vehicles is via the access road to the western site boundary. Refuse stores and holding areas are located not more than 15m from the collection points.

Appropriate space has been allocated for waste and recycling within properties.

Please refer to the Waste management strategy, which has been prepared by Momentum.



External lighting strategy for main part of site. Image from Hoare Lea's external lighting report.

6.5 Building environment

The buildings are set within a hard landscaped environment at street level. There are level changes across the site where ground floor units have been raised 900mm above ground. This will be accommodated at street level by steps up to front doors of ground floor units and the use of ramps of very shallow gradients integrated into the landscape design. A level threshold is provided to all commercial units.

Level access is provided to all residential apartments and each building has its own private entrance with level access from the street. Roof level external amenity space is provided, which is only accessible by residents.

6.6 Building and structures

Materials

The proposed materials have been specified (using Part M specifications) to contrast tonally with the ground finishes, enabling people with visual impairments to identify building boundaries.

Construction

The design follows a simple concept based on the clarity of the overall structure of the building. Slab levels have been set to ensure that the structure will not impose restraints upon individuals using and moving through the building, including ensuring obstructions are avoided in pedestrian/common areas and that level access can be provided throughout.

Internal floor surfaces

The floor finishes will contrast tonally with the walls and will be of a non-slip. Finishes will be contrasting in the vertical and horizontal situations. Floor surfaces will not be overly resistant to wheelchair users, but will aid crutch users in gaining purchase. As well as this, floor finishes will be of a robust and durable nature.

Entrances

Each building provides a correct transition from outer spaces to inner spaces to all users. The approach to the buildings will be well lit and obvious.

Transition to internal

The entrances will have manifestation to identify them, and the frames will be of a strong tone or colour to visually separate them from the surroundings. Entrances will be appropriately lit. The main entrance doors are designed to comply with relevant legislation in terms of minimum width opening and closing and the thresholds will be level.

Opening windows and projections on public routes

Obstructions at head height can be dangerous to the visually impaired. All opening windows and projections have been minimised within the design. Where they can't be removed completely, vegetation has been provided at ground floor to notify people of the potential for window opening. Where possible, outward swinging doors are avoided and, where required due to fire escapes, they will be marked by blistering, vegetation or bollards.

Steps and ramps

All steps, stairs and ramps have been designed to comply with Approved Document Part M 2015 and BS 8300:2009. This includes tread, risers, handrails, lighting and nosings.

Door design

All doors of the scheme, both manually operated or automated, are compliant with Approved Document Part M 2015 and BS 8300:2009 according to different uses and users of the buildings, specifically in relation to vision panels, weight, colour, door ironmongery and use of materials.

To meet the requirements of Approved Document Part M, door closer tensions will be set to a maximum of 20N. The clear opening widths of all doors in common areas are a minimum of 850mm and there will always be 300mm nib on the leading edge of a door.

Movement within buildings

This key subsection relates to the internal circulation within each building, considering specific needs of disabled people.

The buildings are accessed via horizontal corridors. Vertical circulation is via lifts in the cores, and ambulant disabled stairs.

Provision of lifts:

All lifts, in all buildings, are designed to comply with Approved Document Part M and BS 8300:2009, including size, internal materials, door opening width, and operating apparatus.

Stairs:

Stairs comply with Approved Document Part M and BS 8300:2009 in terms of widths, treads, risers, hand rails, nosings, top and bottom surfaces, landings and finishes.

They have also been designed for ambulant disabled, including the fire escape stairs.

Corridor and lobby design:

All corridors within the buildings comply according with their specific uses and with Approved Document Part M in terms of size, lighting, materials, signings, doors and colours etc.

There are no changes in level to any corridors and width is consistent. Vision panels in corridor doors will be designed to allow people both seated or standing to be seen.

Pull handles will only be fitted on the pull side of doors and fingerplates will be fitted on the push side. This assists all users, but especially people with learning difficulties and people with visual impairments. Handles will not extend down to floor level since this type of handle can become caught in the footplates or wheels of a wheelchair.

There is adequate space between lobby doors for a wheelchair user to clear one door before opening the next.

6.7 Means of escape

Design for independent means of escape

All features and materials comply with Approved Document Part B (2013). In addition, a management plan will be prepared for the evacuation of the buildings together with the preparation of a Personal Egress Emergency Plan.

With residential buildings, it is encouraged that, in the case of fire, inhabitants stay in their apartments. Each apartment has a 60 minute fire rated compartment surrounding it, to ensure that residents are protected from the source of the fire.

Facilities for physical evacuation

The escape routes, horizontal and vertical, meet the minimum widths to comply with ambulant disabled requirements. Escape stairs meet ambulant disabled goings and risings. Disabled refuge provision is made, where required. At upper residential levels no refuge has been allowed for, as the fire strategy is for people to remain in their apartments while the fire brigade deal with the fire.

Together with the Fire Alarm System, and the Personal Egress Emergency Plan, the buildings are designed to provide, according with their different uses, safe evacuation routes in the case of emergencies.

Please refer to the Executive Fire Strategy Summary, which has been prepared by Hoare Lea.

6.8 Signs and way finding

External signage

The signage strategy for the development will follow good practice guidelines, such as the “Sign Design Guide”. All signage will be contrasting and designed for those with learning difficulties or visual impairments.

Internal signage

All the buildings according to their uses are designed to enable clear signposting and a messaging system complying with the Sign Design Society Guidance.

All internal signs to communal areas will be clear, with contrasting symbols, and with braille translations to help the visually impaired. All signage will be located in obvious locations and will be well lit.

The use of differing tactile materials

A palette of tactile handrails/support rails showing directions of travel to the nearest fire exit have been considered through the design of each building.

The layout of the buildings

The clear layout of the building, generally arranged with a sequence of entrance/ lobby/lift/stair core/corridors, allows a simple circulation throughout and between the floors. A readable structure and shape provides an easy indication to distinguish different uses within the site.

6.9 Secure by Design

The scheme has been designed to encourage passive surveillance from surrounding residential buildings to overlook entrances and pedestrian routes within the site.

Through discussions with the local Design Out Crime Officer the scheme has evolved to allow for the following:

- Limit number of units accessed from cores
- Central concierge position to provide surveillance to the new areas of public realm
- Residents courtyards to have fob access gates
- Bins to have secondary locking door
- Bikes to have one opening door
- Lighting design will be sensitive to wayfinding and antisocial behaviour and switched off to discourage rough sleeping.
- Allow for retrofitting of CCTV to lampposts

All design will be carried out with the Secured By Design New Homes 2010 design guide in mind.

Discussions also covered the south-western tip of the site which was highlighted as an area which may be susceptible to anti-social behaviour. This area of the site benefits from passive surveillance from apartments in block C and can only be accessed by the public via public realm adjacent to the concierge office. Additional external lighting has been included in this area to provide an added level of security.

6.10 Accessible & adaptable dwellings

The location of the wheelchair user dwellings have not yet been defined. However the oversized units on the scheme would typically be allocated as wheelchair user dwellings.

90% of the units across the site will be M4(2) wheelchair accessible and adaptable dwellings the remaining 10% meet M4(3) criteria for wheelchair user dwellings.

The units highlighted in pink on the adjacent typical plan show the over-sized units and potential wheelchair adaptable and accessible dwellings.

6.11 Accessible and Adaptable Dwellings- Part M4(2) compliance

The following section demonstrates compliance with the criteria set out by M4(2). Listed below are the criteria for compliance with Part M4(2) which is followed by supporting annotated drawings.

M4 (2) Section 2A: Approach to the Dwelling

6.11.1 Approach Routes

General

The approach route to all dwellings is level with some ground floor units benefitting from an additional private entrance via a series of external steps. Communal parts of the approach route (except communal stairs) have a minimum clear width of 1200mm. All parts of the external approach routes will have a suitable ground surface.

External and internal ramps forming part of an approach route
All ramps comply with diagram 2.1, have a top and bottom landing of the minimum width required and have a clear width of at least 1200mm.

6.10.1 Car parking and drop-off

Parking space

Parking spaces are located along the access road to the back (western edge) of the site. Each parking space has a clear access zone of 1200mm to one side.

Drop-off point

The drop off point is close to the principle communal entrance in building D and is level with a suitable ground surface.

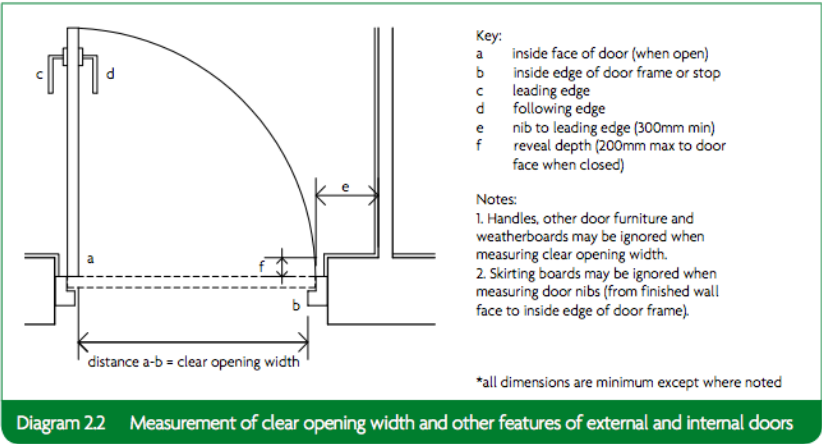
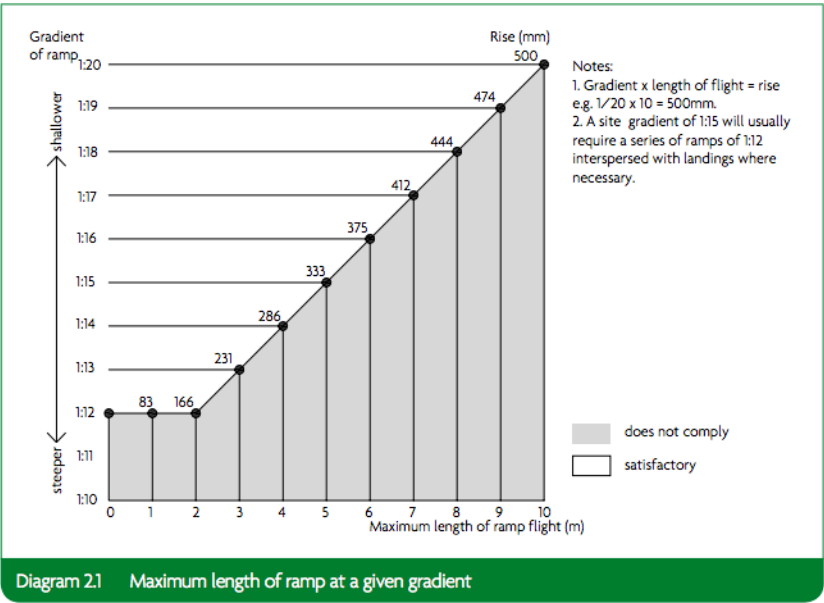
6.10.2 Communal Entrance

Principal Communal Entrances

The principle communal entrance has a level landing 1500mm x 1500mm directly outside and clear of any door swing. This will be covered to a minimum of 1200mm width and 900mm depth. Lighting will use fully diffused luminaires that are activated automatically by a dusk to dawn timer or a motion detector. The entrance door (including double doors) has a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2. Door entry controls will be mounted 900-1000mm above finished ground level, and at least 300mm away from any projecting corner.

Other communal doors

All other communal doors have a minimum clear opening width of 850mm, and a 300mm nib will be provided to the leading edge of the door, in accordance with diagram 2.2. Door entry controls will be mounted 900-1000mm above finished ground level, and at least 300mm away from any projecting corner.



6.10.3 Communal Lifts and Stairs

Communal lifts

2no. 13 person lifts (of which 1no. is a fire fighting lift) with a car size of 1600mm wide and 1400mm deep inside are provided to buildings B, C, D and E, and 2no. lifts are provided to building A. Each lift has a clear landing of 1,500mm x 1,500mm directly in front of the lift door at every floor level, a door clear opening width of at least 800mm and meet BS EN 81-70:2003. Landing and car controls will be 900-1200mm above the car floor and a minimum of 400mm from the inside of the front wall.

Communal stairs

Each building is served by 1 communal stair core which meets the requirements of Approved Document Part K for a general access stair. Additional escape stairs are provided from the podium amenity levels, which will also meet the requirements of Approved Document Part K.

6.10.4 Private entrances

Principal private entrance and alternative entrance

The principle private entrance to each apartment will have a level landing 1200mm x 1200mm directly outside. This will be covered to a minimum of 900mm width and 600mm depth. Lighting will use fully diffused luminaires that are activated automatically by a dusk to dawn timer or a motion detector. The entrance door (including double doors) has a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2.

Other external doors

All other doors connected to the dwelling will have a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2.

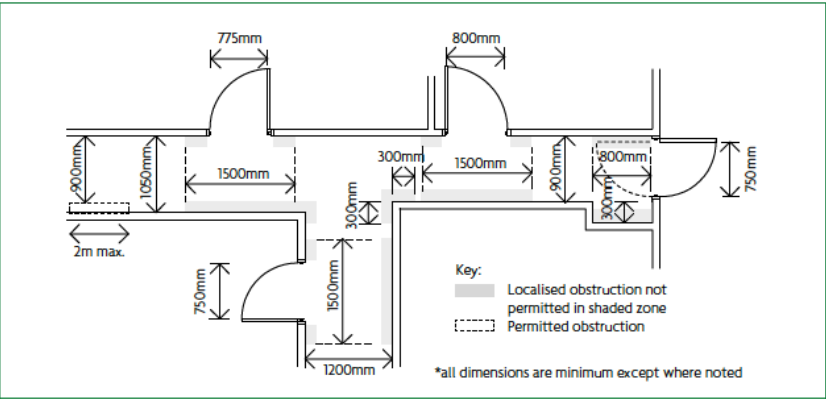


Diagram 23 Minimum door and hall widths and restrictions on localised obstructions

6.11.2 Circulation areas and Doorways

Door and hall widths

The minimum clear width of every hall or landing is 900mm. Localised obstructions will not occur opposite or close to a doorway and the corridor will not be reduced below 750mm width at any point. The clear opening widths will conform to those set by Approved Document M and a 300mm nib will be provided to the leading edge of every door within the entrance storey.

Private stairs and changes of level within the dwelling

Access to all rooms and facilities within the entrance storey will be step-free, with no level changes. The stair from the entrance storey to the storey above will have a minimum clear width of 850mm when measured above the pitch line of the treads. All stairs meet the provisions of Part K for private stairs.

6.11.3 Habitable rooms

Living, kitchen and eating areas

Within the entrance storey of all units there is a living area. A minimum of 1200mm clear space is provided in front and between all kitchen units and appliances.

Bedrooms

Every bedroom has a clear access route, minimum of 750mm wide from the doorway to the window, and at least one double bedroom will provide a clear access zone a minimum of 750mm wide to both sides and the foot of the bed. Other double bedrooms have a clear access zone a minimum of 750mm wide to one side and the foot of the bed.

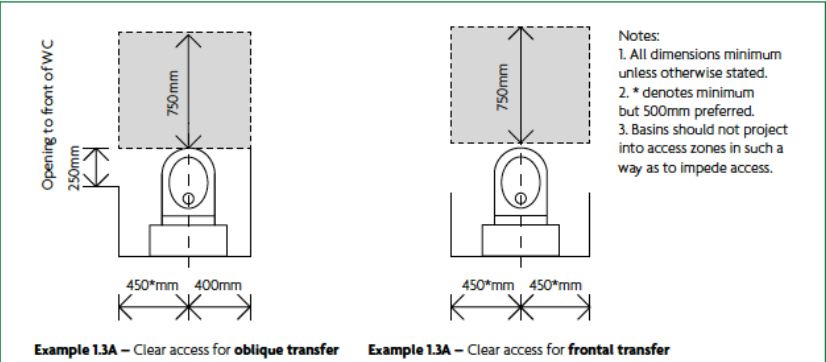


Diagram 13 WC access zones

6.11.4 Sanitary facilities

General provisions

All walls, ducts and boxing to the WC/Cloakroom, bathroom and shower rooms will be strong enough to support adaptations that could impose a load of up to 1.5N/m2.

WC facilities on the entrance storey

Every dwelling will have a room that provides a WC and basin on the entrance storey. In two storey dwellings, with one or two bedrooms, the WC meets the provisions of diagram 1.3 and the basin does not impede access to the WC.

In two storey dwellings with three bedrooms, the room with the WC and basin provides a potential level access shower.

The door to the WC will open outwards.

Bathrooms

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

6.11.5 Services and controls

Consumer units will be mounted so that the switches are between 1350mm and 1450mm above floor level. Switches, sockets and controls will have their centre line between 450mm and 1200mm above floor level and a minimum of 300mm from an inside corner.

The handle to at least one window in the principle living area is located between 450mm and 1200mm, or a remote opening device will be fitted. Handles to other windows will be located between 450mm and 1400mm above floor level, or a remote opening device will be fitted.

Boiler controller will be mounted in an accessible location between 900mm - 1200mm above finished floor level.

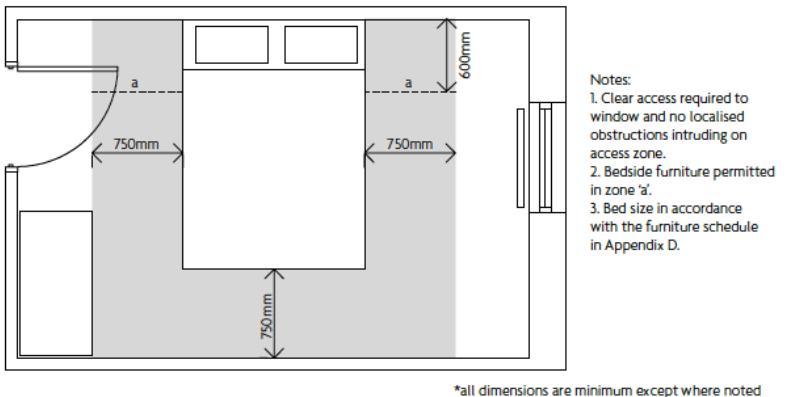
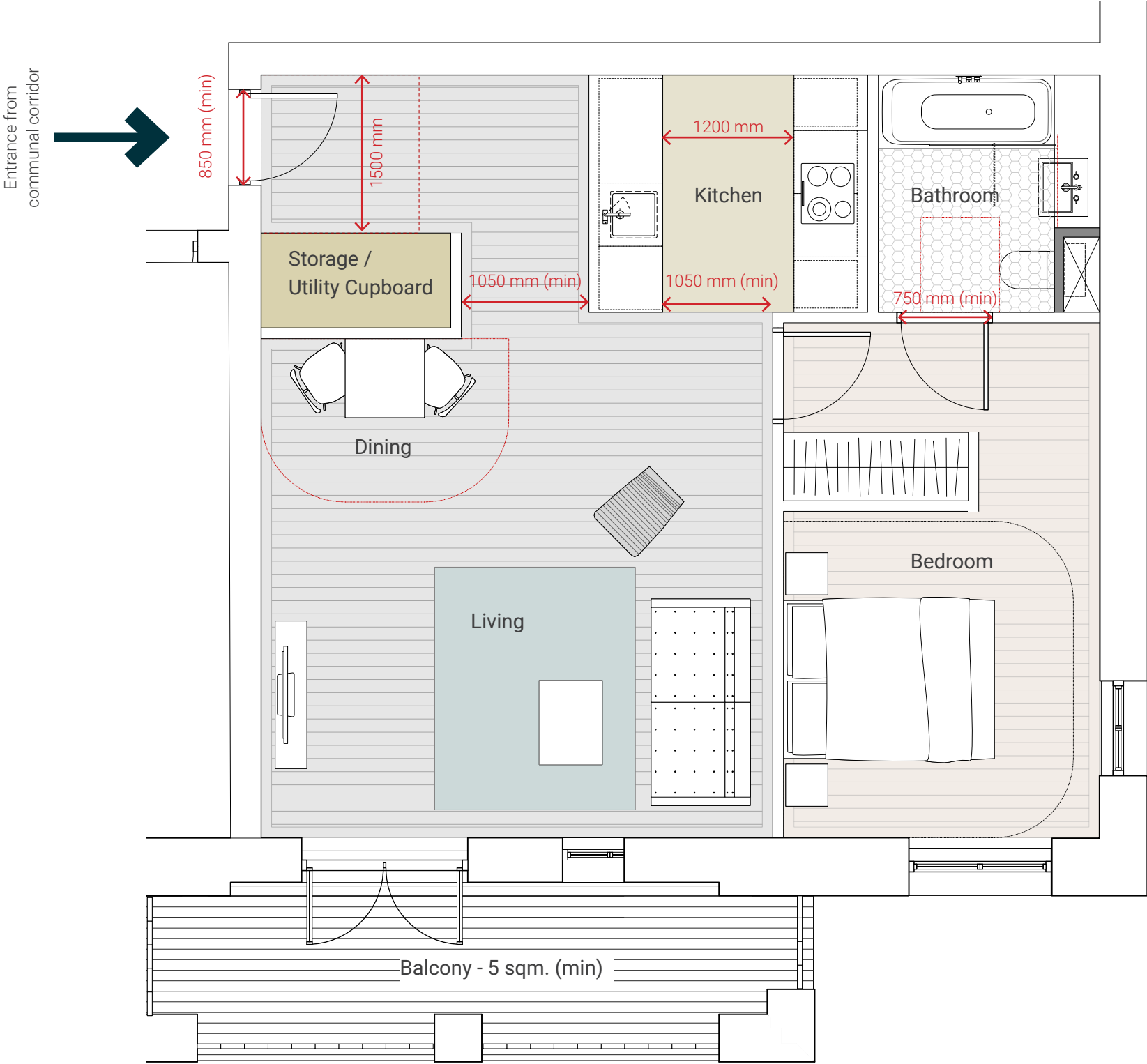
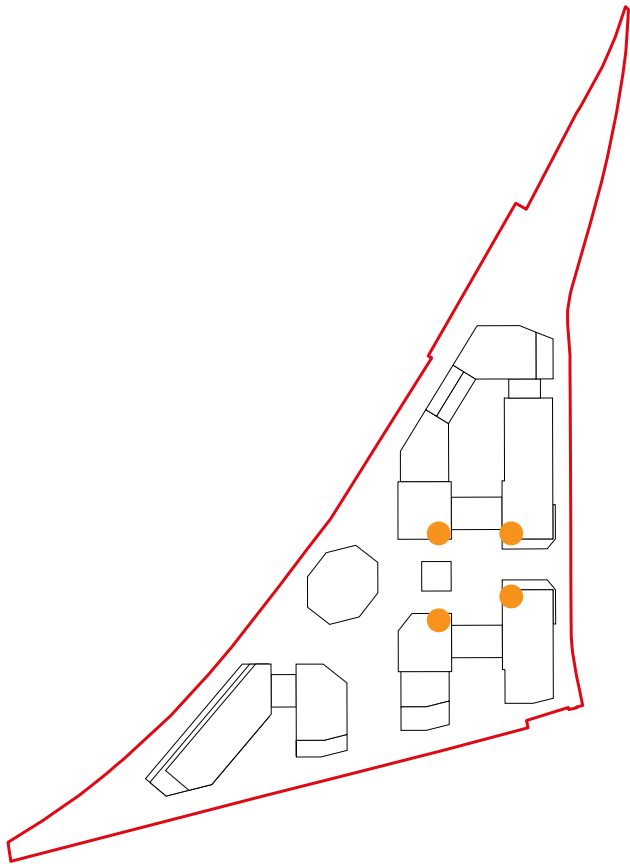


Diagram 24 Clear access zones to principal bedroom

6.12 Typical M4(2) flat layouts

6.12.1 Typical M4(2) 1 bedroom flat

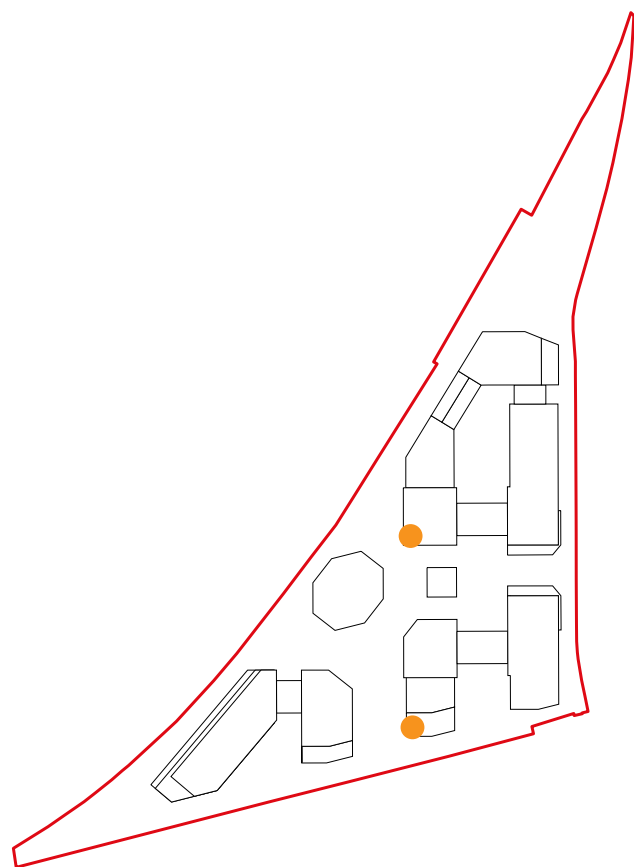
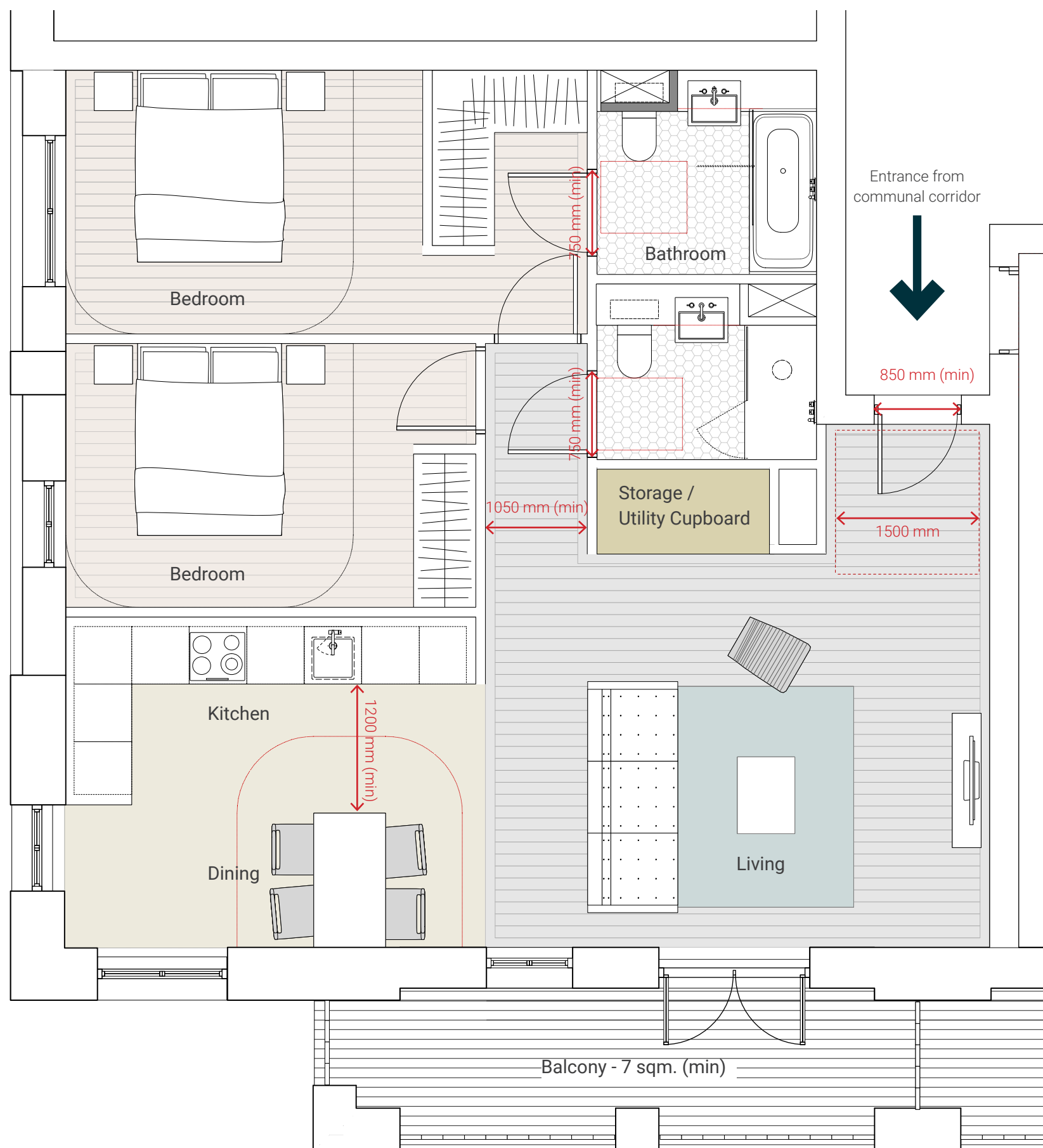
- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 3.6m



1 bedroom M4(2) apartment. Scale 1:50 @ A3

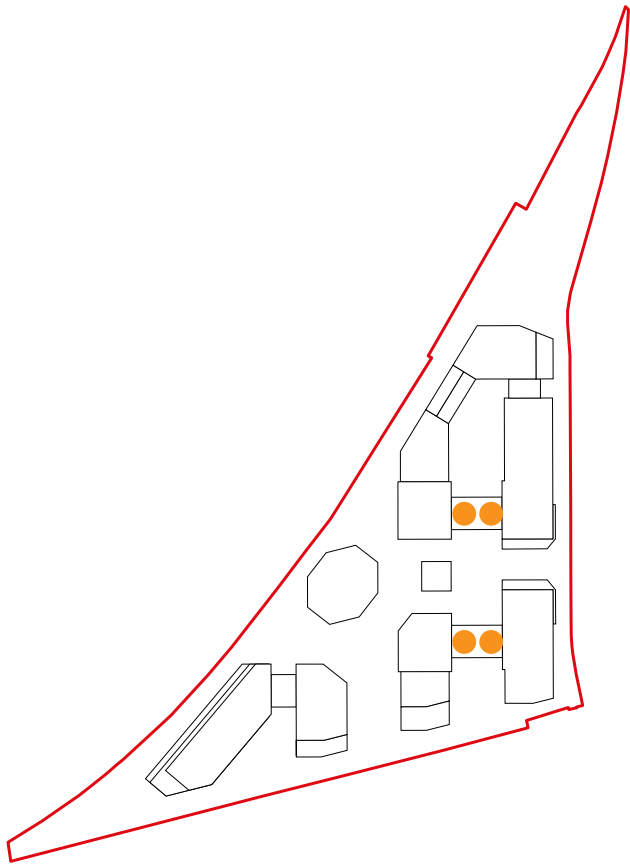
6.12.2 Typical M4(2) 2 bedroom flat

- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 4.2m



6.12.3 Typical M4(2) 3 bedroom flat

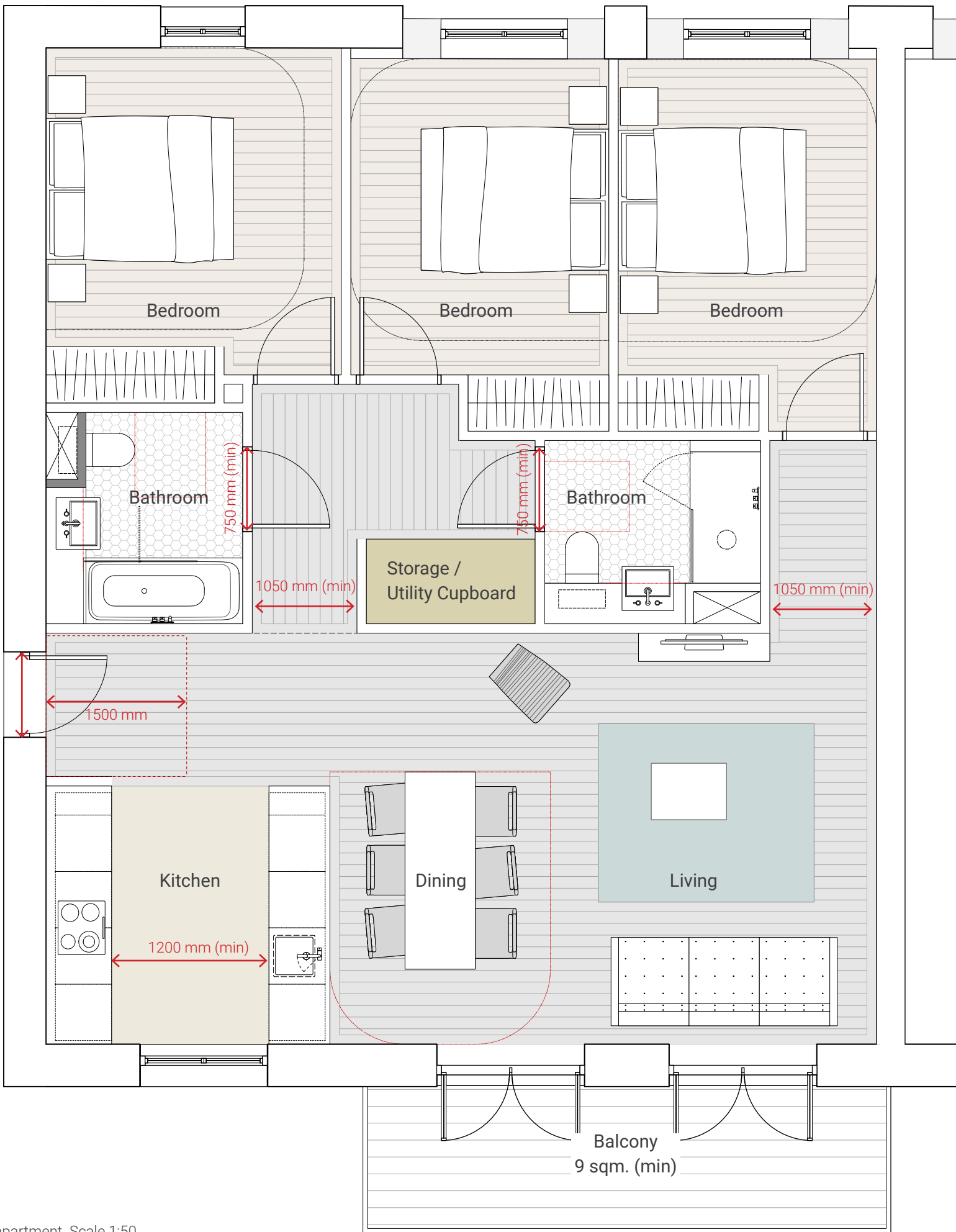
- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 4.5m



Entrance from
communal corridor



850 mm (min)



3 bedroom M4(2) apartment. Scale 1:50

6.13 Part M4 (3) ‘Wheelchair user dwellings’

To be read in conjunction with individual unit type plans.

10% of the residential dwellings will comply with Approved Document Part M4(3) of the Building Regulations., in line with RBRuT policy:

10% of all private for sale units in the development to comply with Building Regulations requirement M4(3)(2)(a) ‘wheelchair adaptable dwellings’.

10% of all social rented units in the development to comply with Building Regulations requirement M4(3)(2)(b) ‘wheelchair user dwellings’.

The following section covers the specific requirements of M4(3).

Storage

Each wheelchair dwelling layout provides a wheelchair storage (1,100mm x 1,700mm) and transfer space with a clear width of at least 1,200mm.

Storage is provided in accordance with the minimum areas given.

No wheelchair dwellings are multi-storey and as such no provision is required for a through-floor lifting device.

Living, kitchen and eating area

All apartments are single storey therefore the principal living area is on the entrance storey and the minimum internal floor area of the living room, dining room and kitchen meets the figures in table 3.2. The glazing system features a transom that is no higher than 850mm above floor level.

Each wheelchair dwelling features an open plan living, dining and kitchen arrangement and the kitchen has a clear access zone of 1,500mm in front and between all unit and appliances.

The (adaptable) dwellings have worktop runs in accordance with table 3.3 and the layouts demonstrate how the kitchen could be easily adapted to meet the provisions of wheelchair accessible requirements at a future date without significant structural alterations or impact upon the rest of the dwelling.

The accessible dwellings have the full run of worktops required, as stated in table 3.4. The worktop incorporates a 2200 mm minimum continuous section which includes a combined sink, drainer unit and hob. This section is either a height adjustable worktop or a fixed section capable of being fixed at various heights as required.

Bedrooms

Every bedroom provides a 1000mm wide clear access route from the doorway to the window. Every bedroom has a 1,200mm x 1,200mm manoeuvring space inside the doorway but clear of the bed and closed door. The principal double bedroom has a minimum floor area of at least 13.5 sq. m and a minimum width of at least 3m. The principal bedroom also has a clear access zone 1,000mm wide to both sides and the foot of the bed and 1,200mm x 1,200mm manoeuvring spaces on both sides of the bed.

Every other double bedroom has a minimum floor area of at least 12.5 sq. m, a minimum width of 3m and a 1,000mm clearance zone to one side of the bed and in front of all furniture. Every other single bedroom has a minimum floor area of at least 8.5 sq. m, a minimum width of 2.4m and a 1,000mm clearance zone to one side of the bed and in front of all furniture.

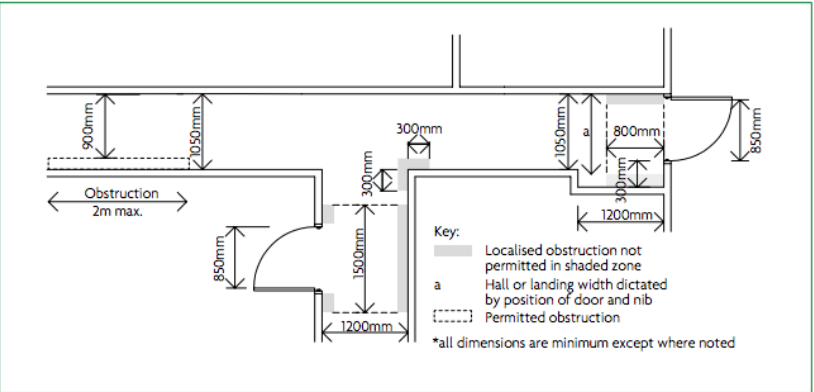


Diagram 3.4 Minimum door and hall widths and restrictions on localised obstructions

Table 3.2 Minimum combined floor area for living, dining, and kitchen space							
Number of bedspaces	2	3	4	5	6	7	8
Minimum floor area m²	25	27	29	31	33	35	37

Table 3.3 Minimum length of kitchen worktop, including fittings and appliances, to be fitted at completion for a wheelchair adaptable dwelling				
Number of bedspaces	2	3 & 4	5	6–8
Minimum worktop length (mm)	4330	4730	5630	6730

Table 3.4 Minimum length of kitchen worktop, including fittings and appliances, to be fitted at completion for a wheelchair accessible dwelling				
Number of bedspaces	2	3 & 4	5	6–8
Minimum worktop length (mm)	6130	6530	7430	8530

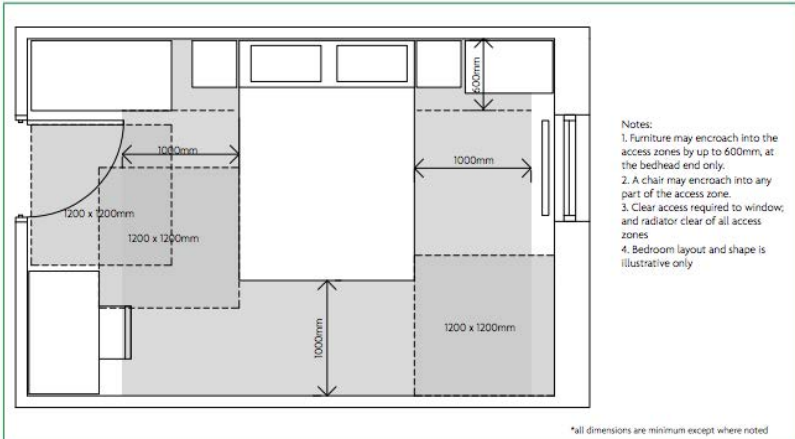


Diagram 3.9 Clear access zones and manoeuvring spaces to principal bedroom

Sanitary facilities

All wheelchair dwellings meet the requirements of table 3.5.

Every wheelchair dwellings provides a wet room on the entrance storey which contains a WC, wash hand basin and installed level access shower and features an outward opening door.

The (adaptable) dwellings have bathrooms which comply with diagram 3.10 and can be easily adapted in future to become wheelchair accessible.

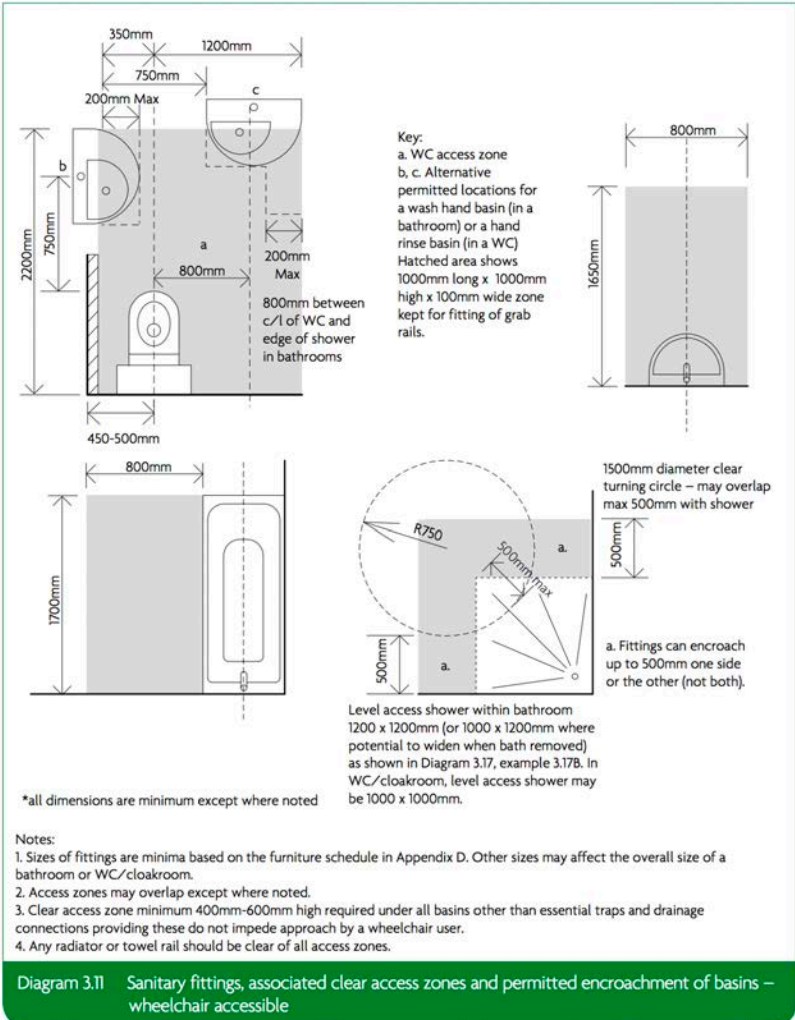
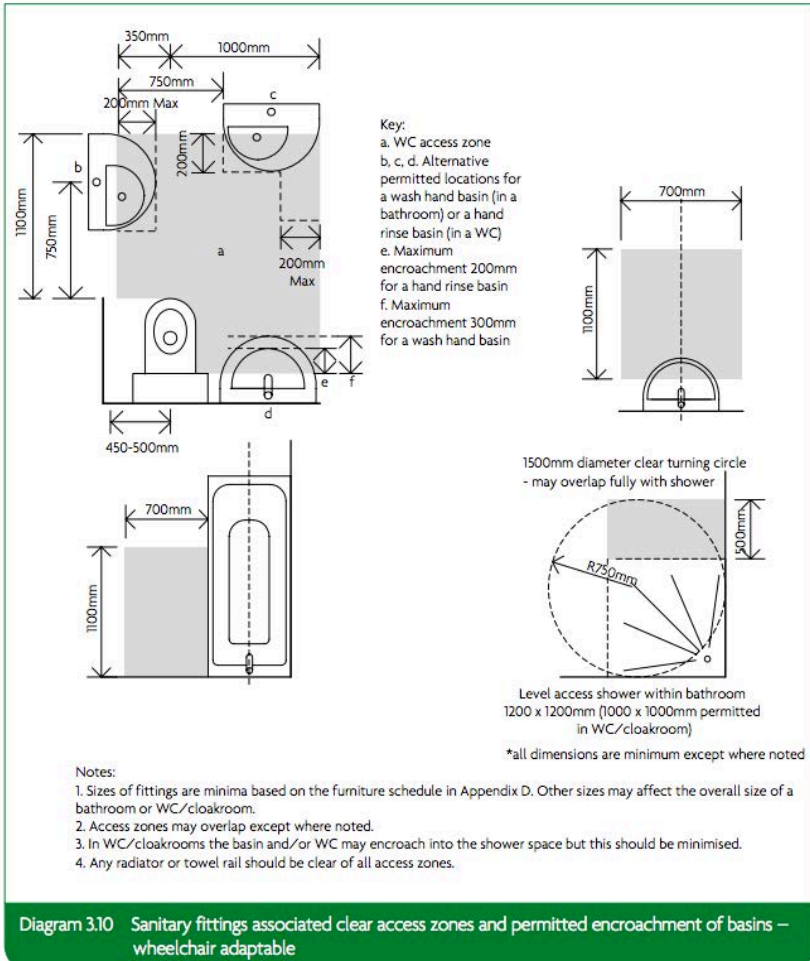
The (accessible) dwellings have bathrooms which comply with diagram 3.11.

All 2 and 3 bedroom apartments have a principle compliant bathroom and a separate compliant en-suite for the master bedroom, with outward opening doors.

All principle bathrooms and en-suites provide a minimum 1500mm clear wheelchair turning circle. This applies to both adaptable and accessible units.

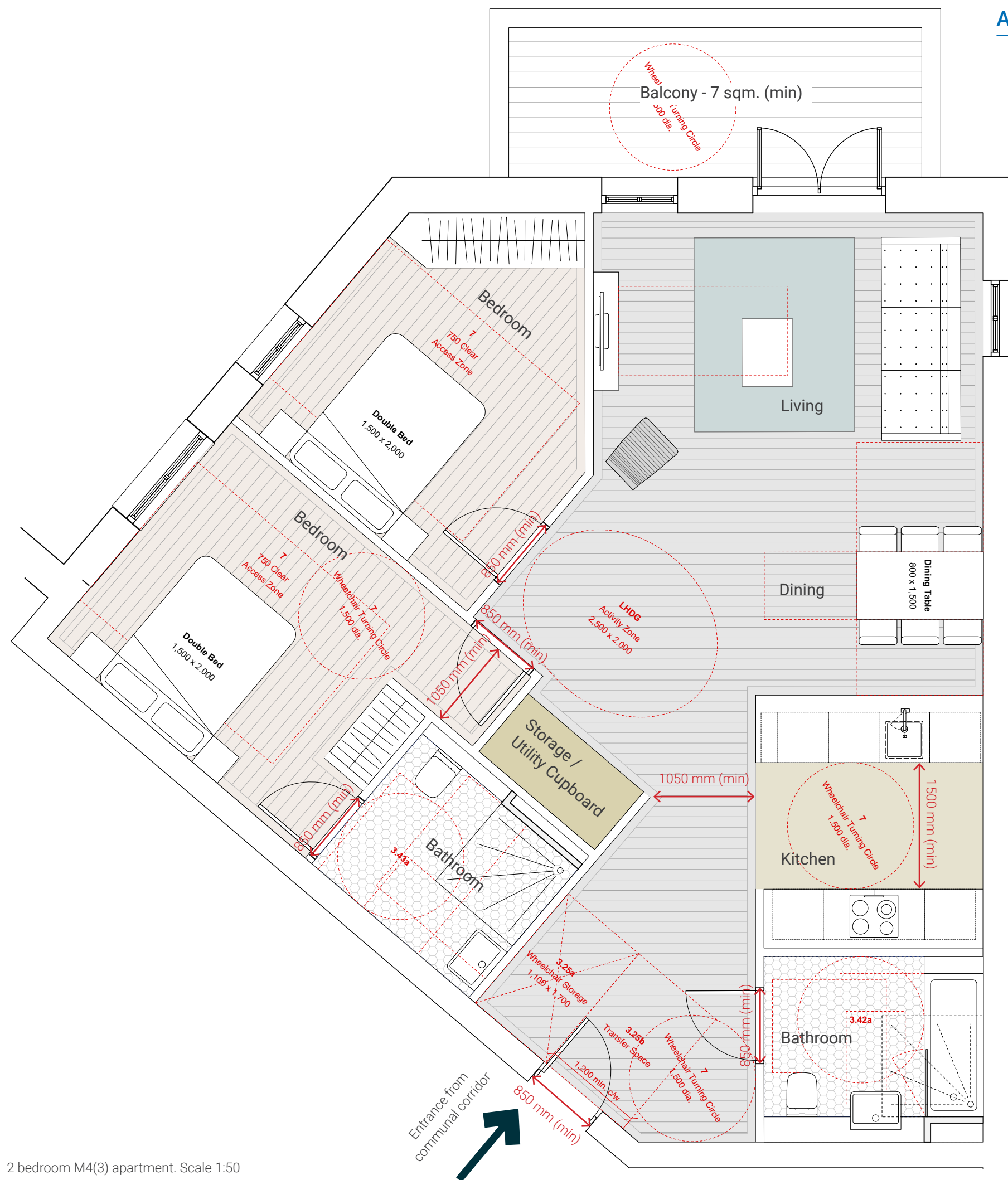
Table 3.5 Summary of minimum requirements for sanitary provision in typical dwelling types (dwellings should also comply with relevant detailed requirements set out in paragraphs 3.36-3.43)

Single storey dwelling (typically a flat or bungalow)	
Occupancy	Typical minimum sanitary provision
2 or 3 bedspaces	Bathroom with level access shower
4 bedspaces	Bathroom with level access shower and separate WC/cloakroom
5 bedspaces or more	Bathroom with level access shower and separate WC/cloakroom (or second bathroom). Wheelchair accessible dwellings must also provide both a level access shower and a bath
Two or three storey dwelling (typically a house or maisonette)	
Occupancy	Typical minimum sanitary provision
2 or 3 bedspaces	Bathroom with level access shower on same level as principal bedroom + entrance storey WC/cloakroom (where bathroom not on the entrance storey)
4 bedspaces	Bathroom with level access shower on same level as principal bedroom and entrance storey WC/cloakroom or second bathroom
5 bedspaces or more	Bathroom with level access shower on same level as principal bedroom and entrance storey WC/cloakroom or second bathroom. Wheelchair accessible dwellings must also provide both a level access shower and a bath



6.13.1 Typical M4(3) 2 bedroom flat

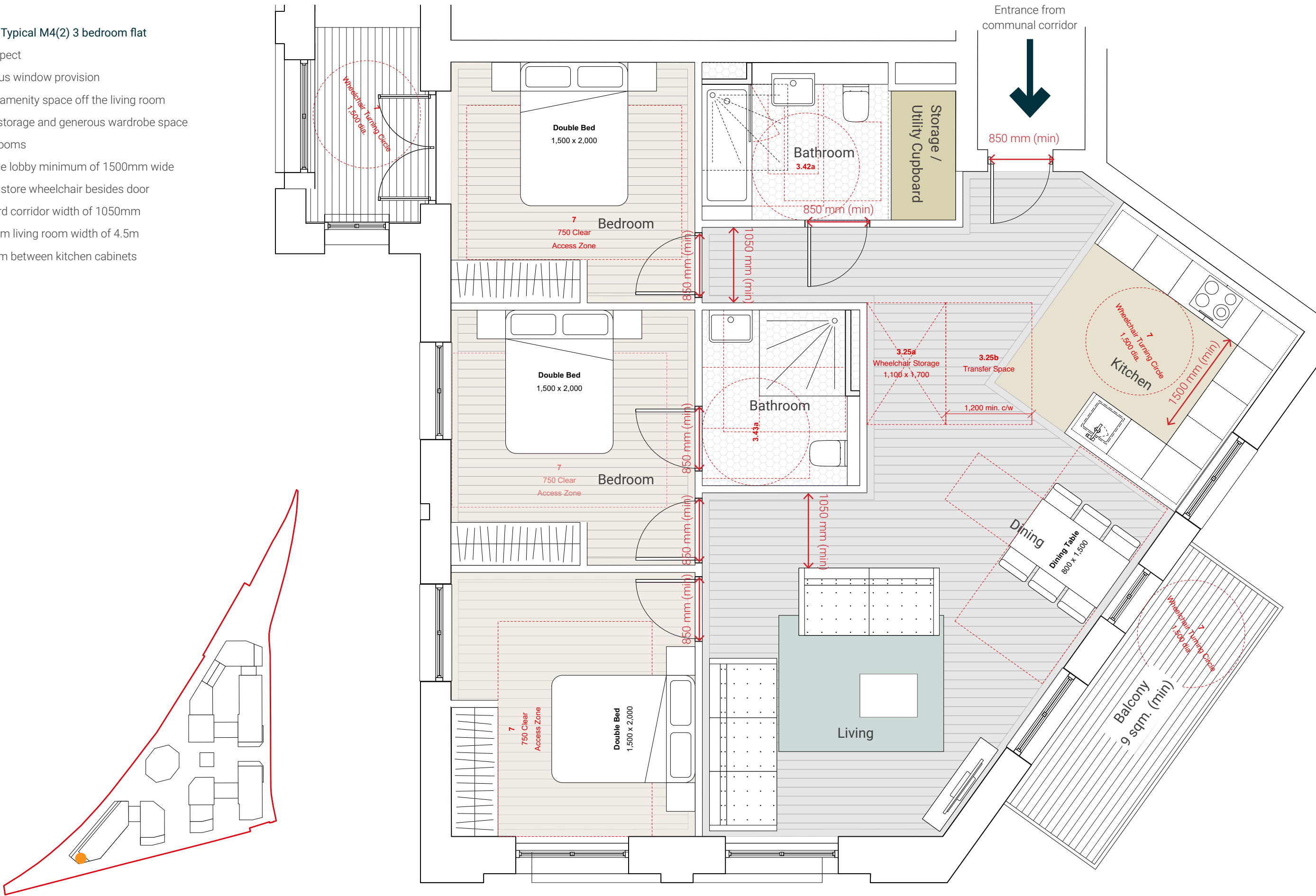
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Area to store wheelchair besides door
- Standard corridor width of 1050mm
- Minimum living room width of 4.2m
- 1500mm between kitchen cabinets



2 bedroom M4(3) apartment. Scale 1:50

6.13.2 Typical M4(2) 3 bedroom flat

- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Area to store wheelchair besides door
- Standard corridor width of 1050mm
- Minimum living room width of 4.5m
- 1500mm between kitchen cabinets



3 bedroom M4(3) apartment. Scale 1:50

6.14 Multi-level units

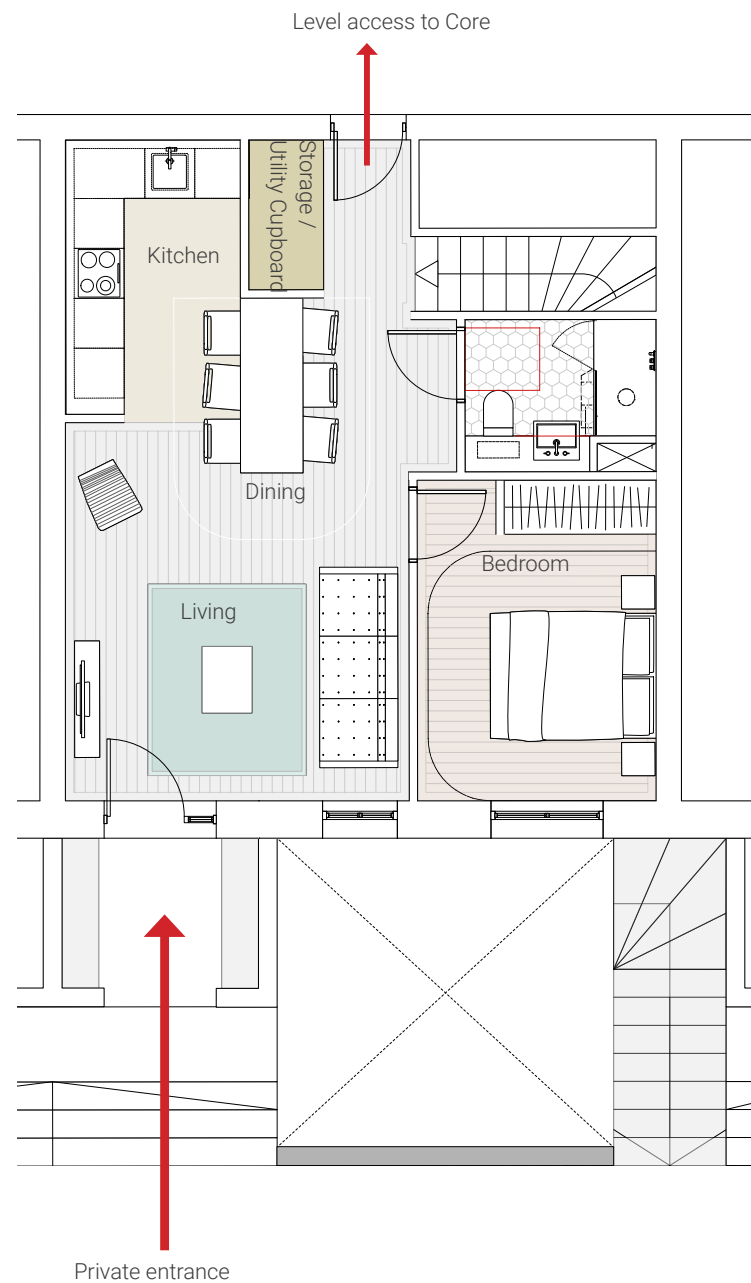
6.14.1 Duplex apartments

There are 6 duplex apartments across the scheme, located within blocks C and D. The typology of these units reference townhouses across the borough.

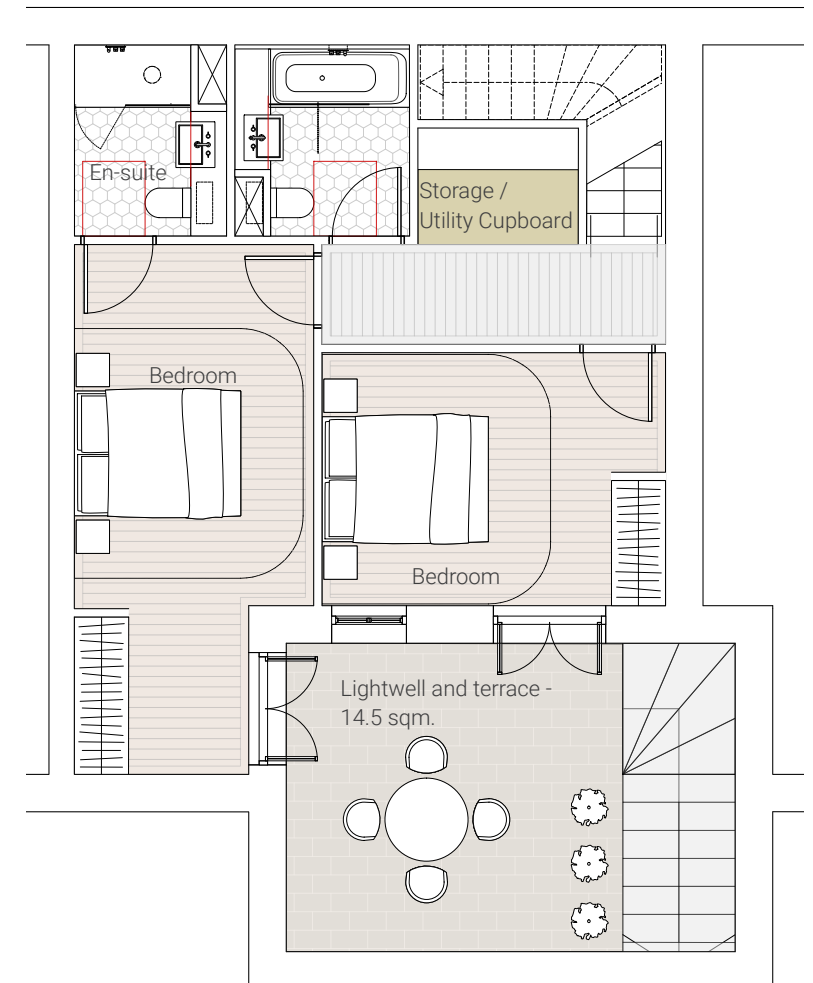
Each of the duplexes has it's own private entrances via steps from the public realm to the front door and down to a private terrace. In each of these instances an additional entrance is located on the upper ground floor at the rear of the apartment providing level access to the communal corridor, core, cycle and refuse store.



Duplex flat along Mount Ararat Road, Richmond



Typical duplex, upper ground floor plan.



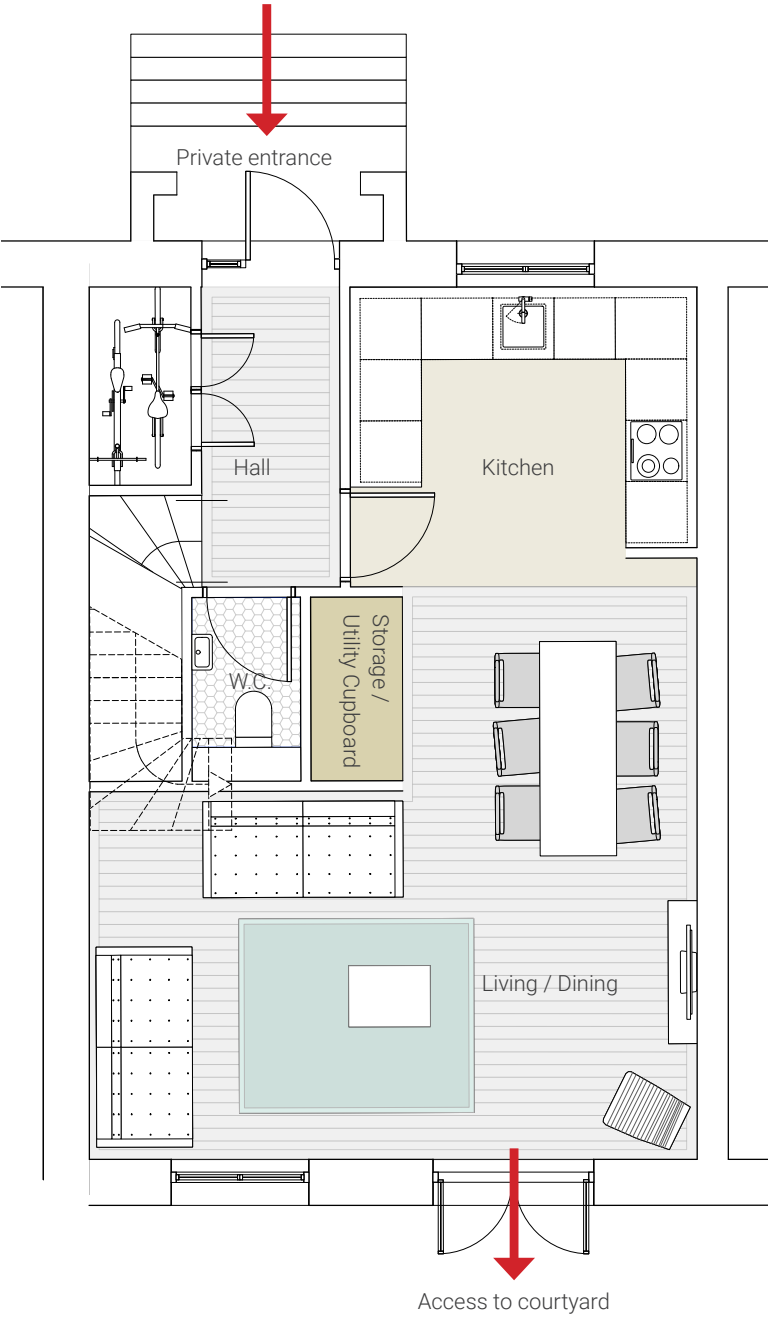
Typical duplex, lower ground floor plan.

6.14.2 Townhouses

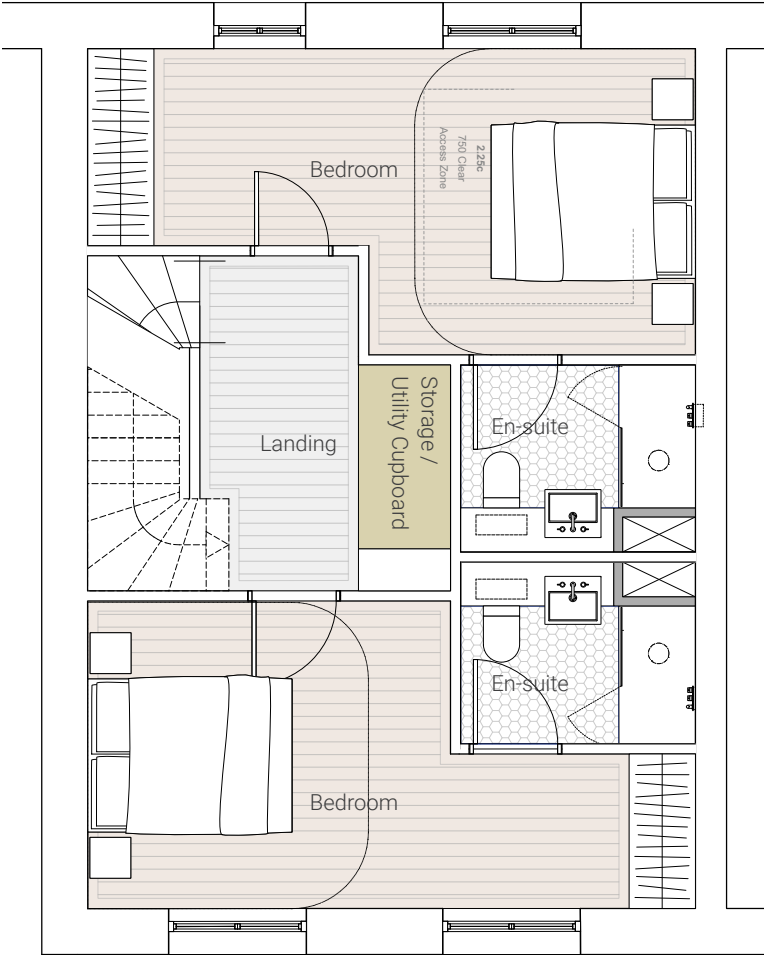
There are 3 townhouses included in the proposals.

Each of the townhouses has it's own private entrances via steps from the access road to the rear. In each of these instances an additional entrance is located on the ground floor providing level access to the communal courtyard.

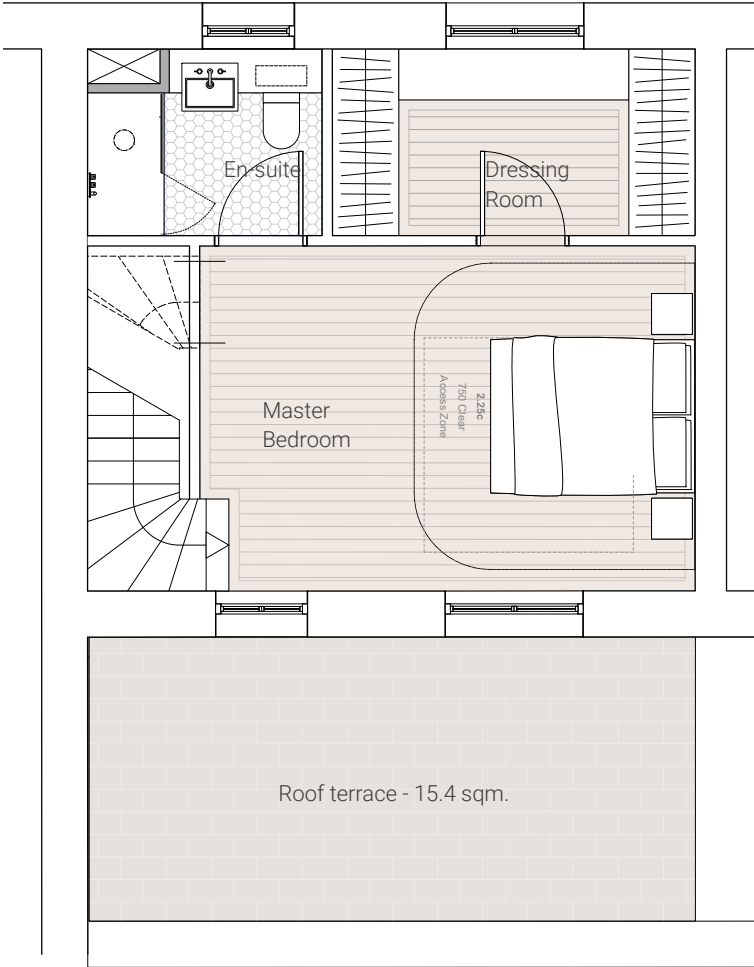
Each townhouse will have a private roof terrace on the 2nd floor, they will also have storage space for bicycles facing the access road.



Typical townhouse, ground floor plan.



Typical townhouse, first floor plan.



Typical townhouse, second floor plan.

Introduction

Context

Design process

Design response

Landscape

Access

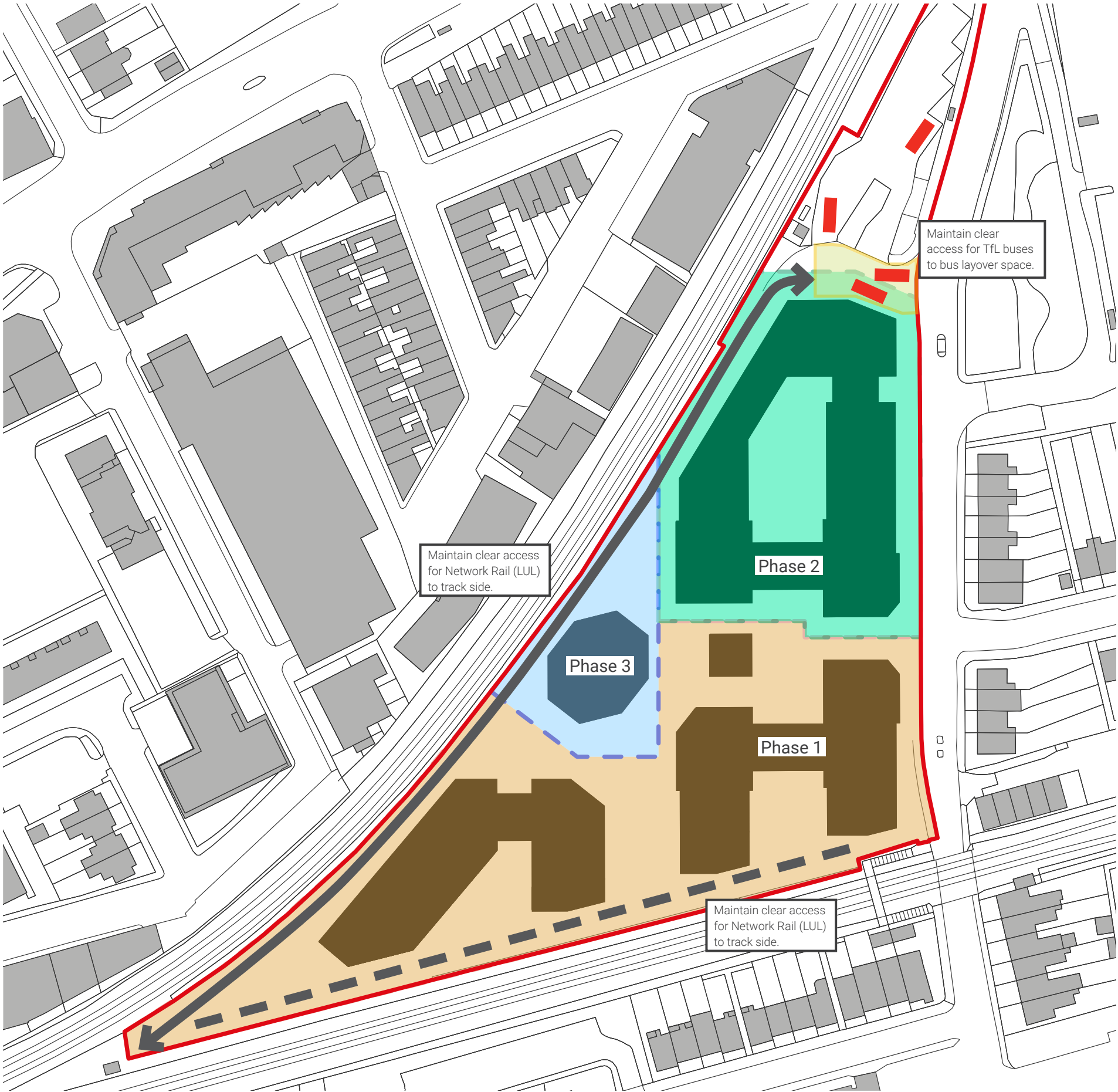
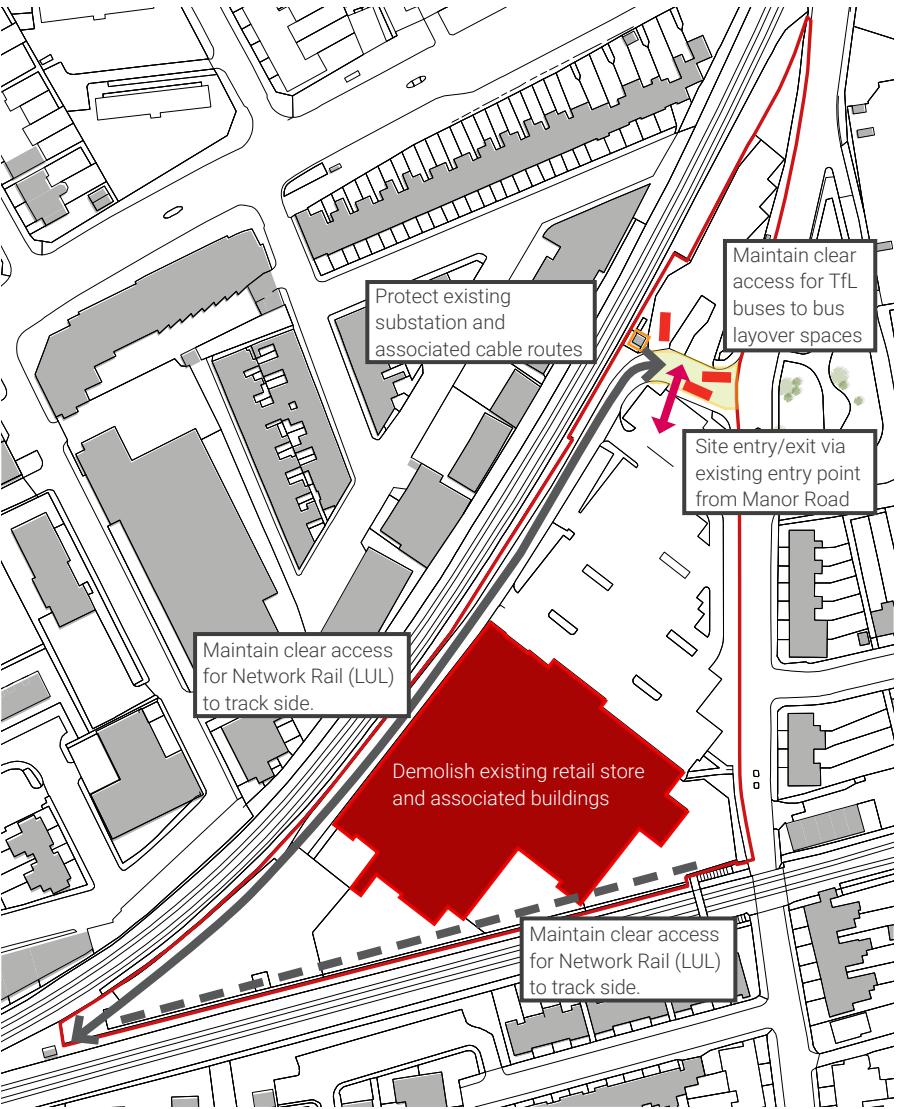
7.0 Appendices

7.1 Phasing

The project is to be delivered in a series of phases, detailed in the diagrams, right.

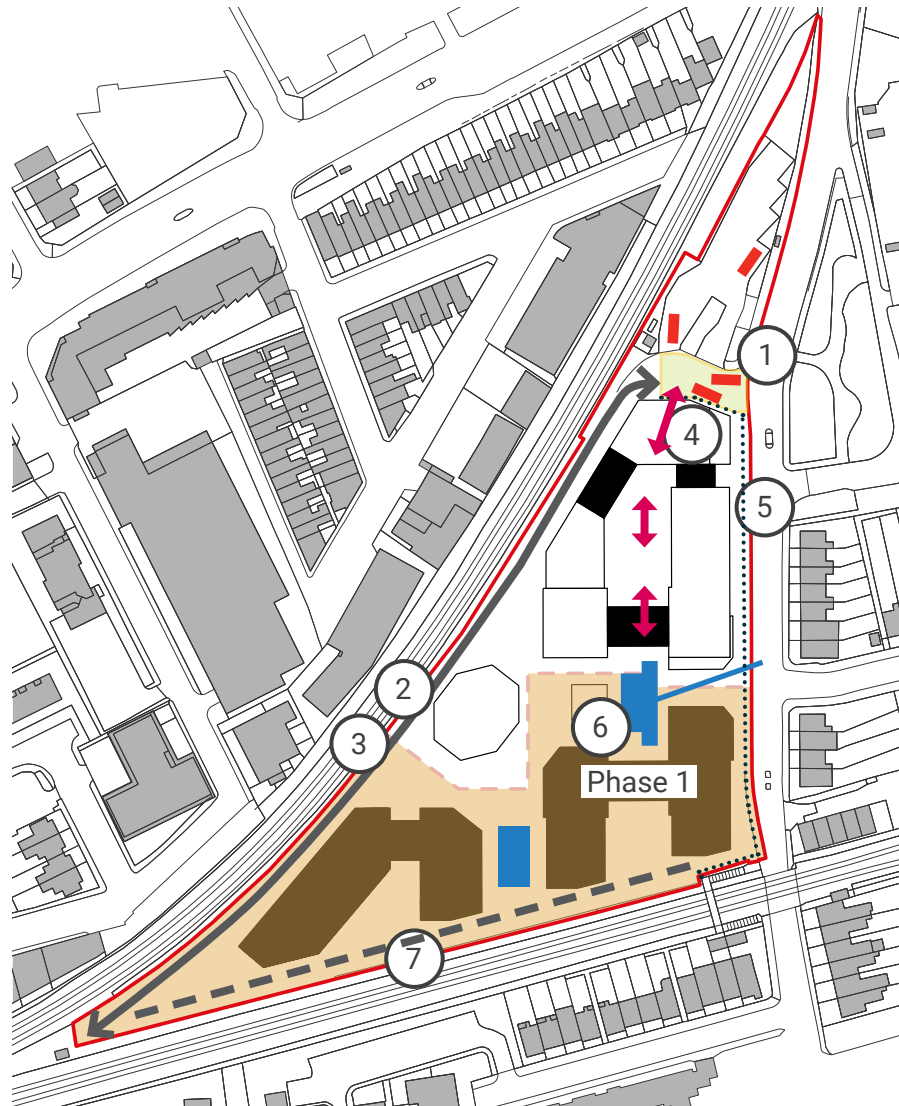
- We will enforce that working hours for the construction works will be restricted to those agreed with the Council.
- Safety is our main concern. The site will be fully hoarded to ensure no unauthorised access or injury to a member of the public.
- We will insist that the main contractor will provide 24-hour security and that deliveries to/from the construction site will be carefully managed by the main contractor.

Demolition and enabling plan



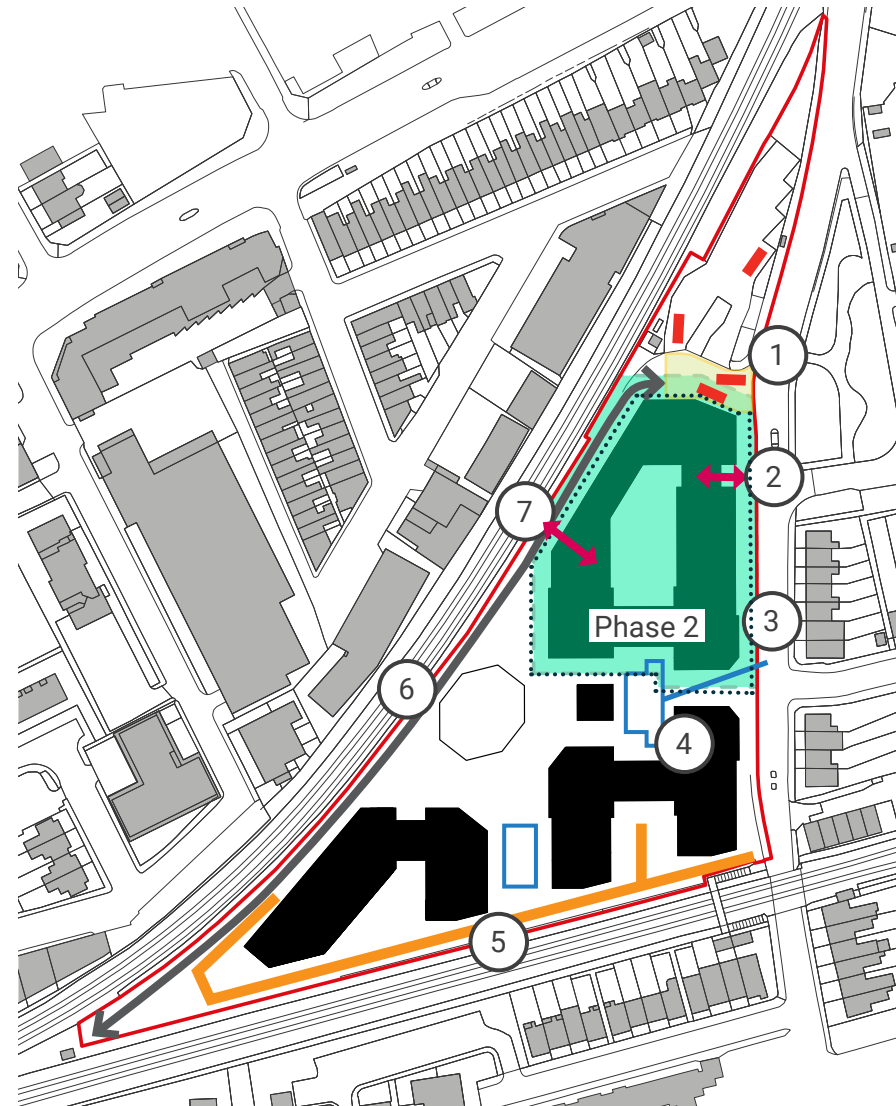
Overall phasing strategy

Phase 1 including access road and utilities



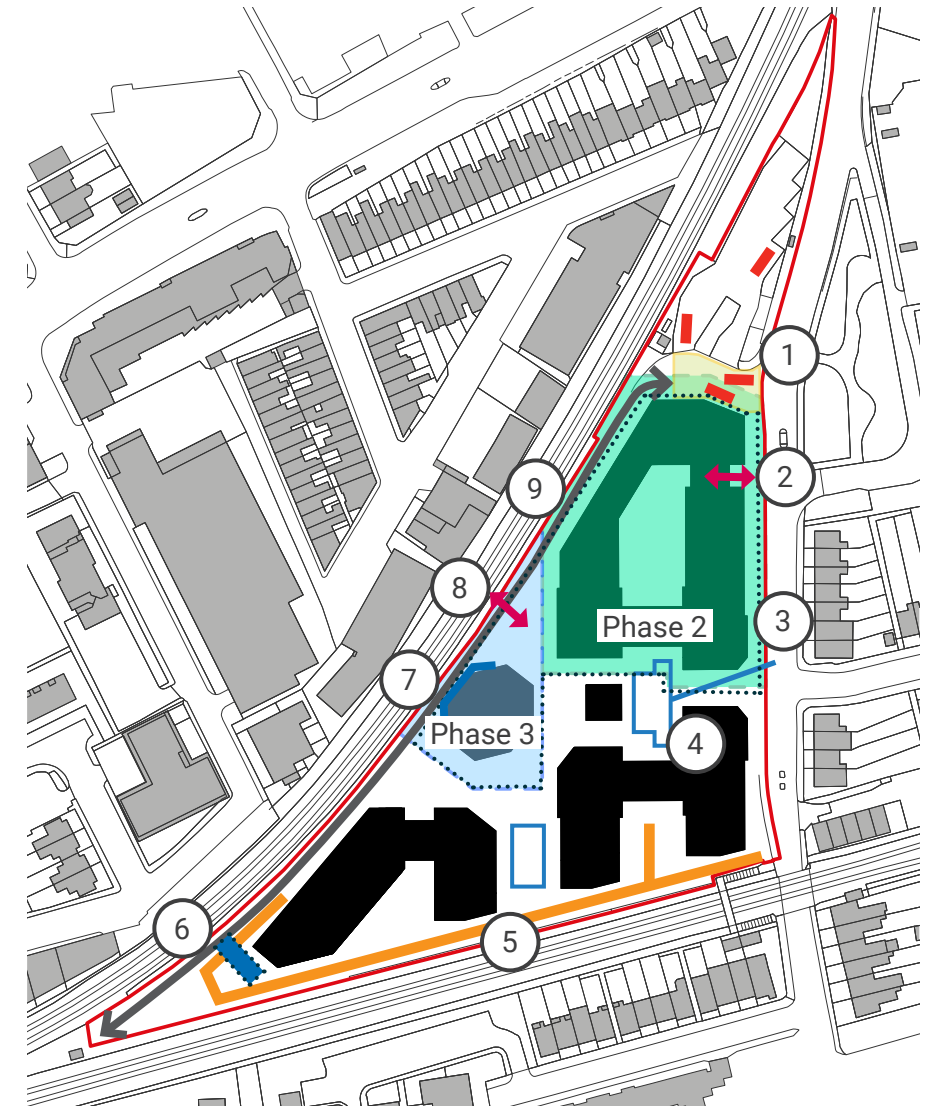
1. Maintain clear access for TfL buses to bus layover space.
2. Maintain clear access for Network Rail (LUL) to track side.
3. Phased construction of new access road whilst maintaining track side access for Network Rail/LUL.
4. Site entry/exit via existing entry point from Manor Road
5. Site hoarding line retaining public footway
6. Phase 1 construct drainage infiltration crates and drainage connections
7. Maintain clear access for Network Rail to track side.

Phase 2



1. Maintain clear access for TfL buses to bus layover space.
2. Site entry/exit via Manor Road - possible relocation during superstructure works.
3. Site hoarding line retaining public footway.
4. Phase 1 drainage optional.
5. Maintain safe and secure clear access for occupants of early phases.
6. New access road operational for access to Phase 1 with area kept clear for LUL/ NR access.
7. Potential site entry/exit from new access road.

Phase 3



1. Maintain clear access for TfL buses to bus layover space.
2. Site entry/exit via Manor Road - possible relocation during superstructure works.
3. Site hoarding line retaining public footway.
4. Phase 1 drainage optional.
5. Maintain safe and secure clear access for occupants of early phases.
6. Possibly need to use this or another area as a turning head for delivery vehicles to Phase 3
7. Protection required for user of access road.
8. Site entry/exit from new access road.
9. New access road operational for access to phase 1 with area kept clear for LUL/ NR access.

7.2 Sustainability

Hoare Lea have prepared both a Sustainability Statement and Energy Statement in support of this application.

A summary is provided below.

Building Materials

A palette of high quality materials have been proposed for the development. The BRE's Green Guide to Specification will be used to ensure that A-rated materials make up the majority of a material elements where practicable.

Water

Water use will be reduced as much as possible mainly through the specification of efficient sanitary ware and water efficient fittings. All dwellings will be designed to comply with the requirements of Building Regulations Part G, and water use will be set at 105 (litres/person/day).

Water Recycling

Sustainable irrigation systems will be incorporated into the landscaping design to ensure a strong ecological value of the site is withheld throughout its life cycle. The design proposal includes an external drainage irrigation board underneath all landscaping areas in the development to enable collection and recycling of the rainwater which falls on the landscaped areas.

Energy

The proposed development will be powered using air source heat pumps to minimise impact on local air quality and reduce carbon emissions.

Sustainable Urban Drainage Systems (SuDS) Measures

The site will aim to implement sustainable drainage systems (SuDS) to aid the collection, storage and treatment of the surface water prior to discharging from site.

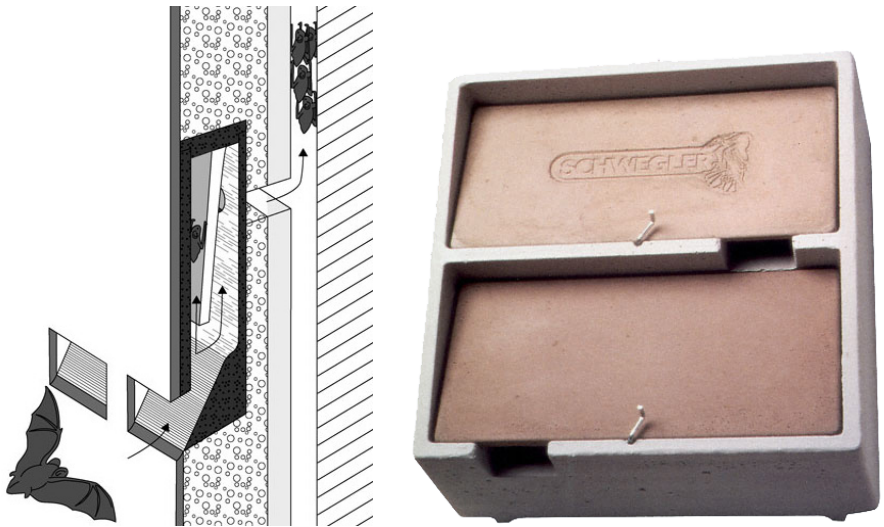
The inclusion of attenuation tanks below the new public square and within the southern landscaped areas will ensure minimum surface water run off and reduce the risk of flooding in the future.

Blue roofs are proposed across all roofs.

Biodiversity

Green/brown roofs are proposed on all roofs where there is no requirement for plant. This will incorporate a mixture of wildflower species as well as herbs and grasses.

We also intend to propose high level bat boxes along the southern elevation, facing the railway line following feedback from our ecologist. The design for these will be developed at the next stage.



Example schwegler bat box



Green roof example

7.3 Sustainability checkpoint assessment


Stage 0		
Guidance		
<p>Obtain information about the site and / or structures for constraints and opportunities</p> <p>‘Awareness’ stage and setting the sustainability context for the project.</p> <p>Review client requirements to distil their sustainability aspirations and the expected building lifespan against which capital costs should be balanced against costs in use.</p> <p>Identify potential for cost effective enhancement of client aspirations.</p> <p>Review options for formal assessment of aspects of sustainability and/or energy performance (e.g. BREEAM, LEED, Passivhaus). If the project is a component of a larger scheme, ensure that targets support and are consistent with any overarching sustainability assessment methodologies. Establish timetable for associated assessor appointment and early stage actions.</p> <p>Client to consider appointing or identifying a client sustainability advocate (in senior management position) and/or appointing a sustainability champion in the design team.</p> <p>Assess environmental opportunities and constraints of potential sites and building assets including sufficient iterative modelling to support conclusions of feasibility studies.</p> <p>Initial consultation with stakeholders, identification of local planning sustainability requirements and appraisal of existing building, social, transportation, water, energy, ecological and renewable resources, including the need for pre-construction or seasonal monitoring or surveys.</p> <p>Commission surveys of existing buildings to be retained (including condition, historic/ townscape significance, materials and components for recycling), services, noise, vibration, renewable energy resources, ecology, geology, etc. as required) to inform the brief.</p> <p>Identify potential funding sources and their eligibility criteria.</p> <p>Review relevant current and emerging EU, national and local sustainability policy and legislation and analyse implications on build, environmental and performance targets.</p> <p>Identify and understand final occupants’ needs to help to establish user patterns, energy profile and performance standards required.</p> <p>Client to consider the formal adoption of a Soft Landings approach to the project (www.bsria.co.uk/services/design/soft-landings/).</p> <p>Client to consider appointing a Soft Landings champion.</p> <p>Client to consider merits and protocols of using a building information model (BIM) to help deliver sustainability aims.</p>		
Sustainability checkpoint	Check	Comments
Has the site information letter been sent, any response entered onto the site information record and disseminated to other consultants?		
Ensure that a strategic sustainability review of client needs and potential sites has been carried out, including reuse of existing facilities, building components or materials.		

- Completed
- Partially complete (see comments)
- Not complete (see comments)

Sustainability checkpoints are from RIBA Plan of Work 2013 and guidance notes originate from the 2011 Green Overlay to the RIBA Outline Plan of Work, supplemented with Assael Architecture’s procedural guidance.

Guidance notes and checkpoint assessments are for the attention and implementation of the entire project team, including the client, and should be part of all stage reports.

Stage 1		
Guidance		
<p>Obtain screening letter from planning authority to verify sustainability requirements.</p> <p>Include a simple description in the brief of the internal environmental conditions the client requires.</p> <p>Involve the client’s facilities management team and review past experience (good and bad) in a spirit of openness in order to set environmental and performance targets that are useful, measurable, challenging but achievable and unambiguous. Targets should include both regulated and unregulated energy.</p> <p>Develop water efficiency strategies to establish similarly robust performance targets.</p> <p>Agree how to measure performance in use, what incentives there will be to achieve performance objectives and what action is appropriate if anything falls short.</p> <p>Develop potential energy strategies for the site including iterative estimated energy demand calculations, options for renewables and implications on building/ site design (e.g.sufficient plant space).</p> <p>Set out SUDS and surface water retention requirements.</p> <p>Develop a brief for specialist environmental sub-consultants (e.g. wind monitoring consultant, ecologist).</p> <p>Consider Climate Change Adaptation criteria and future performance standards.</p> <p>Set out any future uses or reconfiguration to be accommodated.</p> <p>Ensure that competence of potential design team members matches the client’s sustainability aspirations. The team should be balanced, with members of similar competence and commitment and with complementary contracts of engagement.</p> <p>Client to start the Site Waste Management Plan (SWMP) to enable designers to record decisions made to reduce waste as the project progresses.</p>		
Sustainability checkpoint	Check	Comments
Has the site information letter been sent, any response entered onto the site information record and disseminated to other consultants?		
Confirm that formal sustainability targets are stated in the Initial Project Brief.		
Confirm that environmental requirements, building lifespan and future climate parameters are stated in the Initial Project Brief.		
Have early stage consultations, surveys or monitoring been undertaken as necessary to meet sustainability criteria or assessment procedures?		Yes sustainability consultant appointed.
Check that the principles of the Handover Strategy and post-completion services are included in each party’s Schedule of Services.		
Confirm that the Site Waste Management Strategy has been considered.		Yes waste consultant appointed.

Stage 2		
Guidance		
<p>Set out site scale environmental design criteria (e.g. solar orientation, overshadowing, SUDS, waste).</p> <p>Consider the design of the space between buildings as well as the buildings themselves.</p> <p>Consider the need for and scale of private, semi-private and public external space.</p> <p>Establish maximum plan depths to achieve desired levels of natural ventilation, daylight and view.</p> <p>Design for buildability, usability and manageability.</p> <p>Consider the impact of complexity of form on thermal performance, airtightness, and inefficient/wasteful use of materials.</p> <p>Establish an appropriate glazing proportion and shading strategy for each orientation to provide good levels of daylight while avoiding excessive glare, solar gain or heat loss.</p> <p>Establish appropriate element thicknesses to achieve U-values required by energy strategy.</p> <p>Check that materials and construction approach will provide a level of thermal mass that is appropriate to the environmental design strategy.</p> <p>Refine and review design decisions to minimise quantity of materials used and to minimise construction waste (for guidance, see www.wrap.org.uk/designingoutwaste).</p> <p>Review the embodied impacts of materials and construction approach in the context of the building's lifespan.</p> <p>Avoid design solutions that inhibit adaptation and alternative use of the building or its components and materials.</p> <p>Take particular care to avoid short- and long-term damage to retained traditional building fabric from ill-considered upgrade interventions.</p> <p>Ensure that design implications of any components essential to the success of a sustainability strategy are understood across the design team (e.g. space for fuel deliveries and waste handling, roof collector area and orientation, location and size of rainwater harvesting tanks, SUDS attenuation, etc.).</p> <p>Refine energy and servicing strategy, incorporating energy efficient services design and design techniques.</p> <p>Carry out sufficient compliance or advanced modelling to prove the design concept before freezing the design (e.g. SBEM/SAP/PHPP (Passivhaus Planning Package) or dynamic modelling).</p> <p>Audit the emerging design against project's sustainability agenda and targets.</p> <p>Set up a programme of intermediate evaluations and reality checks involving stakeholders and key users as well as the design team.</p>		
Sustainability checkpoint	Check	Comments
Confirm that formal sustainability pre-assessment and identification of key areas of design focus have been undertaken and that any deviation from the Sustainability Aspirations has been reported and agreed.		
Has the initial Building Regulations Part L assessment been carried out?		
Have 'plain English' descriptions of internal environmental conditions and seasonal control strategies and systems been prepared?		
Has the environmental impact of key materials and the Construction Strategy been considered?		
Has resilience to future changes in climate been considered?		

7.4 London Mayor’s Housing SPG compliance matrix

With reference to: Housing SPG March 2016, London Plan 2016 Implementation Framework

The Mayor of London’s 2016 Housing SPG sets out 41 standards that apply to all new housing in London under policy 3.5 of the London Plan. The compliance schedule below assesses this proposal in relation to these standards:

The Interim London Housing Design guide 2010(LHDG) is now superseded by the SPG.

Standard		Compliance	Comments
Defining good places			
1	Development proposals should demonstrate: a) How the design responds to its physical context, including the character and legibility of the area and the local pattern of building, public space, landscape and topography. b) How the scheme relates to the identified character of the place, to the local vision and strategy or how bolder change is justified in relation to a coherent set of ideas for the place expressed in the local vision and strategy or agreed locally.		Refer to Design and Access Statement
2	Development proposals should demonstrate: a) How the scheme complements the local network of public spaces, including how it integrates with existing streets and paths. b) How public spaces and pedestrian routes are designed to be overlooked and safe, and blank elevations onto the public realm at ground floor have been avoided. c) For larger developments, how any new public spaces including streets and paths are designed on the basis of an understanding of the planned role and character of these spaces within the local movement network, and how new spaces relate to the local vision and strategy for the area.		
Communal and public open space			
3	Development proposals should demonstrate that they comply with the LPAs’ open space strategies, ensuring that an audit of surrounding open space is undertaken and that, where appropriate, opportunities to help address a deficiency in provision by providing new public open spaces are taken forward in the design process.		
4	Where communal open space is provided, development proposals should demonstrate that the space: <ul style="list-style-type: none">• is overlooked by surrounding development;• is accessible for disabled people including people who require level access and wheelchair users;• is designed to take advantage of direct sunlight;• has suitable management arrangements in place.		
Play space			
5 (& policy 3.6)	For developments with an estimated occupancy of ten children or more, development proposals should make appropriate play provision in accordance with the Mayor’s Play and Informal Recreation SPG.		Development provides on-site play provision for 0-11 yr old children. Children aged 12+ are to use local facilities within 800m of site.









Key

- Fully compliant
- Partially compliant (see comments)
- Not compliant (see comments)

Standard		Compliance	Comments
Density			
6 (& policy 3.4)	Development proposals should demonstrate how the density of residential accommodation satisfies London Plan policy relating to public transport access levels (PTALs) and the accessibility of local amenities and services, and is appropriate to the location		
Residential mix			
7 (& policy 3.8)	Development proposals should demonstrate how the mix of dwelling types and sizes and the mix of tenures meet strategic and local need and are appropriate to the location.		
Entrance and approach			
8	All main entrances to houses, ground floor flats and communal entrance lobbies should be visible, clearly identifiable, and directly accessible from the public realm.		Block C, core B accessed via shared surface to the eastern edge of the site. Al other cores front new public square or have frontage along Manor Road.
9	The distance from the accessible car parking space of standard 18 to the home or to the relevant block entrance or lift core should be kept to a minimum and should be preferably level or where level is not possible, gently sloping (1:60 – 1:20) on a suitable ground surface.		All parking spaces have level access. Minimum parking paces provided on site (3% of units). Distance from parking spaces to apartments in excess of 18m.
Active frontages			
10	Active frontages should be maximised and inactive frontages minimised on the ground floor of buildings facing publicly accessible space, in order to provide natural surveillance and activity.		All commercial frontage concentrated at entrance and most public areas of the site. Ground floor residential units raised above ground level and screened with planting to provide privacy.
Access			
11	90 per cent of new build housing should meet Building Regulation requirement M4(2) ‘accessible and adaptable dwellings’ with the remaining 10 per cent meeting Building Regulation requirement M4(3) ‘wheelchair user dwellings’.		All market tenure flats meet the M4 (2) specification with 10% of all affordable units meeting the M4 (3) specification.
Shared circulation			
12	Each core should be accessible to generally no more than eight units on each floor.		
13	An access core serving 4 or more dwellings should provide an access control system with entry phones in all dwellings linked to a main front door with electronic lock release. Unless a 24 hour concierge is provided, additional security measures including audio-visual verification to the access control system should be provided where any of the following apply: <ul style="list-style-type: none">• more than 25 dwellings are served by one core, or• the potential occupancy of the dwellings served by one core exceeds 100 bed spaces, or• more than 8 dwellings are provided per floor.		24hr concierge.



Standard		Compliance	Comments																																				
14	Where dwellings are accessed via an internal corridor, the corridor should receive natural light and adequate ventilation where possible.	<div></div>																																					
15	All dwellings entered at the seventh floor (eighth storey) and above should be served by at least two lifts.	<div></div>																																					
16	It is desirable that every wheelchair user dwelling is served by more than one lift.	<div></div>																																					
Car parking																																							
17	<div>The maximum standards set out below should be the basis for considering planning applications</div> <div><table><tr><td colspan="4">Table 6.2 Car parking standards</td></tr><tr><td colspan="4">Parking for residential development</td></tr><tr><td></td><td>PTAL 6-9</td><td>PTAL 5-6</td><td>PTAL 4-5</td></tr><tr><td>Suburban</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td></tr><tr><td>Urban</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td></tr><tr><td>Central</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td><td>100-200 cu/ha</td></tr><tr><td>Maximum residential parking standards</td><td>4 or more</td><td>3</td><td>2</td></tr><tr><td>number of beds</td><td>up to 2 per unit</td><td>up to 1.5 per unit</td><td>less than 1 per unit</td></tr><tr><td>parking spaces</td><td></td><td></td><td></td></tr></table></div>	Table 6.2 Car parking standards				Parking for residential development					PTAL 6-9	PTAL 5-6	PTAL 4-5	Suburban	100-200 cu/ha	100-200 cu/ha	100-200 cu/ha	Urban	100-200 cu/ha	100-200 cu/ha	100-200 cu/ha	Central	100-200 cu/ha	100-200 cu/ha	100-200 cu/ha	Maximum residential parking standards	4 or more	3	2	number of beds	up to 2 per unit	up to 1.5 per unit	less than 1 per unit	parking spaces				<div></div>	Car-free development. 3% of units have access to accessible parking bay. This number can be increased to 10% of units if required.
Table 6.2 Car parking standards																																							
Parking for residential development																																							
	PTAL 6-9	PTAL 5-6	PTAL 4-5																																				
Suburban	100-200 cu/ha	100-200 cu/ha	100-200 cu/ha																																				
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Maximum residential parking standards	4 or more	3	2																																				
number of beds	up to 2 per unit	up to 1.5 per unit	less than 1 per unit																																				
parking spaces																																							
18	Each designated wheelchair accessible dwelling should have a car parking space that complies with Part M4 (3).	<div></div>																																					
19	Careful consideration should be given to the siting and organisation of car parking within an overall design for open space so that car parking does not negatively affect the use and appearance of open spaces.	<div></div>	Car-parking spaces located along western access road.																																				
Cycle storage																																							
20	<div>All developments should provide dedicated storage space for cycles at the following level:</div> <ul style="list-style-type: none">• 1 per studio and one bed• 2 per all other dwellings. <div>In addition, one short stay cycle parking space should be provided per 40 units.</div>	<div></div>																																					
21	<div>Individual or communal cycle storage outside the home should be secure, sheltered and adequately lit, with convenient access to the street. Where cycle storage is provided within the home, it should be in addition to the minimum GIA and minimum storage and circulation space requirements. Cycle storage identified in habitable rooms or on balconies will not be considered acceptable¹.</div> <div>¹ For more detail see: Transport for London Cycle Design Standards available from https://tfl.gov.uk/rate/publications-and-reports/cycling</div>	<div></div>																																					
Refuse and recycling facilities																																							
22	Communal refuse and recycling containers, communal bin enclosures and refuse and recycling stores should be easily accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection. Refuse and recycling stores within buildings should be located to limit the nuisance caused by noise and smells and maintained to a high hygiene standard.	<div></div>																																					
23	Storage facilities for waste and recycling containers should be provided in accordance with local authority requirements and meeting at least British Standard BS5906:2005 Code of Practice for waste management in Buildings.	<div></div>																																					

Standard		Compliance	Comments
Dwelling space standards			
24	All new dwellings should meet the nationally described space standard ¹ ¹ DCLG. Technical housing standards - nationally described space standard. 2015	<div></div>	
25	Dwelling plans should demonstrate that dwellings will accommodate the furniture, access and activity space requirements relating to the declared level of occupancy and the furniture schedule set out in Approved Document Part M.	<div></div>	
Private open space			
26	A minimum of 5 sq m of private outdoor space should be provided for 1-2 person dwellings and an extra 1 sq m should be provided for each additional occupant.	<div></div>	
27	The minimum depth and width for all balconies and other private external spaces should be 1500mm.	<div></div>	
Privacy			
28	Design proposals should demonstrate how habitable rooms within each dwelling are provided with an adequate level of privacy in relation to neighboring property, the street and other public spaces. ¹ ¹ Based on: Secured by Design op cit	<div></div>	
Dual aspect			
29	Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided. ¹ ¹ PPG 24 1994 ibid. See also CLG NPPF 2012 ibid para 123 DEFRA. Noise Policy Statement for England. Explanatory Note. DEFRA, 2010	<div></div>	55% of all dwellings are dual aspect. This number increases to 65% if you include apartments with bay windows in the count. There are 10 single aspect units. All benefit from a bay window and are 1 beds.
Noise			
30 (& policy 7.15)	The layout of adjacent dwellings and the location of lifts and circulation spaces should seek to limit the transmission of noise to sound sensitive rooms within dwellings.	<div></div>	
Floor to ceiling heights			
31	A minimum ceiling height of 2.5 metres for at least 75% of the gross internal area is strongly encouraged	<div></div>	Floor to ceiling heights are all 2.65m high.
Daylight and sunlight			
32	All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen / dining spaces should preferably receive direct sunlight.	<div></div>	
Air quality			
33 (& policy 7.14)	Minimise increased exposure to existing poor air quality and make provision to address local problems of air quality, be at least 'air quality neutral' and not lead to further deterioration of existing poor air quality (such as areas designated as Air Quality Management Areas (AQMAs).	<div></div>	Air source heat pumps selected as energy strategy to minimise air pollution.

Standard		Compliance	Comments						
Environmental performance									
34 (& policy 5.3)	All homes should satisfy London Plan policy on sustainable design and construction and make the fullest contribution to the mitigation of and adaptation to climate change.								
Energy and CO ₂									
35 (& policy 5.2)	<div>Development proposals should be designed in accordance with the LP energy hierarchy, and should meet the following minimum targets for carbon dioxide emissions reduction.</div> <table border="1"><tr><td>Year</td><td>Improvement on 2013 Building Regulations</td></tr><tr><td>2014 - 2016</td><td>35 per cent¹</td></tr><tr><td>2016 - 2036</td><td>Zero carbon</td></tr></table> <div><small>1 As set out in the Mayor's Sustainable Design and Construction SPG 2014 (paragraph 2.4.3) and the Energy Planning - GLA Guidance on preparing energy assessments.</small></div>	Year	Improvement on 2013 Building Regulations	2014 - 2016	35 per cent ¹	2016 - 2036	Zero carbon		See sustainability report
Year	Improvement on 2013 Building Regulations								
2014 - 2016	35 per cent ¹								
2016 - 2036	Zero carbon								
Overheating									
36 (& policy 5.9)	Development proposals should demonstrate how the design of dwellings will avoid overheating without reliance on energy intensive mechanical cooling systems.		TM59 studies completed to minimise overheating.						
Water									
37 (& policy 5.15)	<div>New dwellings should be designed to ensure that a maximum of 105¹ litres of water is consumed per person per day in line with the optional requirement of Part G.</div> <div><small>1 Excluding an allowance of 5 litres or less per head per day for external water use (as set out in MALP and 'optional' Requirement G2 of Schedule 1 to the Building Regulations 2010)</small></div>		See sustainability report						
Flooding and drainage									
38 (& policy 5.12)	<div>Where development is permitted in an area at risk of flooding, it should incorporate flood resilient design in accordance with the NPPF and its associated technical Guidance whilst ensuring level access is maintained.</div> <div><small>1 Technical Guidance to the National Planning Policy Framework, Department for Communities and Local Government, March 2012 or any subsequent guidance on flood risk issued in support of the NPPF</small></div>								
39 (& policies 5.11 & 5.13)	New development should incorporate Sustainable Urban Drainage Systems and green roofs where practical with the aim of achieving a Greenfield run-off rate, increasing bio-diversity and improving water quality. Surface water run-off is to be managed as close to source as possible.		Blue roofs and attenuation tanks included in proposals.						
Ecology									
40 (& policy 7.19)	The design and layout of new residential development should avoid areas of ecological value and seek to enhance the ecological capital of the area in accordance with GLA best practice guidance on biodiversity and nature conservation.								
Design process									
41	Developments should manage existing materials, specify sustainable materials that are robust and fit for purpose and secure the sustainable procurement of materials.								

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Status	Revision	Date issued	Prepared by	Checked by
P1	For Comment	14/12/2018	HB	TCC
P2	For Comment	16/01/2019	HB	TCC
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