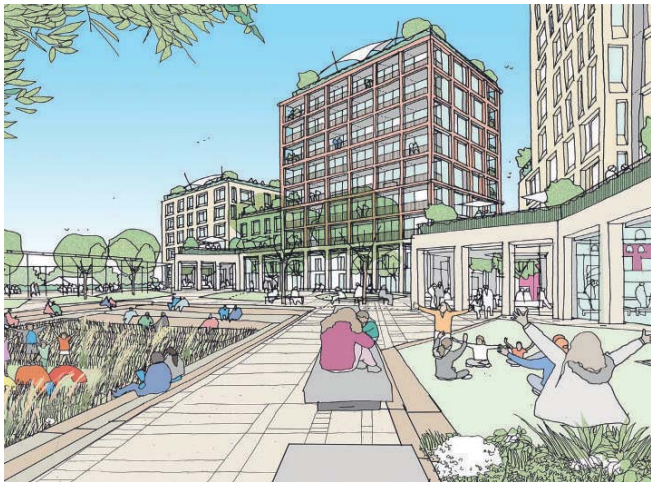
227 - 239 Horn Lane

Design & Access Statement

NOVEMBER 2022



Client

Bellaview Properties Ltd. and Builder Depot Ltd (as joint applicants)

Site

227 - 239 Horn Lane, Acton, London, W3 9ED

Proposal

Demolition of the existing builders' merchants (Sui Generis) and construction of a part-15, 11, 7, and 6 storey building to provide replacement builders' merchants (Sui Generis) at ground floor level, new residential dwellings and associated amenity space at first floor level and above; hard and soft landscaping works; provision of car and cycle parking; works to provide means of access for both pedestrians and vehicles from Horn Lane and all other works incidental to the development.

Contents

1.00 The Brief 5
1.01 The Client and Brief 6
1.02 Builder Depot 7
1.03 A Vision for Horn Lane 8
1.04 The Challenge 9

2.00 Our Approach 10
2.01 Sustainability 13
2.02 Sustainability Goals 14

3.00 Surrounding Context 15
3.01 The Context 16
3.02 Area Character 17
3.03 Local Amenities & Building Types 18
3.04 Excellent Transport Links 19
3.05 Emerging Height 20
3.06 Emerging Context 21
3.07 Heritage & Conservation 22
3.08 Network Rail 23

4.00 The Site 24
4.01 The Site 25
4.02 The Site - Street Views 26
4.03 Site Photographs 27
4.04 Planning Context 28

5.00 Strategic Investigations 29
5.01 Strategies for a Mixed Use Scheme 30
5.02 Site Access Strategy 31

6.00 Developing a Site Strategy 32
6.01 Residential Massing Approach 33
6.02 Radial Approach 34
6.03 Courtyard Approach 35
6.04 Site Layout Diagrams 36
6.05 Vertical Zoning 37
6.06 A Mixed Use Scheme 42
6.07 Height 43
6.08 Aerial View 44
6.09 A new presence on Horn lane 45
6.10 Testing the Design 46
6.11 Adjusting the Form 47
6.12 Testing the Form 48

7.00 The Consultatio Process 49
7.01 Early Pre-App Meetings 50
7.02 Pre-App 1 Overview 51
7.03 Ground floor Level Proposals 52
7.04 Mezzanine level Proposals 53
7.05 Podium Level Proposals 54
7.06 Upper Floor Level Proposals 55
7.07 External Amenity 56
7.08 Access Routes 57
7.09 Pre-App 1 Comments 58
7.10 Massing Comments 59
7.11 Pre-App 2 Overview 60
7.12 Massing Developement Studies 61
7.13 Testing of Massing Development 63
7.14 Preferred Option 64
7.15 Massing 65
7.16 Proposed Views 66
7.17 Developing Sketch Plans 67
7.18 Aerial View 68
7.19 Station Bridge 70
7.20 Horn Lane 71
7.21 Courtyard 72
7.22 Pre-App 2 Comments Received 73

8.00 Elevation Treatments 74
8.01 Architectural Precedents 75
8.02 Central Blocks 76
8.03 Corner & End Blocks 77
8.04 Window Details 79
8.05 Balcony Areas 81
8.06 Deck Access 82
8.07 Deck Access View 83
8.08 Deck Access Details 84
8.09 Horn lane South Elevation 85
8.10 North Elevation 86
8.11 East Elevation 87
8.12 West Gable Elevations 88
8.13 Courtyard - South Elevation 89
8.14 Courtyard - West Elevation 90

9.00 Entrances 91
9.01 Ground Floor Entry Points 92
9.02 Podium Level Entry Points 93
9.03 Cores Entrances 94
9.04 Entrance Courtyard 95
9.05 Entrance Courtyard Precedents 96
9.06 Design Development 97
9.07 Design Proposals 98
9.08 Street View 99
9.09 Courtyard View 100

10.00 Industrial Space 101
10.01 Builder Depot Warehouse Spaces 102
10.02 Ground Floor Plan 103
10.03 Mezzanine Floor Plan 104
10.04 Adaptable Space 105

Contents

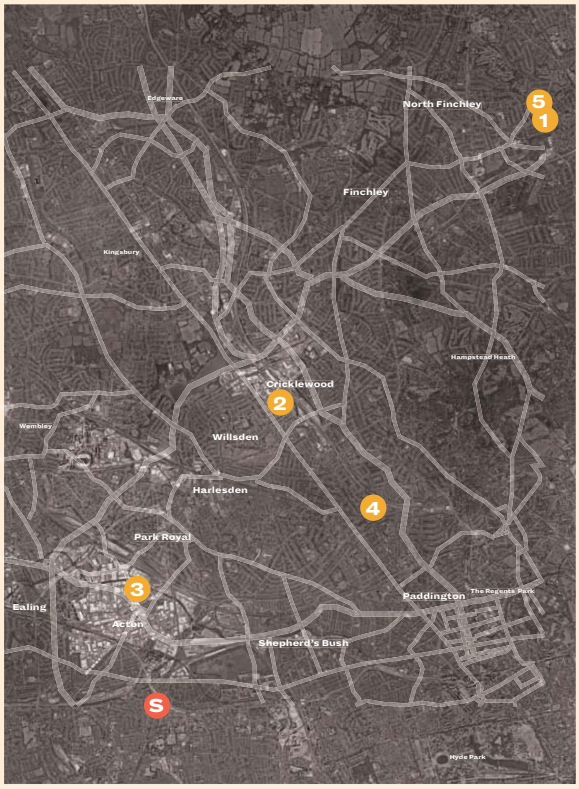
11.00	**Residential Layouts**	**106**
11.01	Residential Floor Plan 1	107
11.02	Residential Floor Plan 2	108
11.03	Residential Floor Plan 3	109
11.04	Residential Floor Plan 4	110
11.05	Residential Floor Plan 5	111
11.06	Residential Floor Plan 6	112
11.07	Residential Floor Plan 7 & 8	113
11.08	Residential Floor Plan 9 & 10	114
11.09	Residential Floor Plan 11 - 14	115
11.10	Roof Plan	116
11.11	Cores	117
12.00	**Unit Layouts**	**118**
12.01	Units	119
12.02	Accomodation mix and Tenure	120
12.03	One Bedroom Dwellings	121
12.04	Two Bedroom Dwellings	122
12.05	Three Bedroom Dwellings	125
12.06	Single Aspect Units	127
13.00	**Accessibility**	**128**
13.01	Inclusive Design	129
13.02	Wheelchair User Dwellings	130
13.03	Blue Badge Parking	131
14.00	**Daylight and Sunlight**	**132**
14.01	Daylight and Sunlight Modelling	133
15.00	**Servicing Strategies**	**134**
15.01	Site Transport Strategy	135
15.02	Site Transport Diagrams	136
15.03	Waste Mangement Strategy	137
15.04	Waste Storage	138
15.05	Post and Deliveries	139
15.06	Cycle Provision	140
15.07	Parking	141
16.00	**Landscape**	**142**
16.01	Landscape Concept	143
16.02	Key Considerations	144
16.03	Illustrative Landscape Masterplan	146
16.04	Horn Lane	147
16.05	Arrival Courtyard	148
16.06	Podium Garden	149
16.07	Podium Garden - Amenity Space	152
16.08	Roof Terraces	153
16.09	Extensive Biodiversity Roof	154
16.10	The Yard	155
16.11	Open Space Review	156
16.12	Open Space Provision	157
16.13	Urban Greening Factor	158
16.14	Play and Recreation Strategy	159
16.15	Sheltered Spaces	160
16.16	Planting Palette	161
16.17	Hard Material Palette	162
17.00	**Sustainability**	**163**
17.01	Sustainable Design Principles	164
17.02	Energy and Sustainability Strategy	165
17.03	Approach to Energy and Carbon Reduction	166
17.04	Overheating Mitigation	167
17.05	Sustainability	168
18.00	**Conclusion**	**169**
19.00	**Appendices**	**177**
	Accommodation Schedule	178
	Drawing Issue Sheet	179

1.
The Brief

1.01 **The Client & Brief**

The site is owned by our client, Bellaview Properties Ltd. which is part of the same group of companies as Builder Depot Ltd. Builder Depot are a chain of London based independent builders' merchants. It is proposed to redevelop 227-239 Horn Lane to provide a sustainable, cutting edge builders' merchant to augment their existing portfolio whilst also optimising the opportunity that the brown field site presents to provide high quality homes and affordable housing.

1.02 Builder Depot



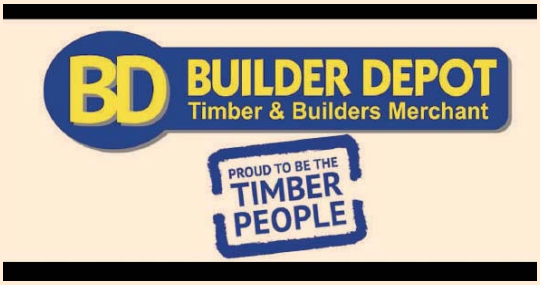
Builder Depot is one of the leading independent builders merchants in the UK focused predominantly on catering to the trade. It was founded in 2001 on industry experience of over 100 years as a specialist in timber & plywood. The company has since evolved and developed to cater for all trade and home improvement needs.

Builder Depot currently has four warehouse based London branches, strategically located along the North Circular between North to West London and has plans to expand this network of stores over the coming years.

Update Map

- S **Application Site**
- 1 **New Southgate**
- 2 **Staples Corner**
- 3 **Park Royal**
- 4 **West Hampstead**
- 5 **E-commerce**

1.03 A Vision for Horn Lane



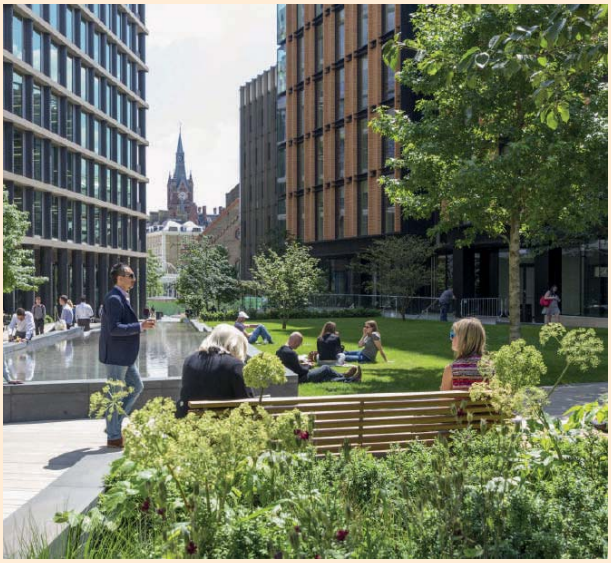
Builder Depot is a family run business employing 400 people across North and West London. They run a large apprenticeship scheme with guaranteed employment on completion, and also employ multiple generations of the same family, with jobs open to all staff children on leaving school. They are deeply embedded within the communities in which they operate and take their responsibilities as an employer seriously. It is the client's vision to bring this business approach to Horn Lane, in line with their other operational sites.

The proposals present an opportunity for a flagship depot, leading the way in the new modern, sustainable approach to builder's merchants and reducing the environmental impact on the surrounding area. Builder Depot already use electric forklifts, operate with a hybrid delivery fleet, have a waste recycling strategy in place and work with suppliers who are developing sustainable technology. They see this scheme as an opportunity to create a builders merchant which is technologically advanced, sustainable and efficient.

1.04 **The Challenge**

Creating a new, modern builders' merchants on the ground floor with associated delivery and customer parking...

....while also....

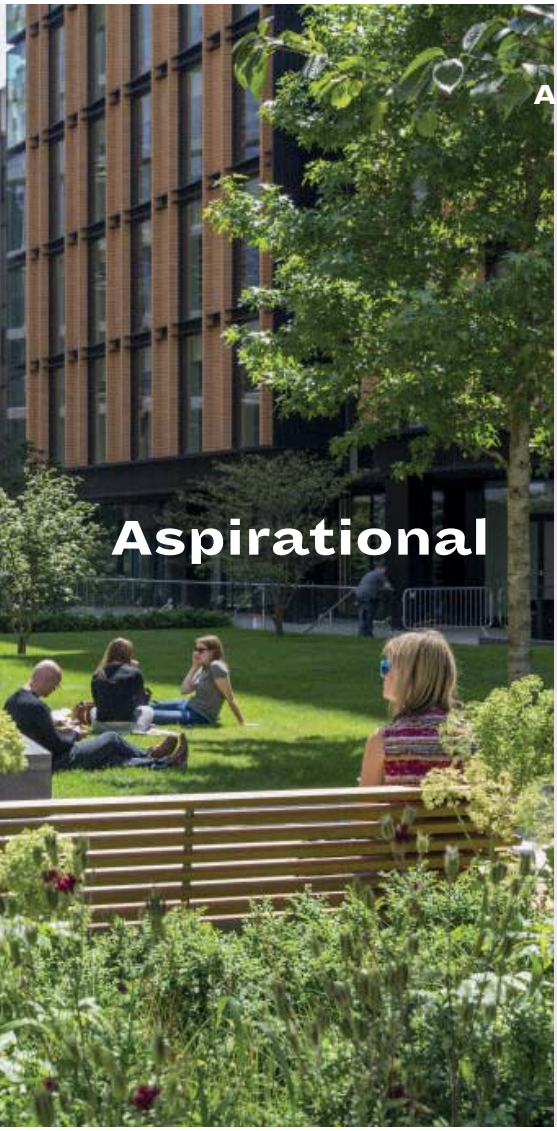


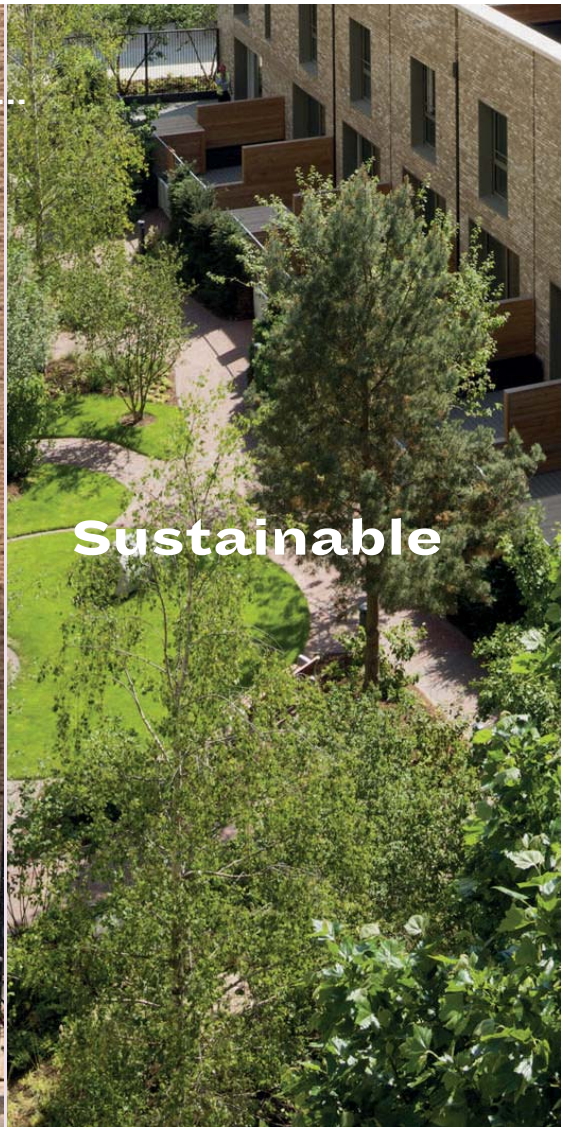
...Providing high quality sustainable homes and associated landscaped amenity with good light, views, a safe and welcoming access and residential servicing and amenity.

2.

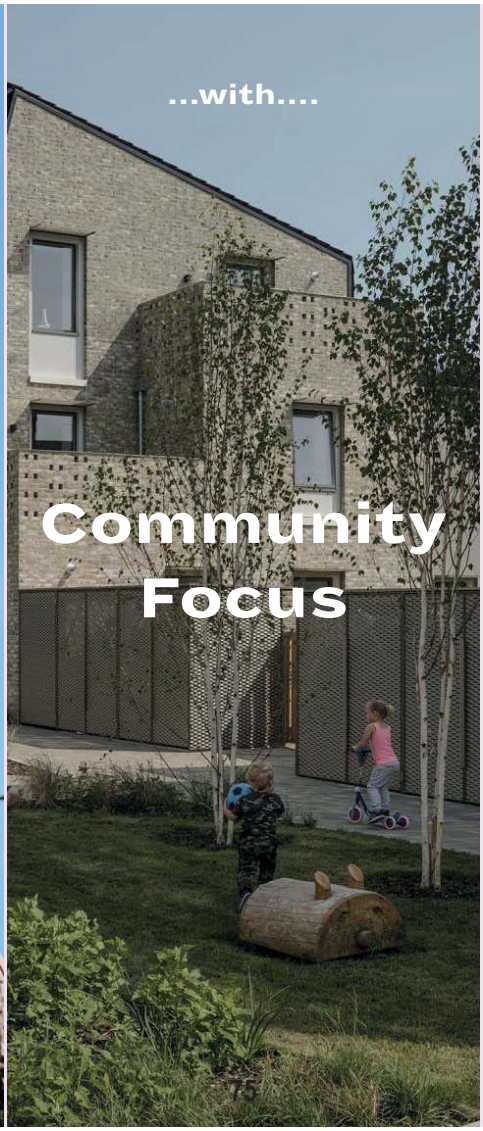
Our Approach

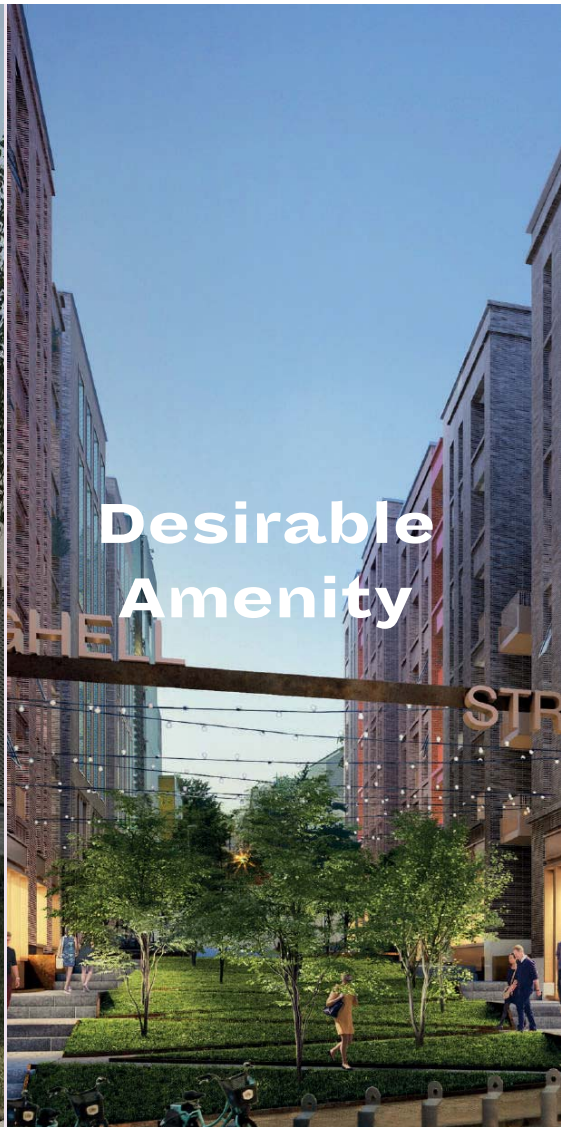
A successful scheme will be....





Quality
Design


...with....
Community
Focus


Desirable
Amenity

2.01 BGY Sustainability

Principles informed by the UN Sustainable Development Goals

- Finding Opportunities in the Site & Local Context
- Clever Use of Materials & Resources
- Maximise Biodiversity & Connection to Nature
- Prioritise the Wellbeing of Users
- Long Term, Adaptable Design

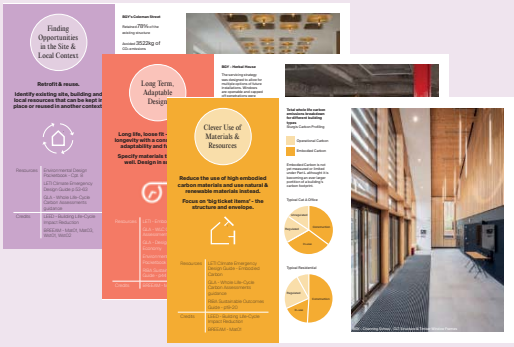
A dedicated Sustainability team

We take Sustainability & Wellness Seriously

University of East London

ARCHITECTS CLIMATE ACTION NETWORK

Pan industry collaboration



Bespoke in-house resources

2.02 Sustainability Goals for Horn Lane

ENERGY & CARBON REDUCTION
Electrification / fossil fuel elimination and renewable energy

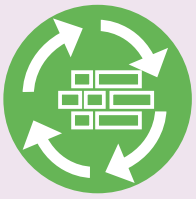
SOCIAL VALUE
Local supply chain engagement and improving public realm

PASSIVE DESIGN
Embrace all opportunities for passive design including utilising heat recovery and SUDs

TRANSPORT
Best in class cycle storage

QUALITY HOMES
Design light, bright and comfortable spaces

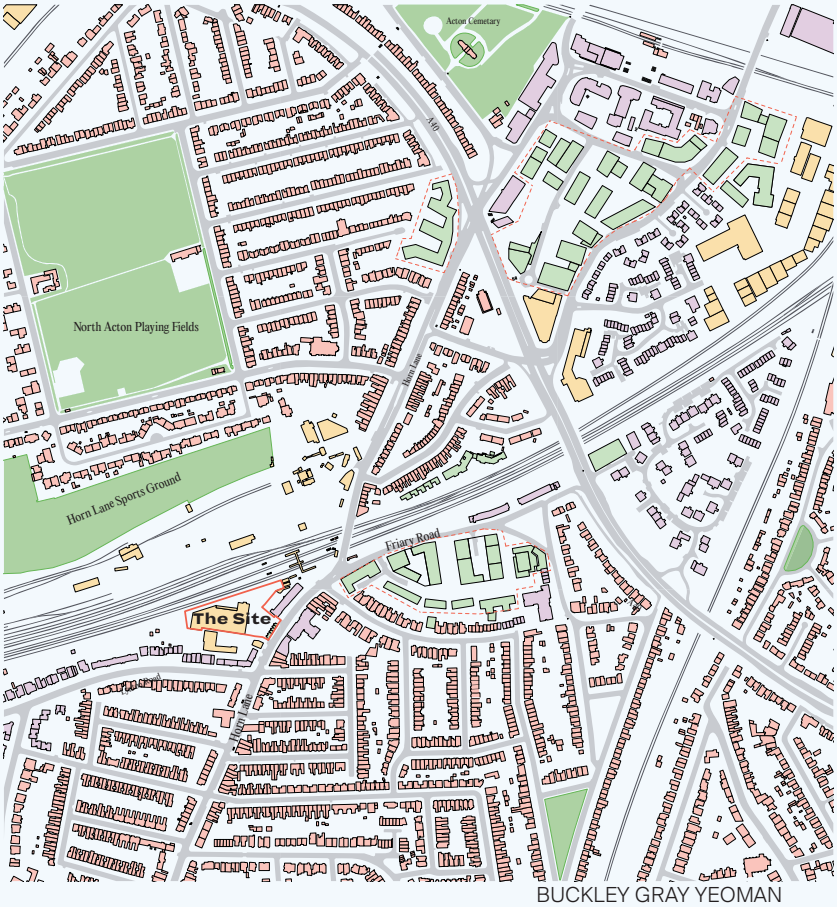
BIODIVERSITY
Gardens and terraces with biophilic design strategy



CIRCULAR ECONOMY
Continually reusing and re-purposing buildings, materials & resources; and design for future uses.

3.
The Surrounding Context

3.01 **The Context**



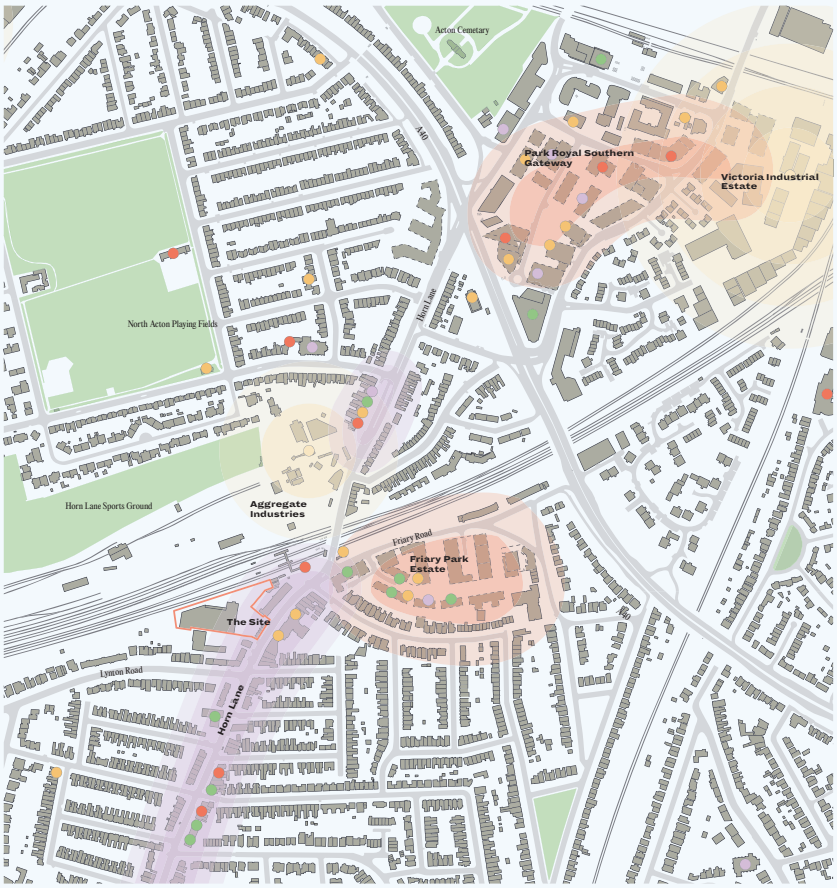
The site is located to the south west of Acton Main Line train station. The context is made up of primarily mid to late 19th century housing with modern high rise developments emerging around North Acton tube station to the north and on Friary Road directly to the east.

There are generous green spaces to the north in Horn Lane Sports Ground and North Acton Playing Fields.

The site benefits from being located in Flood Zone 1 (Low Risk).
Thames Water have confirmed (via Pre-development enquiry) that proposed surface and foul water can be discharged to sewers in Horn Lane.

- Industrial
- 21st Century
- 20th Century
- 19th Century or earlier

3.02 Area Character



Horn Lane has a vibrant and thriving mix of shops and services with residential accommodation above.

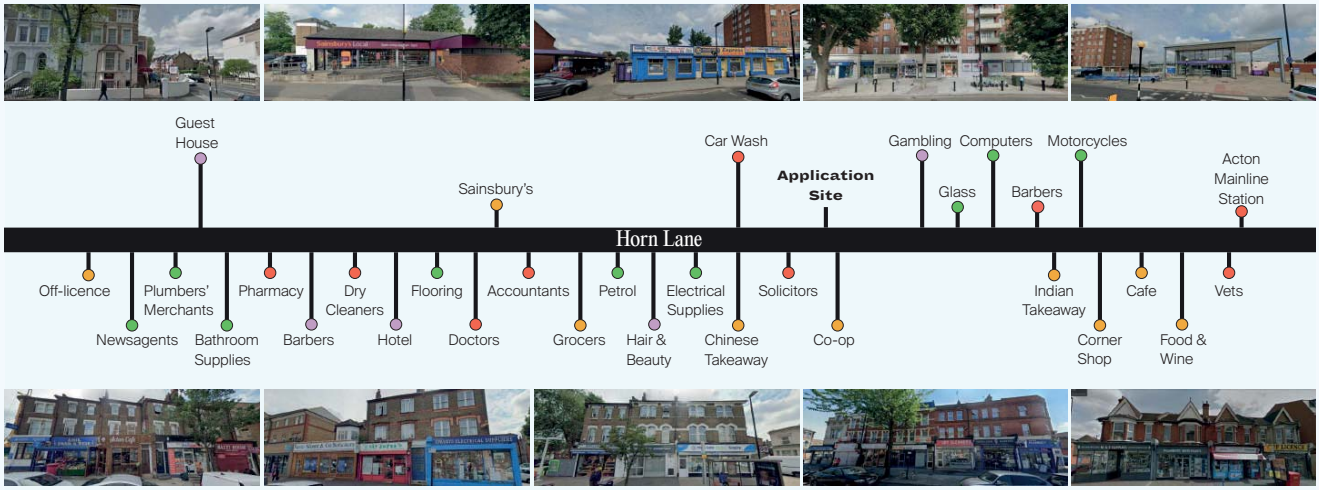
New high rise residential developments are emerging around North Acton train station to the north with the Park Royal Southern Gateway and to Friary Road directly to the east with the Friary Park Estate. These new developments are fundamentally changing the historic and predominantly low rise character of the area.

There are also protected light industrial sites directly to the north of the railway line and also further to the north west and north east.

- Retail / Comercial
- Culture / Leisure
- Food / Beverage
- Services
- New Developments
- High Street
- Industrial Area

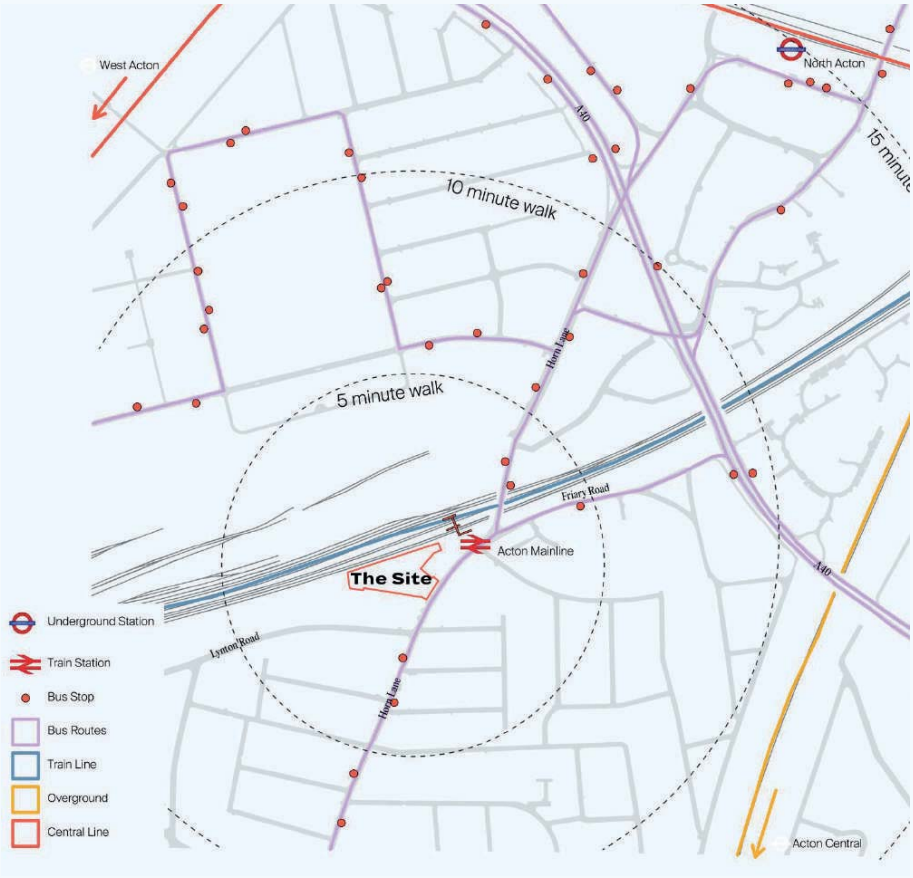
3.03 Local Amenities and Building Types

The diagram and photographs below show the mix of commercial shops, services, and building types along Horn Lane. This illustrates the vibrant and established setting into which the proposed new homes a new purpose-built builders' merchant space would fit within.



- Retail / Comercial
- Culture / Leisure
- Food / Beverage
- Services

3.04 Excellent Transport Links



The site is bounded by railway lines to the north, commercial and residential properties to the south-west and north-east and Horn Lane (A4000) to the south-east.

Vehicle access to the site is via Horn Lane and there is a zebra crossing located across Horn Lane to the south of the existing access. The existing access junction provides right of entry to the builders merchant, the rear of Acton House and provides access through the site to the Network Rail compound located to the west.

The site is located just outside of controlled parking zone (CPZ) MM which restricts on street parking from Monday to Friday between 9am to 10am and 4pm to 5pm.

Public Transport Accessibility Level (PTAL)
The site has an Access Index (AI) score of 9.05, equating to a PTAL of 2 on a scale of 0 to 6b where 6b is the most accessible. The closest bus stop is located within a 3 minute walk of the site on Horn Lane/Faraday Road and is served by bus routes 266, 440 and N266. Acton Main Line Station is situated circa 200m and less than a 2 minute walk to the north of the site and North Acton Underground station is 1080m (16 minute walk) from the site. PTAL considers rail stations within a 960m walking distance and although North Acton station is excluded from the PTALcalculation it is still within a walkable distance.

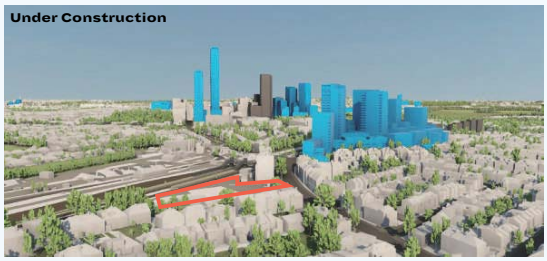
Future PTAL
A manual PTAL calculation has been undertaken to account for the Elizabeth Line from Acton Mainline which currently provides 4 trains per hour into Central London. The manual PTAL calculation indicates that the application sites PTAL will increase from a PTAL 2 to a 3.

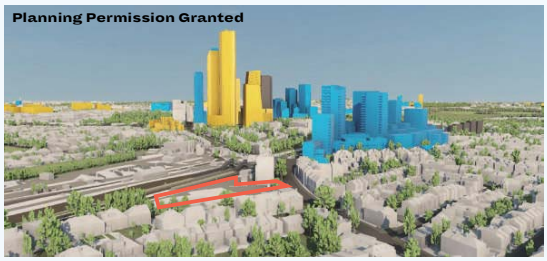
3.05 Emerging Height

The historic character of the surrounding area is primarily residential with low rise housing from the mid-nineteenth to mid-twentieth century, with the majority of buildings around the site being below five storeys in height. The heights can be seen to rise up to the north to the emerging high rise development Park Royal Southern Gateway around North Acton station. The recently commenced Friary Park Estate development directly to the east of the site is also clearly visible as an island of taller buildings. Taller buildings also exist along Horn Lane, defining this as a principal street in the area.

- 18+ storeys
- 12-15 storeys
- 9-12 storeys
- 6-9 storeys
- 3-6 storeys
- 1-3 storeys

3.06 **Emerging Context**





These images illustrate the significant changes that are occuring to the context of the site. The proposals for the development of the application site have not taken these emerging heights as a driver. Instead we have used the immediate context to inform scale, height and appearance.

Consented

Under Construction

3.07 **Heritage & Conservation Area**

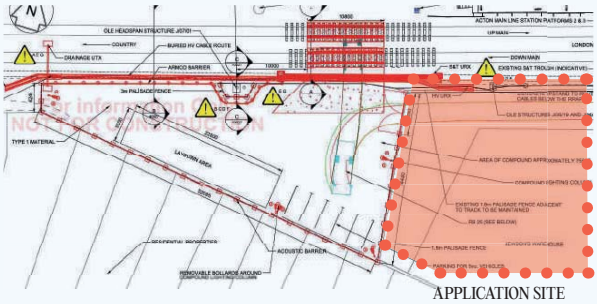
The site is not listed nor is it within a Conservation Area. The immediate context to 239 Horn Lane includes no designated heritage assets, with the nearest Conservation Area (Acton Park) located 0.8km to the south. There are a few locally listed buildings within 500m of the site, the nearest being 41 Lynton Road W3 9HL to the west. The nearest statutorily listed buildings are south (circa 1km) within Acton Town Centre.

Listed Building / Asset

Note: Conservation area not shown on this map

3.08 Network Rail

Extract from Arcadis Maintenance Strategy Report



APPLICATION SITE

Network Rail have published proposals to develop the existing area of scrubland to the west as a service yard to allow access to the railway line for maintenance.

To facilitate this use, access is required for railway maintenance vehicles across our site from the site's existing Horn Lane access. The vehicles will then proceed west along the site's northern boundary to the service yard.

Title restrictions also require that no building works are carried out within a distance of 3m from the boundary with the railway. We have added an additional 4m to this buffer to allow for construction zone and later for two-way traffic.

If the access beside the North Pole is not viable an alternative location has been developed by Arcadis. This is at Jewsons Yard, beside Acton Mainline Station to the west of the project area. Agreement for this access would need to be made. The access point would serve construction vehicles during construction and have a larger capacity during the phase to permit an SRS PKR750. After this in the operational phase the access will be limited to SRS RB 25 vehicles for maintenance. The compound will have lighting and a laydown area.

4.
The Site

4.01 The Site

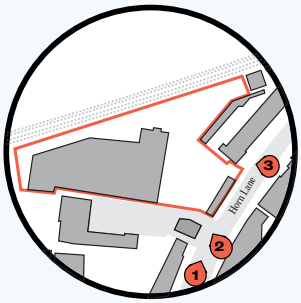
The site is an irregular shape. The longest boundary to the north borders directly on to the railway line. The short boundary to the east borders an electricity sub-station and sits directly behind the train station. To the short boundary to the west is an area of overgrown scrubland. The southern boundary abuts partially on to the back gardens of the houses on Lynton Road but mainly onto a construction plant storage yard and the existing hand car wash site. The eastern boundary is split, part backing onto the car park and garages to the rear of Acton House with a short frontage onto Horn Lane itself.

The site currently houses a Jewson's builders merchant consisting of a number of large pitched roofed warehouses surrounded to the north by materials storage areas and to the east by customer parking.

The buildings that abut Horn Lane are single storey, flat roofed buildings that are currently vacant.

The existing buildings are of little quality and the buildings to Horn Lane do not contribute positively to the street.

4.02 The Site - Street Views



The site is situated on Horn Lane between the seven storey Acton House to the north and the hand car wash site and three storey Fells Haugh apartment building to the south. A run of single storey buildings face on to Horn Lane and are set closer to the pavement edge than the buildings to either side.

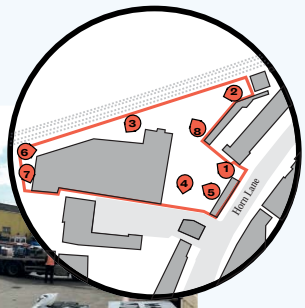
The north edge of the site is concrete surfaced and used to provide access both to the parking and garages to the rear of Acton House and for customer and delivery vehicle access to the builder's merchants. There are windows in the upper floors of the south gable of Acton House.

The land to the south edge of the site is also concrete surfaced and used for access to the construction plant yard and for the hand car wash.

The site is positioned on a slight bend in Horn Lane and as such forms a prominent position on the street in views from further up and down Horn Lane.

The site benefits from being located in Flood Z one 1 (Low Risk). Thames Water have confirmed (via Pre-development enquiry) that proposed surface and foul water can be discharged to sewers in Horn Lane.

4.03 **Site Photographs**



4.04 Planning Context

Site Allocation – ACT6: Acton Crossrail Station

The site forms part of the wider 'ACT6 Acton Crossrail Station and 239/265/267/305/207 Horn Lane' allocation within Ealing's Development Sites DPD for the following development:

"Consolidation of industrial, aggregates and waste facilities to the north of railway, safeguarding of the rail sidings, and introduction of commercial and residential (potential for student accommodation) uses south of the railway, compatible with the functioning of the station."

Relevant development principles set by the allocation include the following:

- Contribute to an improved sense of place around the redeveloped station through delivery of a high density, high quality mixed use development, including commercial and residential uses, that optimises the development potential of the site.
- Opportunity to deliver a significant piece of new architecture that responds positively to the station redevelopment within the context of the surrounding residential neighbourhoods and existing commercial uses on Horn Lane.
- Designs should optimise the development potential of the site and deliver a significant improvement to the townscape of the area through emphasising the location of this key transport node.
- Any residential units proposed should be dual aspect (north facing single aspect units are not acceptable) and buildings should be orientated to maximise sunlight and daylight. Both balconies and communal garden space will be expected in flatted schemes; communal garden space may be provided above ground level in the form of courtyards or roof gardens.
- Designs must include measures to mitigate the impact of railway noise and be based around a layout that ensures sufficient privacy and adequate outlook for residents of both the new development and existing residential properties.

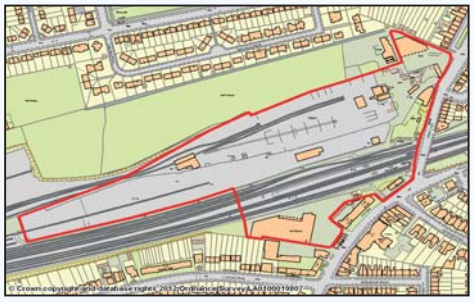
Secondary Shopping Frontage

The terrace of properties which comprise the 'Builder Depot' fronting Horn Lane are located within a designated 'Secondary Shopping Frontage'.

Brownfield Land Register

The site is included within Part 1 of the Council's Brownfield Land Register and has been assessed as being appropriate for residential development. 'The site is designated as a Strategic Area for Regeneration and Area for Intensification within the

'Ealing Character Study (January 2022)'.



Site Area: 6.84ha

Ownership: Private and Network Rail

Current Use: Aggregates recycling depot, commercial waste transfer facility and construction materials to north of railway, Acton Mainline Station and Builders Yard to south of railway.

Development Strategy Policies: 1.2 (d), 1.2(g), 1.2(j), 2.4

Setting: Urban

PTAL: 2-5

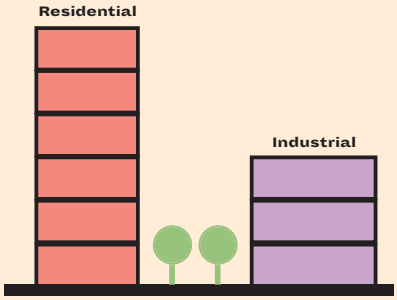
Planning Designations:
Safeguarded Waste Transfer Facility
Safeguarded Aggregates Depot, Green Corridor
Adjacent to Horn Lane Sports Ground Community Open Space

Relevant Planning Applications: None

5.
Strategic Investigations

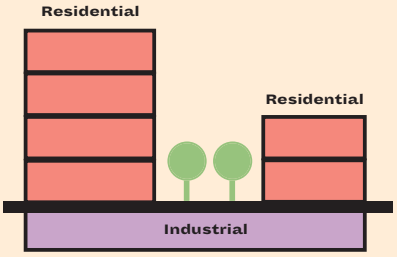
5.01 Strategies for a Mixed Use Scheme

We looked at a number of different approaches for how we would separate and locate the industrial and residential uses.



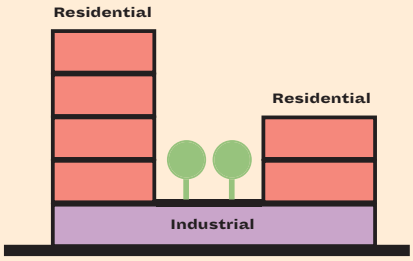
Multi-storey warehouse as separate block ✗

- Builder Depot advised that a multi-storey format would not suit their business model
- Multi-storey format not viable for non-automated light industrial use
- Light industrial service yard, and large vehicle access are on same level as Residential Landscape & Access, potentially compromising quality and safety



Warehouse as basement with residential above ✗

- Change of level to light industrial not suitable for Builder Depot's business model. Additionally access, deliveries and service yard to warehouse become compromised.
- Landscape and residential access could be separated from light industrial use, but this would compromise the light industrial functionality.

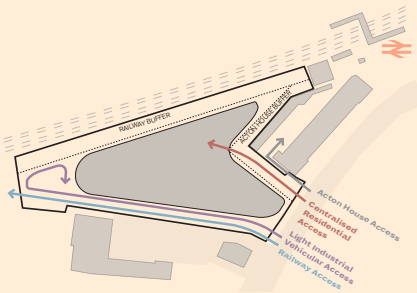


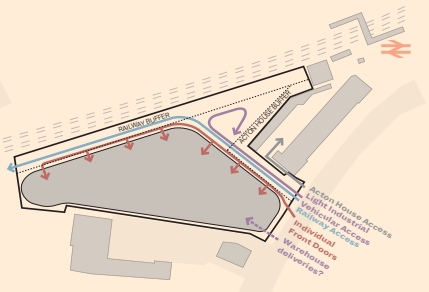
Warehouse as podium with residential above ✓

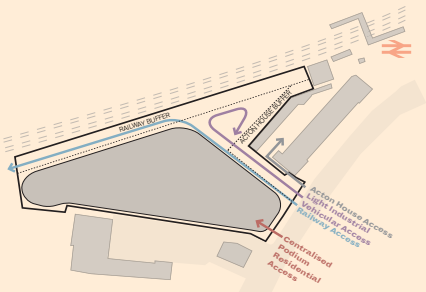
- Light Industrial is able to be fully functional with usable access points and servicing on the ground floor
- Landscape and residential access is separated from light industrial use optimising the quantity of external space provided

5.02 Site Access Strategy

Different options for site access and circulation were also explored. The conclusion was that segregated access for different modes of entry and for different users would be the most practical approach.







New Southern Access Road ✗

- Inefficient use of site as buffer zones and access routes are separated out
- Almost negligible street frontage to Horn Lane
- New access would block zebra crossing and cause vehicular safety issues
- Development site becomes island surrounded by roads

Single Access Point as Existing ✗

- Safety and quality of residential access compromised by sharing space with large vehicles required for Industrial and railway use
- Ground Floor rear & railway buffer activated by front doors
- Given residential & railway requirements, limited potential for landscaping and trees to ground floor access routes
- Option to bring articulated lorry deliveries straight off Horn Lane into Warehouse was discounted due to Transport specialist advice

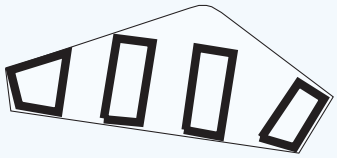
Segregated Access ✓

- All pedestrian and cycling residential access is from Horn Lane, avoiding any overlap with heavier vehicles
- Residential servicing such as refuse collection can still occur to perimeter of building
- Efficient use of buffer zones to double up as access routes

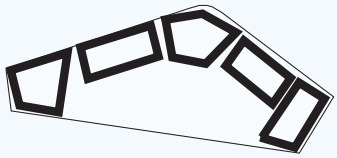
6.
Developing a Site Strategy

6.01 **Residential Massing Approach**

Two approaches to the development of the site that responded to the requirements of the brief and the site constraints were considered during the initial site strategy development, a 'radial' approach and a 'courtyard' approach. Both approaches looked at creating a raised podium level to achieve both a large warehouse space alongside a generous landscaped area.



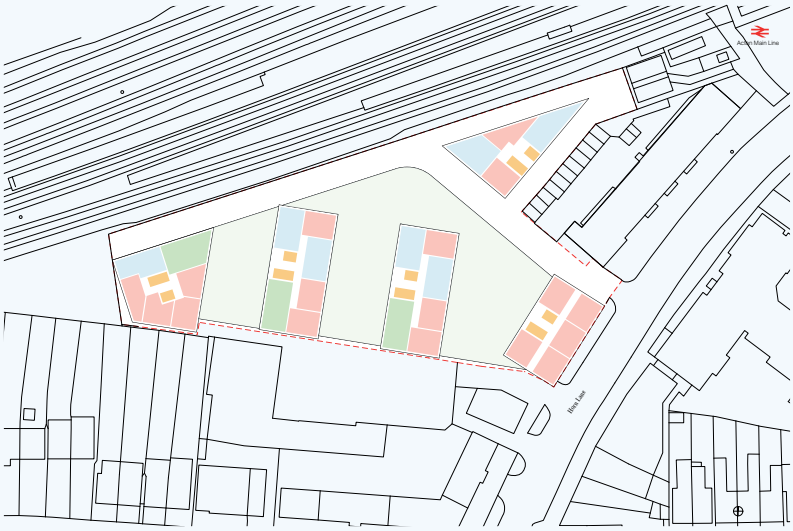
Radial approach



Courtyard approach

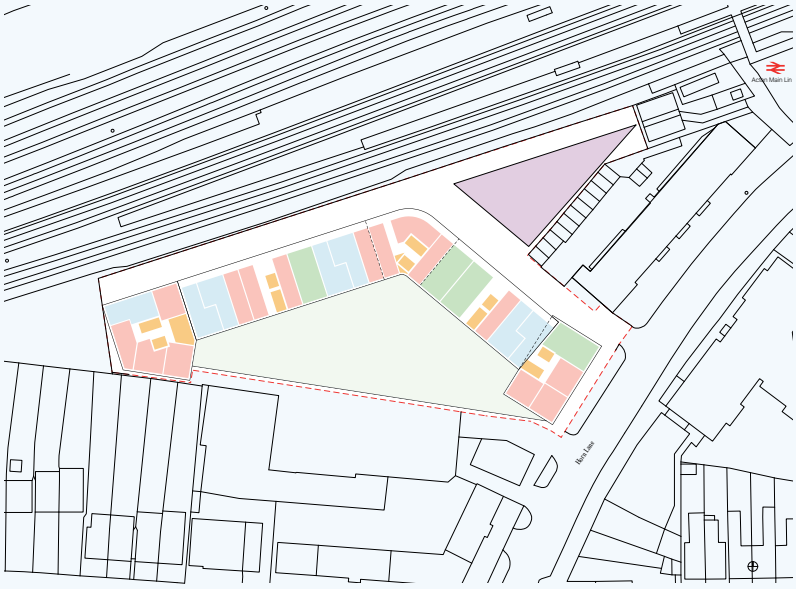
6.02 Radial Approach

The radial approach was discounted following initial investigations with the consultant team due to issues with structure, daylight/sunlight, overlooking and most critically townscape. The spaces between the blocks would be overshadowed for significant periods of the day and the buildings appear out of context when viewed from Lynton Road.



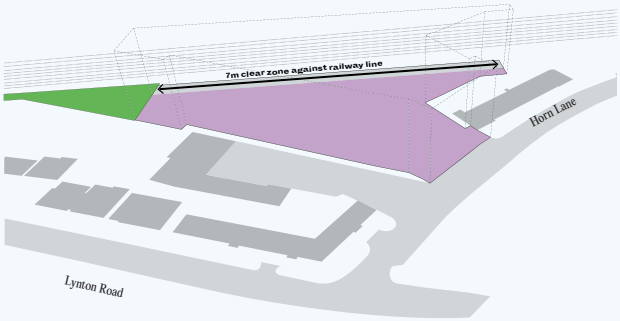
6.03 **Courtyard Approach**

The courtyard strategy comparatively was seen to offer a positive approach to the site. A generous and open south facing central landscaped area that is shielded from the noise from the railway line by the buildings, alongside the opportunity to sculpt the form and profile of the buildings to respond to the different nature of the buildings and spaces to the boundaries. The approach also offered functional benefits, a large space under the landscaped area where the structural grid can be set to be optimal for the warehouse use and the cores can be positioned to the perimeter allowing for servicing and escape.



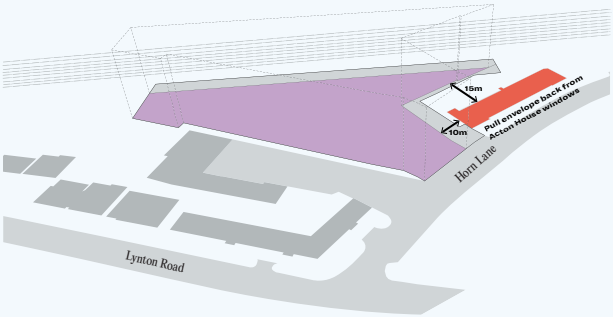
6.04 **Site Layout Diagrams**

Railway Access



Network Rail requires that a 3m clear zone from overhead electrical cables is left alongside the railway line with an additional 4m allowed for construction traffic and operations. This clear zone will also provide a buffer between residential units and the potential impacts of the railway. The clear zone can be used as an access route by Network Rail to the planned service yard to the west of the site.

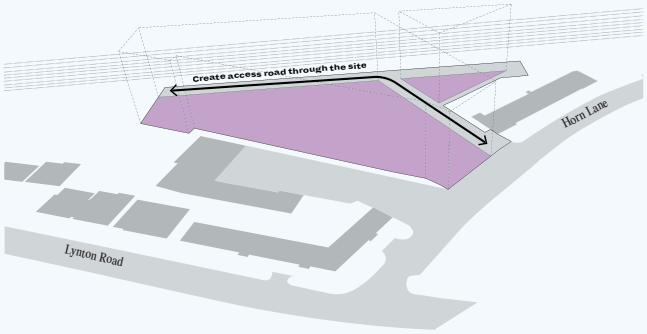
Adjacent Buildings



Acton House to the north east of the site has windows to the rear and side elevations. Due regard needs to be made to these in terms of daylight and sunlight and overlooking. The buildable area has been pulled back to provide a buffer to Acton House. This will be further refined during the design development with detailed daylight / sunlight analysis.

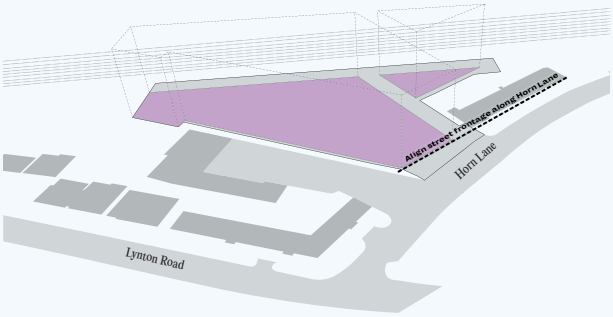
Site Layout Diagrams

Access Road



Options were considered as to where the vehicular access point to the site should be. Retaining the existing access route was deemed the most appropriate solution as it serves the dual purposes of also pulling the building envelope away from Acton House and avoids impacting the existing zebra crossing.

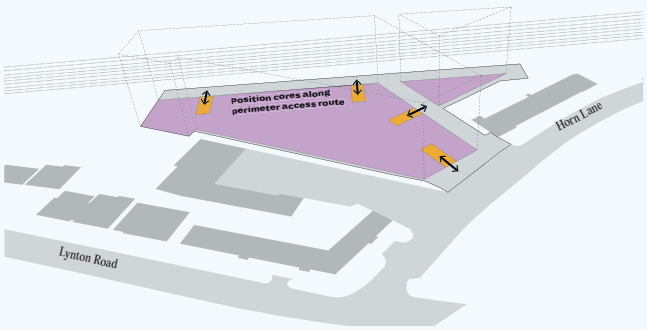
Street frontage



Horn Lane is a wide tree-lined street with generous pavements and buildings set back from the road. The proposal would seek to continue this and align the buildings fronting onto Horn Lane with adjacent buildings to the East and West.

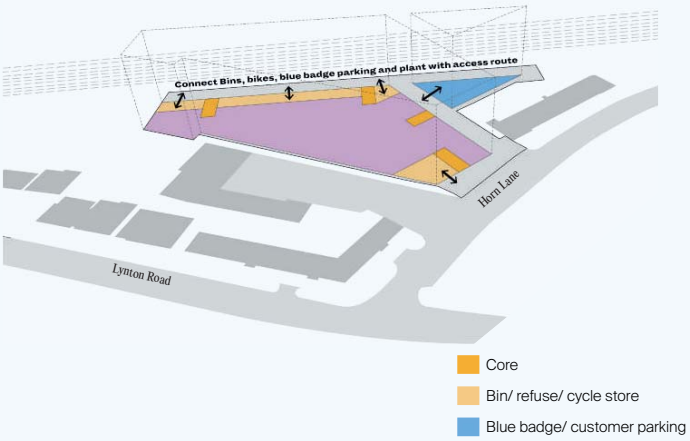
Site Layout Diagrams

Cores



In order to provide service access, conform to a structural grid, and minimise routes to bin stores, the cores have been positioned along the outside edge at ground level. While the primary entrance will be at podium level, the cores reaching ground floor will serve as “back doors” and also allow easy access to blue badge car drivers and refuse stores.

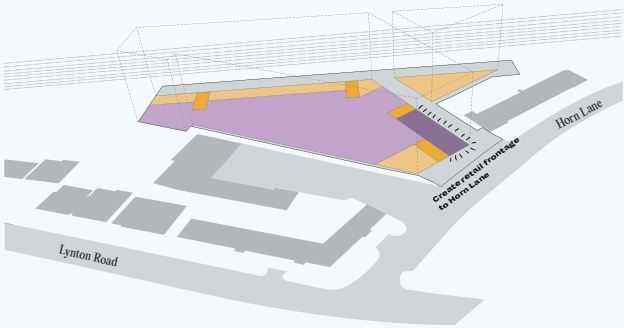
Residential Services



Blue badge parking spaces, refuse collection points, bin stores, cycle stores, and plant have are provided at the perimeter of the building envelope and connected to the cores.

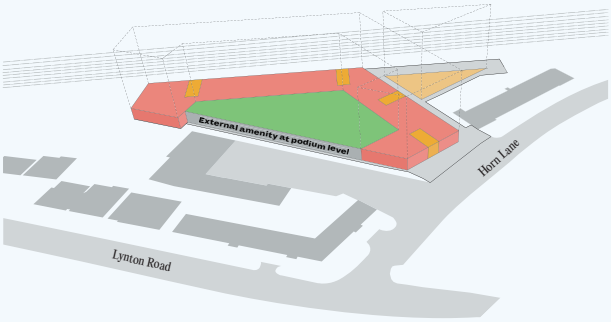
Site Layout Diagrams

Retail



A retail frontage that relates to the builders' merchants will activate the Horn Lane facade, and return into the site along the access route.

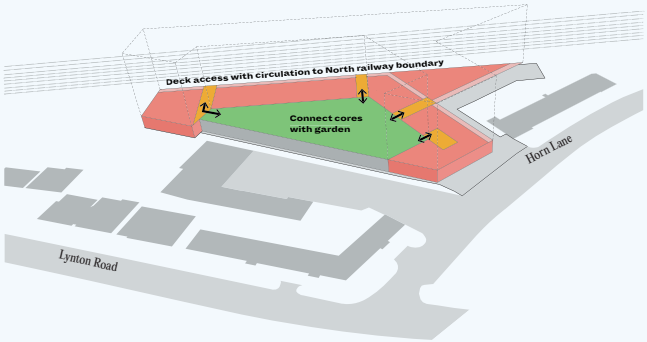
External Amenity at Podium Level



With the ground floor occupied by the builders merchants, the external amenity is raised up above it at podium level with the residential buildings surrounding it to the north and providing enclosure to the central landscaped space. The external amenity is open to the south-west meaning that it will be a sunny and pleasant space to occupy.

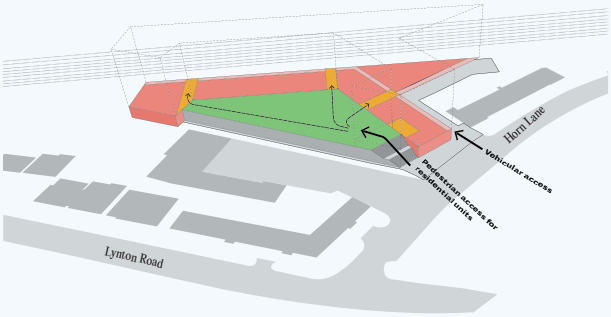
Site Layout Diagrams

Internal Circulation



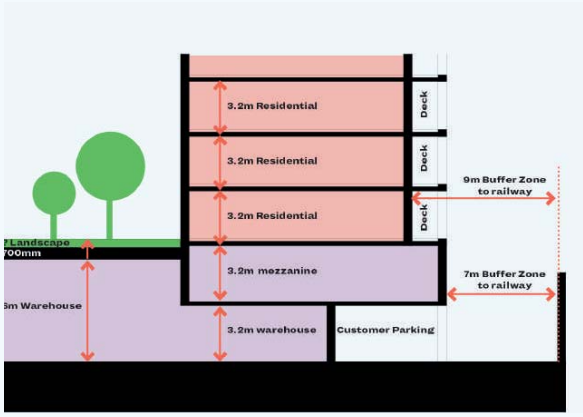
By running deck access along the perimeter of the buildings a further buffer is provided between the apartments and the railway / Acton House. Deck access also allows for the apartments to be primarily dual aspect in a site with a predominantly northern edge. Opening the cores up onto the garden creates a connection between internal and external residential amenity.

Routes Through

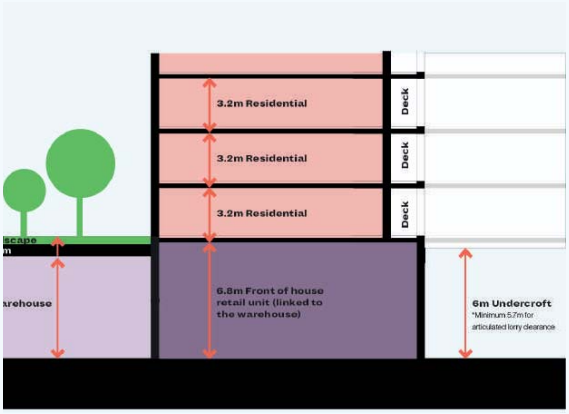


In order to further create a distinction between the residential part of the scheme and the industrial builder's merchants below the access points have been entirely separated. The entrance for cyclists and pedestrians to the residential scheme is directly off Horn Lane with cycle parking at ground level and pedestrian access up to podium level where the front doors are located off the communal garden space. The vehicular route, is located on the existing access road alongside Acton House.

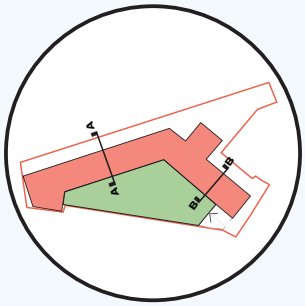
6.05 Vertical Zoning



Section AA



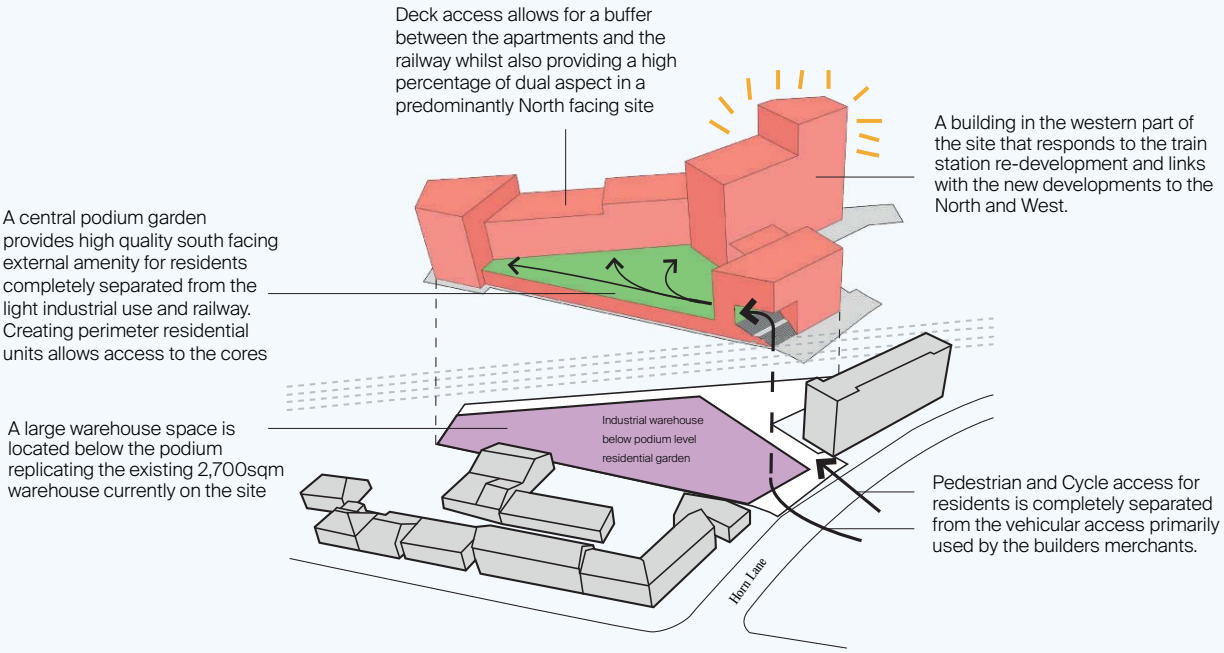
Section BB



The podium is raised 7.2m above street level to provide the optimum floor to ceiling height for the proposed builders' merchants housed under and allows for structure, insulation and landscape build-ups. This height also means that large vehicles can pass below the upper residential element where it crosses the access road.

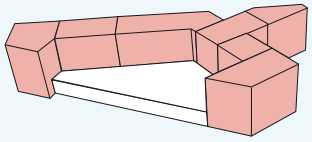
The landscaping build up to the top of the podium results in the residential blocks being raised further above the ground to achieve a level threshold offering the opportunity to include a mezzanine floor to the perimeter.

6.06 **A Mixed Use Scheme**

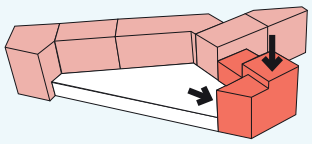


6.07 **Height**

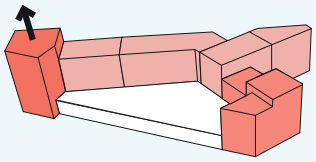
These design development sketches show how the massing of the courtyard scheme evolved.



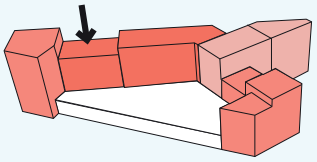
1. Seven storey scheme relating to the height of the adjoining Acton House



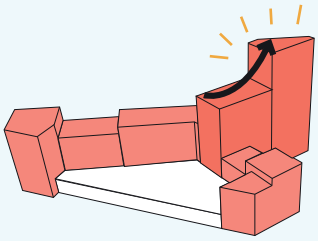
2. Sculpt Horn Lane Block so that it sits subservient to Acton House and transitions the scale down to the buildings to the west.



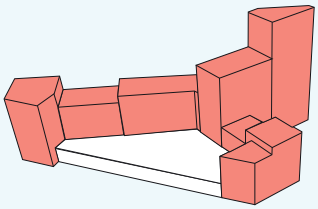
3. Raise Lynton block slightly so that it acts as a “full stop” to the linear block, while still respecting the suburban scale of the houses on



4. Break up the mass of the linear courtyard block, reducing the height of the western side in order to build up to the eastern corner of the site

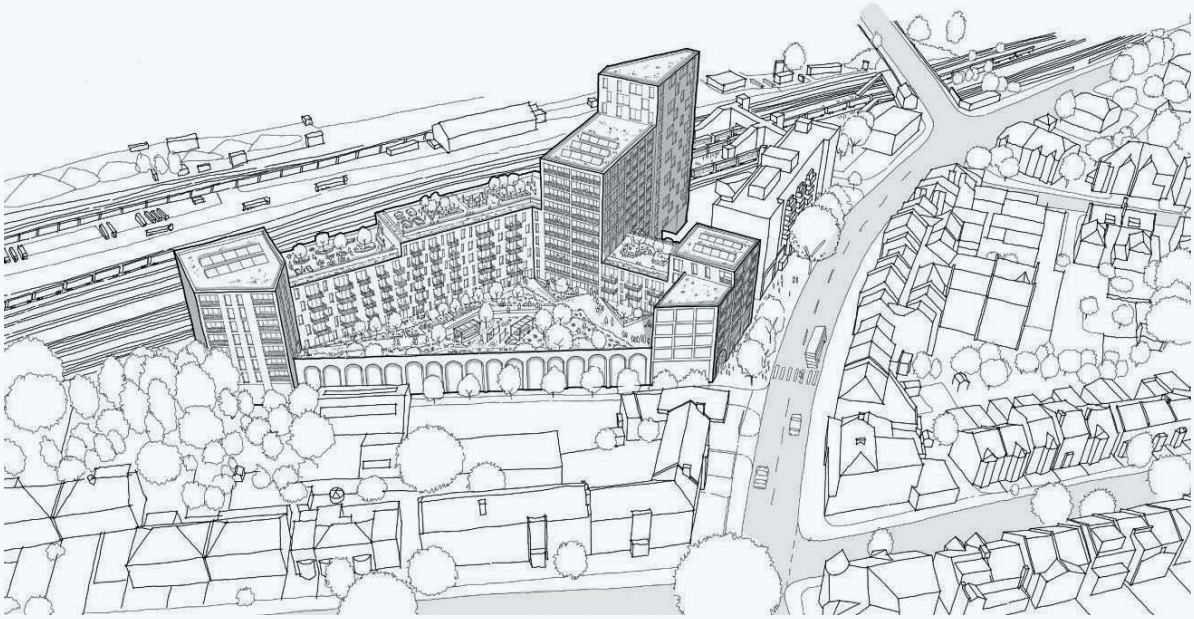


5. Raise Station block up so that it responds to the re-development of Acton Mainline Station, emphasising its location and relates to the new developments to the North and East



6. A varied and nuanced scheme which responds to the suburban houses on Lynton Road, the buildings along Horn Lane including Acton House, and the train station and new developments to North and East.

6.08 **Aerial View**



Early design sketch - Arial view

This sketch shows an overview of the evolving massing proposals. The residential blocks will sit around the perimeter of the plinth formed by the warehouse on the lower floors. To the north and east, the blocks will enclose a central garden courtyard, providing a buffer to the noise from the railway line and builders' merchant activity. To the south and west, the garden space will benefit from good aspect and sunlight levels.

End and corner blocks step up from lower 'link' elements. The opportunity for height is greatest at the corner Station Block which is set back from Horn Lane and the houses on Lynton Road and sits close to the railway line.

6.09 A New Presence on Horn Lane

Early design sketch - View from Horn Lane

With the Horn Lane Block, we proposed to move the building line back so that it lines up with the neighbouring Acton House to the east. (The existing single storey commercail block sits further out onto the pavement). The height of Acton House too is referenced in the height of this elevation.

The treatment of this street frontage is critical to the success of the scheme. The entrance arch to the residential courtyard and the generous shopfront windows will be important additions to the streetscene of Horn Lane.

6.10 Testing the Design

Having established the strategic principles of how to approach the brief and site, we tested this approach through a series of workshops, and evolved the design according to each of the following requirements:

Daylight / Sunlight

- Minimise impact on Acton House
- Consider impact on Pegasus Court
- Consider impact on Springfield Court
- Avoidance of shading to external amenity
- Optimal depth of plan to achieve suitable amount of light internally

Townscape

- Respectful of suburban scale of Lynton road
- Provides suitable variation along railway so as to not present a blank wall
- Opportunity for more height to rear of site adjacent to the railway line to mark redevelopment of Acton Mainline station and relate to new developments to North and East.

Design

- Variation of height to add visual interest
- Clear architectural language to unite varying forms
- Clear and inviting entrance sequence
- Activation on Horn Lane ground floor
- High quality modular apartment types
- Clear separation between industrial and residential use with limited impact on functionality and quality of either

Transport

- Keep pedestrian crossing on Horn Lane and maintain safe access for pedestrians
- Separate cycle access and storage from vehicular access
- Residential waste refuse lorry needs independent access and turning within site
- 3% of units will require blue badge parking
- Light industrial parking is determined by Builder Depot's business model
- Access, turning circle and height for articulated lorry and forklift to allow for deliveries to light industrial

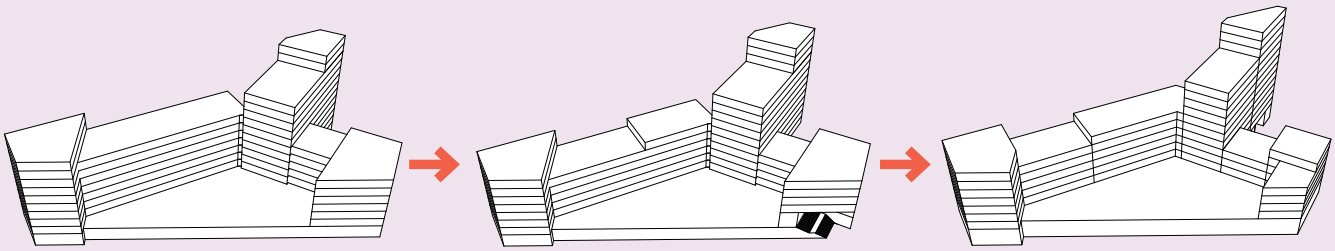
Services

- Plant space required at ground floor and roof level
- Consideration that buildings over 50m have extra servicing requirements.

Structure

- Perimeter residential with modular units allows for regular structural grid and greater flexibility to light industrial space below podium
- Podium build-up allows for a mezzanine level within ground floor
- Parking spaces spaced within apartment modular grid in order to allow for most efficient structure

6.11 Adjusting the Form



Initial massing study derived from site strategy:

- **Lynton Block:** Block raised slightly to act as full stop to courtyard, while also relating to the suburban houses on Lynton Road
- **Courtyard Block:** Linear deck access block which provides an edge to the podium and relates to the railway and the courtyard
- **Station Block:** An opportunity for some height marking the redevelopment of Acton Mainline railway and relating to the high rise developments emerging to the North and the East while also respecting Acton House.
- **Horn Lane Block:** Street facing block which relates to Acton House and Springfield Court providing frontage to Horn Lane

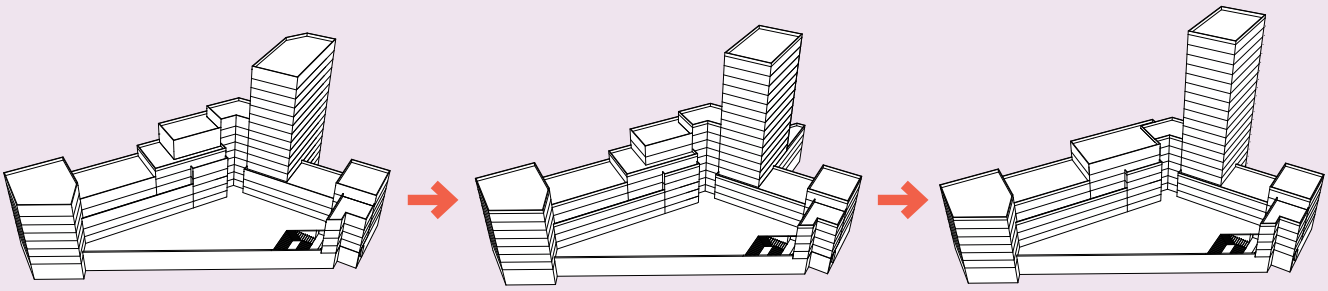
Massing following initial townscape workshop:

- **Lynton Block:** Further reduction in height to lesson impact on Lynton road
- **Courtyard Block:** Reduction in overall height to relate to Lynton block while introducing variation in height to add interest from the railway and step up to Station block
- **Station Block:** Increase in difference of height between two elements, with further height considered appropriate in this location from a townscape perspective to articulate the difference between the marker and the low rise courtyard blocks.
- **Horn Lane Block:** Introducing main residential access off of Horn Lane and beginning to consider how this might impact form

Refinement of block forms following internal layout exercise:

- **Lynton Block:** Refinement of form following internal planning of flats to create a more elegant external form
- **Courtyard Block:** Resolution of internal plan and junction with Station Block
- **Station Block:** Refinement to a more elegant form occupying a greater extent of the land behind Acton Mainline station, but a slimmer plan depth.
- **Horn Lane Block:** Sculpted so that it sits subservient to Acton House and transitions the scale down to the buildings to the west.

6.12 Testing the Form



First round of detailed daylight analysis, in parallel to further plan development and form articulation

- **Lynton Block:** From a daylight perspective, further mass could be added to Lynton Block as it does not shade any adjacent buildings.
- **Courtyard Block:** Daylight analysis suggested that additional mass could be accommodated to rear of Station Block as there are no buildings to the North of the site, and therefore no impact from these parts of the site.
- **Station Block:** Station block pulled back in order to reduce impact on LKD's to Acton House. Height made uniform in response to location of core, and as a result of the reduced footprint.
- **Horn Lane Block:** Entrance to Horn Lane articulated further, and massing further eroded to relate to depth of Springfield court.

Further daylight testing suggested that relationship with Acton House could be further improved

- **Lynton Block:** No change
- **Courtyard Block:** No change
- **Station Block:** Further daylight analysis indicated that the relationship with Acton House could be further improved. Extending the footprint to the end of the site would be acceptable for up to six stories as it would be no worse than the mirrored massing scenario where Acton House is reflected over the boundary. Conversely, the relationship with Acton House would be improved if the tall building footprint was further reduced so that

Further townscape and design workshops to feed back principles other than daylight into the massing.

- **Lynton Block:** No change
- **Courtyard Block:** The additional massing to the courtyard block was felt to confuse the architectural hierarchy of a relatively lowrise scheme with a tall building emerging above it in an appropriate location.
- **Station Block:** The low rise element behind Acton House was felt to be of low quality internally, and unneighbourly to Acton House. Instead, the focus is on a slim elegant tall building which marks the station and

7.
The Consultation Process

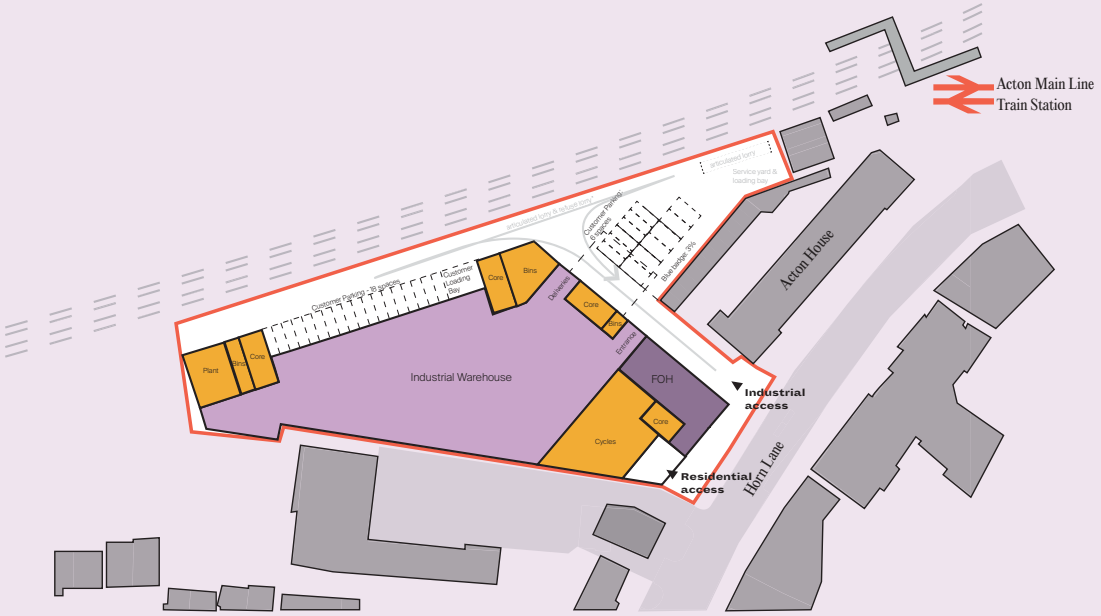
7.01 Early Pre-Application Meetings

The design proposals have evolved through our engagement with the local planning authority through the pre-application and consultation process. In particular, the early pre-application meetings and workshops were instrumental in informing the massing, form and height of the proposals. In the following pages we will discuss this early engagement in terms of the proposals put forward to the Local Authority, the feedback received and how the design team responded positively in evolving the scheme.

7.02

Pre-App 1

7.03 Ground Floor Level Proposals

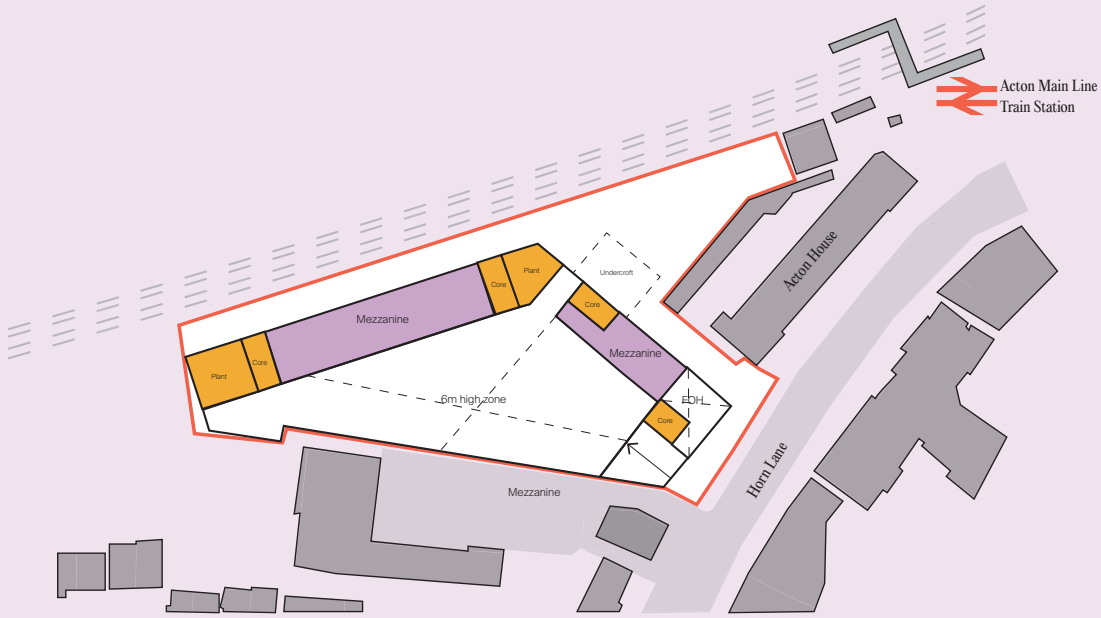


The ground floor plan evolved in response to the site constraints and context. It was proposed that the access road required for the Network Rail service yard would also be used to provide a route for deliveries and customer parking for the builder's merchants. By pushing the residential lift and stair cores and service spaces to the perimeter, this road would also be used for refuse collection, deliveries and servicing.

The proposals included kitchen, bathroom and flooring showrooms as part of the builders merchants to be located on the north east corner of the site and provide an active, high quality shop frontage to Horn Lane.

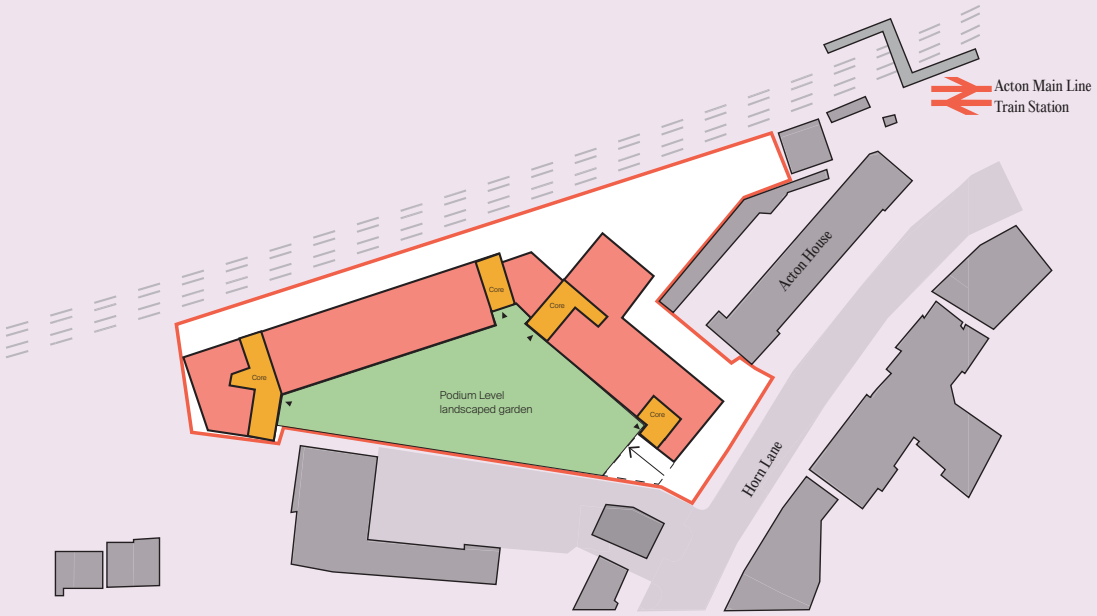
Pedestrian and cycle access to the apartments would be set away from the access road to provide clear segregation and maintain separation between vehicle and pedestrian movement. A generously proportioned gated entrance courtyard provides access to a generous covered courtyard with stair and lift access to the podium above.

7.04 **Mezzanine Level Proposals**



We explored the scope to provide additional light industrial floor area through a mezzanine in the perimeter space under the residential blocks. This would be beneficial in supplementing the clear warehouse area under the central courtyard over.

7.05 Podium Level Proposals



A generous, south facing landscaped garden was proposed for the courtyard space in the centre of the residential blocks. Entrances to the residential blocks would be positioned on the edge of the central space, providing an active and social community space that would encourage chance meetings between residents and foster a sense of community.

7.06 Upper Floor Level Proposals

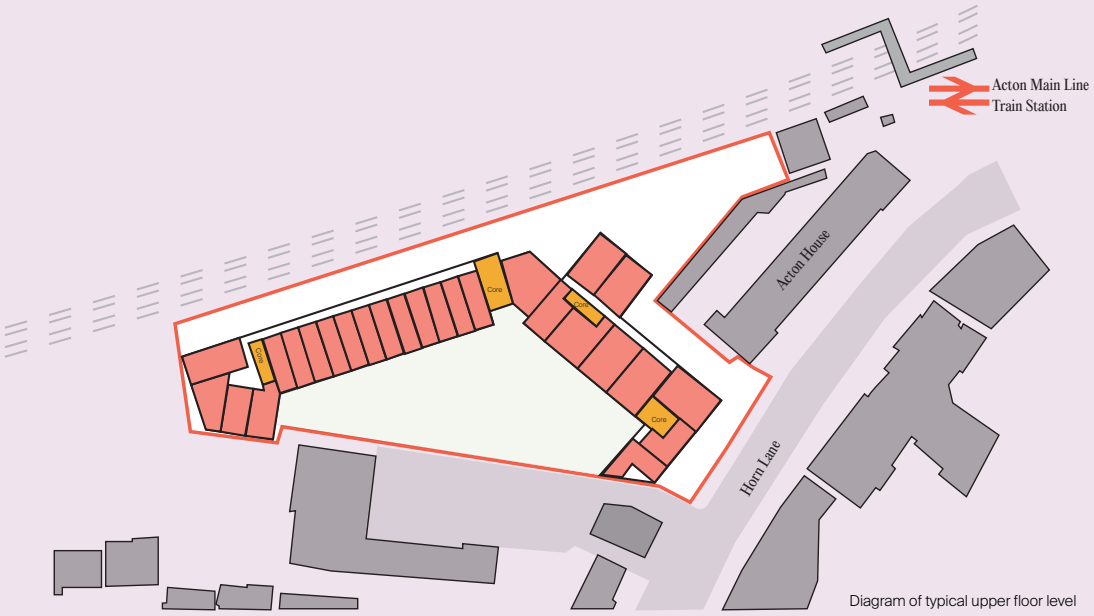


Diagram of typical upper floor level

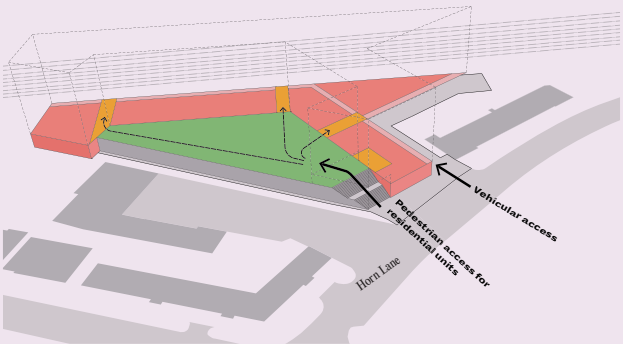
The vast majority of apartments in the proposed scheme would be dual aspect with a limited number of south east and south west facing single aspect units to the east and west corners.

Units in the central blocks would have deck access. Decks would be positioned to provide a buffer to the access road and railway line with living spaces opening out onto the central garden, again contributing to the active and community feel of this space.

7.07 **External Amenity**

A variety of external spaces were proposed at different levels around the development, each of which required its own considered approach.

7.08 Access Routes



Access diagram

Courtyard entrance, early concept sketch

As described, pedestrian and vehicular access routes have been separated. The access road on the east of the site will be used primarily by traffic associated with the builders' merchants. The main entry points to the commercial space will also be located along the access road. A limited number of residents will have parking spaces (blue badge only). The road will also be used for refuse collections, deliveries etc. and will provide an access route for Network Rail vehicles.

Residents will enter the site through an archway on Horn Lane. From this archway, a stairway will lead to the podium level and the main entry points for the different residential blocks. Lift access will also be provided in that area.

7.09 Pre-App 1 - Comments on Overall Strategy

The general response from the Local Authority was positive, with some areas identified for further investigation. The summary of the main points of feedback include:

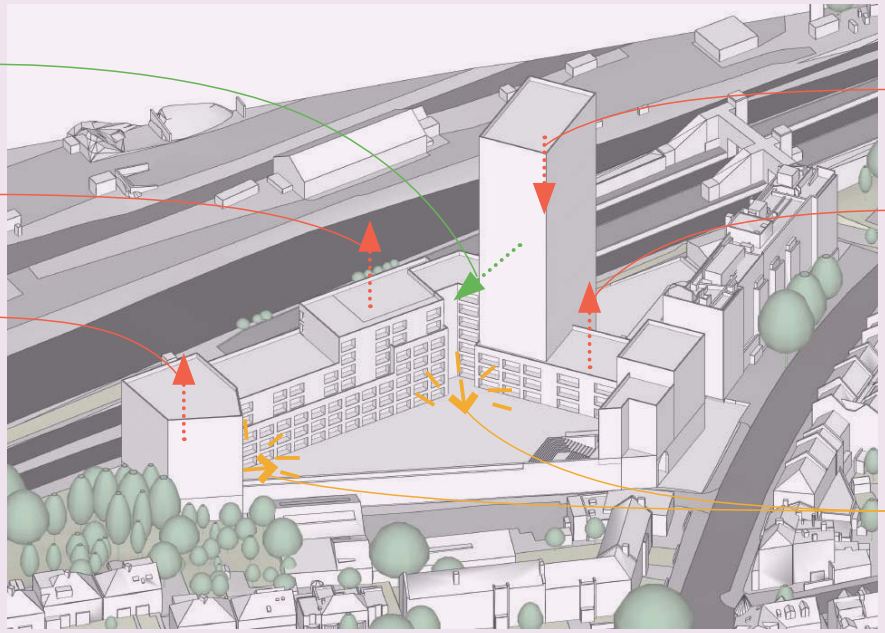
- The principle of a mixed use scheme with industrial below and residential above accepted
- The podium level access and stairs up was considered, and would provide an interesting access into the building.
- The entrances to the buildings from the podium garden could however benefit from being more prominent, possibly through the built forms encroaching on the public space to help to define them.
- Massing of taller station block to be reviewed. Aspiration to reduce height back to 13/14 storeys as shown in previous meeting;
- Potential adjustments to other blocks to be reviewed to offset the loss of units, with the section between Horn Lane and the taller block, as well as the Lynton Road block as potential areas to raise in response.
- Study to be undertaken into potentially different massing arrangement above podium, including potential to bring Station block forwards and more central within the podium.

7.10 **Massing Comments**

Look at moving mass of taller Station block into podium space

Possible increase in height of Courtyard Block

Possible increase in height of Lynton Road Block



Reduce the height of the tallest building

Possible increase in height of connecting block

Increase visibility and presence of Entrances to Cores by bringing into the podium space

7.11

Pre-App 2

7.11 Pre-App 2 Overview

The second Pre-Application meeting focused mainly on revised massing proposals. Design development in areas such as layouts, landscape and amenity were also discussed.

Response to Pre-App 1

Our initial responses looked at alternate arrangements of the massing to best allocate space and mass around the podium.

The key elements of investigation were:

1. The height of the station block

2. The location and orientation of the station block

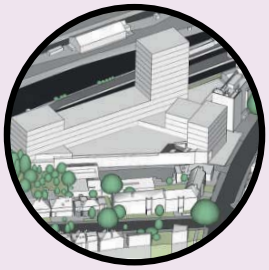
3. Highlighting entrances to cores

4. Assessing alternate areas to redistribute massing

5. Optimise the development of the site whilst responding sensitively to the context

7.12 Massing Development Studies

We developed and tested a number of different massing approaches in response to the feedback from Pre-App 1. The pros and cons of each option were presented below.

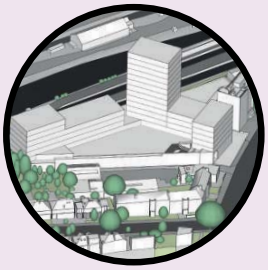


Option 01

Reduced height creates sensitive relationship to context

Lynton block not visible above roof line

Slender profile presented to station

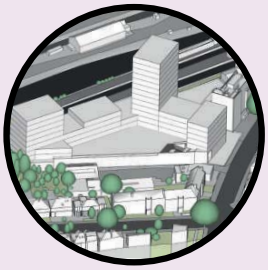


Option 02

Reduced height creates sensitive relationship to context

Lynton block not visible above roof line

Articulated skyline to northern block with clear gap in mass from internal and external views

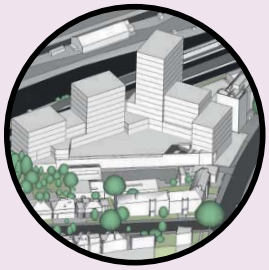


Option 03

Reduced height creates sensitive relationship to context

Articulated skyline to northern block with clear gap in mass

Station block orientation achieves sensitive addition of height to the skyline

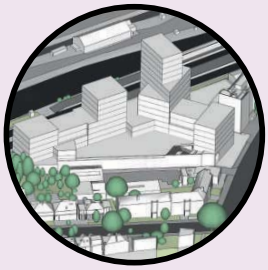


Option 04

Reduced height creates sensitive relationship to context

Articulated skyline to northern block with clear gap in mass

Station block orientation achieves sensitive addition of height to the skyline



Option 05

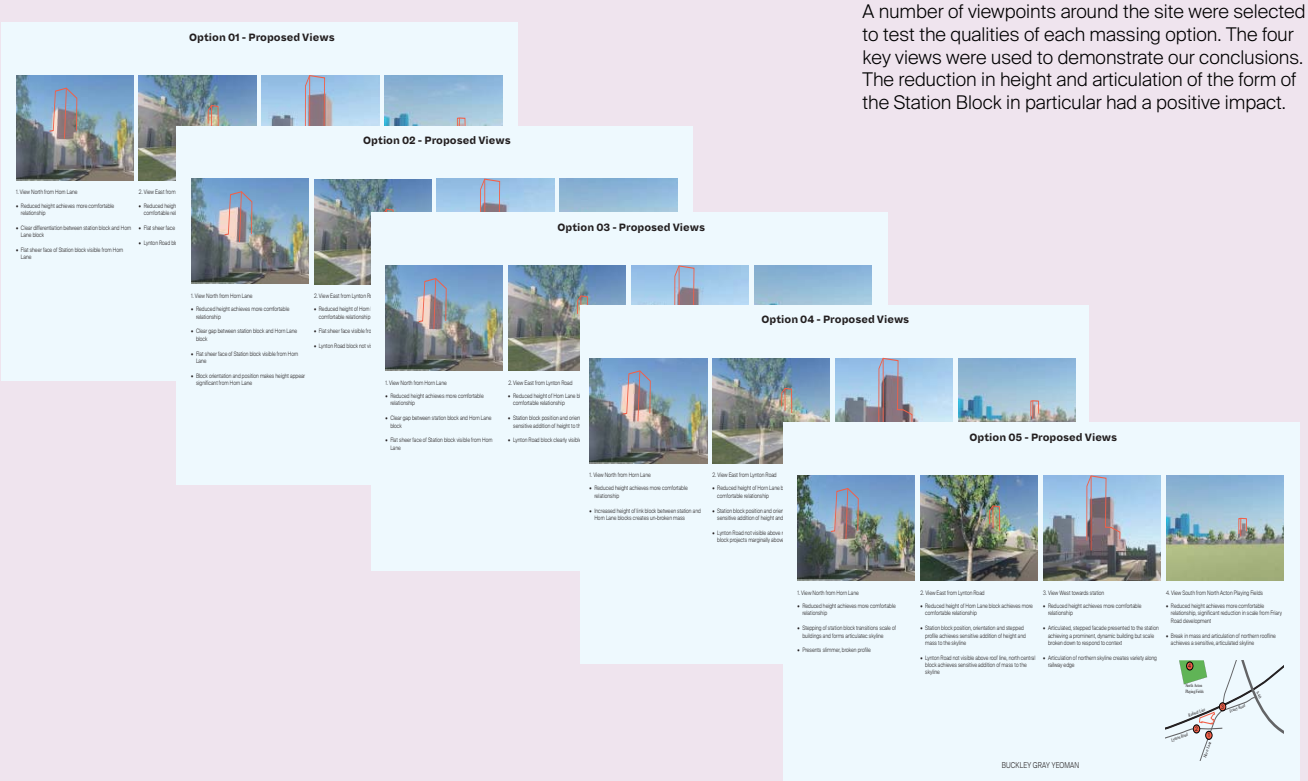
Reduced height creates sensitive relationship to context

Articulated skyline to northern block with clear gap in mass

Station block orientation and tiered form achieves sensitive addition of height to the skyline and relationship to station

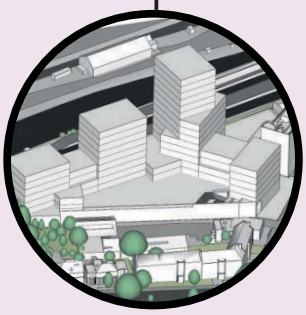
7.13 Testing of Massing Development

A number of viewpoints around the site were selected to test the qualities of each massing option. The four key views were used to demonstrate our conclusions. The reduction in height and articulation of the form of the Station Block in particular had a positive impact.



7.14 **Preferred Option**

Option 01 **Option 02** **Option 03** **Option 04** **Option 05**



Taking on board the comments received following Pre-App 1 and using the knowledge gained from our investigations, we developed a further option that was informed by the qualities of each of the development studies. This was presented as the chosen massing proposal during Pre-App 2.

7.15 **Massing**

We made several changes to our previous proposals, illustrated in the massing diagram below. The red line shows the outline of the massing presented in Pre-App 1.

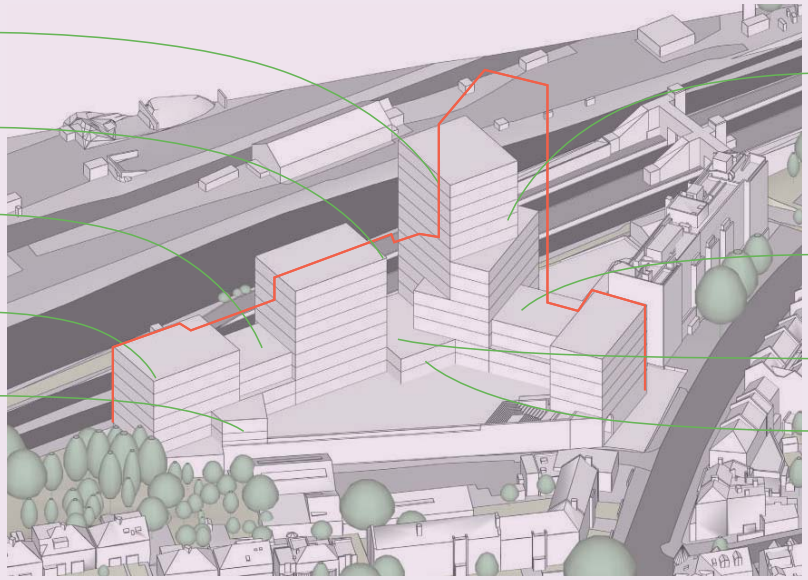
Station block reduced in height

Gap created to break mass and allow views out from central garden,

More articulation along the railway block, as well as increased mass towards centre of plan away from Lynton Road.

Lynton Road Block raised one storey informed by

More prominent entrance feature to Lynton Road entrance



Profile of station block sculpted and orientation adjusted to respond to surrounding views

East link block stepped down to maintain differentiation between blocks from Horn Lane and station

Amenity space created to offset loss in other areas.

More prominent entrance feature to cores, pushed into podium space

Red line shows the outline of the previous proposals

7.16 **Proposed Views**

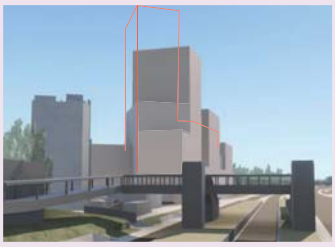
The revised massing was set in four key views and tested against the proposals presented in Pre-App 1 (outlined in red).

1. View North from Horn Lane

- Reduced height achieves more comfortable relationship
- Stepping of station block transitions scale of buildings and forms articulate skyline with clear distinction between station and Horn Lane blocks
- Presents slimmer, broken profile

2. View East from Lynton Road

- Reduced height of Horn Lane block achieves more comfortable relationship
- Station block position, orientation and stepped profile achieves sensitive addition of height and mass to the skyline
- Lynton Road and north central block achieve sensitive addition

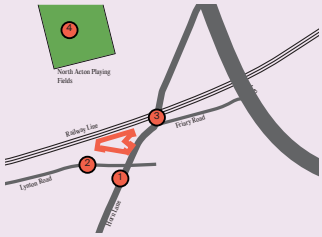


3. View West towards station

- Reduced height achieves more comfortable relationship
- Articulated, stepped facade presented to the station achieving a prominent, dynamic building but scale broken down to respond to context
- Articulation of northern skyline creates variety along railway edge

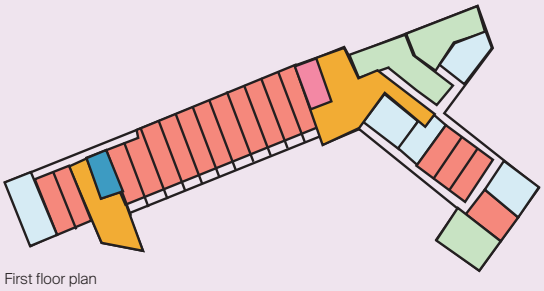
4. View South from North Acton Playing Fields

- Reduced height achieves more comfortable relationship, significant reduction in scale from Friary Road development
- Break in mass and articulation of northern roofline achieves a sensitive, articulated skyline

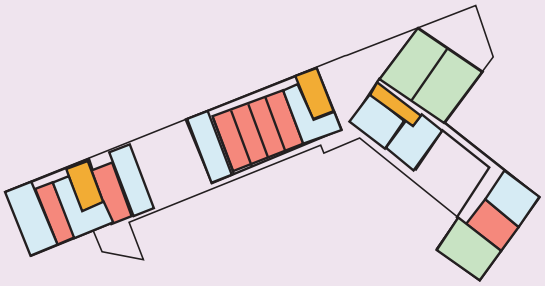


Red line shows the outline of the previous proposals

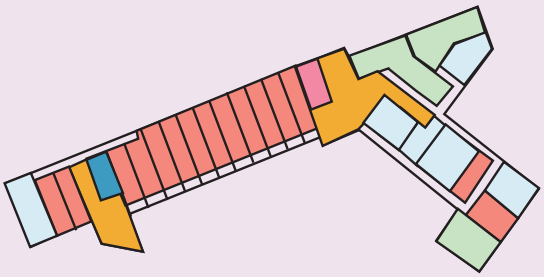
7.17 **Developing Sketch Plans**



First floor plan



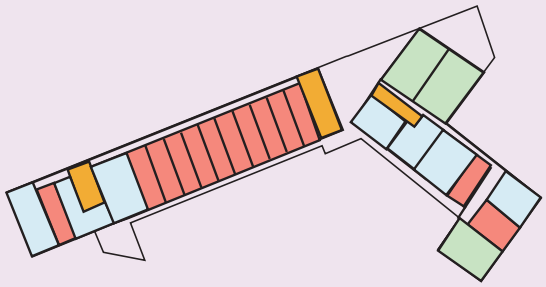
Upper floor plan



Ground floor plan

KEY

- 1 Bed
- 2 Bed
- 2 Bed Duplex
- 3 Bed
- 3 Bed Duplex
- Core

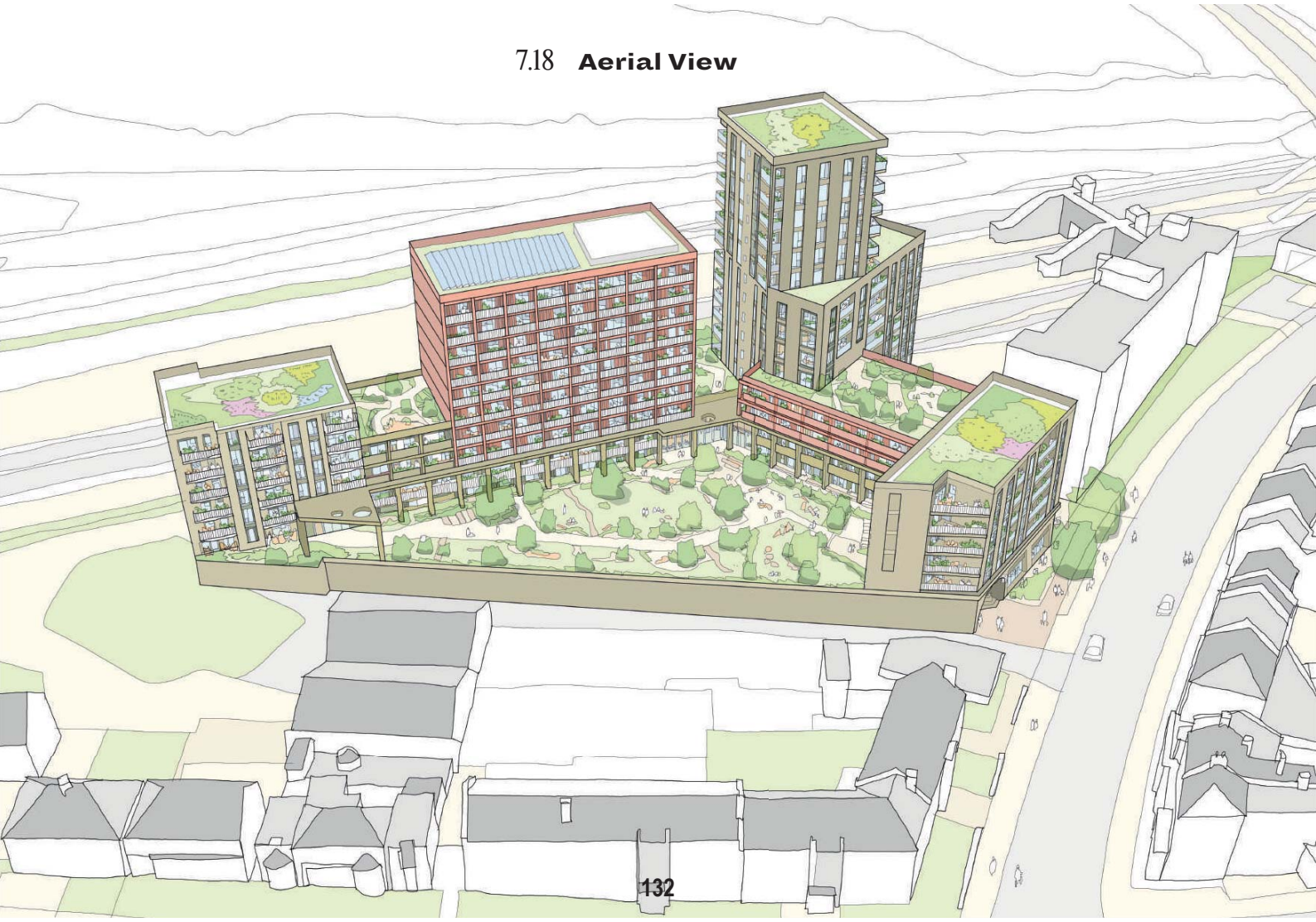


Second & Third floor plan

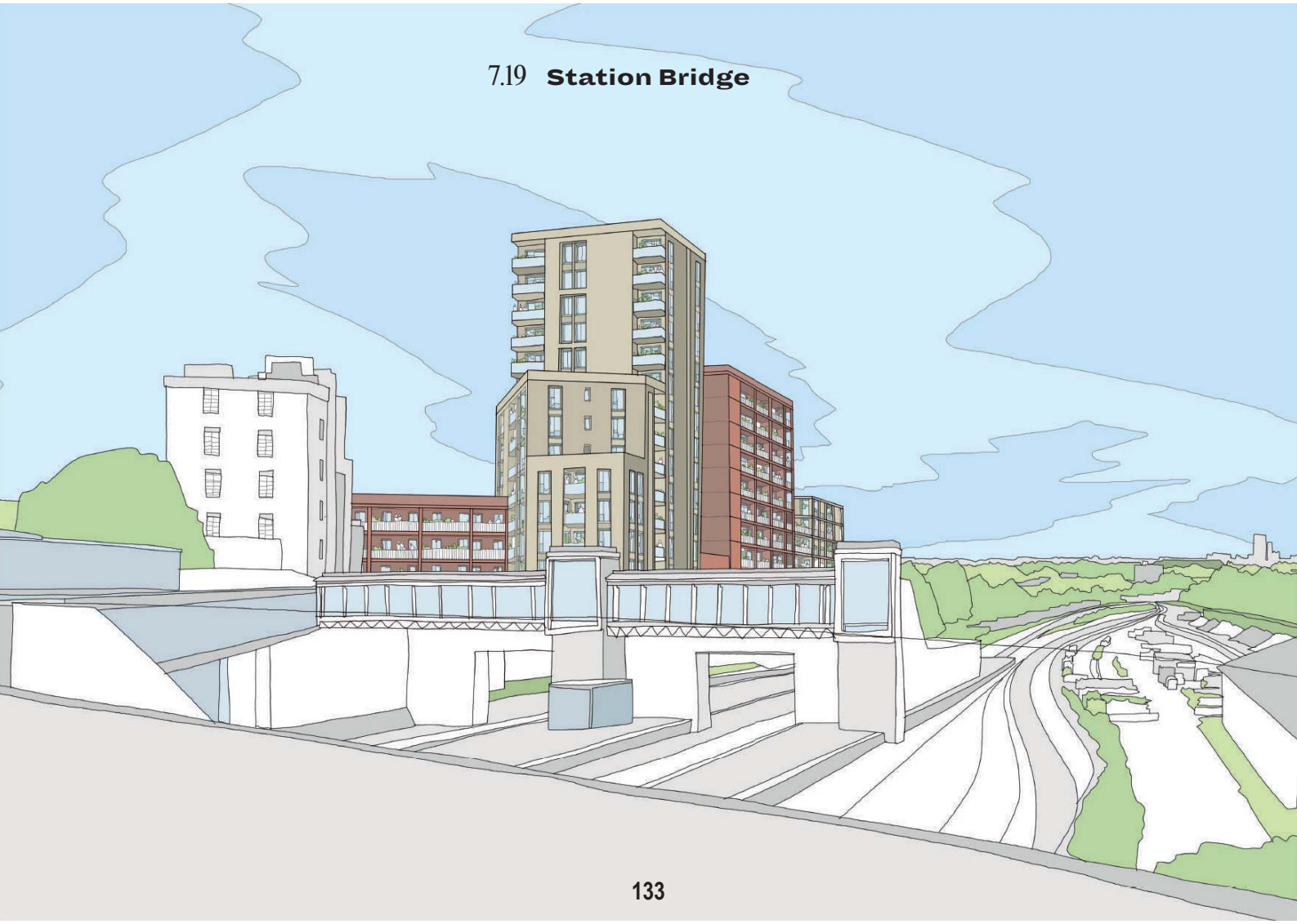
Sketch plans were presented. Again, we sought to minimise the number of single aspect units. In order to minimise the structural requirements (and subsequent ecomomic and environmental costs) we also tried where possible to ensure that layouts stack.

What this could look like..

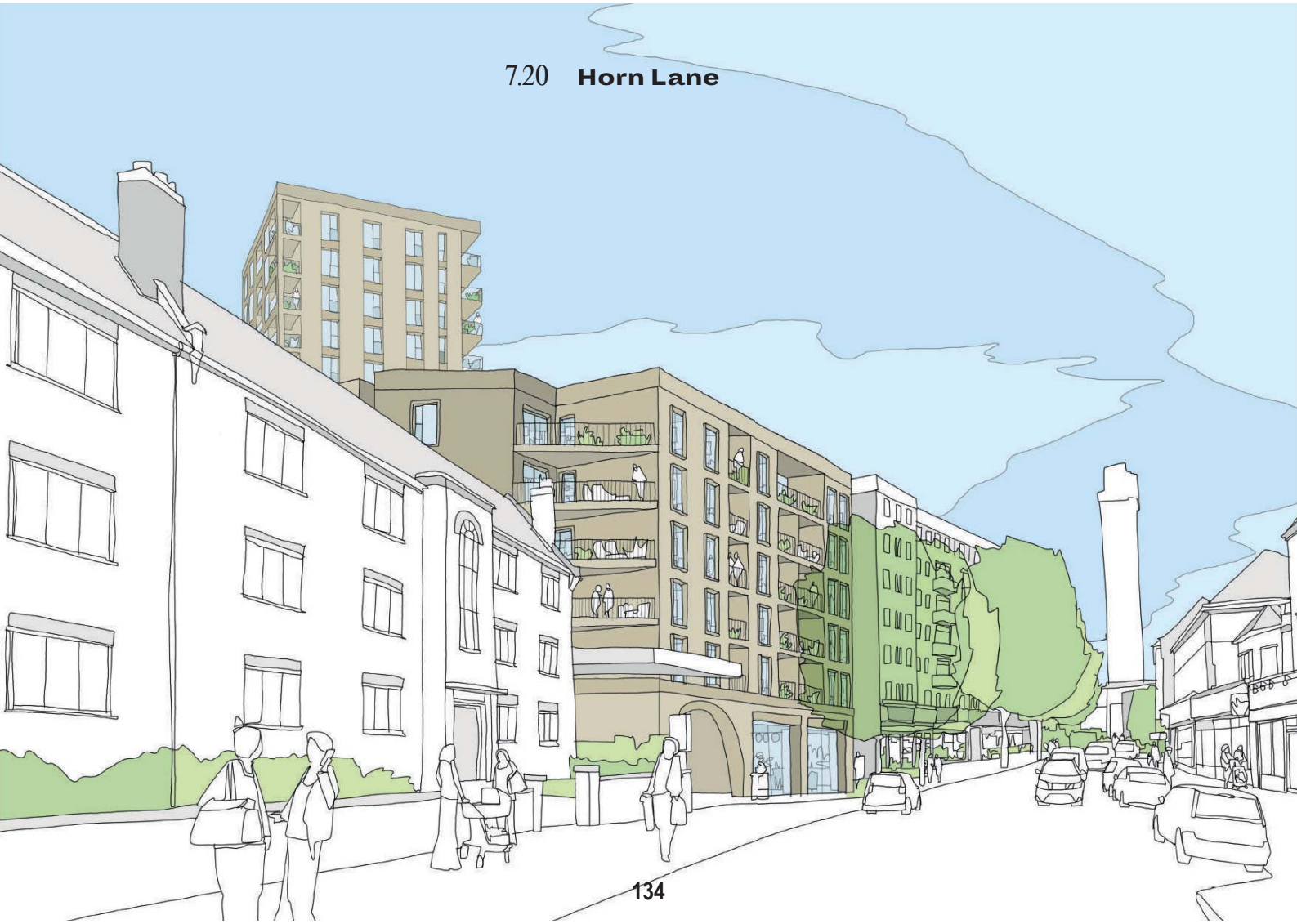
7.18 **Aerial View**

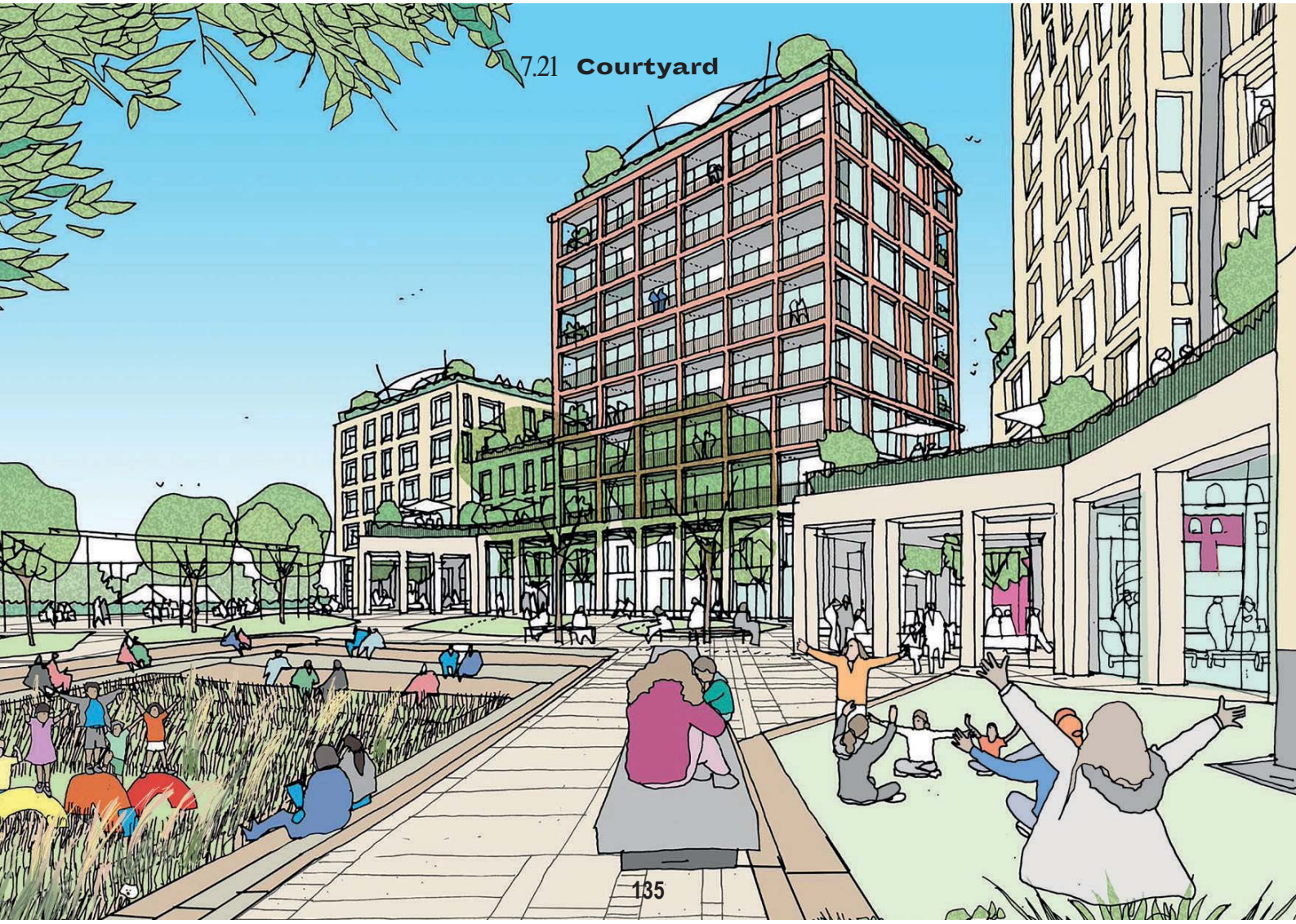


7.19 **Station Bridge**



7.20 **Horn Lane**





7.21 **Courtyard**

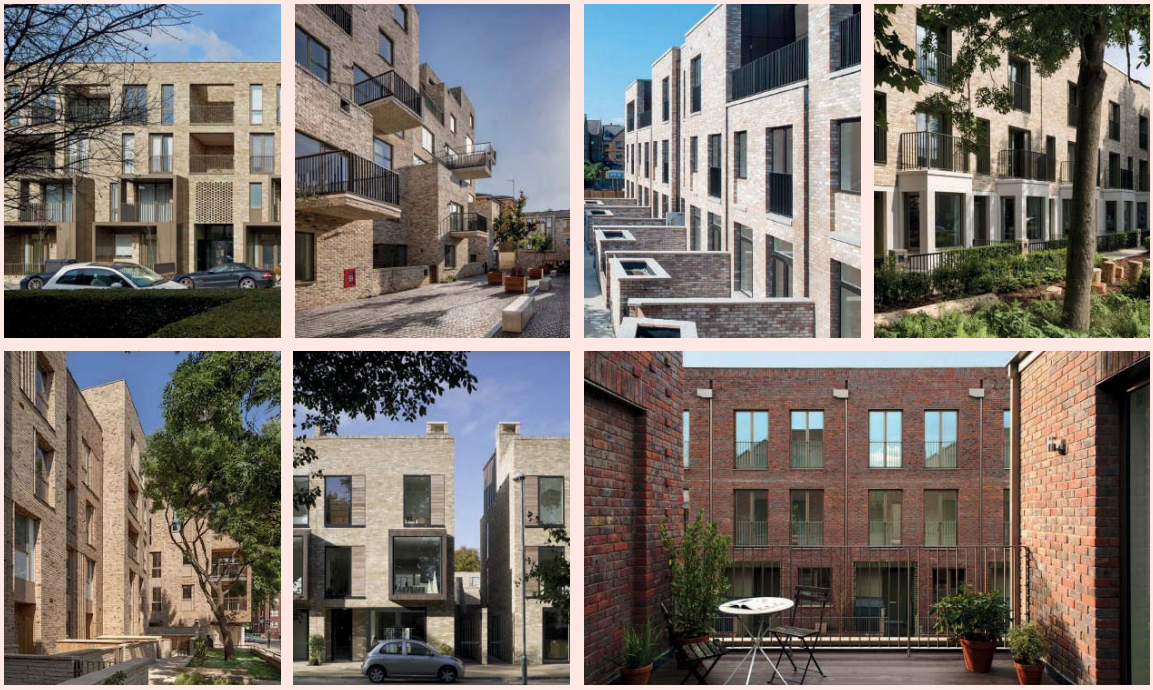
7.22 Pre-App 2 - Comments Received

The general response was again positive. The summary of the main points of feedback include:

- The massing proposals and reduction in height were supported
- The increased prominence of core entrances was seen as a positive development
- With the massing proposals now deemed more comfortable on the site, the Local Authority were keen to see the architectural design progressed

8.
Elevational Treatment

8.01 **Architectural Precedents**



Precedent images

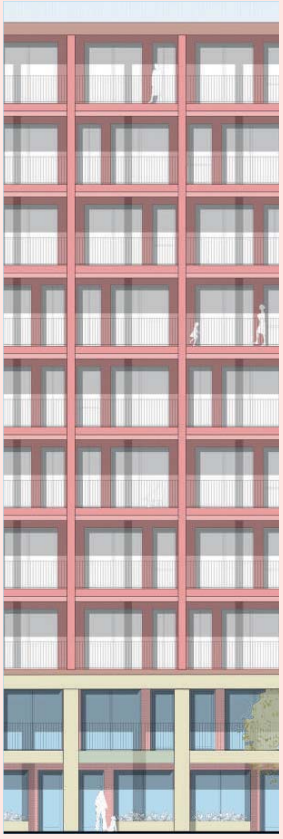
Our intention is to explore an architectural language that will be in keeping with the commercial and residential buildings in the area. For architectural precedents, we also looked at other well exectuted residential proposals which used brick for an external skin in keeping with the traditional building material of housing in London.

8.02 Elevation Treatment - Central Blocks

On the principal building elements which face into the podium space we have developed a facade treatment that expresses the structural grid. The regularity of the stacked floor plans is reflected in the elevations.

Courtyard - South Elevation

North Elevation



BUCKLEY GRAY YEOMAN

77

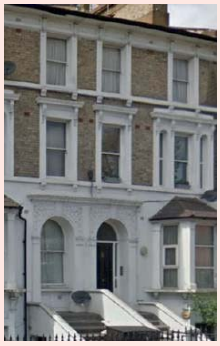
Materiality

On the central block elements, columns and balconies form gridded screens which face into the courtyard. On the opposite sides, the columns and grid are continued across the access decks, again expressing the regularity of the stacked structure in these blocks.

The columns, balcony edges and decks are clad in GRC cast stone which has a dusty pink hue. Set back from the front face of the blocks, the walls to the residential units are faced in a light red brick. Aluminium framed windows have solid ventilation panels and fixed pane elements to overcome acoustic and overheating issues. Main entrance doors to flats off the decks will be made from treated timber, conforming to all regulatory requirements in terms of fire and sound performance.

A lighter coloured cast stone forms the skin of the lower two levels of balconies, columns and planters facing into the courtyard. These form an arcade link band which wraps around the south facing blocks.

8.03 Elevation Treatment - Corner and End Blocks



A different approach has been developed for the other blocks where the floor layouts and structural design are less regular. These blocks have a more solid appearance. We looked at local precedents in the Victorian terraces along Horn Lane, in particular how mouldings frame the sash windows.

The different handling of the blocks give identity to the building elements and helps to break down the mass around the podium garden.

Horn Lane - South Elevation

Materiality

The blocks at the edges and the corners of the proposals are faced in a buff brick. The colour of the brick compliments the pink hues used on the central blocks. Columns are faced either in the buff brick or in a light coloured GRC, in keeping with the colour of the mortar. Balcony edges and window surrounds are also clad in GRC.

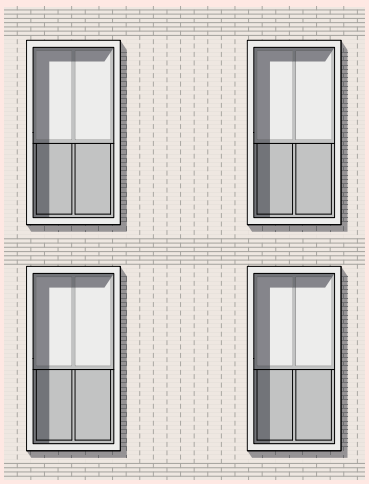
We are treating the industrial space beneath the podium and residential blocks as a plinth. Its separateness is expressed through the use of a different materials. It's brick skin will relate to the buff brick used on the blocks above, but will be darker in colour. Windows to commercial spaces fronting onto Horn Lane and the access road on the east of the site will be full height and generous. There will be fewer openings to the warehouse space further back on the site. The more private commercial spaces (offices and staff areas at mezzanine level) will have bands of openable windows located above desk height.

8.04 Window Details - Lynton, Station and Horn Lane Blocks

Reinforcing our intention to respect the language of local buildings, we looked at mouldings around windows to terraced houses in the area. We took this as a precedent for the design of openings in the corner and end blocks. GRC reconstituted stone cladding is the proposed material finish to the surrounds.

Another big consideration in the design of windows was the amount of glazing to habitable rooms. With the introduction of Part O of the Building regulations, we have been mindful of new targets. Aluminium windows will have solid insulated panels to account for this while still giving the appearance of generous openings, well proportioned in the building's elevations.

Design development studies considering the amendments to Part O of the Building Regs in relation to overheating and reducing glazed areas.

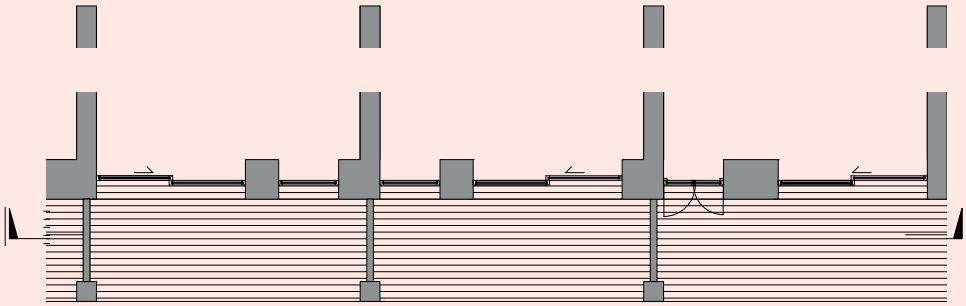


Window Elevation

Window Plan

8.05 Balcony Areas - Courtyard and Horn Lane Blocks

Balcony Elevation

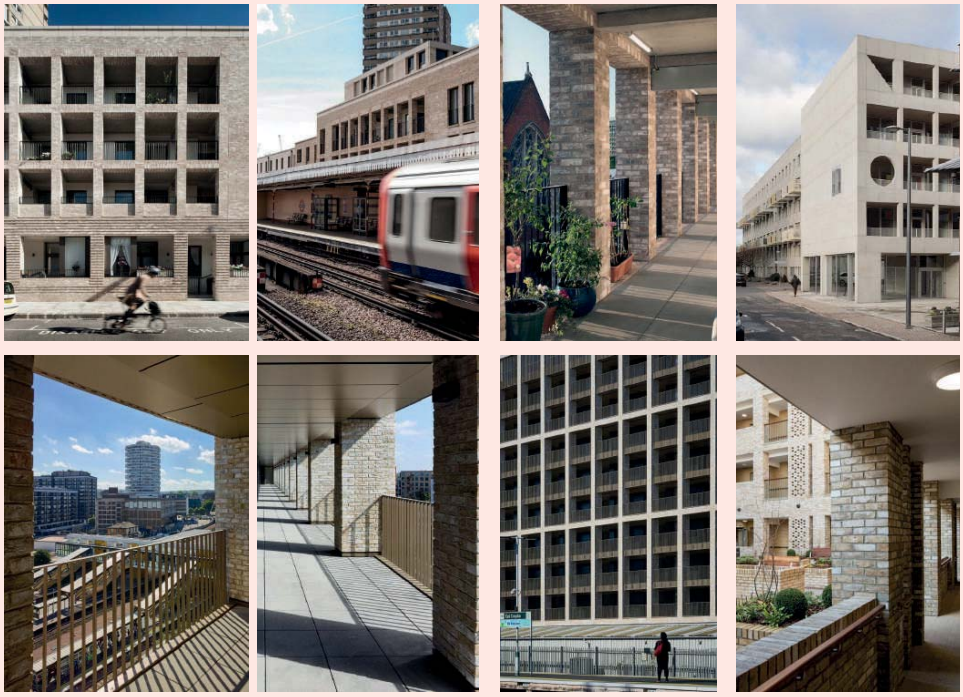


Balcony Plan Detail

We took a different approach to the design of windows and doors to the decks and courtyard facing balcony spaces. Here areas of glazed fenestration are more generous, taking advantage of the shading provided by the the balconies and decks above.

As the openings are more generous, we have taken a pared back design approach. We have not added surrounds to these windows, instead high quality aluminium windows and doors will be set into generous brick reveals.

8.06 **Deck Access**



There are many high quality examples of successful deck access developments both historic and contemporary in the UK and abroad. The images on this page show a selection of these.

The success of these schemes results from a number of factors, for example a limited number of units being accessed from each deck to maintain a sense of pride and ownership, the use of high quality materials, lighting and the width of the deck .

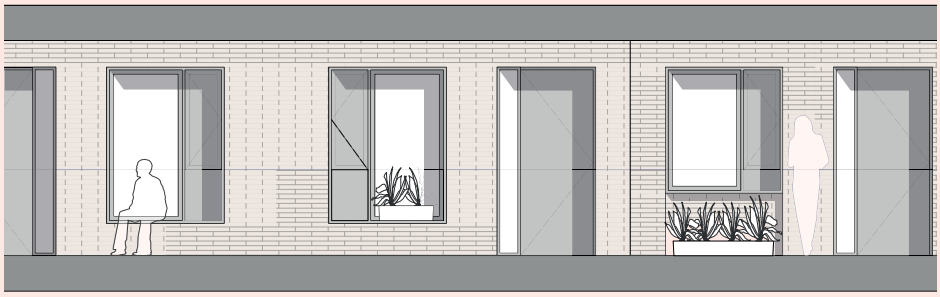
8.07 **Deck Access View**

View of deck access showing private

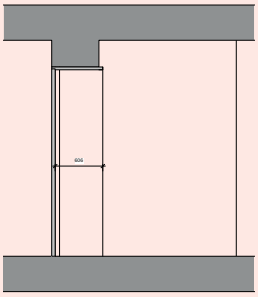
The deck access routes are generous, measuring 2m in width, with regular punctuation by brick columns. Handrails are steel fins, letting light in at lower levels and allowing for a feeling of openness.

We responded to feedback which asked us to look at providing some form of private space for residents along the access decks. Our solution is to use the wall thickness to set doors and windows back so that the recesses can be used as private defensible space for seats, ledges for plants etc.

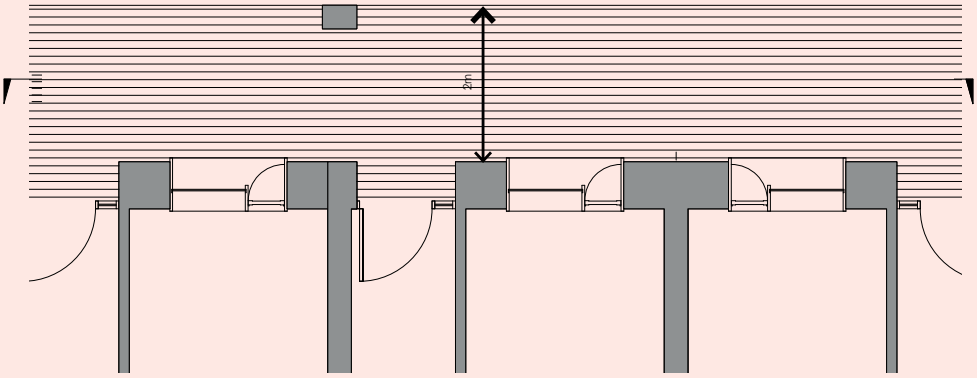
8.08 **Deck Access Details**



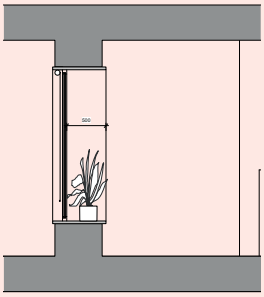
Deck Elevation Detail



Door Section Detail



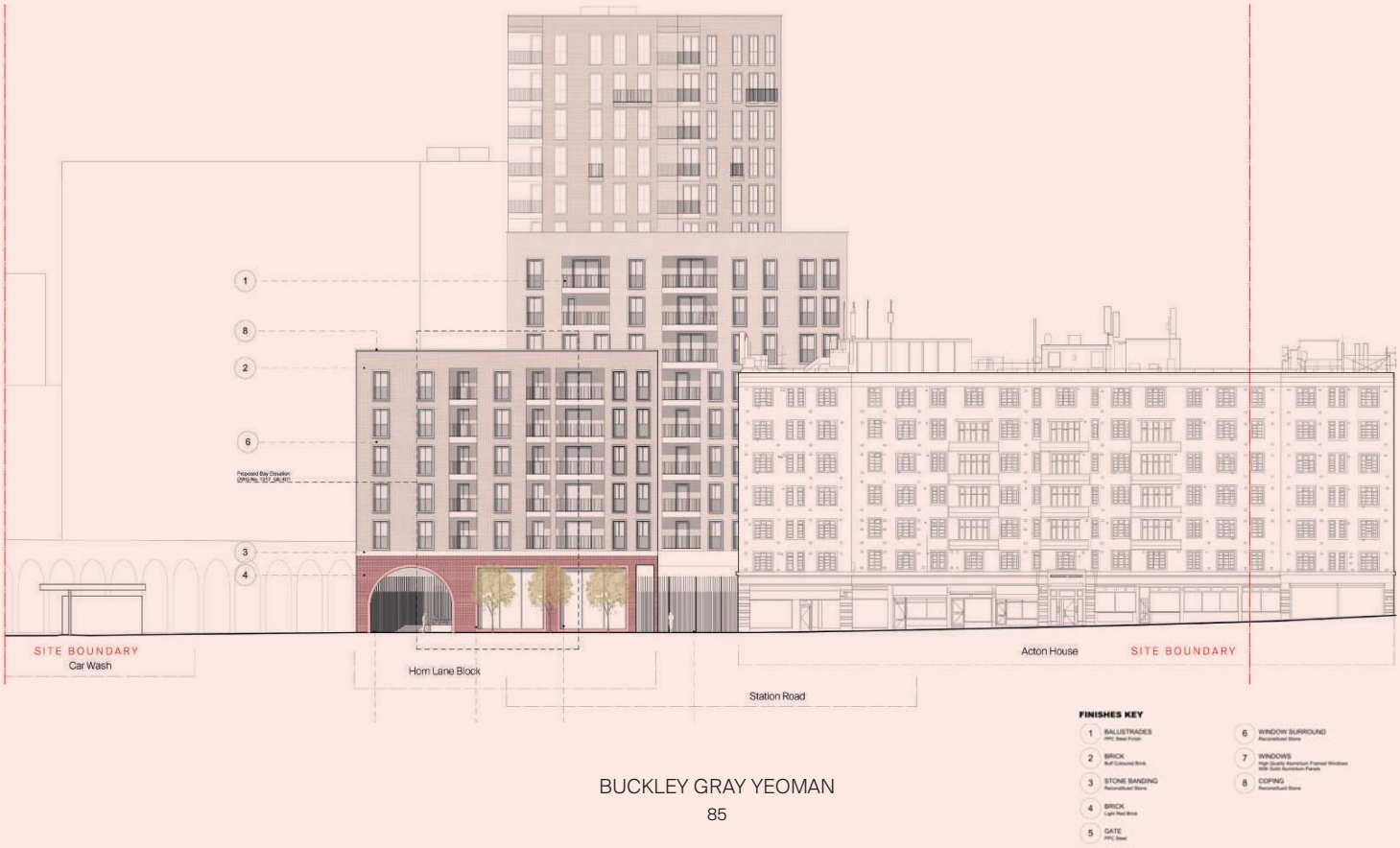
Deck Plan Detail



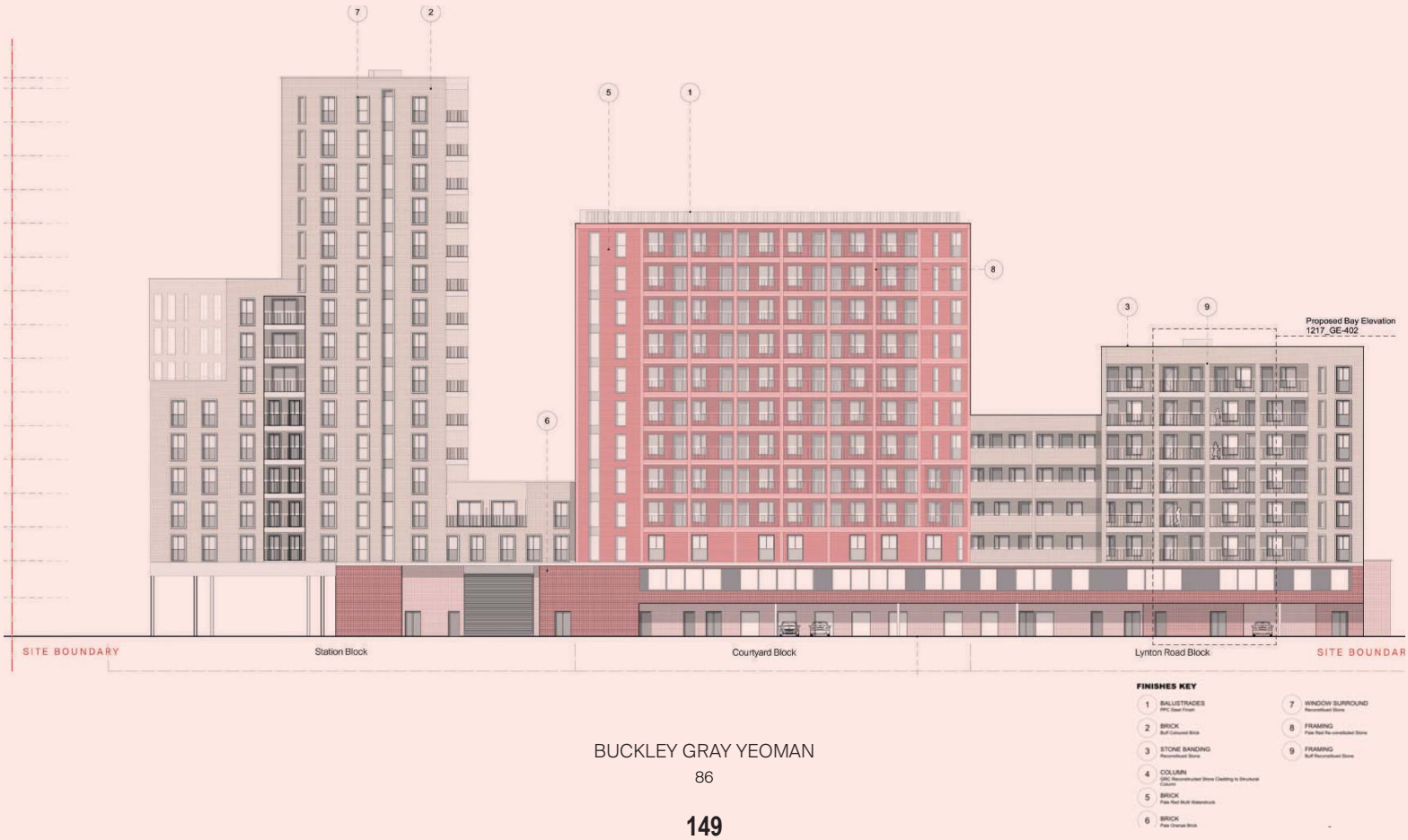
Window Section Detail

These drawings show how walls facing north and east onto decks will be used to provide usable space for residents, affording them a sense of ownership along the shared route.

8.09 Horn Lane - South Elevation



8.10 North Elevation



8.11 East Elevation

FINISHES KEY

1 BALUSTRADES
PPC Steel Finish

2 BRICK
Buff Coloured Brick

3 STONE BANDING
Reconstituted Stone

4 COLUMN
GRC Reconstructed Stone Cladding to Structural Column

5 BRICK
Light Pink Multi Waterstruck

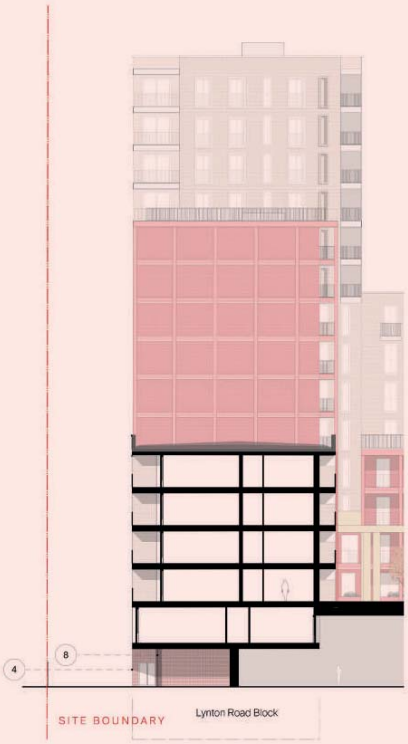
6 WINDOW SURROUND
Reconstituted Stone

7 WINDOWS
High Quality Aluminium Framed Windows With Solid Aluminium Panels

8 COPING
Reconstituted Stone

8.12 **West Gable Elevations**

1 Lynton Block Gable



2 Courtyard Block Gable

3 Station Block Gable

FINISHES KEY

1 BALUSTRADES
PPC Steel Finish

2 BRICK
Buff Coloured Brick

3 STONE BANDING
Reconstituted Stone

4 BRICK
Light Red Brick

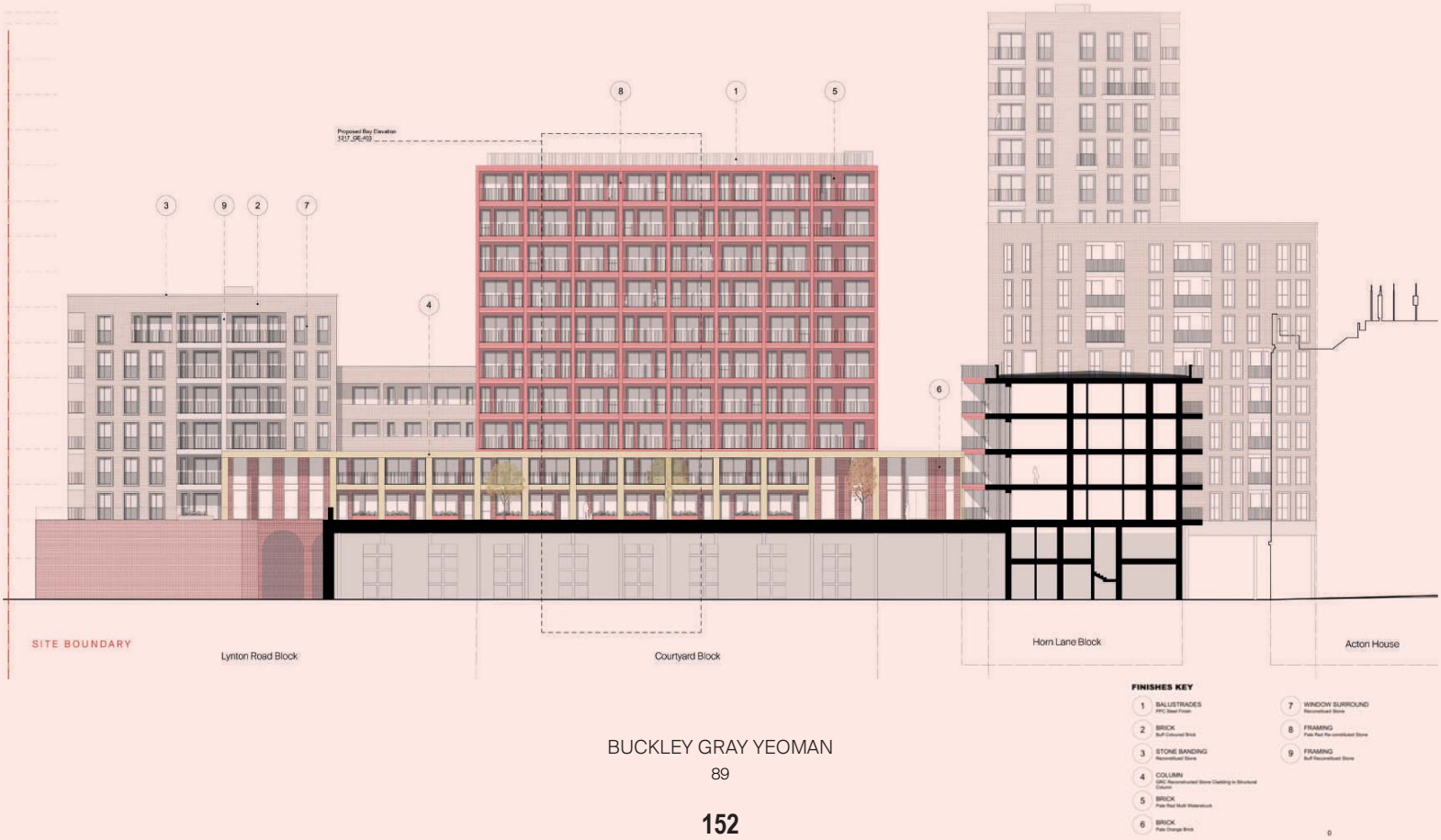
5 GATE
PPC Steel

6 WINDOW SURROUND
Reconstituted Stone

7 WINDOWS
High Quality Aluminium Framed Windows With Solid Aluminium Panels

8 COPING
Reconstituted Stone

8.13 **Courtyard - South Elevation**



8.14 **Courtyard - West Elevation**

FINISHES KEY

1 BALUSTRADES
PPC Black Finish

2 STONE BANDING
Reconstituted Stone

3 FRAMING
Pale Red Re-constituted Stone

4 COLUMN
GRC Reconstructed Stone Cladding to Structural Column

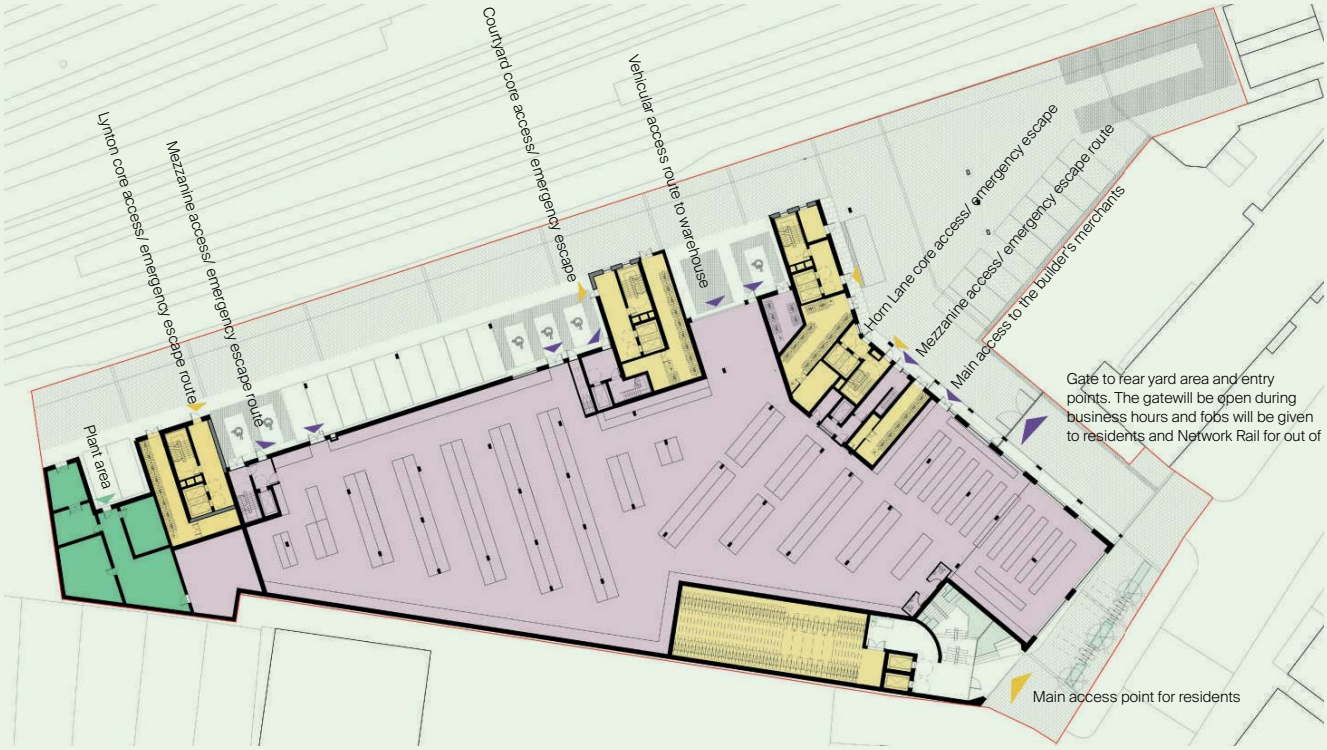
5 BRICK
Pale Red Multi Waterstruck

6 WINDOW SURROUND
Reconstituted Stone

7 CONCRETE
Structural Beige Stone Cladding Finish

9.
Entrances

9.01 Ground Floor Entry Points



The access strategy is in general to segregate users of the residential and commercial spaces. Likewise, where possible pedestrian and vehicular routes are kept separate.

Access point for builder's merchant

Access point for residents

9.02 **Podium Level Entry Points**

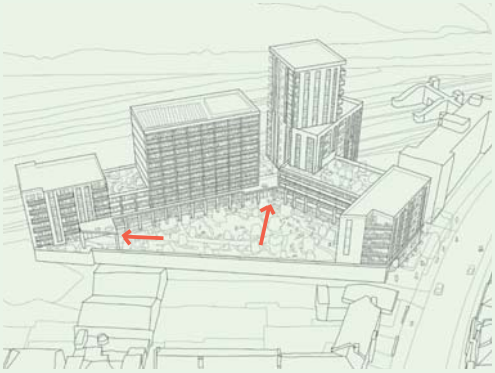
Residents reach the arrival space at the podium level from Horn Lane by stair or lift. Across the courtyard garden, two generous double-height lobby spaces are provided for access to the residential cores. To the west of the site, sitting under a generous canopy is the entry point to the Lynton Core where the social rent units will be located.

To the east, the Courtyard, Station and Horn Lane blocks are accessed through a generous double-height shared lobby space

Access point for builder's merchant

Access point for residents

9.03 Cores Entrances



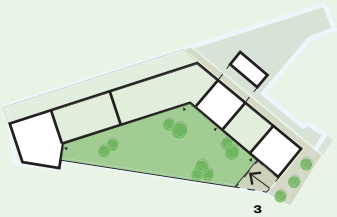
The main core entrances are at podium level. Prominent canopies step out over the landscaped garden to mark these arrival spaces. To the west of the site is the Lynton Block, where the social rent units are located. To the east is the entrance to the other three blocks. Both lobbies are generous double height spaces. It is envisioned that the floor finishes and landscaping will be continued from the garden, blurring the line between internal and external space.

Lynton Core Entrance

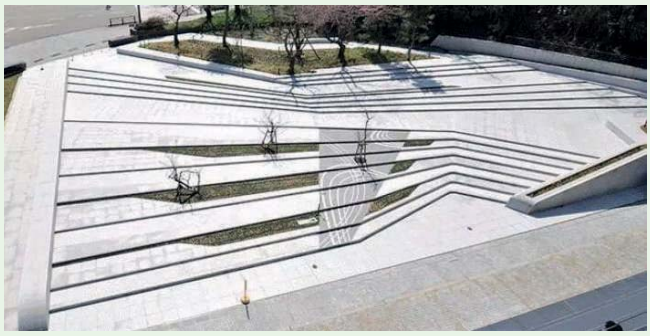
Courtyard, Station and Horn Lane Core - Shared Entrance

9.04 **Entrance Courtyard**

The entrance courtyard will provide safe pedestrian access to the podium level. A beautifully designed entrance will offer a warm welcome and a smooth transition from the street into the development. Views into the development are framed through the archway and enhanced by a diverse and warm palette of planting that brings a domestic feel to the residents.



9.05 Entrance Courtyard Precedents



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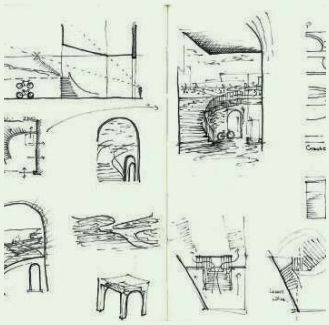
96

9.06 Design Development



Design development options

We worked through many different approaches and options with the design of the arch and entrance routes. Important considerations included

- A carefully design and appropriate response to the street scape, which would offer an attractive and inviting entrance to the residential amenity space and dwellings beyond.
- Where the security line would be. We did not want a hard line at the face of the building.
- Similarly we wanted the landscaping of the garden to move down along the stepped route and out to the public realm

9.07 **Design Proposals**

- The shape of the arch to the street is reflected in the curved wall close to the entrance and the curve of slab on which the Horn Lane Block sits over the steps.
- Routes and views were a critical consideration during the design process. The steps wind their way around the curved wall and the shift angle as they wind their way up to the podium level.
- Landscaping steps down along stepped terraces and spreads out onto the pavement on Horn Lane.
- The fence and gate are set back from the building line, giving residents shelter and shifting the line of private and public space.
- Just behind the entrance gate, cycle stores and two Equality Act compliant lifts are located. These lifts take residents and visitors to the podium level. Residents will have fobs which will give some of them access to the cycle parking at mezzanine level.
- All people entering the courtyard from Horn Lane arrive in the same area. This was a very important point in considering equal access for all.

9.08 **Street View**

9.09 **Courtyard View**

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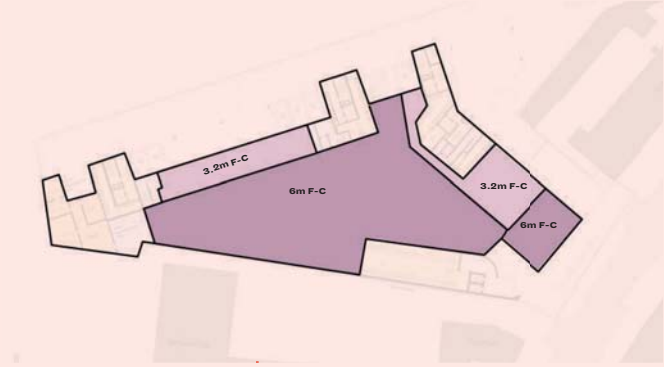
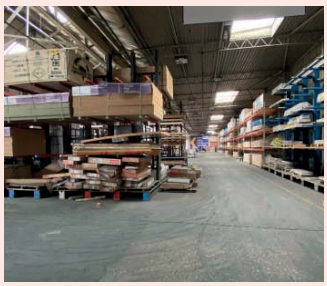
100

10.
Industrial Space

10.01 **Builder Depot Warehouse Spaces**



Small item racking 3.2m F-C



Large item racking 6m F-C

The Design Team worked carefully with the client to deliver proposals for the industrial space and ancilliary accommodation.

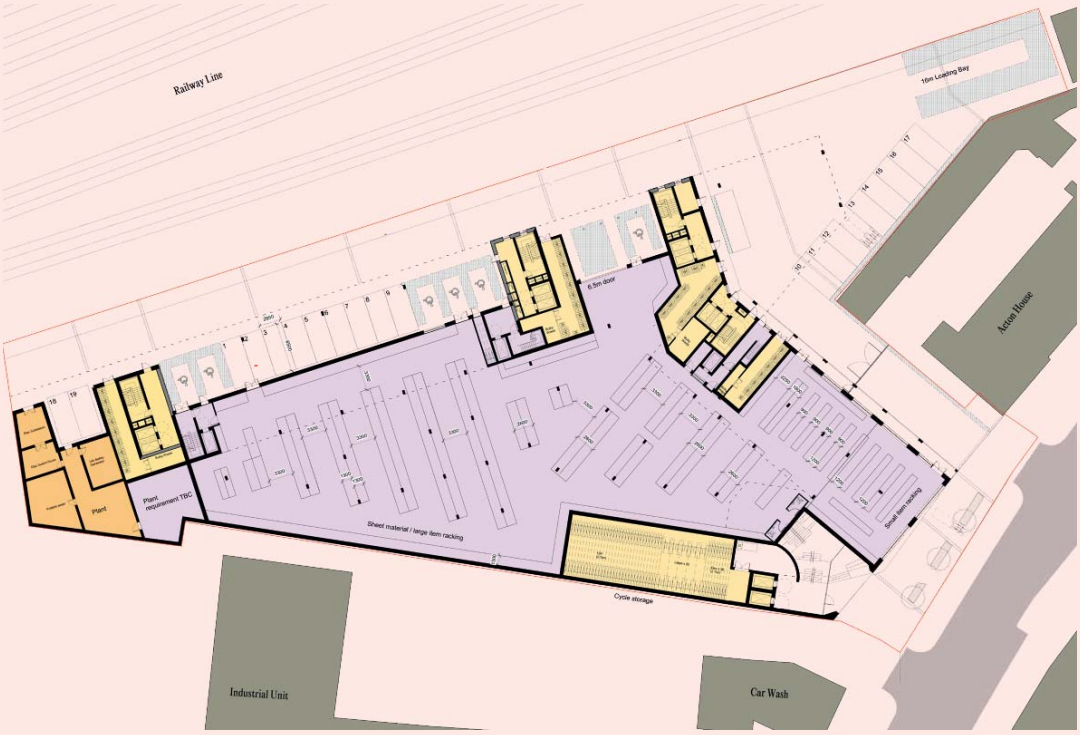
The warehouse, ground floor and mezzanine has been been designed as a plinth on which the residential blocks sit around the podium garden. It will be faced in a darker brick than the buff skin of the Horn Lane Block which fronts onto the street.

Fronting onto Horn Lane is a double height (6m floor to ceiling) showroom space. Large windows face onto the street and side elevation of the access road providing an attractive shopfront onto the street. Behind this, at ground floor and mezzanine levels, areas for small item racking and further showroom space are provided.

Further back on the site, the building presents less of a public face. Parking along the norther edge sits under the overhang of the mezzanine level. That area, over the parking, houses the more private office functions and staff accommodation.

In the main central space beneath the podium garden, a 6m floor to ceiling height has been set in accordance with the requirements for the warehouse space. Column spacing in this zone has been optimised to accommodate the activities of the warehouse

10.02 Ground Floor Plan - Commercial Spaces

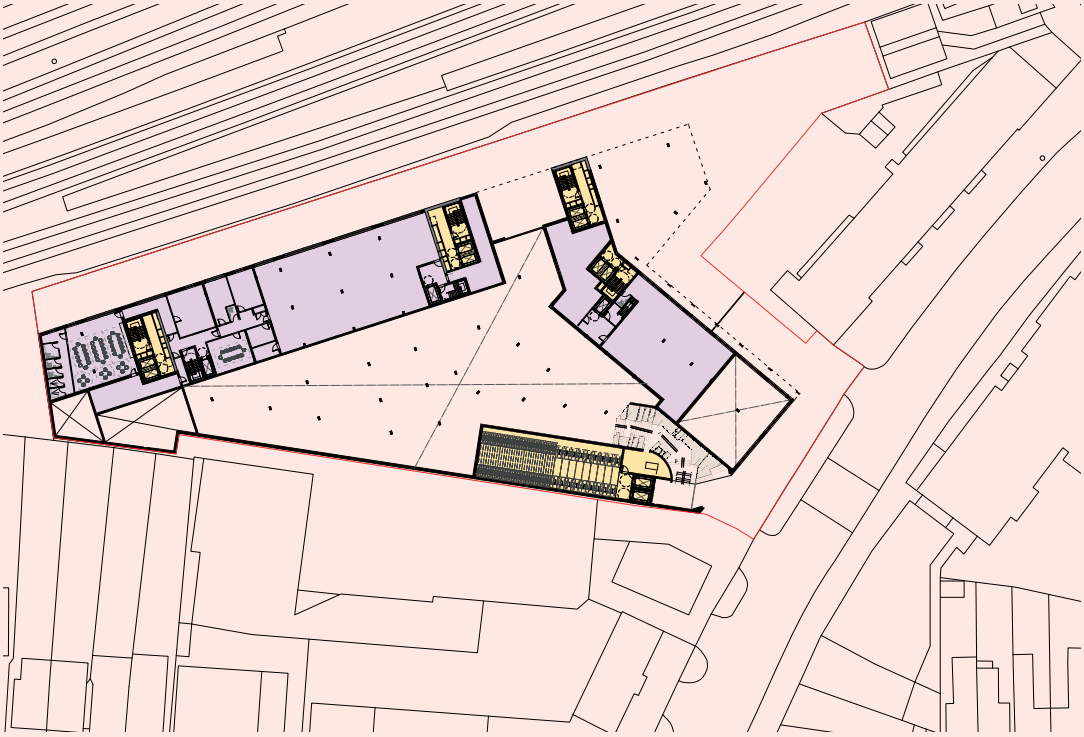


On the northern and eastern sides of the warehouse, the location of the structural columns is set by the structure of the residential blocks above. The columns in the 6m high central warehouse space are not restricted to supporting the blocks above, so they have been spaced to optimise the racking and isle widths required for the builders' merchants.

At the north east corner of the warehouse, a 6.5m wide shutter door will be used by forkflifts and other large vehicles. Isle widths in the warehouse have been set out at 3.3m to allow for forklifts to turn.

The main entry point for customers is on the access route on the east of the site, close to the double-height shopfront space which fronts onto Horn Lane.

10.03 Mezzanine Floor Plan



In the northern wing of the mezzanine space, staff accommodation, offices and meeting rooms have been located. Other areas of this floor will be used for stock. This mezzanine space oversails customber parking bays to the north of the site, optimising industrial floorspace.
It is intended to use the mezzanine space on the east of the site as showroom and for storing stock.

Structural columns in the mezzanine spaces support the loads from the residential blocks above, but partition walls dividing these areas will be adabtable, allowing for flexibility in the future use of the space.

10.04 **Adaptable Space**

The industrial space has been designed to be adaptable for possible use by other occupants in the future.

The floor to ceiling heights would allow for various industrial and commercial uses. Subject to viability assessments, supermarkets, logistical companies and gyms could all be possible future users of the adaptable warehouse space.

The double-height shop front facing onto Horn Lane could be used for a multitude of commercial uses and might even be adapted for hospitality use as a restaurant or cafe.

Other areas around the perimeter at mezzanine and ground floor levels could be adapted for administrative use associated with the warehouse or for use by a separate company.

Structural elements in the warehouse have been located to suit a layout with isle widths (between shelving) of 3.3m to allow for forklift turning circles.

The design allows for all neccessary acoustic measures to ensure that residents are not disturbed by the activities of the light industrual space.

Movement around the site, pedestrian/ cycle and vehicular, residential and commercial, has been segregated so that the residents would also not be disturbed by a change of occupancy in the warehouse space.

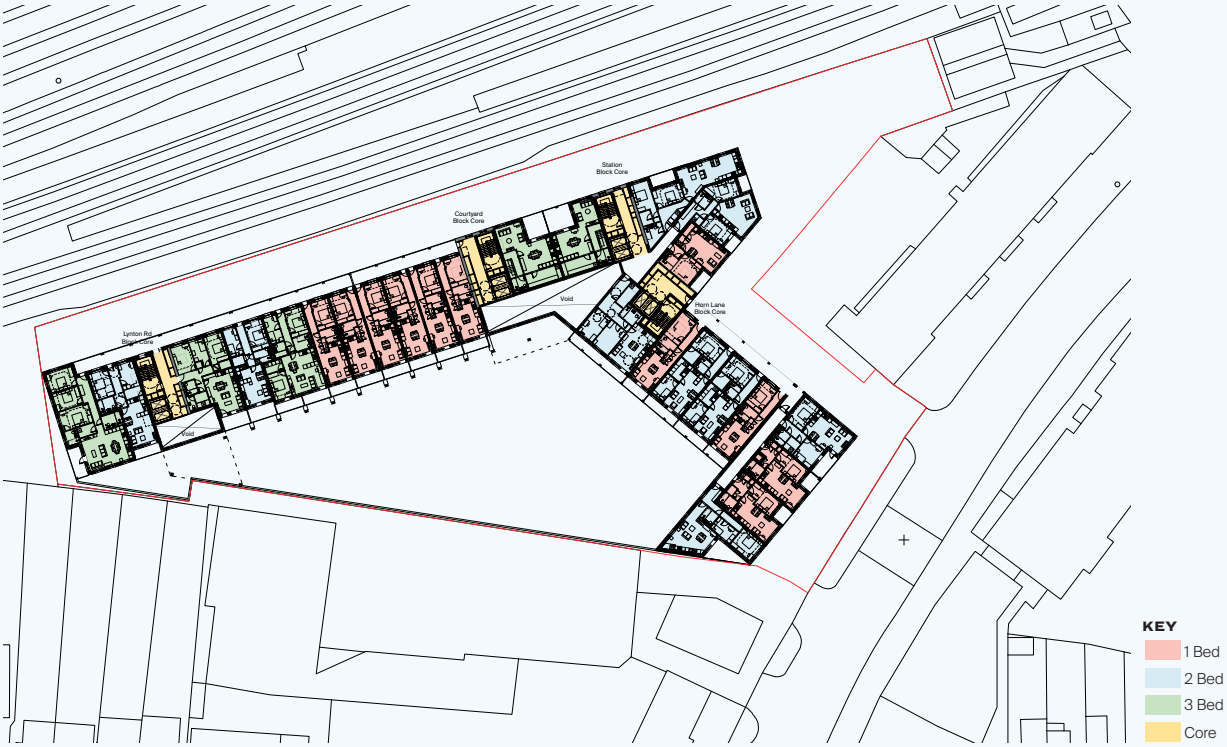
- Main warehouse floor to ceiling height (F-C) : 6m
- Ground Floor F-C height under the mezzanine is 3.2m
- The mezzanine floor to ceiling height is 3m.

A 6.5m wide entry point to the warehouse has been created to allow for access for forklifts and large vehicles.

11.
Residential Layouts

11.01 Residential Floor Plan 1 (Podium Level)

11.02 Residential Floor Plan 2



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108

11.03 Residential Floor Plan 3

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109

11.04 Residential Floor Plan 4

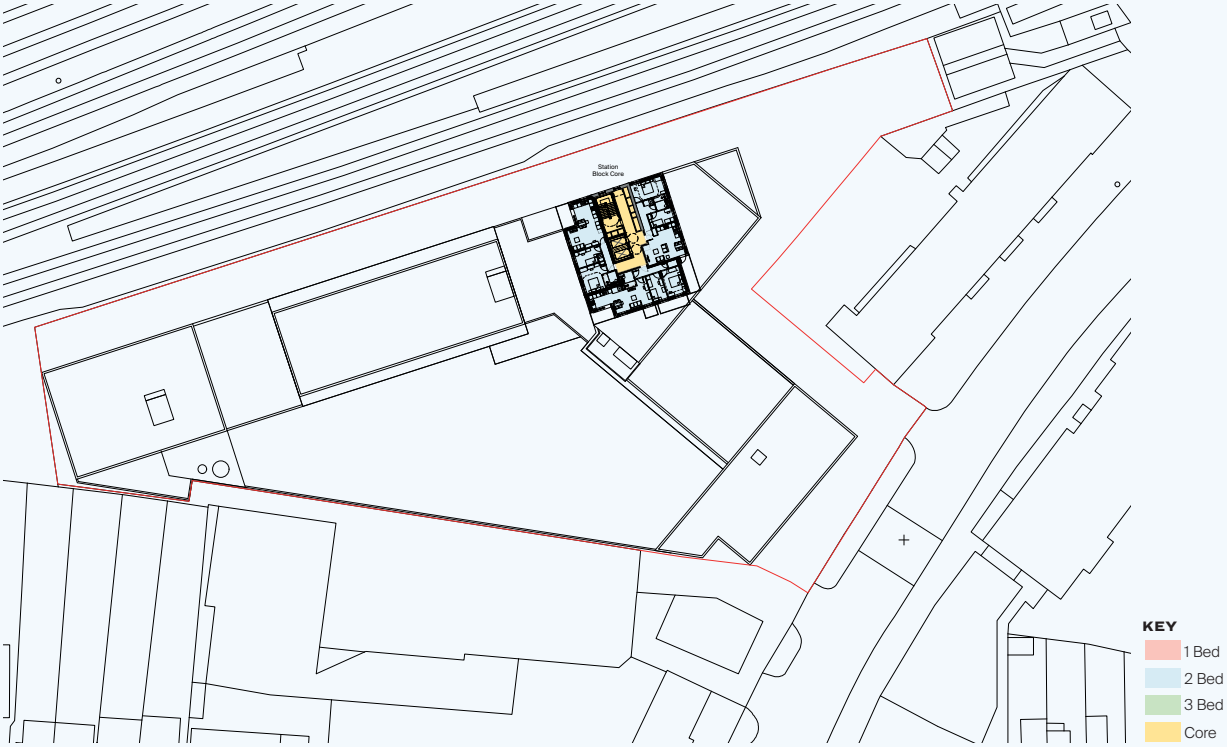
11.05 Residential Floor Plan 5

11.06 Residential Floor Plan 6

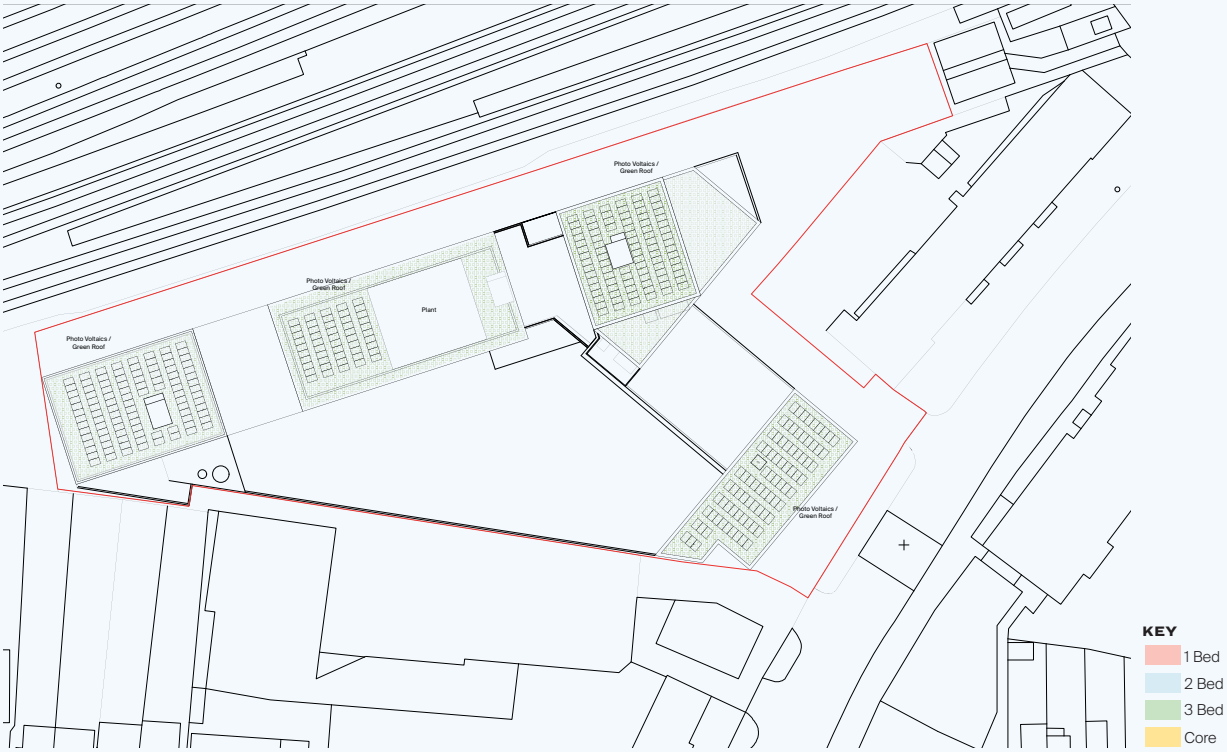
11.07 Residential Floor Plan 7 & 8

11.08 Residential Floor Plan 9 & 10

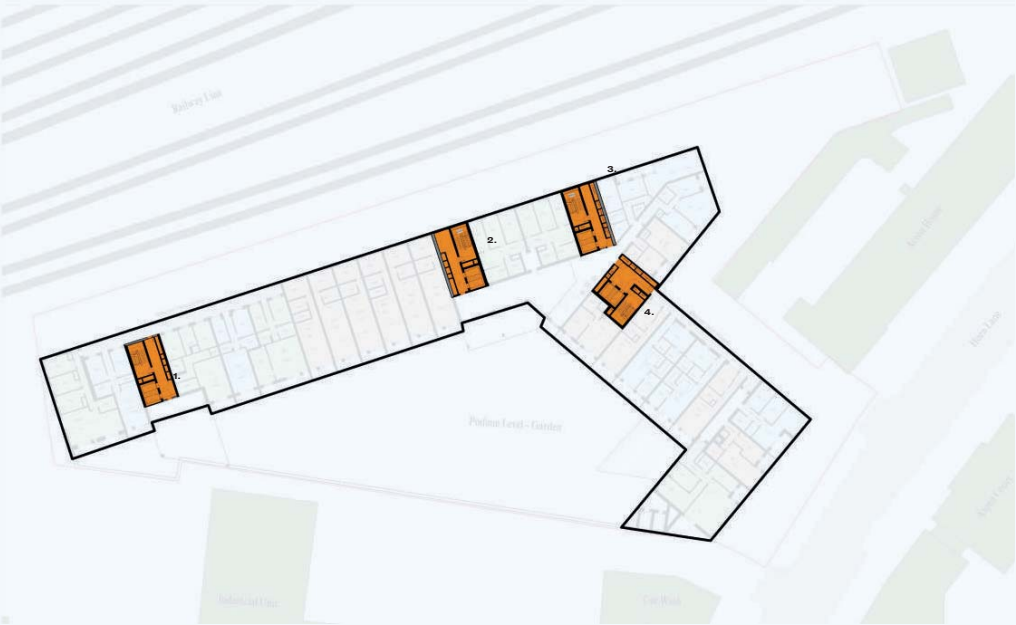
11.09 **Residential Floor Plan 11 - 14**



11.10 **Roof Plan**



11.11 Cores



Two Equality Act compliant lifts serve each of the four residential blocks. From street level, residents may access the podium garden via a stairway or two lifts located at the main entry point on Horn Lane.

Due to the building's height (48.8m to the top floor level), a fire fighting lift and an evacuation lift are provided. Staircores have been designed in accordance with approved documents B, K and M and suitable refuge spaces are provided on each floor. Smoke shafts have also been located in compliance with the relevant standards.

Cores

1. Lynton Core
- Serves 7 Levels, G-6
- 4 - 8 units per floor
- 35 units in total

2. Courtyard Core
- Serves 11 Levels, G-10
- 4 - 7 units per floor
- 62 units in total

3. Station Core
- Serves 15 Levels, G-14
- 3-5 units per floor
- 53 units in total

4. Horn Lane Core
- Serves 6 Levels, G-5
- 4 - 7 units per floor
- 35 units in total

5. Entrance Core
- Serves 3 Levels, G-1
- Takes residents from Ground to Podium Level 1 and also serves the cycle store at mezzanies level

12.
Unit Layouts

12.01 Units

In the following section the unit layout drawings will illustrate how we have met the requirements of the relevant standards for dwellings. These include

- The London Housing SPG
- Approved Document M Volume 1: Dwellings. In line with London Plan and Local Authority standards 90% of dwellings meet AD M category M4(2) and 10% to meet category M4(3), wheelchair adaptable/ accessible.

A mix of 1, 2 and 3 bed units are provided.

- The vast majority of dwellings exceed the minimum area stanards set out in the London Housing SPG.
- The vast majority are dual aspect, with only 19 out of 185 dwellings being single aspect. The location of these 19 units is discussed in the following section.
- The vast majority have private amenity space with a southern and western aspect, looking out over the courtyard garden.
- Residents can also enjoy the shared garden and roof terrace spaces. 3 roof terraces may be accessed by residents in the Horn Lane, Courtyard and Lynton Blocks.
- Washing machines are located away from kitchens in dedicated utility cupboards.
- Due to the acoustic conditions (from the trainline and the builders' merchants), mechanical cooling and ventilation will be used to privide indoor comfort.
- Windows are openable to provide purge ventilation

Unit Mix

- 85 no. 1 Bed units have been provided (35% of all Habitable Rooms)
- 80 no. 2 Bed units have been provided (49% of all Habitable Rooms)
- 20 no. 3 Bed units have been provided (16% of all Habitable Rooms)

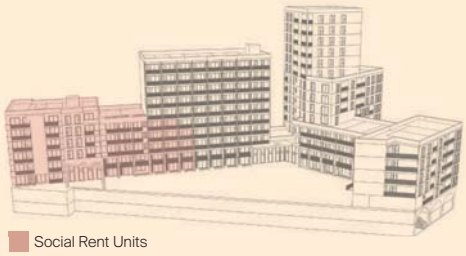
Tenure

- 35% of all Habitable rooms will be affordable tenure. This equates to 35 social rent and 29 intermediate units, comprised of a mix of 1, 2 and 3 bedroom units. Social rent dwellings are located in the Lynton Core. Further information on unit mix and tenure is provided in the Accommodation Schedule appendix.

12.02 Accommodation Mix and Tenure

Unit Type	Affordable Units	Social Rent units	Intermediate units	Overall % of Afford-able Habitable Rooms	Private Units	Total
1 Bed	25	10	15	27%	61	86
2 Bed	28	14	14	48%	51	79
3 Bed	11	11	0	25%	9	20
TOTAL %	64 35% of All Habitable Rooms	35 60% of Affordable Habitable Rooms	29 40% of Affordable Habitable Rooms	100 100% of Affordable Habitable Rooms	121 65 % of All Habitable Rooms	185 100 % of All Units

Unit mix is based on habitable room numbers



Social Rent Units

Note

- Refer to Appendix 1 for a more detailed Schedule of Accommodate

12.03 1 Bedroom Dwellings

1 Flat Type 1

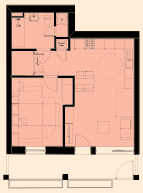
2 Bed - 2 Person
59sqm
Storage: 4.5sqm
Amenity space: 6sqm

2 Flat Type 2

1 Bed - 2 Person
59sqm
Storage: 4sqm
Amenity space: 10sqm

3 Flat Type 3

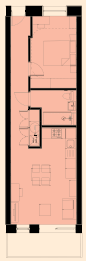
1 Bed - 2 Person
54sqm
Storage: 2sqm
Amenity space: 5sqm



4 Flat Type 4

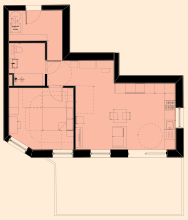
1 Bed - 2 Person
54sqm
Storage: 3sqm
Amenity space: 12sqm

M4(3) Unit



5 Flat Type 5

1 Bed - 2 Person
51sqm
Storage: 1.5sqm
Amenity space: 6sqm



6 Flat Type 6

1 Bed - 2 Person
59sqm
Storage: 2sqm
Amenity space: 26sqm

M4(3) Unit

7 Flat Type 7

1 Bed - 2 Person
50sqm
Storage: 2sqm
Amenity space: 5sqm

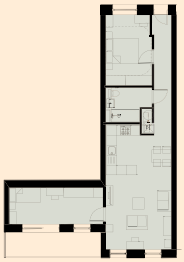
12.04 2 Bedroom Dwellings

1 Flat Type 8

2 Bed - 4 Person
70sqm
Storage: 2sqm
Amenity space: 7sqm

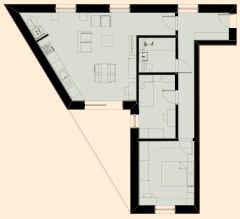
2 Flat Type 9

2 Bed - 4 Person
70sqm
Storage: 4.6sqm
Amenity space: 7sqm



3 Flat Type 10

2 Bed - 3 Person
70sqm
Storage: 2sqm
Amenity space: 8.5sqm

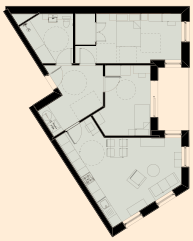


4 Flat Type 11

2 Bed - 3 Person
73sqm
Storage: 2sqm
Amenity space: 12sqm

5 Flat Type 12

2 Bed - 3 Person
67sqm
Storage: 3.4sqm
Amenity space: 6sqm



6 Flat Type 13

2 Bed - 3 Person
82sqm
Storage: 3.1sqm
Amenity space: 7sqm

M43 Unit

7 Flat Type 14

2 Bed - 4 Person
88sqm
Storage: 5.5sqm
Amenity space: 15sqm

8 Flat Type 15

2 Bed - 3 Person
65sqm
Storage: 2sqm
Amenity space: 9sqm

1 Flat Type 16

2 Bed - 3 Person
65sqm
Storage: 2sqm
Amenity space: 7sqm

2 Flat Type 17

2 Bed - 3 Person
73sqm
Storage: 2.5sqm
Amenity space: 15.5sqm

M43 Unit

3 Flat Type 18

2 Bed - 3 Person
69sqm
Storage: 2.5sqm
Amenity space: 8sqm

4 Flat Type 19

2 Bed - 3 Person
87sqm
Storage: 2.5sqm
Amenity space: 15.5sqm

M4(3) Unit

5 Flat Type 20

2 Bed - 3 Person
65sqm
Storage: 2sqm
Amenity space: 7sqm

6 Flat Type 21

2 Bed - 3 Person
66sqm
Storage: 2sqm
Amenity space: 6sqm

7 Flat Type 22

2 Bed - 3 Person
63sqm
Storage: 2sqm
Amenity space: 15.5sqm

8 Flat Type 23

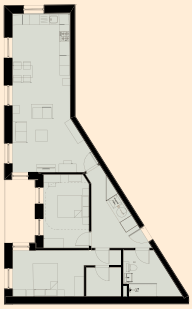
2 Bed - 3 Person
79sqm
Storage: 4.5sqm
Amenity space: 12sqm

1 Flat Type 24

2 Bed - 3 Person
71sqm
Storage: 2sqm
Amenity space: 7sqm

2 Flat Type 25

2 Bed - 4 Person
73sqm
Storage: 2.5sqm
Amenity space: 7sqm



3 Flat Type 26

2 Bed - 4 Person
88sqm
Storage: 3sqm
Amenity space: 7sqm

4 Flat Type 27

2 Bed - 4 Person
72sqm
Storage: 3sqm
Amenity space: 7.5sqm

5 Flat Type 28

2 Bed - 3 Person
71sqm
Storage: 10sqm
Amenity space: 9sqm

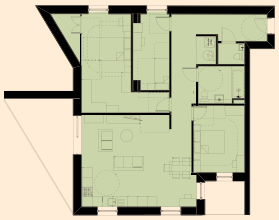
6 Flat Type 29

2 Bed - 3 Person
63sqm
Storage: 3sqm
Amenity space: 8.5sc

12.05 3 Bedroom Dwellings

1 Flat Type 30

3 Bed - 6 Person
110sqm
Storage: 4.5sqm
Amenity space: 9sqm



2 Flat Type 31

3 Bed - 5 Person
115sqm
Storage: 4sqm
Amenity space: 16sqm

3 Flat Type 32

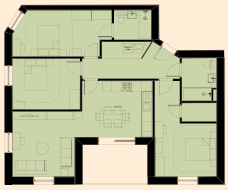
3 Bed - 5 Person
99sqm
Storage: 4sqm
Amenity space: 22sqm

4 Flat Type 33

3 Bed - 5 Person
90sqm
Storage: 5.5sqm
Amenity space: 13.5sqm

5 Flat Type 34

3 Bed - 5 Person
87sqm
Storage: 3sqm
Amenity space: 8sqm



6 Flat Type 35

3 Bed - 6 Person
102sqm
Storage: 5.5sqm
Amenity space: 9sqm

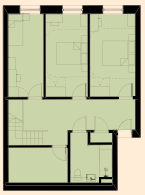
7 Flat Type 36

1 Bed - 5 Person
89sqm
Storage: 5sqm
Amenity space: 13sqm

8 Flat Type 37

3 Bed - 5 Person
112sqm
Storage: 4sqm
Amenity space: 8sqm

Level 2

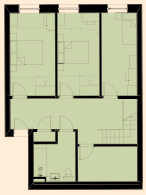


Level 1

1 Flat Type 38

3 Bed - 5 Person Duplex
140sqm
Storage: 20sqm
Amenity space: 12sqm

Level 2



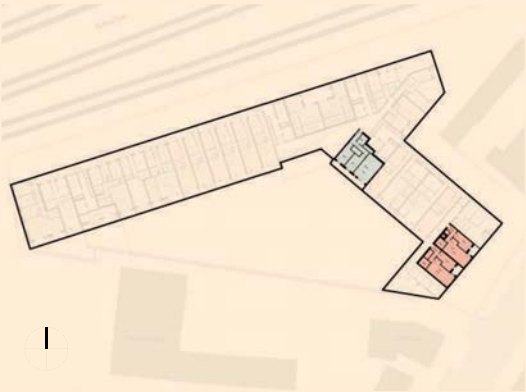
Level 1

2 Flat Type 39

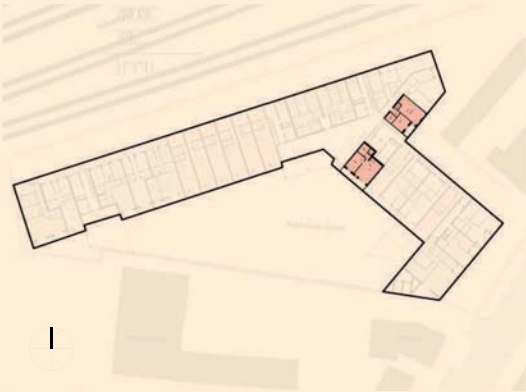
3 Bed - 5 Person Duplex
137sqm
Storage: 20sqm
Amenity space: 14.5sqm

12.06 Single Aspect Units

From a total of 185 units, 19 (10%) will be single aspect. None will have a northern aspect. These plans show the location of the units and more detail on their design and layout is given in the Unit Types section of this report.



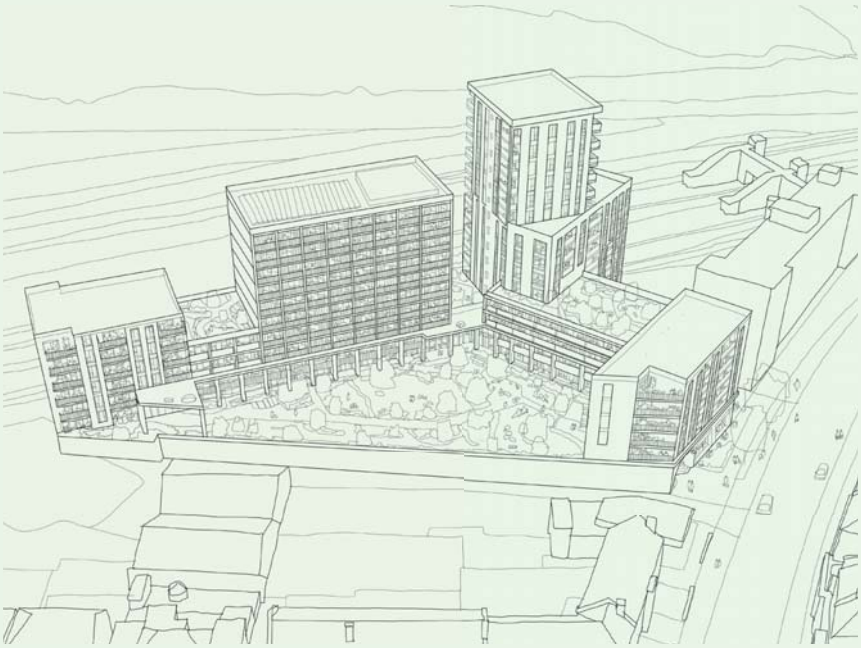
Residential Levels 1 - 5



Residential Level 1 (Podium Level)

13.
Accessibility

13.01 Inclusive Design



Inclusive Design Summary

The following policies, legislation and guidance have been followed in the design of the development:

- The London Plan 2021
- Building Regulations, Approved Document M Access to and the use of buildings (2015) and Approved Document K Protection from falling, collision and impact (2013)
- British Standard BS 8300:2018 Design of an accessible and inclusive built environment
- Requirements and implications of the Equality Act 2010
- Ealing Housing Design Guidance

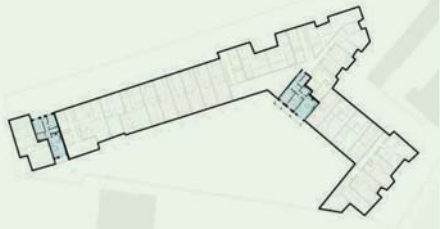
Accessible Provisions

- Primary entrance to the residential blocks is from the podium garden. The prominent entrance lobby to the west of the garden takes residents to the Lynton Core. The other large entry point, to the east is a shared lobby space for the other three blocks.
- Shelters are provided in the podium garden.
- Two Equality Act compliant lifts serve each of the four residential blocks. From street level, residents may access the podium garden via a stairway or two lifts located at the main entry point on Horn Lane.
- Roof terrace amenity space will be accessible by all
- There is secondary access for deliveries etc. through the lowest floor of each circulation core which is at ground level. Primary escape routes are also through the ground floor.
- Routes to and across the site are level. It is proposed that there will be adequate lighting and evenly laid surfaces to provide easy access into and across the site.
- The builder's merchants is accessed from street level. DDA compliant lifts serve both stair cores in the industrial space, taking staff and customers to the clerical and commercial areas at mezzanine level.
- All communal entrances are protected by cover through the archway on Horn Lane and the canopies and overhangs elsewhere. All will be well lit.
- There is level access to all entrances.

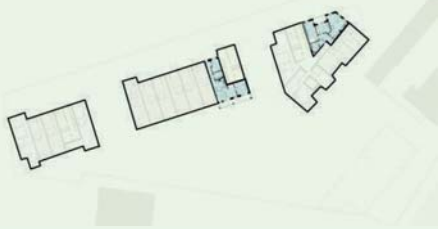
xtypical

13.02 Wheelchair User Dwellings

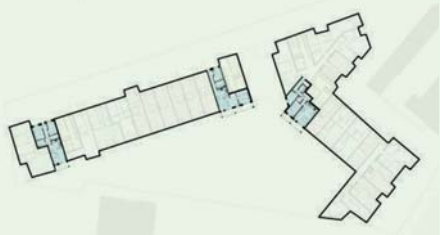
Residential Level 1 (Podium Level)



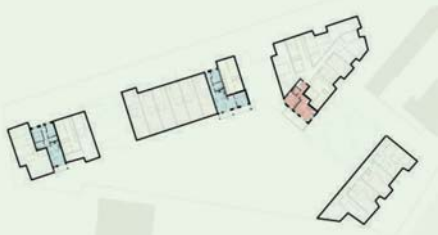
Residential Level 2



Residential Levels 6 - 8



Residential Level 3



Residential Level 5

Compliance

Dwellings are designed to meet the requirements of the Building Regulations as set out in Approved Document M Volume 1: Dwellings. In line with London Plan and Local Authority standards 90% of dwellings meet AD M category M4(2) and 10% to meet category M4(3), wheelchair adaptable/ accessible.

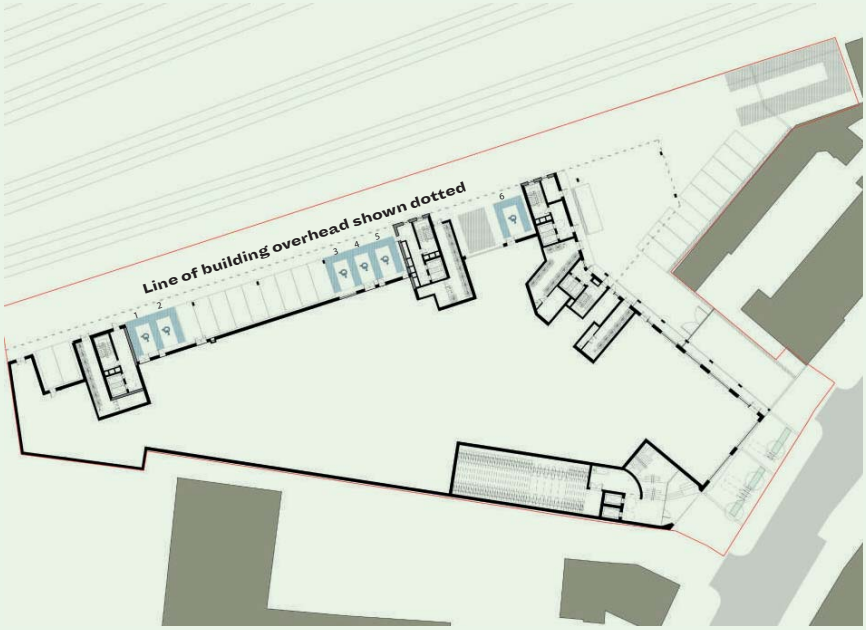
From a total of 185 units, 19 M4(3) compliant dwellings are provided. These are positioned in various locations and levels across the residential blocks. They are comprised of a mix of one, two and three bedroom units.

The location of these units is shown on these typical plans and more detail on their design and layout is provided in the Unit Types section of this report

KEY

- 1 Bed
- 2 Bed
- 3 Bed

13.03 **Blue Badge Parking**



Six Blue Badge parking spaces will be provided for residents. They will be located close to the ground floor core entrances, under the cover of the building overhang above.

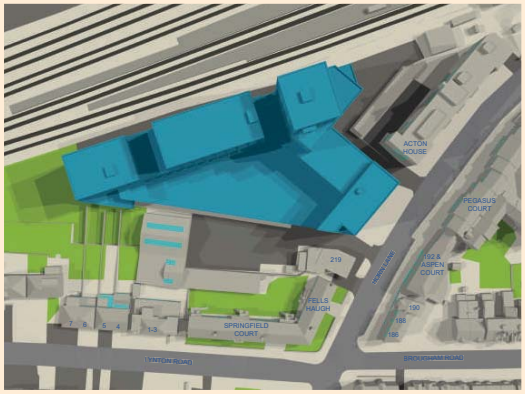
Customer parking for the builder's merchants is also located in this area and in a bank of spaces to the east of the site. Resident parking will be clearly identified and the site will be managed so that these spaces are used by their owners only.

The area will be well lit and security cameras will be installed.

It is proposed that each Blue Badge parking space will have an electric vehicle charge point (EVCP).

14.
Daylight and Sunlight

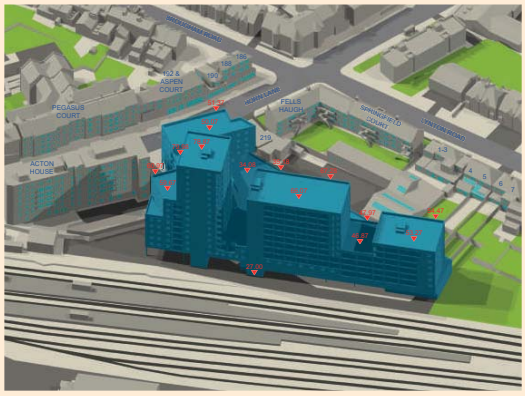
14.01 **Daylight and Sunlight Modelling**



Specialist daylight, sunlight and overshadowing modelling and analysis has been undertaken with the results being compared to the parameters detailed within BRE Guide 209 - 'Site Layout Planning for Daylight and Sunlight: a Guide to Good Practice (8 July 2022 Edition)', published by the Building Research Establishment (the BRE Guide).

Using tests laid down in the BRE Guide, the report clarifies that neighbouring rooms and spaces will, in the proposed context, benefit from levels of daylight, sunlight and sun on ground amenity that would be expected in an urban area, such as this. This is a considerable achievement given the under-developed nature of the existing baseline condition.

The report also clarifies that the Proposed Development will benefit from fully supportable internal daylight, sunlight and sun on ground amenity.



15.
Servicing Strategies

15.01 Site Transport Strategy

It is proposed that the site will deliver a sustainable residential development in transport terms that encourages walking and cycling for shorter trips and public transport use for longer trips. Along with the reprovision of the builders' merchants, a car-free development is proposed, and the existing traffic accommodated on the local highway network will continue without adverse impacts on road safety and capacity.

Pedestrian and cycle access to the residential scheme is provided from Horn Lane in a separate location to the existing vehicle access, which is retained to serve the builders' merchant and provide delivery and refuse access for the vehicles linked with the residential use.

The interaction between the residential vehicles and the vehicles associated with the builder's merchant will be minimised through the design of the parking and manoeuvring areas. Deliveries to the builder's merchant and forklift manoeuvres will be managed on-site to reduce any potential conflicts.

Site Transport Strategy Access

Separate pedestrian and cycle access to the residential scheme is to be provided from Horn Lane to reduce interaction with vehicular traffic associated with the Proposed Development. The existing vehicle access from Horn Lane is to be improved, and a vehicle route through the site is to be provided for Network Rail access along the northern boundary.

Waste Management

The principles of waste storage, presentation and collection for the Proposed Development has been designed in accordance with LBE guidance.

Cycle Parking

High-quality cycle parking will be provided for residents in a safe and secure area located close to the pedestrian and cycle entrance on Horn Lane. The cycle parking for both the residential provision and the Builders Merchants' will be to London Plan standards.

Residential Car Parking

A car-free development is proposed with blue badge parking provided for 3% of the residential units from the outset, with the ability to convert the additional 7% future provision if required.

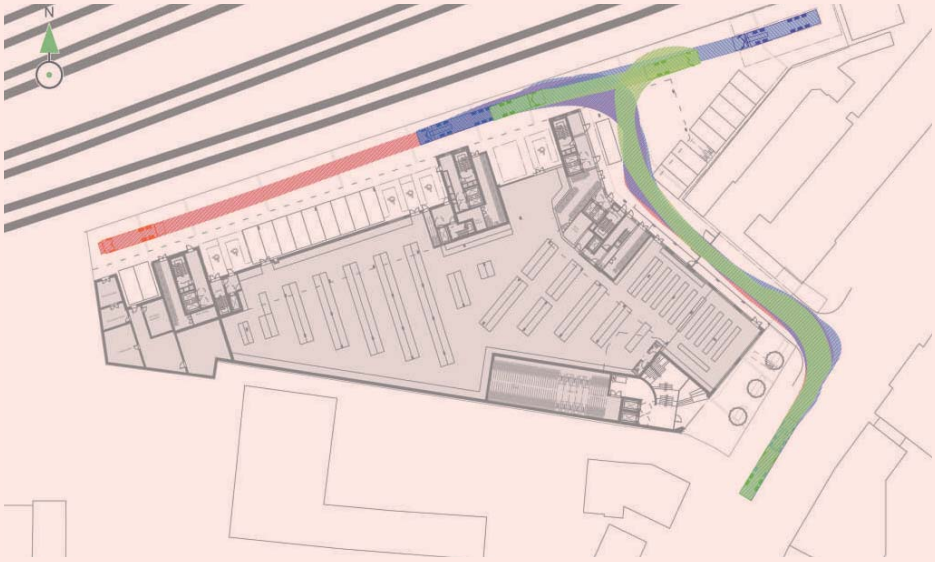
Builders Merchant Car Parking

It is proposed to provide 19 parking spaces which meet the occupiers' operational requirements based on their experience at the existing site.

Servicing and Deliveries

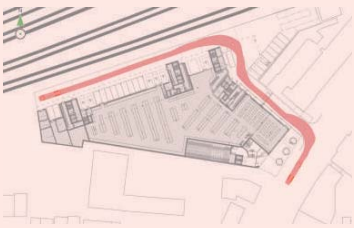
The servicing strategy will be implemented in order to ensure that the activity associated with deliveries, servicing and refuse collection does not adversely impact the operation of the local highway network or inconvenience local residents.

15.02 **Transport Strategy Diagrams**



16.5m Articulated Vehicle

LB Ealing Refuse Collection



Network Rail Access

15.03 **Waste Management Strategy**

Commercial refuse store

Residential refuse stores

Commercial waste

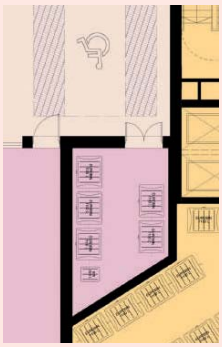
Each of the four residential blocks have a dedicated refuse area. These spaces are conveniantly located adjacent to the circulation cores along entry/ exit routes. The vast majority are within 30m horizontal travel distance from front foor to bin store. Due to the necessity of locating the bin stores back from the commercial space facing onto Horn Lane, some units in the Horn Lane block exceed this distance. However we feel that this is acceptable due to the bin store's location along the exit route.

Commercial waste

The commercial space will have a dedicated bin storage area located near the Station Block.

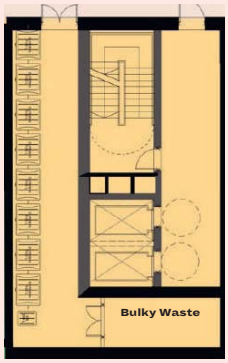
Swept path diagram - Refuse Vehicle

15.04 **Waste Storage**



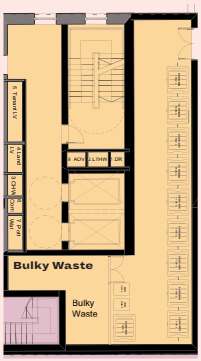
Commercial Waste

- Collection : Daily
- Residual Waste : 2 x 1100L Eurobins
- DMR : 3 x 1100L Eurobins
- Food Waste : 1 x 240L WB



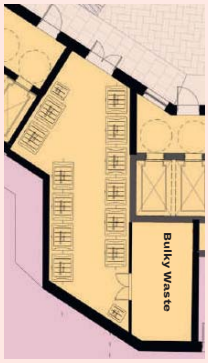
Lynton Block

- Collection : Weekly
- Residual Waste : 4 x 1100L Eurobins
- DMR : 4 x 1100L Eurobins
- Food Waste : 1 x 240L WB
- Managed collection, bins moved for collection



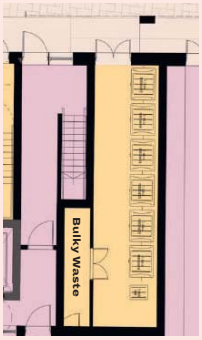
Courtyard Block

- Collection : Weekly
- Residual Waste : 5 x 1100L Eurobins
- DMR : 5 x 1100L Eurobins
- Food Waste : 2 x 240L WB
- Managed collection, bins



Station Block

- Collection : Weekly
- Residual Waste : 6 x 1100L Eurobins
- DMR : 6 x 1100L Eurobins
- Food Waste : 2 x 240L WB



Horn Lane Block

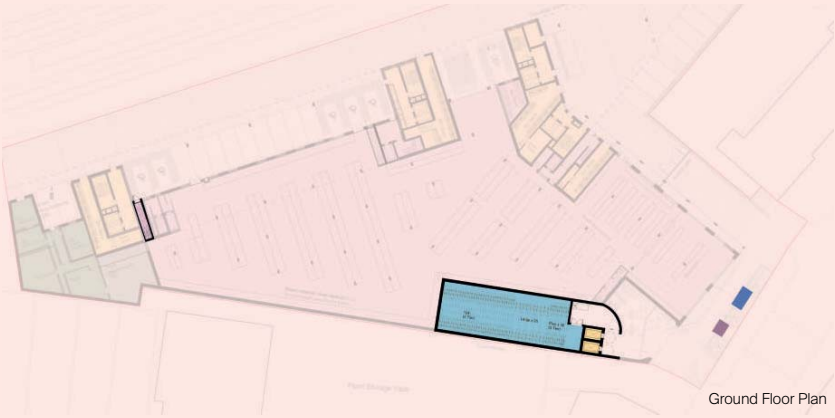
- Collection : Weekly
- Residual Waste : 3x 1100L Eurobins
- DMR : 3 x 1100L Eurobins
- Food Waste : 1 x 240L WB

15.05 **Post and Deliveries**

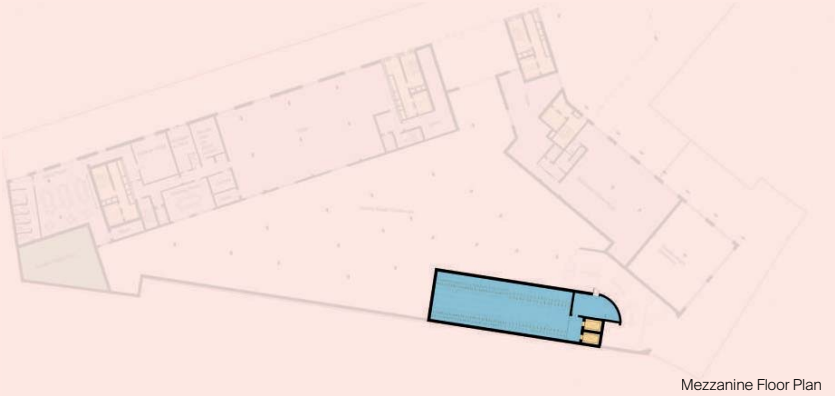
A concierge office to handle deliveries etc. will be located close to the resident loading bay which sits just inside the entrance gates. As described, this vehicular gate will be open during business hours and residents will have access when the builders' merchants is closed.

Post will be delivered to residents' post boxes located in the ground floor core areas in each of the four blocks.

15.06 Cycle Provision



Ground Floor Plan



Mezzanine Floor Plan

Residential long stay cycle storage is located on the south of the site just off the main arched entrance from Horn Lane. Residents will be given fobs to access their dedicated store. One is situated on the ground floor level, the other on the mezzanine. Two Equality Act compliant lifts serve these floors and the podium level above. Each of the floors have dedicated bike maintenance areas.

A dedicated store at the rear of the building is provided for long stay cycle parking for the commercial space.

All short stay parking is located within the site boundary on the pavement of Horn Lane.

Bike Storage Requirements

- Residential Long Stay 328
- Residential Short Stay 6
- Commercial Long Stay 6
- Commercial Short Stay 3

Long stay cycle parking is comprised of

- 75% 2-tier
- 10% Sheffield stands
- 10% Electrically assisted bikes
- 5% Larger bikes

Key

- Residential bike spaces - Long stay
- Residential bike spaces - Short stay
- Commercial bike spaces - Long stay
- Commercial bike spaces- Short stay

15.07 **Parking**

As described in the accessibility section of this report, Blue Badge parking is located close to the residential core entry points at ground floor level. These areas will be covered by the overhang provided by the blocks above.

Customer parking for the builders' merchants will also be located in this area. Additional spaces are provided on the east of the site.

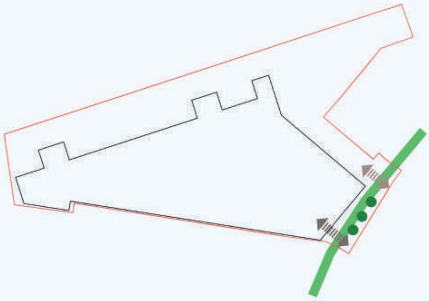
16.
Landscape

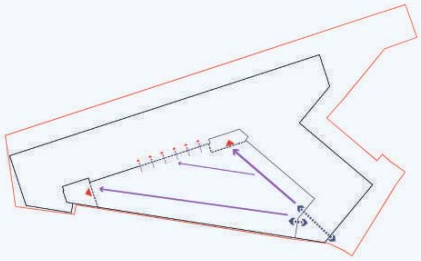
16.01 Landscape Concept

In the seventeenth and eighteenth centuries, Acton Wells was reputed to possess health giving mineral water.

healthy giving landscape incorporating ecology, social interaction, play, biodiversity, suds...

16.02 **Landscape Key Considerations**





Streetscape, Arrival

The arrival courtyard presents an opportunity to introduce the landscape design as defining element to the site, adding to the greening of Horn Lane to the east, with further opportunities to introduce rain gardens into the streetscene, as part of the surface water drainage strategy.

High quality hard landscaping will provide a transition space between the existing streescape and the proposed courtyard, with softening of built form facades through vertical greening, where appropriate. A proposed archway will add visual interest and aid in wayfinding.

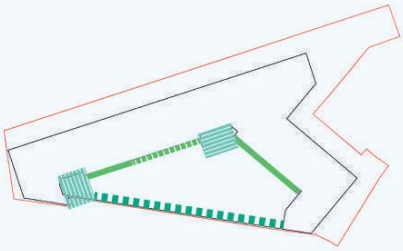
Function

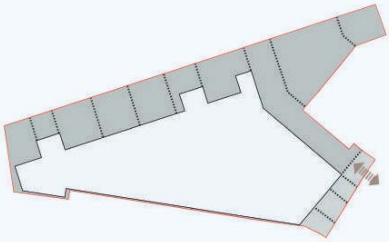
The site wide landscape design will provide a rich, multi-functional framework that creates a series of high-quality private amenity spaces for new residents to use and enjoy. Formal and informal play features will be interwoven into the landscape, providing a natural setting for resident to relax and play. The green infrastructure principles will include opportunity for natural foraging, for both people and wildlife, through provision of fruit and nut bearing trees and plants, creating a doorstep foraging trail to be explored while promoting healthier lifestyles.

Key Movement

Access to the courtyard will be achieved from the ground, mezzanine and podium levels which will provide movement routes through to the building cores. A variety of landscape treatments will be used to transition between public, semi-private and private amenity spaces, with features proposed to distinguish between them.

Landscape Key Considerations





Edge Treatment

The courtyard will have robust green edge around its perimeter, including a row of fruiting pleached trees along the southern boundary. Defensible planting to apartments will create a sense of enclosure and privacy for residents, while planting within the public realm, along footpaths and green spaces, will help to define routes and aid legibility.

There is opportunity to provide formal planting at core edges to draw the external landscape features into the building.

Character

A variety of character areas have been considered and created, which will provide variety and interest within the green infrastructure framework. The framework will see the creation of a multi-level oasis of green spaces at the heart of this current industrial setting, providing a lush green backdrop for play, relaxation and gartering space on the podium level.

The roof terraces will have a more wild and organic feel, encouraging a diverse variety of wildlife to the site, as well as sensitive interaction with people. Further biodiversity enhancements will be possible on the extensive green roofs.

The Yard

The Yard will be a shared surface with creatively designed hard landscape to break up and aide visual interest to the broader expansive paved area. It will primarily be used as vehicular access route for the builder's merchants and for Network Rail. Ramps will be integrated at entrances to provide natural speed calming measures, while paving patterns will reference the building elevation to for form a cohesive and unified design. In addition, a gate will be proposed to the access road to ensure the security and safety of the industrial uses.

16.03 Illustrative Landscape Masterplan

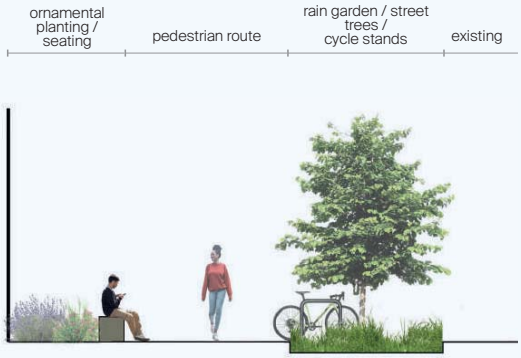
A hierarchy of outdoor spaces are proposed within the scheme. Podium Garden is the main communal area to provide spaces for seating, meeting up, play etc. The Roof Terrace are located on various levels with a strong design focus on wildness. Other roof areas will be mostly covered by extensive green roof to further boost the local biodiversity.

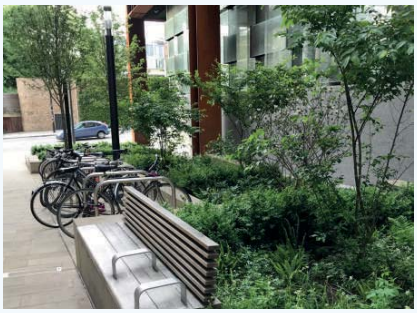
1. COURTYARD / ARRIVAL SQUARE
2. PODIUM GARDEN
3. ROOF TERRACE
4. BIODIVERSITY ROOFS
5. THE YARD

16.04 **Horn Lane**

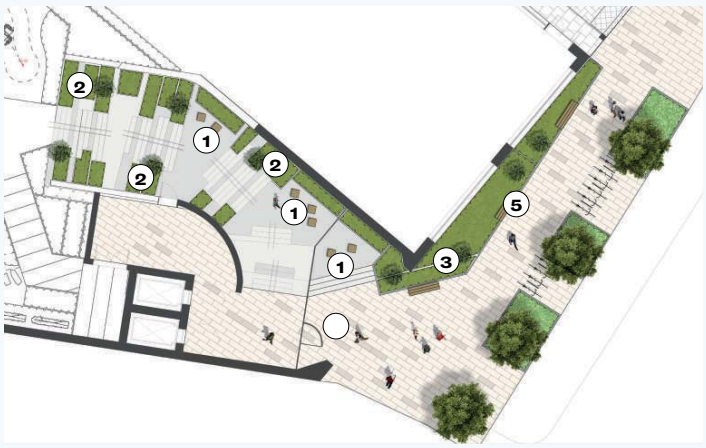
Location Plan

AA



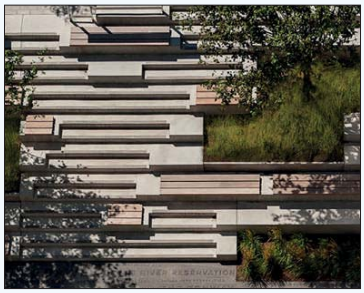


16.05 **Arrival Courtyard**



The Arrival Courtyard will provide a high quality gateway into the site, using a combination of hard paving materials and planting to create a clear and navigable route through to the podium garden and wider site. New tree planting is proposed along Horn Lane, contributing to the greening of the existing streetscene and supporting local biodiversity objectives.

1. INCIDENTAL SEATING SPACES
2. INTEGRATED TERRACE PLANTING
3. ORNAMENTAL PLANTING WITH SPECIMEN SHRUBS
4. SIMILAR PAVING MATERIAL BLENDING FROM STREET INTO DEVELOPMENT
5. SEATING ALONG THE PATH



16.06 Podium Garden

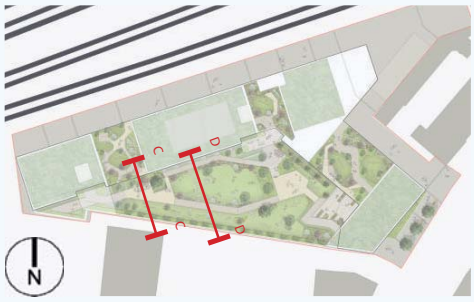
Location Plan

The south facing podium garden will provide a generous and diverse mosaic of open spaces, with a variety of experiences for residents to explore. The arrival square will provide a focal sculpture at its heart, creating a welcoming gathering space as the user arrives into the podium garden from the Horn Lane entrance to the east.

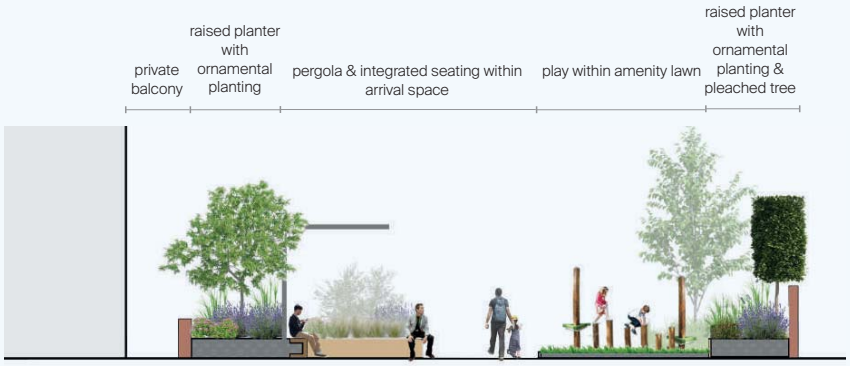
The core entrances will create pleasant gateways into the podium garden from the building, with landscape features integrated into the building to provide a high-quality green arrival space. First floor apartments will benefit from direct access out onto the podium garden, with the dwellings set behind robust defensible planting to provide residents with a strong sense of privacy and enclosure.

1. LANDSCAPED STEPS
2. ARRIVAL SQUARE - PLAY FEATURE
3. LIFT ARRIVAL
4. ENTRANCE TO CORE
5. CENTRAL LAWN, INTEGRATED PLAY
6. PEGOLAR SEATING
7. SHELTER ON THE WAY
8. PLEACHED TREES AS GREEN EDGE
9. DEFENSIBLE PLANTING

Podium Garden



Location Plan



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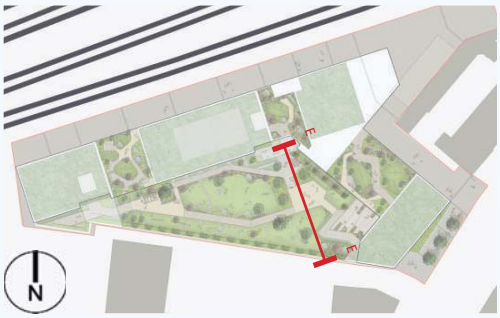
Podium Garden



Location Plan

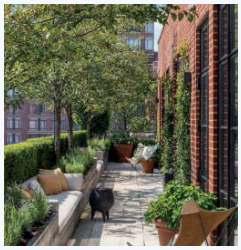
16.07 **Podium Garden - Amenity Space**

In addition to communal spaces, residents benefit from accessting private amenity space including private terraces and balconies.

Private amenity areas have been designed as an extension of the built fabric to accommodate a table and chair to suit of the occupyancy of the apartment, as well as providing some additional spaces for planting or growing own vegetables.

On the podium level, private amenity spaces are clearly defined by lower brick walls and interspersed by other defensible planting along the frontage.

The private amenity space is provided in accordance with London Housing Design Guide. A minimum of 5 sqm of private outdoor space is provided for 1-2 pweson dwellings, 6 sqm for 3 person dwellings, and 7 sqm for 4 person dwellings, with minimum depth and width being 1.5m.



1. ORNAMENTAL PLANTING
2. PRIVATE GATE
3. CONTAINER SPECIMEN SHRUBS
4. SPACE FOR TABLE AND CHAIR

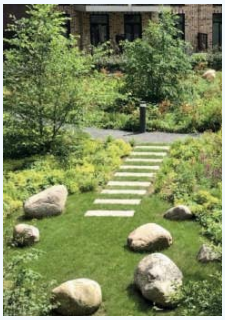
16.08 **Roof Terraces**

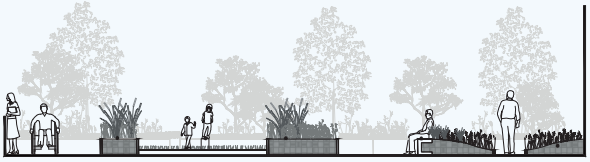
Location Plan

The landscape aspiration for the roof terrace is to provide a multifunctional and flexible space, focused on providing moments which spark social interaction and fun for future residents. The roof terraces will provide a contrast in character to that of the podium garden, with the emphasis placed on creating more natural and wild landscapes, connecting people with nature and offering residents the opportunity for a serene escape from the busy cityscape below.

The roof terraces are designed as social spaces and private garden areas for residents. Enclosed and framed by tree and shrub planting, the proposed planting creates a green edge to the terraces, with incidental features, such as play and seating, woven into the fabric of the landscape.

Paved areas provide flexibility for activities and seating, while the use of larger trees and an understorey of native and ornamental planting help frame and control both views out, and those in to the space, creating an attractive and usable communal garden for residents.





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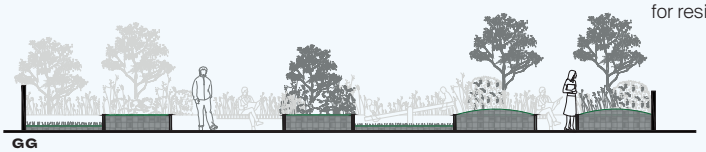

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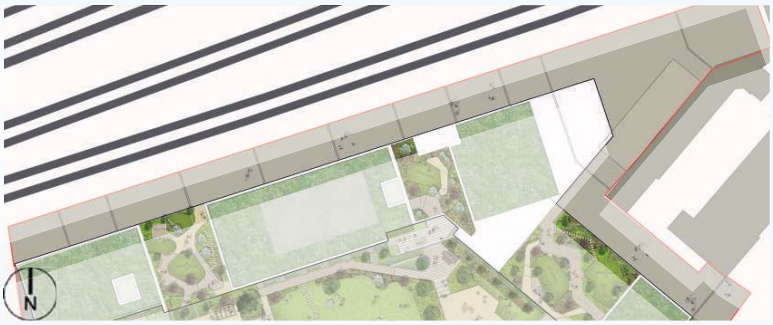
16.09 Extensive Biodiversity Roof

Location Plan

Proposed green roofs will provide valuable biodiversity benefits within the urban location, contributing to the overall biodiversity net gain for the site.

In addition to the biodiversity benefits, green roofs also provide a rainwater buffer, absorbing the water and delaying the discharge of rainwater into the drainage network. The green roofs will also aid with the urban cooling, enhancing the sustainability objectives for the site.

16.10 The Yard



Location Plan

Located between the new building and the existing railway line, the Yard will be a linear movement corridor with high quality paving, designed primarily for the vehicular access through a shared surface treatment.

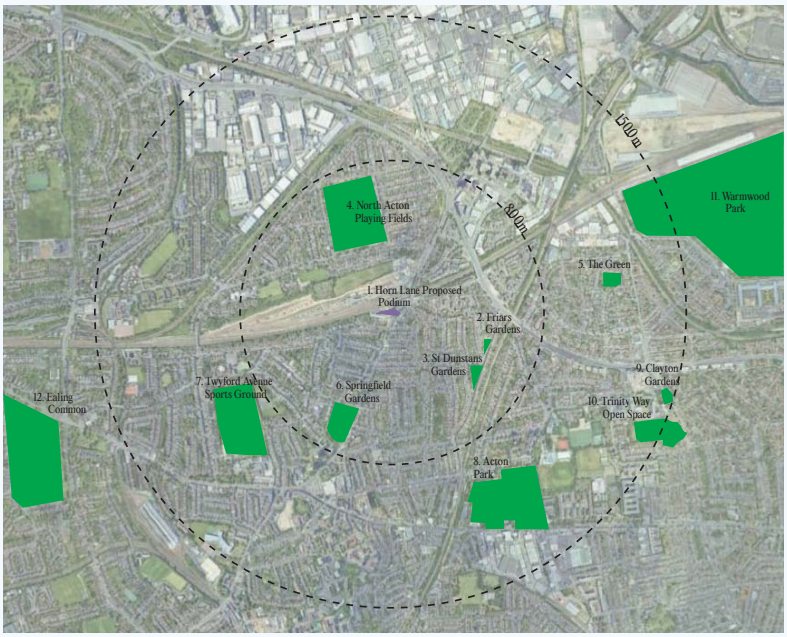
The paving pattern will compliment and respond to the built form facade, to create a unified cohesive appearance, reflecting the industrial heritage of the area. There is an opportunity to reference key elements of the sites history through intrinsic paving details, such as the materiality of the paving, engravings or markings.

16.11 Open Space Review

The diagram to the left illustrates the current public open spaces within 1.5km distance from the Site. As shown, the Proposed Development is well served by the existing open spaces. Designated play areas are also provided within North Acton Playing Fields and Springfield Gardens, and easily accessible.

The communal space proposed as part of the scheme will provide a nature-led external space at people's doorstep.

Comparative Analysis



Horn Lane Proposed Podium Garden

Public Open Spaces

No.	Name	Area (sqm)
11	Warmwood Park	621,700
12	Ealing Common	130,600
8	Acton Park	84,800
4	North Acton Playing Fields	88,600
7	Twyford Avenue Sports Ground	73,800
10	Trinity Way Open Space	23,900
6	Springfield Gardens	21,700
5	The Green	5,900
3	St Dunstans Gardens	3,600
9	Clayton Gardens	2,150
1	Horn Lane Proposed Podium	1,700
2	Friars Gardens	1,540

16.12 Open Space Provision

As outlined within the Ealing Development Management Development Plan Document and Mayor's Housing SPG, there is a clear vision from the Borough with regards to their desired quantitative standards for open space within new developments. Ealing Borough outline their inspirational provision standards for the different categories of open space required, at 15m^2 per dwelling.

The development will deliver a considerable amount formal and informal open space within the green infrastructure framework, creating a range of environments and recreational experiences. Both equipped and informal play provision will be integrated within the green infrastructure, providing the opportunity for a wide variety of exciting play experiences, with themes and materiality that complement their location within the site.

In total, the proposed development will deliver:

- 1,660m2 of open space within the podium garden;
- 680m2 of open space on the roof terraces;
- Total of 2,340m2 accessible communal garden space

In addition, a further 1,645m2 of biodiversity focussed space will be provided within the green roofs.

Podium Garden: 1,660m2

Roof Terrace: 680m2

Green Roof: 1,645m2

16.13 Urban Greening Factor

London Plan Policy G5 requires all major developments to include urban greening as a fundamental element of site and building design. The policy introduces the use of an Urban Greening Factor (UGF) to evaluate the quantity and quality of urban greening provided by a development proposal.

The Urban Greening Factor is a tool to evaluate the quality and quantity of urban greening. It enables major developments to demonstrate how they have included urban greening as a fundamental element of site and building design in order to meet London Plan Policy G5 Urban greening.

The table opposite provides a breakdown of the proposed landscape features, including trees, amenity landscapes, raingardens and permeable paving, along with their respective areas and overall contributions to the UGF for the site.

URBAN GREENING FACTOR CALCULATIONS

Habitat	UGF Guidance Surface Cover Type	Area (msq)		Factor	Score
GROUND LEVEL					
Proposed trees	Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	21		0.8	16.8
Amenity planting	Flower rich perennial planting	27		0.7	18.9
Raingarden	Rain gardens and other vegetated sustainable drainage elements.	14		0.7	9.8
Green paving	Permeable paving	2870		0.1	287
			GROUND TOTAL		332.5
ROOF LEVEL - Podium and terraces					
Intensive roof	Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	1669.5		0.8	1335.6
			GROUND TOTAL		1335.6
ROOF LEVEL - Green roof					
Biodiverse species rich green roof planting	Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	1567.9		0.7	1097.53
			ROOF TOTAL		1097.53

OVERALL TOTAL	2765.63
Site Area	6393
Overall Score	0.432603

Urban Greening Factor Plan

- Intensive roof
- Extensive roof
- Raingarden
- Amenity planting
- Trees
- Permeable paving

16.14 **Play and Recreation Strategy**

A combination of play spaces will be distributed throughout the site, contributing towards the open space provision for the new residents. These will include formal equipped areas for play as well as more informal 'landscaped' areas based on principles of natural play.

A variety of play opportunities will be provided through designated areas for play that contain a range of facilities and environments designed to provide focused opportunities for outdoor play. Play areas will be located within greens and open spaces, with buffers to residential properties as required by the FiT guidance.

The play strategy takes account of GLA recommended benchmark standard of 10m^2 per child and sets out a balanced list of play provision. The proposed play facilities offer a range of new play spaces within the site, located within short walking distances from the proposed houses.

The play and recreation strategy at Horn Lane, Acton includes:

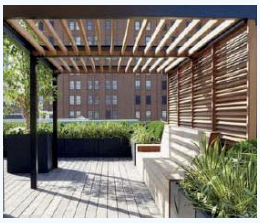
- Integrated play equipment for younger children
- Incidental / natural doorstep play features
- Informal fitness stations for older children and adults

16.15 **Sheltered Spaces**

Location Plan

Thoughtfully designed pergolas and shelters will be placed in various locations on Podium Garden to provide character to the outdoor space. A pergola or shelter defines a separate area as a relaxing corner, a cosy nook, or a simple a seating or outdoor dining area.

The modern minimalist design will offer a clear and elegant structure, providing seating, shade, privacy screen and an-catching addition to the garden.



16.16 Planting Palette

Planting principles

The planting and provision of green and open space within the landscape masterplan is a fundamental feature of the development. The planting proposed within the development will reflect the function and use of the spaces and the micro climatic conditions.

The landscape elements within these components will play a significant role in helping to define and reinforce the character of each area. They also play an important aesthetic role in creating an attractive setting for the development, contributing to an interconnected habitat network with biodiversity benefits and forming distinctiveness and a sense of place.

The soft planting palette will be developed to a high standard with species selection being considerate of robustness and resilience to climate change, pollution, water-logging and drought. The soft landscaping across the site will respond to the built form environment and species will be selected to provide vibrancy to the development, whilst meeting the specific site conditions.

A range of species will be utilised to mitigate against future pathogens, biosecurity and stock availability. Public realm planting will seek to have a wildlife focus, where possible, with pollinators, fruit, nut and nectar bearing species, favouring UK native and local varieties. Semi natural and informal areas will be characterised by native planting. Collectively, these approaches assist interconnectivity between habitat areas and strengthen biodiversity gains.

Pleached trees

Betula utilis 'Jacquemontii'

Tilia cordata

Tree and grass mix in raised planters

Cornus sanguinea 'Midwinter Fire'

Stipa tenuissima

Lavandula angustifolia 'Hidcote'

Calamagrostis acutiflora 'Karl Foerster'

Luzula nivea

Ilex crenata

Festuca glauca

Phlomis tuberosa

Alchemilla mollis

Galanthus nivalis

Miscanthus sinensis

Allium 'Globemaster'

BUCKLEY GRAY YEOMAN

16.17 Hard Material Palette

Materials palette

Hardscape materials are important in creating a high quality public realm and providing a consistent language through the development. A simplistic and sophisticated materials palette will ensure a clear and comprehensive character, complimented by focused areas of greater detail associated with key destinations and focal points.

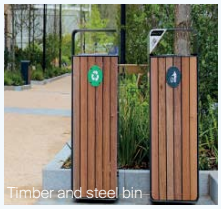
Paving materials will be selected to define a hierarchy of space and assist with the site's wayfinding. Subtle variations in the paving palette will help differentiate between pedestrian and vehicular priorities, ensure the public realm is a safe and user friendly environment.

Street furniture will have a contemporary design. A combination of timber and steel will work together to provide a nature of touch and a reflection of site's history.

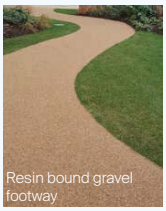
Square timber bench

Timber top bench

Bug Hotel

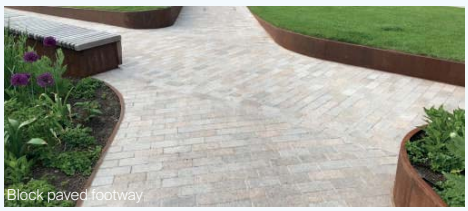

Timber and steel bin

High-quality finished paved communal area


Resin bound gravel footway

Concreate block paving

Feature concrete flags

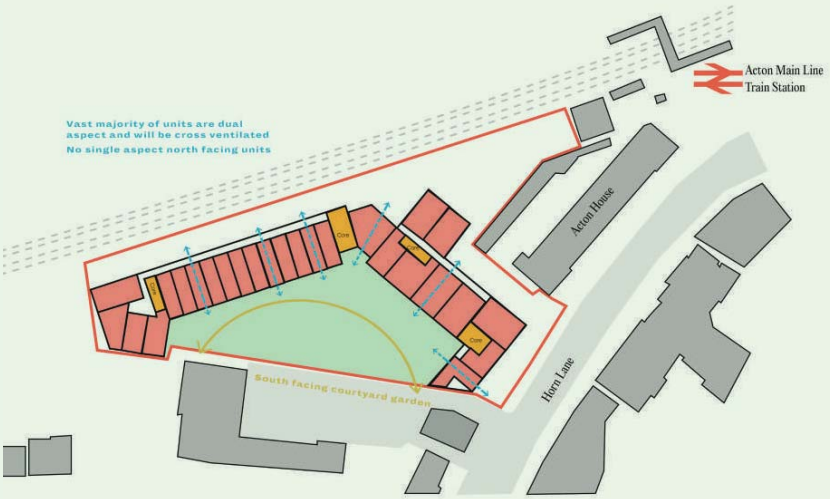

Block paved footway

Low level lighting

Feature concrete flags

17.
Sustainability

17.01 Sustainable Design Principles



Sustainable Design Drivers

South facing podium garden, roof terraces and green roofs
High-quality external green spaces will provide valuable amenity provision for the residents. Sustainable drainage systems will also be utilised.

Dual aspect dwellings
The vast majority of apartments will be dual aspect with a limited number of south east and south west facing single aspect units to the east and west corners.

Indoor environmental design
Achieved through the careful consideration of balancing thermal comfort with achieving optimal daylight levels. Providing comfort and air quality through natural cross ventilation and mechanical systems. Designing for the acoustic impact of the railway and the surrounding area.

'Lean' building performance
Lean performance to exceed U-value and air permeability requirements

High-quality, durable materials
Durable low-impact materials will be used

17.02 Energy and Sustainability Strategy

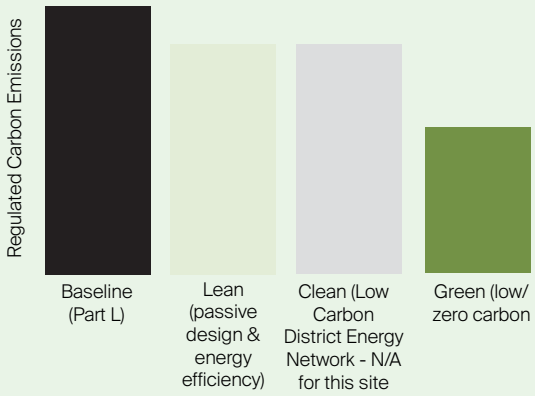
Energy & Sustainability Strategy

This note summarises the proposed approach to the energy and sustainability strategy for the Horn Lane development.

The Proposed Development is achieving the following targets:

- Meet the aspirations of the mayor's 'priorities' and strive to meet the 'best practice' as defined in the GLA's Sustainable Design and Construction SPG
- Carbon emissions reductions: Achieving a greater than 35% carbon emission reduction using GLA and Part L calculations
- Carbon offset contributions for the remaining carbon emissions, in line with GLA requirements for Zero Carbon.
- Preliminary Part L modelling and thermal comfort modelling (including overheating modelling) have been used to inform the design and energy strategy
- The team have developed a holistic sustainability strategy to enhance performance in areas beyond energy and carbon

The carbon reduction strategy is following the energy hierarchy: **Be Lean – Be Clean – Be Green**



17.03 Approach to Energy and Carbon Reduction

Figure 2: Example Lean measures

The following performance requirements (as endorsed by CIBSE, RIBA, UKGBC etc) are included in the design.

Element	U-value (W/m²K)	Element	U-value (W/m²K)
Wall	0.13	**Roof**	0.10
Window	1.2	**Floor**	0.10
Non-vision panels	0.13	**Air permeability**	< 3 m³/hr/m²
Percentage Glazing	20-40% g-val ~0.4	**Thermal Bridging**	Enhanced performance where possible
Ventilation	MVHR	**Heating & cooling**	High efficiency central heat pump systems

Fig 1. Fabric and Energy Performance Perameters

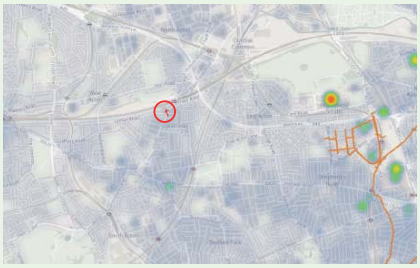


Fig 2. London Heat Map. Site marked in red

Fig 3. Proposed green technologies including heat pumps and PV panels

Be Lean:
Passive design and energy efficiency. Modelling is used to optimise the balance between beneficial winter solar gains and summer comfort, while maximising internal daylight levels.

There is a target for the development to exceed Part L of the Building Regulations from passive design and energy efficiency alone by up to 10%, before the incorporation of Low and Zero Carbon technologies (LZCs).

The proposed passive design and efficiency targets will be achieved through careful consideration of building design, a high-performance façade, and high-efficiency services.

Preliminary Part L modelling & thermal comfort modelling are used to inform the façade design and services selection, and a summary report will be included in the planning application.

Be Clean:
The development is providing an all-electric heat pump solution which achieves the best carbon emission reductions and is future proofed for zero carbon as the grid continues to decarbonise. No existing heat networks are located in the immediate vicinity and as such cannot be considered for a connection. Even if a heat network was available, the current design more than likely achieves better carbon emissions performance. The development is designed to enable a future connection to a district heat / energy network.

Be Green:

The potential for incorporating renewable energy systems has been reviewed. In order to follow the Mayor's energy hierarchy, priority will be given to systems that would not displace loads from the proposed heat pump systems.
Roof-mounted renewable energy systems in the form of photovoltaic (PV) panels are also considered.
Beyond Part L compliance and regulated emissions, opportunities will be sought to encourage a reduction of non-regulated emissions in practice through measures such as metering, displays and controls.
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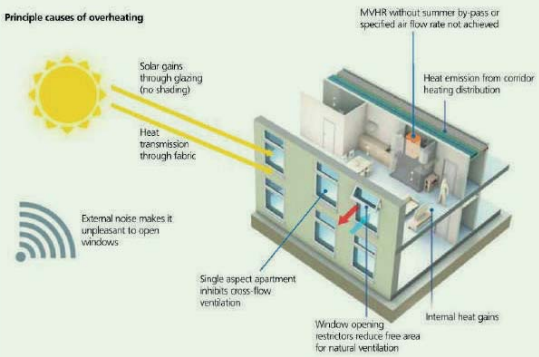
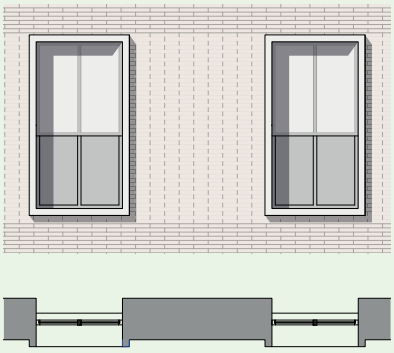
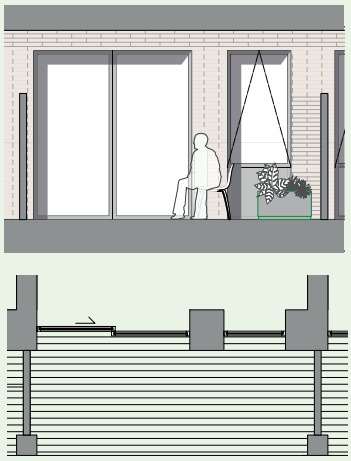
17.04 Overheating Mitigation



Sources of Overheating (UKGBC - July 2016)



External walls



Balconies

Overheating Mitigation

Dynamic thermal modelling has been used to assess the overheating risk (CIBSE TM59 analysis) in addition to any assessment of overheating risk obtained from the typical Part L Building Regulations compliance tools. This dynamic thermal modelling considers urban heat island effect and future climate conditions and is also considerate of air quality and acoustic constraints.

The design is following a cooling hierarchy where possible which includes measures such as: reducing summer solar gains; using thermal mass and high ceilings; and utilise passive ventilation strategies such as cross ventilation. Cooling will be provided where air quality / acoustics does not enable natural ventilation. The design currently shows compliance with industry guidance i.e. TM59 and as referenced in Part O of the building regulations.

17.05 Sustainability

Management

Consultation with local groups / stakeholders

Provision of user guide

Health & Wellbeing

Target good levels of daylight – to be informed by modelling

Target excellent levels of indoor air quality

Energy

Follow Energy Hierarchy

Target >35% CO_2 emissions reductions using GLA calculations

Transport

Provision of active travel facilities to promote healt travel and good access to public transport

Resources

Consideration of environmental impact

Responsible sourcing - all

timber to be legally sourced

Provision of recycling facilities

Construction site waste management policies to minimise waste and divert it from landfill

Whole life and embodied carbon

Land Use & Ecology

Biodiversity improvements incorporated in the design where possible to achieve a net gain

Water

Use of water efficient fixtures and fittings

Pollution

No fossil fuel use on site– all electric

Acoustic comfort of occupants to be considered

Noise impact assessment and attenuation as required

The team have developd a sustainability strategy to enhance performance beyond energy and carbon.

18.
Conclusion

Conclusion

We believe that these proposals will form a positive contributon to Horn Lane and the wider area through the development of this brownfield site by

- Providing 185 well designed new homes, of which 35% will be affordable tenure. These homes will benefit from generous and attractive private and communal amenity space.

- Creating new jobs through the construction of a new purpose built and sustainable light industrial space for Builder Depot.

- Engaging in a vigorous design process in which we consulted with community groups, the local authority, design and community review panels and the GLA.

- Developing and adapting the proposals to respond to comments received to provide a thoughtfully designed proposal using high quality materials to add to the architectural stock of the area.

- Making a valuable contribution to greening and biodiversity in the locality through the scheme's roof terraces, podium garden and the landscaping of the pavement on Horn Lane.

- Providing a positive contribution to the streetscene of Horn Lane, in particular through widening the pavement, landscaping, the shopfront of the commercial space and the arched entrance to the podium garden and cycle storage space.

- Using the immediate and historic context, rather than taking the emerging heights of recent developments as a driver to inform the scale, height and appearance. We have realised a design proposal which sits comfortably in the surrounding context.

- Being respectful of the suburban scale, particularly to the houses on Lynton Road the neighbouring Acton House.

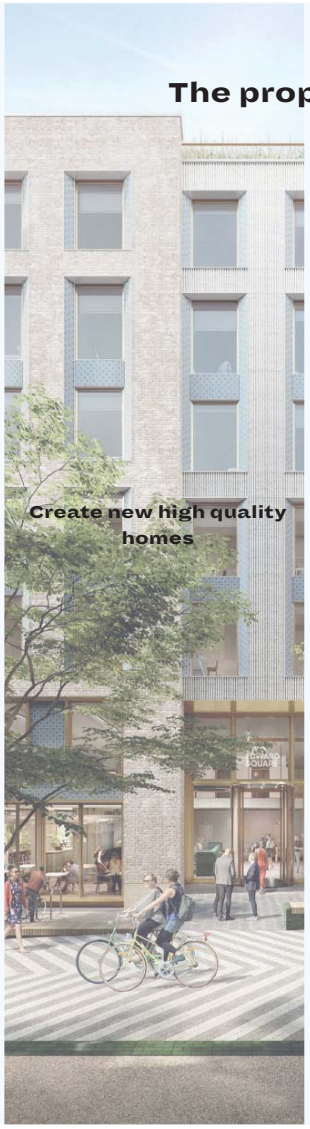
- Proposing a sensitive contextual intervention rather than a landmark building.

- Following a sustainable design approach and the energy hierarchy - be clean, be lean, be green. Exceeding U-value and air permeability targets, using all electric heat pumps and renewable energy to reduce carbon use.

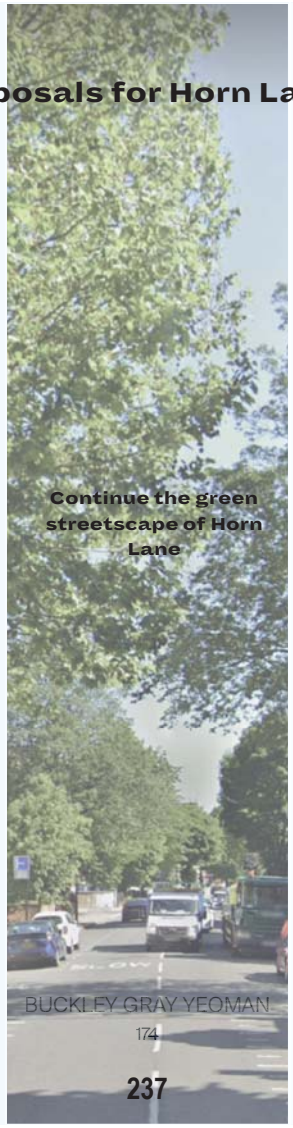
LYNTON
ROAD

The proposals for Horn Lane will..

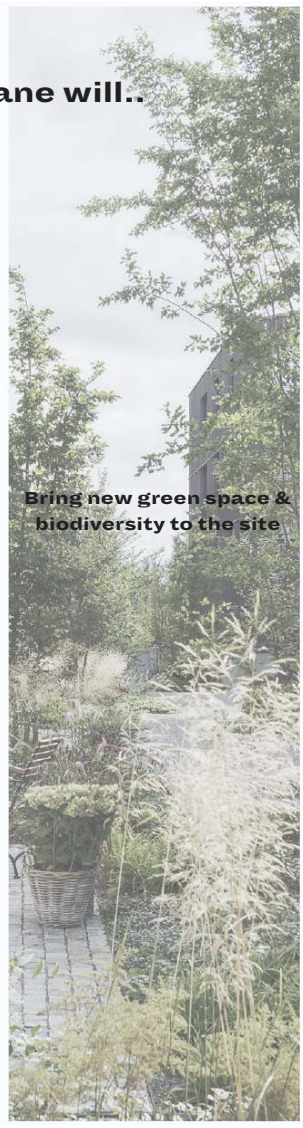
Safeguard employment and industrial use



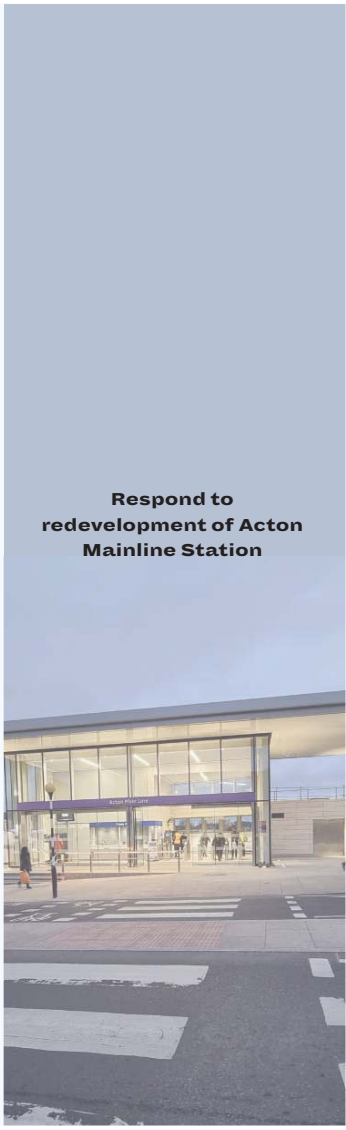
Create new high quality homes



Continue the green streetscape of Horn Lane



Bring new green space & biodiversity to the site



Respond to redevelopment of Acton Mainline Station

WWW.BGY.CO.UK

London
4.04 The Tea Building
56 Shoreditch High Street
London E1 6JJ
+44 20 7033 9913

Bristol
Programme
All Saints Street
Bristol BS1 2NB
+44 117 4566 899

19.
Appendices

1217- Horn Lane Accommodation Schedule

Date	REV	Reason for issue
28.10.22	P2	Planning
04.11.22	P3	Planning

NOTE: All areas are approximate and for comparative purposes only

Floor	Use	Unit Type 1B2P	2B3P	2B4P	3B5P	3B6P	Accessibility M4(3)	M4(3) Type	Totals Total Units	Hab rooms	Tenure Social rent	Interm	Private	Areas NIA (sqm)	GIA (sqm)		Total GIA res & comm	
Ground	Commercial														2365	Comm only	3417	Inc. res
Mezz	Commercial														1370	Comm only	1807	Inc. res
1	Resi													1802	2298		2298	
2	Resi													1515	2049		2049	
3	Resi													1618	2037		2037	
4	Resi													1641	2048		2048	
5	Resi													1234	1604		1604	
6	Resi													975	1265		1265	
7	Resi													747	950		950	
8	Resi													747	950		950	
9	Resi													583	745		745	
10	Resi													583	745		745	
11	Resi													196	273		273	
12	Resi													196	273		273	
13	Resi													196	273		273	
14	Resi													196	273		273	
	Sub Total													12229			21007	
Lynton Block																		
1	Resi	3	2		2	1	1	2B3P	8		8			607				
2	Resi	2	2		2	1	1	2B3P	7		7			522				
3	Resi	3	3		1	1	1	2B3P	8		8			554				
4	Resi		3		1	1	1	2B3P	5		5			401				
5	Resi		2			1	1	2B3P	3		3			247				
6	Resi	2	1	1					4		4			242				
	Sub Total	10	13	1	6	5	5		35		35			2573				
	Hab rooms	20	39	3	24	20				106								
Courtyard Block																		
1	Resi	3			2				5				5	454				
2	Resi	4							4				4	204				
3	Resi	3	1						4				4	216				
4	Resi	6		1			1	2B3P	7				7	386				
5	Resi	6		1			1	2B3P	7				7	379				
6	Resi	6		1			1	2B3P	7				7	387				
7	Resi	6		1			1	2B3P	7				7	387				
8	Resi	6		1			1	2B3P	7				7	387				
9	Resi	6		1			1	2B3P	7				7	387				
10	Resi	6		1			1	2B3P	7				7	387				
	Sub Total	52	1	7	2	0	6		62				62	3574				
	Hab rooms	104	3	21	8	0				136								
Station Block																		
1	Resi	2		2			1	1B2P	4			4		264				
2	Resi	1	1	2			1	2B3P	4			4		297				
3	Resi	1	2	2					5			2	3	356				
4	Resi	1	2	2					5			1	4	362				
5	Resi	2		3			1	1B2P	5			1	4	342				
6	Resi		1	2	1		1	2B3P	4				4	346				
7	Resi		1	1	1	1	1	2B3P	4				4	360				
8	Resi		1	1	1	1	1	2B3P	4				4	360				
9	Resi		3				1	2B3P	3				3	196				
10	Resi		3						3				3	196				
11	Resi		3						3				3	196				
12	Resi		3						3				3	196				
13	Resi		3						3				3	196				
14	Resi		3						3				3	196				
	Sub Total	7	26	15	3	2	7		53			12	41	3863				
	Hab rooms	14	78	45	12	8				157								
Horn Lane Block																		
1	Resi	3	3		1		1	3B5P	7			2	5	477				
2	Resi	4	4						8			4	4	492				
3	Resi	4	4						8			4	4	492				
4	Resi	4	4						8			4	4	492				
5	Resi	2	1		1				4			3	1	266				
	Sub Total	17	16		2	0	1		35			17	18	2219				
	Hab rooms	34	48		8					90								
														24458	19518			
							Total										**Total**	
Units		86	56	23	13	7	185	19			35	29	121				185	
Hab rooms		172	168	69	52	28	489				106	72	311				489	

Units

	1 Bed	2 Bed		3 Bed	
Social	10	14		11	35
Intermediate	15	14		0	29
Private	61	51		9	121
Total	86	79		20	185

Habitable Rooms

1 Bed	2 Bed	3 Bed	
20	42	44	106
30	42	0	72
122	153	36	311
172	237	80	489

Buckley Gray Yeoman

Studio 4.04, The Tea Building

56 Shoreditch High Street,London E1 6JJ

Tel: 020 7033 9913 Fax: 020 7033 9914

DRAWING ISSUE SHEET

Job Name	Job No: 1217
227-239 Horn Lane	Issue Date: 10-Nov-22
Page 1	Title: PLANNING

DWG No	DRAWING TITLE	SCALE	SIZE	REVISION		CADFILE
1217_LP-100	Location Plan	1:1250	A3	P1	P2	
1217_SP-000	Site Plan - Existing Ground Plan	1:500	A1	P1	P2	
1217_SP-101	Site Plan - Proposed Roof Plan	1:500	A1	P1	P2	
1217_EE-100	Existing Site Elevations	1:200	A1	P1	P2	
1217_EE-101	Existing Site Elevations	1:200	A1	P1	P2	
1217_GA-100	GA Plans - Ground Floor Plan	1:250	A1	P1	P2	
1217_GA-101	GA Plans - Mezzanine Floor Plan	1:250	A1	P1	P2	
1217_GA-102	GA Plans - Podium Level 01 Plan	1:250	A1	P1	P2	
1217_GA-103	GA Plans - Podium Level 02 Plan	1:250	A1	P1	P2	
1217_GA-104	GA Plans - Podium Level 03 Plan	1:250	A1	P1	P2	
1217_GA-105	GA Plans - Podium Level 04 Plan	1:250	A1	P1	P2	
1217_GA-106	GA Plans - Podium Level 05 Plan	1:250	A1	P1	P2	
1217_GA-107	GA Plans - Podium Level 06 Plan	1:250	A1	P1	P2	
1217_GA-108	GA Plans - Podium Level 07 & 08 Plan	1:250	A1	P1	P2	
1217_GA-109	GA Plans - Podium Level 09 & 10 Plan	1:250	A1	P1	P2	
1217_GA-110	GA Plans - Podium Level 11-14 Plan	1:250	A1	P1	P2	
1217_GA-113	GA Plans - Podium Roof Plan	1:250	A1	P1	P2	
1217_GA-U-100	Proposed Unit Plans - 1 Bed Sheet 1	1:100	A1	P1	P2	
1217_GA-U-101	Proposed Unit Plans - 2 Bed Sheet 1	1:100	A1	P1	P2	
1217_GA-U-102	Proposed Unit Plans - 2 Bed Sheet 2	1:100	A1	P1	P2	
1217_GA-U-103	Proposed Unit Plans - 2 Bed Sheet 3	1:100	A1	P1	P2	
1217_GA-U-104	Proposed Unit Plans - 3 Bed Sheet 1	1:100	A1	P1	P2	
1217_GA-U-105	Proposed Unit Plans - 3 Bed Sheet 2	1:100	A1	P1	P2	
1217_GE-101	Proposed Elevation - South Elevation	1:200	A1	P1	P2	
1217_GE-102	Proposed Elevation - East Elevation	1:200	A1	P1	P2	
1217_GE-103	Proposed Elevation - North Elevation	1:200	A1	P1	P2	
1217_GE-201	Proposed Elevation - Courtyard South	1:200	A1	P1	P2	
1217_GE-202	Proposed Elevation - Courtyard West	1:200	A1	P1	P2	
1217_GE-203	Proposed Elevation - Courtyard North	1:200	A1	P1	P2	
1217_GE-301	Proposed Elevation - West Gables	1:200	A1	P1	P2	
1217_GE-302	Proposed Elevation - East Gables	1:200	A1	P1	P2	
1217_GE-303	Elevations - Station Block South	1:200	A1	P1	P2	
1217_GE-401	Proposed Bay Elevation - South Elevation	1:50	A1	P1	P2	
1217_GE-402	Proposed Bay Elevation - North Elevation	1:50	A1	P1	P2	
1217_GE-403	Proposed Bay Elevation - Courtyard South	1:50	A1	P1	P2	
1217_V-100	View From Horn Lane	NTS	A1	P1	P2	
1217_V-101	View From Railway Bridge	NTS	A1	P1	P2	
1217_V-102	Aerial View	NTS	A1	P1	P2	
1217_V-103	Courtyard View	NTS	A1	P1	P2	
DATE OF THIS ISSUE (last column)		Day		21	10	
		Month		10	11	
		Year		22	22	
Client	1.01					
Building Control						
S/E	4.01					
M/E	4.02					
QS	4.03					
CDMC	4.09					
Project Management	4.13					
Planning consultant	4.18					
Contractor						
Purpose of Issue				P	P	
Method of Issue				E	E	
Issued by				MOL	MOL	

Paper: P Email: E Compact Disk: CD Negative: N DWG format: dwg

Planning: P Information: I Comment: M Approval: A Bills of Quantity: B Tender: T Construction: C