

7.9 Materials & Furniture

Materials Approach

The material strategy for Hanover and Princess Courts ensures a durable, coherent, and visually rich public realm that responds sensitively to the architectural character of the development and the wider context. The palette has been selected for robustness, accessibility, climate resilience, and integration with the natural landscape.

Key Principles

- Visual Coherence and Simplicity: Materials are selected to create a unified, legible environment while supporting intuitive navigation across public, communal, and private spaces.
- Durability and Climate Responsiveness: Hard materials are chosen for their ability to withstand intensive use, resist weathering, and contribute to sustainable drainage where possible.
- Sustainability: The material palette supports wider environmental goals, with permeable surfaces included to manage rainwater sustainably at source.
- Accessibility – Hard standing will be extended around benches to enable wheelchair users to pull up beside seating and feel included in rest and social spaces.

Primary Material Palette

- Poured Concrete: Used for main public realm routes, providing a clean, robust surface with a contemporary character and high durability.
- Concrete Pavers: Standard concrete pavers are used across secondary movement routes and shared spaces, offering practical, cost-effective surfacing with a neutral finish.
- Brown Concrete Pavers: Introduced within residential courtyards and communal zones to create warmth, subtle tonal variation, and reinforce the human scale of the spaces.
- Permeable Block Paving: Used where sustainable drainage is required, such as around parking courts and selected pedestrian zones, supporting infiltration and stormwater management.

Climate and SuDS Integration

Wherever feasible, permeable paving solutions are integrated into the site design to enhance sustainable drainage capacity, helping to reduce runoff, improve water quality, and support wider SuDS objectives. Hard surfaces work in combination with rain gardens, planting, and green roofs to embed resilience and ecological performance throughout the public realm.



LEGEND	Furniture + Fittings	Pavements
Proposed Building	Sheffield Bike Stands	Existing Concrete Pavement
Site Boundary	Low Railings	Existing Road
	Proposed Seating	M01 - Car Parking
	Proposed Play Equipment	M02 - Concrete Pavers
	Nature-Based Play Along The Way	M03 - Permeable Brick Pavers
	EV Charging Point	M04 - Play Surface

Materials and Furniture Palette



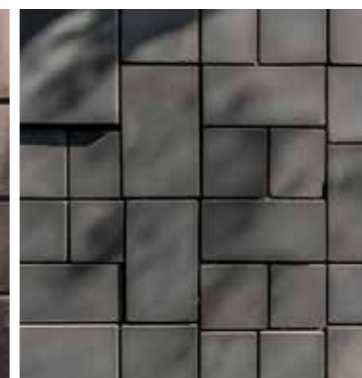
Materials - Poured Concrete



Materials - Grey Concrete Pavers



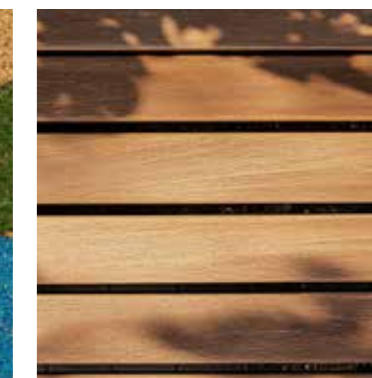
Materials - Brown Concrete Pavers



Materials - Permeable Brick Paving (Grey and Brown)



Play - Rubber crump multi-use material



Furniture - Timber Bench

Furniture Approach

The furniture strategy for Hanover and Princess Courts is designed to complement the naturalistic and resilient character of the landscape, providing durable, accessible, and comfortable amenities for all users. Furniture is integrated seamlessly into public, communal, and private spaces, supporting rest, social interaction, and informal gathering throughout the site. Key Principles

- Integration with Landscape Character: Furniture selections reinforce the overall material language of the landscape, prioritising simplicity, natural finishes, and durability.
- Durability and Longevity: All furniture is specified to withstand high usage with minimal maintenance, using sustainably sourced and robust materials.
- Inclusivity and Comfort: Benches are designed to provide comfortable resting points at regular intervals, with armrests and appropriate seat heights to ensure accessibility for all ages and abilities.
- Encouraging Community Interaction: Furniture is positioned to support both informal social gathering and individual quiet rest within a biodiverse, green environment.
- Accessibility and Inclusivity: Seating will offer a variety of seat heights. Arm rests will be integrated within specific bench seating

Furniture Elements

- Standard Timber Benches: Timber benches are the primary furniture type, installed throughout key rest and dwell spaces such as the Community Heart, Play on the Way routes, and around the Sensory Garden.

The benches are simple, robust, and natural in appearance, aligning with the wider planting and material palette while providing practical, comfortable seating. Cycle parking is also provided across the development through Sheffield bike stands, encouraging sustainable modes of transport.

7.10 Play + Amenities

Play Typologies

The landscape incorporates a layered play strategy that supports both formal and informal, intergenerational play experiences:

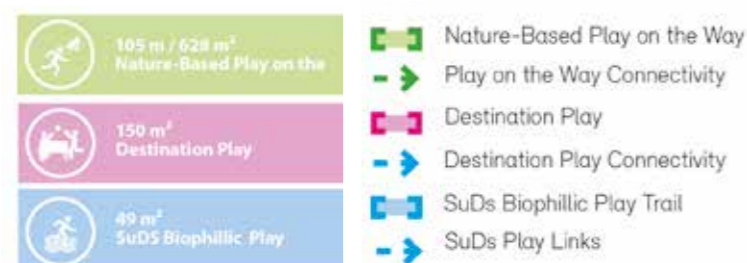
- Destination Play: A larger, designated play area located near the Community Centre provides a focus for more structured, active play. This space is designed to be inclusive, stimulating, and socially engaging, encouraging both imaginative and physical activities.
- Play on the Way: Incidental play opportunities are integrated along primary pedestrian routes, creating playful interventions that invite exploration, movement, and discovery as part of everyday journeys through the site.
- SuDS-Integrated Play: Water-responsive spaces and rain gardens are designed to double as interactive landscapes, encouraging sensory engagement and nature-based play while managing surface water sustainably.

This multi-layered approach ensures that play is not limited to discrete zones but is instead woven into the fabric of the public realm, encouraging active lifestyles and informal community interaction.



Play Typologies Diagram

Legend



Rest and Dwell Spaces

In addition to active play spaces, the landscape provides a series of restful, biodiverse zones designed for relaxation, socialising, and contemplation:

- Dwell Spaces: Small, sheltered pockets of seating are distributed throughout the site, often nestled within planting areas or adjacent to community gathering spaces. These spaces are intended for informal use by residents and visitors of all ages.
- Sensory Gardens: Planting selections emphasise texture, scent, and seasonal colour, creating calming environments that support mental wellbeing and sensory engagement.
- Integrated Seating: A range of seating types—including timber benches, log seating, and integrated corten-edged structures—provide comfortable resting points throughout both public and resident-focused spaces.
- Social Meeting Spaces: Larger communal terraces, such as the Community Centre Terrace and the Community Heart, provide flexible spaces for informal gatherings, community events, and day-to-day social encounters.
- Accessibility - The play palette will include equipment suitable for wheelchair users, such as accessible swings, low-level interaction elements, and inclusive play surfacing.



Rest and Dwell Spaces Diagram

Legend



Rope Pyramid



Jumping Discs



Sound Cushions



Log Levels



Cut Log Pathway



Magnifying Posts



Glacial Boulders



Elevated Wooden Walkways



Embedded Elements

6 Access

6.1 Wider Vehicle, Cycle and Pedestrian Movement

6.2 Parking Strategy

6.3 Refuse Strategy

6.4 Emergency vehicles and fire strategy

6.5 Inclusive access

6.6 Safety and Security

6.2 Parking strategy

In line with Cambridge's sustainable transport policies, parking provision on the site will be kept to a minimum to encourage walking, cycling, and public transport use.

There will be four accessible parking bays serving the Category 3 homes, as well as a dedicated car club space.

The car club will be available to both new residents of the scheme and existing residents from surrounding streets, offering flexible access to a shared vehicle without the need for private car ownership. This approach helps reduce congestion, lowers emissions, and supports a more sustainable future for the neighbourhood.

Within the new residential blocks there will be 247 cycle spaces (all Sheffield stands) including 14 spaces for larger cycles, within secure bin stores. Blocks A, B, C and D will provide 6 cycle spaces and Block E 2 spaces for visitors next to the main entrances - 26 visitor cycle bays in total.

Refer to the Transport Strategy for full details.



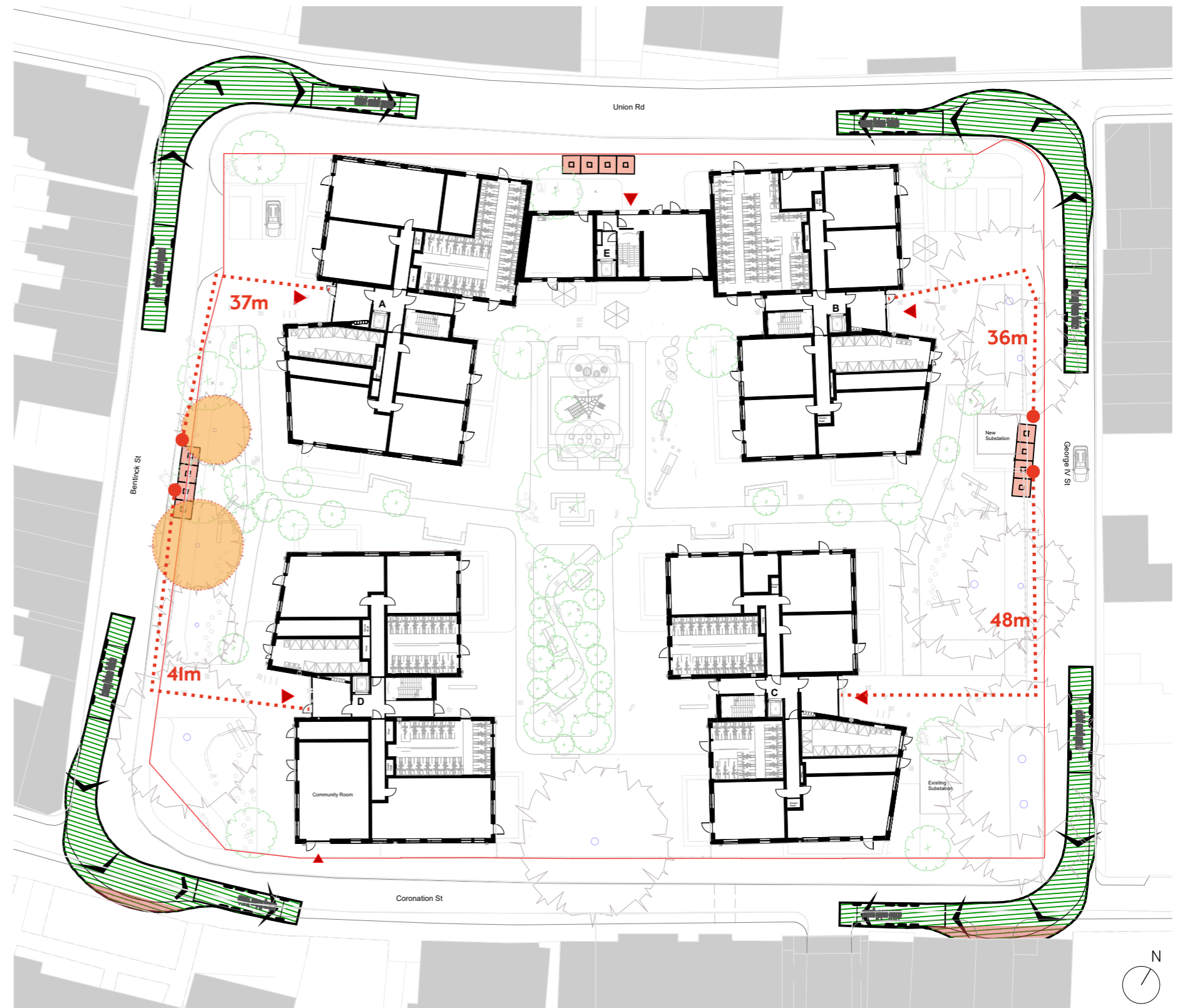
6.3 Refuse Strategy

Early Design Considerations





Iceberg bins are not proposed. While the benefits of iceberg bins are recognised the narrow existing streets and existing mature trees make it unworkable for this site.

At an early stage the design team reviewed the suitability of iceberg bins for the site and these studies indicate that this would not be a feasible solution in this location. This is due to -

- The existing tree root protection areas and canopy distribution would make placement of the bins in excess of 30m from the main building entrances
- Existing trees would require removal
- The tracking for the larger vehicles required does not work along Coronation Street
- The possible sites for the iceberg bins would block routes through the open space



KEY

-  Iceberg Bin Collection Vehicle Tracking
-  Iceberg Bin
-  Impact to existing tree
-  Distance from main entrances to Iceberg bins

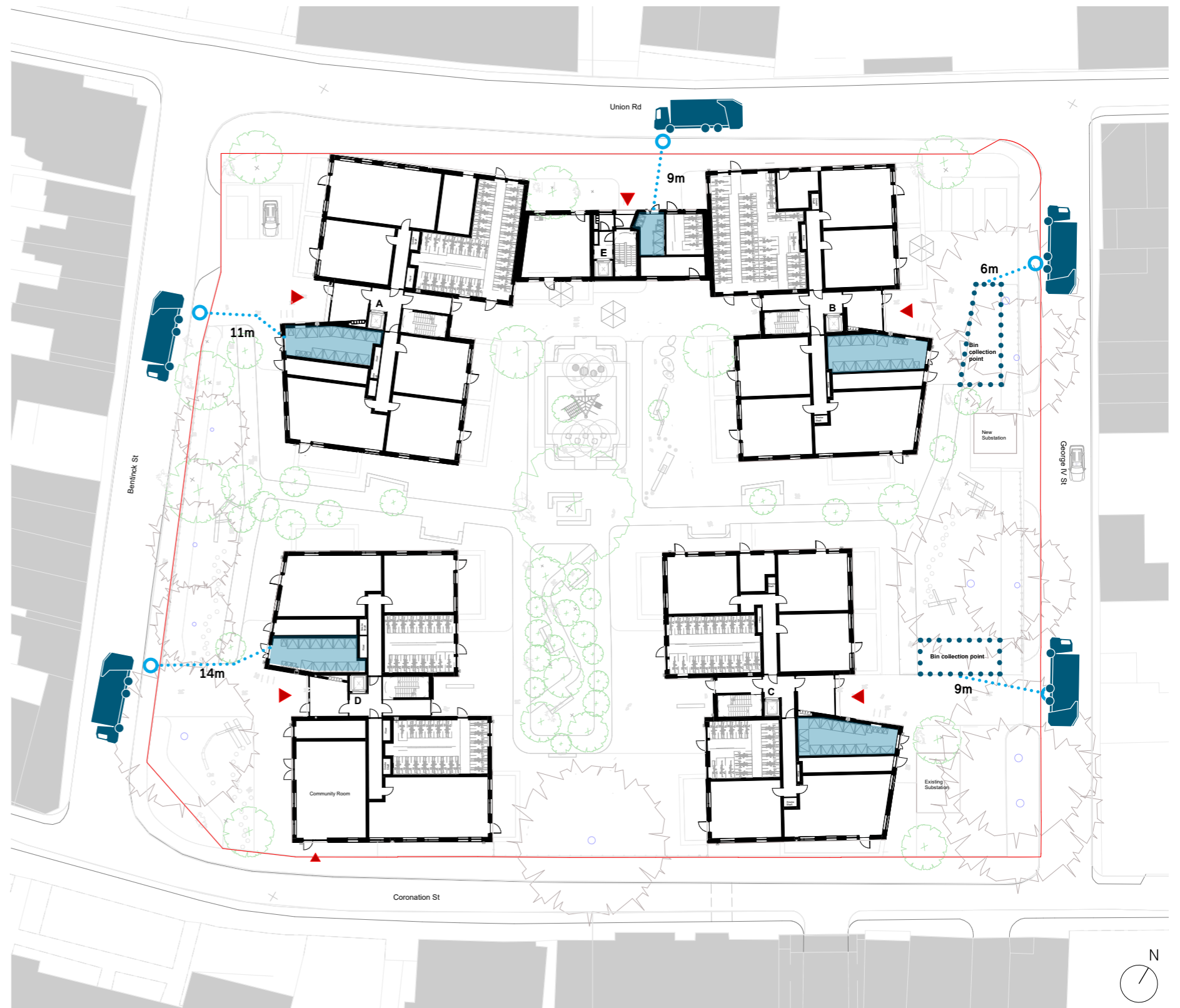
6.3 Refuse strategy

Servicing and refuse collection will take place from the surrounding streets. Waste stores have been positioned to enable refuse vehicles to stop and load as close as practically possible, given the site constraints and existing mature trees. These distances are still an improvement on the current arrangement.

All flat entrances are located within 30 metres of their designated waste store. The waste management strategy has been developed in line with the Greater Cambridge Shared Waste Service: Planning Guidance and was reviewed with the Refuse Team on 18/04/2024, 25/04/2025 and 10/07/2025. The quantum of green bins was reviewed on 25/04/2025 and it was confirmed that 1 x 250L bin per block would be sufficient.

It has been agreed with the Cambridge Waste Team that for Blocks B and C a management strategy will be implemented whereby, once a week, bins will be moved from the stores to the designated Bin Collection Points (BCPs) shown on the diagram, to enable collection closer to the highway. This approach maintains the convenience of bin stores located near entrances for residents while avoiding bins being stored within landscaped areas for most of the time. Relocating the bin stores closer to the highways themselves was not possible due to the presence of numerous mature trees along George IV Street and Bentinck Street.

Refer to the Transport Strategy for full details.

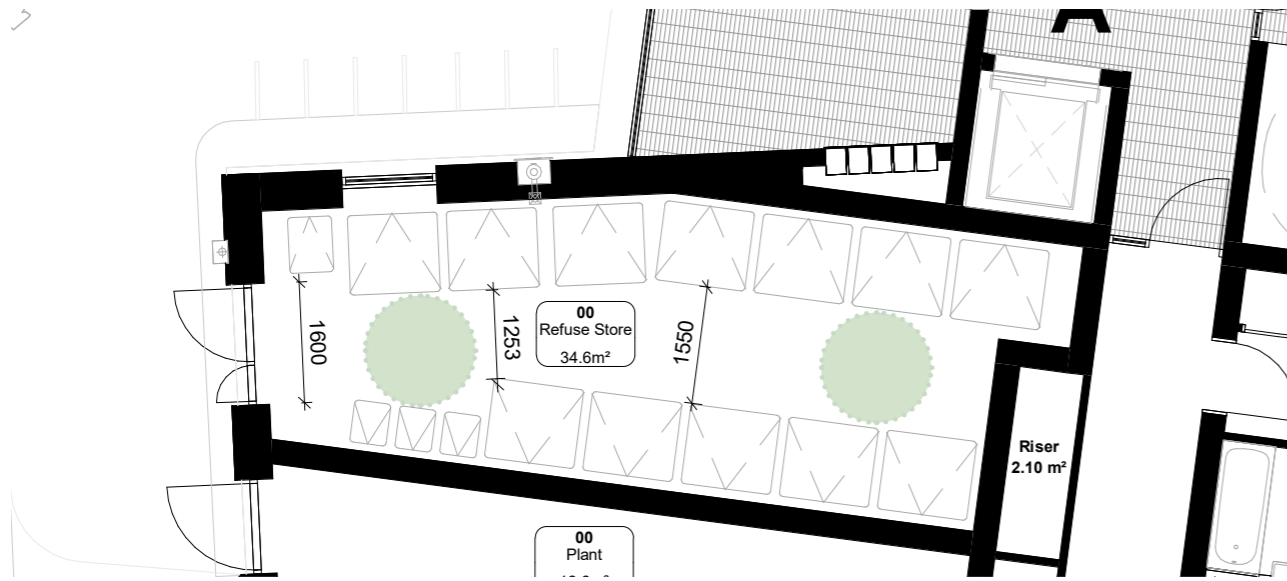


Block	No. Floors	1 bed	2 bed	3 bed	Total	Refuse/Litres	Recycling/Litres	Refuse 1100l bins	Recycling 1100l bins	Green 240l bins	Food Waste 140l bin*
Block A	5	20	13	4	37	5145	5154	6	6	1	3
Block B	5-6	22	19	0	41	5555	5555	6	6	1	3
Block C	5-6	24	21	0	45	6105	6105	7	7	1	3
Block D	5	18	13	4	35	4925	4925	5	5	1	3
Block E	4	7	0	0	7	770	770	1	1	1	1
Total					165						

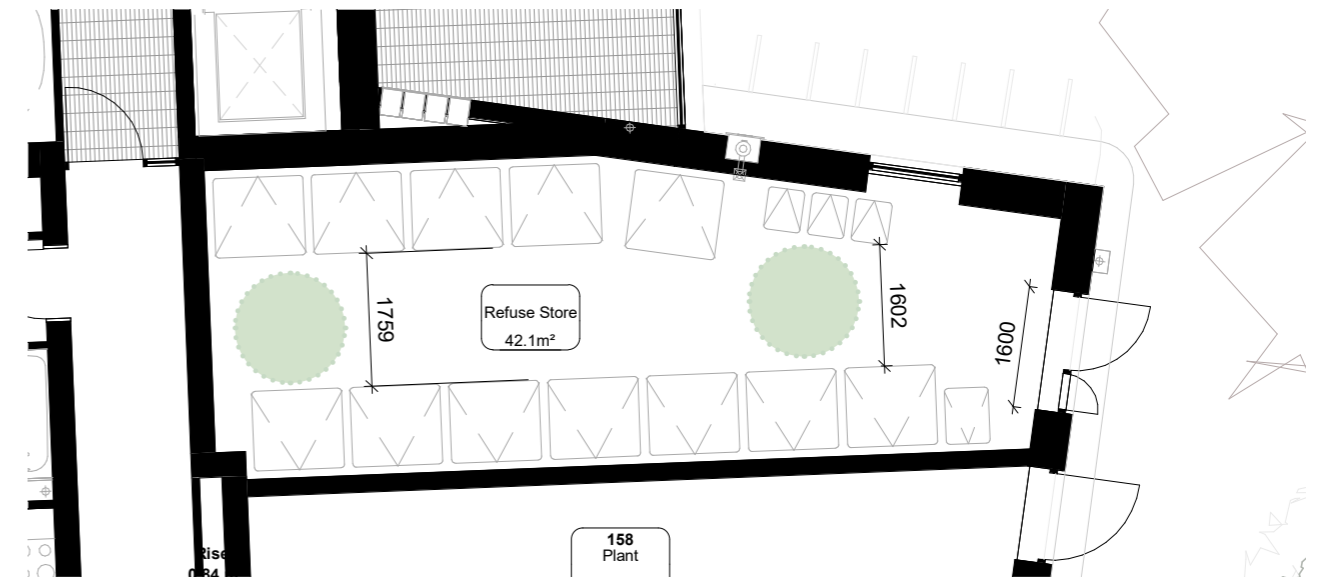
****Quantum confirmed in email dated 23/04/2024 "...add on some 140l green bins at each block for food waste. For each block you would need 3 x 140 litre green bins."**

Key

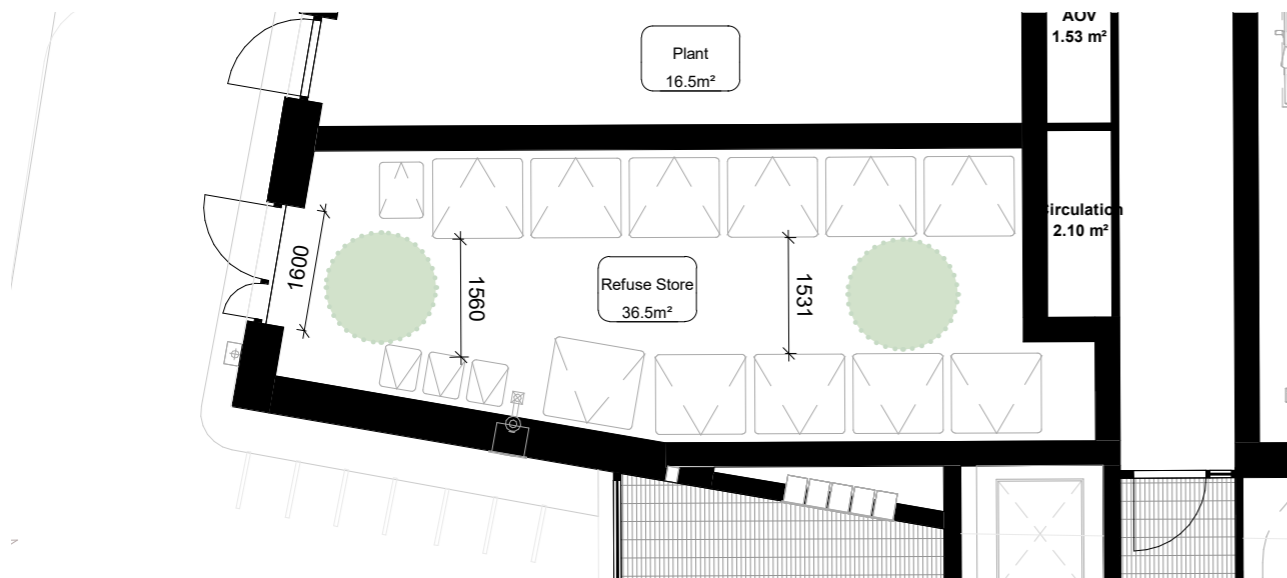
	Refuse Collection Vehicle
	Refuse Collection Drag Distance
	Refuse Collection Point



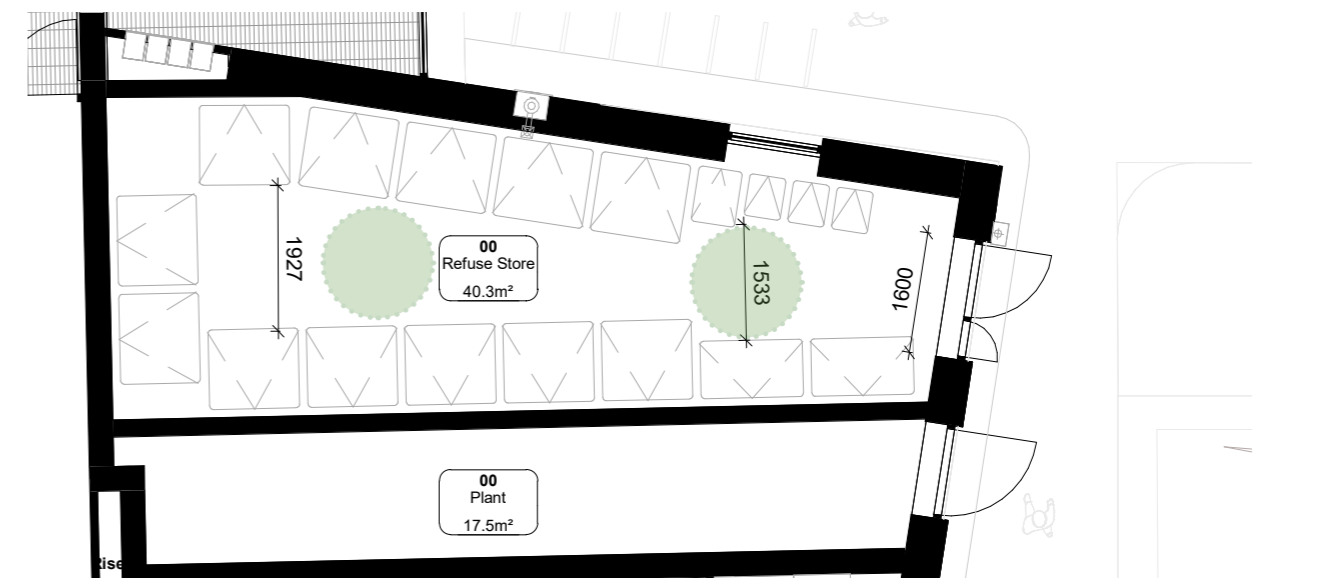
Block A bin store



Block B bin store



Block D bin store



Block C bin store

Key

1500mm Wheelchair turning circle

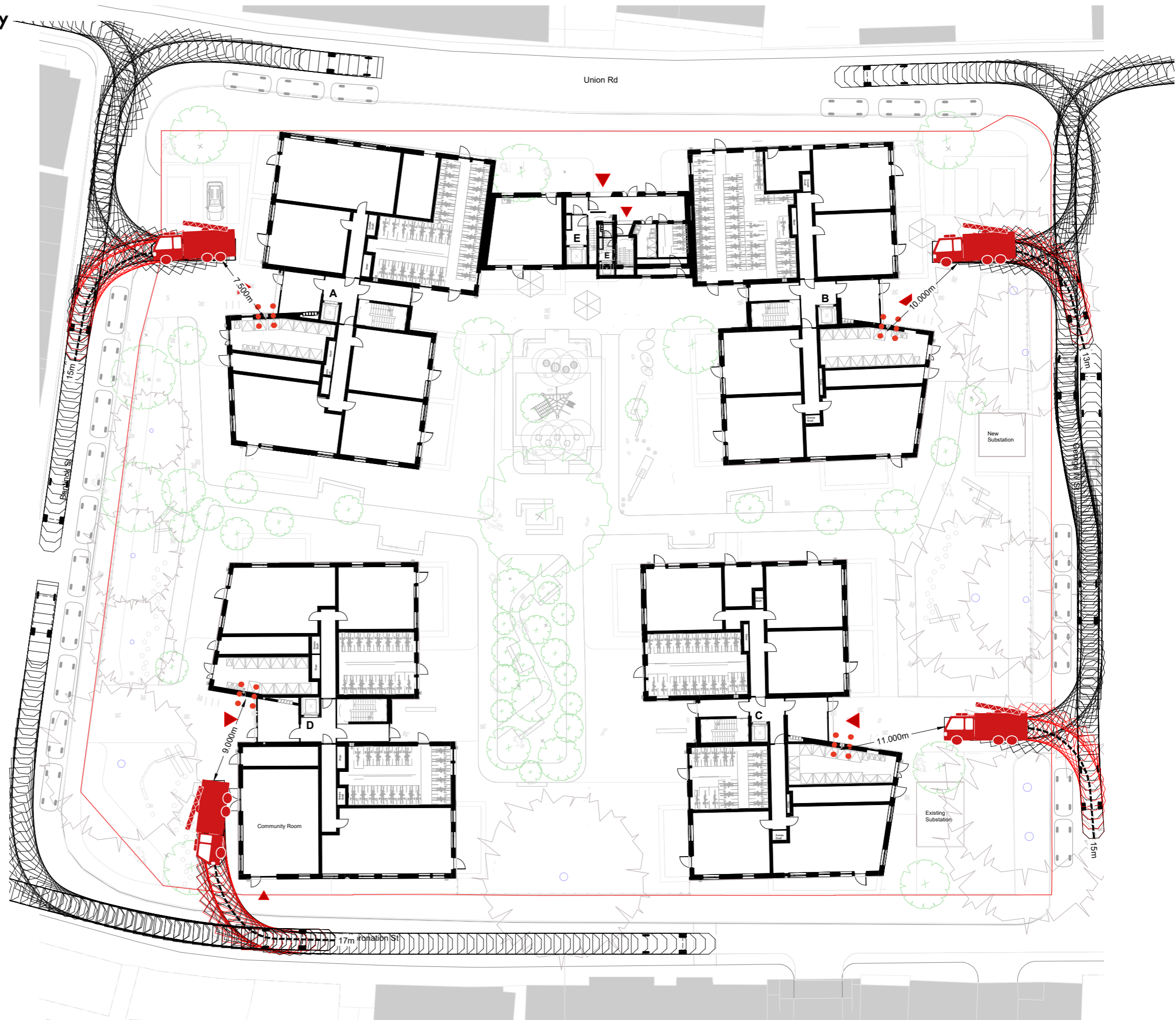
6.4 Emergency vehicles and fire strategy

Fire vehicle access will be within 18m of the dry riser locations which will be positioned at the entrance of the buildings on the façade.

The fire main inlet will be visible from the road.

The buildings have been designed to align with Approved Documents Part B. Design of stair cores, communal lobbies and communal entrances have been reviewed with our Fire consultants to ensure compliance.

Refer to the Transport Strategy for full details.



6.5 Inclusive access

All housing within the proposals is designed to Building Regulations Approved Document M4(2) with 5% of the affordable homes designed to M4(3): Category 3 wheelchair accessible standards.

Four homes will be delivered as Part M Category 3 (wheelchair user dwellings). These are all affordable homes, located at ground floor level and each benefits from its own private garden. To support independent living, each of these homes will also have a dedicated accessible parking bay. The route from the parking bays to the lifts is step free and level.

All internal corridors providing access to the flats are a minimum 1500mm wide, in compliance with Approved Document M.

Detailed design issues such as fixtures, fittings, street furniture, play equipment, lighting, communication systems, management and other issues which contribute to the accessibility of the homes will need to be considered at a future stage in the design.

All other homes in the scheme will meet Part M Category 2 standards, providing a higher level of accessibility suitable for a broad spectrum of residents and visitors, including older people, those with limited mobility, and some wheelchair users. Every block includes a lift, ensuring level access to all homes from street to front door. This is particularly important for families with young children in buggies, residents recovering from injury, or those who are able-bodied but may struggle with stairs. The design supports people at all stages of life, enabling residents to remain in their homes as their needs evolve.

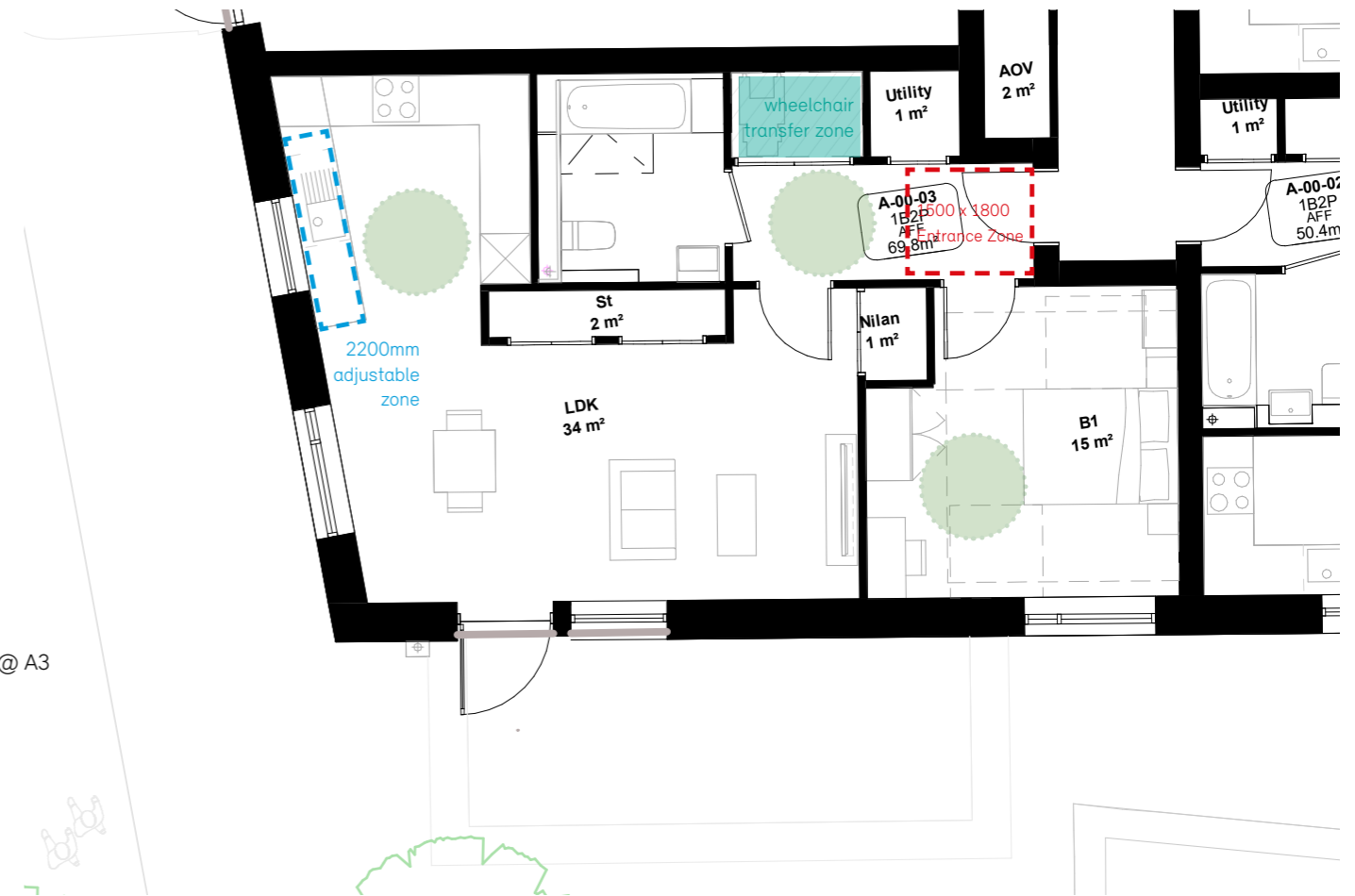
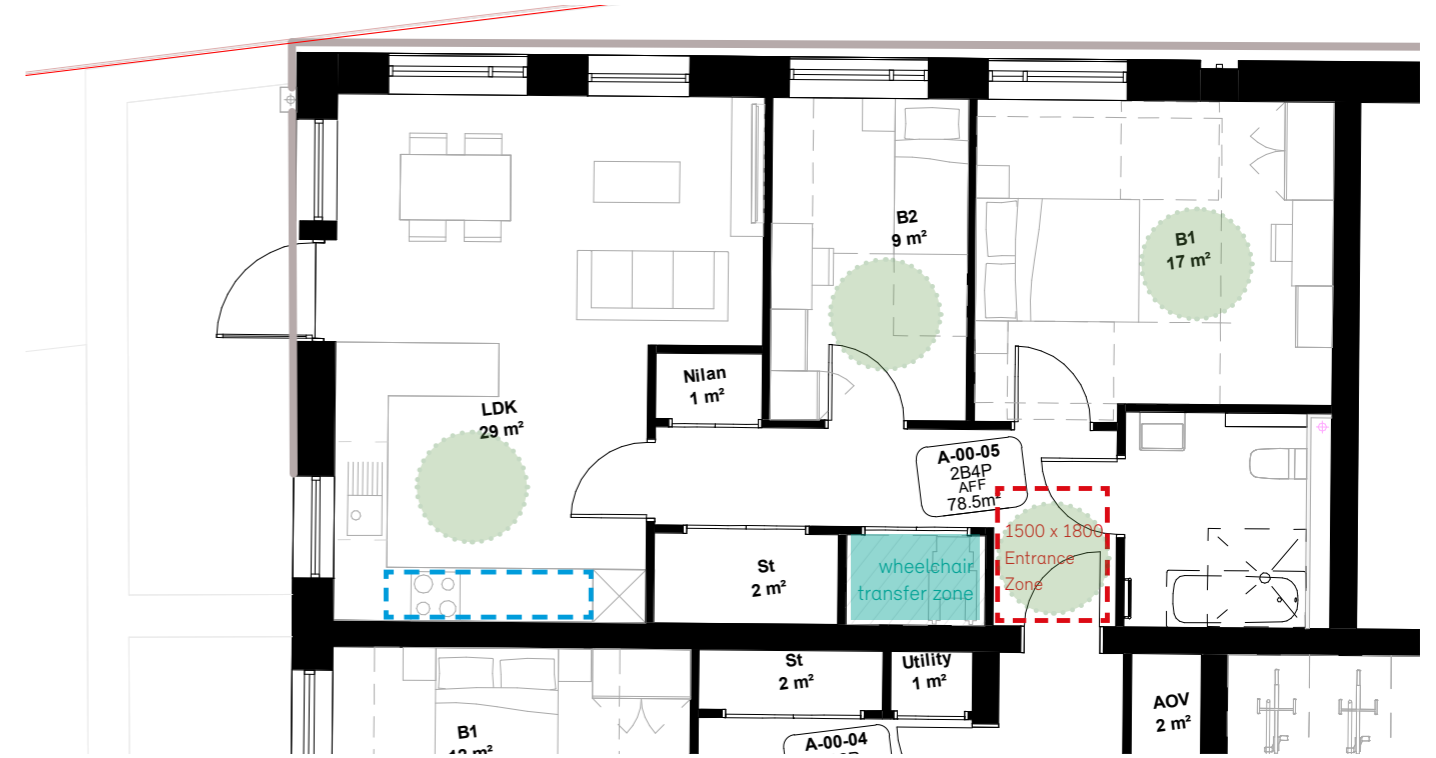


Ground floor showing location of WC accommodation

Example layout

Homes have been designed to include:

- 1500mm clear width for turning circle in entrance hall of home, maintained for 1800mm in entrance hall
- 300mm nib to leading edge of doors
- Minimum 200mm to following edge of doors
- Minimum 850mm clear opening width of doors
- Clear width of circulation is a minimum 1050mm, with 1200mm when approach to door is not head on
- A space within living area for wheelchair charging and transfer with power socket
- Each bathroom has level access shower with clear access zones and turning circle
- Principal bedroom to be 13.5sq.m, a minimum of 3000mm wide
- Single bedroom to be 8.5sq.m, minimum of 2400mm wide
- Each flat has a private balcony, minimum 1500mm clear depth with a turning circle free from the door swing
- All residents have level access to shared landscaped gardens with seasonal planting, seating and shade



Typical Floor Plan showing M(4)3 provision in WC home Scale 1:100 @ A3

Key	
	Entrance zone
	1500mm turning circle
	wheelchair transfer zone

6.6 Safety and Security

The scheme has been designed with security in mind, creating a safe and welcoming environment for all residents.




All communal entrances will be fitted with PAS 24-rated, fob-accessed doors to ensure secure access control, while private entrances will feature PAS 24-rated doors for enhanced individual security.

A secure post lobby is provided at each core, forming a clear and controlled primary security line between the public realm and private dwellings.

The layout promotes passive surveillance, with active frontages and well-overlooked shared spaces helping to deter anti-social behaviour and increase the sense of safety throughout the development.



Key

-  PAS24 Rated Fobbed Accessed Door
-  Secure Post Lobby
-  Passive Surveillance

7 Conclusion

Conclusion

This carefully considered scheme brings a vital Cambridge site back into use, replacing outdated, unsafe and unsightly buildings with high-quality new homes that reflect current standards for safety, sustainability, and accessibility. The proposal delivers 165 new homes, of which 45% are affordable, and includes four accessible homes at ground floor with private gardens and parking.

While the number of homes increases, the footprint of the new buildings is 96% of the existing, making room for more green amenity space and improved permeability through the site, with new views and routes created between buildings. The design balances the need for housing with minimal impact on neighbours, maintaining building heights along Bentinck Street and introducing generous setbacks, fewer balconies, and breaks between blocks for privacy and outlook.

The scheme also prioritises sustainable transport, with 247 secure cycle parking spaces, limited on-site car parking, and a new car club space open to both future and existing residents. New buildings are designed to high environmental standards, aligned with the Cambridge Sustainable Housing Design Guide, and incorporate a new community room and enhancements to the public realm. The existing mature trees are retained wherever possible, with opportunities for new legacy planting to improve biodiversity and support wellbeing.

This is a once-in-a-generation opportunity to transform an underperforming site into a safe, inclusive and sustainable neighbourhood that better serves both existing and future residents of Cambridge.



165

Proposed homes



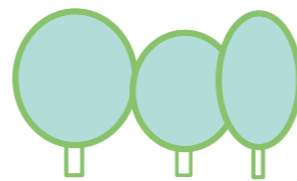
45% Affordable

Proposed affordable homes



5%

Proposed wheelchair homes provision



Retain & Legacy

Retain as many existing trees as possible. Opportunities for new legacy tree planting



High sustainability standards

New homes designed to Cam Standard. Efficient form factor, fabric first, balancing daylight a



Community Room

New accessible community room with dedicated external space circa 80sqm



247

Proposed cycle spaces in secure stores plus visitor cycle parking



APPENDIX A - Technical and safety review of tree retention

To proceed with the redevelopment in accordance with the Housing Scrutiny Committee approval in March 2023, the existing buildings need to be demolished as they are in a significantly dilapidated condition and residents are living in substandard accommodation.

Based on the advice of a Chartered Safety Engineer, the existing buildings cannot be safely demolished if the London Plane trees in the centre of the site are retained.

This advice is based on the following:

- Large machines located on the ground are required to demolish the existing buildings, this is known as 'remote mechanical' demolition
- Using 'remote mechanical' demolition is the safest way of working
- In law - the safest way of working must be adopted wherever possible
- This demolition method avoids risks associated with working at height and working on unstable structures
- High reach excavators positioned within exclusion zones grab sections the building using large pincers and pull the debris/arising down to the ground
- The perimeter of the existing buildings are bordered by other trees to the east and west, and by busy roads to the north and south
- The only place for the buildings to be safely pulled down to the ground is in the centre of the site where the Plane trees are located

This approach has been confirmed as being necessary by the Engineer who helped author British Standard BS 6187:2011 - Code of Practice for Full and Partial Demolition, and who writes Demolition Guidance Notes for the Health & Safety Executive (HSE).

Health and safety concerns are the most important reason why the London Plane trees are proposed to be removed.

An Arboriculturist Consultant has also advised that an unacceptable increase in the risks to the health and safety of the workforce engaged in the demolition works would exist if the three London Plane trees are retained.

In addition, the Arboriculturist Consultant has confirmed that there are major concerns which prevent the retention of the trees, relating to the volume and severity of works affecting them.

The recommended course of action is to remove the Plane trees and demolish the dilapidated structures by remote mechanical demolition (high reach excavators) as this is the safest option.

It is of critical importance that associated health & safety legislation is strictly followed. This has been made evidently clear by the Consultants who have been engaged to provide professional advice to CIP. CIP and the Council have legal responsibilities under the Construction (Design & Management) Regulations 2015, for example; and both parties cannot promote redevelopment which retains the trees and increases health and safety risks which can be reasonably avoided (CDM Reg. 9(2)).

Ultimately, health and safety concerns arising from demolition activities prevent the retention of the existing three London Plane trees located in the central courtyard. The majority of the other existing trees can be safely accommodated within the scheme designs.



Tree retention priorities

The adjacent diagram describes the Tree Officer advice on which trees offer a constraint to development and others which do not, received during the Pre-application Workshop on 28 June 2022 and further clarified in a post-meeting note.

In addition;

- The Tree Officer confirmed that the removal of trees G05 is not supported. These are existing Category A trees that are in good condition. These trees can, in the Tree Officer's opinion be suitably protected during the demolition of the car park and during the redevelopment of the site.
- These trees offer important amenity value to the street and should be retained.
- A very clear and detailed demolition method statement would be needed and some below ground structure may need to be retained but given the importance of the trees, these protective measures are needed.
- The Tree Officer expressed the view that the basement area of the car park could be backfilled, and frontage development of an appropriate scale could be provided along Union Road.
- The Tree Officer observed that because of the presence of G2 and G3, removal of T3 and T4 would be supported if this released pressure on primary constraint trees.
- The Urban Design Officer did however observe that T4 is important in terms of visual filtering/screening so if it is removed, replacement planting would be needed to help soften the impact of a building of height.
- The distance from existing tree canopies to development was discussed. The Tree Officer observed that many of the trees are now mature and in which case, a 2m level of separation would be appropriate.

Primary constraints

T9, T10, G2, G3 and G5

Secondary constraints

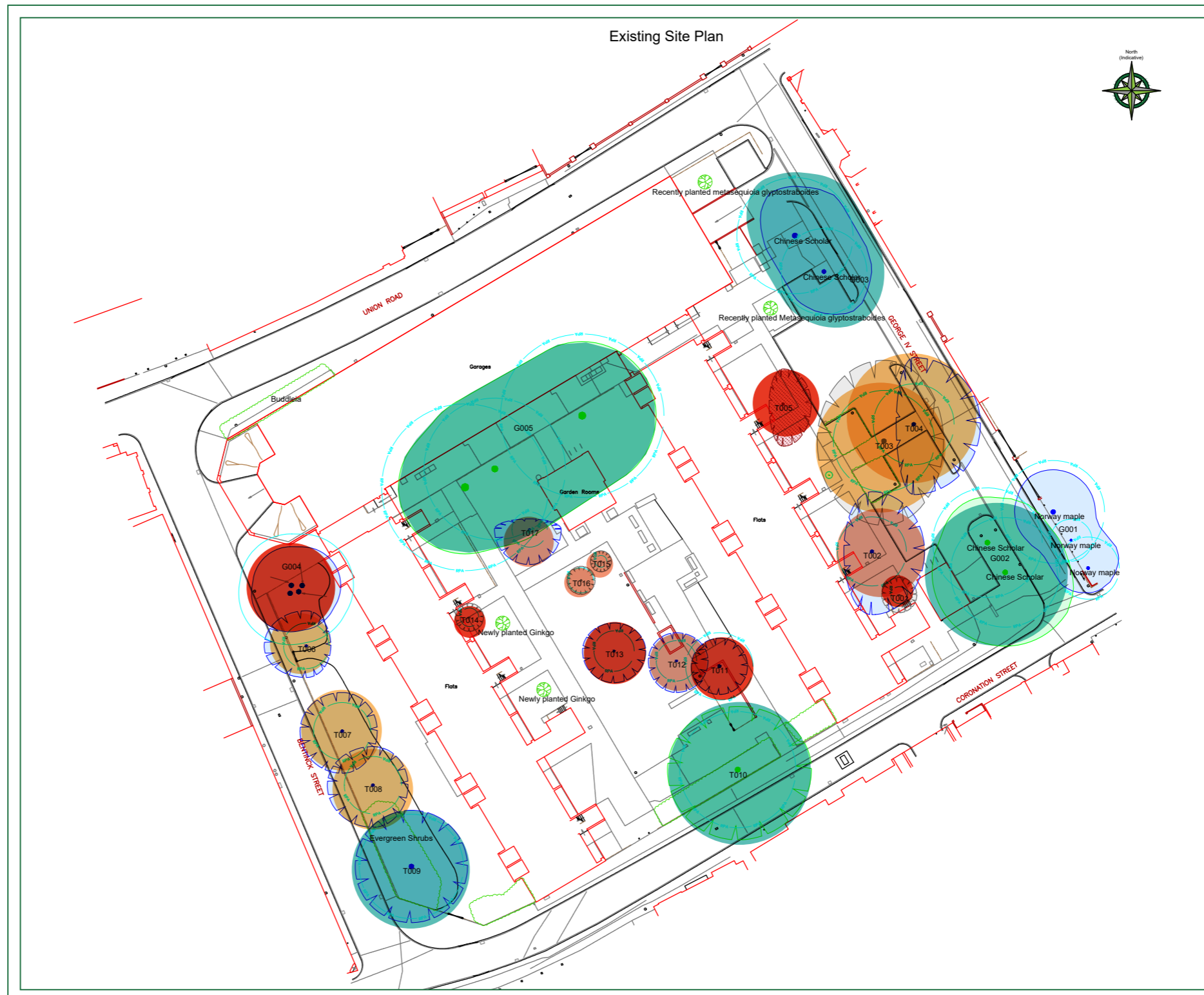
T3 and T4 (closely spaced trees), T6, T7 and T8

Tertiary constraints

T2, T12, T15, T16 and T17

Trees not a constraint

T1, T5, T11, T13, T14 and G4



CATEGORY AND DEFINITION	
Trees unsuitable for retention	
Category U	Those in such condition that they cannot realistically be retained as living trees in the current land use for longer than 10 years
Trees to be considered for retention	
Category A	Trees of high quality with an estimated remaining life expectancy of at least 40 years
Category B	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
Category C	Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
CP NOTE:	
This document details the constraints created by the trees on the site and should be used as a design tool to inform the layout of the proposed development. This document is not sufficient for planning submission purposes.	
NOTE:	
Hayden's Arboricultural Consultants were provided with a Topographical Survey but these do not always show the positions of all the trees/features on site. The locations of any additional features have been fixed using GPS. As such the position of the trees/landscape features should not be taken as exact but gives a fair distribution of their locations on site.	
LEGEND	
	Existing Tree/Feature BS 5837:2012 Category A
	Existing Tree/Feature BS 5837:2012 Category B
	Existing Tree/Feature BS 5837:2012 Category C
	Existing Tree/Feature to be Removed BS 5837:2012 Category U
	Line of Root Protection Area (RPA) - calculated following guidelines set in BS 5837:2012
	Additional feature which doesn't meet BS 5837:2012 categorisation but is included for reference
<small>14/01/22 HVB Based on Randal Surveys drg. no 16581/GN1</small> <small>Date: 14/01/22</small> <small>Scale 1:500</small> <small>0m 5m 10m 15m 20m 25m</small>	
 © HAYDEN'S 2021 5 Moseleys Farm Business Centre, Fornham All Saints, Bury St Edmunds, Suffolk, IP28 6JY. Head Office: 01284 765391 Southern Office: 01722 657423 www.treesurveys.co.uk Email: info@treesurveys.co.uk Cambridge Investment Partnership Constraints Plan Hanover & Princess Court, Bentinck Street, Cambridge, CB2 1HG Date: 14/01/22 Drawn by: HVB Checked by: CII/Pro/9132-D-CP Scale: 1:500 (A3) Drawing No: AG 9132-D-CP	

8m



9m



10m



10m



Knights Park, Cambridge
Alison Brooks Architects, Hill, (Pollard Thomas Edwards)



Samuel Lewis Trust Buildings, Islington



Eastman Village, Harrow
Pollard Thomas Edwards

One Tower Bridge
Squire and Partners

**Diespeker Wharf
38 Graham Street
London N1 8JX
020 7336 7777
mail@ptea.co.uk
@ptearchitects
pollardthomasedwards.co.uk**