Design Development- King Street View

The King Street building acts as a punctuation mark to define the end of the King Street parade. The overall height of the building has been reduced during the design process so that the building doesn't appear overly dominant in the street scene.

The dormer windows were simplified to reinforce the tripartite hierarchy of the elevation.

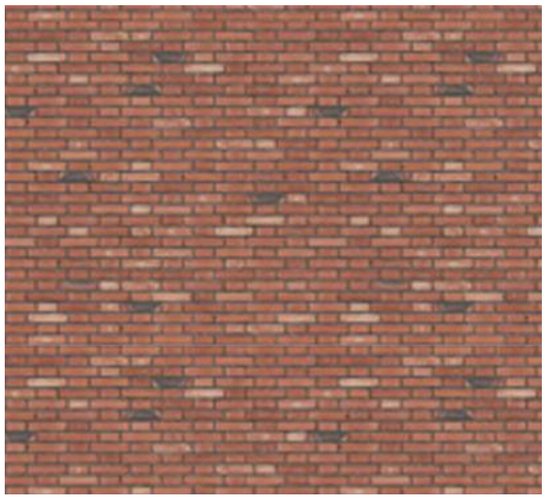
The brickwork colour has also been changed so that it more closely aligns with the adjacent building.

Proposed View- King Street 1

Proposed View- King Street 2

Materiality

The design team have selected a robust materials palette made up of the materials below:

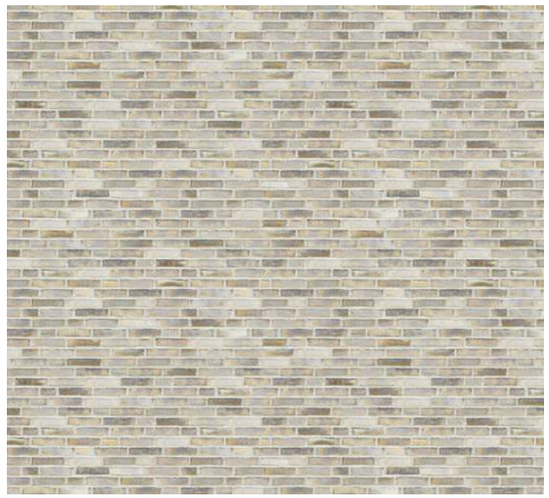


Red Brickwork

- Red brickwork used for the part of the proposed façades of the building closest to the Embankment
- Reflects brickwork used across the area

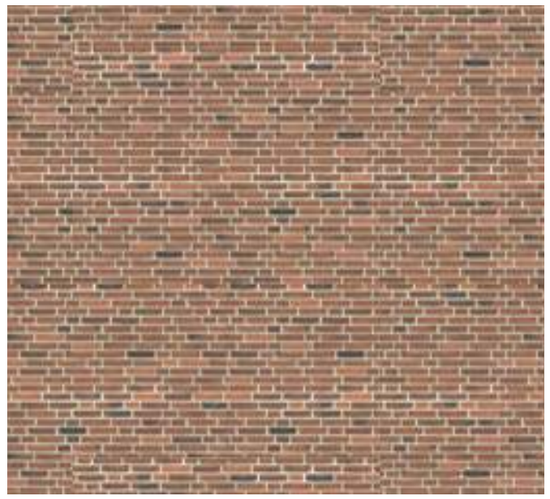
Buff Multi Brickwork

- Used alongside the red brickwork on the Embankment building to break up the elevations and create more variation across the façades
- Reflects the different characteristics across the façades



Grey Multi Brickwork

- Used alongside the buff brickwork to break up the elevations and create more variation across the façades
- Reflects the different characteristics of across the façades



Red Brickwork

- Incorporated on the King Street facade and part of the Water Lane facade
- Ties in with the existing red brickwork on King Street

Weatherboard

- Weatherboard reflects materiality used directly opposite site on Water Lane

PPC Aluminium Window Frame and Panels Perforated Metal Panels

Reconstituted Stone

- Utilised across the King Street building
- Ties in with existing traditional stone detailing

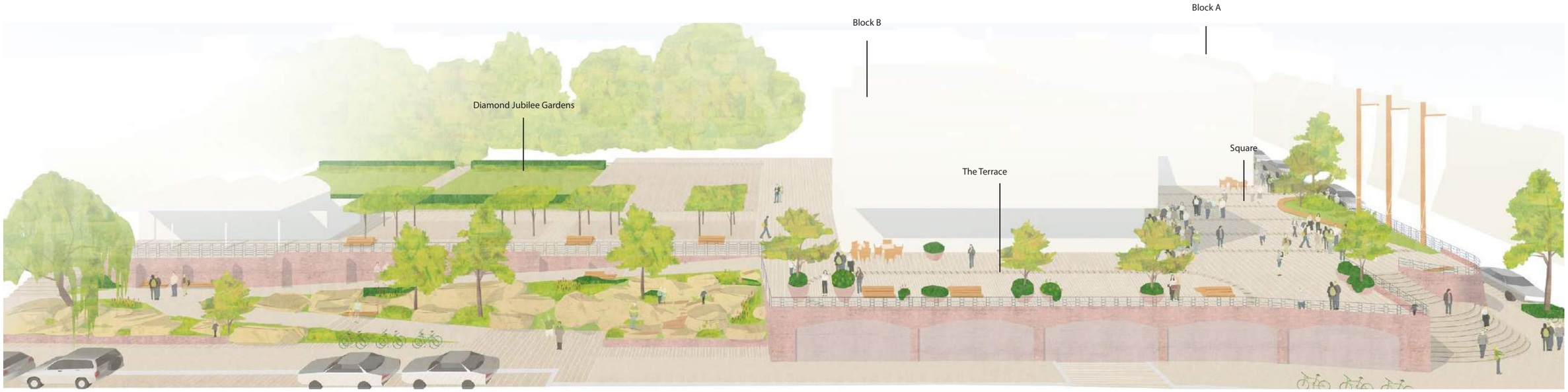
Roof Tiles

- Used across all buildings to tie the scheme together

08

Public Realm + Landscape Design

Vision



Overview from Embankment

The landscape and public realm strategy has been developed by Land Use and should be read in conjunction with the Landscape Design statement.

Project Aims & Objectives

The landscape brief has been developed following ongoing engagement work, and reflects common themes and requirements. The key aim of the project is to respond to Twickenham's rich heritage and to celebrate its riverside location.

To that end, the landscape design contributes via the following objectives:

- Reflecting the site's village setting;
- having regard to the existing street framework of narrow lanes and alleys and where possible extending this into the site;
- developing a more attractive frontage on King Street;
- providing better links to the riverside and Diamond Jubilee Gardens;
- opening up and enhancing Diamond Jubilee Gardens,
- offering a 'town/village square' and community space;
- help local businesses thrive;
- allow both 'working' and 'leisure' activities on the River to continue and grow;
- create a true community 'heart', a space that everyone can enjoy.

Vision

Landscape Masterplan

Landscape Masterplan

The Landscape Masterplan is structured around a movement between the high ground on King Street and the Riverside: the plan to the left names the key places that together make up the Riverside public realm: Water Lane; the Square; Terrace; and, Embankment Gardens. These characterful, functional places will complement the new architecture and assist integration into Twickenham's existing fabric.

1. Square- Large public place for performances, markets and sitting out.

2. Bastion- Feature seating steps and bastion lookout space.

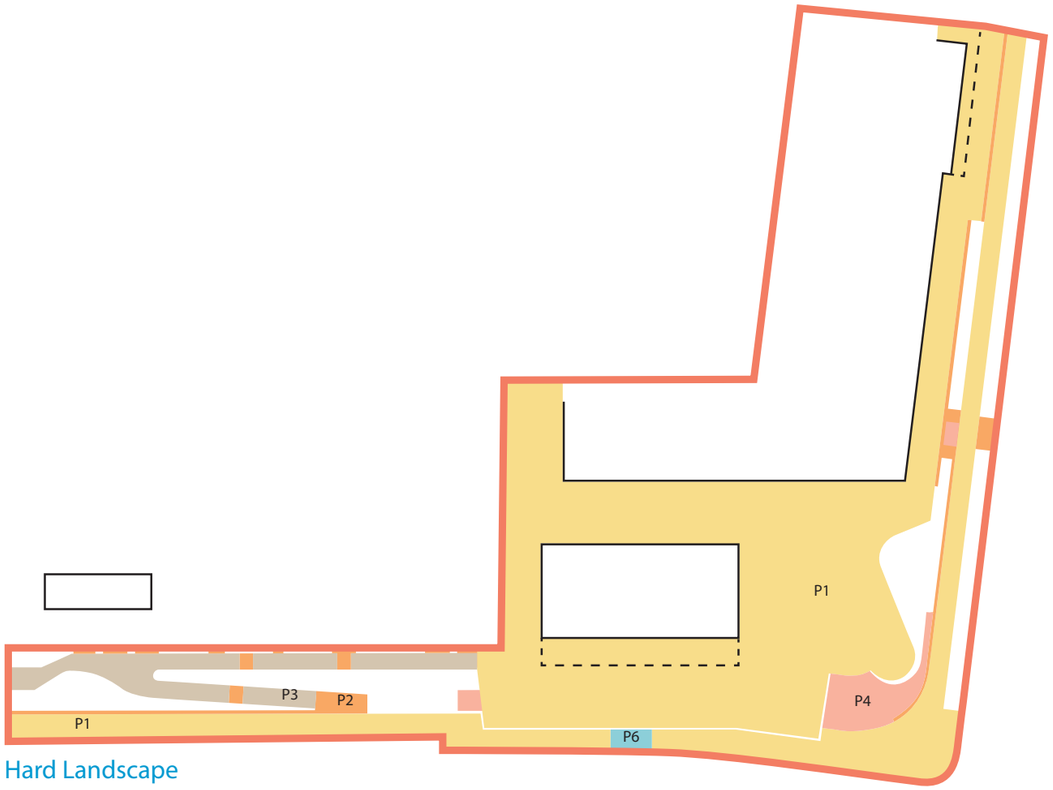
3. Water Lane- Streetscape improvements; enhanced connection to the Riverside via wider pavement; new trees and low-level planting.

4. Terrace- 10m deep public space for sitting out above the level of the road; improved connection to the river;

5. Embankment Gardens- Improved access between the Embankment and DJG; new playable garden.

The design of both these places and of the overarching masterplan have undergone an iterative design process involving consultations with local groups, stakeholders, and formal and informal pre-application consultations with planning. Refer to the standalone landscape and public realm report for a detailed review of the designs.

Materiality



Hard Landscape

The selection of high quality hard landscape materials will contribute greatly to the character of the Riverside:

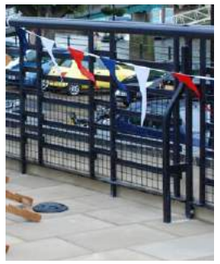
- A cohesive, coordinated palette with materials which are long lasting and easy to use and maintain - self finished materials where practicable (eg. natural stone, corten steel);
- Sustainable, locally sourced where available;
- Restrained in colour and texture, robust and appropriate for the intended use and location; and,
- Suitable for the conservation area setting, complementing the architecture and the local context, evocative of working waterside.

Hard landscape materials – specifically, the horizontal paved surfaces – are one of the most visible elements of the landscape.

P1- Yorkstone paving

P3- Resin bonded gravel

Cycle Stands



Existing railings

'Chico' Bench

Lighting Precedent- Bonn Sq, Oxford

In the same way as the architecture, the design and materiality of paved surfaces strikes a balance between heritage considerations and aspirations for a more contemporary design language.

- In the Square, surfaces will be designed to feel permanent, to play down the feeling of being on top of a podium landscape; and,
- Laying patterns are employed to describe routes and territories, and to break up expansive surfaces to avoid monotony.
- All steps within the public realm are clad with natural yorkstone and are given contrasting nosings as required.
- Where required, tactile hazard warning pavings are formed of cut stone.

Site Fixtures

In order to maintain a clear and legible public realm, extraneous clutter is avoided: street furniture and fixings are kept to a minimum throughout.

- A bespoke, signature curved bench at the edge of the square;
- A mixture of benches and seats with- and without arms and backrests are provided. Seats with arm and backrests are provided at resting places along primary routes and looking out over the river continuing the pattern established in DJG;
- Bins are located at a few key points around the development at places where they will be most used: doorways, entrances from street etc. and should typically be building mounted or combined with lighting columns; and,
- Short-stay Cycle stands for visitors are located at points throughout the site, typically at entrances and junction with main routes.

Soft Landscape

Local Wisteria

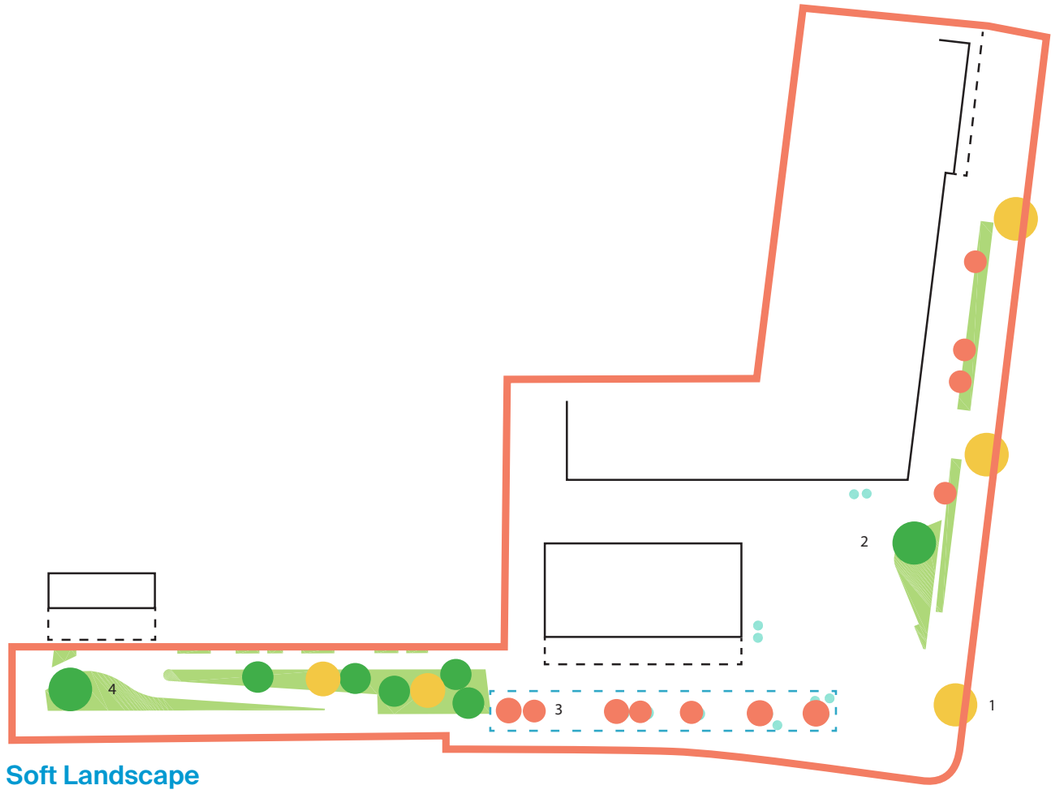
3. Container planting on podium

4. Ornamental planting

1. Street trees

2. Waterside character

Wildlife value



Soft Landscape

Generally, the following principles are applied when considering soft landscape at the site wide scale:

- Use of planting to establish the narrative through the site: the movement from Urban to Riverside;
- to reinforce territory, to signal private, public areas;
- To create sheltered conditions conducive to a vital public place; and,
- To soften potentially expansive hard surfaces and retaining walls.

Proposed Soft Landscape

- New street tree planting on Water Lane;
- Use of trees and planting in raised containers in the Square and Terrace areas to reinforce territory and to create shade & shelter;
- Reinforce the waterside character of the Embankment;
- Extend the horticultural character of DJG to the street, signposting what is happening inside the gardens.

New Trees

In line with LB Richmond policies, the proposal is to replace trees which are being removed 1:1 or more. The proposal adheres to the principles contained in the London Plan of 'right tree, right place' and carefully ensures that none of the proposed trees will grow up to dominate any particular building or space, minimising future liabilities.

Landscape Planting

The ornamental planting scheme will be ecologically rich with seasonal interest and structure which complements the public realm. The planting is broadly split into four areas, being Water Lane; the Square; Terrace; and, the Embankment. A variety of mixes will be deployed to respond to the varying conditions within the site:

- Textural shade tolerant ornamental planting to provide continuity along Water Lane and to soften the retaining wall, supported by evergreen elements to provide structure in the winter months;
- Planting on the north side of the Square to provide shade and shelter, and to soften the impact of the retaining wall on the street;
- Planting in containers on the Terrace;
- The new access between the Embankment and DJG builds on the existing rock garden character and extends the horticultural character of the site down to the street; and,
- A range of flood tolerant species are used within the flood zone.

09

Accessibility

Access

This section has been prepared by Systra and should be read in conjunction with the Inclusive Access Statement.

Introduction

This chapter sets out how the principles of inclusive design, including the specific needs of older and disabled people, have been integrated into the development proposals, whether relevant best practice standards have been complied with, and how inclusion will be maintained and managed.

The principles of inclusive design are underpinned by the social model of disability, which supports the view that it is the attitude of society at large, and organisational and environmental structures, that restrict an individuals' participation in mainstream activities.

The solution to this problem is, in part, to change the environment, to remove the barriers to full participation and ensure new developments are designed inclusively from the outset to ensure that developments can be used safely, easily and with dignity by all. All new developments should be convenient to use and welcoming with no disabling barriers, so everyone can use them independently, without undue effort, separation or special treatment.

- The proposed development therefore aspires to be:
- Welcoming with no disabling barriers that might exclude people;
- Inclusive so everyone can use it safely and easily;
- Legible to ensure ease of movement and wayfinding;
- Convenient so everyone can use it without too much effort or separation;
- Adaptable to respond to changing needs; and
- Flexible so different people can use it in different ways

Policy objectives seek to provide inclusive and accessible environments for all members of society. The following legislation, standards and guidance have been draw upon:

- National Planning Policy Framework (NPPF) (March 2012)
- The London Plan (March 2016);
- The London Plan Supplementary Planning Guidance (SPG) Shaping Neighbourhoods,
- Accessible London: Achieving an Inclusive Environment (October 2014);
- Mayors Draft Transport Strategy (2017); and
- Greater London Authority (GLA) SPG (March 2016): Housing.
- LBRuT Emerging Local Plan (exp 2018), Core Strategy (2009) and Development Management Plan (2011); and
- The Twickenham Area Action Plan (TAAP, 2013).
- Approved Document Part M (AD Part M), 2015 incorporating 2016 amendments Edition, Access To and Use of Buildings- Volume 1: Dwellings;
- Approved Document Part M (AD Part M), 2015 Edition, Access To and Use of Buildings- Volume 2: Buildings Other Than Dwellings;
- British Standard 8300(2009) + A1(2010), Code of Practice for Design of Buildings and their Approaches to meet the needs of Disabled People;
- British Standard 9999 (2017), Code of practice for fire safety in the design, management and use of buildings;
- Department for Transport (DfT) (2005), Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure;
- GLA (2007), Wheelchair Accessible Housing: Best Practice Guidance;
- DfT (2007), Manual for Streets (MfS);
- DfT (1995), Transport Advisory Leaflet 05/95: Parking for Disabled People;
- DfT (2007), Guidance on the Use of Tactile Paving Surfaces;
- Guide Dogs for the Blind Association (GDBA) (2010) Inclusive Streets: Design principles for blind and partially sighted people; and
- Street Charter toolkit, Royal National Institute of Blind People (RNIB) (2015).

Access Arrangements

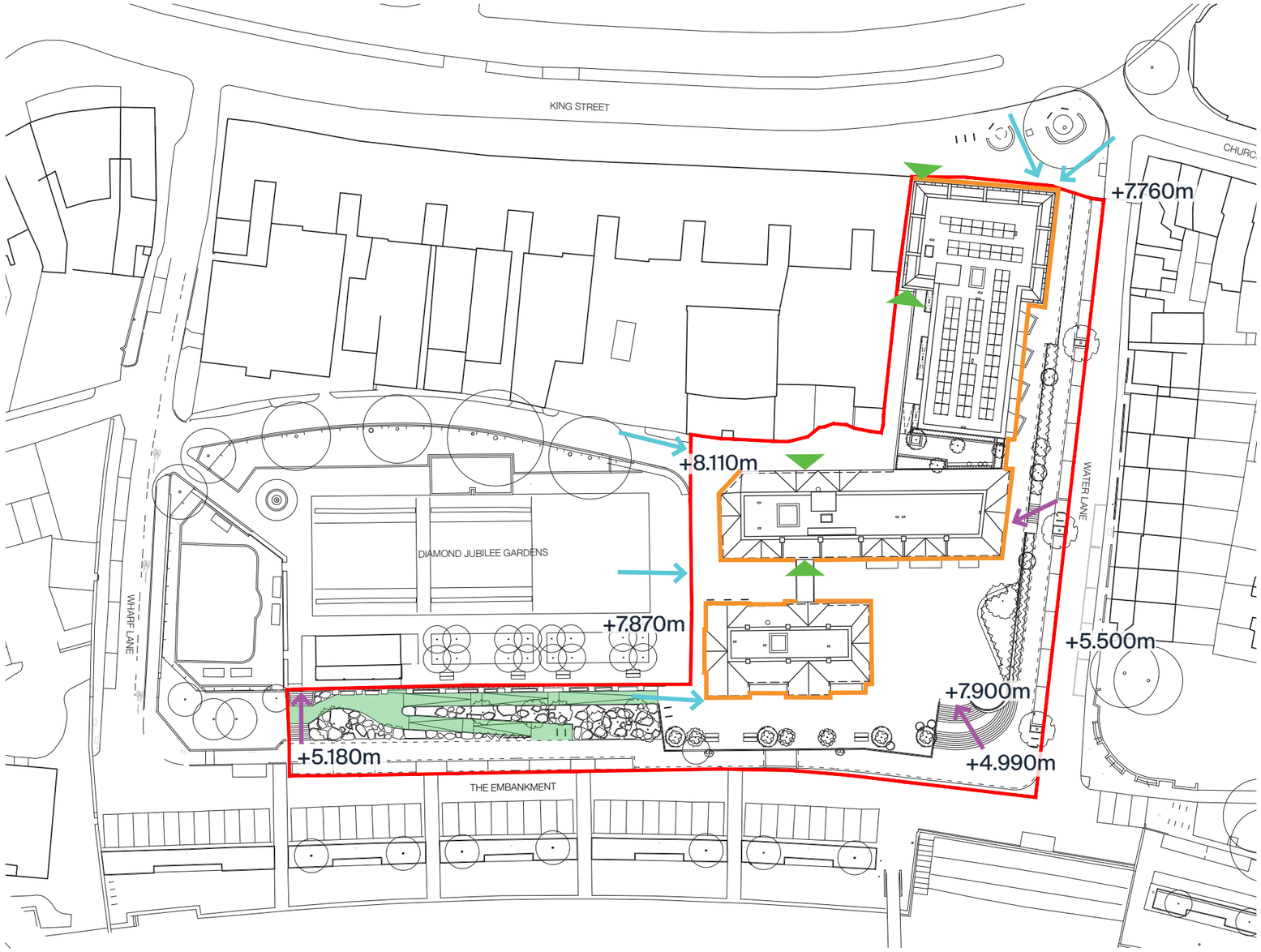
Level access is provided to all entrances of the development, from King Street, Water Lane and Wharf Lane (through the Diamond Jubilee Gardens), with the landscaping creating a welcoming, inclusive environment.

Vehicular access to the Lower Ground Floor car park will be taken from the Embankment. This location was selected because it minimises excavation and ramp length, whilst maximising visibility of oncoming vehicles. The existing vehicular access off Water Lane will be removed. The proposed vehicular crossover includes appropriate dropped kerbs and tactile paving to assist those with visual impairments.

A new pedestrian and cyclist step-free access to the Site / Diamond Jubilee Gardens will be provided from the Embankment, with a 1:20 ramp, improving north-south permeability.

A new stepped access will be created at the Water Lane/ The Embankment junction in the southeast corner of the Site. With appropriate tactile paving and colour contrast, this will provide connectivity to the Embankment and Eel Pie Bridge. A second stepped access will also be provided off Water Lane, to retain east-west permeability through the Site.

Delivery and servicing vehicles will be able to utilise the existing cul-de-sac off Wharf Lane, this will be managed and restricted to essential users: refuse collection, residents and staff of the King Street units and emergency vehicles. It is envisaged that the restriction will be achieved either through bollards or cameras, subject to discussions with LBRuT and M3 Capital (King Street building owners).



1:20 'Gently Sloping Route'
Level Access Points
Stepped Access Points
Red Line Boundary
Active Commercial Frontage with Access Points
Residential Access Points

Access Arrangements

Building Circulation

The scheme will incorporate features for each building that makes reasonable provision for disabled people to visit occupants who live on any storey. For many people, suitable means of access mean independent lift access; for others it means having stairs that are designed to be suitable for ambulant disabled people.

Two lift cores will be provided for residential use on Site, one in building A and one in building B, which will also serve the basement car park.

Both passenger lifts provided comply with the above. A 1500mm clear zone is also provided directly in front of the lift at each level, and in each building.

Two staircases will also be provided, one in each building, providing access to each level including the basement. The staircases will be accessible from the ground floor, with the southern building's also leading down to the basement car park.

Wheelchair Accessible Units

A total of four (10%) of the units are designed to meet M4(3) adaptable and accessible standards, and will be capable of adaptation.

Due to the limited number of total dwellings provided alongside the unit mix, which mainly consists of 1B and 2B dwellings, providing four, two bedroom units, is considered acceptable. Two bedroom units also cater to those who require a carer and provide more space overall. All the accessible units will be sold as private flats.

Typical 2 Bedroom Unit
(89 SQM)

M4(3) Unit Requirements		Number of Bedspaces				Compliant
		1	2	3	4	
Approach Route	The approach route should be step-free, with a minimum clear width of 1200mm in both private and communal areas. A passing space of minimum 1500x1500mm should be provided at each end. Gateways should have a minimum clear opening width of 850mm.					Y
External ramps	The gradient should be between 1:20 and 1:15 and the length of flights is dependent on the gradient. Every flight should have a minimum clear width of 1200mm.					Y
External steps	Every flight should have a minimum clear width of 900mm, and have top, bottom and where necessary intermediate landings, with a minimum length of 900mm. Single steps should be avoided.					Y
Car parking	In communal areas parking bays should have a minimum clear access zone of 1200mm to both sides. Parking in private areas should be standard bays with a minimum clear access zone of 1200mm to one side and the rear.					Y
Drop-off	Any drop off area is close to the principal communal entrance.					Y
Communal entrance	There should be a level landing of minimum 1500x1500mm directly outside the entrance. The door should have a minimum clear opening width of 850mm. A clear turning circle 1500mm in diameter should be provided inside the entrance area.					Y
Communal lifts	There should be a clear landing of minimum 1500x1500mm directly in front of the lift door at every level. The lift car is a minimum of 1100x1400mm and its doors have a minimum clear opening width of 800mm.					Y
Private entrance	There should be a level external landing of minimum 1500x1500mm and the entrance door should have a minimum clear opening width of 850mm. A clear turning circle 1500mm in diameter should be provided inside the entrance area.					Y
Internal doorways and hallways	The minimum clear width of every hall or landing should be 1050mm, or 1200mm where the approach to a doorway is not head-on. The minimum doorway width is 850mm.					Y
Wheelchair Storage	A minimum 1100x1700mm space should be available on the entrance storey, preferably close to the principal private entrance. It should have a clear zone in front of it a minimum 1200mm wide along the long edge of the wheelchair store.					Y
General Storage	Minimum built-in storage requirements should be met (m²) *Note: requirements are per bedroom rather than per bedspace.	1.5	2	2.5	3	Y
Through-floor lifting device provision	Provision for a liftway a minimum 1100x1650mm internally linking circulation areas at every floor in the dwelling should be made. Where the dwelling is 'adaptable', this space should be able to be provided without structural alteration. A minimum 1500mm clear turning circle can be provided in front of the liftway.					Y
Private stairs	Access to all rooms on the entrance storey should be step-free. The minimum clear width of the stair should be 850mm. A power socket should be provided for future stair lift provision.					Y
Floor areas	Minimum combined floor area for living, dining and kitchen space (m²)	NA	25	27	29	Y
Kitchen worktop lengths	Minimum length of kitchen worktop, including fittings and appliance – wheelchair adaptable (mm)	NA	4330	4730	4730	Y

M4(3) Unit Requirements		Number of Bedspaces				Compliant
	Minimum length of kitchen worktop, including fittings and appliance – wheelchair accessible (mm)	NA	6130	6530	6530	Y
Height adjustable worktop	The worktop includes a continuous section that is height adjustable (or capable of being re-fixed at alternative height) with no white goods beneath it. Minimum 300mm worktop each side of a corner where height adjustable section is in a corner.					Y
Clear access zones	There is a minimum clear access zone 1500mm wide in front of and between all kitchen units and appliances.					Y
Furniture – Living Space	Arm chair or number of sofa seats (850mm x 850mm)	NA	2	3	1	Y
	3 seat settee (850mm x 1850mm)	NA	NA	NA	1	
	TV	NA	1	1	1	
	Storage Units (500 x mm length shown)	NA	1000	1000	1500	
Furniture – Dining Space	Dining Chair	NA	2	3	4	
	Dining Table (800 by length shown mm)	NA	800	1000	1200	
Access to window	Every bedroom can provide a minimum 750mm clear access route from the doorway to the window.					Y
Manoeuvring zone	Every bedroom can provide a minimum 1200x1200mm manoeuvring space inside the doorway, clear of the bed and the door (when the door is in closed position).					Y
Hoist	The ceiling structure to every bedroom is strong enough to allow for the fitting of an overhead hoist capable of carrying a load of 200kg.					Y
Principal Double Bedroom	Minimum floor area of 13.5m². Minimum 3m wide. 1000mm clear access zone to both sides and foot of the bed and in front of all furniture 1200mm by 1200mm manoeuvring space of both sides of the bed.					Y
Other Bedrooms	Double/Twin – Minimum floor area 12.5m². Double – 1000mm clear access zone to one side and foot of double bed and in front of all furniture. Single – Minimum floor area 8.5m². Single – 1000mm clear access zone to one side of each bed and in front of all furniture.					Y
Furniture – Double Bedroom	Principal bedroom Double Bed (2000mm x 1500mm)	NA	1	1	1	Y

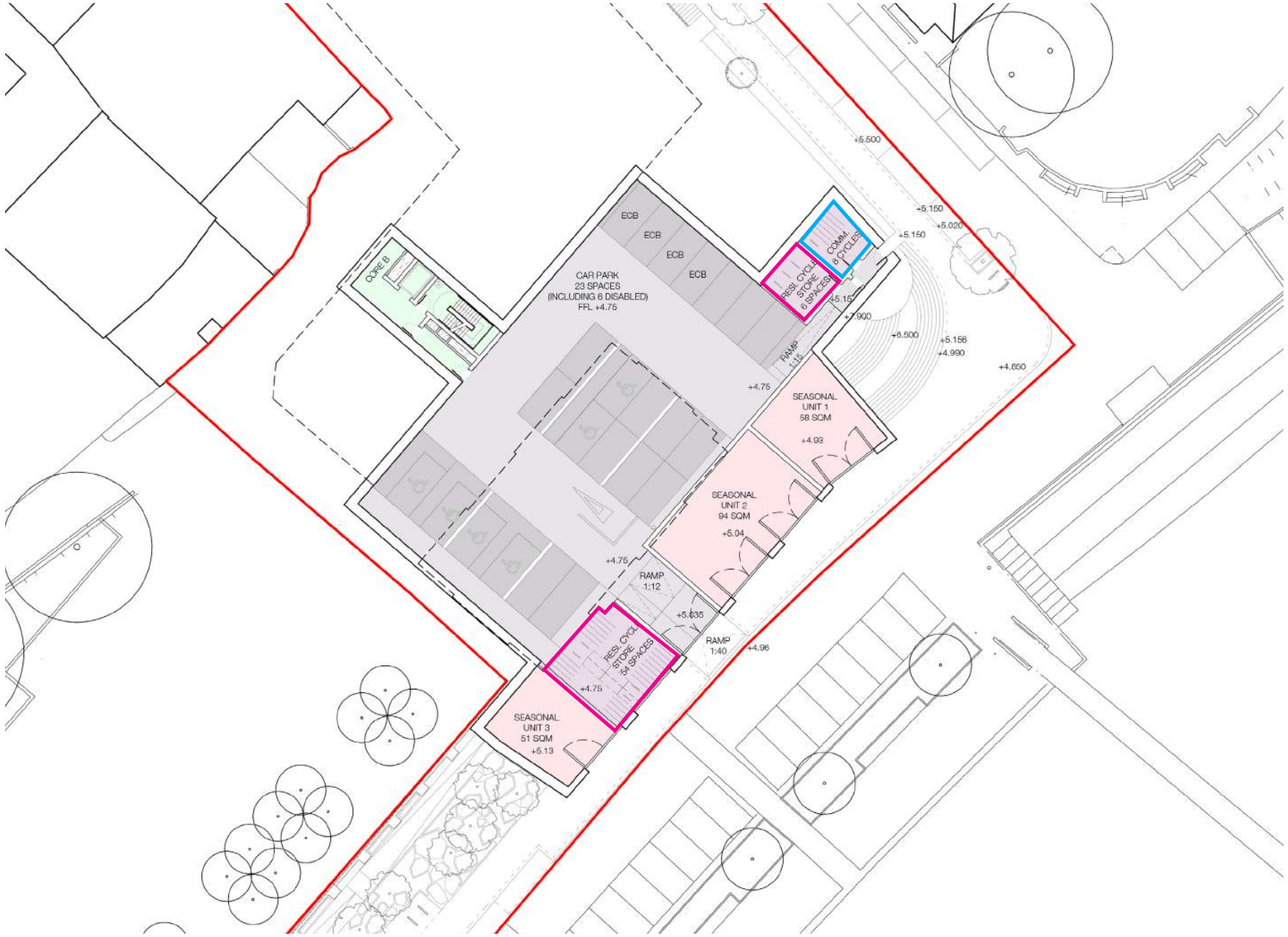
Some key requirements for wheelchair accessible dwellings

Cycle Parking

Secure internal cycle stores are provide for residential and commericial users and these are located on the lower ground level of the development. One parking space is provided for one bedroom units and two spaces are provided for two and three bedroom units.

A total of 68 cycle spaces is provided and these are a mixture of commercial and residential spaces. There are 8 proposed commercial spaces and 60 residential spaces. A mixture of Sheffield-style stands and two-tiered Josta Stands are proposed for the cycle stores. Separate, safe and secure stores will be provided for the residential and commercial elements of the development.

A dedicated level access cyclist entrance will be provided on Water Lane, but cyclists will also be able to use the main vehicular entrance from the Embankment.



Residential Cycle Store
Commercial Cycle Store

Proposed Lower Ground Level

Car Parking

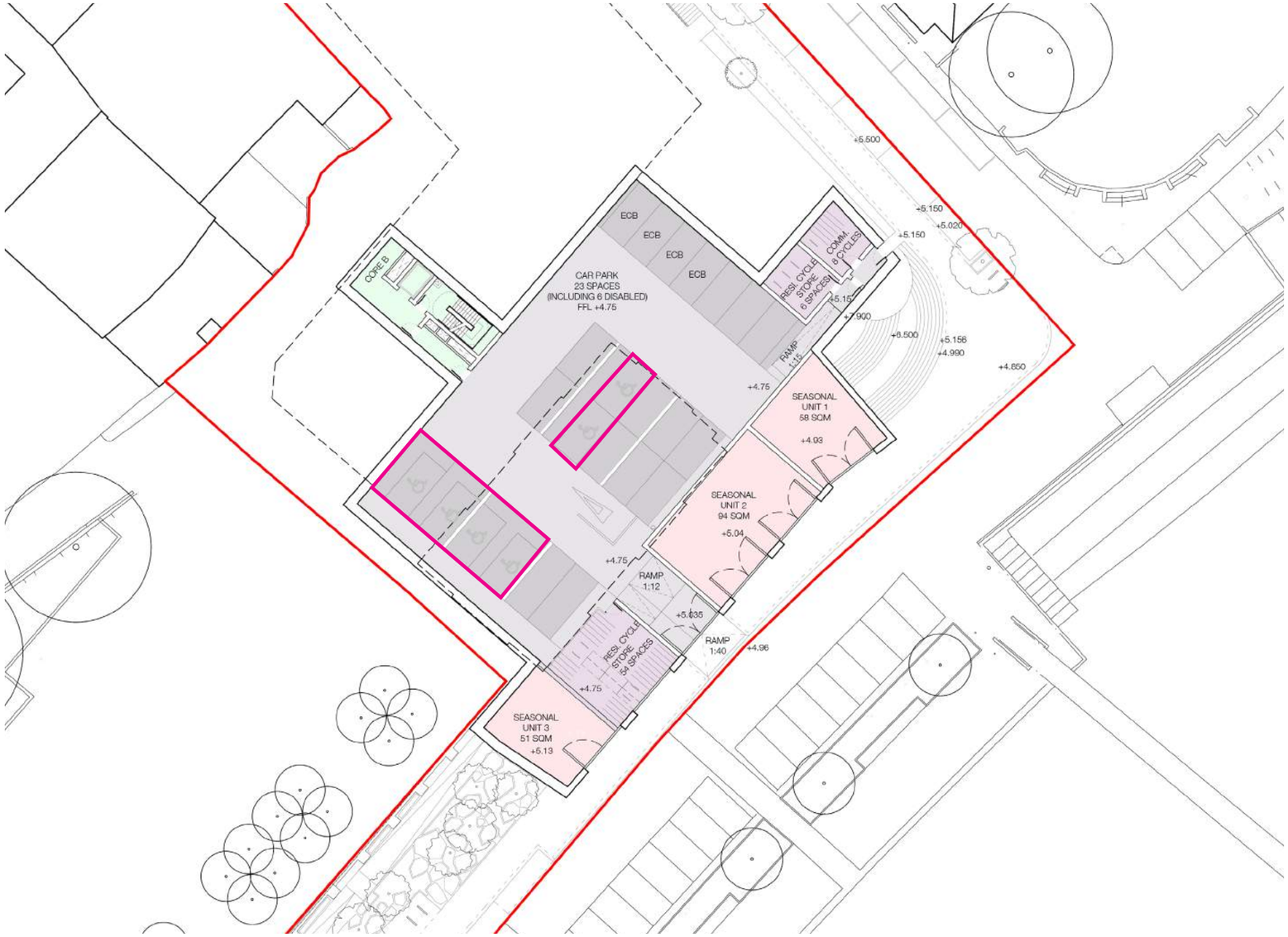
A total of 23 spaces will be provided on Site, 21 for residents (including 4 disabled bays) and two disabled bays for the commercial uses.

20% of all spaces will be designated for electric vehicle, with an additional 80% passive provision for electric vehicles in the future. It is noted that no parking will be provided for the one bedroom units.

Four spaces in the basement car park are provided as disabled bays, with a 1.2m clear access zone to both sides of the parking spaces allowing additional space for a disabled driver or pedestrian to access the vehicle. This is in accordance with the Housing SPG, which states that one disabled parking space should be provided per accessible wheelchair unit.

The disabled spaces will be located as close as possible to the residential lift core to minimise the distance travelled to the accessible flats.

Two parking spaces have been enlarged to provide a 900mm access zone to one side of the bay in accordance with AD Part M (2015), M4(2) standards and are provided from the outset. One enlarged space is provided in close proximity to each lift core in accordance with AD Part M



Disabled Parking Spaces

Parking Spaces

Proposed Lower Ground Level

10

Heritage

Heritage

This section has been developed by AOC Archaeology Group and should be read in conjunction with the Heritage Statement.

Archaeological Potential

An assessment of the archaeological potential of the site has found that there are few known heritage assets of prehistoric, Roman or Anglo-Saxon date recorded in the vicinity and there is considered to be a low potential for encountering remains of this date during development works. However the possibility of encountering palaeoenvironmental deposits associated with the nearby River Thames cannot be discounted.

The site is located within the historic core of Twickenham and is depicted on Treswell's map of 1607 partially occupied by buildings. Medieval material has been uncovered during investigations within the immediate vicinity of the site and there is considered to be a potential for medieval evidence being encountered during the course of the Proposed Development.

During the post-medieval period buildings located in the southern and western portions of the Site were subsequently cleared to allow for the expansion of Richmond House. However, the northeast corner of the site remained densely built up until the land was cleared to allow for road widening and redevelopment in 1928. A photograph of around 1900 suggests that the buildings demolished at this time were fronted with 18th and 19th century elevations although their morphology suggests that at least some of these buildings could have had earlier 16th to 18th century cores.

Given this the potential for post-medieval remains being encountered during the course of the Proposed Development is considered to be high.

Archaeological Mitigation

In order to investigate the archaeological potential of the site, a phased programme of archaeological works is envisaged. The first phase would comprise archaeological trial trenching of a representative sample of ground within the surface car park areas in order to establish both the likely level of archaeological survival and palaeoenvironmental potential.

Depending upon the results of the phase one evaluation and in particular better understanding of the level at which archaeological remains may or may not survive a further programme of archaeological works would be required following demolition of the upstanding structures within the site would be either comprising targeted archaeological evaluation of the footprints of earlier former buildings. Should the results of the phase one evaluation indicate levels of significant below ground disturbance a watching brief on a representative proportion of ground-breaking works may be a more appropriate strategy.

In addition should any groundworks, including drainage, be required either on the bank of the Thames or in proximity to it an archaeological watching brief will be maintained in order to record any archaeological or palaeoenvironmental deposits that may be present.

The decision on any required mitigation rests with the GLAAS who act as archaeological advisors to the London Borough of Richmond upon Thames.

Twickenham Conservation Area Character Assessment

An assessment of the cultural significance of the Twickenham Riverside Conservation Area has found that the cultural significance of the Conservation Area of core elements that relate to the site; that is the historic village core, the Embankment and Eel Pie Island; are derived from the interrelationship between these defined elements and in particular visual and physical links between the three elements which tie the river to the settlement's historic core on the terrace. The Proposed Development has been designed to maximise physical and visual connectivity both within the site and the Twickenham Riverside Conservation Area.

The Proposed Development would have a direct impact on elements that contribute to the cultural significance and character of the Twickenham Riverside Conservation Area. The increased visual and physical links between the historic core and riverside would result in a direct Moderate beneficial effect on the character of the Twickenham Riverside Conservation Area. Potential effects on the settings of surrounding Listed Buildings and the Queens Road Conservation Area have been identified and range from Minor beneficial to Neutral. No mitigation measures beyond those inherent in the design are considered necessary to mitigate indirect effects upon setting.

Image Title

Image Title

11

Sustainability

Sustainability

The sustainability strategy has been prepared by Slender Winter Partnership and Price Myers and should be read in conjunction with the Energy Statement and the Environmental Sustainability Assessment.

Energy

The proposed development addresses national planning policies on energy; in particular, mitigation of climate change and energy security through energy efficiency enhancements and use of alternative energy technologies. In order to reduce the carbon footprint of the building beyond the requirements of current regulatory and market standards, the development will benefit from the following integrated systems:

- Passive design features (Be Lean);
- Energy efficiency measures (Be Clean); and
- Low and zero carbon technologies (Be Green).

The building fabric performance will meet or exceed the Part L 2013 requirements where applicable.

An energy assessment has been carried out based on design information to identify the most appropriate renewable strategy. The development will include PV panels for the residential units while an ASHP shall be provided for the commercial units.

The proposed strategy has the potential to provide a 43% and 15% improvement over the Building Regulations 2013 minimum target for the residential and non-residential parts of the development respectively; through passive design measures, energy efficient equipment and renewable technologies.

Renewable technologies have been specified to achieve a

20% reduction in site wide CO2 emissions and generate 11.56% of the total energy consumption of the development.

Services Strategy

Energy-efficient equipment has been proposed where possible to support the services strategy.

The table below shows the proposed services strategy and energy efficiency measures for the development.

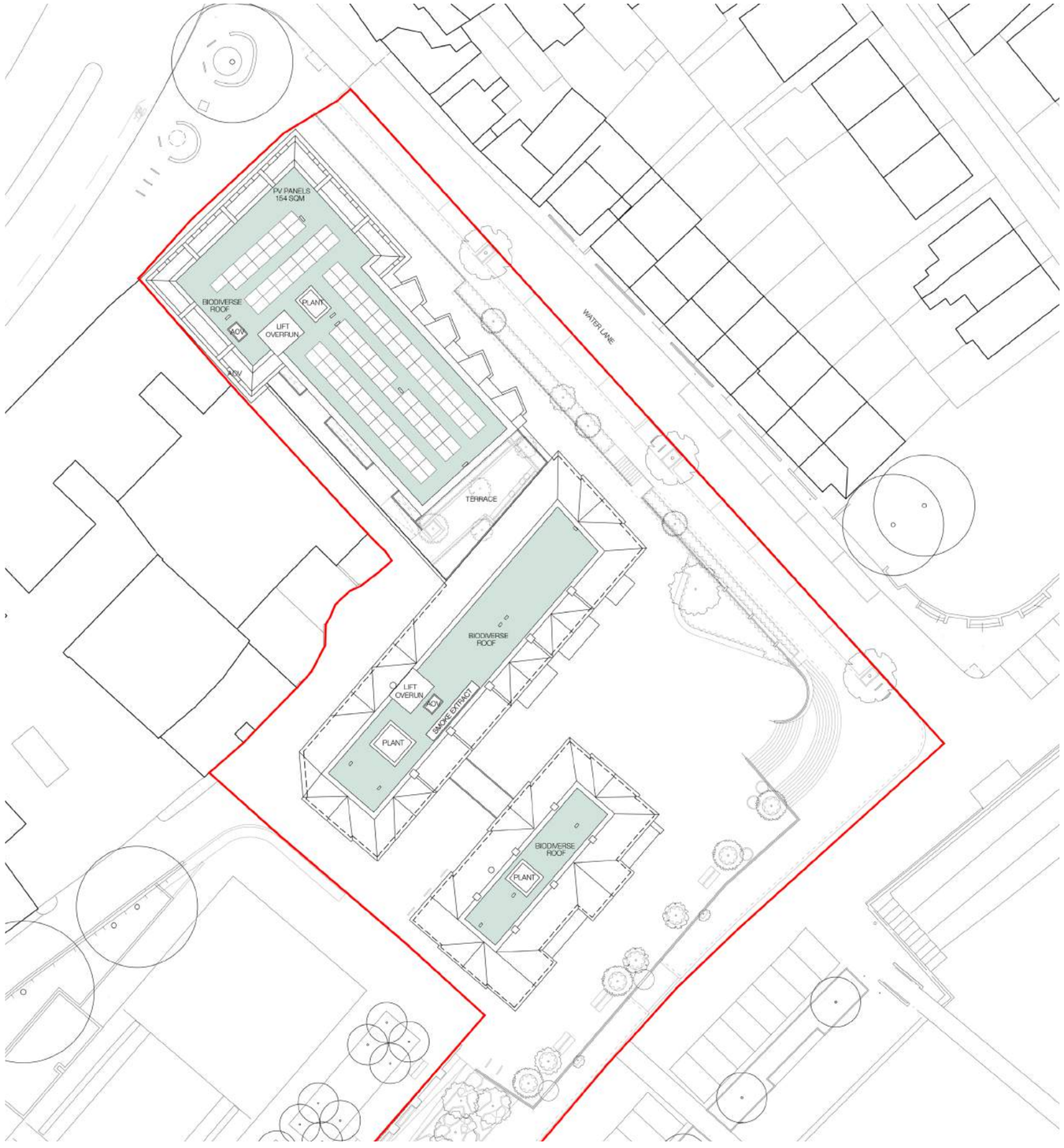
Services	Residential	Commercial
Space Heating	Regular Condensing Gas Combi Boiler 90% efficient Space heating provided by both radiators and underfloor heating	VRF with Air Source Heat Pump COP 3.71
Heating Controls	Time and temperature zone control	Time and temperature zone control
Hot Water Heating	Gas Combi Condensing Boiler 90% efficient	Gas DHW Heaters 95% Efficiency
Hot Water Storage	N/A	N/A
Ventilation	MVHR , 90% efficient, 0.50 SFP, Rigid Insulated Ducting, Approved Installation	Mechanical Ventilation with Heat Recovery
Comfort Cooling	N/A	VRF Split /Multi Split cooling, COP 3.
Lighting & Controls	100% low energy lighting	95 lumens/circuit-watt, Auto On/Auto Off, Manual Daylight Control
Electricity power factor	N/A	<0.9

Biodiverse Roof

There are areas of flat roof across all the buildings and it is proposed that biodiverse roofs are incorporated wherever practicable.

Some rooftop plant will be required including chiller space for the commercial units and photovoltaic panels (PV). The PV panels will be located on the roof of the four storey element closest to King Street. The panels will be horizontal as there is a reduced building parapet here to mitigate the overall height of the building.

The total area of the flat roof across the scheme is 681 sqm. The area hatched green on the plan opposite is the space available for biodiverse roof which is 486 sqm, which is 71% of the total roof area.



12

Highways

Transport

This section has been prepared by Systra and should be read in conjunction with the Transport Assessment. A summary of their report follows below.

The Site is in Twickenham Town Centre and has excellent public transport connectivity, with a PTAL rating of 5-6a. The surrounding area has high-quality pedestrian and cycle infrastructure, including the riverside facilities along the Embankment. However, the level differences across the Site create severance, particularly between the Embankment and the Site.

The proposals have been informed by extensive parking, traffic and servicing surveys undertaken in the streets surrounding the Site, which have highlighted transport issues and opportunities.

Servicing

Two new dedicated loading bays are proposed on Water Lane and Wharf Lane, which will accommodate servicing and deliveries associated with the development and the adjacent properties, ensuring vehicles do not obstruct footways and cycle lanes.

The servicing surveys have highlighted unsafe vehicular movements on the Service Road. To address these concerns, the Service Road will be converted to a cul-de-sac through the removal of the Water Lane access. Vehicular traffic along the cul-de-sac will be restricted to essential users, refuse collection and emergencies, and a new turning head will be provided on Site so that vehicles will not have to travel in reverse gear.

To accommodate the proposed loading bays and the widening of footways on the Embankment, is it proposed to remove eleven on-street car parking spaces. Parking spaces will be reallocated to ensure the removal does not affect residents and businesses, who are the essential users.

A Servicing Management Plan has been prepared, outlining the measures to minimise the impact of servicing and delivery activities on the public highway, and reducing the potential for conflict with other road users.

Image Title

Cycle and Car Parking

Car Parking

Given the town centre location and the restricted parking provision, it is envisaged that most trips to the Proposed Development will be by foot, bicycle or public transport. A trip generation exercise undertaken using the industry-standard methodology has indicated that the Proposed Development will have negligible impact on the highway and public transport infrastructure.

The proposals aim to create a healthy and permeable pedestrian-friendly Site which can be the heart of Twickenham Town Centre. The existing private car park will be replaced with a new public square, with seating, trees and landscaping, in line with the emerging Healthy Streets approach.

To meet the demand for parking by new residents and disabled users of the Site and to encourage sustainable travel, the lower ground floor level of the development will accommodate 23 car and 68 cycle parking spaces for residents and staff, in line with policy requirements. The vehicular access will be from the Embankment, with a dedicated cyclist and pedestrian access from Water Lane.

Cycle Parking

The development aims to resolve the existing severance and maximise pedestrian and cyclist permeability through the Site, with a new step-free access route from the Embankment, step-free access from King Street and Wharf Lane and two stepped accesses from Water Lane.

To encourage active travel by visitors to the Site, 26 new cycle parking spaces are proposed as part of the development.

Proposed On Street Parking

13

Management

Management Strategies

Management of the Development

It is proposed the development will be managed by a management company. The management company will maintain the development and report back on any repair or maintenance work that will be required.

Management of the Amenity Space

The private amenity spaces will be allocated to the owner/occupiers for private use and the management company will issue guidance regarding the maintenance and use of these private areas.

The shared amenity spaces will be managed by the management company, who will supervise the use of and ensure the landscaped amenities are appropriately maintained.

Postal Deliveries

The postal delivery strategy has been designed in accordance with Secured by Design principles. Post will be delivered to integrated post boxes located within the secure residential lobbies. Access will be granted to these lobbies by means of pre-agreed opening times. At all times entry will be monitored via the access control system with recording facility at the lobby front doors.

Site Security

The safety of the residents is of the utmost importance and has been considered as part of the design process. The scheme has been developed in accordance with Secured by Design principles.

The following key issues have been considered:

- The ground floor has been designed to offer a good level of passive surveillance and a good level of active frontage.
- Access control systems will be provided to all communal entrances.
- Mail delivery is provided to all communal entrances
- CCTV will be provided at critical entry points, car park and shared amenity spaces.

Refuse Strategy

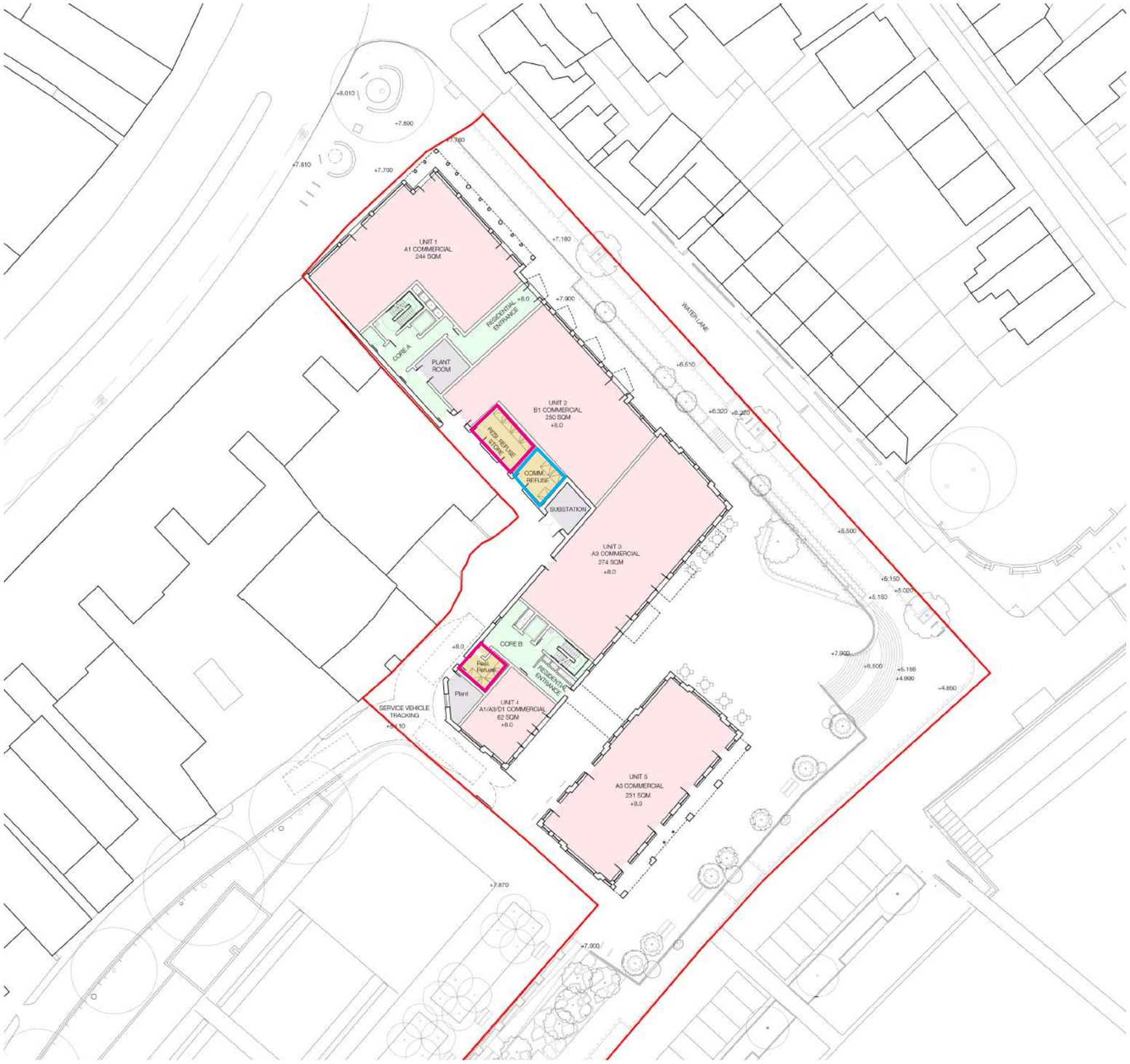
Refuse and Recycling Stores

The residents of the development will be responsible for ensuring their refuse and recycling is brought to the dedicated stores located at ground floor level. There are two refuse and recycling stores situated next to each core for the buildings. Collections will be made directly from the refuse stores by the local authority.

The storage provision is based on the LBRuT refuse and recycling storage requirements.

Commercial refuse will be stored within the designated store for commercial refuse and recycling.

For collection details, please refer to the Transport section of this document and the Transport Assessment.



Residential Refuse Store
Commercial Refuse Store

Refuse and Recycling Store Location

Cleaning + Maintenance Strategy

Maintenance Activities

A Facade Access and Maintenance Strategy will be developed during the detailed design phase of the project and will provide access strategies for the following activities:

- Cleaning of glazing
- Cleaning of other materials
- Glazing replacement
- Infrequent Inspection
- Maintenance Activities

Material Selection

- The main material utilised across the façades is brickwork and this will need to be inspected once a year and cleaned every 3-4 years by high- pressure hose.
- The Polyester Powder Coated (PPC) and metal perforated panels will be inspected and cleaned once a year.
- The weatherboard utilised across the façades will need to have periodic inspections to assess the need for cleaning, maintenance painting, localised repairs and replacement of elements, such as joint seals and fixings.
- Windows will be cleaned every 3-6 months
- Clay roof tiles should be inspected once a year for leaks and any broken tiles.

Residential Building Access and Maintenance

In developing the access strategy, consideration shall be given to the impact of maintenance activities on residents. In particular, access requirements to apartments, balcony/ terraces and transport of glass if internally replaced.

Access Strategy

Ground level access to the façades will be sufficient.

Image Title

Secure by Design

Community safety and security are of high importance and the development will ensure that measures are put in place in order to make the area around the proposed development feel comfortable and safe.

The site has been associated with crime and anti-social behaviour and is a popular spot for after-hours drinking and drug taking. The design takes into account points raised during meetings with the Metropolitan Police Service's Designing Out Crime officer and the following measures have been incorporated into the design:

- External lighting will operate from dusk till dawn
- The landscape has been designed so that all public spaces and routes are clearly identifiable. The design is open and has avoided creating any hiding places
- Trees around the site will be maintained to have high canopies in order to maintain good sight lines around the site
- Access controls will be provided for the residential entrances
- CCTV will be provided throughout the scheme
- Smart meters will be installed across the development

14

Daylight / Sunlight

Daylight / Sunlight

A daylight / sunlight assessment has been prepared by Right of Light Consulting and their report should be read in conjunction with this document.

Daylight to Windows

Approximately 85% of all habitable rooms achieve or surpass the minimum recommended Average Daylight Factor (ADF) targets (only 15 of the total 101 habitable rooms fall short of their ADF targets). This is a high level of compliance in the context of an urban development site. All rooms pass the room depth test.

The BRE guide does not give fixed numerical pass/fail criteria for the No Sky Line test when applied to new dwellings (guidance is given for when this test is applied to existing neighbouring buildings).

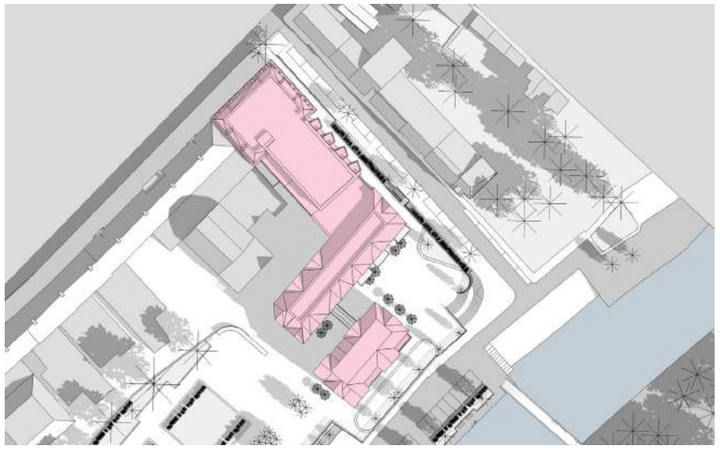
Sunlight to Windows

The proposed development contains a mixture of south east, south west, north east and north west facing flats. Whilst the aim is usually to maximise the number of south facing living rooms (44% of living rooms have at least one south facing window), the BRE guide does not give mandatory sunlight requirements for new flats. The living rooms which face within 90 degrees of due south have been tested for direct sunlight. Not all living room windows receive ideal levels of direct sunlight. However, the BRE guide acknowledges that for larger developments of flats, especially those with site constraints, it may not always be possible to have every living room well situated to receive direct sunlight.

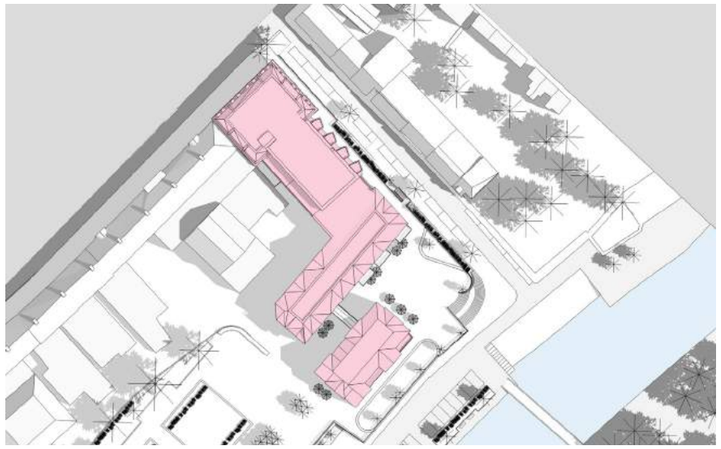
Shadow Study

A shadow study has been prepared to show the lighting of the public spaces and negligible impact on neighbouring developments and can be seen opposite.

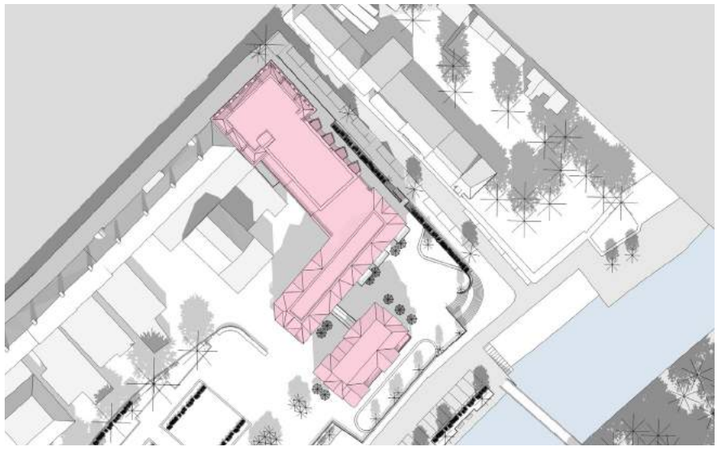
Equinox 0900



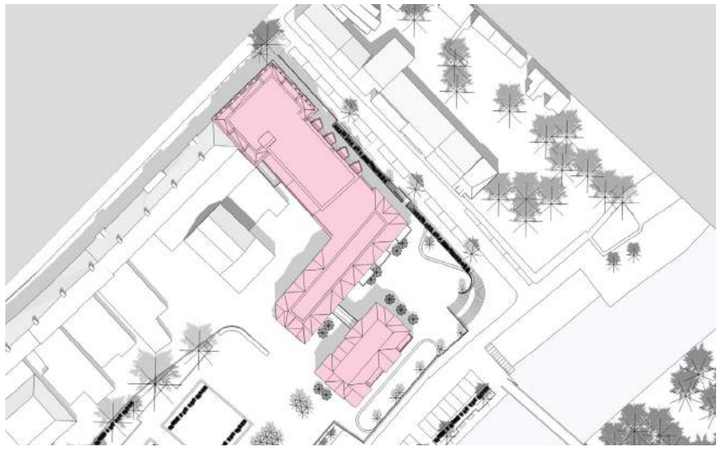
Summer Solstice 0900



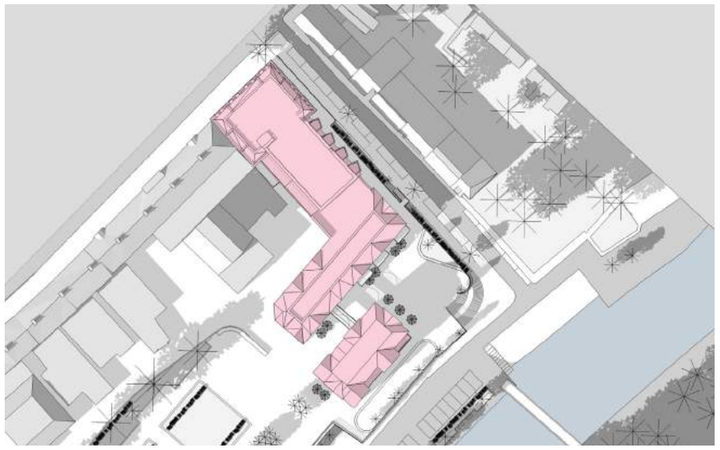
Equinox 1200



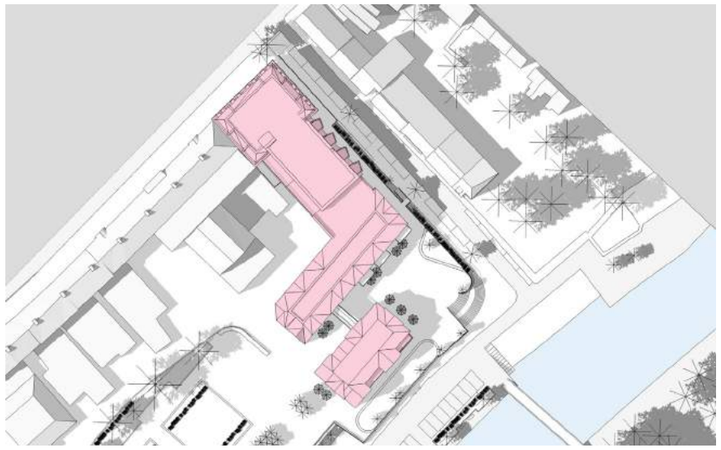
Summer Solstice 1200



Equinox 1500



Summer Solstice 1500



15

Summary

Key Scheme Benefits

The Twickenham Riverside development is a significant project for the regeneration of the Twickenham Embankment and will fulfil the vision of the Twickenham Area Action Plan (TAAP). The proposal will activate the unused stretch of land on the Embankment and deliver housing, a new public square, improved public realm and pedestrian permeability.

The buildings and landscape design described in this document are a high quality architectural proposition, which have evolved out of close consultation with LBRuT. The result is a refined and well mannered development that will sit comfortably within the Twickenham Riverside area, that will make a positive contribution to the unique local character and reinforce the distinctive characteristics of the conservation area.

The key benefits the scheme will deliver are as follows:

- Regeneration of the site in line with the Twickenham Area Action Plan (TAAP)
- Improving and enhancing the visual appearance of the site and in turn the wider context around Twickenham Riverside
- The delivery of improved high quality and pedestrian friendly public realm and a new multi-purpose public square
- Improved pedestrian permeability from King Street to the Embankment and to Diamond Jubilee Gardens via new direct link from the square.

- Reinstated street edges and active street frontages
- An improved commercial floor space offer
- Enhance the local heritage setting
- Provide a range of residential accommodation to suit market conditions and planning policy requirements
- Creation of jobs throughout the construction period and long term employment opportunities within the completed development

Key Scheme Benefits

For further information please contact

Tim Tolcher, Director

+(0)207 269 9400
+(0)774 811 8876
tim.tolcher@cjctstudios.com

Carey
Jones
Chapman
Tolcher

Victoria House, 37 Southampton Row, London WC1B 4EA +(0)207 269 9400
Rose Wharf, 78 East Street, Leeds LS9 8EE +(0)113 224 5000