

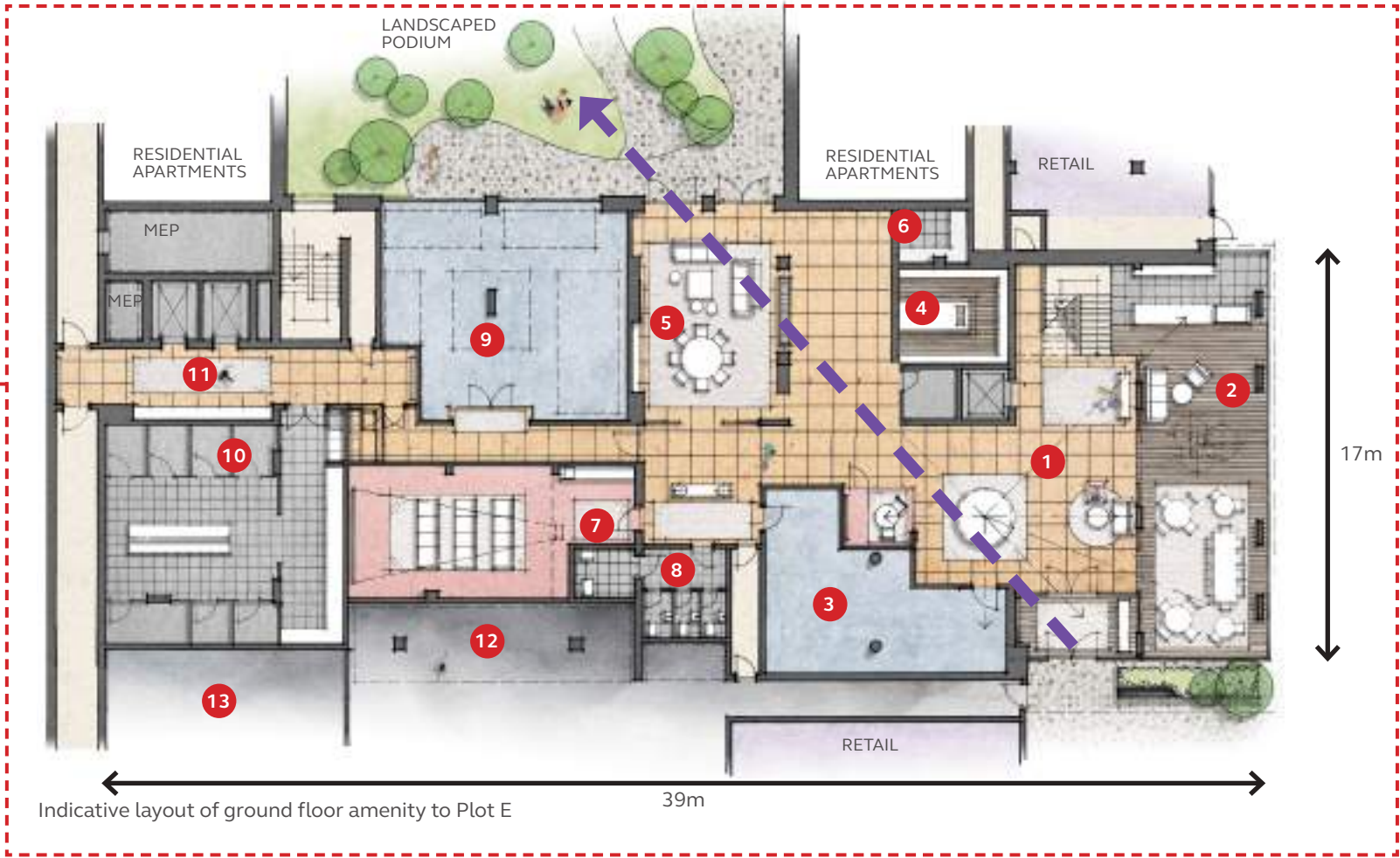
5.PROPOSALS

5.3
AMENITY



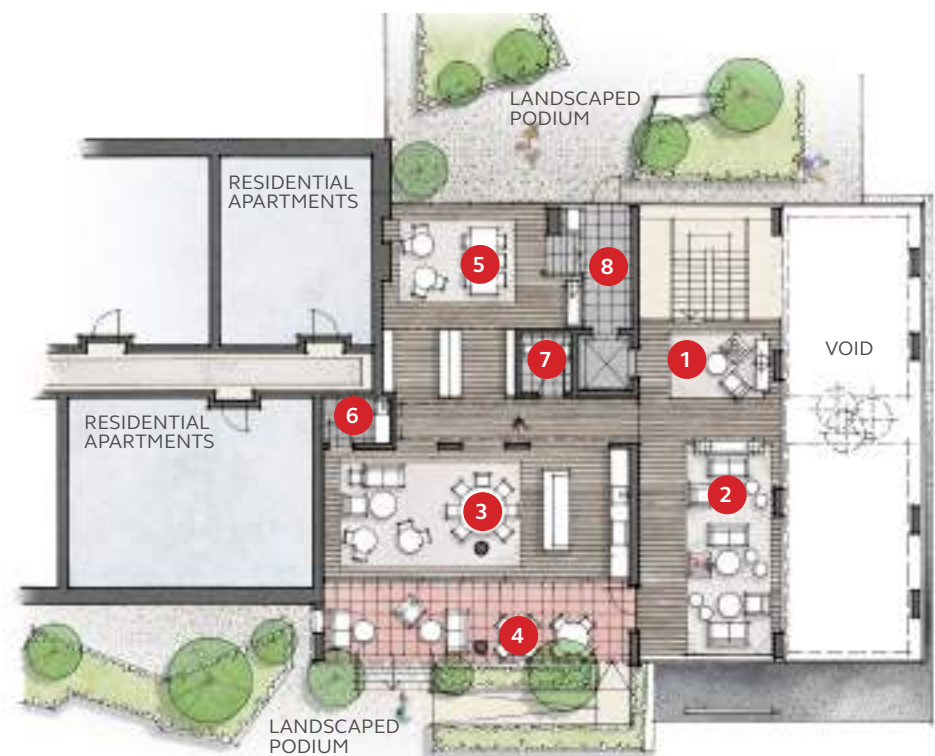
To maximise benefits to the residents and for ease of management, the entrance area, concierge, waiting and lounge area will have a strong sense of welcome and 'home'. The amenity is located to reinforce the vibrancy of the development.

The images below are from a previous Lincoln schemes and demonstrate the quality of the spaces envisaged for Station Hill.



- 1 Entry Foyer & Reception
- 2 Café
- 3 Staff Welfare & BOH
- 4 Residents Post Room
- 5 Garden Lounge
- 6 Function Kitchen
- 7 Cinema Room
- 8 Toilets
- 9 Residents Gym
- 10 Parcel Storage Room
- 11 Primary Lift Lobby
- 12 Premium Bike Store
- 13 Management & Furniture Store





Indicative layout for first floor amenity to Plot E directly above ground floor amenity



Indicative concept sketches of amenity areas

- 1 Amenity Landing
- 2 Gallery Seating/Pre-Function
- 3 Function Lounge
- 4 Covered Terrace
- 5 Library
- 6 Cleaner's Store
- 7 Toilets
- 8 Podium Access Landing

Balconies

The vast majority of units are provided with balconies unless they have level access to external courtyards. Two types of balconies are proposed: Juliet and projecting. Projecting balconies are at higher levels or on south-facing façades. The consequence of this is that the tops of buildings are given additional articulation and identity with the balconies making a strong contribution to the legibility of the base-middle-stop design strategy. To reinforce this approach, the projecting balconies have metal railings and the Juliet types a simple glass sheet.

5.PROPOSALS

5.4 ACCESSIBILITY

The applicant has a policy that requires inclusive design to be a part of its brief to its designers and the scheme has addressed the fundamentals of inclusive access in:

- Setting out the site
- Setting out the levels across the site
- Locating the buildings on the site and access to the key entrances
- Relating the building to the local transport infrastructure including the train station, bus routes and car parking provision

The landscape, architecture and the accommodation provided has been designed to meet the accessibility needs of all potential users with the project designed in accordance with the Building Regulations Part M, BS 8300 and best practice. This is a significant improvement on the Approved Outline Consent.

Car Parking

Designated disabled parking bays will be located in close proximity to the main core from within the car park. These are shown on the plans.

Landscape & Public Realm

All public footways, pathways, ramps and the access route will be designed in accordance with the Building Regulations with all areas of external paving having a smooth, walkable surface. A level approach will be provided to the main entrances and the car parks to the stair and lift cores.

Main Entrance & Ground Floor

The main concierge and management hub will have disabled access toilets and a concierge desk designed in accordance with Part M. External doors will have a minimum clear opening of 1000mm. The ground floor levels have been designed to be step-free and designated apartments will be wheelchair adaptable to meet the specific requirements of residents.

Vertical Circulation

Passenger lifts are sized for wheelchair users with minimum internal dimensions of 1600x1350mm. In addition to the passenger lifts, common stairs are provided which will comply with Part M requirements.

Internal Circulation

Internal corridors are 1300mm or wider with a with a turning circle of 1800mm provided at junctions. All internal corridor doors have a minimum clear opening of 850mm.

Apartments

The entrance doors into apartments will incorporate an accessible threshold and will have a minimum clear door opening width of 775mm.

A W.C will be provided within the entrance level of the apartments. Access to and around the W.C will comply with Part M. All electrical switches and socket outlets will be mounted within the prescribed height limits.

Pedestrian Access Plot E & F

The main point of access for the residents and visitors will be the Friars Walk entrances to Plots E and F. On Plot E the entrance will be a double-height space where tenants and visitors will be greeted by a concierge. The entrance to Plot F will also have a generous lobby with adjacent amenity space but at a more modest scale than E. There will be a secondary entrances from Garrard Street through secure lift lobbies to both buildings. A means of escape exit is provided for Plot E onto Friar Street.

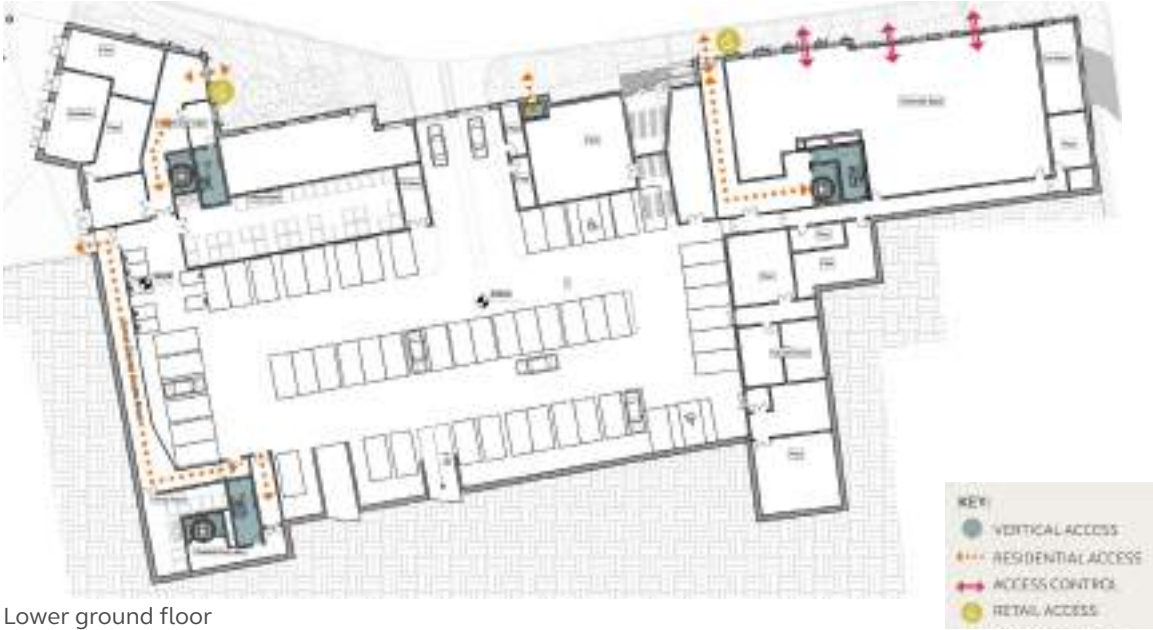
A dedicated point of access will be provided for cyclists entering Plot F with designated and secured entry at ground floor off Friars Walk to a large cycle storage room. This store will include a facility to wash bicycles and storage lockers. Separate access into the main entrance hub will provided directly from this store.

In addition, secure access to both entrance lobbies is provided from each of the lower ground floors which also include secure cycle storage zones.

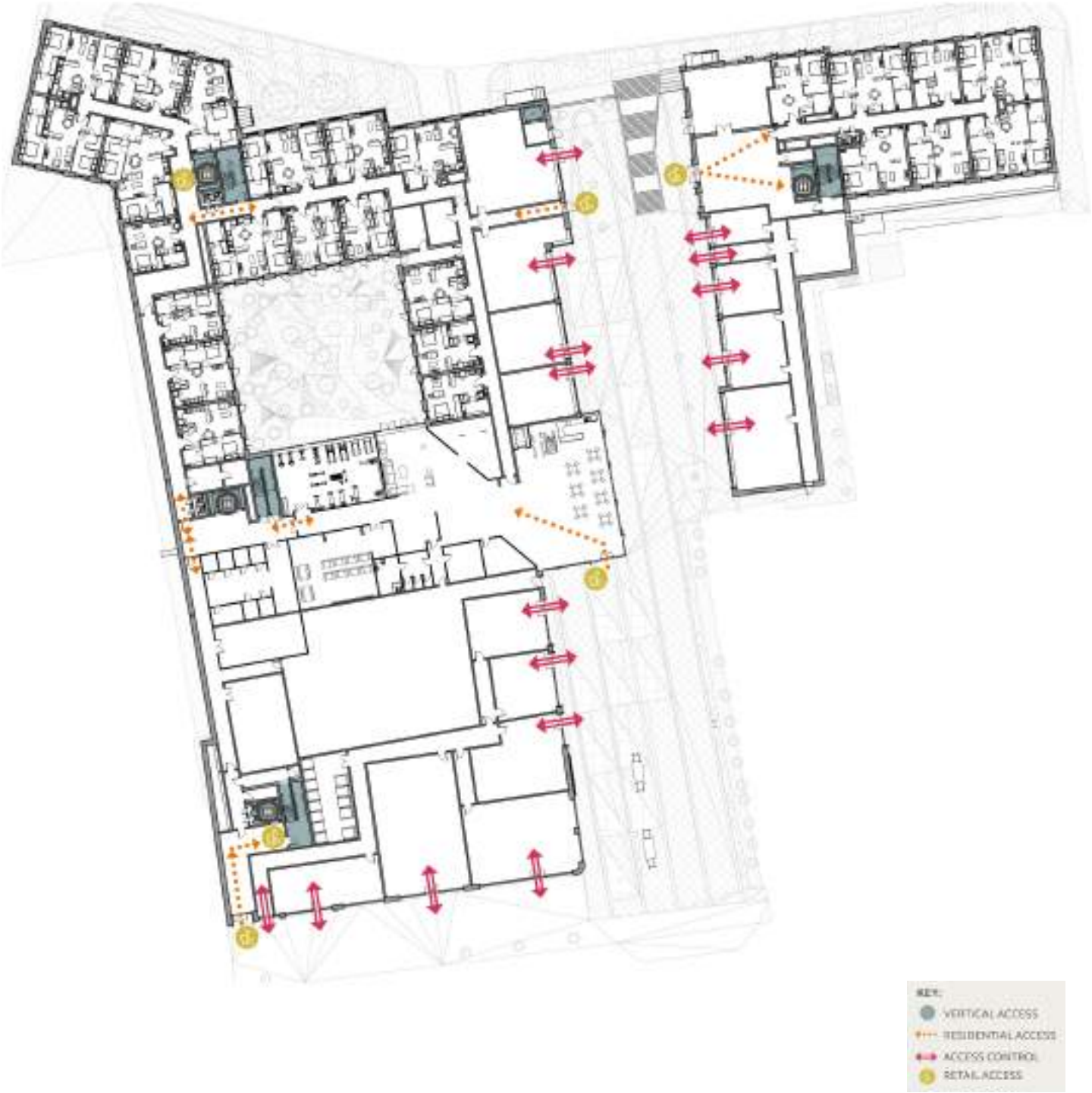
Entrance Lobby

Both entrance lobbies are located on the most prominent locations on each block. They will be highly-visible when approaching the buildings from key vistas and the glazed elevations will provide a welcoming focal point. Upon arrival to Plot E, residents and guests enter a secure lobby. The lobby has been carefully designed to ensure that the tenants and visitors have direct visibility of the reception, concierge and the amenity spaces beyond.

The lobby also provides a generous waiting area as well as direct connections to all amenities on the ground floor such as the post room and parcel storage. Tenants from Plot F will collect parcels from Plot E. Post boxes will also be provided in Plot F's entrance lobby.



Lower ground floor



5.PROPOSALS

5.5 ACCESS & MAINTENANCE

Internal Cleaning & Maintenance

Residents will be responsible for cleaning their own flats. The operator will manage routine, reactive and planned maintenance as well as day-to-day cleaning of common parts, amenity areas, the terraces and the site. Flats will be subject to a maintenance review on change of tenancies. Long-term maintenance may include part or total replacement of finishes, floor coverings, sanitary ware, shower trays and bathroom accessories as well as kitchen components and white goods. Accordingly the lifts are designed for the manhandling and carting away of goods by trolley from each floor level to the final exit.

Landscape to the courtyards and upper terraces is designed to minimise the need for large items of gardening equipment to be brought into, or excessive organic debris taken out of, the building with most routine maintenance taken out in bags or on small-scale trolleys.

Roofs are accessible via doors from the main circulation cores or via a ships ladder and hatch at the head of the main stairs. This limits the weight of items that can be taken directly onto the topmost roof. In the event that heavy equipment needs to be taken onto these roofs it will be hoisted or craned.

The management company will clean common parts and cleaner’s stores are provided on interim levels in both Plots E & F.

Internal faces of windows will be cleaned from inside flats or common parts and generally from internal floor level. Access to high level glazing in the entrance lobby will be from a mobile access platform or scaffolding tower.

External Cleaning & Maintenance of Façades

There are key façade components:

- Windows with aluminium frames
- Metal cladding panels between/around windows, flashings and cills, copings, etc.
- Brick, masonry and render

There will be:

- Regular cleaning of windows
- Planned cleaning of metal cladding in line with recommendations from the manufacturers
- It is not anticipated that masonry materials will require regular cleaning

Due to the heights of the buildings, cleaning from the roof level downwards is proposed. Following advice from Hoare Lea’s specialist access and maintenance consultant on the best way to clean these buildings, abseiling using man-handled, weighted equipment or Davit system is the proposed solution. A specialist and trained façade cleaning sub-contractor will carry the abseiling system to the roof and assemble it there so that operatives can abseil down the face of the building to clean. In some instances the Davit System will be stored on the roof . On balconied windows, access will be from inside the flats. Roof edges and working areas are generally protected by parapets. Pathways on the roof will be laid out to provide support for the weighting system. It is anticipated that the roof will require cleaning once a year.

Those accessing and using the roof will be required to provide a written access strategy and risk assessment prior to commencing the work. It is recommended that all façade cleaning operatives using rope access are RATA trained abseiler operators.

Little maintenance is anticipated for either the window assemblies or the metal cladding panels during the lifetime of the building. The metal cladding panels, copings and flashings will be inspected on a planned maintenance basis with any minor repairs carried out by appropriately trained abseilers. More demanding works would need to be carried out off-scaffolding. In the event of maintenance or repairs being required, options for the use of ground based, high level access equipment could also be considered.

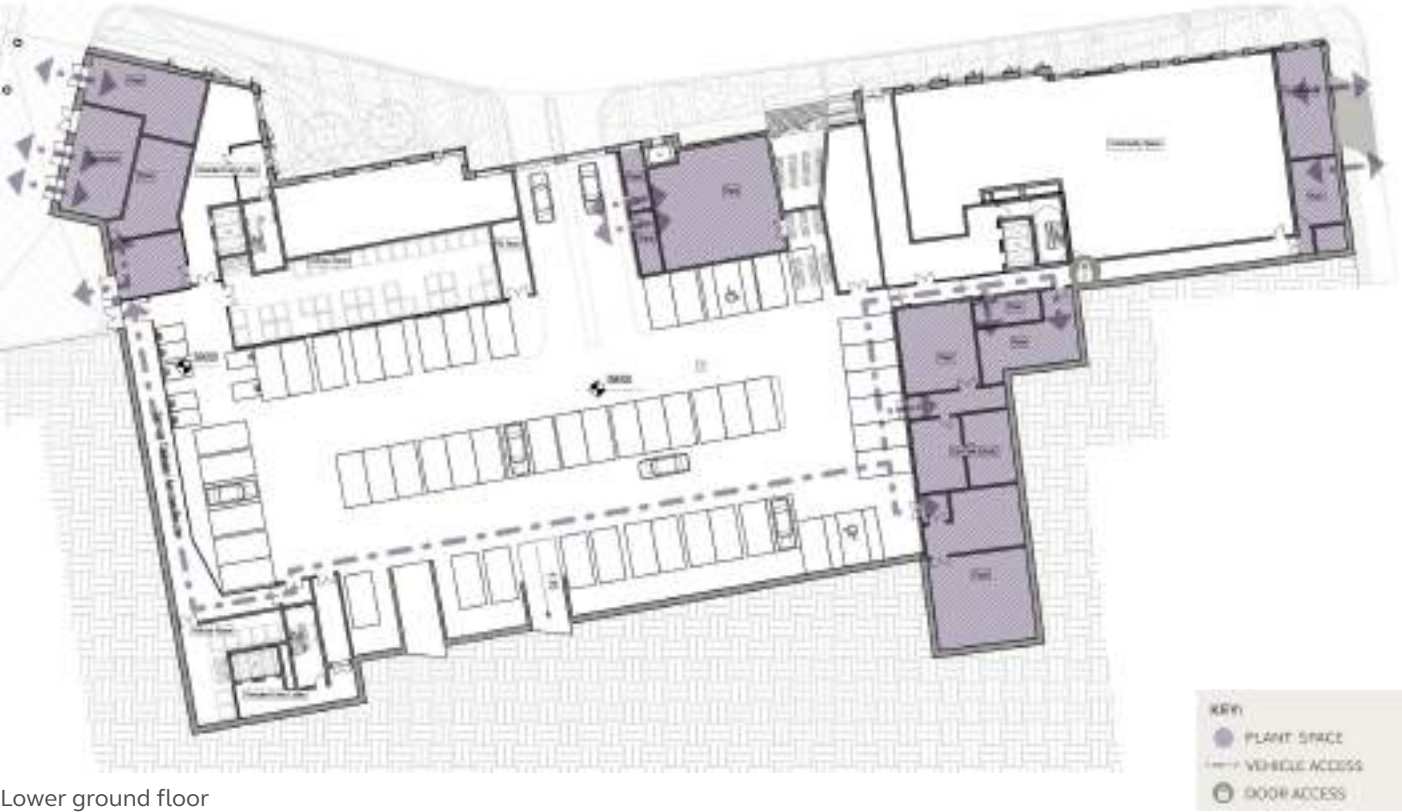
Windows are the items most likely to require reactive repairs and maintenance and in some cases replacement. Windows will be designed to minimise the need for overly complex opening or closing mechanisms. Planned inspections and repairs of the mechanisms, restrictors, hinges or pivots will be undertaken to avoid the necessity for more extensive repairs.

Re-glazing should be able to be carried out from inside the building.

5.6
SERVICING

The location of the services have been deliberately placed away from the public eye with the majority of the plant area located within the building footprint at lower ground level, and the western façade of Plot E.

Due to the maintenance requirements from the street, the sub-stations to both buildings are discreetly located on the western façade at lower ground to Plot E and the eastern façade to Plot F.



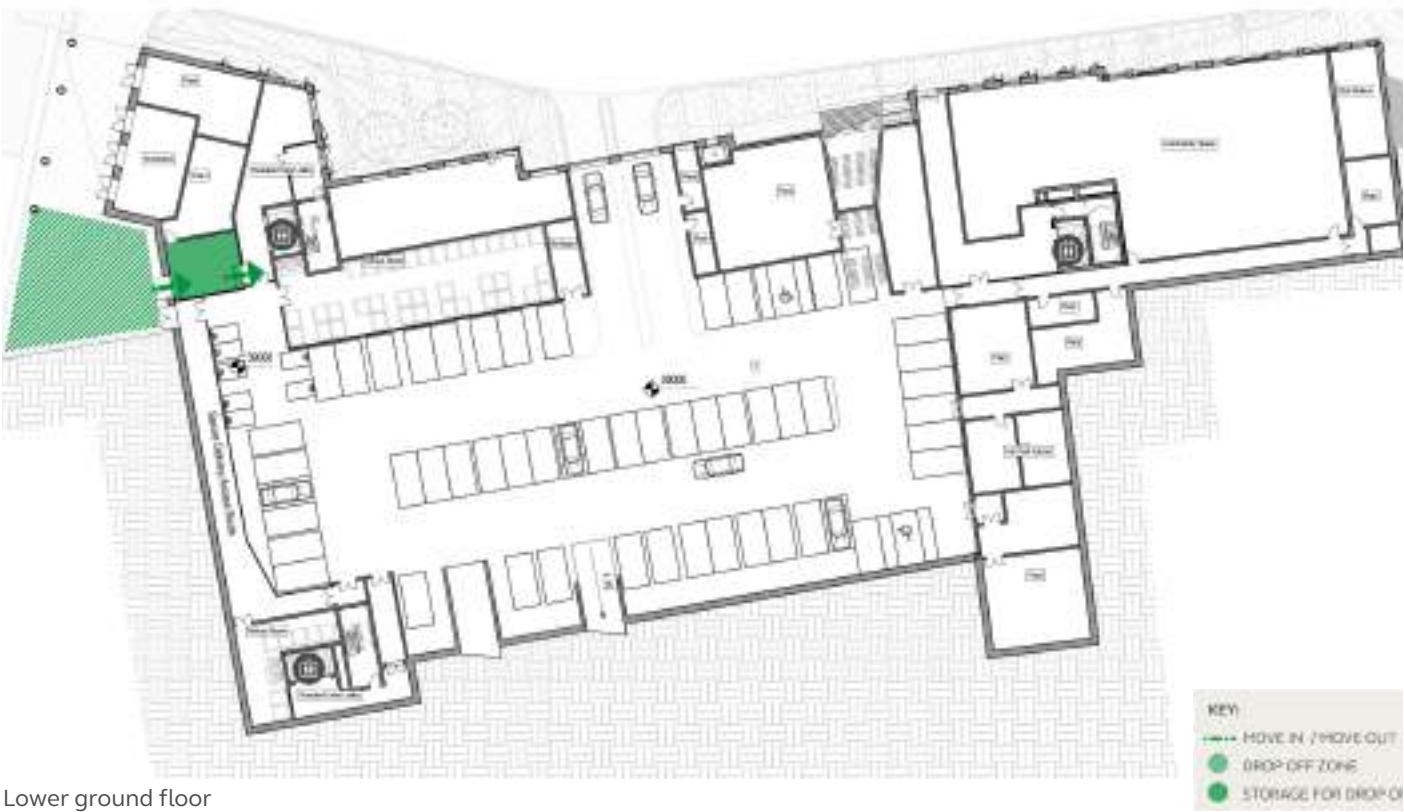
Lower ground floor

5.7
MOVE IN/MOVE OUT

For residents moving into the development, the resident will confirm with the building management team a specific time to use the lift and allocated move in/move out storage room located at lower ground level.

Delivery vans will temporarily park in the loading bay and the belongings will be taken to the move in/move out storage areas provided.

A dedicated area is provided for both plots with the assistance of the management team. At the agreed time, the resident will take their belongings to the allocated lift which, for a specific time, will service only this move in/move out procedure. Each plot will have a preferred move-in and move-out lift with a higher floor to ceiling in the car. This method will repeat in reverse for residents moving out. The design of this movement will also ensure little disruption to the typical day-to-day resident movement.



Lower ground floor

5.PROPOSALS

5.8 VEHICLE ACCESS, CAR PARKING & CYCLES

Loading & Unloading

The design of the scheme acknowledges that there will be limited drop-off space on Garrard Street and that this will be time-restricted. To ensure adequate space is available, a services bay is provided at the west end of Plot E. This will accommodate drop-offs including post, parcel, residential belongings and furniture, refuse and plant equipment. A dedicated move in/move out lobby store is provided adjacent to the northern lifts to Plots E and F and these is a defined service route from the service yard to the lift.

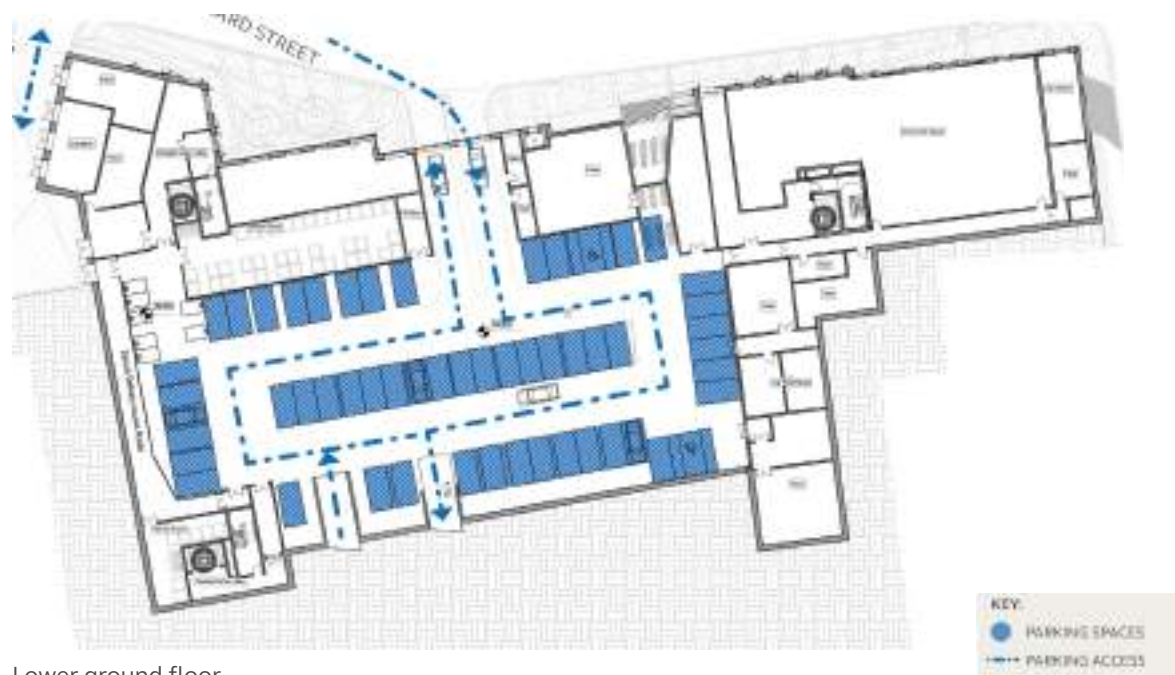
These designated zones ensures that the dropping-off and moving of items will not interfere with residential movement and circulation.

Car Parking

The resident car park is accessed from Garrard Street. There are a number of lower ground-floor parking spaces with more spaces on the mezzanine levels. The ramps are one-way and have signal heads and markings at the top and bottom for vehicles travelling in the opposite direction.

Car club spaces are conveniently located on the lower ground floor. 165 spaces are provided, 10% of which are dedicated disabled, and 10% of which are electrical charging points. The scheme has additional capacity for the installation of more points.

PBA Consulting's tracking diagrams are submitted as part of this application and demonstrate that the routes comply with best practice.



Lower ground floor

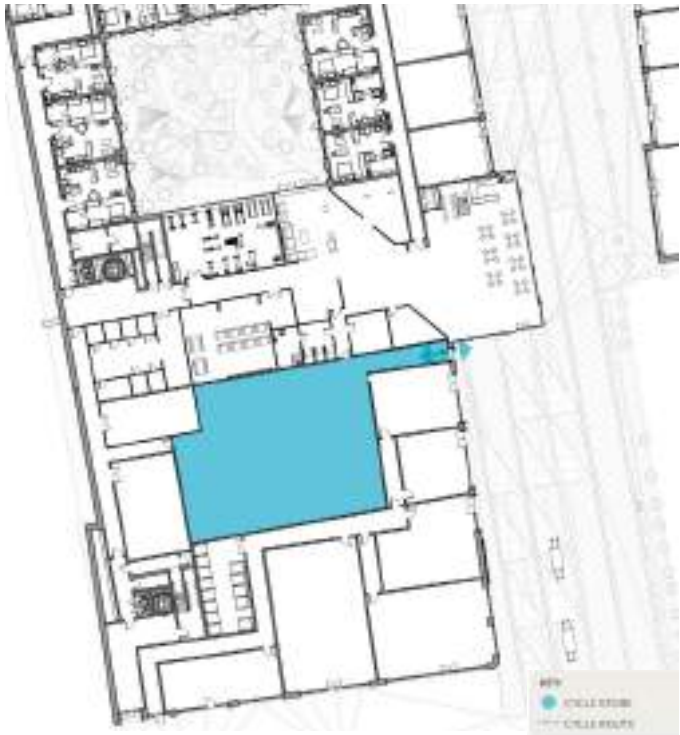


Mezzanine levels

Cycle Storage

The scheme not only provides a cycle space per residential unit, but also caters for the different types of cyclists whether it's the keen, everyday cyclist or the occasional and novelty user. Each cyclist will have the opportunity to store their bicycle on the lower mezzanine levels or the Friars Walk level. There will be a choice of storage options with stackers, Sheffield stands or individual cycle cages. All cycle parking will be secure and accessible via key fob controlled entry points.

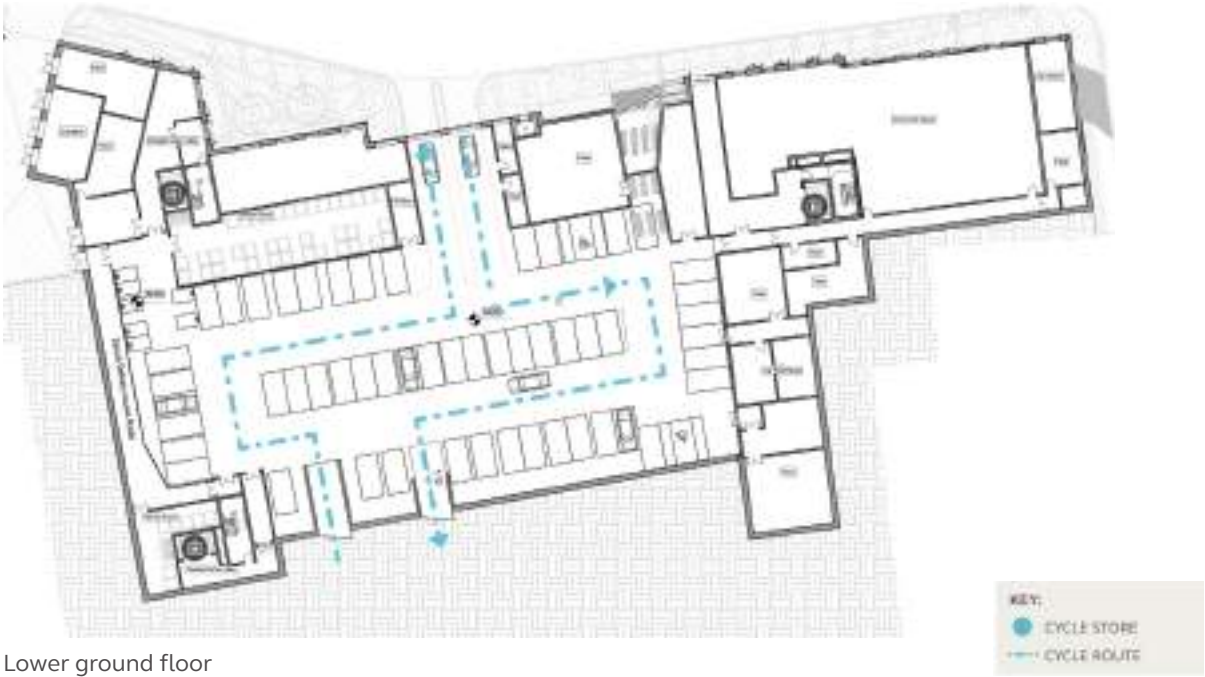
The mezzanine cycle storage location provides the cyclist with direct access in and out of the buildings without the interference of other residents' circulation.



Ground floor



Mezzanine levels



Lower ground floor

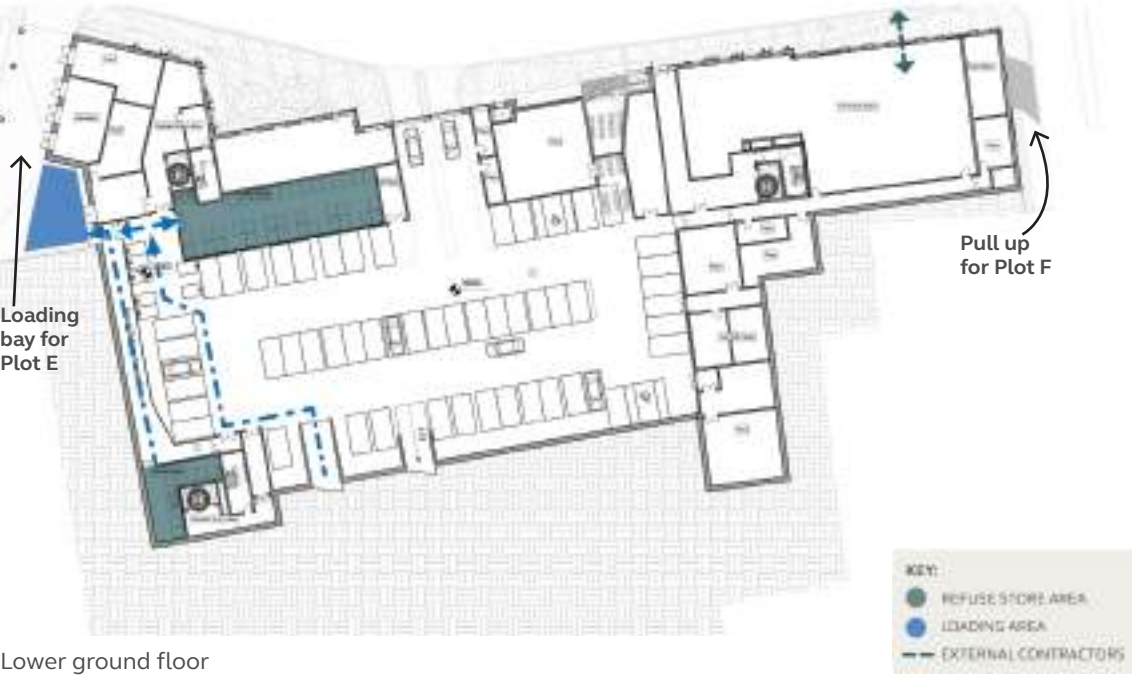
5.PROPOSALS

5.9
REFUSE STRATEGY

The development provides all residents with quick and efficient refuse handling for both recycling and standard refuse. Refuse chutes are ideally located adjacent to each residential core to distribute the garbage to storage facilities at lower levels. To separate the waste between recycling and refuse, the residents would select one of the two options and a separator, at the base of the refuse chute, would purposely direct the waste to the appropriate bin.

Taking into consideration the size of the development and the subsequent waste, compactors may be introduced to reduce the number of bins for collection.

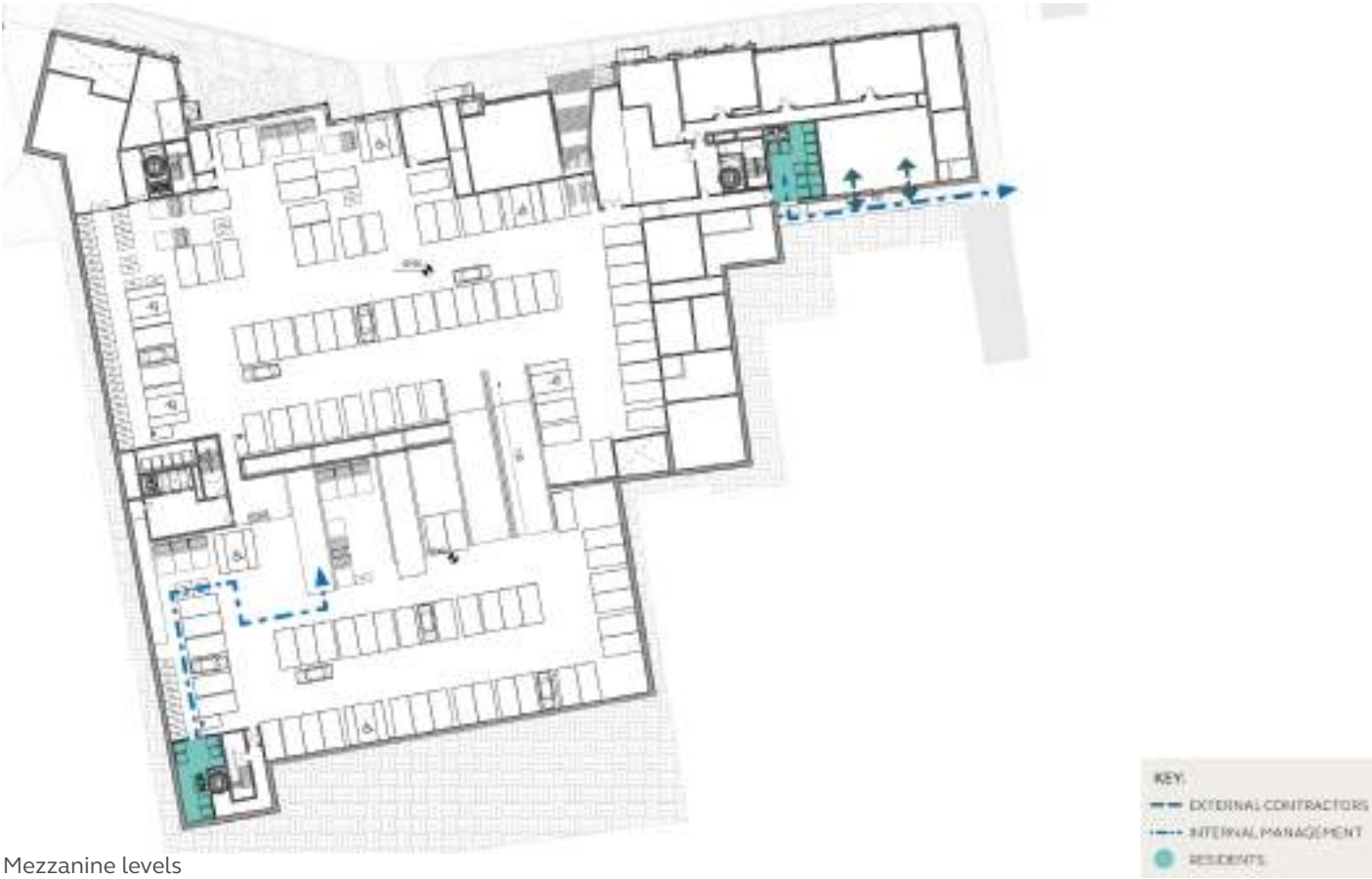
Due to the location of collection, the storage areas have been annotated as ‘main’ and ‘satellite’. The building’s management team will trolley the bins from the satellite to the main refuse area. Bins will then be taken to the refuse vehicle or to an allocated collection zone within the main refuse area. Refuse vehicles will park in the service yard to remove bins from Plot E and will pull up on Merchants Place to service Plot F. A further description of this strategy is set out in PBA’s Transport & Waste Strategy document.



Lower ground floor



Ground floor

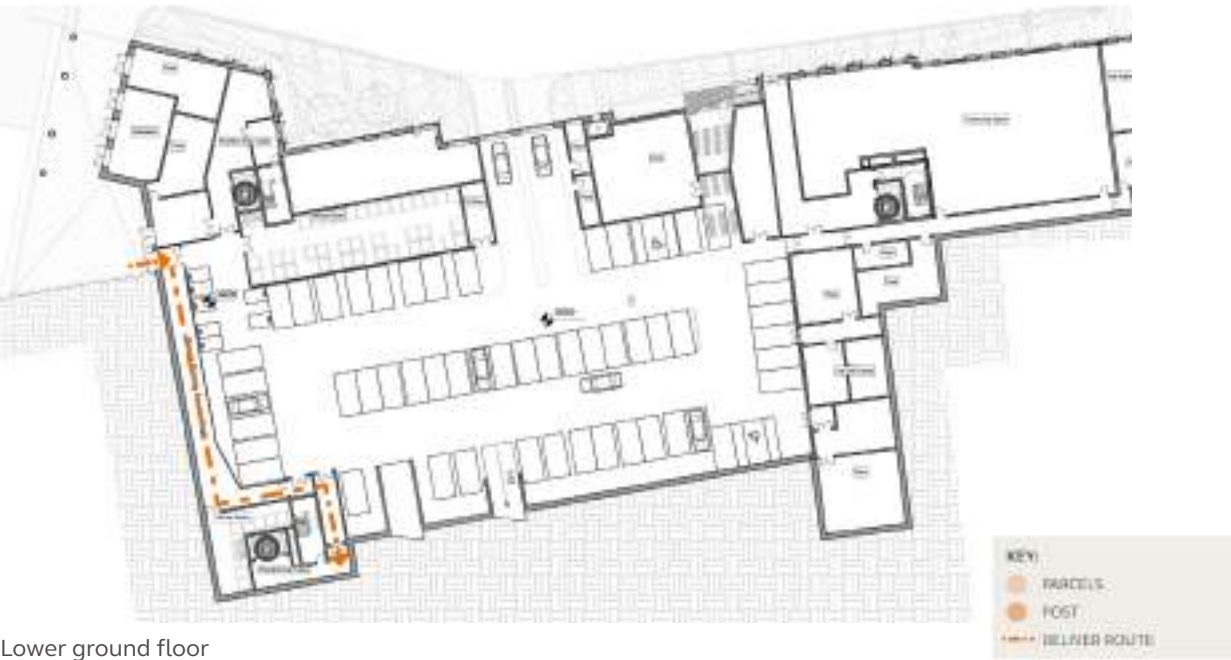


Mezzanine levels

5.10
DELIVERIES & POST

As discussed previously, service vehicles enter the site at the service bay entrance off Garrard Street. When entering underneath the building, the post van and delivery vehicle will park in a safe, allocated parking bay. Once parked, they will contact the concierge and take post and goods along the secured service corridor to the central lift core.

Managed by the concierge, the goods will be taken from the lift and to their destination, the post room or the secure parcel room. The parcel room is set close to the core whilst the post room is a little further away as it is set a closer to the heart of the amenity and entrance area. Both rooms will be managed by the concierge. The layout of this circulation route minimises clashes with the day-to-day routes used by residents.



Lower ground floor



Ground floor

5.PROPOSALS

5.11 FIRE & MEANS OF ESCAPE

This fire safety statement has been prepared to accompany applications for Reserved Matters Approval for Plots E & F of the approved Station Hill development. The Outline Scheme has considered fire safety from the outset to ensure the parameter plans and design codes allow for a successful and safe scheme to be developed at Reserved Matters stage. This outline fire statement addresses the main fire safety items and principles and provides an overview of the requirements and recommendations the scheme will need to meet.

The fire safety strategy for the Station Hill development will be based on the guidance of Approved Document B (2006) Volume 2[4], BS 9991:2015[1] and BS 9999:2017[2].

It is based on a fire-engineered approach with mechanical ventilation and smoke extract; with sprinklers to all apartments and compartmentalisation of all units. Façades have been designed to ensure that non-combustible insulations are used and that cladding is fire-resistant. Friars Walk has been designed to accept the loadings of fire tenders and the building will also be accessible from Friar Street and Garrard Street.

Please refer to Hoare Lea's Fire Safety Report for the full strategy and approach.

5.12 ECOLOGY

To assess the likely significant ecological effects of the proposed development, an ecological appraisal has been undertaken. This included desk-based ecological research, a range of ecological site surveys including surveys for bats and birds, and consultation with relevant wildlife organisations.

The habitats present within the area of Plots E & F comprises mostly buildings and hard-standing. These habitats are considered to be of low quality and value although it was noted that the buildings within Plots E and F have potential to support breeding birds including black redstarts, a protected species of bird.

In order to protect against disturbance to breeding birds, including black redstarts, demolition and site

clearance works will be undertaken outside the main bird breeding season where practicable (i.e. within the months September to February inclusive). If these works cannot be restricted to within this period, an Ecological Watching Brief would be put in place during the main bird breeding season to ensure that nesting birds are not adversely affected. This would include a pre-demolition check to confirm if any birds including black redstarts and peregrines are breeding on site. If birds are found nesting on the site, their nests would be protected until the chicks have fledged.

The creation of new habitats within the completed development, including green roofs, bird boxes, bug hotels and ground-level tree and herbaceous planting, would provide new habitats for birds and invertebrates.



5.13
ENERGY SUSTAINABILITY/OVERHEATING

An energy assessment has been undertaken in line with Reading Borough Council's Core Strategy & Draft Local Plan, with a range of options considered to satisfy the key policies and regulations set out by Reading Borough Council, these can be summarised below:

- Reading Borough Core Strategy – Policy CS1 'Sustainable Construction and Design' states that all new developments must maximise the use of energy efficiency and energy conservation measures in their design, layout and orientation to reduce overall energy demand.
- Reading Borough Draft Local Plan – Policy H5 'Standards for New Housing' states that all major new-build residential development should be designed to achieve zero carbon homes.
- Reading Borough Draft Local Plan – Policy CC4 'Decentralised Energy' states that any development of more than 20 dwellings shall consider the inclusion of a CHP plant, or other form of decentralised energy provision, within the site, unless it can be demonstrated that the scheme is not suitable, feasible or viable for this form of energy provision. Further to this, where there is existing decentralised energy provision, developments of over 10 dwellings will be expected to link into this energy network or demonstrate why this is not feasible.
- Reading Borough Draft Local Plan – Policy CC2 'Sustainable Design and Construction' states that all major non-residential developments are required to meet the most up-to-date BREEAM 'Excellent' standards where possible.

The proposed sustainability strategy for the Station Hill Plot E & F has been optimised to achieve the greatest possible carbon dioxide reduction for an all-electric heating for a private residential development. This would provide more robust and 'real' ongoing carbon savings due to the decarbonisation of the grid supply and therefore future-proof the development. As expected the carbon saving results for SAP 2012 and the proposed SAP 10 are very different which reflect the change in carbon factors of electricity from 0.519 kg CO₂/kWh to 0.233 kg CO₂/kWh. The results using the SAP 10 carbon factors reflect how the dwelling will perform now and this will only improve in the future as the grid becomes cleaner.

In addition to the clear carbon savings, an all-electric approach will help to reduce the likelihood of overheating due to a lack of heat distribution pipework around the building and in the communal corridors, together with the associated energy for ventilating these spaces. There will also be a space saving, a cost saving of installation and operation, and a reduction of site waste, water use and materials as the heating and power will be provided by the same medium. This development will also not increase NOx emissions in the centre of Reading from boiler and CHP emissions.

The table across summarises the performance of each option against the various feasibility measures. As shown in the table, Option D, the all-electric strategy, performs best overall and is the recommended strategy for this development.

A full report of the above of this can be found in appended Energy Strategy prepared by Hoare Lea M&E Consultants.

Microclimate (Wind)

A wind tunnel assessment was conducted to determine the likely significant effects of the development on the local wind environment. The assessment used the Lawson Comfort Criteria to benchmark the wind microclimate and focused on the results for the winter and summer seasons.

Multiple configurations were considered, including the maximum parameters plans within the context of both existing and cumulative surrounding buildings.

Meteorological data acquired for Heathrow indicates prevailing winds blow from the south west throughout the year with secondary springtime winds from the north east.

Wind conditions in and around the existing Site are suitable for their current use. With the introduction of the proposed development, wind conditions become windier in and around the Site, with localised areas where conditions exceed the recommended criteria for their intended use. These occur at ground level around Plot A and Plot B and on roof terraces on Plot E in both the unmitigated and mitigated scenarios. Furthermore, there are occurrences of strong winds exceeding the pedestrian safety criteria within the northern part of the site.

	SAP 2012 Carbon Savings	SAP 10 Carbon Savings	Technical Feasibility	Practical Feasibility	Financial Feasibility	Overall
Option A – Boiler & CHP						
Option B – ASHP						
Option C – GSHP						
Option D – All Electric						

A wind mitigation strategy comprising shrubs and porous screens have been developed to help alleviate windy conditions on the roof terraces of Plot E.

Windier than desired conditions within the northern part of the Site would be alleviated when their detailed design comes forward.

With the introduction of the detailed design of Plot B within the context of cumulative surrounding buildings, wind conditions are improved across the northern site such that there are no exceedances of the pedestrian safety criteria.

Wind conditions in and around the proposed development are generally consistent with the assessment included in the 2015 ES.

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5.14 SECURITY SUMMARY (HOARE LEA SECURITY)

Introduction

The high-level aim of the security design for Plots E & F is to provide appropriate and proportionate security risk mitigation measures that allow residents and users to not only be, but feel, safe and secure.

A formal security risk assessment has been undertaken in order to determine the security requirements across the Station Hill development. This approach has provided a robust, auditable methodology to identify the security risks posed to the site or assets and subsequent treatment measures. This SRA was completed at masterplan level, then the defined strategies applied to Plots E & F. As part of the SRA a detailed threat assessment has been completed that has identified the design basis threats from which the security risks have been assessed.

Throughout the process there has been engagement with both internal and external development stakeholders. The Thames Valley Police Designing Out Crime Officer (DOCO) has been consulted by Hoare Lea security. Appropriate consultation with the Police’s Counter Terrorism Security Adviser (CTSA) is through the DOCO.

This Design & Access Statement has been structured around key headings taken from international best practice for the incorporation of security design into projects, such as Crime Prevention Through Environmental Design (CPTED). It outlines those elements that have been derived from the security as well as architectural design.

Access and Connectivity

A layered approach to security will be adopted for Plots E & F creating a series of security zones. This will be enforced through a mixture of electronic access control, mechanical access control (key locks) or through clear delineation of areas (see ownership). Another key principle within the zoning approach that has been included is that of ‘secure lobbies’ and the requirements within these for a degree of permissible access from users such as postal services. The zones that have been identified as applicable across the development are:

- **Public:** Accessible to everyone at all times with no ability to impose control measures.
- **Semi-public:** Space that is easily accessible to the general public. Typically, restricted outside of normal hours.
- **Semi-private – Owner/tenant:** Predominantly for the use of a limited, authorised population. Usually employs an electronic or procedural access control measure.
- **Semi-private – Ops:** Predominantly for the use of a limited, authorised population. Usually employs an electronic or procedural access control measure.
- **Private:** Private areas with limited access to authorised individuals and guests. Guests usually escorted.
- **Restricted:** Contain critical or sensitive assets or reserved for a very exclusive user group. Visitors may be allowed but would always be escorted.

Pedestrian access into Plots E & F will be from Friar Street, Garrard Street (into lower ground) or the public realm between the plots. Where entrance points exist, secure lobbies are being created. There is vehicular access from Garrard Street. Access will be controlled through a flexible locking strategy based upon electronic access control systems, mechanical locks and operational procedures.

A number of emergency exit points exist at the base of stair cores. These are for emergency egress only.

Retail units have dedicated off-street access and there is no interconnectivity between residential and these spaces.

Externally accessible plant areas provide no access into the residential areas.

Vehicular access (service vehicles) will be from Garrard Street into a dedicated service yard. Control of access for deliveries and contractors into the cores will be via a dedicated approach route from this location and operationally managed access into the cores.

Structure and Spatial Arrangements

The security zoning has been applied to the current architectural designs and this will provide the basis for design development. Where security zones abut an adjacent zone greater than one factor higher (eg. public abuts semi-private) then this provides an additional focus for security measures.

The following have been considered in relation to the spatial arrangements:

- Reduction in the number of secluded spaces
- Spaces have a clear and identifiable function/use
- Location of mail boxes in lobbies to reduce requirement to approach residential doors
- Location of entrance points for retail/commercial separate from residential
- Location and access of refuse stores – accessible from public spaces with secured through access to development.

Surveillance

Surveillance requirements will be achieved through a balance of natural and active surveillance (video surveillance systems – VSS). The optimisation of natural surveillance – where space is naturally overlooked by users, residents and occupiers – has the increased benefit of reducing the need for active measures whilst remaining an excellent deterrent to crime within that space. This is particularly applicable with regards to the central public realm area between Plots E & F. It also provides benefit to the building curtilage/public areas.

Active surveillance will reinforce the natural surveillance as well as provide mitigation for those vulnerable areas identified within the SRA that are less able to benefit from natural surveillance, such as lift lobbies, parking and bike store. It can also be used to enhance surveillance in those areas where natural surveillance is limited to certain times of the day (eg. retail operating hours).

As part of the surveillance design there will also be integration and coordination with lighting design in order to support both active systems and natural surveillance.

Physical Protection

Physical protection of assets within the development will be as identified through the SRA or in accordance with SBD principles and Building Regulations Approved Document Q.

Any enhancements to public realm will integrate physical security requirements in the landscape design and will include crime prevention measures such as those designed to reduce the likelihood of anti-social behaviour such as rough sleeping. This will also provide control of vehicular access to the public realm between the plots.

Design of physical protection will be proportionate to the identified security risks and aligned to the principles of defence in depth.

Where retail facilities exist, security measures are being limited to physical security of access points only. For commercial areas, physical security of access points is also being included along with the provision of containment only for future installation of tenant systems.

Ownership and Activity

The development has been designed such that there are clear areas of ownership and intended activity of spaces. Areas such as the residents' terrace and amenity spaces provide a clear understanding of what space is to be used for.

Adaptability

Safety and security of a development is enhanced where there is adaptability within the space to manage changes in security needs. The flexibility in access permissions afforded by the electronic access control system provides opportunity to enhance or reduce security posture dependent upon any future potential needs. For example, horizontal and vertical compartmentalisation can be addressed should that fit with the operational security stance.

Operational Management

The security design allows for Plots E & F to be operationally managed on a day-to-day basis from either a central control room or locally in isolation. Servers and control PCs for the security systems will exist within designated spaces within server rooms to enable occasional management requirements such as new card issue or interrogation of video surveillance systems.

The management of postal deliveries has also been considered. In order to maintain residential security, the intent is that any deliveries will be made at reception areas on the ground floor accessed from B1. Larger deliveries will be made via the service yard and then to the ground floor.

5.PROPOSALS

5.14 RETAIL & LEISURE PROVISION, ACTIVE FRONTAGE, SHOPFRONT DESIGN

Successful new communities are more than just places to live and work; they are destinations and interlinked communities. For a development such as Station Hill to be successful, it needs to embrace a vibrant and diverse mix of uses, including retail. The market for retail, especially for the younger consumer, is quickly evolving and it cannot be predicted today how Station Hill will be retailed in 2022. As such the proposals are flexible to ensure that the offer will be relevant and successful when delivered.

The applicant is working with specialist agents and considering how a mix of uses and the experience they can offer could contribute to the ecosystem of Station Hill. This will differentiate it from other well-established locations in the town centre. The objective is to create a genuine sense of neighbourhood and attract the most relevant operators. These will be complementary to and not to compete with established local operators. As such it is envisaged that the offer that is likely to be successful is the service-led, smaller sized operator, artisan trades and local hero retailers. The following areas of retail are being considered by the applicant:

- Experiential retail
- Service retail
- Leisure activities
- Health & fitness

Should this mix be realised, the shopfronts will be of individual character and unique to the tenants. This will help create a more neighbourhood-like environment. It is most likely that the majority of restaurant/café's will have opening shopfronts, whereas the leisure and retail will require closed shopfronts. The landlord will provide guidance and strict approval processes to create a degree of order and a high-quality environment.

As noted in the Transport Assessment and Waste Management Strategy, the servicing of the units will be off Friar Street and Garrard Street and loading bays have been considered in relation to bus routes and traffic impacts as well as any negative impact on the residents. The refuse strategy is designed to minimise impact on the residents and refuse stores are allocated at the same level of the units.

Indicative unit sizes. Combinations may vary and sizes change as market understanding matures.

Plot E A1-A5 units (from north to south):		
Unit 1	105 m²	560 m²
Unit 2	85 m²	
Unit 3	59 m²	
Unit 4	52 m²	
Unit 5	115 m² (64/51)	
Unit 6	375 m² (88/123/164)	560 m²
Unit 7	70 m²	
Total	861 m²	
Plot F A1-A5/D2 units (from north to south):		
Unit 8	42 m²	234 m²
Unit 9	41 m²	
Unit 10	58 m²	
Unit 11	93 m²	
Total	234 m²	

Indicative floor space allocation table



Indicative layout for retail



View of junction of Friars Walk and Friar Street with retail on the left and main residential entrance along the new street

5.PROPOSALS

5.16 ARCHITECTURE

Architectural Expression

Given the scale of the proposed development and its likely impact on the surrounding public realm, the design team set itself the following guidelines to ensure that the highest quality architecture is delivered:

1. The architecture and layout should reinforce the development's placemaking role within the wider context.
2. The lantern elements should be articulated to emphasise their verticality and their place in the urban hierarchy. The base building should be scaled and modulated to relate to the lower-scaled street and to form a suitably-scaled urban edge to the surrounding district.
3. To activate the architecture so that the building is read as a residential building and relates to the immediate context. The use of domestic-scaled windows and balconies are seen as key to achieving this, as is the appropriate grouping of key elements in the façade.
4. To have a clear relationship between architectural expression and internal uses and organisation.
5. To scale the building appropriately and adjust its modelling to its immediate contexts whilst ensuring that the development has an overall architectural integrity.
6. To select appropriate materials and refine the proportions of the façade and the detail of construction.

To ensure that the building is elegant, the articulation of the building's mass is further reinforced by the grouping of windows and the play of material finishes as well as the use of contrast between brick colours and other cladding materials.

The predominant material is brick and this is used in contrast to metal panels and stone cladding. A combination of a red brick and bronze-coloured metal cladding relates to colours on the existing commercial buildings on Friar Street, with greys relating to the elevations facing Garrard Street. A softer render colour and landscaping setting is proposed for the courtyard spaces.



ELEVATION TO FRIAR STREET



5.PROPOSALS

ELEVATION TO FRIARS WALK IN WIDER CONTEXT



Cross section from Friar Street, on the left, to the north site on the right showing the Plot E elevation to Friars Walk. This shows how the building rises from the lower-scale Friar Street towards the north site. The solid lines north of Garrard Street indicate the outline of the consented parameters volume. The architectural treatment changes along the length of Friars Walk to reflect the local contexts and to ensure that variety of expression is built into the scheme.

ELEVATION TO FRIARS WALK



5.PROPOSALS

ELEVATION TO GARRARD STREET IN WIDER CONTEXT



Context elevation along Friar Street with Plot F on the left adjacent to the recently converted office building, Plot E on the right abuts the McKay Security building. The steps in the center lead to the landscaped Friars Walk and the elevations have extensive active frontage. The street will feel active, interesting and safe. The architecture is emphatically vertical giving the buildings an elegance of form with a hierarchy of base, middle and top arrangement.

ELEVATION TO GARRARD STREET



5.PROPOSALS

SOUTHERN COURTYARD ELEVATION



NORTHERN COURTYARD ELEVATION



5.PROPOSALS



5.PROPOSALS

BAY STUDIES TO FRIAR STREET

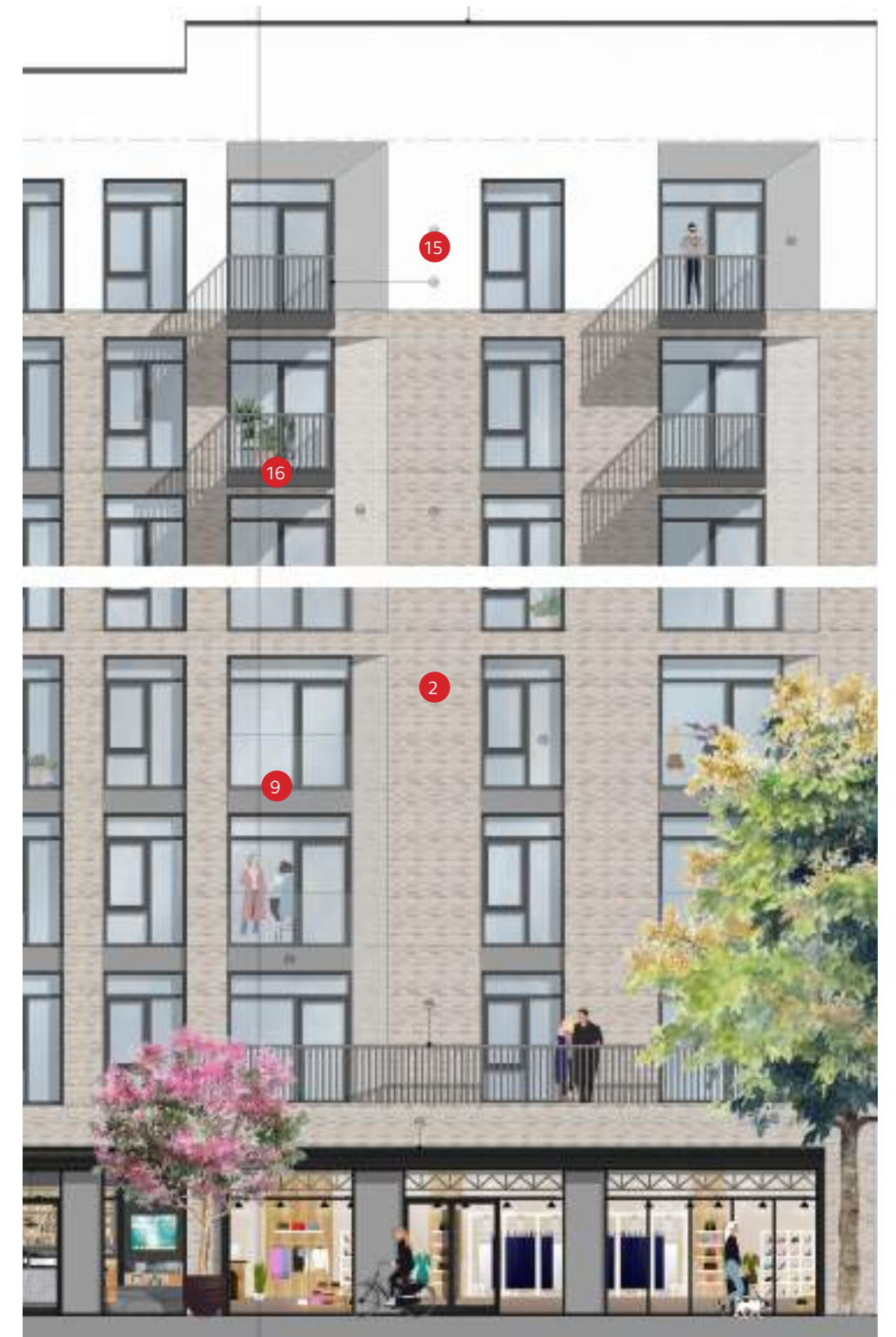
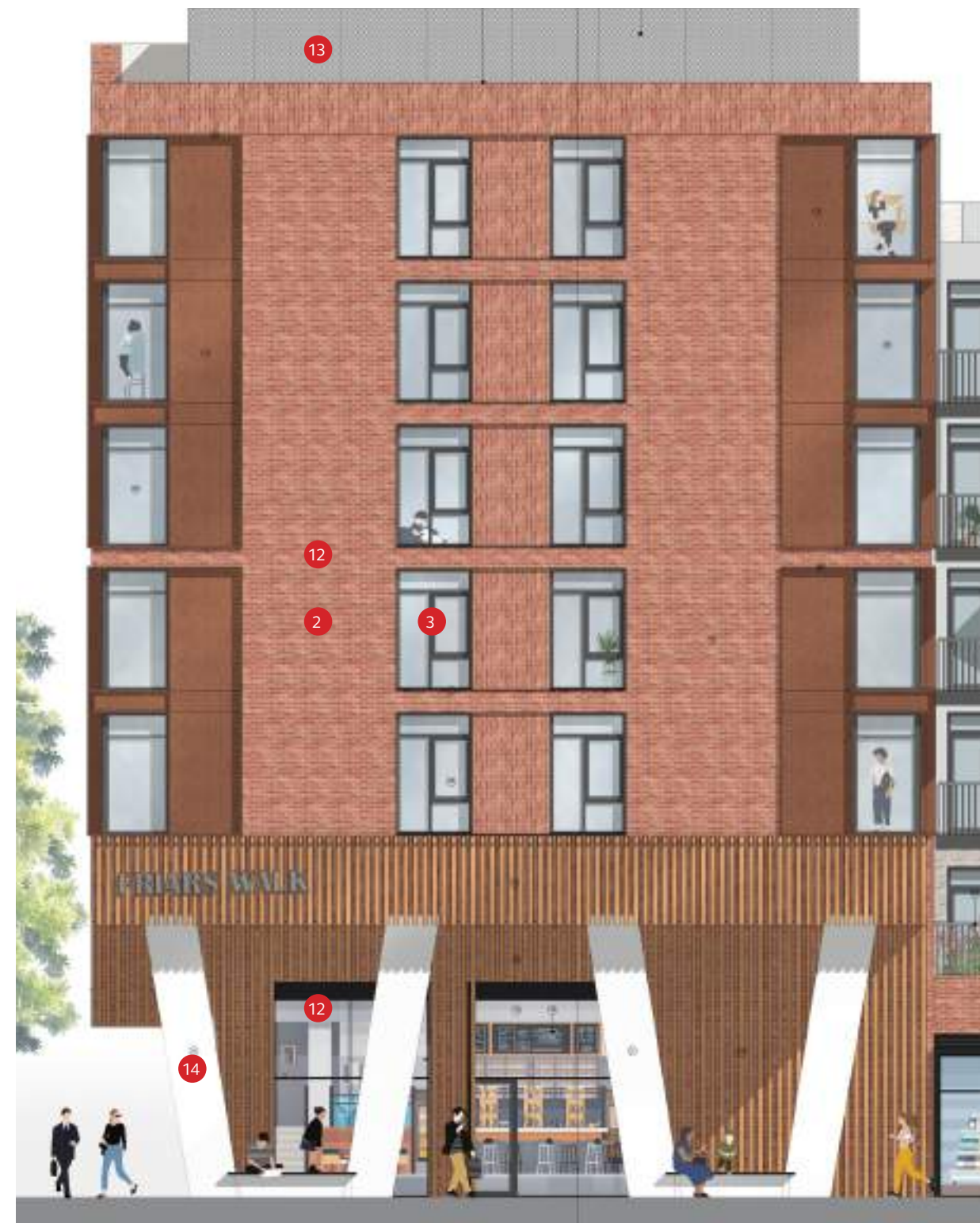
- 1 Aluminium external door
- 2 Brickwork horizontal course
- 3 Aluminium window
- 4 Angled projecting metal panel
- 5 Stone coloured cladding panel
- 6 Metal railing balustrade
- 7 Extruded metal frame around window openings
- 8 Metal cladding panel
- 9 Glass balustrade
- 10 Aluminium curtain wall
- 11 Aluminium window sills
- 12 Brickwork soldier course
- 13 Perforated plant screen
- 14 Metal cladding to columns
- 15 Render system
- 16 Metal railing balcony
- 17 Canopy with signage above



5.PROPOSALS

BAY STUDIES TO FRIARS WALK: PLOT E & PLOT F

- 1 Aluminium external door
- 2 Brickwork horizontal course
- 3 Aluminium window
- 4 Angled projecting metal panel
- 5 Stone coloured cladding panel
- 6 Metal railing balustrade
- 7 Extruded metal frame around window
- 8 Metal cladding panel
- 9 Glass balustrade
- 10 Aluminium curtain wall
- 11 Aluminium window sills
- 12 Brickwork soldier course
- 13 Perforated plant screen
- 14 Metal cladding to columns
- 15 Render system
- 16 Metal railing balcony
- 17 Canopy with signage above



5.PROPOSALS

BAY STUDIES TO GARRARD STREET

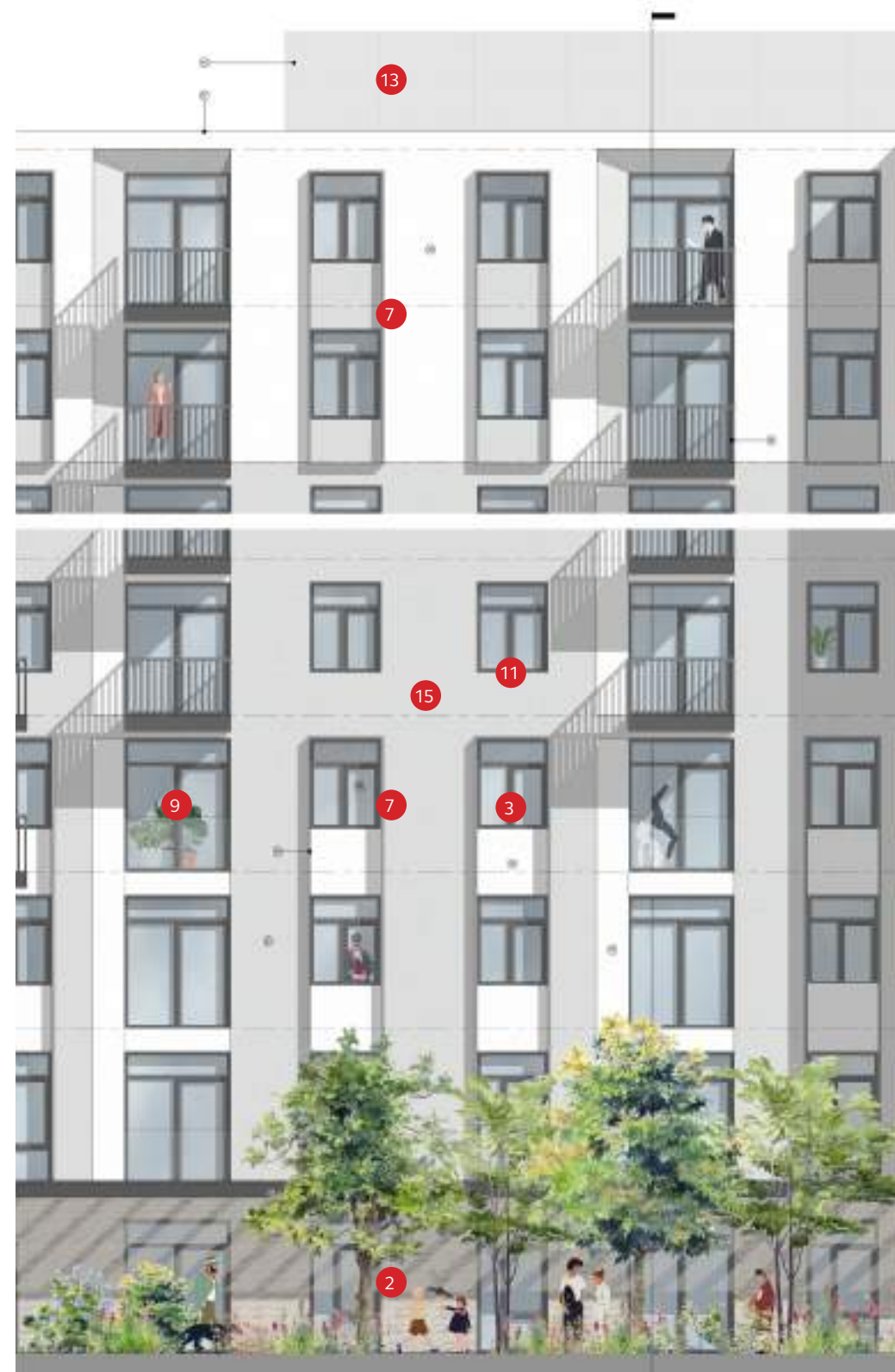
- 1 Aluminium external door
- 2 Brickwork horizontal course
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- 13 Perforated plant screen
- 14 Metal cladding to columns
- 15 Render system
- 16 Metal railing balcony
- 17 Canopy with signage above



5.PROPOSALS

BAY STUDY TO COURTYARD

- 1 Aluminium external door
- 2 Brickwork horizontal course
- 3 Aluminium window
- 4 Angled projecting metal panel
- 5 Stone coloured cladding panel
- 6 Metal railing balustrade
- 7 Extruded metal frame around window openings
- 8 Metal cladding panel
- 9 Glass balustrade
- 10 Aluminium curtain wall
- 11 Aluminium window sills
- 12 Brickwork soldier course
- 13 Perforated plant screen
- 14 Metal cladding to columns
- 15 Render system
- 16 Metal railing balcony
- 17 Canopy with signage above



5.17 CONCLUSION

The proposed development will deliver 538 new Build to Rent homes in Reading (including socially affordable units) within a well-managed and attractive development. It will deliver a high-quality environment, with strong placemaking characteristics and attractive architecture, all within the heart of the town centre. It will begin the realisation of Reading Borough Council's ambitions to rejuvenate Station Hill.

The architecture will be distinctive and responsive to the character of Reading. The articulated massing of the building will ensure that the development will have an appropriate scale and relate to the various contexts in which the building sits: Friar Street, Garrard Street and the new Friars Walk. Window arrangements and details, balconies and shopfronts will create rhythm and grain to the elevations and ensure that the building will enhance its context and have a neighbourhood feel.

Materials have been carefully selected to reinforce this strategy with the taller Garrard Street elevations clad in a silver-grey brick with red decorative elements and the lower elevation to Friar Street clad in red brick and in tones that relate to the surrounding street. Metal is used judiciously to create emphasis or distinction. The lanterns are clad in stone-like material to create special moments in the urban hierarchy.

The design is highly-resolved, down to the excellent back of house facilities and service areas ensuring that the scheme functions correctly. A well-managed building will ensure that tenants choose to live in Station Hill and that the public realm remains attractive for many years. The efficient functioning of the building has been validated by detailed technical appraisals and studies that address everything from sunlight/daylight, wind, heritage and views to refuse and energy strategies. These are all submitted with this application.

A significant amount of time and effort has been invested in developing proposals for the public realm and working with the Council to ensure that the development delivers improvements to Garrard Street and Friar Street and as well as delivering a high-quality hard and soft landscape around the building, in the residential courtyards and in particular to Friars Walk. This work will deliver important placemaking benefits to the wider area, making the pedestrian experience of Reading town centre more pleasant and enjoyable and providing greater permeability between the station and the town centre.





View of Friars Walk from the north looking south towards Friar Street





6

LANDSCAPE & PUBLIC REALM LDA DESIGN

6.LANDSCAPE & PUBLIC REALM

6.1 LANDSCAPE STRATEGY

6.1.1 Context and Scope

LDA Design were commissioned by CRTKL to provide landscape design proposals for the public realm, podium courtyards and roof top amenity space. This section describes landscape proposals within the planning boundary for these external areas and includes site analysis, design approach and a description of landscape proposals through:

- Landscape and public realm design principles
- Illustrative plans
- Key views and sections
- Access and furniture strategies
- Hard landscape material palette
- Soft landscape material palette
- Biodiversity strategy
- Play strategy

The design philosophy for the landscape and public realm for Station Hill is to provide a vibrant, multifunctional place where the landscape provides a connection between people and place, in line with LDA Design's 'first life' approach.

LANDSCAPE / 'lan(d)skeip /

Origin

land, old English, meaning 'home territory' or a place where people belonged.

scape, from the German *schaffen* and old English *scapan*, meaning to create or make.



6.1 LANDSCAPE STRATEGY

6.1.2 A Place to Belong

Reading has long been an important commercial centre. In the 18th and 19th century, it became known for the 3Bs: brewing, baking and bulbs, with companies such as Suttons, Huntley & Palmers and H&G Simmonds Brewery thriving here. More recently, Reading has become a tech hub; Microsoft picked Reading for its UK headquarters.

Station Hill is an incredible opportunity to connect the station to the wider town. It will be both dramatic and intimate, social but with quiet, sunny lunch spots; a place that leads you on to explore Reading itself, but that also softens the steps of increased footfall; a place that offers a real sense of Belonging - Reading's fourth B.

Our vision draws on the landscape to create a new, flexible gateway to the city. Station Hill will be distinctively of its place, a signpost for an emerging Reading, reflecting its rich history and huge future.

If location is everything, then Station Hill has it all. Connecting the station to the wider town, this vibrant new neighbourhood brings the sociability and community feel of a village to the heart of bustling Reading.

Step out on the weekends to discover market stalls laden with local Thames Valley produce. In summer, classic film screenings, or pop-up events from table tennis to urban swings might enliven Friars Walk. As the weather turns chill, a hot chocolate from the winter market will help to keep you warm.



6.LANDSCAPE & PUBLIC REALM

6.1 LANDSCAPE STRATEGY

6.1.3 Uses and Movement

Underlying the landscape concept is a thorough study of the site context, including analysis of vehicular and pedestrian movement, adjacent uses and green spaces, historical context and topography, as well as the site's development history described earlier in this document.

A key objective for the proposed development is to improve connectivity of the city centre to the key open spaces, Christchurch and Kings Meadow to the north of the railway, and Forbury Gardens to the east.

Therefore, the public realm design aims to create an environment in which pedestrians come first, with clearly legible, safe routes, providing areas of interest, activity, resting, and green along the way. The layout of these differing zones corresponds to the ground floor uses.

On Friar Street the proposal builds up on and enhances the existing streetscape, an important traffic route especially for buses, with a well-used, currently mid- to lower end retail offer. The entry to Friars Walk, as the 'face to the city' of the development, will add a generous new open space to the street scene, midway between the Station Road and West Street intersections.

Friars Walk functions as a new retail destination in its own right, a 'front yard' for the residents, and a new pedestrian-only space, not just extending the system of north-south passages, but also providing generous, flexible open space.

The key objective is the improvement of the pedestrian experience, creating a high-quality, safe, and welcoming public realm that achieves better, well-used linkages and corresponds to the new active frontages.



6.1 LANDSCAPE STRATEGY

6.1.4 Site Analysis

The layout of the public realm proposals responds to the factors influencing the local microclimate, such as sunlight, wind, and topography.

The sunlight and shade diagrams to the right show how the sun moves through the day highlighting the Friar Street frontage as mostly shade-free, Friars Walk due to its south-north orientation with good mid-day exposure in the summer and pockets of sun throughout the day and year, while Garrard Street is generally more shaded except for the northern half and towards morning and evenings.

The courtyards and lower terraces of Plot E receive morning and mid-day sun mostly in summer, with the southern terrace benefitting from longer periods due to the Friar Street building being lower.

The rooftop terraces receive full sunlight throughout.

Initial wind testing shows that the proposed building massing and landscaping achieve a comfortable environment throughout. The rooftop terraces will benefit from additional screening to facilitate long-term seating (refer to the separate wind testing report).

Potential urban heat-island effects in this largely built-up urban setting are addressed by maximising vegetation and choosing adequate paving materials.



21st June 9am



21st June 1pm



21st June 5pm

6.LANDSCAPE & PUBLIC REALM

6.1 LANDSCAPE STRATEGY

6.1.5 Scale

Comparisons of the scale of the public space have been taken with similar, linear pedestrian spaces in recent schemes, such as the examples shown on the right.

Key for the spatial composition of the main open space within the proposed development, Friars Walk, is to take advantage of the distinct geometry of the linear space resulting from the positioning of the buildings. This structures the predominantly linear space into alternating wider and narrower areas, which allows the creation of a sequence of distinct spaces for different uses and with diverse qualities.

The staggered layout of these spaces offers a new quality to the network of the traditionally very narrow south-north alleyways in Reading's city centre. While these are important connectors, beloved by many residents and characteristic for the historic grid, they can feel too tight, dark and dirty. The ambivalence of their sub-standard functionality and romantic notion is well captured in the 'Smelly Alley' moniker.

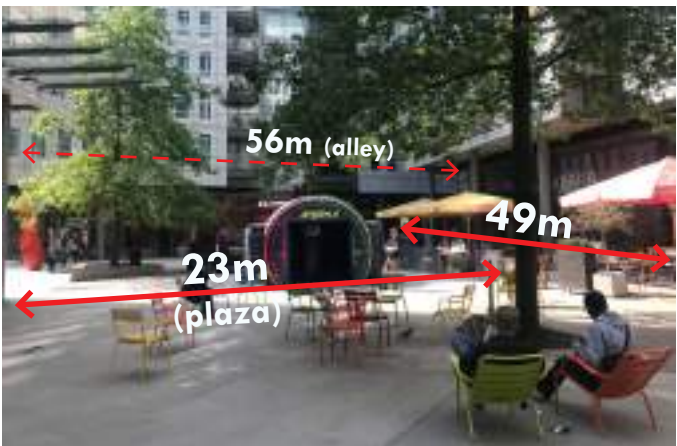
In contrast, Friars Walk is designed to receive sufficient sunlight and to create a visual connection between the public realm and the first floor amenity terraces, therefore creating a safe and sociable environment and future-proofing the development for successive development of the site north of Garrard Street.



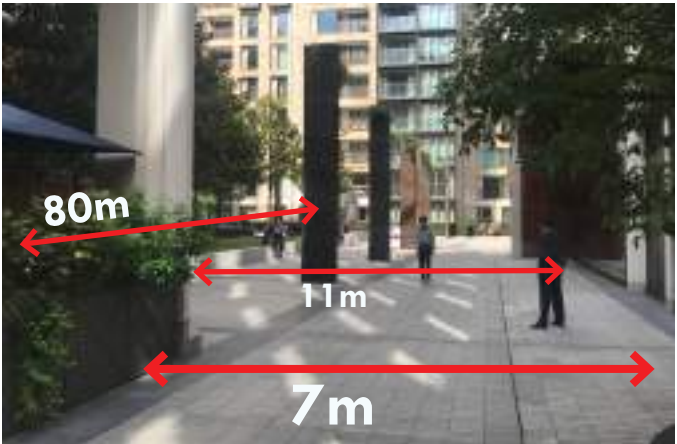
Station Hill



Pavilion Road, Knightsbridge



Central St. Martins, London



Fitzroy Place, London



6.2 LANDSCAPE PROPOSALS

6.2.1. Landscape Master Plan

The design of the public realm has been developed to meet the following key objectives:

- Making the development an integral part of the city under consideration of the local context.
- Improving connections into and through the development.
- Defining a strong, identifiable residential address and a new retail destination that complement the existing city centre's offer.
- Creating a place to belong where residents, workers, neighbours and visitors can mix.
- Offering high quality shared amenities that foster a strong sense of community and allow residents to feel at home.
- Building in flexibility and for future development surrounding the site in a changing part of the city without compromising the current scheme.
- Providing a safe and secure community at the heart of the city.
- A beautiful, sustainable landscape to be enjoyed by all.

The following pages describe the main areas of the landscape master plan in detail:

- Friars Walk
- Garrard Street
- Residents' amenity courtyards and terraces



6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.2 Friars Walk

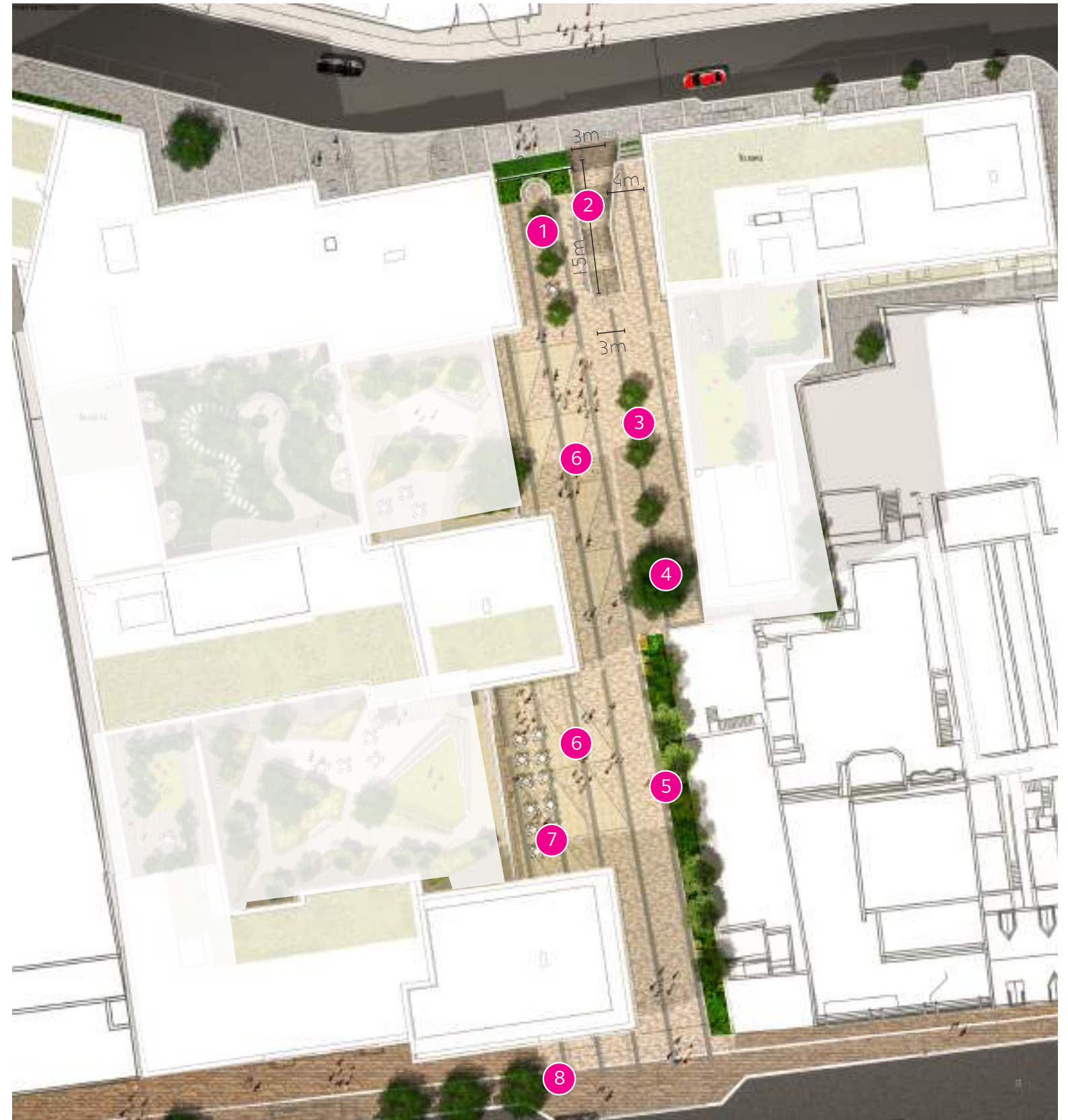
While predominantly a hard-surfaced podium landscape, Friars Walk has been designed to become an integral part of the city centre's urban fabric. Key elements in this are the provision of soft landscape areas at grade along the south-eastern site boundary, and the feature tree in the centre of the site.

The staggered layout of the wings of Plot E naturally creates protected areas that are adaptable for café and retail spill out, and movable planters will be strategically placed to define this.

To the north, the podium edge is bisected by a simple, straight staircase leading onto Garrard Street, glass balustrades define a clean edge, softened by adjacent planting.

A unifying surface patternation inspired by the traditional layout of alleyways (a linear paving or drainage channel band traversed by perpendicular paving courses) and pedestrian movement is applied across Friars Walk.

- 1 Spill out area with raised planter and integrated seating, movable planters and f+b table and chairs.
- 2 Steps to Garrard Street with integrated seating and planters.
- 3 Movable planters to retail entrances.
- 4 Feature tree to Friars Walk with a light canopy, Liquidambar or similar.
- 5 Planted edge with integrated play wall and seating edge.
- 6 Paving patternation and banding inspired by traditional alleyways and pedestrian movement. Quality public realm materials that are durable and hard wearing.
- 7 Spill out table and chairs adjacent to retail frontages.
- 8 Existing paving and replaced/added trees to Friar Street.



6.LANDSCAPE & PUBLIC REALM



Intimate seating areas surrounded by green



Spill out seating and movable planters



Paving patternation inspired by pedestrian movement



Perimeter planting screening adjacent building wall



Movable seating to f+b

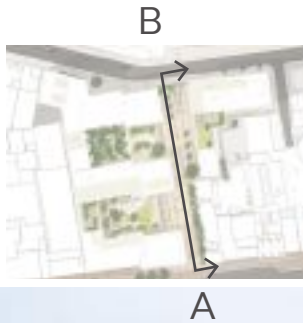


An active playable landscape edge



Feature tree with light canopy (Liquidambar)

6.LANDSCAPE & PUBLIC REALM



Section through Friars Walk looking east



View of Friars Walk looking north

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.3 Garrard Street

The public realm design for Garrard Street aims to create a comfortable, safe environment for pedestrians, reinforcing connectivity between Reading Station and the city centre, as well as leading into the proposed development and offering a pleasant entry area to the residential building lobbies and the D2 space in Plot F.

The buildings are set back, resulting in a generous footway width of 4.4m at Plot E, and 3.0m (min.) at Plot F. The paving layout and materials match Friars Walk, but darker colour tones are chosen for pedestrian and vehicle-overrun areas alike, to achieve a visually continuous pedestrian realm.

A small pocket plaza with large trees is the focal point in the street seen from Station Road. Comfortable seating and shade-tolerant planting make this space a welcome refuge.

Proposed improvements to the public highway, such as lay-by's and taxi ranks are described in the traffic statement and to be covered under a Section 278 agreement.

The strategy for navigating the level change to Friars Walk is described on the following pages.

- 1 Pocket entrance square with tree and seating
- 2 Vehicle crossover to service yard
- 3 Vehicle crossover to parking
- 4 Stairs to Friars Walk
- 5 Screen planting including climbers
- 6 Movable planters to Garrard Street



Pocket Square



Stepped planters



Movable planters



Active frontage

6.LANDSCAPE & PUBLIC REALM



Section through Garrard Street looking south

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.4 Friars Walk stairs

The transition from Garrard Street to Friars Walk is of crucial importance to deliver a cohesive public realm.

Physical access over the 6.6m level change is achieved via a straight run of 4 flights of steps, designed as simple elegant stairs bisecting the podium edge. The stairs widen from 3m at the top to 5.7m at the bottom, and the surrounding podium edges are envisioned as a solid, textured surface, elegantly lit and flanked by planting both at the base and top of the podium. The visual connection from Garrard Street to the planting and activity at the upper level on Friars Walk is crucial in creating a cohesive public realm across the levels.

However, often areas like this are less well used at the podium level as they tend to be peripheral. Here this will be avoided through the provision of ample seating, be it relaxed and communal surrounded by green, or bar-style seating allowing people-watching in this sunny lunch-time spot.

A 24-hr access lift integrated in Plot E ensures full accessibility for all.

While the proposal ensures that Garrard Street both retains its function as a hard-working city street, providing service access to a number of large buildings, and becomes a quality pedestrian link embedded in the city's public realm fabric, it is also adaptable for a future development to the north of the site, as illustrated in the sketches at the top right.

- 1 Simple elegant stairs between Friars Walk and Garrard Street
- 2 Stool seating and lean rail at the podium edge
- 3 Soft planted edge to Friars Walk
- 4 Terraced planting to stairs



Seating to edge



Seating to edge



Simple elegant stairs



Illustrative view of stairs



Illustrative view of stairs



Section through stairs

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.5 Courtyards and Podium Terraces

The sketch diagrams to the right show the underlying design principles used in the development of the design for the outdoor amenity spaces on the Plot E podiums.

Firstly, the relationship between the double-height space of the main residents' lobby, the interior amenity space and the access to the outdoor spaces allow visibility of the landscape through the building. The proximity of various indoor and outdoor amenity uses support community cohesion.

It is important to not consider the design and uses of the amenity spaces in isolation, but to consider its importance for the whole building, i.e. the microclimate, views (especially the various perspectives from the flats throughout the building), and noise (both potentially disturbing and positive/lively). A key potential lies in the creation of a strong identity for the building, instilling a distinct sense of place.

The following pages show the proposals for the various terraces in detail.

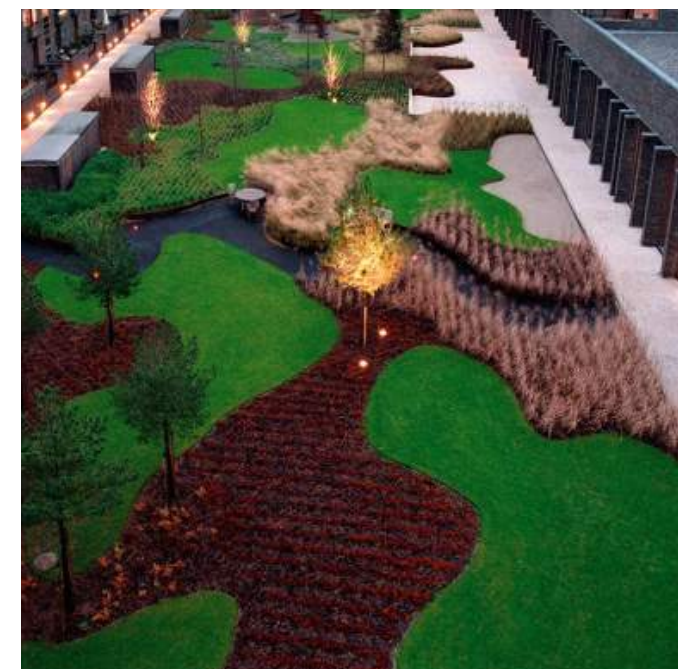
Design Development Principles:



Inside/outside connectivity: the landscape supports movement through the building and links amenity spaces.



A landscape with a strong graphic identity experienced from different perspectives.



Distinct landscape characters and design language create a sense of place and react to local conditions (such as sun and shade).



6.LANDSCAPE & PUBLIC REALM

- 1 Podium Courtyard, Level 00 (The Woodland Retreat)
420m² incl. 240m² green roof

- 2 Terrace Level 01 (The Alcove)
340m² incl. 104m² green roof

- 3 Terrace Level 01 (The Garden Terrace)
600m² incl. 254m² green roof

- 4 Rooftop Terrace Level 06
144m² incl. 19m² green roof

- 5 Rooftop Terrace Level 11
420m² incl. 64m² green roof



Aerial view looking west

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.6 The Woodland Retreat

This courtyard is located north-west of and accessed through the main residents' lobby in Plot E. As the only larger open space on ground level it complements Friars Walk, albeit is accessible for residents only.

The design builds on the limited sunlight exposure due to the courtyard's location in the building. A dense woodland garden is proposed in contrast to the more open level 01 terraces, where more sunlight warrants the provision of more hard surfaced, open and flexible space. Here, the open space is mostly given over to lush understorey planting and woodland trees, supported by the larger soil build-ups that are possible due to the garage below. The planting creates sufficient privacy for the flats surrounding the courtyard, all of which have individual private amenity spaces.

A winding path, inspired by the shape of an opening frond of fern, leads from the lobby access to a quiet seating area, and a woodland 'trail' with stepping stones and large boulders offers a sense of adventure and playfulness to the space.

A porch with table and chairs offers spill out space adjacent to the groundfloor shared amenity space inside the building.

- 1 Porch with movable table and chairs / spill out from interior amenity space
- 2 Private amenity spaces to individual units
- 3 Woodland walk with integrated natural play features
- 4 Central intimate seating area



Private amenity spaces



Lush shade planting visible from lobby



A woodland walk



Illustrative view of the Shade Garden

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.7 The Garden Terrace

The largest terrace is located south of the main Plot E lobby, on level 01. This terrace receives the best sunlight of all of the lower terraces, therefore the design has been developed to provide a larger area for communal uses here.

The space is divided into 4 main areas: the communal area, seen as an outdoor 'room', the gardens that enclose this room, private amenity areas around the perimeter, and a raised lawn.

As the centrepiece of the space the raised lawn with tiered timber seating edges allows a visible connection from the terrace to the public realm of Friars Walk. The lawn is large enough for picnics, games, or summer film screenings, maybe projected against the wall across Friars Walk.

The garden space features a route where residents can surround themselves with nature, with various small seating nooks to rest and linger, integrated into the raised planters.

Private amenity spaces are protected by denser screen planting at the garden's perimeter, including evergreens. The private spaces are deliberately not entirely enclosed to allow residents direct access to the central space and therefore activate it.

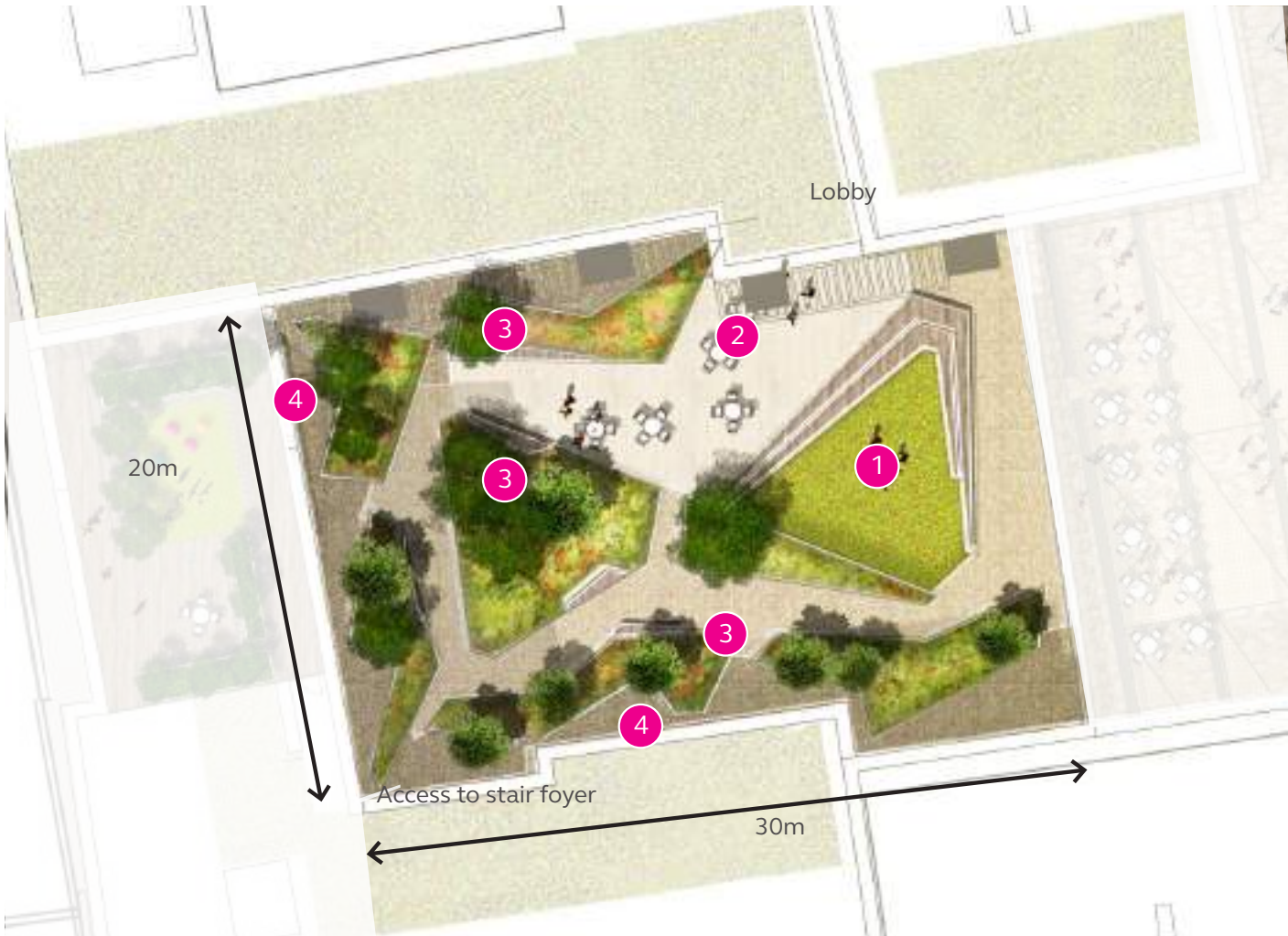
- 1 Tilted lawn with view
- 2 Amenity central 'room' and spill out area
- 3 Surrounding garden space
- 4 Private amenity areas



Amenity spill out furniture



Private spaces support activation



Tilted lawn with view



Central 'room' surrounded by garden



Lounge and garden furniture



Illustrative view of the Garden Terrace

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

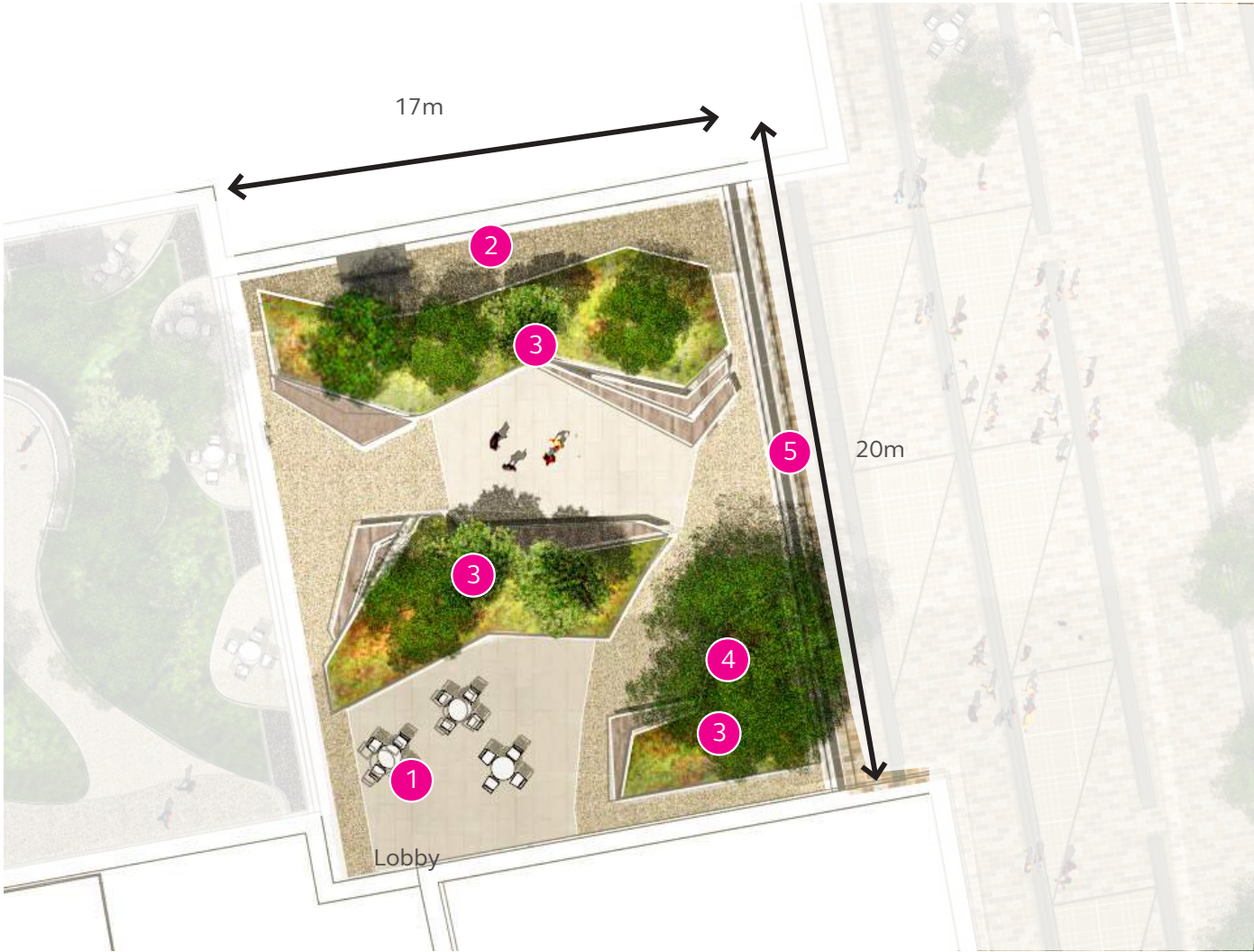
6.2.8 The Alcove

To the north of the main lobby, on level 01, the Alcove is a smaller counterpart to the Garden Terrace. It features similar raised planters, whose angular shapes create different 'rooms': a spill out space at the terrace entrance, an east-facing space overlooking Friars Walk, and a west-facing smaller nook overlooking the Shade Garden.

The planter edges include timber-clad seats, that are sculpted to lend themselves to lounging and play.

A feature tree makes visible connection to Friars Walk, and the northern planter separates two private amenity spaces for the adjacent flats.

- 1 Amenity spill out space
- 2 Private amenity space
- 3 Raised planters with sculpted seating edges
- 4 Feature tree
- 5 View to Friars Walk



Feature tree visible from street



Raised planters as furniture/playable objects



Intimate seating areas for small groups



Illustrative view of the Alcove

6.LANDSCAPE & PUBLIC REALM

6.2 LANDSCAPE PROPOSALS

6.2.9 The Rooftop Terraces

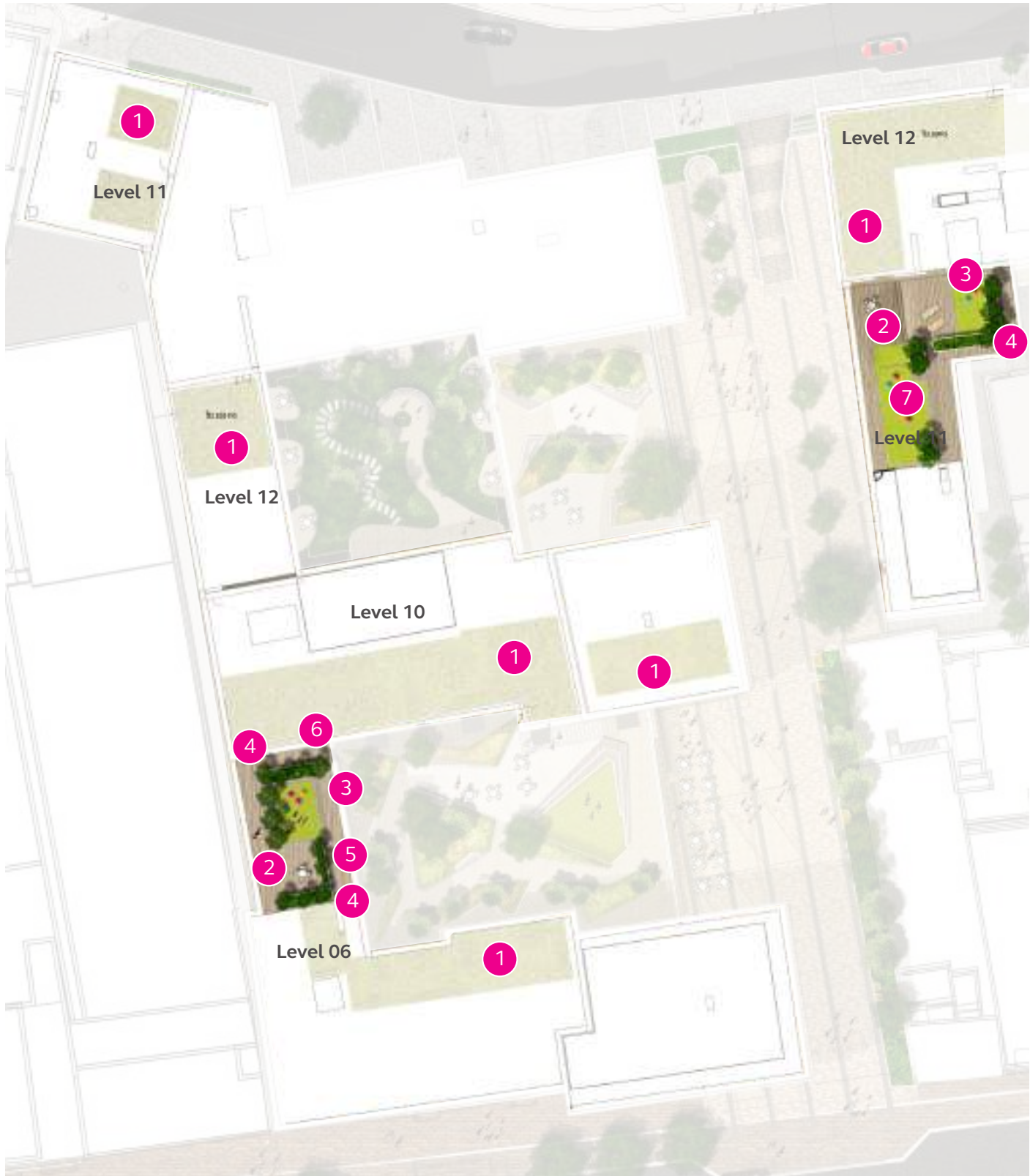
In addition to the larger communal courtyards and terraces described before, Plot E (at level 06) and Plot F (level 10) both feature rooftop terraces. These benefit from full sun exposure throughout the day.

Due to the exposed location, linear planters with native hedge planting are provided on both terraces to create a comfortable environment. It is suggested that more active uses in these areas are adequate, therefore artificial turf areas that can be used for play or as an outdoor gym are proposed, and on Plot E grow-your-own planters are provided for residents' use.

Seating areas are screened from the wind by small multistem trees in built-in planters and used by the residents for al fresco dining, socialising, and enjoyment of the views over Reading.

The total green roof area on each Plot (E & F) exceeds the 25% roof coverage required per planning condition.

- 1 Sedum Green Roof
- 2 Seating area
- 3 Artificial turf
- 4 Screen planting
- 5 Grow-Your-Own-Garden planters
- 6 Private amenity
- 7 Lawn



Views



Outdoor Gym



Playable Space



Sedum Green Roof

6.LANDSCAPE & PUBLIC REALM



Gathering/Dining



Lounging



Party/BBQ

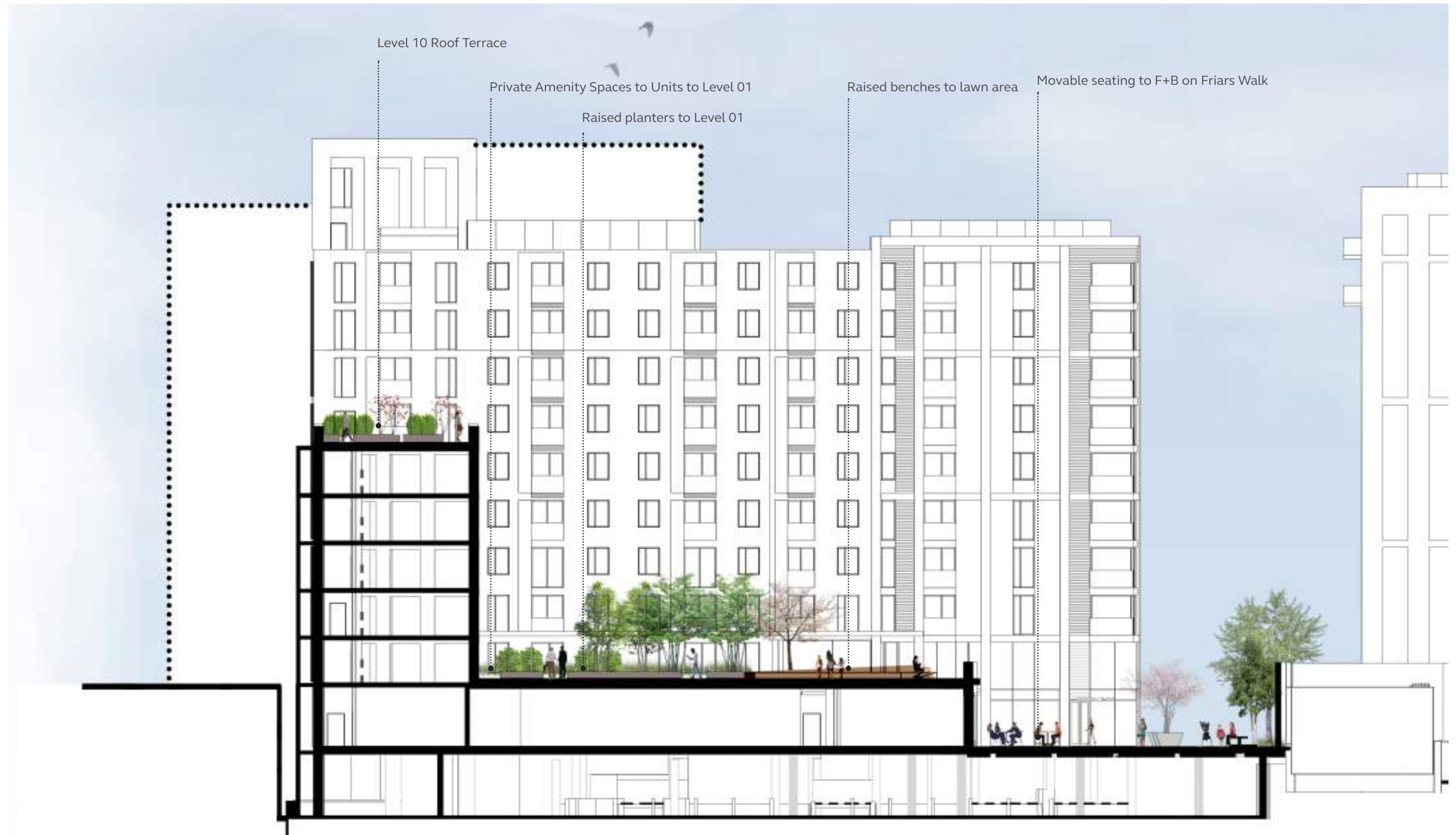


Resident Gardening



View of Plot E 10th floor Amenity Terrace

6.LANDSCAPE & PUBLIC REALM



Section through Plot E Rooftop Terrace, Level 01 Garden Terrace, and Friars Walk looking north



6.LANDSCAPE & PUBLIC REALM



Section through Plot E Woodland Retreat and Alcove, Friars Walk, and Plot F Rooftop Terrace looking north

6.LANDSCAPE & PUBLIC REALM

6.3 ACCESS & FURNITURE STRATEGIES

6.3.1 Access Strategy

Creating a pedestrian-friendly, safe and convenient environment for people of all ages and abilities was a key design objective in the development of the scheme. It is especially critical in a public realm that accommodates residents familiar with the site, the occasional visitor or shopper, as well as the passer-by that might not know the area at all.

The layout of the public realm supports this with a clear and legible layout. The main publicly accessible route from Friar Street into the site has been designed as a level, wide pedestrian-only route, that will be well-lit at night. The key benefit of this is convenient level access to the residential lobbies and all retail units on Friars Walk. The challenge of achieving the 6.6m level change from Friar Street down to Garrard Street is solved locally at the north end of Garrard Street, via a 3.15m wide straight run of four flights and a 24hr-accessible lift. It is proposed to realign the crossing on Friar Street to further improve access, and likewise install a new crossing roughly aligned with Friars Walk across Garrard Street. Both of these would be subject to a Section 278 agreement.

Street furniture, signage and lighting is carefully placed to avoid clutter. Ample seating and resting points are provided along Friars Walk and on the Garrard Street pocket square.

Level access is provided to the podium courtyard in Plot E, and all amenity terraces and courtyards are fully accessible via short internal graded routes (1:21 max.).

- Stairs between Friars Walk and Garrard Street
- Falls
- ▼ Spot levels
- ▲ Level access to all public and semi-private entrances
- Lift between Friars Walk and Garrard Street



6.3.2 Furniture Strategy

The placement of street furniture has been carefully considered to tie-in with the overall landscape master plan. The aim is to provide sufficient furniture in strategic locations and numbers to ensure seating areas are comfortable and well-used without being crowded. A degree of flexibility is built in through the provision of movable planters with seat edges, and chairs and tables that can be configured into various settings based on the needs of retail and F+B tenants and people's movement.

All furniture is selected to be robust, maintenance-friendly and sustainable.

Cycle parking (Sheffield stands) for retail visitors is located at either end of Friars Walk, to ensure the pedestrian area stays cycle free. For the overall cycle parking strategy, please refer to the traffic statement.

Vehicle mitigation bollards are proposed at the southern entry point to Friars Walk along Friar Street, including removable units to allow emergency vehicle access.

-  Benches
-  Movable planters with seating edge
-  Circular bench to raised planter
-  High stool seating and table
-  Movable table and chairs to F+B
-  Playable elements to play wall
-  8No. Cycle stands
-  Bollards



6.LANDSCAPE & PUBLIC REALM

6.4 MATERIALS

6.4.1. Public Realm Surfacing

The surfaces and materials throughout the public realm have been designed to provide site wide cohesion, a sense of durability and quality, whilst being light and welcoming.

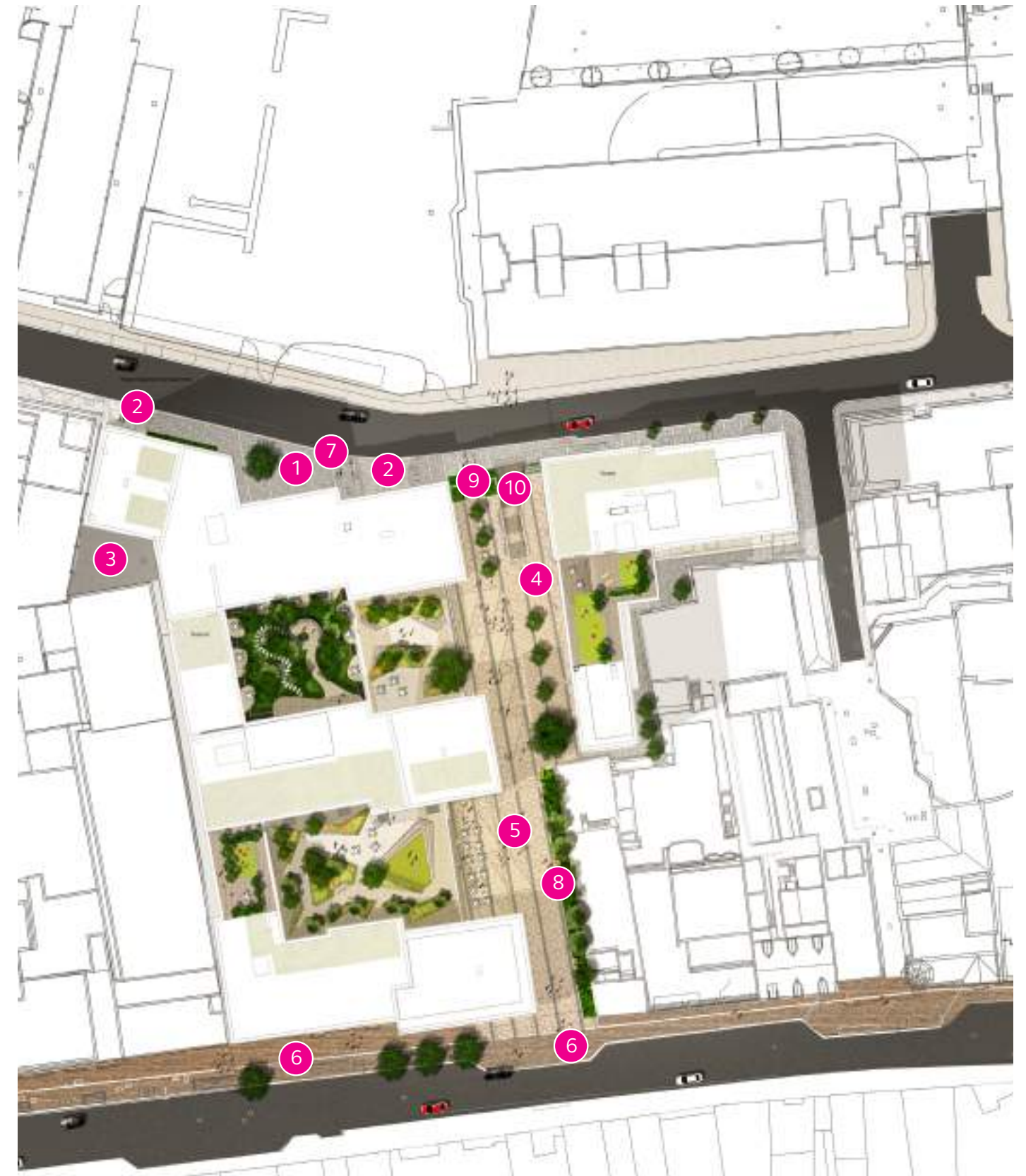
The layout of the Friars Walk paving takes its inspiration from a traditional alley, with a typical perpendicular paving transected by strong central lines running lengthwise through the street, which offer orientation and contain the linear drainage. The contrast of the smooth, dark paving bands and the textured perpendicular paving, which consists of a three colour mix complementing the buildings' facade materials, ties in with the design language used at the Reading Station forecourt. The proposed paving material is a robust, good quality concrete paving with natural stone aggregate (reconstituted stone).

A pattern of wedge shapes formed of larger flag pavers is overlaid, denoting areas of interest within the public realm and buildings, and adding a playful dynamic.

The pavement is designed to be robust, durable and slip-resistant, and to accommodate emergency vehicle access. The pavement along Garrard Street is designed in principal to match Friar Street, so as to create a cohesive public realm, but darker colour tones are chosen for a more seamless transition to the vehicle cross-overs, where darker block pavers are used.

The Friar Street pavement with the realigned crossing-point is proposed to match the existing brick paving, this area will be subject to a Section 278 agreement.

- 1 Paving Type 01/02
- 2 Paving Type 03
- 3 Asphalt
- 4 Paving Type 05/06
- 5 Paving Type 07
- 6 Brick Paving to match existing
- 7 Conservation kerb to Garrard Street
- 8 Playable wall to Friars Walk
- 9 Raised planter to Friars Walk
- 10 Steps



6.LANDSCAPE & PUBLIC REALM

Public Realm - Indicative Paving Types

Paving Type 01

Reconstituted stone flag paving, 400mm x 200mm, Indian, Charcoal and Mid Grey Granite; textured finish.



Paving Type 02

Reconstituted stone banding to Garrard Street, 400mm x 400mm; Light Granite colour; smooth finish.



Paving Type 03

Concrete sett paving, 100x200mm, to vehicular cross overs on Garrard Street footway; Indian, Charcoal and Mid Grey Granite; textured finish.



Asphalt

Asphalt service area to engineer's specification.



Paving Type 05

Reconstituted flag paving to Friars Walk, 200x400mm; Oatmeal, Indian and Light Granite colour; textured finish.



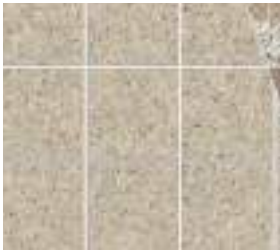
Paving Type 06

Reconstituted stone banding to Friars Walk, 400mm x 400mm, Anthracite Grey; smooth finish.



Paving Type 07

Reconstituted stone flag paving to Friars Walk, 400mm x 400mm, Light Granite colour; smooth finish.



Existing Paving

Brick to Friar Street to match existing.



Public Realm - Indicative Edge Types

Edge Type 01

Kerb to Garrard Street, conservation kerb, silver grey finish, 255mm x 300mm wide.



Metal Edge

Flush aluminium edge to Garrard Street planting.



Edge Type 02

Edge to linear planting at Friars Walk, bespoke playable edge; granite or reconstituted stone.



Raised Planter Edge

Raised planter to north podium edge, powder coated steel, RAL to complement architectural finishes.



Public Realm - Indicative Steps

Steps between Friars Walk and Garrard Street.

Reconstituted stone steps between Friars Walk and Garrard Street; Light Granite colour.



Tactile Paving

Tactile concrete flag and blister paving.



6.LANDSCAPE & PUBLIC REALM

6.4 MATERIALS

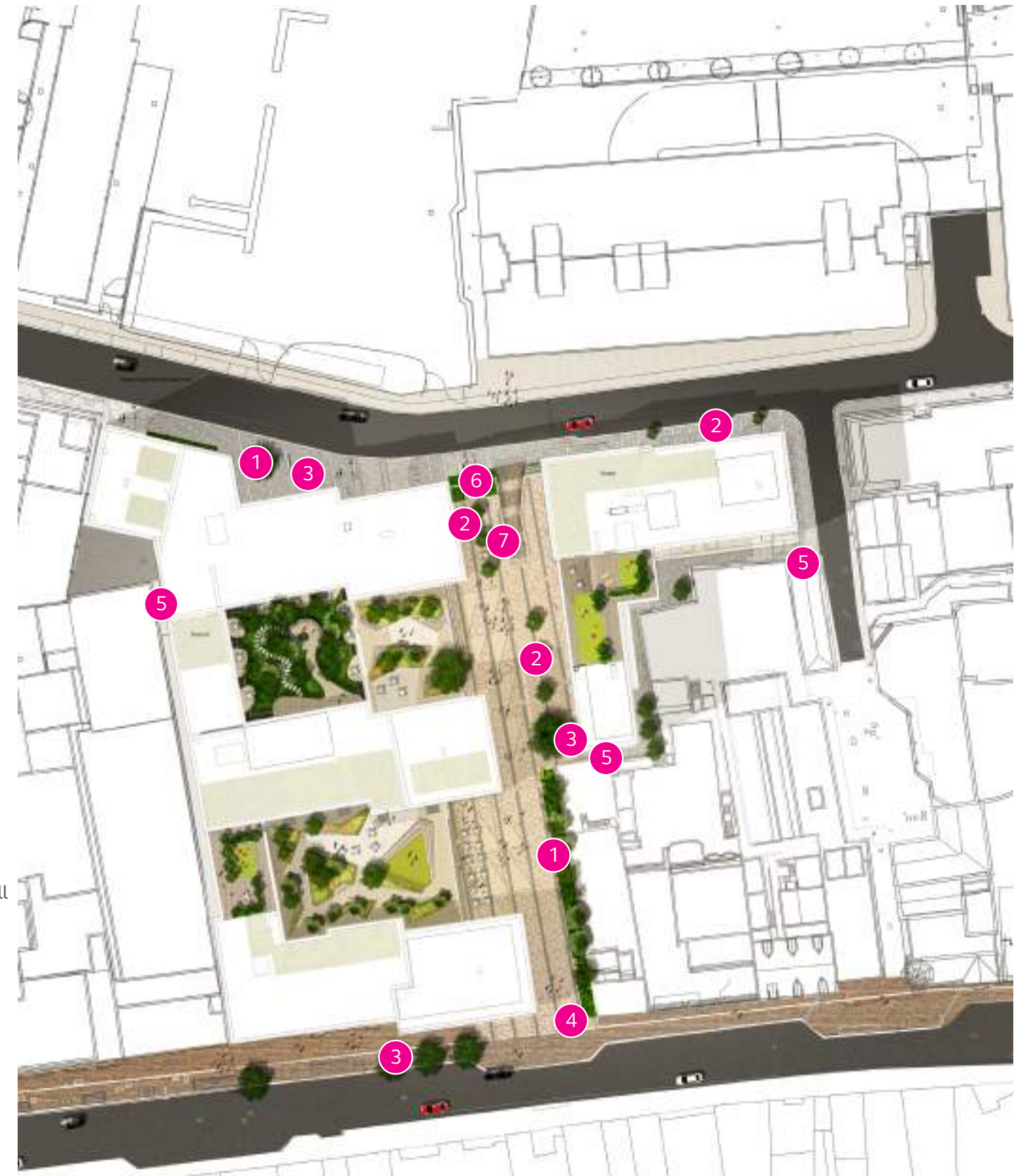
6.4.2. Public Realm Furniture Types

Furniture across the site has been selected to be beautiful, robust and easy to maintain.

The aim is for the furniture to support the character of the public realm, not to define or dominate it.

Materiality and colours are coordinated with surface materials and the buildings' material palette.

- 1 Benches to pocket square and play wall
- 2 Movable multi-stem/small tree planters
- 3 Tree grilles
- 4 Fixed and telescopic bollards
- 5 Fence and gate
- 6 Circular bench to raised planter
- 7 Bar-style stools and leaner



Public Realm - Indicative Furniture Types

Bench to Pocket Square

Rough and ready balancer 2m in length, timber.
(some benches will be provided with arm- and backrests)



Fence and Gate

Solid flat bar fence, powder coated to RAL to match architectural finishes.



Movable Pots

Tree planter pots, powder coated to complement architectural finishes.



Retaining bench to raised planter Friars Walk

Timber slatted bench.



Tree Grille

Tree grille 1.5m square, recessed to take paving, bolt fixing, water point.



Fixed Stool Seating to Balustrade Leaner

Design tbc., colour to complement architectural finishes.



Utility Covers

Recessed utility cover, stainless steel with inset paving in front of house areas, ductile iron in back of house areas.



Litter Bins

Note: requirement for litter bins in the public realm tbc in line with waste removal strategy.



Fixed and Telescopic Bollards

Stainless Steel, 1m high.

Note: Requirement for Anti-Terrorism Measurements to be confirmed. Higher spec./ PAS-rated bollards might be required.



Stainless Steel Handrails



6.LANDSCAPE & PUBLIC REALM

6.4 MATERIALS

6.4.3. Courtyards and Terraces

A shared materials palette is utilised throughout the terraces.

On the lower terraces, where angled and curved planter shapes occur, the surrounding paving predominantly consists of permeable resin-bound paving. This avoids unit paving layouts that can be complex and require many cuts, and the material drains easily into the subbase, therefore drying quickly. Selected areas are laid with flag pavers on a pedestal system, to denote key areas, such as the outdoor 'room' on the Garden Terrace.

On the upper terraces, composite decking is used.

Ample seating is provided throughout the terraces in strategic locations integrated into the planter edges. Additional movable seating and playful items such as bean bags offer added flexibility.

- 1 Resin bound paving
- 2 Flag paving
- 3 Stepping stone path and boulders
- 4 Decking
- 5 Artificial Lawn and bean bags
- 6 Bleacher seats
- 7 Grow-your-own planters



6.LANDSCAPE & PUBLIC REALM

Courtyard and Terraces - Indicative Paving Types

Paving Type 08 & 13
Resin bound gravel to courtyards, dark grey green colour, 'blue granite' or similar.



Paving Type 09 & 14
Resin bound gravel to courtyards, silver grey colour, 'apollo', or similar.



Stepping Stones
Natural stone stepping stones to woodland walk.



Reconstituted stone paving
400x800mm flag paving to podiums, supported on pedestal paving system.



Decking
Slip resistant composite decking to rooftop terraces.



Artificial Turf
Artificial turf grass to roof terraces.



Boulders and Incidental Play to woodland walk.
Boulder sizes TBC.



Courtyard and Terraces - Indicative Edge Types

Low Planter Edges
150mm high metal planter edge to Shade Garden courtyard.



Metal Flush Edge
Metal edge to hard surfaces.



Raised planter edge
Powder coated steel edge to raised planters. RAL colour to complement architectural finishes. 350mm -750mm high.



Seat edge with storage
Seat edge to grow-your-own planters, timber clad with lockable tool storage



Courtyard and Terraces - Indicative Furniture Types

Seat edge to planters.
Timber slat benches, some with back and armrests.



Bleacher seats to tilted lawn
Timber clad benches to raised lawn.



Movable Furniture
Chairs, tables, and loungers to roof terraces.



Movable planters
Movable planters for small trees to roof terraces, powder coated steel, RAL to complement architectural finishes.



Bean bags
Bean bags to rooftop terraces.



6.LANDSCAPE & PUBLIC REALM

6.5 PLANTING AND BIODIVERSITY STRATEGY

6.5.1. Tree Planting

Tree species have been selected based on their suitability for their location in the context of the urban streetscape and the micro climate created around the proposed architecture.

Friars Walk is characterised by a distinct row of birch trees, signalling the entrance to the development and orientation to the north towards the River Thames. A large feature tree across from the main residential lobby in Plot E is the central focus of the pedestrian walk, and to the north flowering multi-stems (prunus, amelanchier) in movable planters provide scale and seasonal interest.

On Garrard Street, native Hawthorns are proposed to mark the plaza to the northern Plot E entrance. These are shade tolerant native trees that support wildlife and help to screen downwinds around the building. On the narrower footway north of Plot F, multi-stem trees in planters are proposed to enhance the streetscape.

There are no existing trees located within the planning boundary, however two existing birch trees on Friar Street are proposed to be removed - subject to agreement of the S278 scope - to allow good visibility and connectivity of the access to Friars Walk from Friar Street, which they would otherwise block. These trees appear to be of low quality and are expected to be short lived. They would be replaced by newly planted Ornamental Pears, which are strategically placed on Friar Street to support the wind mitigation strategy.

The species in the shared courtyards and terraces can be divided into three categories:
Riparian Woodland trees such as birches and elders are used in the Shade Garden (northern Plot E courtyard). The level 01 terraces of Plot E, the Alcove and the Garden Terrace, feature vibrant, flowering fruit and decorative garden trees, such as Malus, Amelanchiers and Magnolias, as well as shrubs to provide privacy to adjacent flats. Robust native hedging shrubs are proposed for the roof top amenity spaces which will be more exposed to light and wind.

	<i>Carpinus betulus</i> (Upright Form) 4-7m High		<i>Taxus baccata</i> 1.5-2m High
	<i>Sorbus aucuparia</i> or <i>pyrus calleryana</i> 'Shanticleer' multi stem 2.5-3m High		<i>Arceuthobium parviflorum</i> 1.5-2m High
	<i>Prunus serotina</i> 'Tadpole' to Friars Walk 2.5-3m High		<i>Magnolia 'Willow' 'saxon'</i> 2.5-3m High
	<i>Amelanchier lamarckii</i> 2.5-3m High		<i>Ilex virginica</i> 1m High
	<i>Cornus kousa</i> 1.5-2m High		<i>Lagerströmia indica</i> 2-3m High
	<i>Cornus kousa</i> 2.5-3m High		<i>Amelanchier lamarckii</i> 2-3m High
	<i>Liquidambar styraciflua</i> or <i>Gleditsia triacanthos</i> 7-8m		<i>Kalmia latifolia</i> 1-1.5m High
	<i>Betula utilis</i> 'jacquemontii' 3-4m High		<i>Malus 'Everbred'</i> 4-5m High
	<i>Pittosporum tenuifolium</i> 1.5m-2m High		<i>Griselinia littoralis</i> 3-4.5m High
	<i>Sieringia japonica</i> 'Snow White' 1.5m - 2m High		<i>Callaege monogyna</i> 1.5-2m High
	<i>Viburnum tinus</i> 'Eve Pical' 1.5-2m High		<i>Sorbus arce</i> 1-1.5m High
	<i>Acer palmatum</i> 2.5-3m High (Courtland)		<i>Prunus spinosa</i> 1-1.5m High
	<i>Betula pendula</i> 3m High to Courtland		<i>Pyrus calleryana</i> 6-7m High
	<i>Sorbus hupehensis</i> 3m High to courtyard		Removed Birch
	<i>Betula nigra</i> 4-5m High		
	<i>Alnus glaberrima</i> 4-5m High		



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Cornus kousa



Amelanchier lamarckii



Carpinus betulus



Sorbus hupehensis



Betula utilis jacquemontii



Sorbus aucuparia



Sorbus aria



Prunus serrulata



Alnus glutinosa



Taxus baccata



Liquidambar styraciflua



Magnolia liliiflora



Kalmia latifolia



6.LANDSCAPE & PUBLIC REALM

6.5 PLANTING AND BIODIVERSITY STRATEGY

6.5.2. Public Realm Planting Character

The planting areas in the public realm are designed to suit the urban setting with its limitations to light and space. Nevertheless, distinct planting characters support the creation of comfortable dwelling spaces and improve the microclimate.

In the public realm, these areas are:

- The birch woodland understorey along the southeast edge of Friars Walk
- The raised planter at the north end of Friars Walk with rich swaths of ornamental grasses that create a focal point at the podium's edge
- Additional terraced planters at the base of the Friars Walk steps, and
- Linear planters on Garrard Street consisting of robust, shade-tolerant planting, including scented climbers ideal for screening less active frontages and evergreens.

All proposed planting on structure will be irrigated with an automated irrigation system with rain sensors, ensuring water is used efficiently. Movable planters will be manually watered as needed. The proposed sedum green roofs do not require permanent irrigation, but will be temporarily irrigated for plant establishment, and as needed during drought periods. Watering points for this purpose are located throughout the development.



6.LANDSCAPE & PUBLIC REALM



Skimmia japonica 'Kew White'



Clematis montana



Deschampsia cespitosa



Campanula rotundiflora



Asarum europaeum



Lonicera henryi



Anemanthele lessoniana



Carex oshimensis 'Evergold'



Vinca minor Gertrude Jekyll



Luzula nivea



Blechnum spicant



Polystichum aculeatum



Sarcococca confusa



Anemone honorine jobert



Vinca minor Gertrude Jekyll



Brunnera macrophylla 'Jack Frost'



6.LANDSCAPE & PUBLIC REALM



Polystichum setiferum



Iris 'Silver Edge'



Deschampsia cespitosa



Luzula nivea



Hosta 'Francee' (fortunei)



Brunnera macrophylla 'Jack Frost'



Anemanthele lessoniana



Deschampsia cespitosa



Nandina domestica 'Fire Power'



Tulipa 'White Triumphator'



Eryngium variifolium



Brachyglottis compacta 'Sunshine'



Viburnum tinus 'Eve Price'



Hamamelis



Nepeta cataria 'Six Hills Giant'



Stipa tenuissima



6.5
PLANTING AND BIODIVERSITY STRATEGY

6.5.3 Biodiversity and Ecological Features

The design strives to encourage a healthy and biodiverse wildlife community alongside its residential community.

The planting palette incorporates a number of native flowering species providing food for invertebrates, and a couple of bug hotels are proposed in the courtyard and terraces.

The inclusion of over 50 bird boxes aims to entice a wide range of species to make the site their home. The boxes are strategically placed on building facades and trees throughout the development based on where the individual species are inclined to nest.



Starling Nest Box



Hole Nest Box



Swift Nest Box



Black Redstart Nest Box



Bug Hotels



- 42 No. Swift boxes
- 2 No. Starling boxes
- 2 No. Bug hotel
- 9 No. Hole nest box
- 6 No. Black Redstart boxes



6.LANDSCAPE & PUBLIC REALM

6.6 PLAY STRATEGY

6.6.1. Incidental Play Opportunities

The approach to play is to integrate playful features in the landscape where possible through public realm furniture and detailing, and access to natural features.

Within the public realm, the linear edge to the birch stem woodland planting is formed as a playable low wall that invites activities such as balancing, climbing, hopping over stepping stones, and foraging into the tree stems. Likewise, the woodland courtyard features stepping stones, climbable boulders and a robust naturalistic planting scheme with a 'secret garden' feel for children to explore.

The large lawn on the podium garden terrace and the surrounding tiered timber seats provide ample space for lounging and gatherings. Not aimed at a specific age group, these areas provide opportunities for overlapping play and age categories, and social interaction.

On the rooftop amenity terraces, artificial turf areas provide a more formal playable space, which can be equipped with elements such as weather-resistant soft toys, mini slides, and bean bags, surrounded by ample seating for carers.

The precedent images to the right provide some examples of how this play strategy should be realised at Station Hill across the public and semi-private areas within the development.

- Playable wall feature
- Woodland walk, natural play
- Climbable bench and planter edges
- Climbable bleacher seating
- Lawn/artificial turf
- Grow-Your-Own-Garden planters
- Bean bags



6.LANDSCAPE & PUBLIC REALM



Playable Wall Feature



Woodlandwalk,naturalplay



Birchstem woodland edge



Playable wall feature



Sculpted artificial turf



Bean bags



Woodlandwalk,naturalplay



Woodlandwalk,naturalplay



Climbable bleacher seating



Sloped lawn

6.LANDSCAPE & PUBLIC REALM

6.7 SUMMARY

The above chapter intends to further describe and illustrate the public realm and landscape proposals and supplements the set of landscape architectural plans submitted in the planning application.

As stated throughout the document, the public realm and highways proposals that fall outside of the planning boundary are subject to a Section 278 agreement, they are shown here for context only.

The view to the near right shows the proposal in the current context, the view to the far right shows how the proposal could integrate with a future development to the north of the site, based on the building massing of the consented 2013 scheme.



Aerial view of proposed development looking north

6.LANDSCAPE & PUBLIC REALM



7

LIGHTING DESIGN CONCEPT DPA LIGHTING CONSULTANTS

7.LIGHTING DESIGN CONCEPT

7.1 INTRODUCTION

dpa lighting consultants have been commissioned to prepare lighting concepts for the external areas of the Station Hill, Reading project, including both landscape and building façade treatments.

This section outlines the external lighting strategy approach conceived for the development, giving consideration to appropriate lighting for the human in the space, engendering a sense of place and belonging, encouraging use of the space during the evening hours, whilst ensuring appropriate lighting for safety and security, wayfinding, ecological considerations, and the development within the wider urban context.



7.2 LIT CONTEXT

The site is located in central Reading in close proximity to the Reading Railway Station, bounded to the north by Garrard Street and to the south by Friar Street. There is a proposed new link running north to south linking these two streets, creating a new link and pedestrian space known as Friars Walk, with residential buildings on either side.

Garrard Street currently has a number of lighting columns located along both sides of the street. The columns are approximately 6m tall mounted with a mix of ceramic metal halide and LED lanterns illuminating the street. The light sources have a cool white appearance (approximately 4,000 K Colour Correlated Temperature (CCT)). Some spill light is also received from the existing NCP car park which is illuminated with what is believed to be cool white (4,000 K CCT) fluorescent lamps. In addition there are a number of wall mounted sodium flood lights mounted to the NCP car park façade, none of which are currently operational.

Along the length of Friar Street are a number of staggered lighting columns. The columns are approximately 8 m tall topped with a street lighting lantern providing roadway illumination. The lanterns utilise a cool white (4,000 K – 5,000 K CCT) light source and appear to have a flat glass giving full horizontal cut off to prevent the upward spill of light.

Mounted on the same columns at approximately 4-5 m above ground is a secondary lantern facing onto the pedestrian pathways adjacent to the roadway, providing direct illumination to the pathways. The lantern utilises lensed LEDs also with a cool white (4,000 K CCT).

appearance, which appear to have horizontal cut off of light. The light sources used to illuminate both the road and pathways are visually prominent causing visual distraction.

Apart from a few illuminated signs and illuminated bus shelter advertising panels, no other public realm lighting is present.

There are also a number of illuminated shop/restaurant fronts/signage with varying styles and colours. Many of the shops have large glazed frontages with the interior lighting spilling onto the streetscape. The interior lighting varies in style and colour temperature giving an inconsistent effect.



7.LIGHTING DESIGN CONCEPT

7.3 LIGHTING OBJECTIVES

The objectives of the exterior lighting are to:

- a. Create an attractive, welcoming and memorable environment
- b. Complement and reinforce the landscape and architecture
- c. Create a comfortable and enjoyable space
- d. Use energy efficient luminaires and light sources for minimised energy consumption
- e. Minimise light pollution
- f. Avoid visual discomfort to occupants of the buildings and users of the public realm
- g. Provide appropriate lighting to engender safety and security
- h. Use automated lighting controls to minimise energy consumption and on-going maintenance requirements
- i. Consider ease of access for maintenance
- j. Ensure the daytime appearance is considered, where possible integrating luminaires with the architecture for minimal visual distraction
- k. Design in accordance with relevant standards and guidance
- l. Achieve optimum value for money

Light Sources & Luminaires

To create a comfortable, calm and welcoming lit environment for residents and visitors alike, warm white (2700 K – 3000 K CCT) LED light sources will be utilised for the external areas of the development. The selection of a warm white CCT for the development will also visually contrast with the surrounding streets' comparatively cooler appearance street lighting, subtly and intuitively leading visitors and helping to identify a different, high-quality, welcoming environment.

The LED light sources will also have a high colour rendering index (CRI), helping to reveal colours of the illuminated objects in the space and creating attractive skin tones of persons using the space, again reinforcing the quality environment and making the area feel more welcoming.

Luminaires with efficient LED light sources and luminaire optics will be utilised to ensure light is delivered to where it is required with minimal spill. This use of efficient light sources and luminaire optics will help to reduce the overall number of lighting points, installation costs, energy usage and ongoing maintenance costs.



7.LIGHTING DESIGN CONCEPT

7.4 LIGHTING LAYERS

The lighting will be conceived as a series of layers:

Base – Landscape

Ambient lighting will be provided to the pedestrian areas of the development, providing suitable light levels to engender a feeling of safety and promote security.

It is the intent to avoid the use of lighting columns to minimise street clutter and physical obstacles within the public space. Instead luminaires will be building mounted, carefully integrated with the architecture, minimising their daytime visual impact. It is proposed to utilise discreet projector style luminaires with well controlled optics, directing the light to where it is required with minimal spill. Suitable accessories (cows, louvers, etc.) will be utilised to further minimise potential views of the light source, prevent upward spill of light and potential distraction to pedestrians and residents.

Within the private garden areas low level human scale luminaires and concealed lighting integrated with the landscape features will be utilised to provide illumination where it is required. The luminaires will be selected and specified with appropriate accessories, or where integrated within landscape features detailed so as to avoid upward spill of light.

Base – Façade

To provide subtle wayfinding and a welcoming arrival sequence for residents and visitors alike, increased lighting levels will be provided to the building entrances from luminaires integrated within building canopies and/or façade mounted luminaires. Careful integration of the luminaires with the architecture will minimise daytime visual impact of the lighting equipment.

Luminaires will be specified with and detailed in such a manner to prevent upward spill of light.

Feature – Landscape

To create visual interest and encourage use of the space during the evening hours, lighting will be utilised to emphasise features in the landscape, such as seating, planting, trees and other feature elements. Hardscape elements such as bench lighting will be carefully detailed so as to conceal the light source and prevent upward spill of light. Some feature elements such as trees will be uplit from inground uplight luminaires, creating a visually attractive space during the evening, helping to express the visual texture, colour and density of the objects. These uplight luminaires will be carefully selected to ensure they have excellent optical control and will be adjustable so that they can be aimed at the objects that are to be lit, with minimal spill beyond the object being illuminated. Accessories such as internal snoots and baffles will be utilised to further control the light distribution and minimise unwanted upward spill light.

Feature – Façade

Feature lighting will be provided to selected elements of the façades referred to as lanterns. This will help to identify the development within the urban city scape, assisting wayfinding and creating a sense of place.



7.LIGHTING DESIGN CONCEPT

7.5 LIGHTING CONTROLS

All lighting is to be controlled via an astronomical time clock, adjusting switch on and off times for changing sunrise and sunset times during the year, ensuring illumination of the space is only provided during the hours of darkness and energy is not wasted illuminating the space during the daylight hours when the lit effect cannot be appreciated.

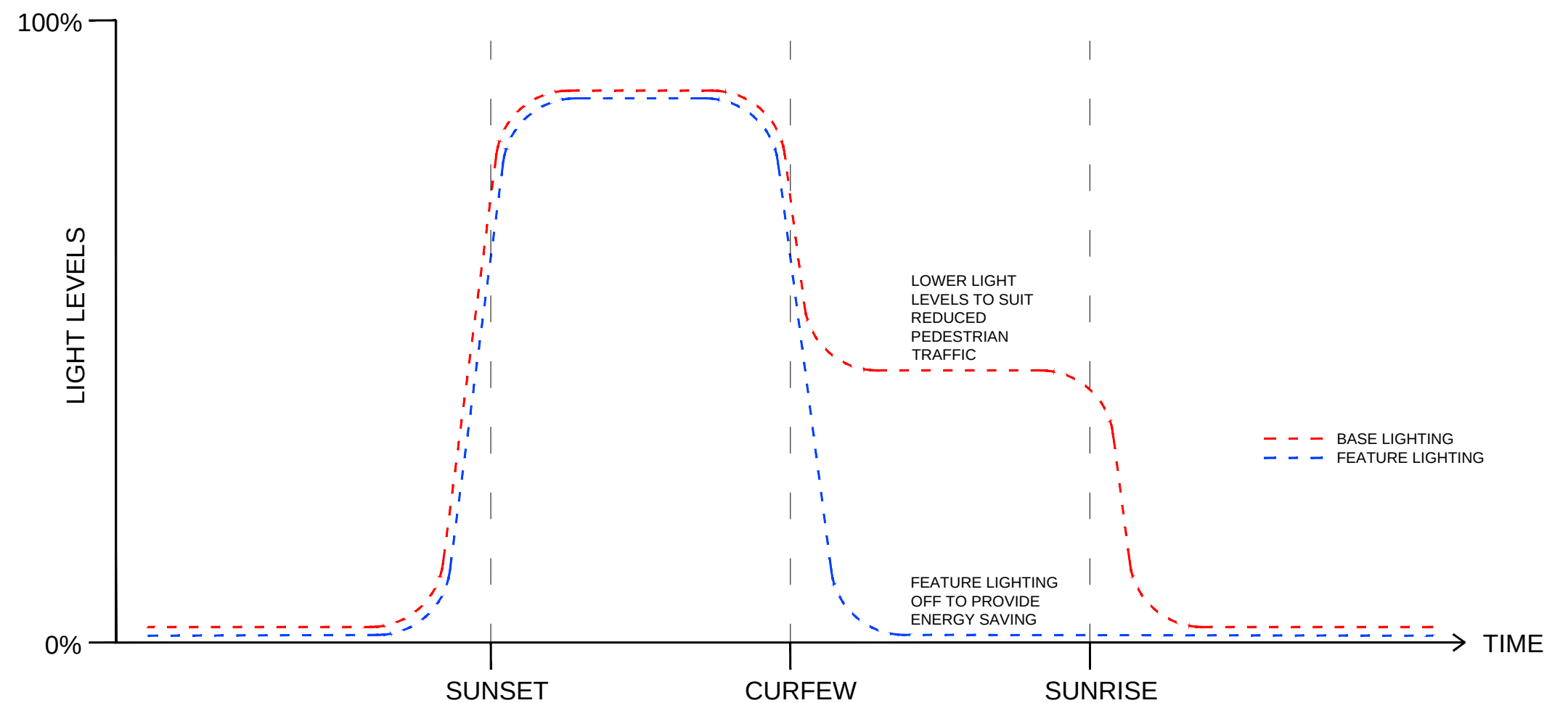
All external lighting will switch on at 30 mins before sunset (dusk).

The feature lighting elements of the scheme will switch off at curfew/2300, after which time only the base lighting for safety and security will be left on.

The base lighting for safety and security will then switch off at 30 minutes after sunrise (dawn).

In addition, a dimmable lighting scheme will be investigated in order to allow the lighting levels and overall brightness to be controlled throughout the nocturnal hours to suit the time of evening and activities taking place. Dimming will also allow smooth, subtle, imperceptible changes between the different lighting states and avoid confusion from the sudden turning off of the feature lighting at curfew. Further a DALI dimmable lighting scheme could be utilised to provide data on the operational status of luminaires, assisting the client's site maintenance team and simplifying ongoing maintenance of the lighting installation.

The lighting controls will provide further energy savings ensuring that the external lighting is only operational at the hours it is required.



7.LIGHTING DESIGN CONCEPT

7.6 SUSTAINABILITY & ECOLOGICAL CONSIDERATIONS

As already noted above, all exterior lighting will be carefully positioned and aimed, integrated with the architecture where appropriate, and specified with suitable optics and accessories to ensure that light is delivered to the point where it is required, thereby avoiding light pollution and light trespass.

Where uplighting of features is used it will be very carefully detailed and aimed to ensure minimal spill of light, and where possible completely eliminate this. Any upward light spill will be kept within the limits for the relevant environmental zone as outlined in the ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2011.

In locations of any bird boxes, lighting will be carefully adjusted to ensure that no light from the development falls on any roosting or sensitive locations.

Further, the decorative feature elements of the scheme (including the majority of the uplighting elements) will be switched off at curfew, limiting the timing of this lit effect to that when it can be appreciated by residents and visitors.

The use of lighting controls will also save energy in use, ensuring that lighting is only operational when it is required during the hours of darkness, and adjusting to suit changing times of sunrise and sunset.

Further energy will be saved through the use of long life, high efficacy, efficient light sources and luminaire optics, reducing the overall number of lighting points and energy in use.

To reduce the attractiveness of light sources to invertebrates, warm white (2700 K to 3000 K CCT) LED light sources with little to no output in the UV/extreme blue end of the spectrum will be utilised.

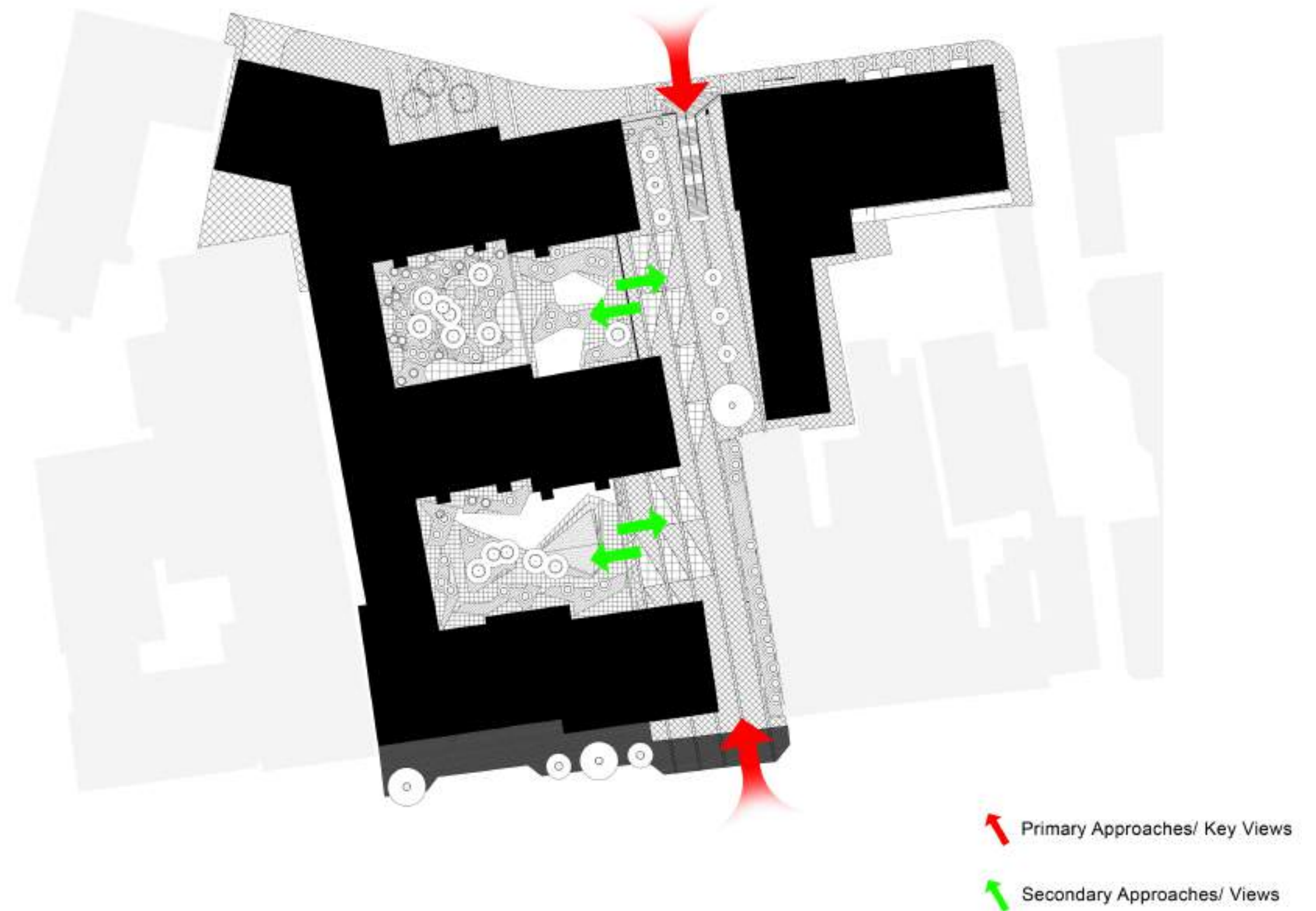
7.7 RELEVANT STANDARDS & GUIDANCE

The requirements and recommendations of all appropriate standards and guidance has been considered during the development of the exterior lighting concepts, as outlined below:

- Clean Neighbourhoods and Environment Act 2005 (Section 102)
- DEFRA, Guidance on Sections 101 to 103 of the Clean Neighbourhoods and Environment Act 2005
- BS EN 13201, Road Lighting (Part 1, 2014 & Part 2, 2015)
- BS 5489-1:2013 Code of practice for the design of road lighting, Lighting of roads & public amenity areas
- BS EN 12464-2:2007 Lighting of Workplaces – Part 2: Outdoor Work Places

- Institution of Lighting Professionals (ILP), Guidance Notes for the Reduction of Obtrusive Light, GN01:2011
- Countryside Commission/Department for Communities and Local Government, Lighting in the Countryside: Towards Good Practice (1997) (Out of Print)
- Society of Light and Lighting (SLL/CIBSE), The SLL Code for Lighting (2012)
- Society of Light and Lighting (SLL/CIBSE), The SLL Handbook (2018)
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7.8
KEY VIEWPOINTS



7.LIGHTING DESIGN CONCEPT

7.9
FRIARS WALK



Base - Façade Lighting



Base - Façade Lighting



Feature - Roof Mounted Gobo Lighting



Feature - Façade Lighting



Base - Façade Lighting



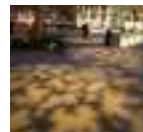
Feature - Façade Lighting



Base - Façade Lighting



Feature - Roof Mounted Gobo Lighting



Feature - Façade Lighting



Feature - Wall Mounted Gobo Lighting

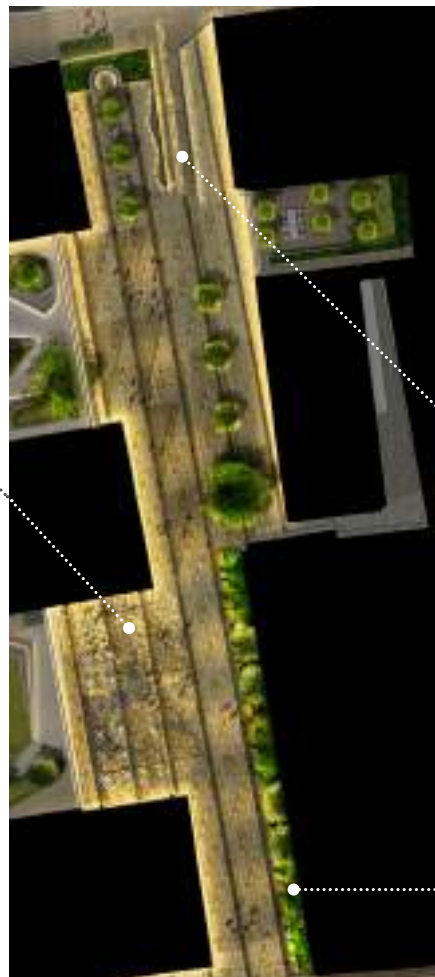


7.LIGHTING DESIGN CONCEPT

7.10 FEATURE STAIRCASE



Gobo Projection



Handrail Lighting



Tree & Shrub Uplighting



Handrail Lighting



Illuminated Structure

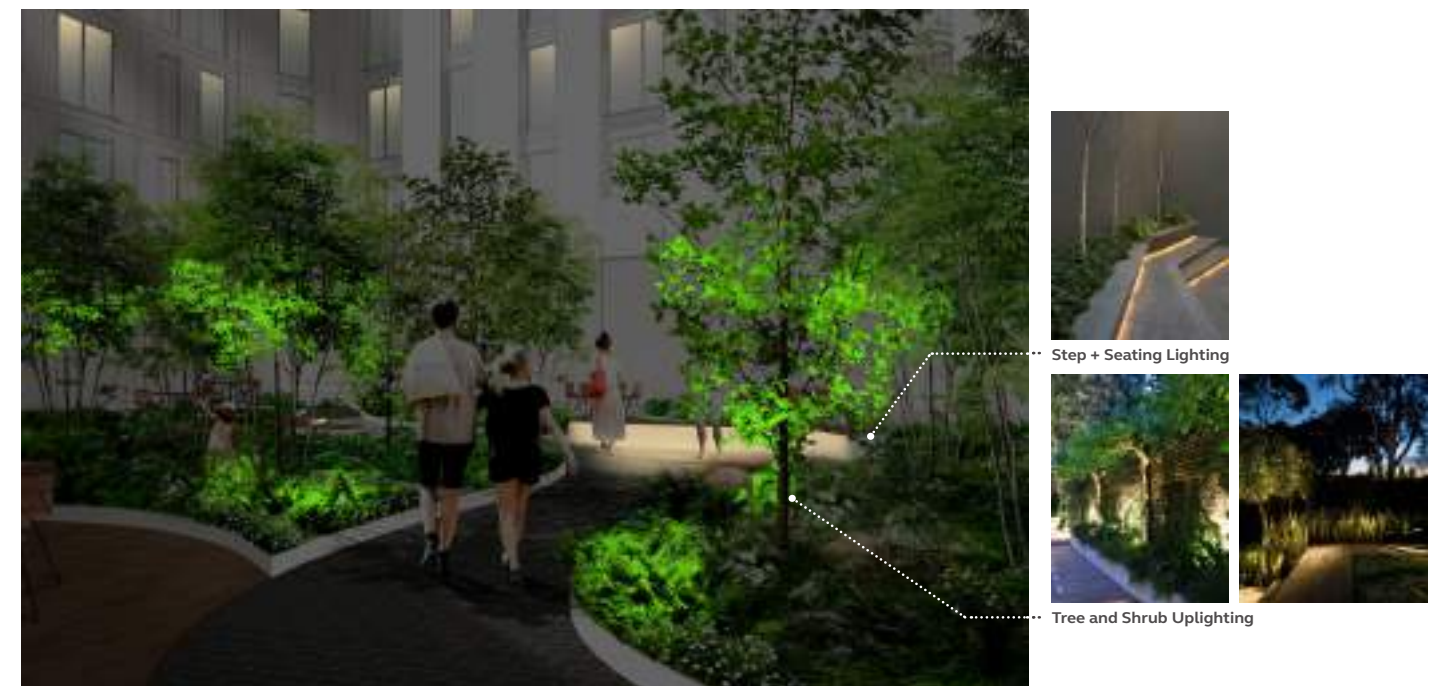
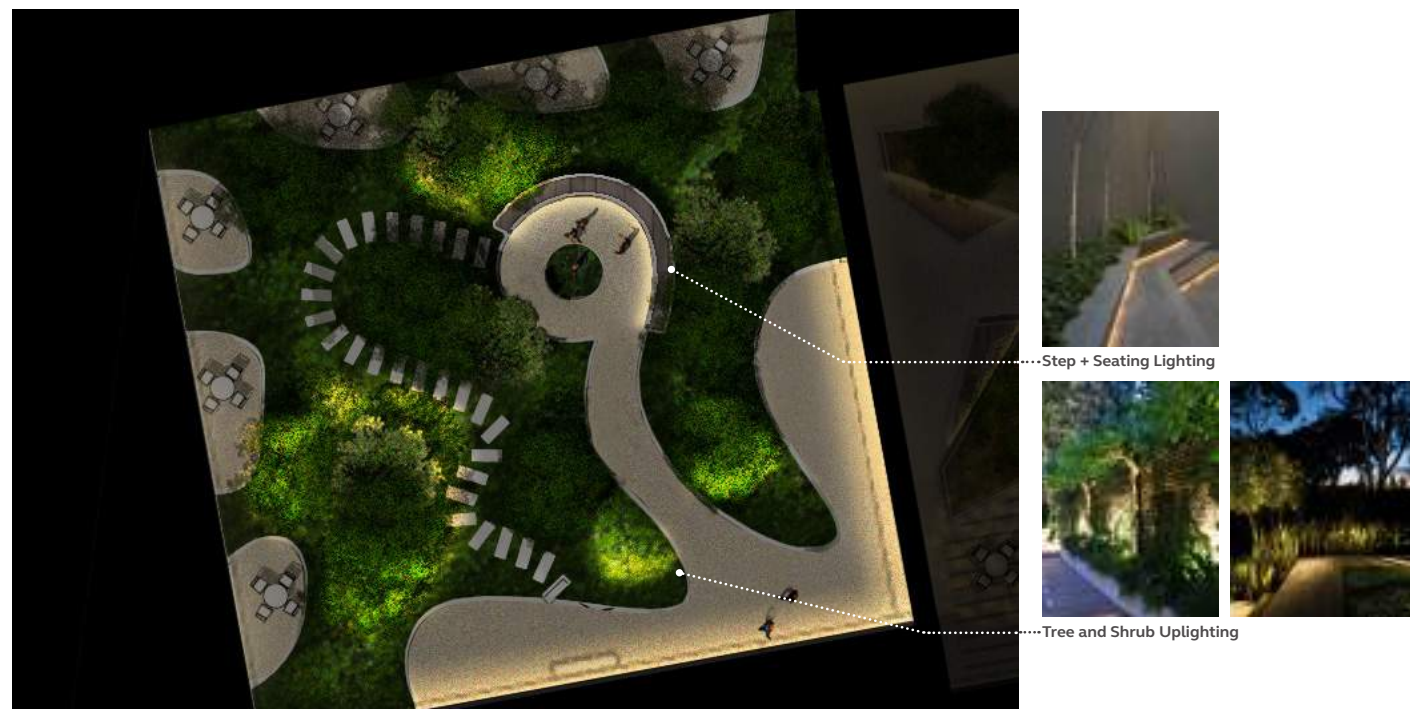
7.LIGHTING DESIGN CONCEPT

7.11 CANOPY



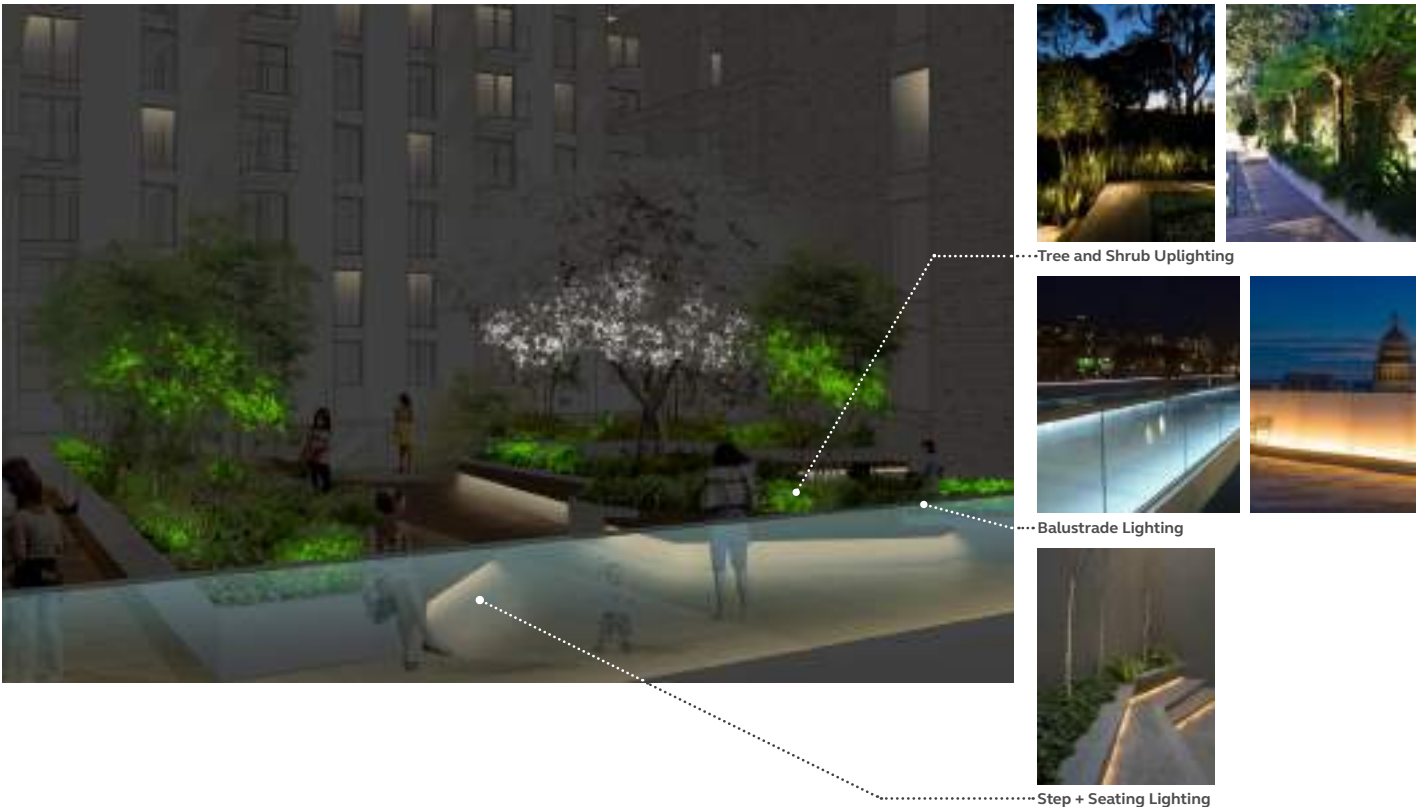
7.LIGHTING DESIGN CONCEPT

7.12 COURTYARDS AND PODIUM TERRACES – THE WOODLAND



7.LIGHTING DESIGN CONCEPT

COURTYARDS AND PODIUM TERRACES – THE ALCOVE



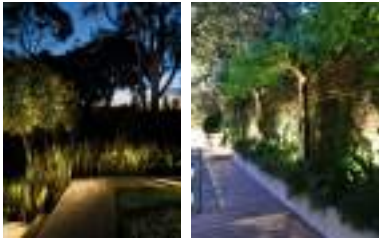
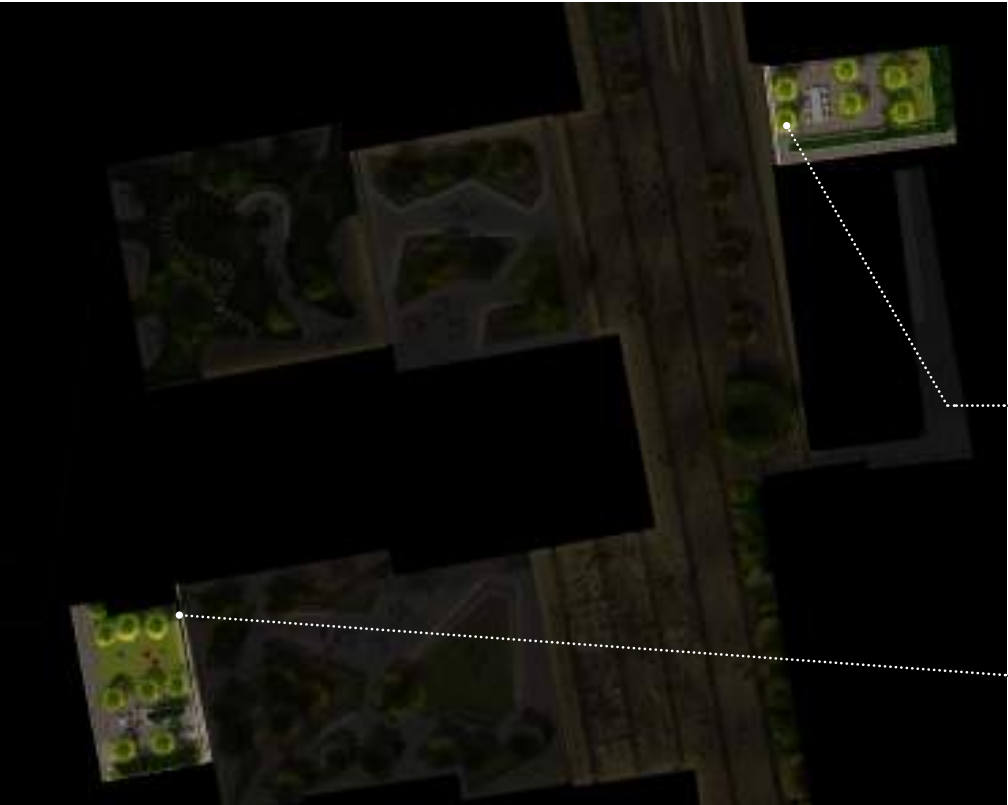
7.LIGHTING DESIGN CONCEPT

COURTYARDS AND PODIUM TERRACES – THE GARDEN TERRACE



7.LIGHTING DESIGN CONCEPT

7.13
ROOF TERRACES



Tree and Shrub Uplighting



Balustrade Lighting



Rooftop Terrace – Level 10



Rooftop Terrace – Level 06



Tree and Shrub Uplighting



Handrail Lighting



Tree and Shrub Lighting



Bench Lighting

