

8.0 Detail - Technical

8.1 Servicing and Deliveries


Summary - Existing

The existing site has an internal loading bay serving the whole Waterhouse Campus.


There is currently provision for one 8m vehicle which cannot enter and exit in forward gear due to spatial constraints.

Two goods lifts from ground to basement serve 1, 2 & 3 Waterhouse Square respectively.

Key



Access and egress to loading bay not possible in forward gear



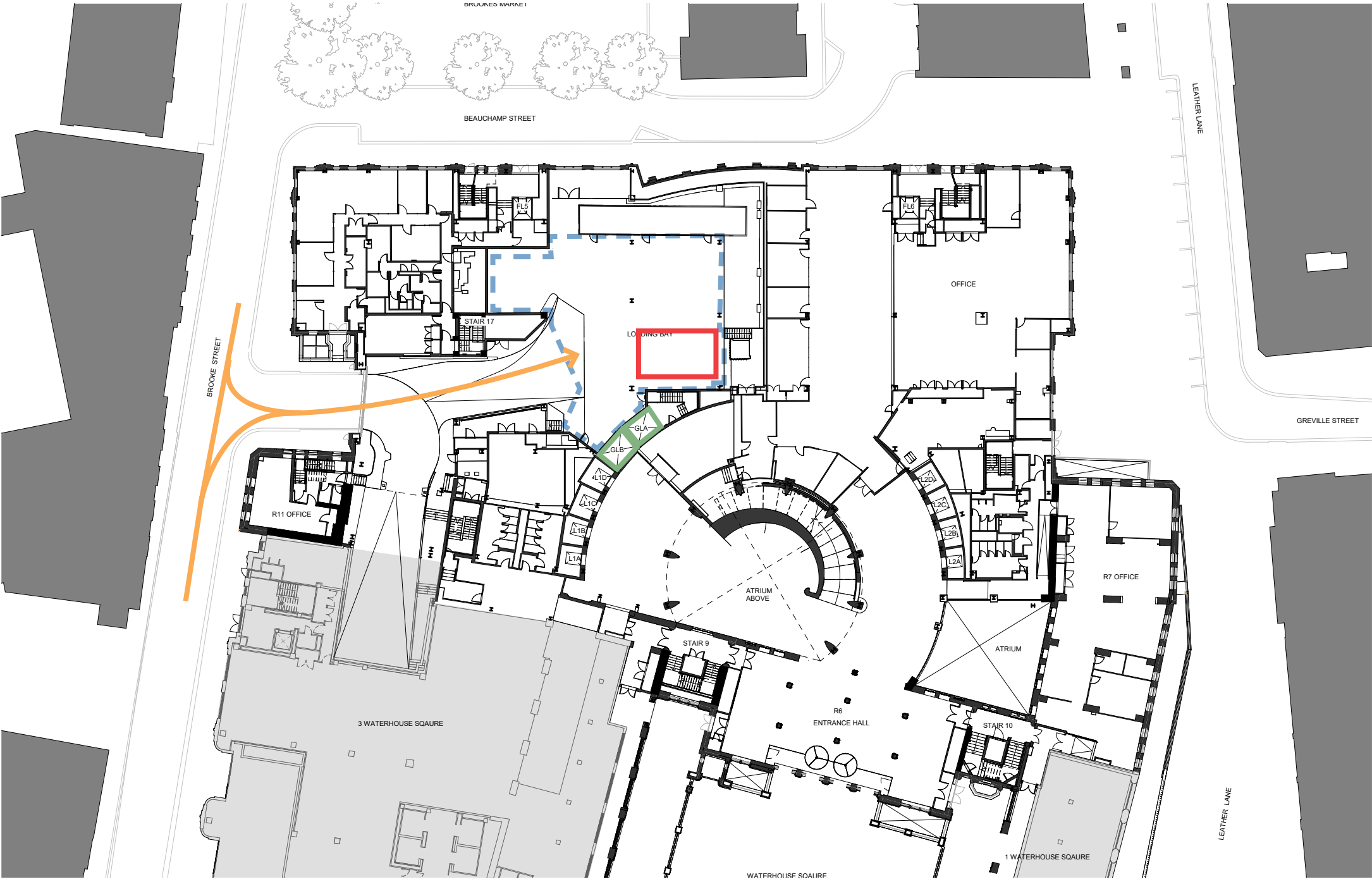
Loading bay



Parking bay



Existing Goods lifts



8.1 Servicing and Deliveries

Summary - Proposed


Servicing for the site will be undertaken within a loading bay within the site boundary. The loading bay is located off Brook Street (accessed via High Holborn) as per the existing development.

The existing loading bay has been enhanced to accommodate 3 parking spaces for 8m long vehicles.


The loading bay has direct access to the main goods lifts, which serve 1, 2 & 3 Waterhouse Square.

Swept path analysis has been undertaken which demonstrates that vehicles will be able to enter and egress from the servicing yard in a forward gear. Refer to the transport assessment for further details.


Key




Access and egress to loading bay in forward gear



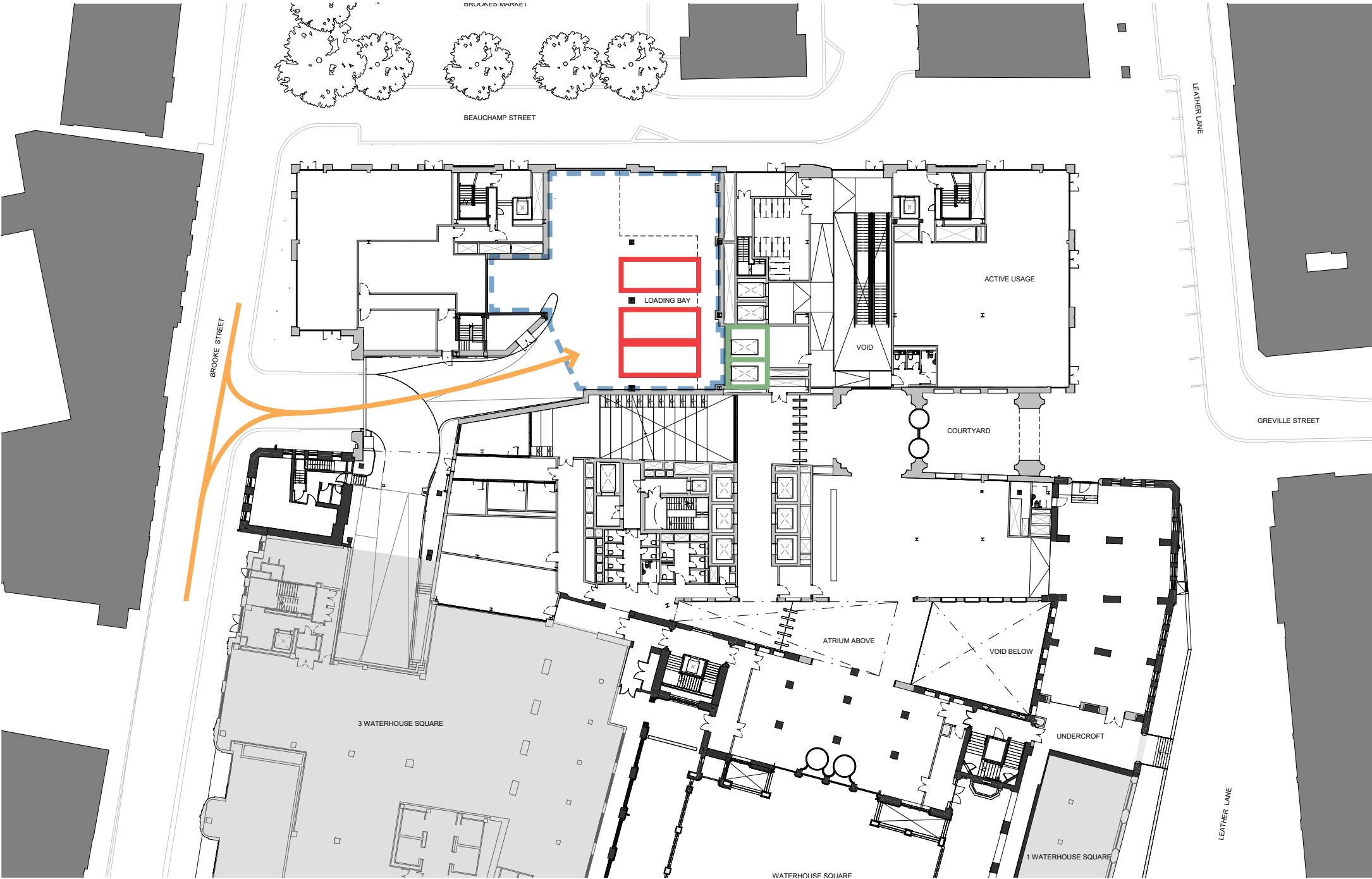
Loading bay



Parking bay



Proposed Goods lifts

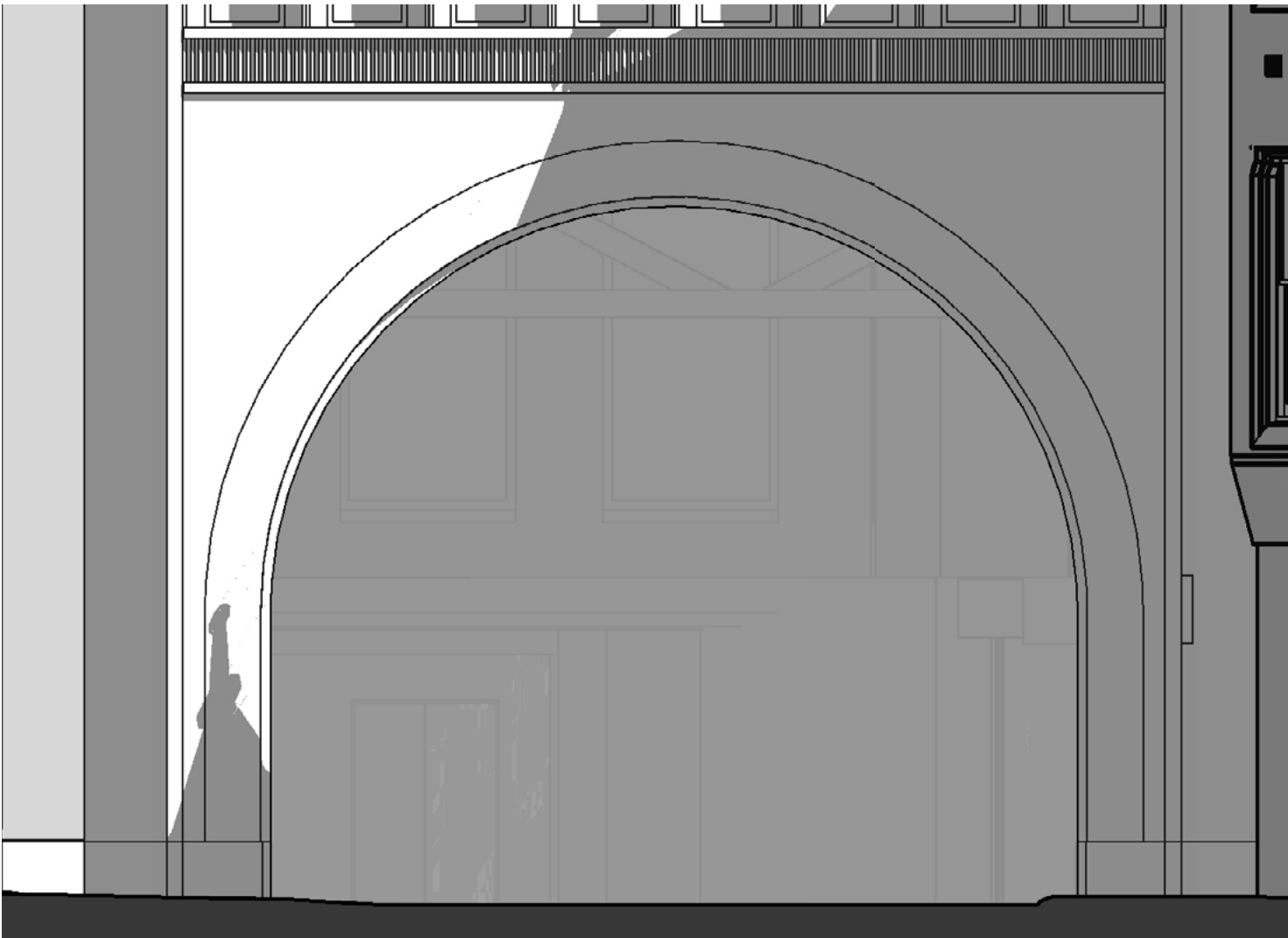


8.1 Servicing and Deliveries

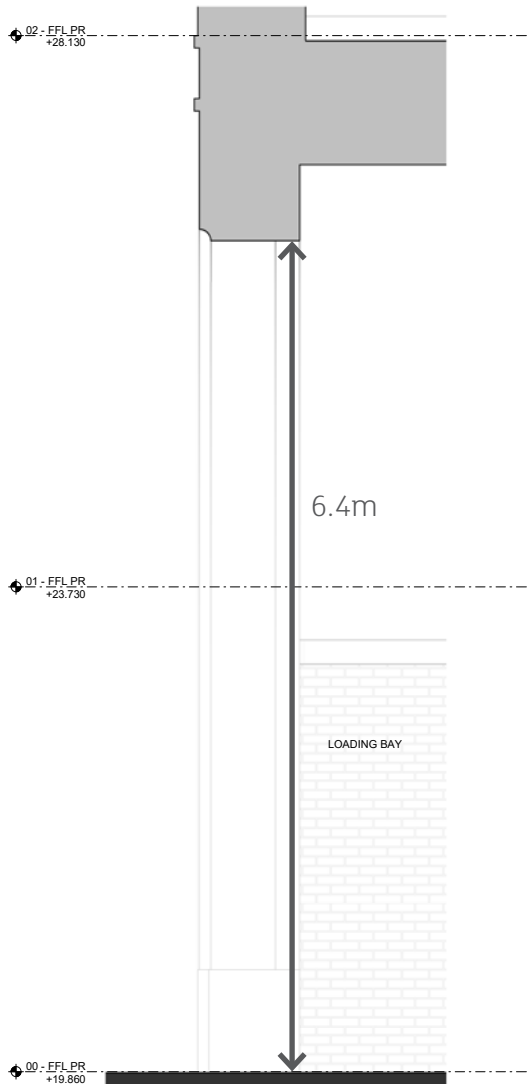
Summary

The loading bay is approximately 485m² in size and is approximately 5.5m tall. The entrance on Brook Street has a gate which allows the space to be closed down when not in use.

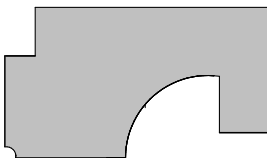
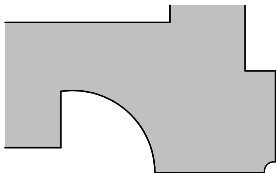
A delivery and servicing plan advises that deliveries will be pre-booked and managed to prevent vehicles waiting on street.



Proposed Brooke Street elevation of loading bay entrance



Proposed Section through loading bay



Proposed Brooke Street plan of loading bay entrance

8.2 Waste Storage and Collection

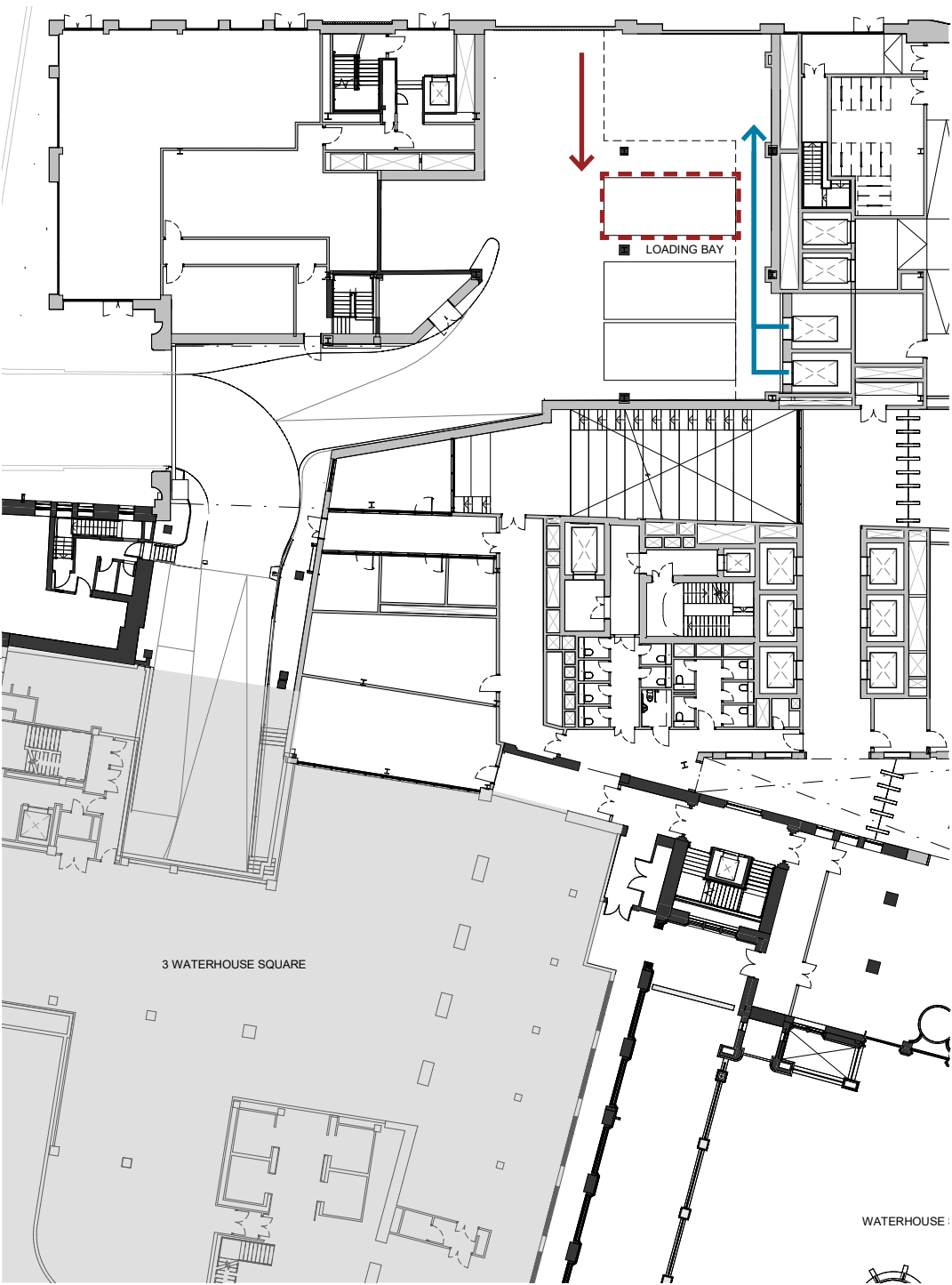
Commercial waste store

A refuse store for the estate will be provided at lower ground floor level, as shown on the adjacent plan. On waste collection days, the refuse bins will be wheeled from the refuse store to the goods lift, where they will be taken to the loading bay for collection.

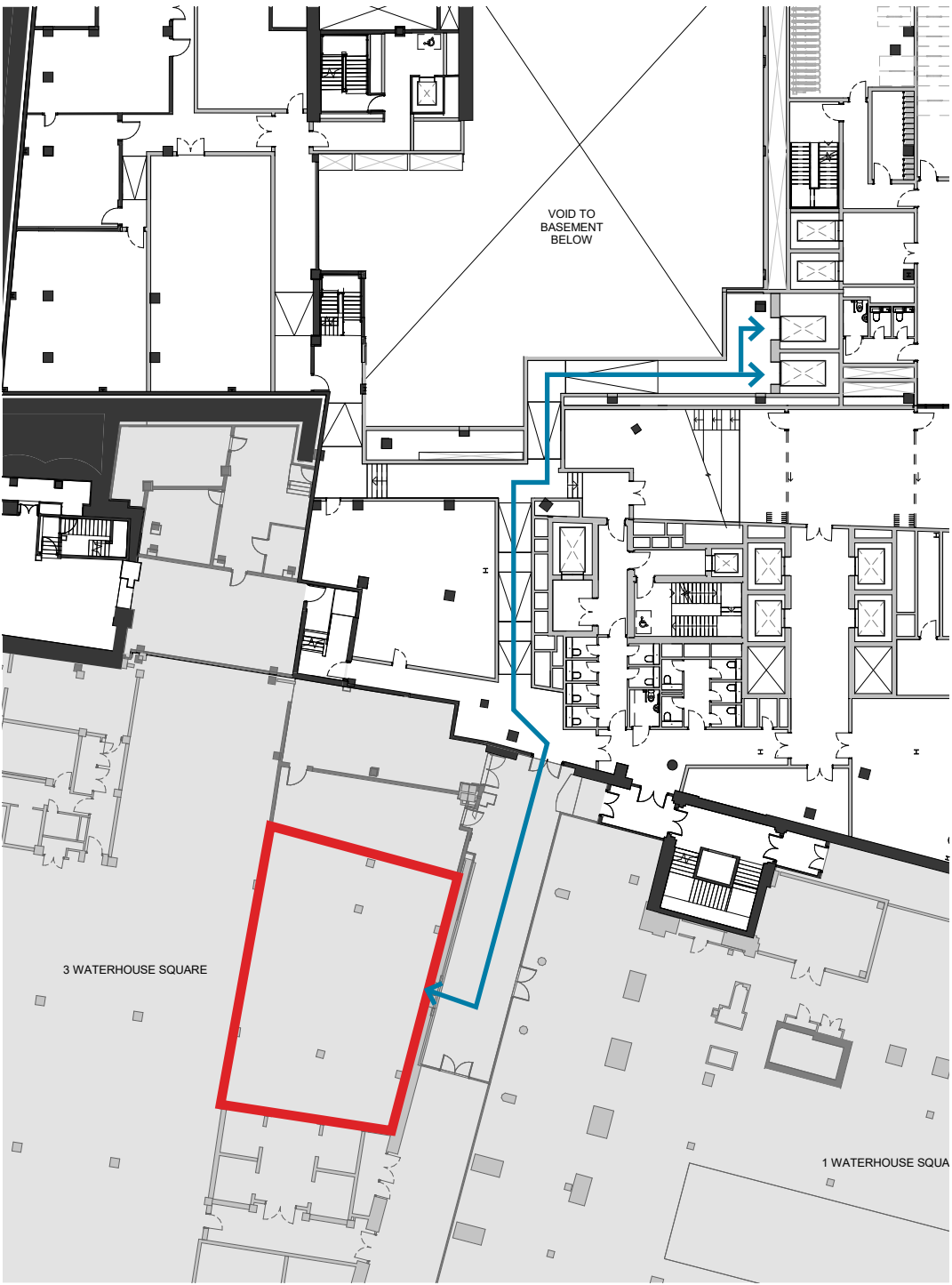
The refuse store has been designed using analysis by Velocity to determine the required capacity, size and access requirements.

Key

Refuse route from bin store

Loading refuse truck route

Ground floor plan



Lower ground floor plan

8.3 Cycle Parking

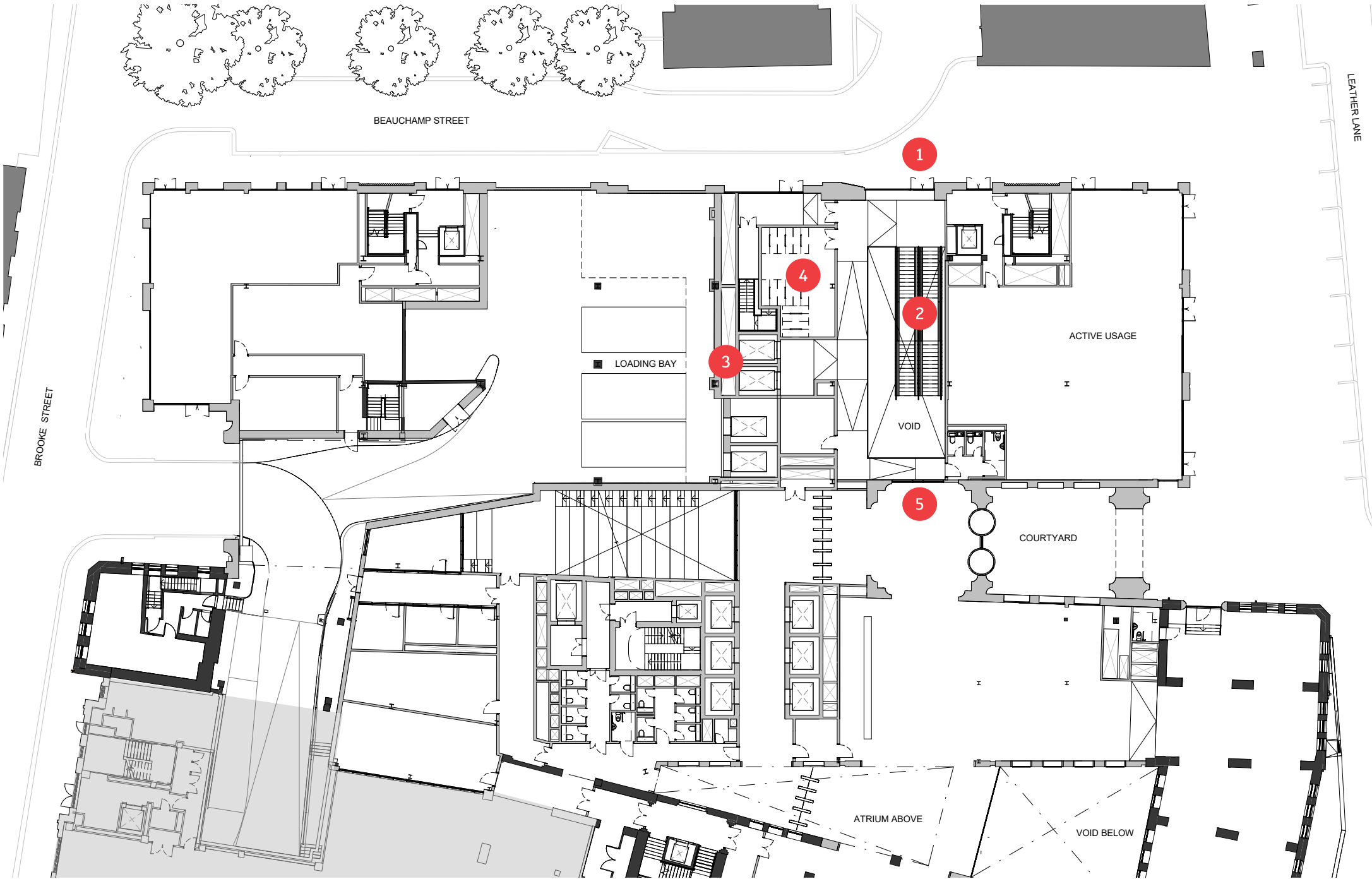
Short stay

There are 16 short stay cycle spaces required for the commercial space. These are provided at ground floor and accessed via the main reception or the cycle centre entrance.

Short stay spaces for the active commercial use are proposed to be located in the public realm, through financial contribution to be delivered by Camden Highways, as there is an inability to provide short stay cycle spaces within the site boundary.

Key

- 1 Cycle centre entrance
- 2 Shallow wheeling stair with 4 no. cycle rails providing access to cycle centre
- 3 2 no. cycle lifts providing access to cycle centre
- 4 Short stay cycle parking
- 5 Access to cycle facilities from reception



8.3 Cycle Parking

Long stay - Commercial uses

A total of 422 long-stay cycle parking spaces for employees occupying the building will be provided in a lower ground cycle storage area in line with the London Plan.

- 75% will be provided as two tier spaces
- 10% will be provided as Sheffield stands
- 5% will be provided as Sheffield stands for larger or adapted bicycles
- 10% will be provided as Brompton lockers

Changing facilities (including showers) will also be provided and are located in the basement below. The changing facilities can be accessed via a stair or cycle lift.

Key

- Extent of cycle storage
- 1

Lift access to shower/changing facilities below
- 2

Stair access to shower/changing facilities below



8.4 Security

Security and Secure by Design

Orms and Hoare Lea met with the local Designing Out Crime Officer (DOC0) on 09/02/23 as well as the Counter Terror Security Advisor on 20/03/23 and discussed the emerging proposal.

A security needs assessment (SNA) was carried out by Hoare Lea in March 2023 and the recommendations by the local Designing Out Crime Officer and the Counter Terror Security Advisor were taken on board during the design.

The DOC0 did advise that Secure by Design accreditation was likely to be sought as a condition. Whilst we seek to follow Secure by Design criteria, this may be difficult to sympathetically integrate into the existing heritage fabric due to the availability of accredited systems available.

Hoare Lea have used existing crime statistics for Holborn in order to determine the types of crimes most likely to affect the development and surrounding areas. Hoare Lea has assessed that Other Theft and Anti-Social Behaviour directed towards the development and its occupants are the most prevalent threat as well as the potential for Theft from the Person and Violence and Sexual Offences.

Based on the assessment undertaken, the development is not considered to be a direct terrorist target and Hoare Lea has no reason to expect the probability or impact of a direct terrorist attack to the development at time of writing. Therefore, Hoare Lea has no reason to imply that the terrorist threat to the 2 Waterhouse Square is elevated above the general UK terrorist threat.

Hoare Lea has developed a number of recommendations which will be further considered and incorporated into the operation of the building. These recommendations include physical protection as crime preventative mitigations, aligned with Automated Access Control System (AACS), Intercoms and associated supporting CCTV system. There has been specific consideration to the following areas:

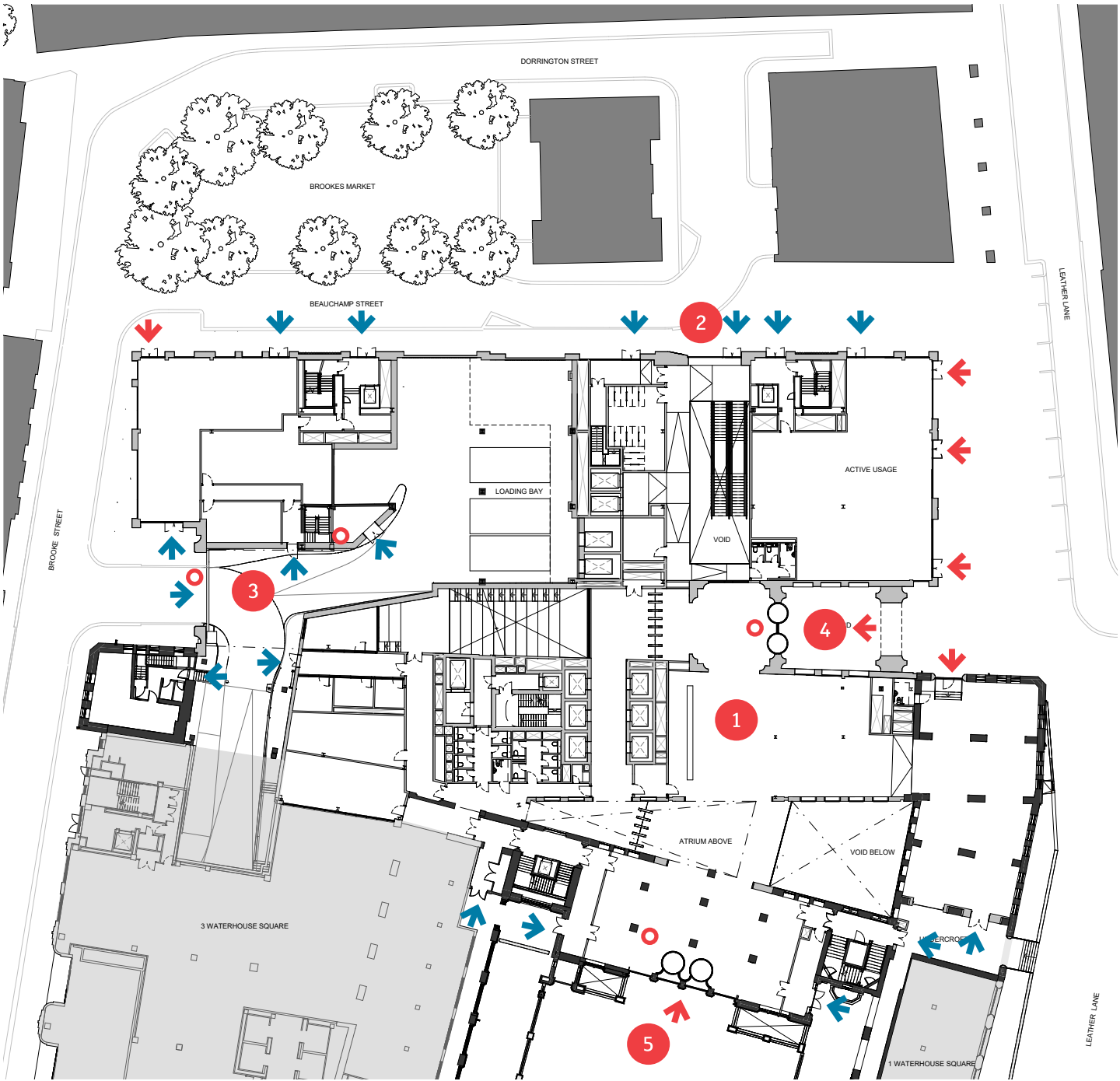
- Main reception and entrances
- External facades
- Loading bay (including lifts)
- Floor plate entrances
- BOH rooms
- Cycle entrance & centre
- Circulation and escape exits

The introduction of active uses, CCTV and 24 hour security act as a deterrent to Other Theft and Anti-Social Behaviour as well as other less prevalent threats potentially to be suffered by development occupants, but do not eliminate the risk.

Key

- 1. Main reception
- 2. Cycle entrance
- 3. Loading bay: gated and able to be shut down when not in use
- 4. Greville Street entrance
- 5. Waterhouse Square entrance

- Staffed space or door
- ➡ Main entry points
- ➡ Secondary entry points



8.5 Construction

Facade Construction

Heritage Assets

The principle facades of the Heritage Assets will be retained and restored. Existing secondary glazing will be removed and replaced with higher quality single pane secondary glazing, providing increased acoustic and thermal performance. Existing primary windows will be sensitively repaired where required. The thermal performance of the roof and facades where contemporary finishes are present will be improved with new insulation. Existing features will be restored.

New Facades

The new building facades have been carefully located and designed to balance the need for good daylighting whilst minimising the risk of overheating. In particular, this has been achieved using depth and form (bays) for the facade and the use and placement of recessed balconies.

The facades are proposed to be very highly insulated with a very low air permeability.



Existing Waterhouse

Entrance

New Facades

8.6 Maintenance and Cleaning

Overview

Maintenance and Cleaning Strategy

The maintenance and cleaning strategy for 2 Waterhouse Square has been considered and split between the heritage and modern elements of the building.

Heritage Assets

The Waterhouse Square Building is Grade II* listed and is there is very little change to the original building proposed. A strategy tailored to the existing building has been developed with improvements and upgrades proposed where possible.

Modern Extension

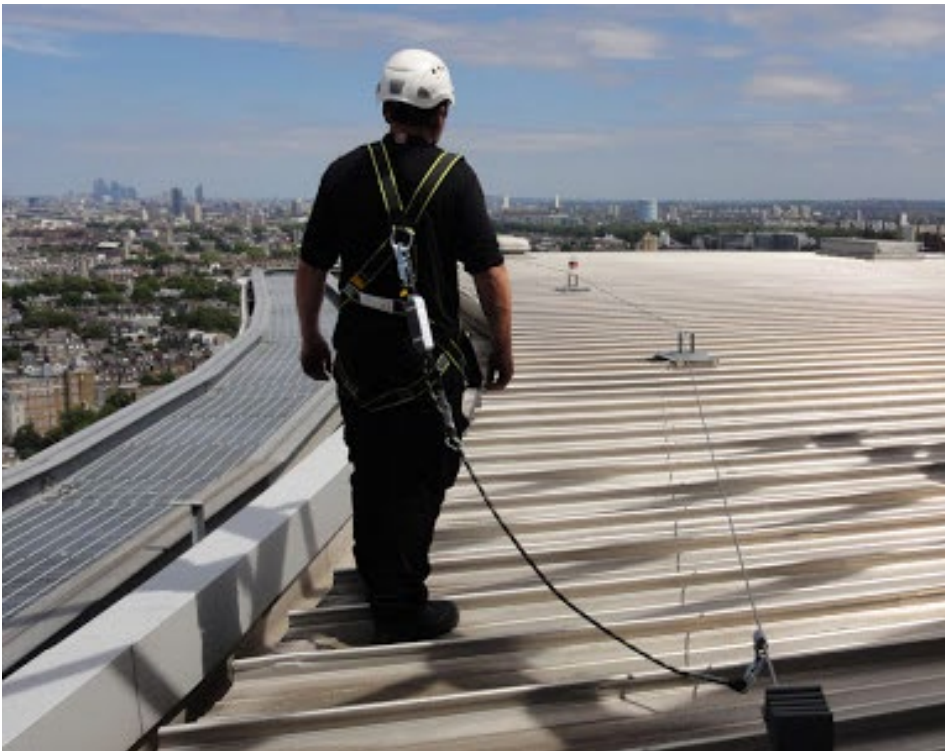
The refurbished modern extension massing is stepped and shaped as a result of the proposal's relationship to its context. Therefore strategy appropriate to this geometry has been proposed.



MEWP



Waterfed pole system



Mansafe PPE attachment wire system

8.6 Maintenance and Cleaning

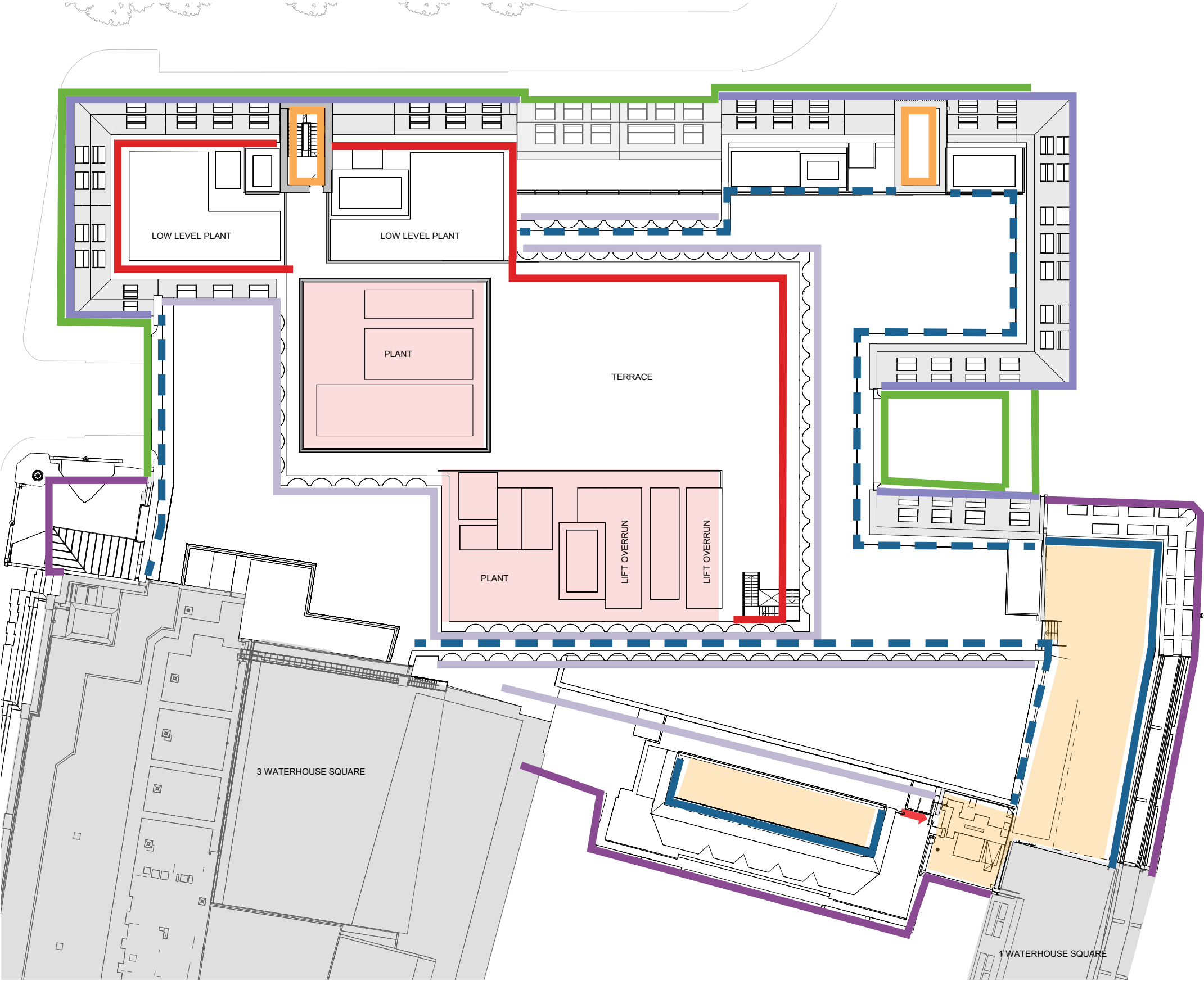
Proposed Strategy

Key - Facade access

- MEWP for routine/primary access, Scaffold + temporary mobile lifting equipment for major repairs/replacements)
- Mansard access via set back Juliette balconies/inset terraces for routine/primary access, MEWP/scaffolding access for major repairs/replacements)
- Access via adjacent roof/terrace below
- Access from ground floor level using waterfed poles (rope access could be provided subject to detailed assessment)
- Existing handrail
- Proposed handrail/1100mm high parapet wall

Key - Roof access

- New man-safe PPE attachment wire system
- Existing access maintained (potential to upgrade existing safety systems - subject to further investigations)
- Proposed handrail/1100mm high parapet wall
- Safe working zone (enclosed)



8.7 Fire Strategy

Summary

The Fire Strategy has been developed with Jensen Hughes (Fire Consultants). Input has also been provided by Bureau Veritas (Approved Inspectors).

Limitations

- This information relates only to the 2 Waterhouse Square site development and should not be used for any other purposes. 1 and 3 Waterhouse Square has been considered in the development of the 2 Waterhouse Fire Strategy.
- The building designs have not yet been formally approved by the building control body and the fire safety proposals in this report may require further discussion and amendment to gain formal approval.
- The fire safety proposals for the development will continue to be updated and developed as the building designs progress.

Summary

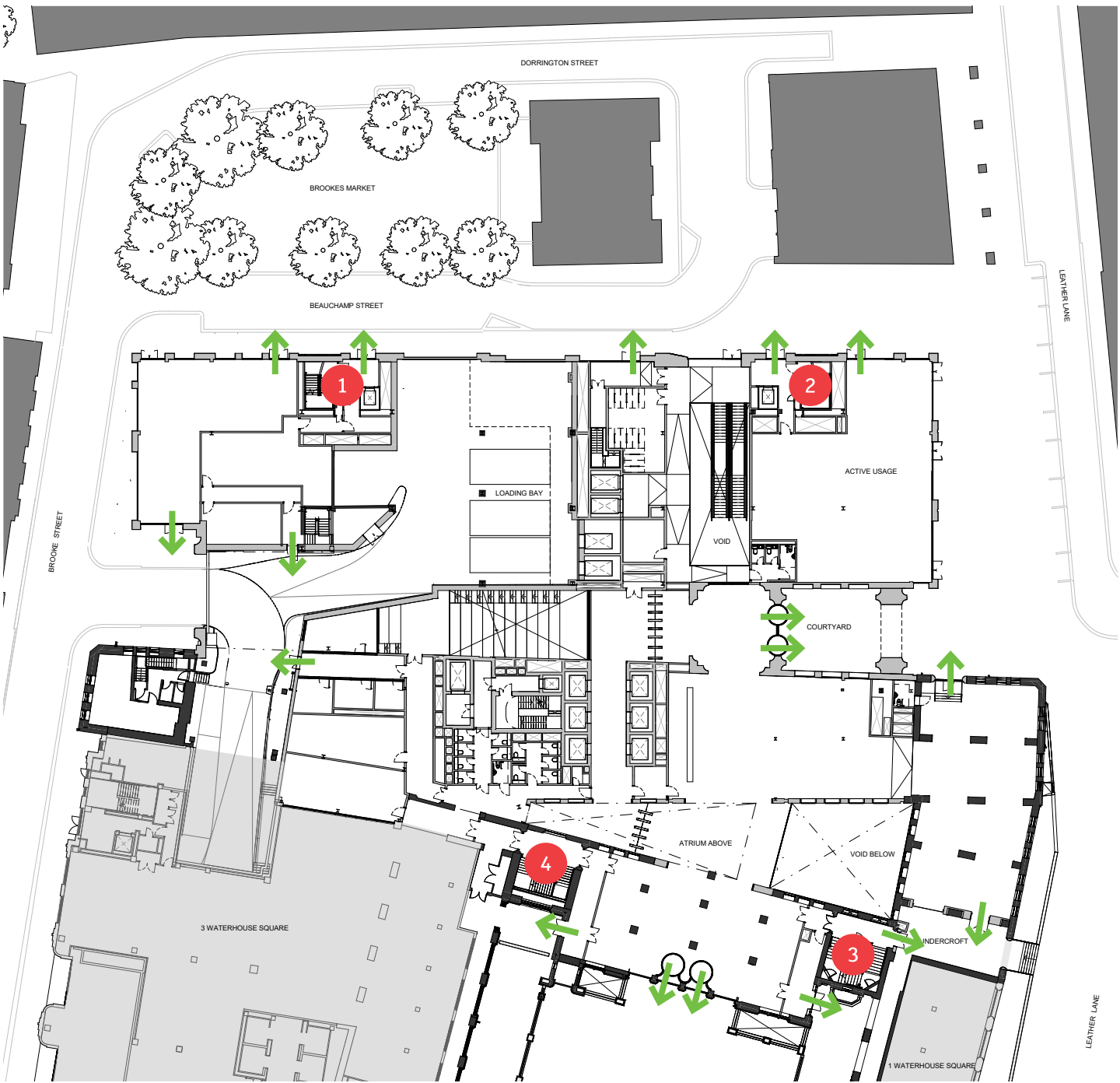
The team have developed the general principles of the Fire Strategy and intend to review these with London Fire Brigade.

2 Waterhouse Square is interconnected with 1 and 3 Waterhouse Square by adjacent existing heritage cores. 1 & 3 Waterhouse Square have been considered as the proposal has developed, and existing strategies incorporated.

Some key areas of consideration have been:

- Access to existing shared escape stairs used by 1 & 3 Waterhouse Square respectively
- Sprinkler provision
- Dignified means of escape for all occupants

1. 2 Waterhouse Square - FF Core (B1-6 (stair continues to serve roof))
2. 2 Waterhouse Square - FF Core (B1-5 (stair continues to serve roof))
3. 2 Waterhouse Square - Upgraded for fire fighting use (LG-5)
4. Existing stair core



8.7 Fire Strategy

Building Summaries

Design Guidance

The design has been primarily based on the guidance within:

- BS 9999 2017, Fire safety in the design, management, and use of buildings. Code of practice (for the commercial and plant spaces).
- Additionally, the design has referred to the Approved Document B: Volume 2 2019 (incorporating 2020 and 2022 amendments) to supplement BS 9999 with respect to recent changes in regulations and guidance which are not yet reflected in BS 9999
- London Plan 2021, has been considered and addressed. In addition to the London Plan itself, development of the design and the Fire Statement has considered the guidance in the GLA document, London Plan Guidance, Fire Safety, February 2022

Summary

- **Risk Profile(s):**
Basement and First to Sixth Floor levels it is assumed that all occupants will be alert and familiar with the building as all areas are either office or plant space. These areas have therefore been assessed against an occupant risk profile of A1 as the building is sprinklered.
- At Lower Ground Floor and Ground Floor levels, there is a mix of occupant profiles, with some areas likely to be occupied by people who are alert but not familiar with the building (e.g., function spaces at Lower Ground Floor and commercial spaces at Ground Floor levels). These areas have therefore been assessed against a B1 occupant profile as the building is sprinklered
- **Height of Top Floor:**
More than 18m but less than 30m.
- **Evacuation Strategy:**
The entire building will operate a simultaneous evacuation strategy. In the existing condition, the alarms between 2 Waterhouse Square and the neighbouring 1 and 3 Waterhouse Square are interlinked, with a confirmed fire in any building triggering a full evacuation of all other buildings within the block. This is due to a lack of assurance on the fire resistance of the party wall between the three buildings. There is an aspiration for this interlink to be omitted for the benefit of business continuity, although this will be reliant on survey and upgrade of the party wall. The evacuation strategy has been developed on the assumption that all buildings (1, 2 & 3 Waterhouse Square) evacuate together, as this will place the greatest pressure on the shared evacuation stairs Fire detection & warning, fire suppression, horizontal and vertical escape, refuges, loadbearing elements of structure, compartmentation, fire mains & hydrants, vehicle access, access for firefighters, venting of heat & smoke from basements.