Attachment A14

Pedestrian Comfort Assessment - 15-25 Hunter and 105-107 Pitt Street, Sydney

BATES SMART ON BEHALF OF MILLIGAN GROUP PTY LTD

MARCH 2022

15-25 HUNTER STREET AND 105-107 PITT STREET, SYDNEY

PRELIMINARY PEDESTRIAN COMFORT ASSESSMENT

Question today
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15-25 Hunter Street and 105-107 Pitt Street, Sydney
Preliminary Pedestrian Comfort Assessment
Bates Smart on behalf of Milligan Group Pty Ltd

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REV	DATE	DETAILS
F	23/03/2022	Area Update

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TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 PROJECT BRIEF

This Pedestrian Comfort Assessment has been prepared by WSP in support of a Planning Proposal to amend the Sydney Local Environmental Plan 2012 (Sydney LEP). This report has been prepared on behalf of Milligan Group Pty Ltd (the Proponent) and its related entities and consultants, representatives and agents and FT Sydney Pty Ltd as trustee for FT Sydney Unit Trust. It relates to an amalgamated site at 15-21 Hunter Street and 105-107 Pitt Street (the site).

The purpose of this Planning Proposal is to amend the site's Floor Space Ratio (FSR) development standard, and the Maximum Building Height to align with the Martin Place Sun Access Plane contained within the concurrent Central Sydney Planning Proposal.

This Planning Proposal supports the City of Sydney Council's draft Central Sydney Planning Strategy (Draft CSPS) by unlocking additional employment generating floor space within a designated tower cluster. The proposed Sydney LEP amendment is part of the broader redevelopment plan for the site to facilitate a new commercial office tower. It will also facilitate significant public benefits through additional site activation and embellishment of the public domain.

The Planning Proposal is accompanied by amendments to the Sydney Development Control Plan 2012 (Sydney DCP). The site specific DCP amendments reflect the proposed outcome to provide a podium tower scheme.

This is reflected in the accompanying reference design prepared by Bates Smart which serves as a baseline proof of concept for this Planning Proposal. This 2,108m2 strategic site presents a unique opportunity to deliver a landmark premium commercial office tower that will exhibit design excellence and offer significant employment opportunities for global Sydney.

The uplift being sought is consistent with the strategic intent of the draft CSPS, which contains the City's requirements and expectations for projects pursuing this pathway. Following the Planning Proposal, the planning approval pathway involves a competitive design process and a detailed Development Application. As such, this report reflects the concept stage of the proposal, and may be embellished as the detailed design and required works evolve.

1.2 DEVELOPMENT SITE AND REPORT CONTEXT

The development site will comprise the consolidation of five existing property titles as follows:

- 15-17 Hunter Street, Sydney;
- 19-21 Hunter Street, Sydney;
- 23-25 Hunter Street;
- 105 Pitt Street, Sydney; and
- 107 Pitt Street, Sydney.

This report discusses the pedestrian implications of the proposal, including an assessment of existing and future post development pedestrian conditions along the site frontages to Pitt Street and Hunter Street.

1.3 REFERENCED DOCUMENTS

In the preparation of this assessment, the following documents have been referenced:

- Architectural Drawings prepared by Bates Smart dated March 2022
- Sydney Local Environmental Plan 2012;
- Section 3 of the Sydney Development Control Plan 2012;
- Schedule 7 of the Sydney Development Control Plan 2012;
- Australian Standard AS2890.
- Pedestrian Comfort Guidance For London – Guidance Document - Version 2 (2019) – Prepared by Transport for London
- Pedestrian Level of Service and Trip Generation – City of Melbourne (2012)
- Travel Zone Projections 2019 (TZP19) for Population Workforce & Employment in New South Wales (dated 25/09/2020)

In the course of undertaking this assessment, a desktop inspection of the subject site and surrounding road network has been undertaken to ascertain existing conditions.

The report concludes that the post-development pedestrian comfort levels will be sufficient for a development of this nature and subsequently should be appropriate for the sought planning permit.

2 BACKGROUND AND ROAD NETWORK

2.1 SITE LOCATION AND LAND USE

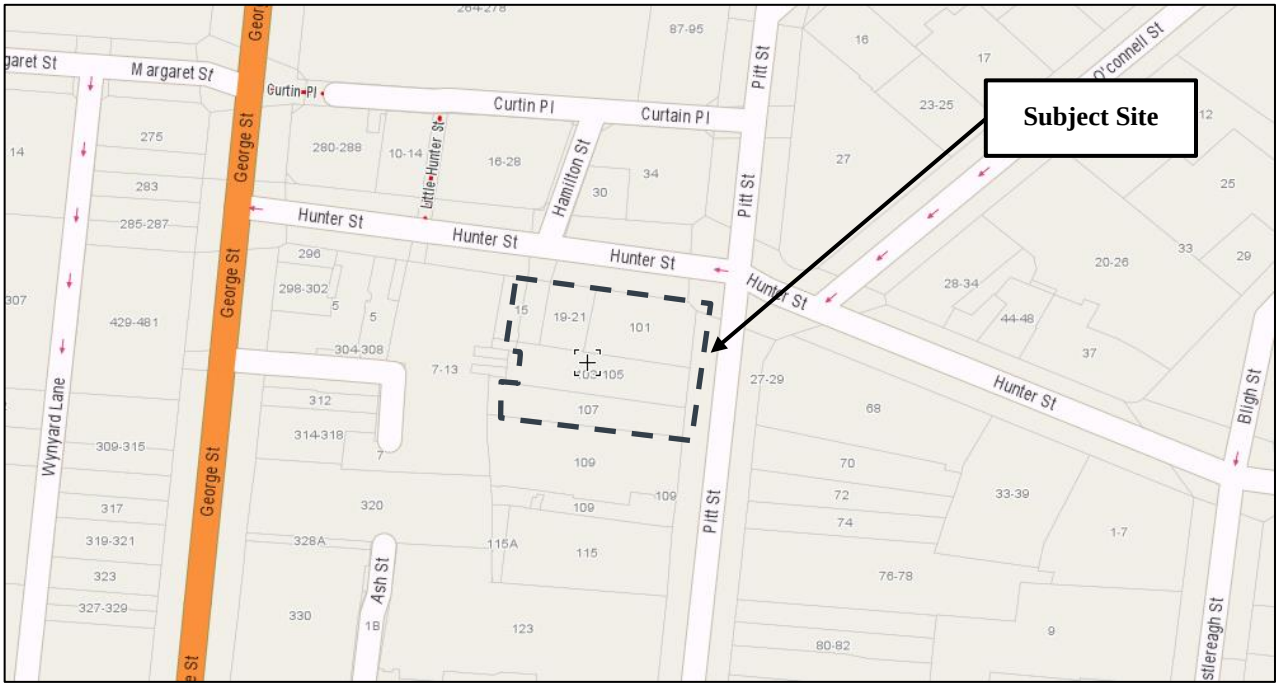
The subject site is located within the Sydney CBD on the south-west corner of Hunter Street and Pitt Street, and is currently located across five existing property titles as follows:

- 15-17 Hunter Street, Sydney (Comfort Hotel);
- 19-21 Hunter Street, Sydney;
- 23-25 Hunter Street (Currency House);
- 105 Pitt Street, Sydney; and
- 107 Pitt Street, Sydney.

The proposed development has a site area of 2,108sqm, and has frontages of approximately 48.2 metres to Hunter Street along its northern boundary and 39.2 metres to Pitt Street along its eastern boundary. The subject site is currently occupied by a number of uses, including retail (food and drink), commercial and hotel.

In addition, the subject site is located within Sheet 14 of the Sydney LEP/DCP 2012 maps and is situated under the Metropolitan Centre (B8) Zone of the Sydney LEP. Further, the subject site is located on land in Category D under the Public Transport Accessibility Level (PTAL) Index.

Given its location within the Sydney CBD, the subject site is characterised by surrounding high density development, primarily containing commercial office and retail uses. The location of the subject site in the context of the surrounding road network is shown in Figure 2.1.



Source: www.street-directory.com.au

Figure 2.1 Site Location

2.2 SITE ACCESSIBILITY – PEDESTRIAN CONNECTION

Located within the Sydney CBD, and given the provision of limited onsite parking, site access will predominately be facilitated through pedestrian movements along the site's street frontages. These pedestrian movements will be generated through staff and visitors who either live in close proximity to the site, catch public transport (train, bus, light rail) or drive and park elsewhere before walking to the site.

Discussion regarding the proximity and provision of available public transport services is provided as follows:

2.2.1 PUBLIC TRANSPORT

Being within the Sydney CBD, the site has excellent accessibility to the public transport network. Table 2.1 outlines the key services that are situated within close proximity of the subject site.

Table 2.1 Public Transport Options

SERVICE	ROUTE	ROUTE DESCRIPTION	NEAREST STOP	DISTANCE FROM SITE	PEAK ARRIVAL FREQUENCY
Train	T1, T2, T3, T4, T8, T9	Various	Wynyard Railway Station	300m (4 min walk)	4-5 mins
Light Rail	L2 - Randwick Line	Randwick – Circular Quay	Wynyard Light Rail	280m (3 min walk)	8 mins
	L3 - Kingsford Line	Kingsford – Circular Quay			8 mins
Bus	X73	City Spring St – Coogee (Express Service)	Spring St before Pitt St	140m (2 min walk)	6-10 mins
	X74	City Spring St – Coogee via Alison Rd (Express Service)			12-16 mins
	X77	City Spring St – Maroubra Beach (Express Service)			10-13 mins
	X39	City Gresham St – Clovelly (Express Service)	Pitt St opp. Australia Square	140m (2 min walk)	10-20 mins

2.2.1.1 TRAIN

The metropolitan train system plays a significant part in moving people around Sydney and its outer suburbs and is a practical and convenient alternative to private motor vehicle use.

The subject site is well placed to make use of the Sydney train network with Wynyard Railway Station situated an approximate 4-minute walk west of the development site. Wynyard Railway Station primarily services six train lines, which include the North Shore & Western Line (T1), the Inner West & Leppington Line (T2), the Bankstown Line (T3), the Eastern Suburbs & Illawarra Line (T4), the Airport & South Line (T8), and the Northern Line (T9).

The above train lines allow connection from all parts of the metropolitan area to the Sydney CBD.

In addition, the rail network is to introduce a new standalone railway, known as Sydney Metro with Sydney Metro West also to be located within the vicinity of the subject site. As part of the works, a new station will be developed and integrated with the existing Martin Place Station, which is an approximate 5-minute walk east of the subject site. The new station is proposed to provide a northern entrance opening to Castlereagh, Hunter and Elizabeth streets.

2.2.1.2 LIGHT RAIL

The CBD and South East Light Rail is a new light rail network for Sydney and runs along George Street (approximately 70m west of the subject site).

The 12km route features 19 stops, extending from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.

Sydney Light Rail plays a key role in enabling Sydney's transport future by transporting thousands of commuters between the CBD and Randwick or Kingsford in the South Eastern suburbs, and between Sydney's Inner West suburbs and Central. The light tail is a convenient alternative to private motor vehicle use.

2.2.1.3 BUS NETWORK

The subject site is well serviced for bus transport with bus express services X39, X73, X74, and X77 operating within a 2-minute walk from the subject site. Route description and the peak arrival frequency can be found for each bus route in Table 2.1.

3 PROPOSAL

The purpose of this Planning Proposal is to amend the site's Floor Space Ratio (FSR) development standard, and the Maximum Building Height to align with the Martin Place Sun Access Plane contained within the concurrent Central Sydney Planning Proposal.

An indicative reference design has been prepared Bates Smart dated March 2022 which indicates the provision of the following:

- A 51-storey commercial tower above ground level and six (6) basement levels accommodating office, retail, food and beverage, and gym use.
- A site area of 2,108sqm and a total Gross Floor Area of 52,531sqm.
- Vehicle access to the on-site car park and loading/waste collection areas via a new crossover onto Pitt Street. All onsite loading and waste collection is to be contained within a basement level, directly access from a ramp from Pitt Street (Ground Level).
- A mechanical stacker arrangement, accommodating 41 spaces accessed via two car stacker bays within the basement car park/servicing level.
- Provision of loading and waste collection with a basement level.
- Access to service vehicle parking spaces via two car lifts from the car parking/services basement level.
- A basement level accommodating End-of-Trip facilities.

A copy of the provided indicative reference design plans showing the site access and basement car park layout are included in Appendix A to this report.

4 PEDESTRIAN NETWORK CONDITIONS

4.1 EXISTING PEDESTRIAN VOLUMES

Due to the current situation with COVID-19, it is considered that the undertaking of counts of existing pedestrian flows and volumes along the site's frontages may not provide an accurate representation of typical use. This is due to current changes in the way people are working (i.e. 'work-from-home' requirements) and as such it is anticipated that pedestrian traffic could be significantly reduced, thereby resulting in the data being inadequate for future analysis.

Notwithstanding the above, pedestrian traffic volumes have been sourced from the signalised intersection of Pitt Street and Hunter Street for a survey that was undertaken there on Thursday 27th April, 2017. This survey identified a morning (AM) pedestrian peak occurring between 8:00am – 9:00pm and an afternoon (PM) peak occurring between 5:00pm – 6:00pm. The average recorded pedestrian volumes are shown in Figure 4.1 with the peak recorded pedestrian volumes shown in Figure 4.2 below.

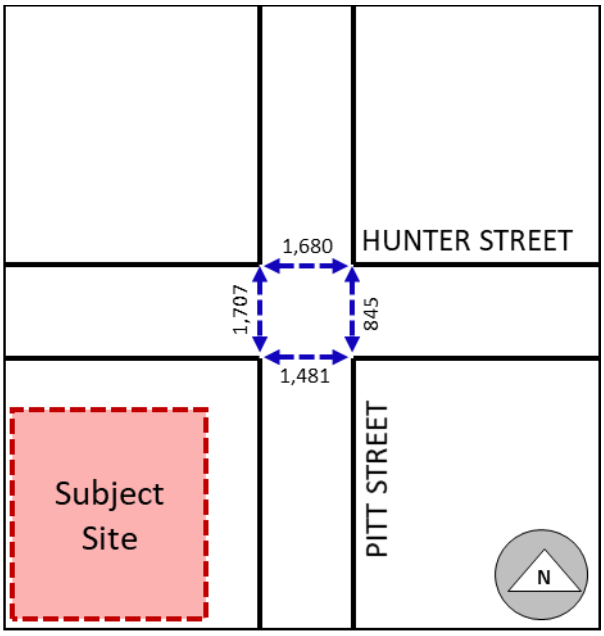


Figure 4.1 Average Historic Pedestrian Volumes

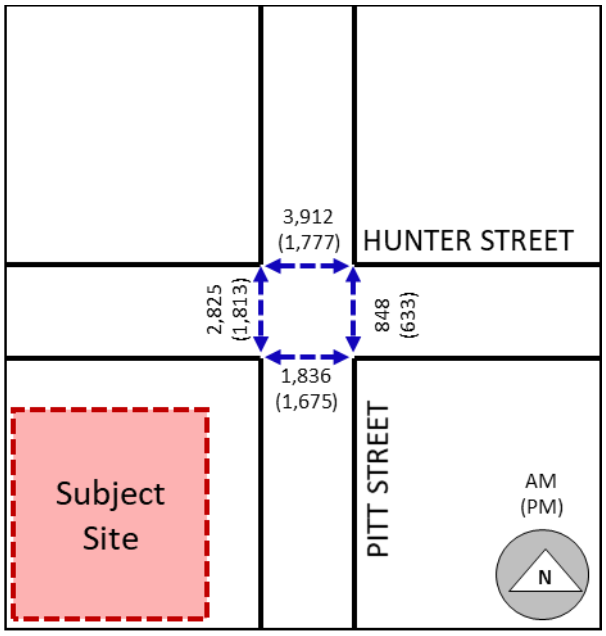


Figure 4.2 AM/PM Peak - Historic Pedestrian Volumes

It is noted that this data is of a historic nature (~5 years old) and subsequently consideration has been given to application of a growth factor to these volumes in order to estimate current pedestrian volumes. To ascertain this growth rate the "*Travel Zone Projections 2019 (TZP19) for Population Workforce & Employment in New South Wales"* has been reviewed, which outlines an anticipated average annual growth rate of 1.77% for the Greater Sydney area for the 2016 – 2036 period.

Based on application of this rate over a 5-year period to the recorded traffic volumes, Figure 4.3 and Figure 4.4 have been prepared showing the anticipated respective average and AM/PM peak 2022 pedestrian hourly volumes at this intersection.

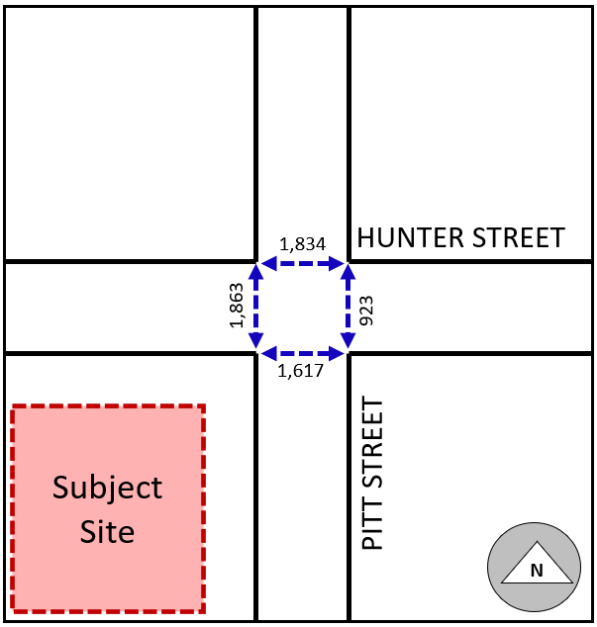


Figure 4.3 Assumed Average 2022 Pedestrian Volumes

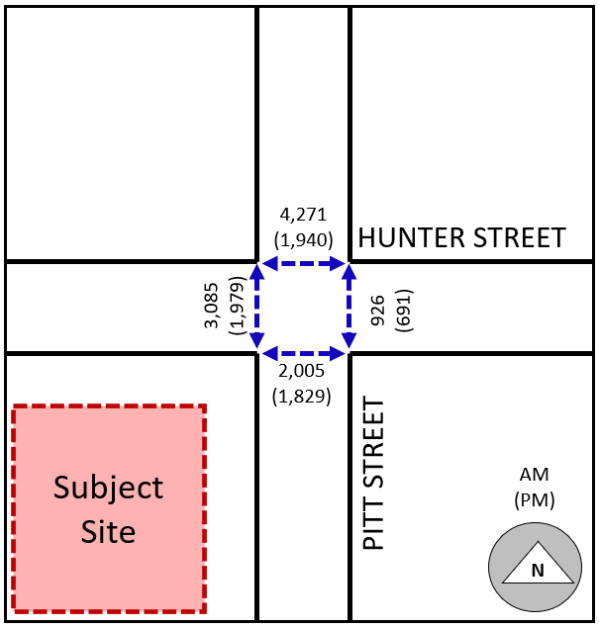


Figure 4.4 Assumed AM/PM Peak 2022 Pedestrian Volumes

Overall, these volumes indicate a total of 5,090 pedestrian movements at the subject site (southwestern) corner of the intersection in the AM peak, with a further 3,808 pedestrian movements in the PM peak. This is based on incorporation of the growth factor for this area as noted earlier.

These resultant volumes have subsequently been used to ascertain the volume of pedestrian movements currently along the frontage of the site. In determining these volumes, the assumption has been made that given the direction and proximity of surrounding public transport options, pedestrian movements would be split with 70% travelling east-west along Hunter Street, with the remaining 30% traveling north-south along Pitt Street. It is once again noted that these resultant volumes and distributions are assumptions only that have been made given the current COVID-19 situation. The resultant average and peak volumes along the frontages of the site are shown in Figure 4.5 and Figure 4.6 respectively.

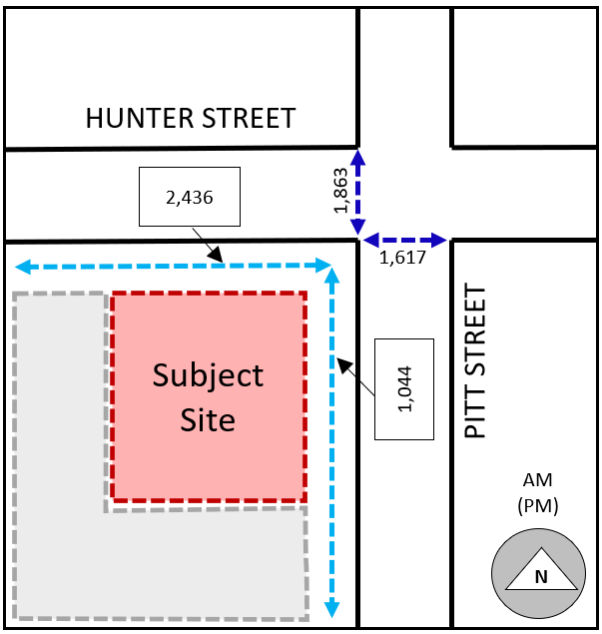


Figure 4.5 Assumed Average 2022 Site Frontage Pedestrian Volumes

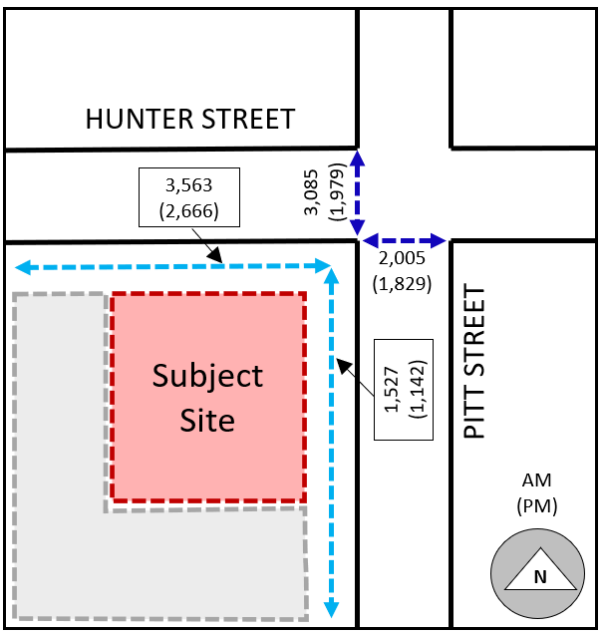


Figure 4.6 Assumed 2022 AM/PM Peak Site Frontage Pedestrian Volumes

4.2 EXISTING PEDESTRIAN FOOTPATH NETWORK

4.2.1 HUNTER STREET

Hunter Street runs along the northern frontage of the development site and accommodates east-west pedestrian movements.

Along the frontage of the site the pedestrian footpath has a titled width of 3.5m, however due to the provision of localised widening at the entrance to the existing building it varies from approximately 5m width at the Pitt Street Intersection, down to 3.5m to the west of the development sites boundary. It is understood that similar setbacks will also be retained post development. Along its length a signal control box, street stall, several post boxes, a tree, signposts, and a parking ticket machine are located resulting in localised narrowing in these areas.

Kerbside parking is also permitted along Hunter Street, outside of clearway hours, providing a barrier between pedestrians and moving vehicle traffic.

Figure 4.7 and Figure 4.8 shows the typical conditions along the Hunter Street frontage of the subject site.

Source: *www.google.com/maps*

Figure 4.7 Hunter St facing East towards Pitt St

Source: *www.google.com/maps*

Figure 4.8 Hunter St Facing West from Pitt St

4.2.2 PITT STREET

4.2.2.1 HISTORICAL CONDITIONS

Pitt Street runs along the eastern frontage of the development site and accommodates north-south pedestrian movements.

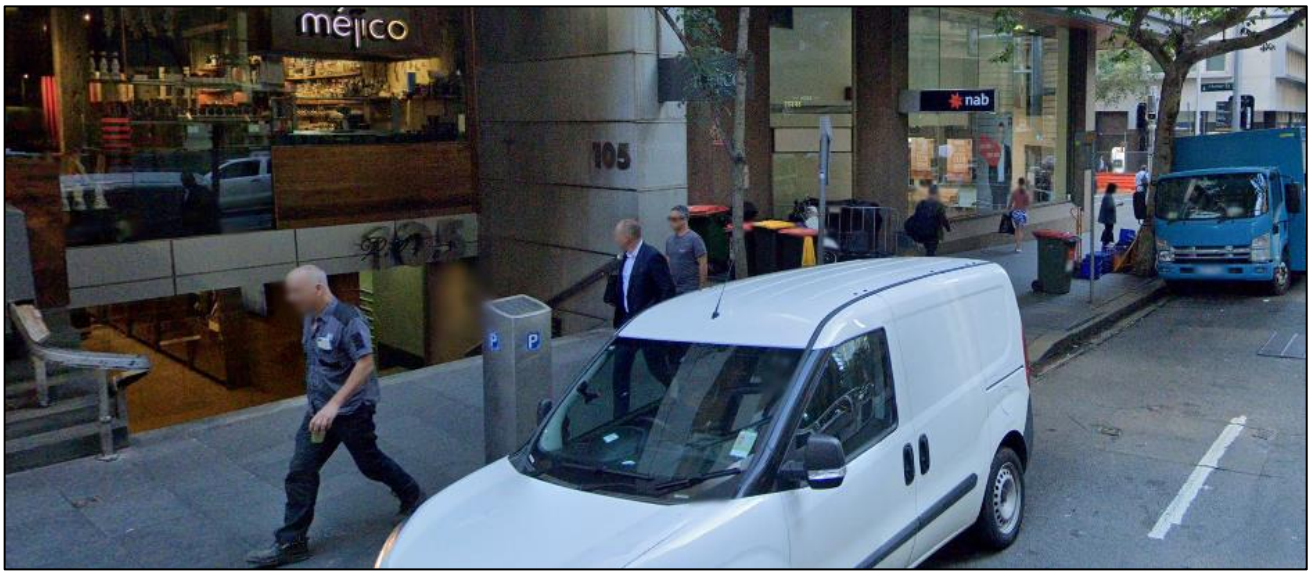
Along the frontage of the site the pedestrian footpath generally maintains a fairly consistent width of 4m. Along its length several trees, a bin, signposts, and a parking ticket machine are located resulting in localised narrowing in these areas.

Kerbside parking and loading is also permitted along Pitt Street, providing a barrier between pedestrians and moving vehicle traffic.

Figure 4.9 and Figure 4.10 show the typical historical conditions along the Pitt Street frontage of the subject site.

Source: *www.google.com/maps*

Figure 4.9 Pitt St Facing South from Hunter St



Source: *www.google.com/maps*

Figure 4.10 Pitt St Facing North towards Hunter St

4.2.2.2 POP-UP CYCLEWAY CONDITIONS

The recent Covid-19 pandemic has had an impact on how businesses and subsequently the CBD operate particularly with respect to traffic volumes (vehicles, pedestrians, and cyclists) within key road corridors. Subsequently, the City of Sydney, in conjunction with Transport for NSW have looked to make some changes to how the available road space is utilised. These changes have included the provision of a pop-up cycleway along Pitt Street, directly along the frontage of the site.

Based on these changes, Pitt Street now accommodates a single vehicle southbound travel lane, a kerbside parking lane on the eastern side of the carriageway, and a two-way cycle lane along the western side. A reduction in the speed limit to 30km/h has also been applied along this section of Pitt Street.

Figure 4.11 and Figure 4.12 show the modified conditions along the Pitt Street frontage of the subject site.

Source: *www.google.com/maps*

Figure 4.11 Pitt Street Cycleway Facing North

Source: *www.google.com/maps*

Figure 4.12 Pitt Street Cycleway Facing South

4.2.3 FOOTPATH CLEARANCES

Based on the preceding desktop investigations, the following diagram (Figure 4.11) has been prepared, indicatively showing footpath clearance widths along the frontages of the development site. These dimensions and footpath clearances will be used for assessing existing and post development pedestrian comfort levels for the footpaths along the frontage of the site. It is noted that the dimensions used are assumptions only, based on a desktop assessment of the site.

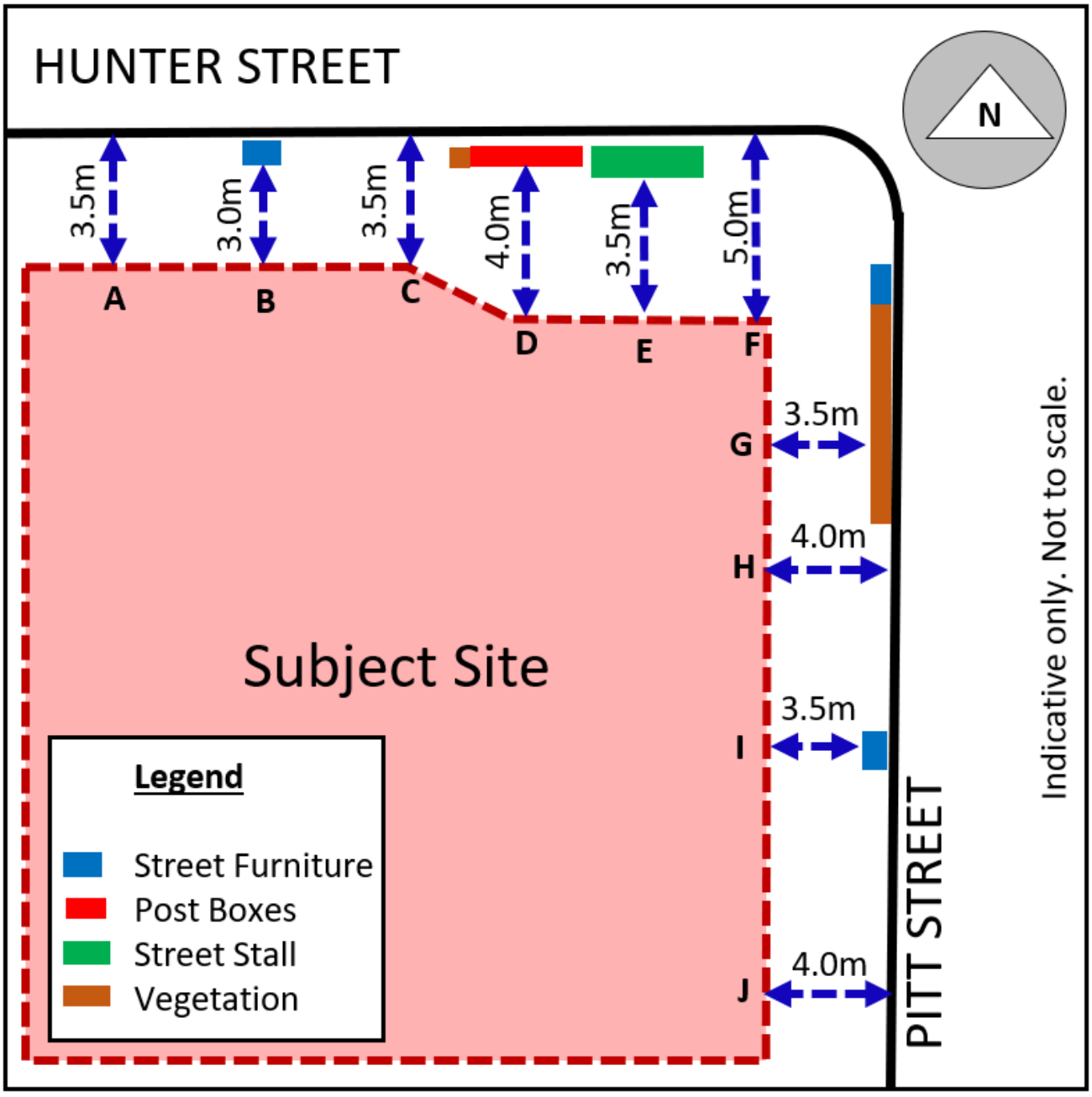


Figure 4.13 Pedestrian Footpath Clearances (Approximations Only) – Site Frontage

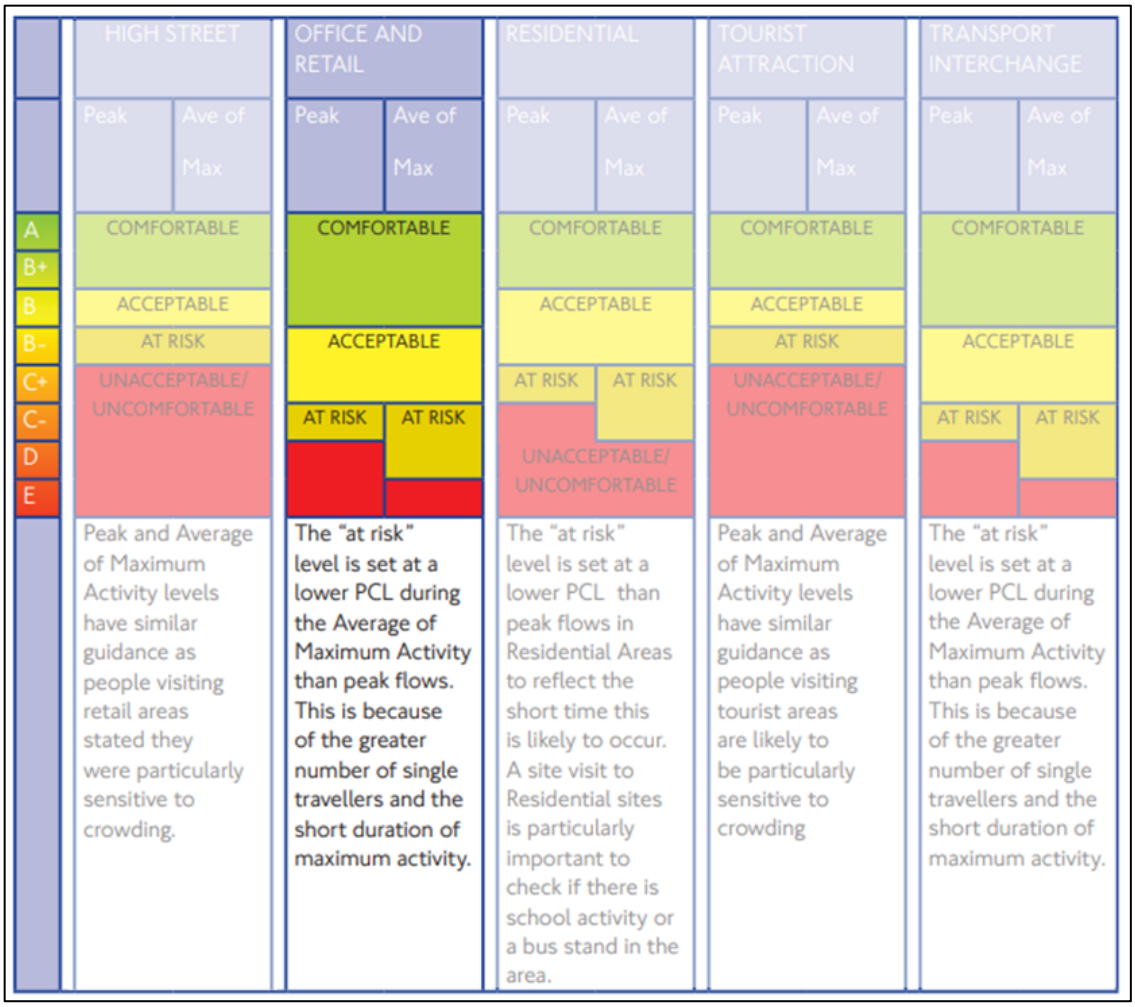
5 METHODOLOGY AND ASSUMPTIONS

5.1 ANALYSIS METHOD

In line with City of Sydney's requirements, assessment of pedestrian comfort is to be undertaken to accord with the methodology and guidance outlined within the "Pedestrian Comfort Guidance for London – Guidance Document" as prepared by Transport for London, dated 2019.

The Guidance Document sets out Pedestrian Comfort Levels (PCL) for varying areas across a metropolitan city with varying grades of PCL considered acceptable subject to what the primary surrounding land use is. These are detailed in Figure 5.1. In conjunction with this, detail is also provided in relation to what each grade of PCL relates to in terms of pedestrian occupation and capacity. This is assessed on basis of how many people per metre width of footpath per minute (ppmm) can be accommodated at a specific section of a footpath, and how many people are required to be accommodated. The width of the footpath is based on the total provided width (building to kerb), minus any obstructions within the width (bike parking, bins, etc) with a further 200mm offset allowance to edge of building, kerb, and any obstructions. Areas less than 0.6m width are also excluded as they are considered too narrow for a pedestrian to walk through. This is shown in Figure 5.2.

For an 'Office and Retail' precinct, such as what the site is located within, Figure 5.1 identifies that an acceptable Pedestrian Comfort Level is anything above a C-. Below C, paths are considered to be 'At Risk' or 'Uncomfortable'.



Source: Pedestrian Comfort Guidance for London – Guidance Document (Version 2 – 2019)

Figure 5.1 Guidance for different area types

Source: Pedestrian Comfort Guidance for London – Guidance Document (Version 2 – 2019)

Figure 5.2 Pedestrian Comfort Levels on Footpaths

5.2 ASSUMPTIONS

In undertaking the Pedestrian Comfort Level Assessment, the following assumptions have been made based on a review of the area, and available data:

- Pedestrian volumes as per the calculations and allowances made in Section 4.1.
- Pedestrian movement split of 70% travelling east-west along Hunter Street, and 30% traveling north-south along Pitt Street.
- Pedestrian growth factor of 1.77% as per the rate noted within the "*Travel Zone Projections 2019 (TZP19) for Population Workforce & Employment in New South Wales*" for the Greater Sydney area for the 2016 – 2036 period.
- Office employees occupy floor area at a rate of 1 employee per 16sqm. – *City of London Pedestrian Comfort Level Methodology*
- Daily occupancy of office/commercial buildings is 85% (allowing for employees on sick leave, annual leave, working from home, away on business, etc) – *City of London Pedestrian Comfort Level Methodology*
- 43% of employees arrive at the office during the AM peak – *City of London Pedestrian Comfort Level Methodology*
- 33% of employees depart from the office during the PM peak – *City of London Pedestrian Comfort Level Methodology*

In addition to these operational assumptions, the following assumptions have been made with respect to the existing tenancies currently occupying the subject site, in order to allow for a comparative assessment against the proposed development:

- Commercial GFA for each of the existing buildings on the subject site are listed in Table 5.1. The GFA for each site has been calculated based on site area from aerial inspection, multiplied across the number of above ground levels available. Ground floors have been removed from the calculations to conservatively remove non office/commercial areas such as entrances and lobbies.

Table 5.1 Indicative Existing Buildings Floor Area

SITE	SITE AREA (M^2)	LEVELS ABOVE GROUND	GFA (M^2)
15-17 Hunter Street, Sydney	200	3	600
19-21 Hunter Street, Sydney	225	3	675
23-25 Hunter Street, Sydney	500	15	7,500
105 Pitt Street, Sydney	550	7	3,850
107 Pitt Street, Sydney	500	7	3,500
Total			**16,125**

- To calculate NLA of the existing buildings for comparison, in line with the proposed development it is estimated that this equates to approximately 85% of the GFA.

These assumptions have subsequently been applied in undertaking the following analysis.

6 ANALYSIS

In order to determine the impacts of the development on the pedestrian comfort level for the footpaths fronting the site, analysis has been undertaken under the following 3 scenarios:

- **Existing – 2020 Conditions**
    - Assessment is based on the existing anticipated volumes as presented within Section 4.1.
    - To be used as a base case and point of comparison against the future models.
- **Future – 2025 Conditions - No Development**
    - Assessment is based on future anticipated pedestrian volumes along the frontage of the site, without the development being undertaken.
    - Annual growth allowance of 1.77% applied to existing pedestrian volumes to allow for growth in the wider surrounding precinct. It is assumed that this growth factor also includes consideration for growth in pedestrian from other areas within the precinct such as additional developments and new Metro provisions.
    - To be used to identify what works may be required to be undertaken to improve pedestrian comfort along the site frontage, irrespective of the development being undertaken.
- **Future – 2025 Conditions - With Development**
    - Assessment based on future pedestrian conditions along the frontage of the site, with allowance for the additional pedestrian movements as anticipated to be generated through delivery and occupation of the proposed commercial development. This includes allowance for growth conditions as per previous scenario.
    - To be used to identify possible works to the pedestrian network that may be required as a result of the introduction of additional pedestrian movements to and from the site.

The outcomes of the analysis for each of these scenarios is provided as follows:

6.1 EXISTING (2022) CONDITIONS

Table 6.1 has been prepared to assess the existing pedestrian comfort levels and operations along the Hunter Street and Pitt Street frontages of the development site. Pedestrian volumes that have been used in undertaking this analysis are the anticipated volumes as presented in Section 4.1.

When assessing the footpath network along the site frontages, consideration has been given to variations in useable width that have been created through the presence of street furniture, vegetation, or shifts in building alignments. The widths and areas that have subsequently been assessed are those that have previously been identified in Figure 4.11. The PCL effective widths used are based on these widths, with reduction applied to allow for 200mm offsets to building line, kerb, and obstructions within the path network.

Table 6.1 Existing (2022) Conditions

LOCATION*	PCL EFFECTIVE CLEAR WIDTH (M)	AM PEAK FLOW (PPMM)	AM PEAK PCL	PM PEAK FLOW (PPMM)	PM PEAK PCL
Hunter Street - Location A	3.1	19	C+	14	B
Hunter Street - Location B	2.6	23	C	17	B-
Hunter Street - Location C	3.1	19	C+	14	B
Hunter Street - Location D	3.6	16	B-	12	B
Hunter Street - Location E	3.1	19	C+	14	B
Hunter Street - Location F	4.6	13	B	10	B+
Pitt Street - Location G	3.1	8	A-	6	A-
Pitt Street - Location H	3.6	7	A-	5	A
Pitt Street - Location I	3.1	8	A-	6	A-
Pitt Street - Location J	3.6	7	A-	5	A

*Locations as noted relate to the locations as shown in Figure 4.11

The above outputs show that under current anticipated conditions Pedestrian Comfort Levels along both the Hunter Street and Pitt Street frontages of the site are at a grade of ‘C’ or higher and therefore meet the relevant requirements given the nature of the surrounding precinct as noted in Section 5.1.

6.2 FUTURE (2025) CONDITIONS– NO DEVELOPMENT

To provide as a point of comparison against how the pedestrian network may operate at the time when it is envisaged the proposed development will be completed and occupied, assessment has been undertaken for a 2025 future scenario. Pedestrian volumes for this period have been derived based on application a 1.77% per annum growth rate to the current volumes. The anticipated pedestrian volumes under this scenario are subsequently presented within Figure 6.1.

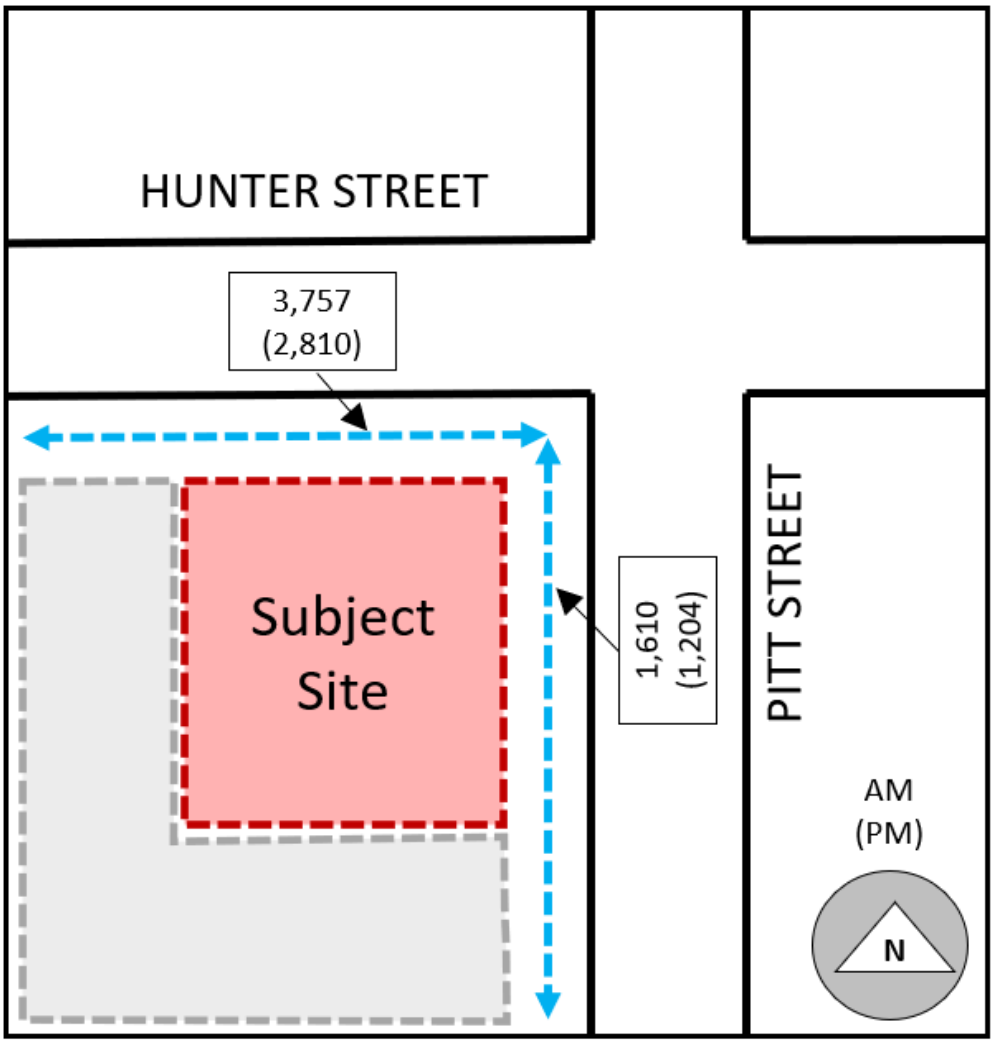


Figure 6.1 Future Pedestrian Volumes – No Development

Subsequently Table 6.2 following has been prepared showing the outputs of the assessment of these future volumes.

Table 6.2 Future (2025) Conditions – Without Development

LOCATION*	PCL EFFECTIVE CLEAR WIDTH (M)	AM PEAK FLOW (PPMM)	AM PEAK PCL	PM PEAK FLOW (PPMM)	PM PEAK PCL
Hunter Street - Location A	3.1	20	C+	15	B-
Hunter Street - Location B	2.6	24	C-	18	C+
Hunter Street - Location C	3.1	20	C+	15	B-
Hunter Street - Location D	3.6	17	B-	13	B
Hunter Street - Location E	3.1	20	C+	15	B-
Hunter Street - Location F	4.6	14	B	10	B+
Pitt Street - Location G	3.1	9	B+	6	A-
Pitt Street - Location H	3.6	7	A-	6	A-
Pitt Street - Location I	3.1	9	B+	6	A-
Pitt Street - Location J	3.6	7	A-	6	A-

*Locations as noted relate to the locations as shown in Figure 4.11

Based on these outputs, it is noted that whilst the majority of assessed locations will continue to operate with a PCL above a grade of 'C', in the AM peak Location B will drop below this limit (to a 'C-'), indicating that pedestrian comfort in this location may be at risk.

As shown in Figure 4.11, this location houses a single ticket machine, temporarily narrowing the useable footpath width. Mitigation to improve pedestrian comfort in this location could therefore take the form of removing this machine, thus widening the footpath. This arrangement has been assessed, with the outputs shown in Table 6.3 confirming that if the ticket machine is removed then the PCL will increase to a grade of 'C+', within the acceptable limit.

Table 6.3 Future (2025) Conditions – Street Modifications Location B

LOCATION*	PCL EFFECTIVE CLEAR WIDTH (M)	AM PEAK FLOW (PPMM)	AM PEAK PCL
Hunter Street - Location B	3.1	20	C+

For the purposes of the post development assessment, it is considered that as this is an existing constraint that will need to be addressed irrespective of whether the subject site is developed or not, that the modifications as noted above will be undertaken to improve the pedestrian comfort level in this location.

6.3 FUTURE (2025) CONDITIONS – WITH DEVELOPMENT

Post development of the site, it is anticipated that there will be an increase in the number of pedestrian movements along the frontage of the subject site as a result of the increase in available commercial space against what is currently provided in this location.

Table 6.4 has subsequently been prepared to provide a comparison against the existing uses on the site, and the proposed use of the site. For the sake of assessment, assumptions as noted in Section 5.2 have been applied in undertaking this assessment, with all existing uses assumed to be of a commercial nature.

Table 6.4 Estimated Staff Numbers – Indicative Existing and Proposed

DEVELOPMENT	GFA (M^2)	NLA (M^2)	STAFF RATES	OCCUPANCY ** (STAFF NO.)
Existing	16,125	14,239*	1 staff member per 16sqm floor area	756
Proposed	52,531	41,347	1 staff member per 16sqm floor area	2,584
Difference	36,406	27,108	-	1,828

*Calculated based on approximately 88% GFA in line with the NLA/GFA ratio of the indicative reference design.
**Assuming 85% Occupancy

Based on the preceding assessment, it is therefore anticipated that the proposed development could result in an increase of 1,828 employees within the precinct and adjoining footpath network. It is conservatively assumed that all of these employees will walk to and from the site. Based on a 70/30 split of these pedestrian movements between Hunter/Pitt Streets, as has already been applied in earlier distributions, Table 6.5 has been prepared to present the anticipated additional site generated pedestrian movements during the AM and PM peak periods.

Table 6.5 Additional Pedestrian Movements

DEVELOPMENT	TOTAL	AM PEAK*	PM PEAK**
Hunter Street	1,278	550	422
Pitt Street	549	236	181

*As per Section 5.2 it has been assumed that 43% of employees arrive during the AM peak.
** As per Section 5.2 it has been assumed that 33% of employees depart during the PM peak.

These volumes have been added to the anticipated 2025 volumes presented in Figure 6.1 to produce the anticipated post development pedestrian volumes as presented in Figure 6.2.

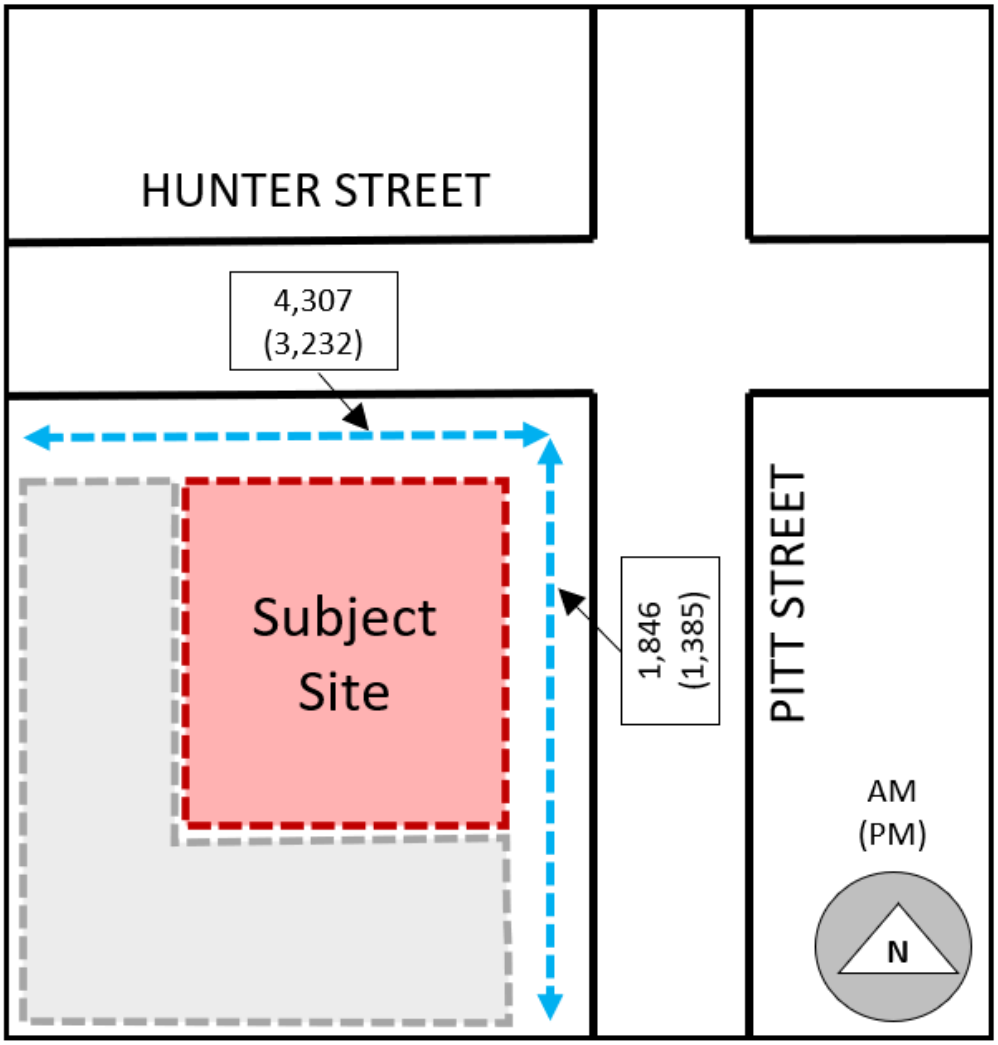


Figure 6.2 Future Pedestrian Volumes – With Development

With regards to the path widths and the streetscape along the frontage of the site, as addressed within Section 6.2, regardless of the development of the subject site, there are some modifications that need to be made to ensure that pedestrian comfort levels are adequately meet. Subsequently, it has been considered that these modifications will be made for the purposes of assessing the post development pedestrian comfort levels.

In addition to these changes, it is also noted that the proposed development will include the provision of a pedestrian walk-through from Hunter Street to Pitt Street. Based on these modifications, Figure 6.3 has been shared providing an indication of post development pedestrian footpath clearances.

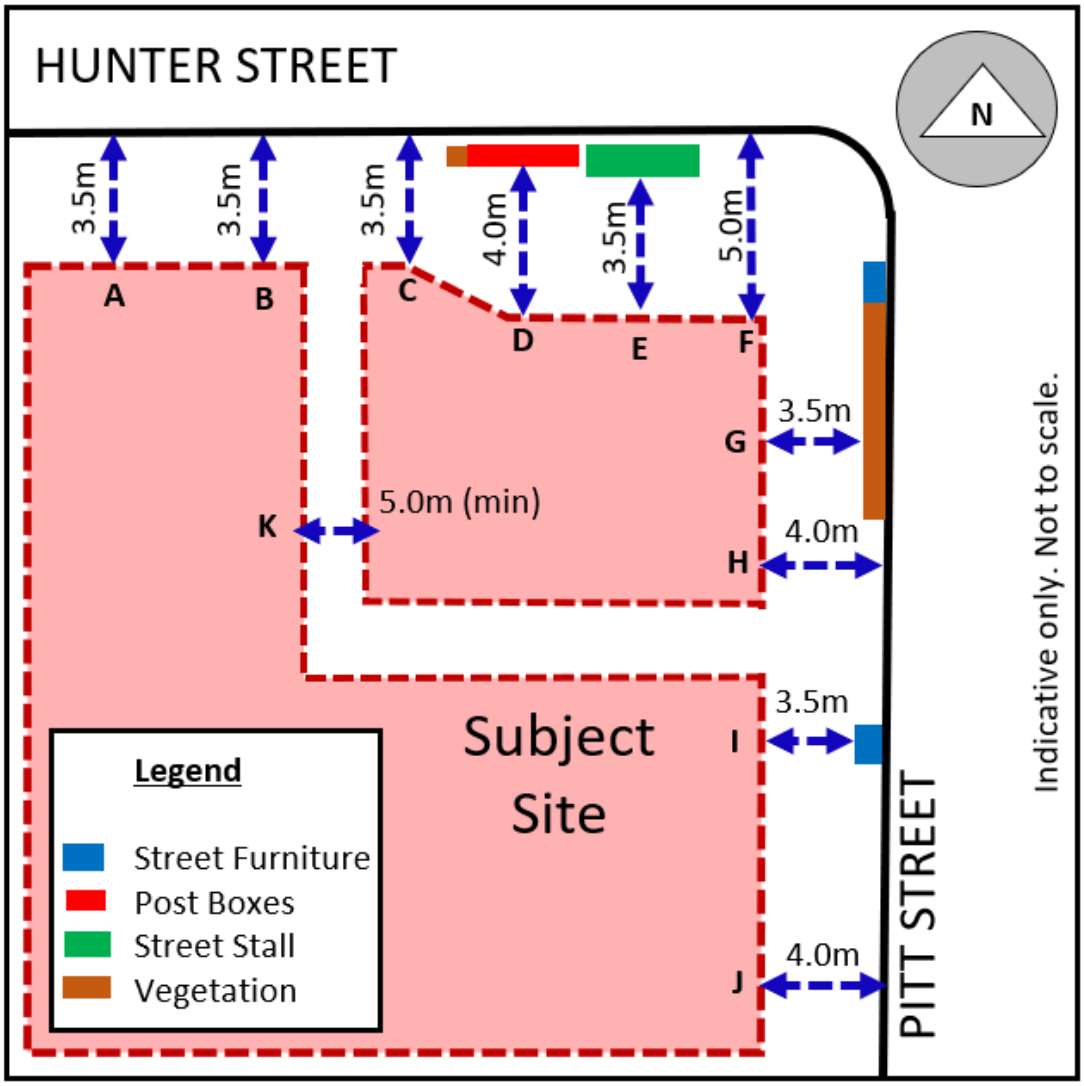


Figure 6.3 Pedestrian Footpath Clearances (Approximations Only) – Post Development Site Frontage

For assessment purposes, it is considered that in conjunction with all site generated pedestrian movements, the new walk-through may also nominally accommodate 10% of passer-by movements. Overall, it is envisaged that this may equate to approximately 1,330 AM pedestrian movements and 1,000 PM pedestrian movements.

Based on the above calculated pedestrian volumes and footpath clearances, Table 6.6 has been prepared to assess the post development operation of the pedestrian network along the frontages of the subject site.

Table 6.6 Future (2025) Conditions – With Development

LOCATION*	PCL EFFECTIVE CLEAR WIDTH (M)	AM PEAK FLOW (PPMM)	AM PEAK PCL	PM PEAK FLOW (PPMM)	PM PEAK PCL
Hunter Street - Location A	3.1	23	C	17	B-
Hunter Street - Location B	3.1	23	C	17	B-
Hunter Street - Location C	3.1	23	C	17	B-
Hunter Street - Location D	3.6	20	C+	15	B-
Hunter Street - Location E	3.1	23	C	17	B-
Hunter Street - Location F	4.6	16	B-	12	B
Pitt Street - Location G	3.1	10	B+	7	A-
Pitt Street - Location H	3.6	9	B+	6	A-
Pitt Street - Location I	3.1	10	B+	7	A-
Pitt Street - Location J	3.6	9	B+	6	A-
Subject Site Walk-Through - Location K	4.6	5	A	4	A

*Locations as noted relate to the locations as shown in Figure 6.3

The above outputs show that under the anticipated post development conditions Pedestrian Comfort Levels along both the Hunter Street and Pitt Street frontages of the site, as well as through the sites walk-through, are at a grade of 'C' or higher and therefore meet the relevant requirements given the nature of the surrounding precinct as noted in Section 5.1.

7 SUMMARY

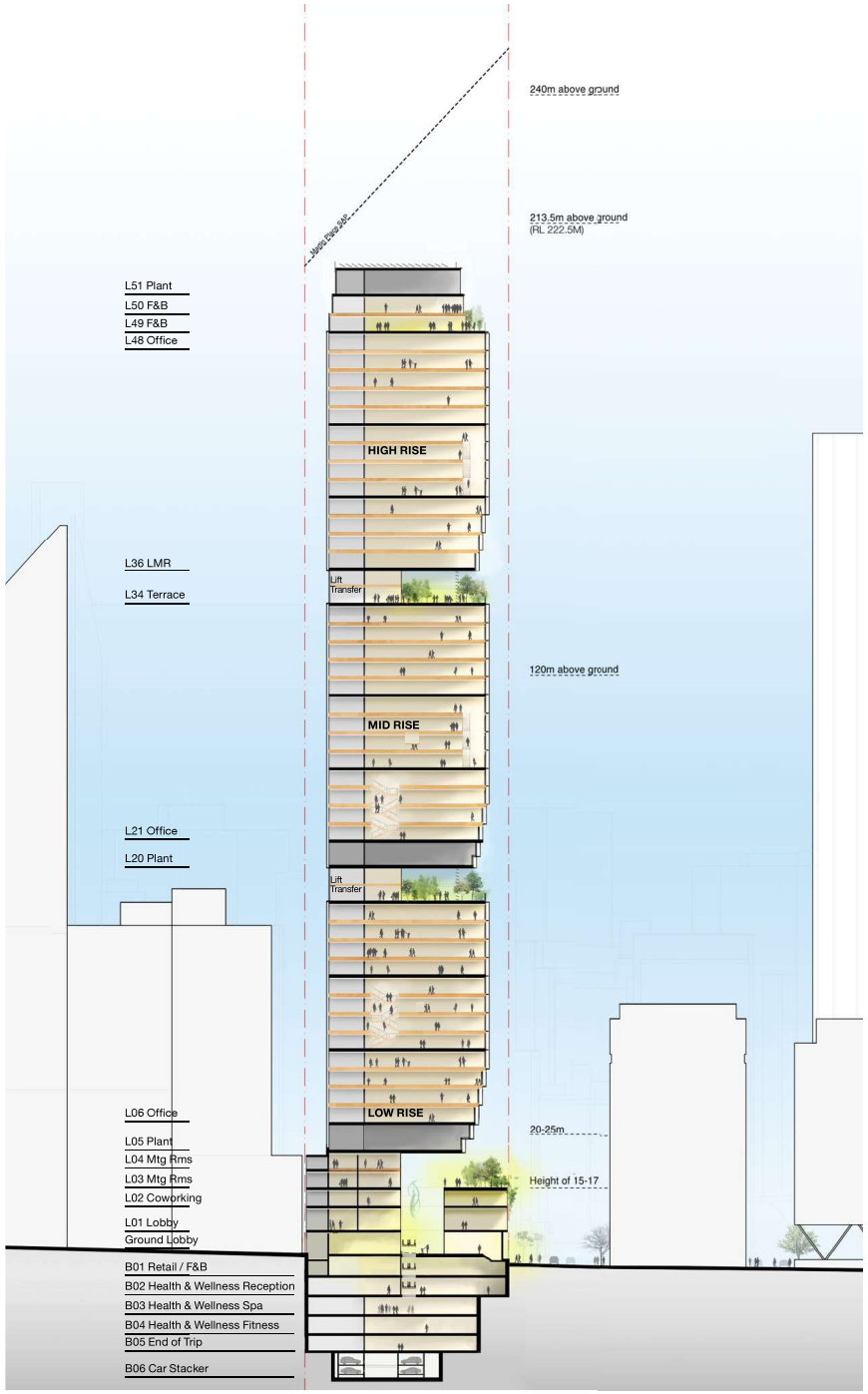
With reference to the preceding, it is noted that in general, the future pedestrian network will meet the required PCL grades as applicable for the site given the nature of the wider surrounding precinct. A summary of the assessment and resultant outputs is provided as follows:

- Under existing conditions, the pedestrian footpaths along the Hunter Street and Pitt Street frontages indicatively operate with a PCL of grade 'C' or higher. Given that the site is located within an Office and Retail precinct, this is in line considered an acceptable grade of operation as set out within the "*Pedestrian Comfort Guidance for London – Guidance Document*" as prepared by Transport for London, dated 2019.
- Under future (2025) conditions without the development, assessment of the street network indicates that some minor mitigation works in the form of removing the existing ticket machine may be required along the Hunter Street frontage of the site at 'Location B' in order to widen the effective path width and improve the pedestrian comfort levels.
- Investigation of post development conditions indicate that the pedestrian network through the sites walk-through and along the site frontage will sufficiently meet the required PCL grades that are applicable given the nature of the site and surrounding precinct.

Based on the preceding assessment, it is therefore considered that post development of the proposal, subject to the minor mitigation works as identified, the required PCL grades can be met along both the Hunter Street and Pitt Street frontages of the subject site.

Reference Design
Drawing Set

INDICATIVE SECTION



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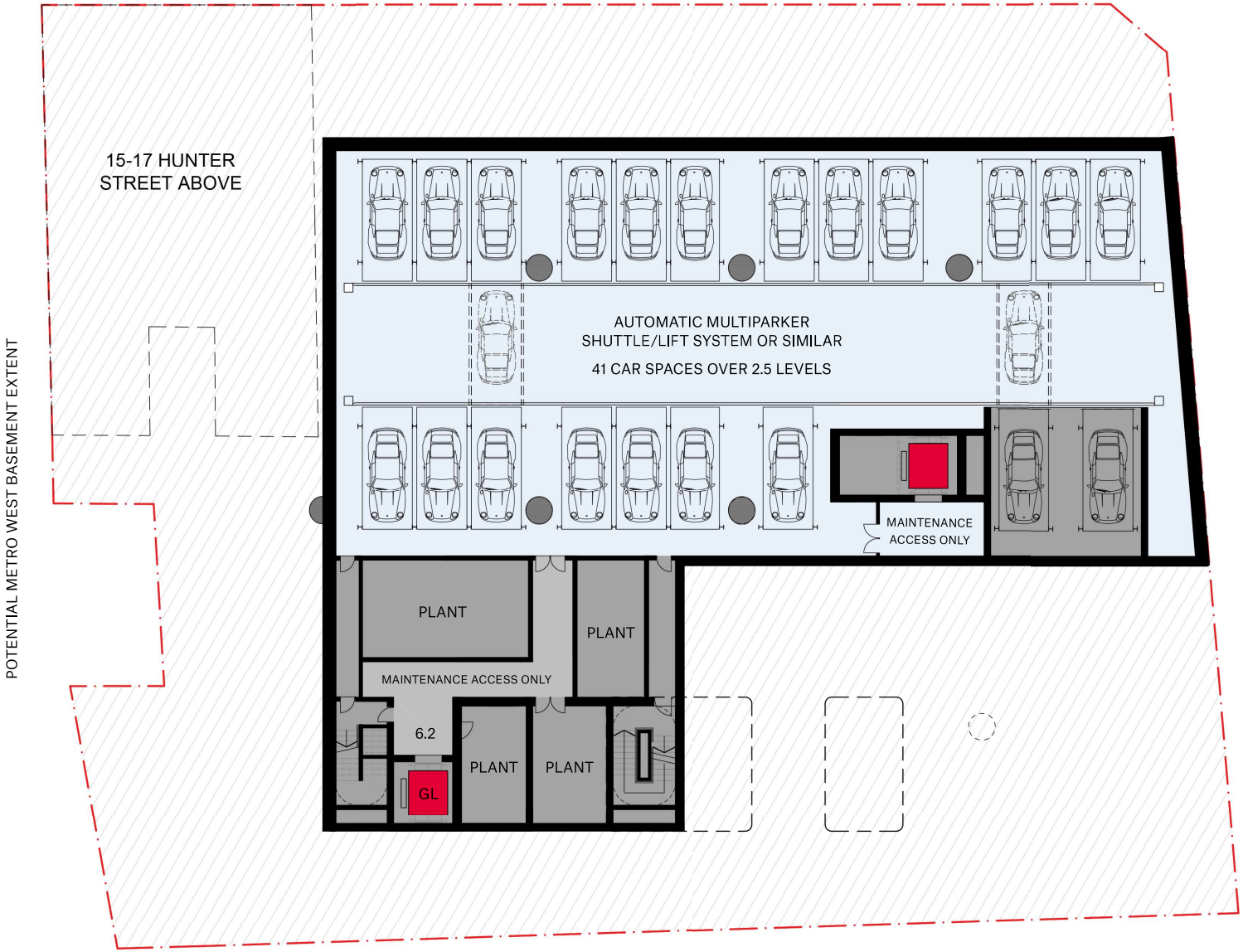
BASEMENT 06



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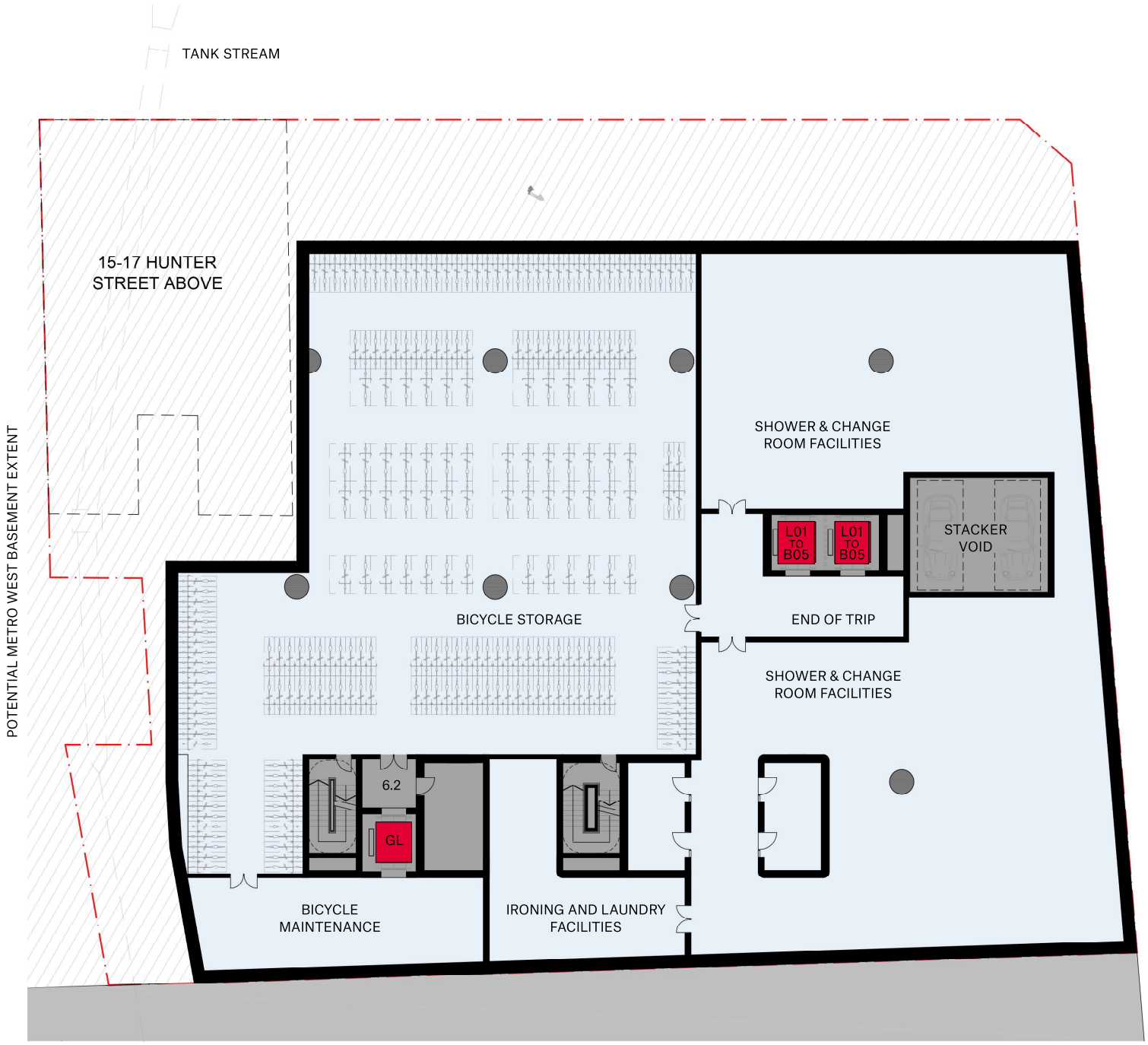
BASEMENT 05



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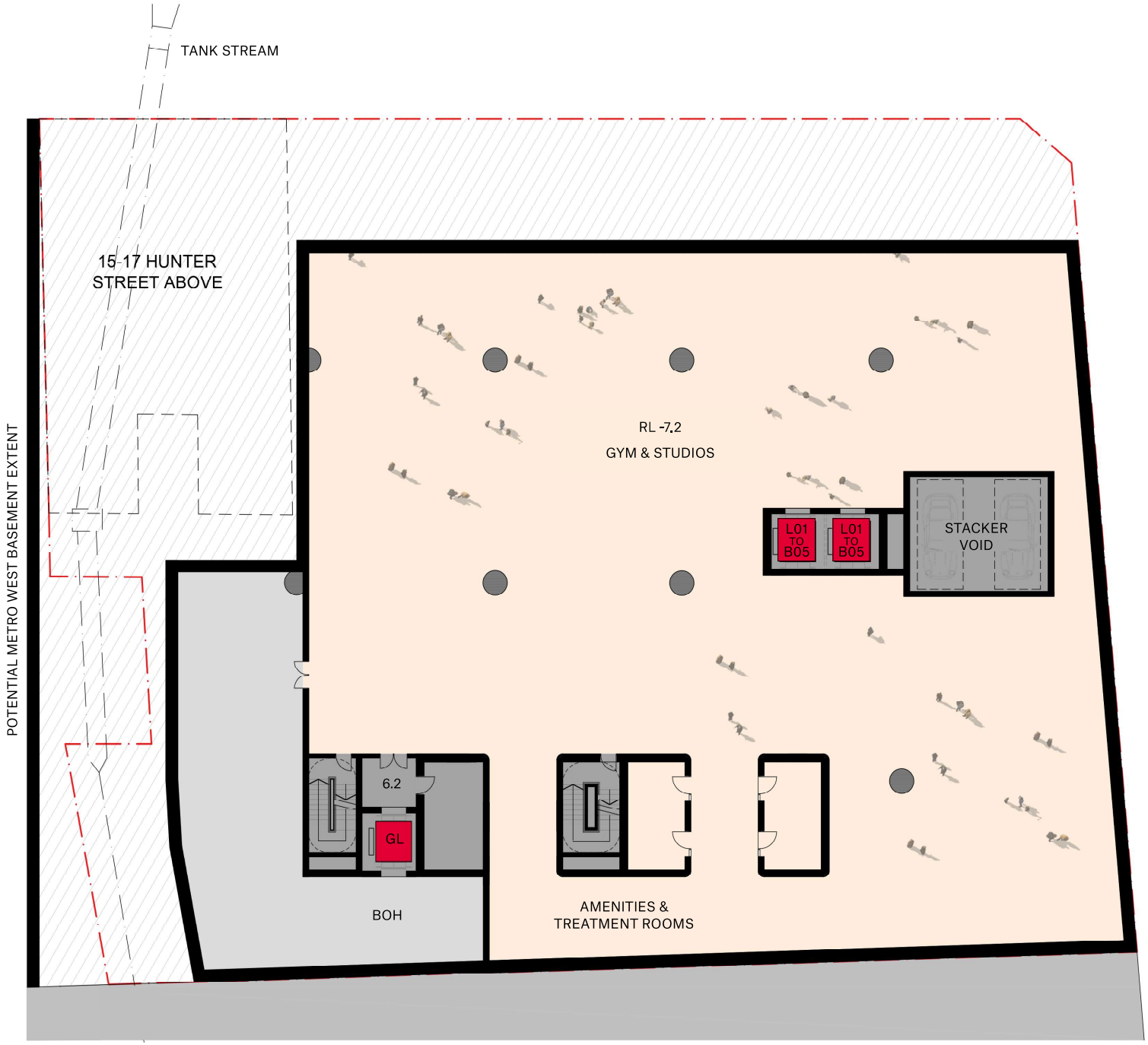
BASEMENT 04



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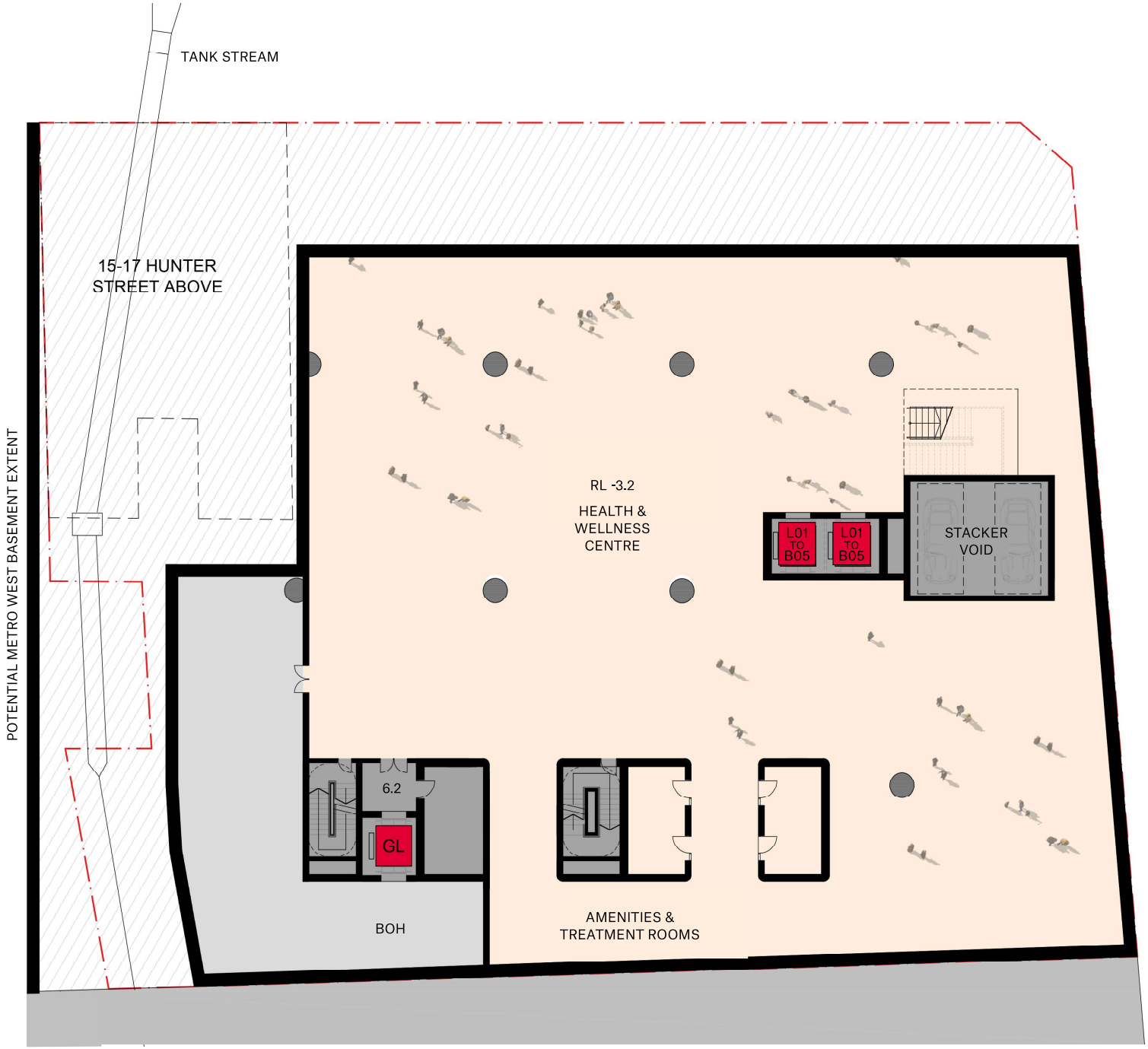
BASEMENT 03



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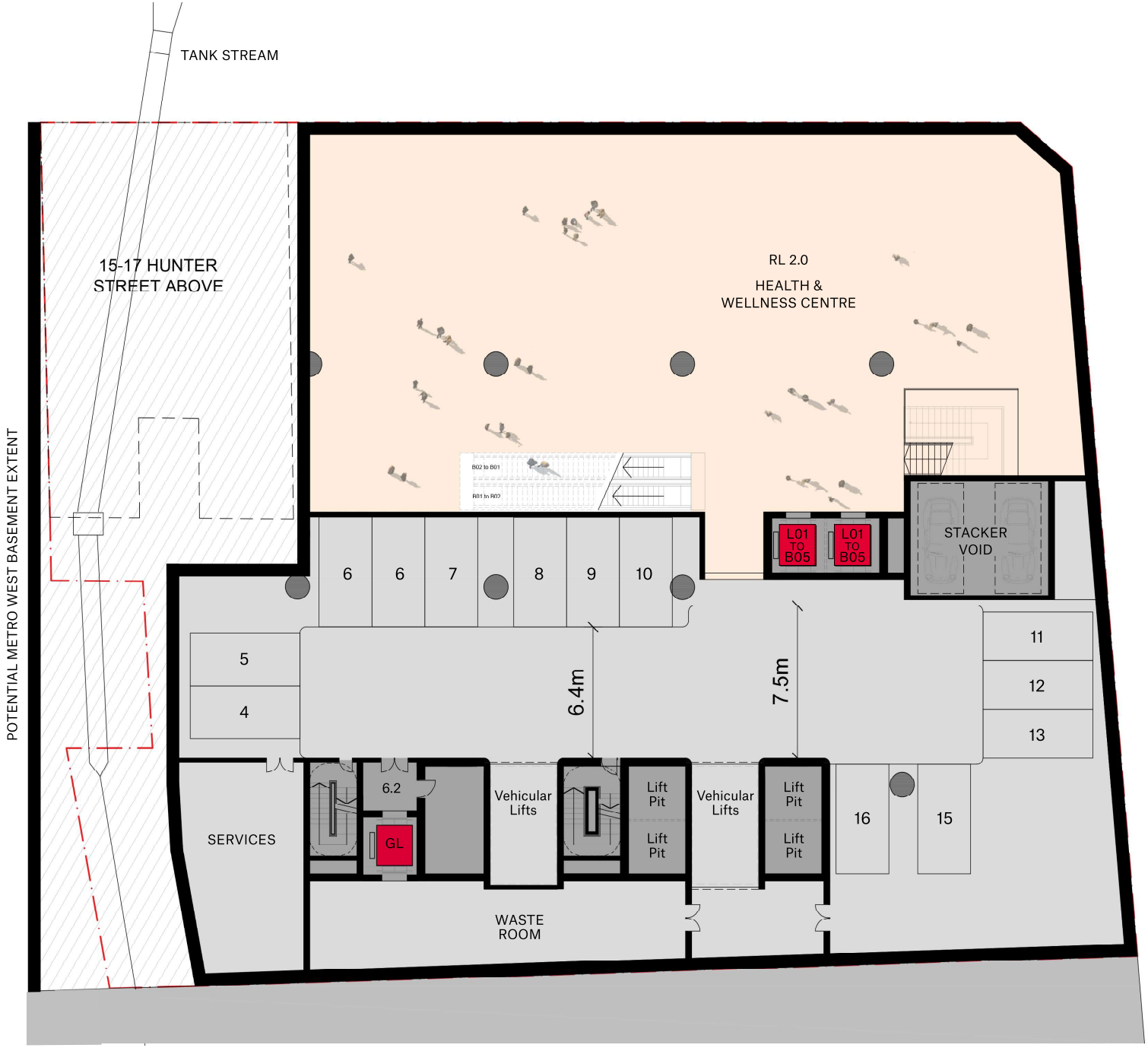
BASEMENT 02



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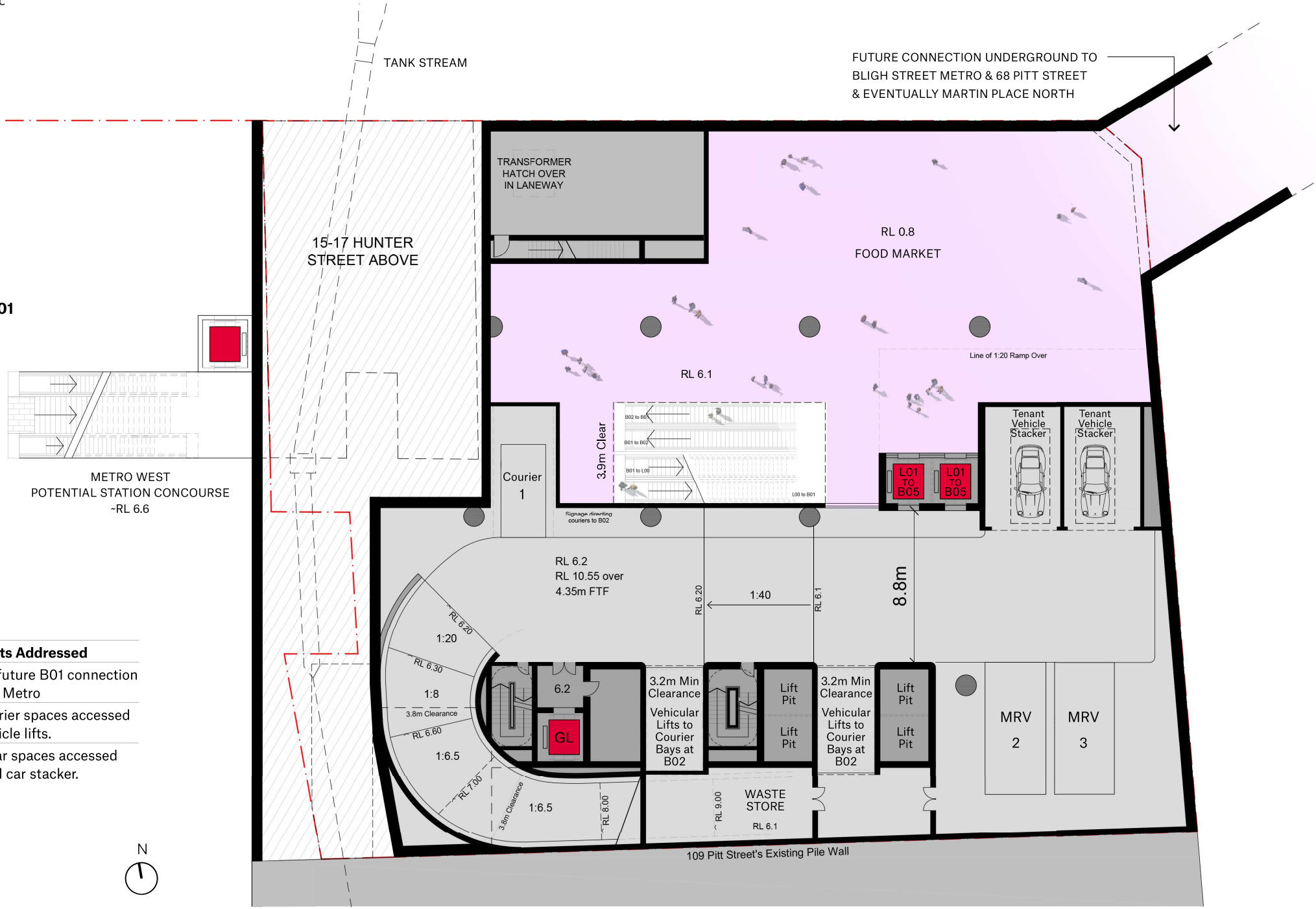
BASEMENT 01



DAP Comments Addressed

Allowance for future B01 connection to Bligh Street Metro

Additional courier spaces accessed via courier vehicle lifts.

Commercial car spaces accessed via commercial car stacker.

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GROUND LEVEL

DAP COMMENTS ADDRESSED

No low level bridges across laneway
Pedestrian only laneway, with retail activation to both sides
Functional connection to Metro West above PMF levels & AEP 1% AEP + 500 Levels
Signalised vehicular ramp to basement levels; allows retail to laneway.

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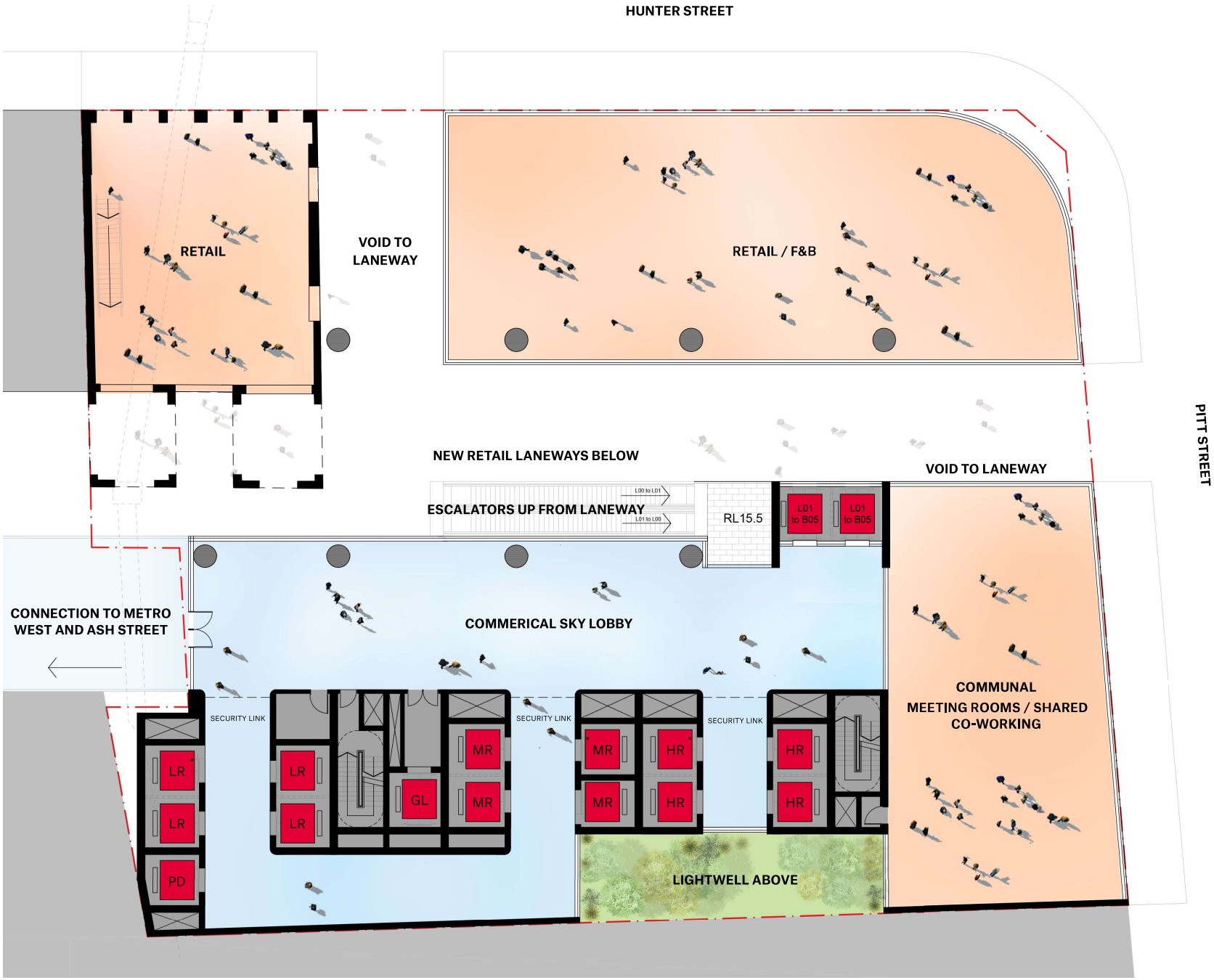
LEVEL 01



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LEVEL 02

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LEVEL 03

Hunter Street Podium
Landscaped Terraces

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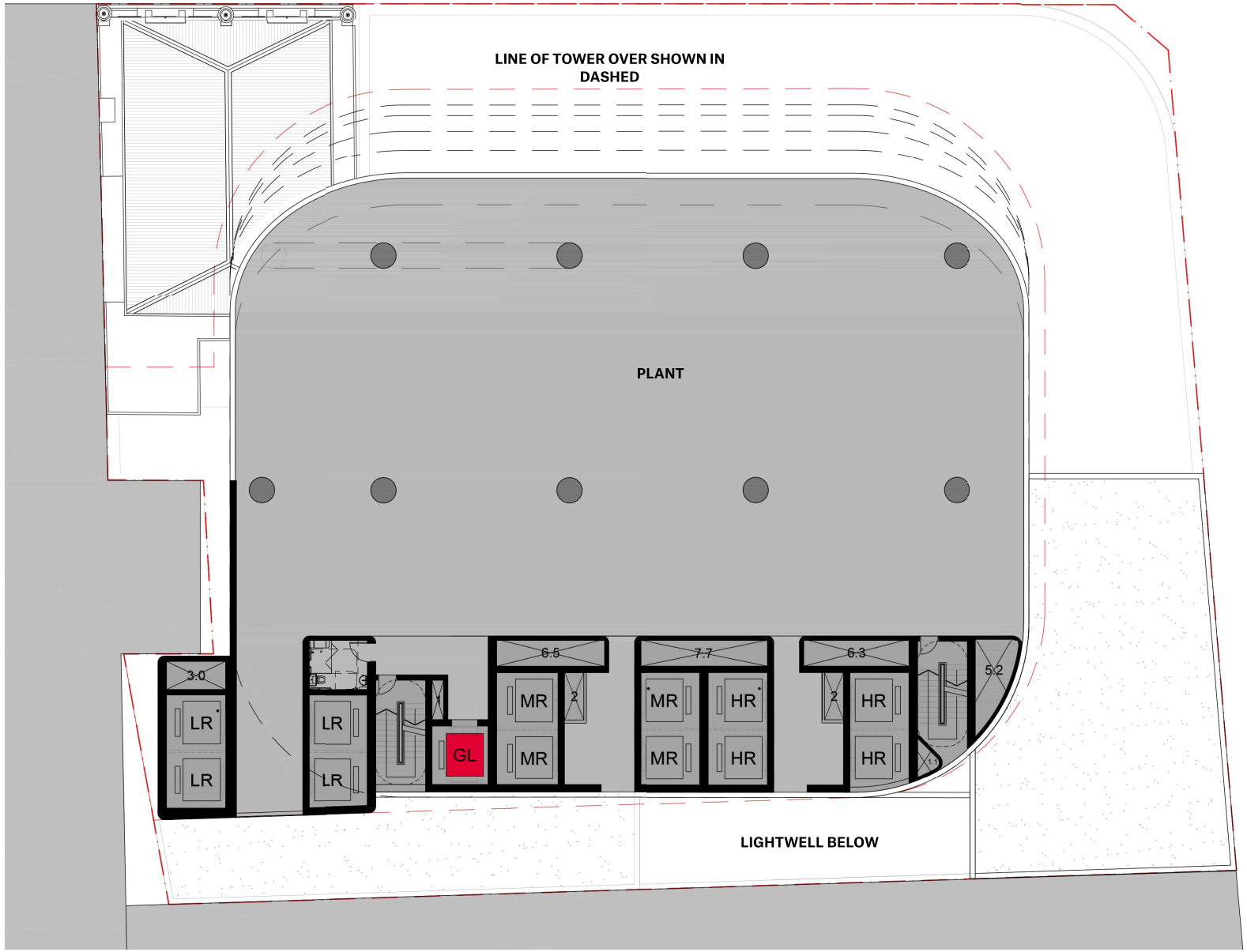
LEVEL 04

1:200 @ A3

LEVEL 05 PLANT



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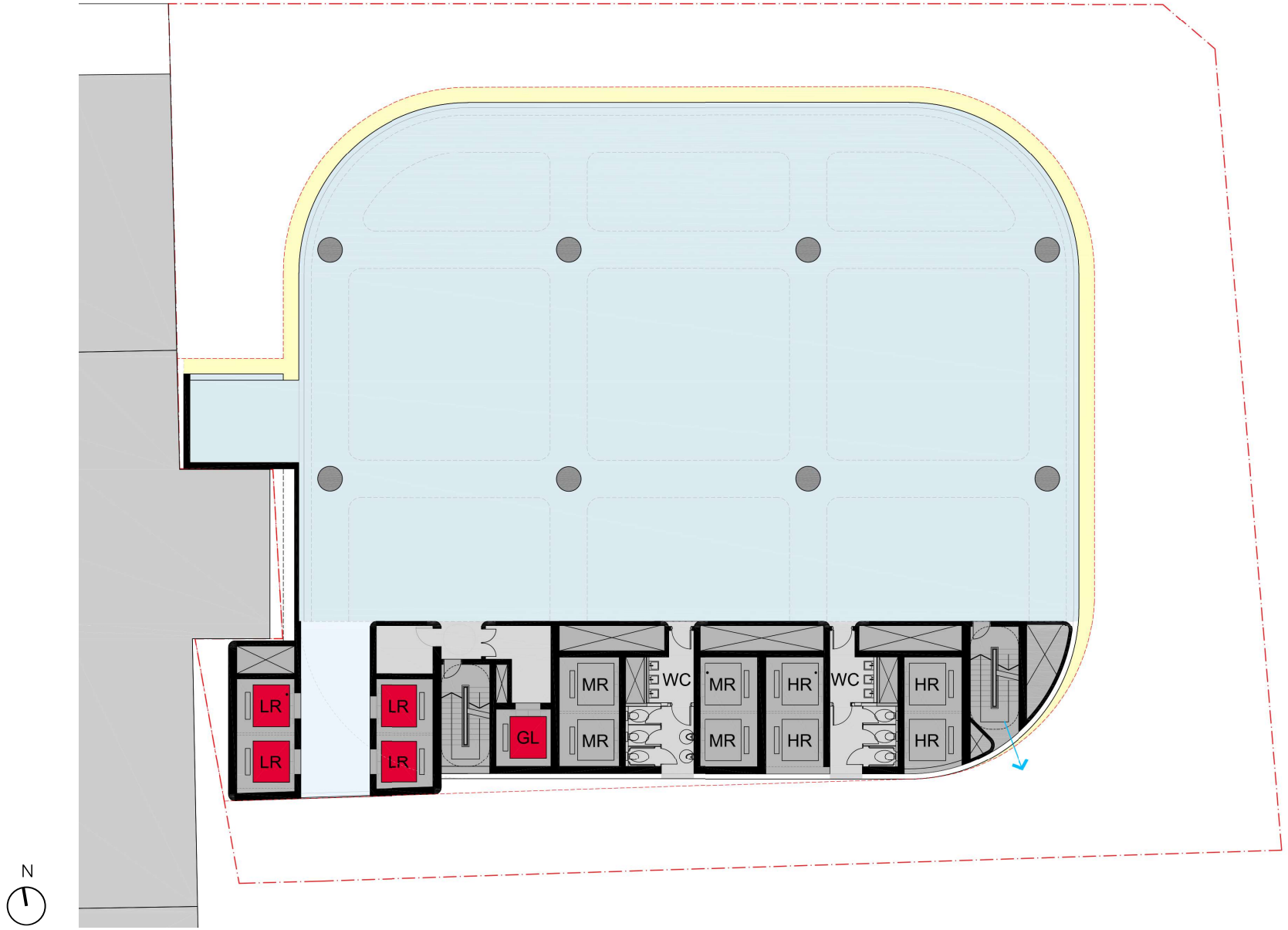
LOW RISE



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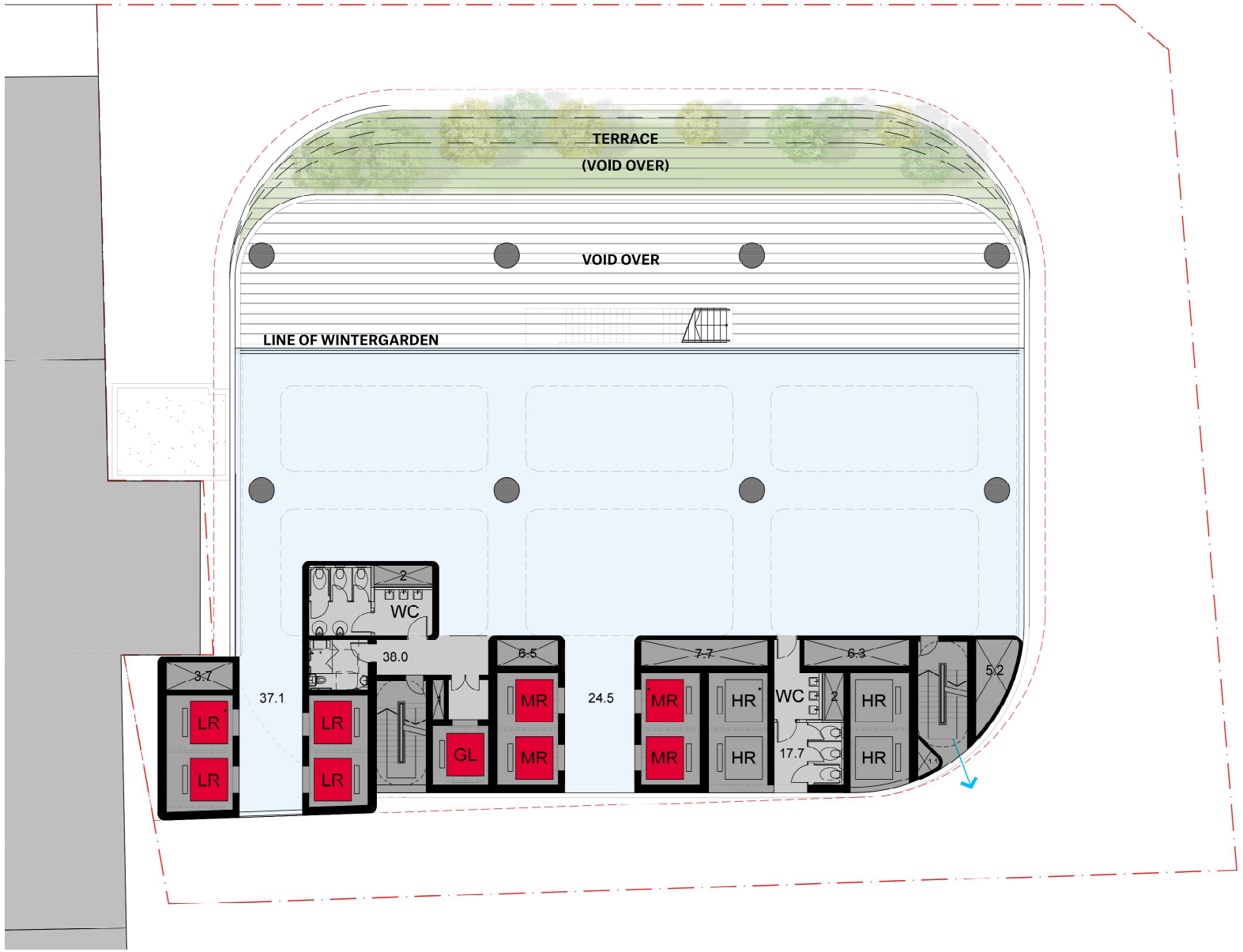
LEVEL 18 LIFT TRANSFER



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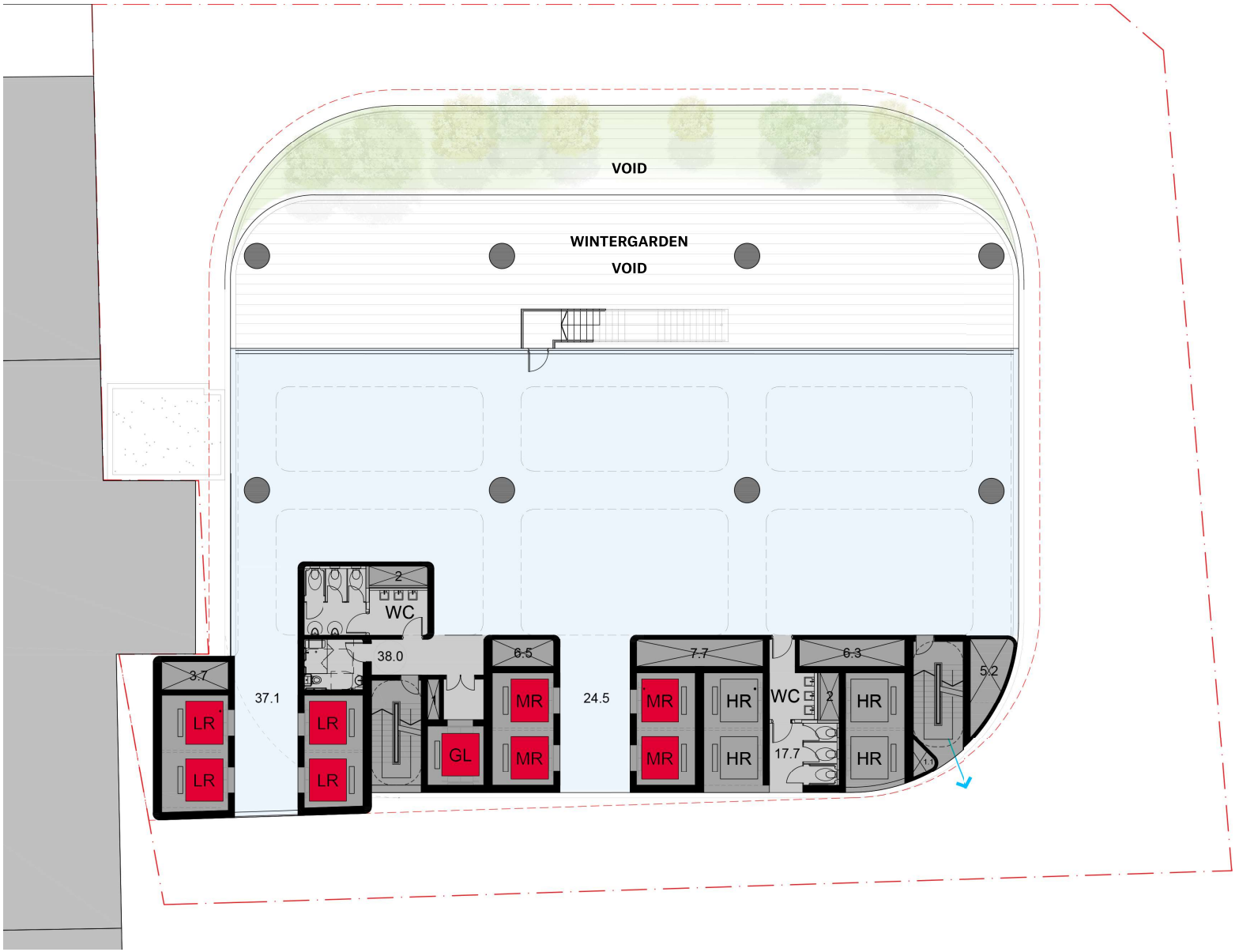
LEVEL 19 TERRACE
& WINTERGARDEN VOID



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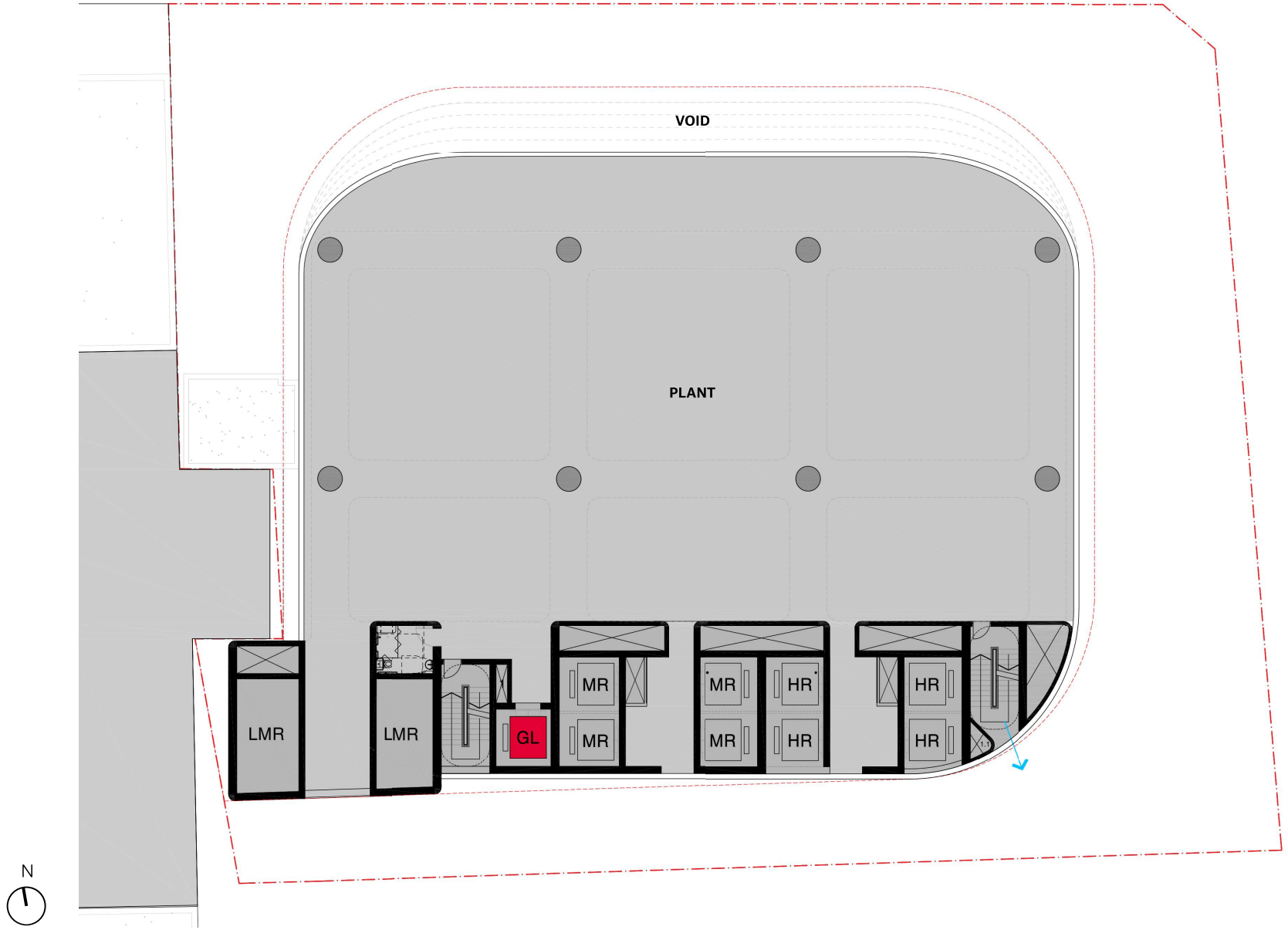
LEVEL 20 LOW RISE PLANT



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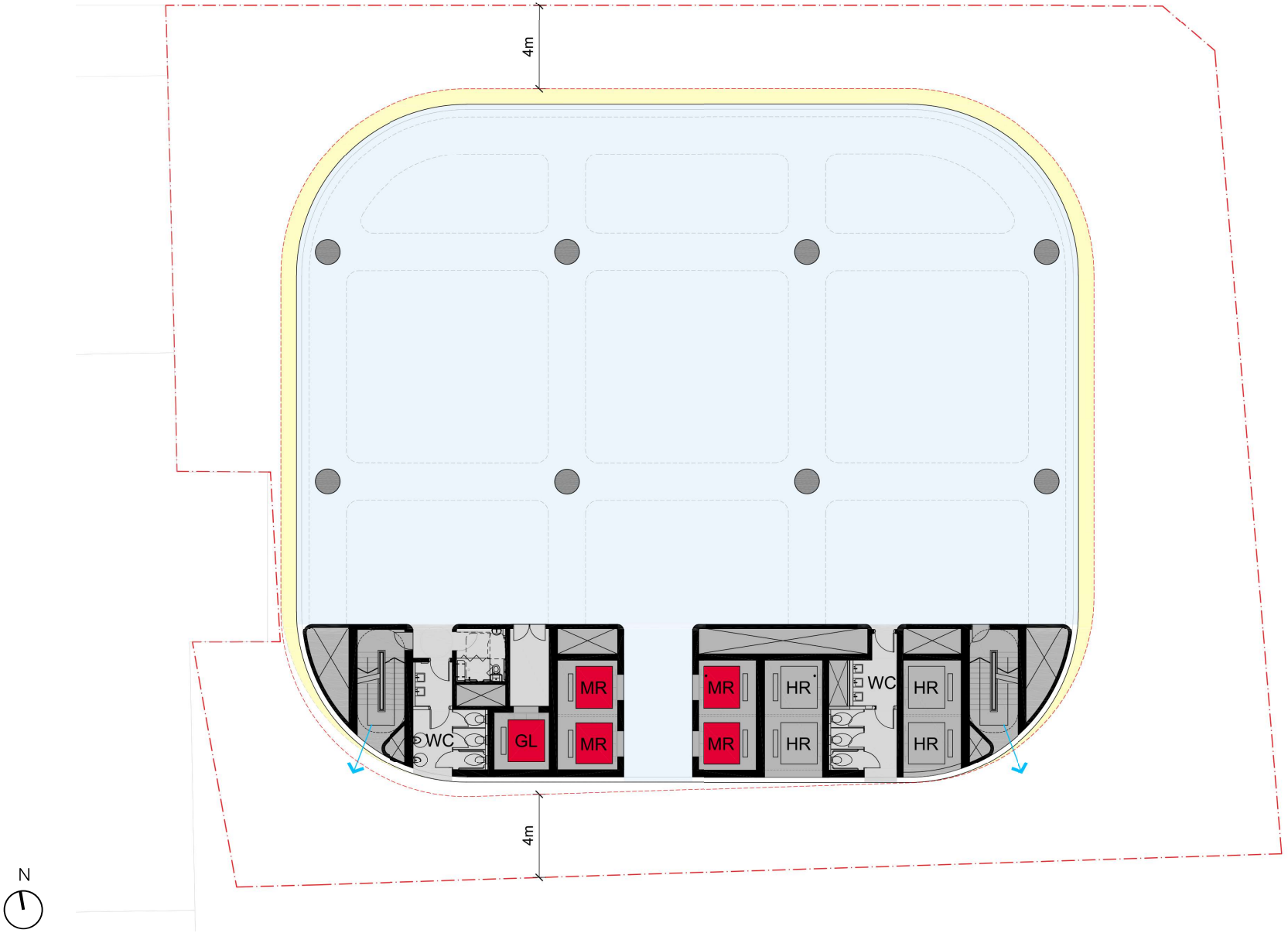
MID RISE



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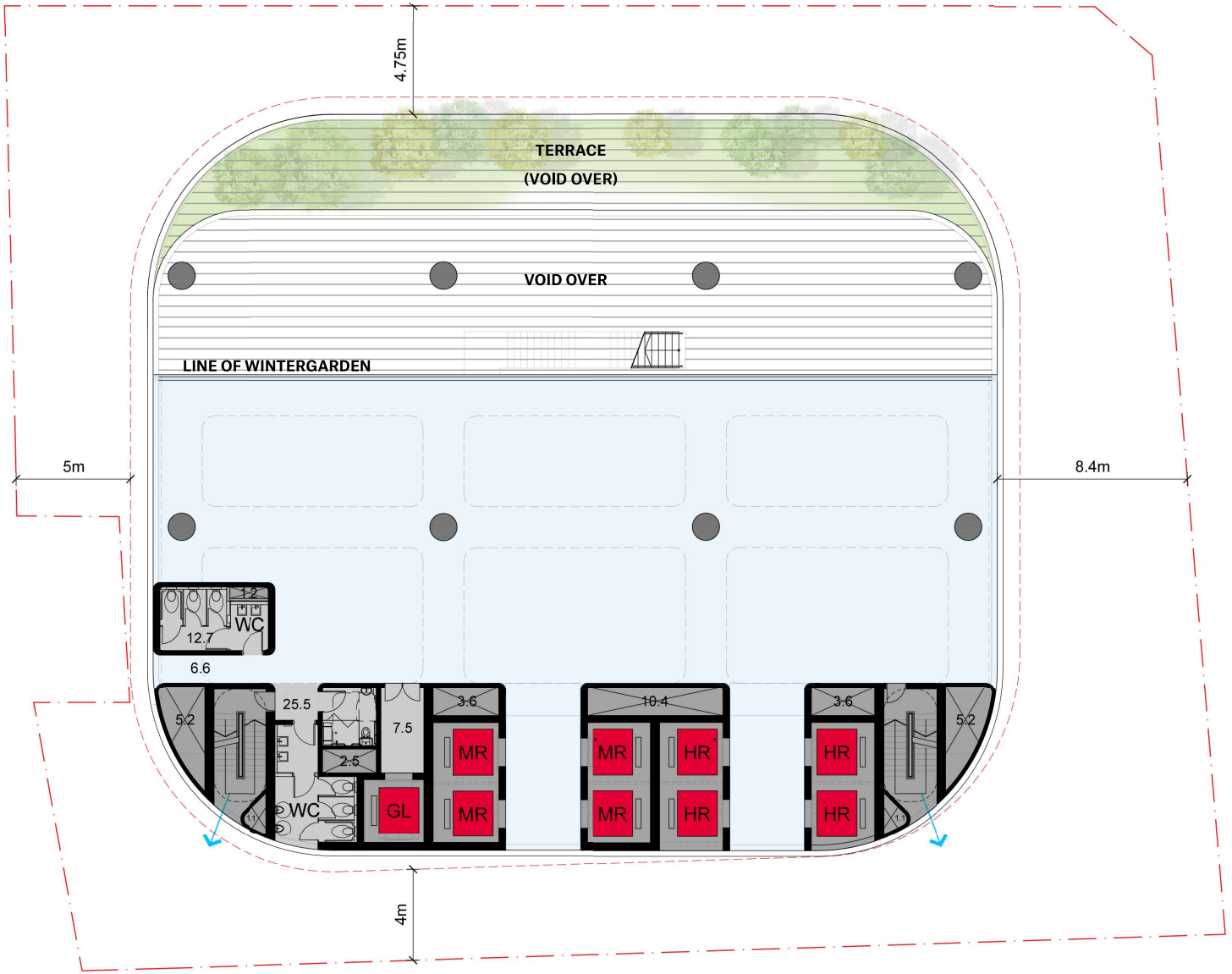
LEVEL 34 LIFT TRANSFER



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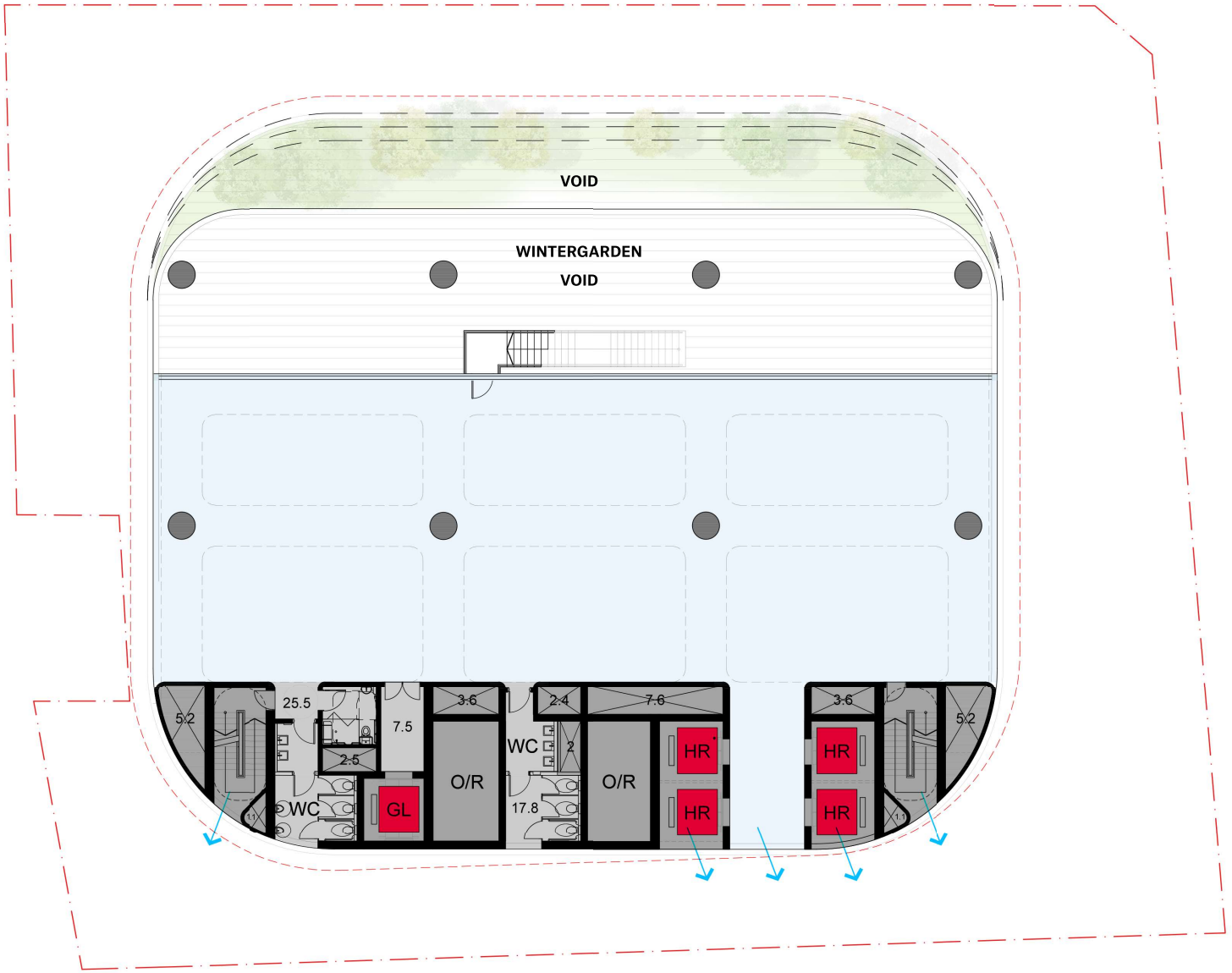
LEVEL 35 OVER RUN FLOOR



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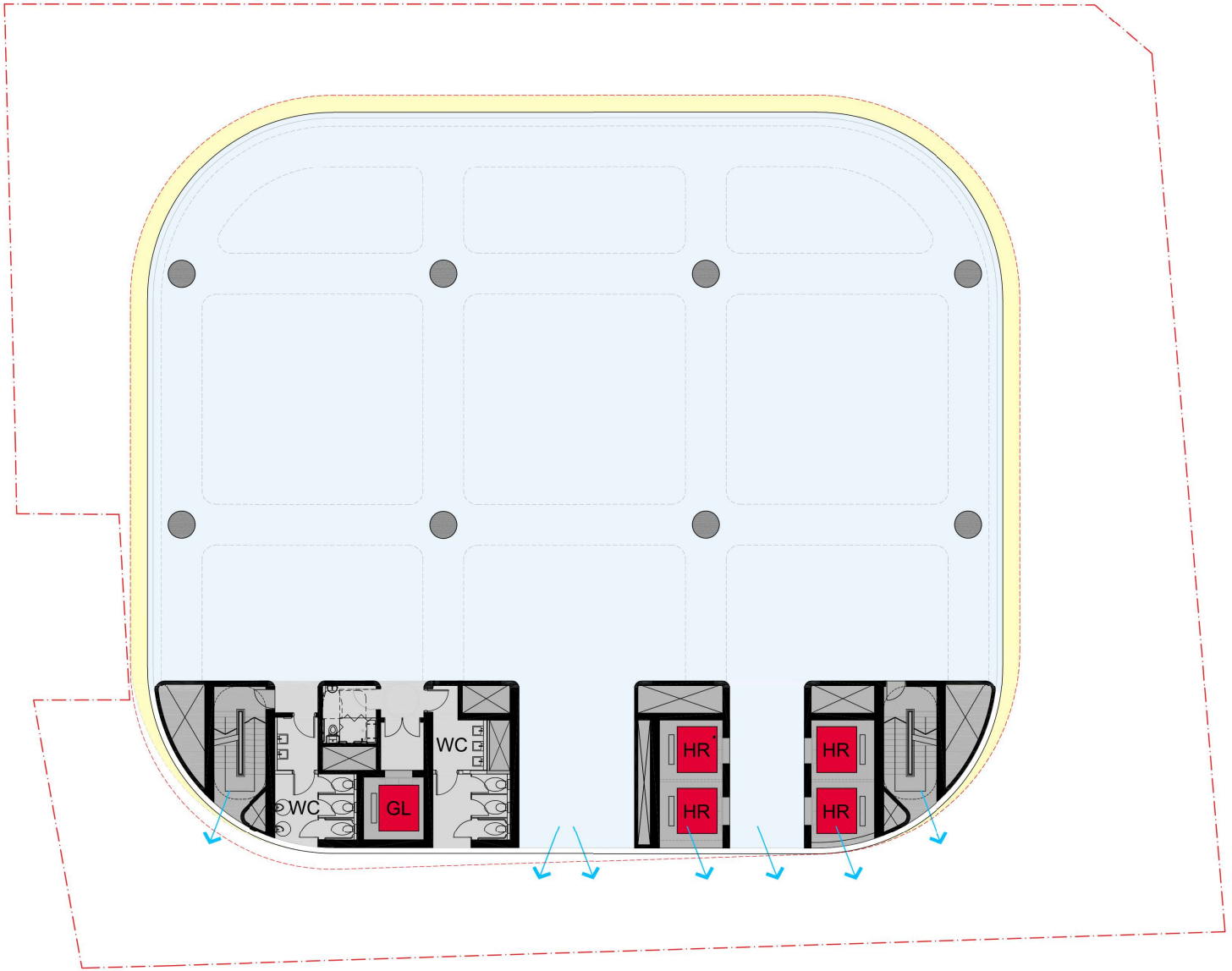
HIGH RISE



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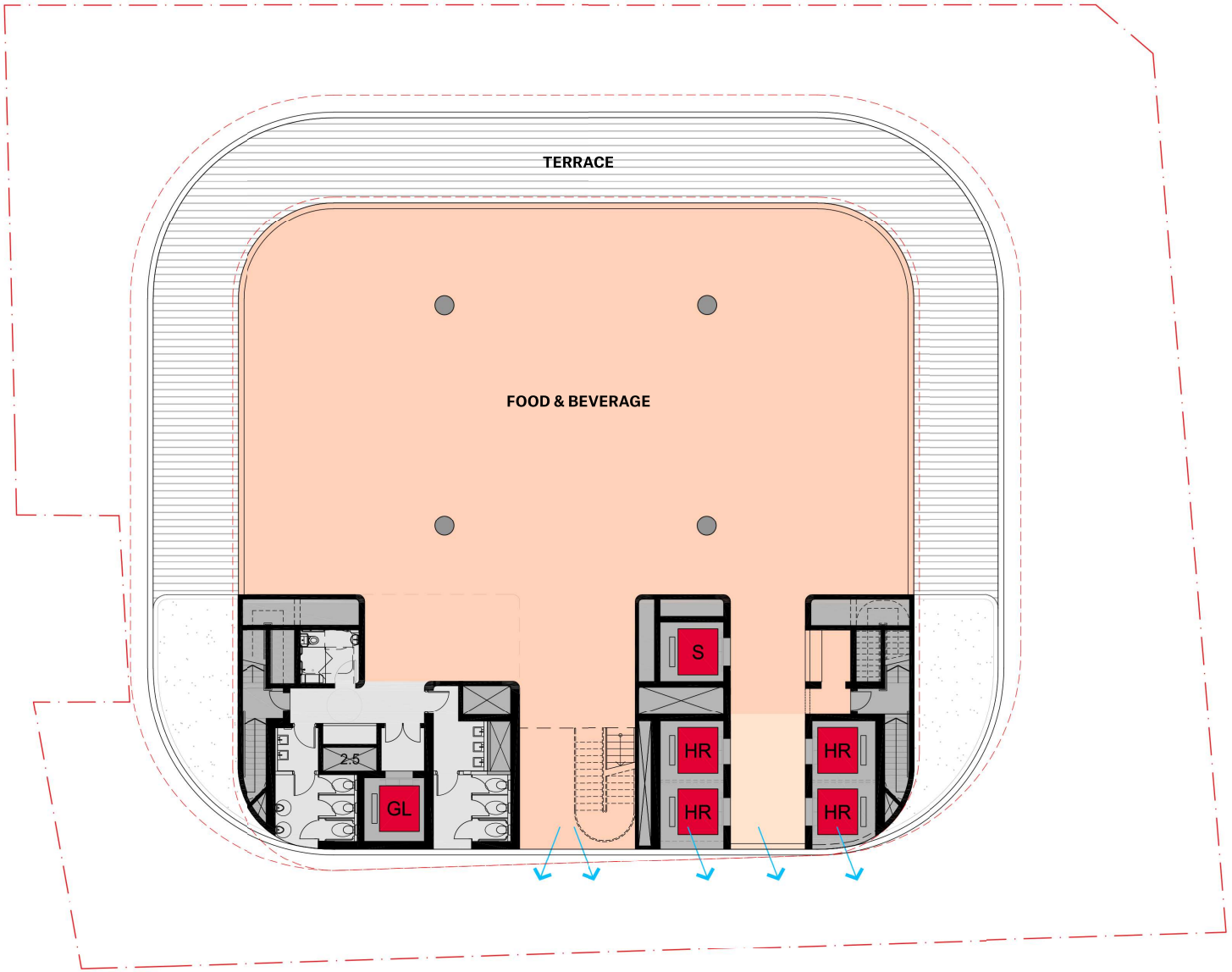
LEVEL 49
Food & Beverage Lounge



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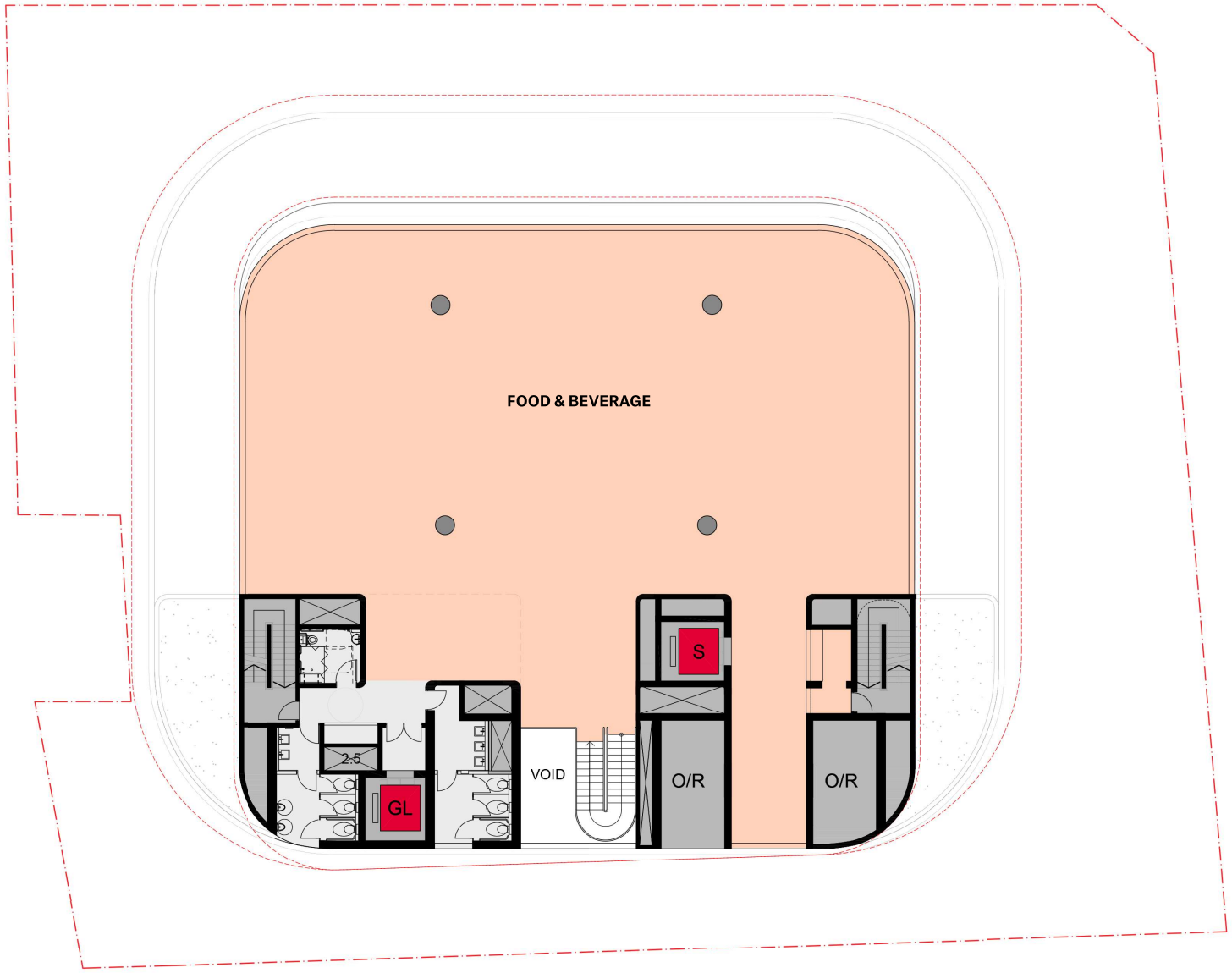
LEVEL 50
Food & Beverage Lounge



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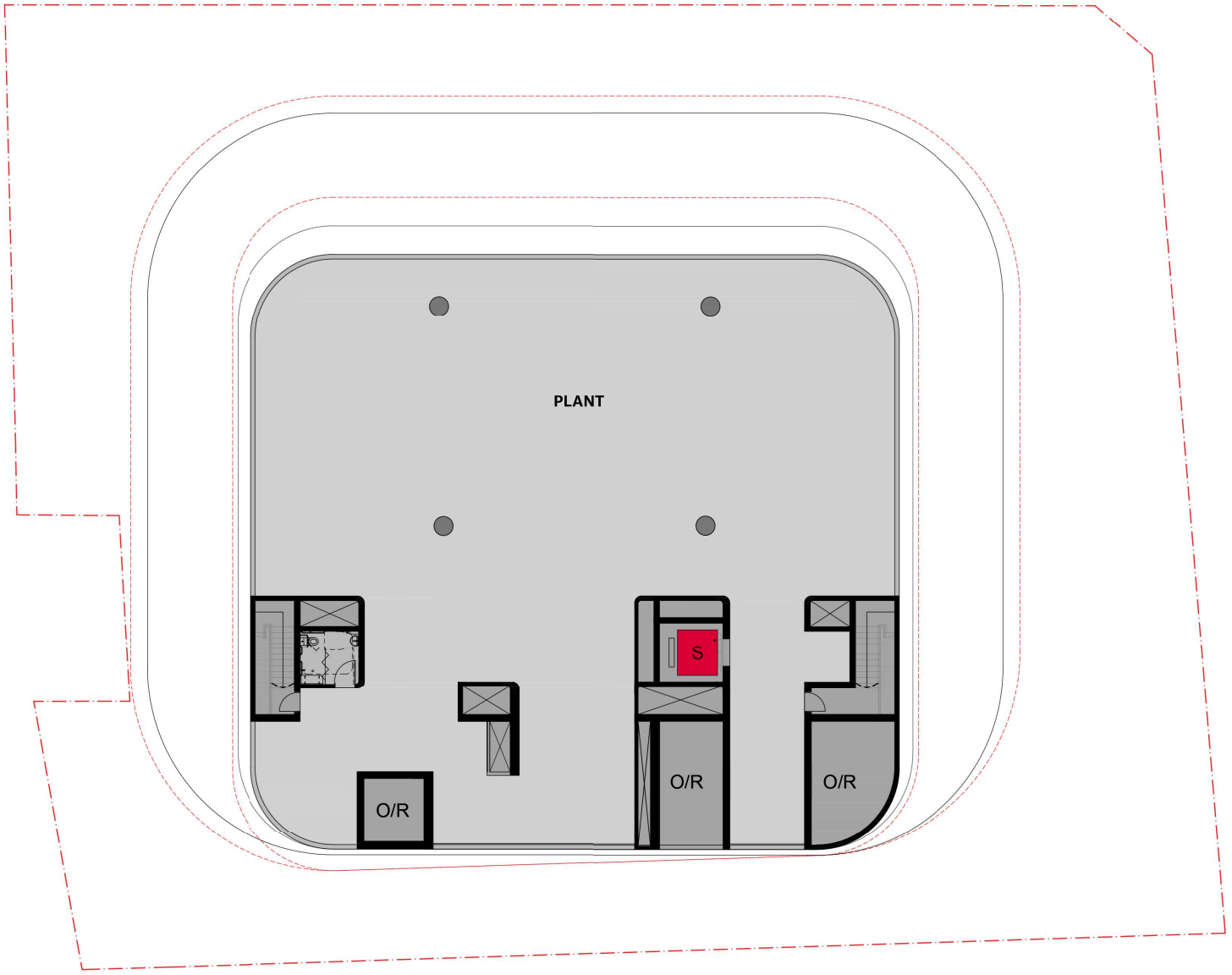
LEVEL 51 PLANT



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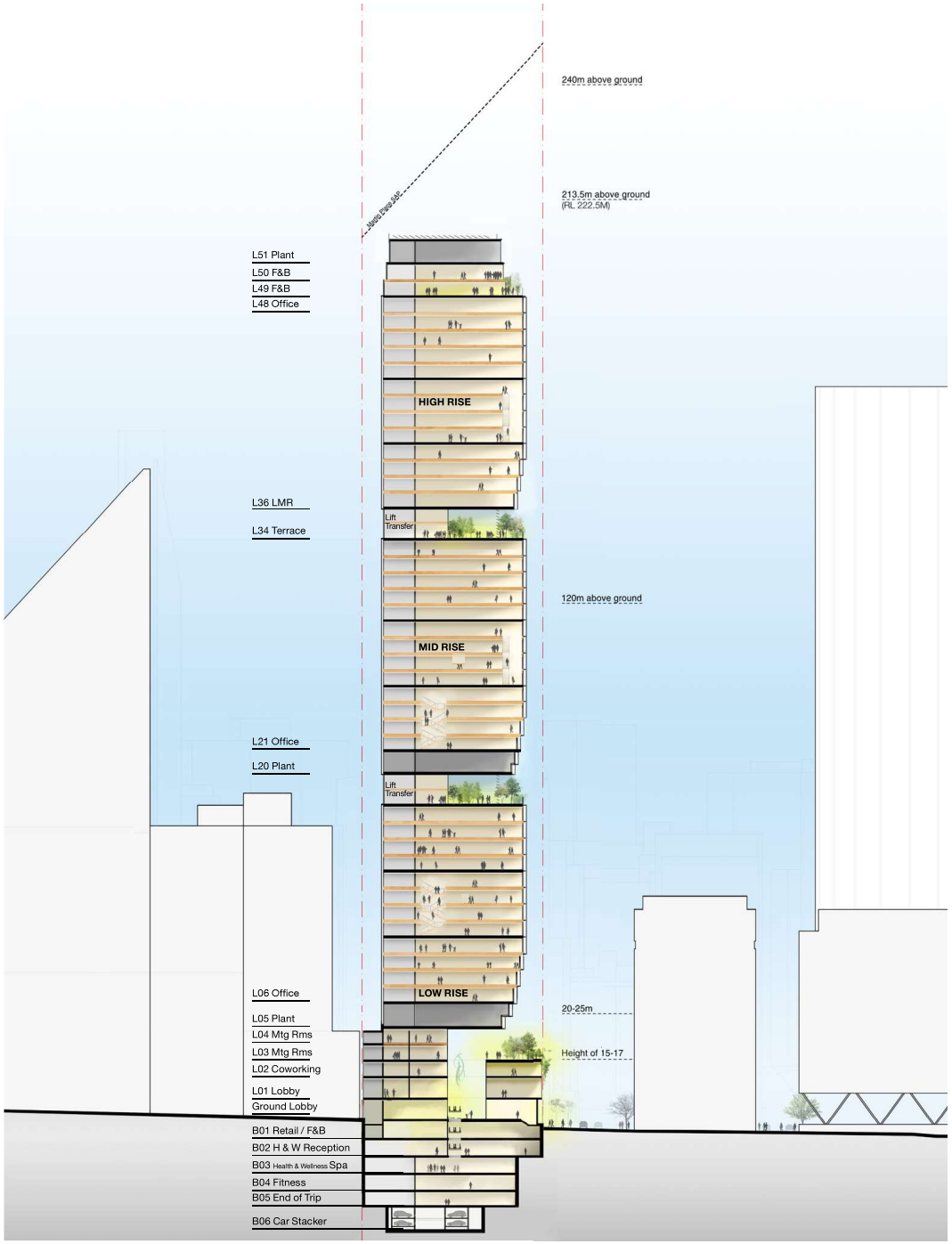
INDICATIVE SECTION



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AREAS SCHEDULE

R. L.	DESCRIPTION		LEVEL	HEIGHT m	Envelope Area m² GEA	Envelope Volume m³	layered volume (eg. part levels / / roof of 15-17)	Combined AA + FZ Area m²	Combined AA + FZ Volume m³	layered volume (eg. Tapering & soffits / envelope Δ / roof of 15-17)	GBA Area m²	GBA Volume m³	CORE Allowance (Excl. GFA) m²	CORE GFA	GFA Area m²
222.50	**TOP OF ENVELOPE**	Glazing Setback to Hunter St:													
214.90	Above Plant (Above RL 216.0)			7.60	567 , 873	4,646	6.50 , 1.10	567	4,646		0	0			
208.90	PLANT	10.50m	51	6.00	873	5,239		132	793		741	4,446			
205.15	Lounge Upper Level / Mezzanine	9.30m	50	3.75	1,196 , 873	3,613	1.05 , 2.70	388 , 65	475	layered	808	3,030	143	78	666
201.40	Lounge Roof Terrace (2m Balustrade)	8.70m	49	3.75	1,264 , 1,196	4,677	2.80 , 0.95	424 , 356	1,544	layered	840	3,152	143	78	698
197.65			48	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
193.90			47	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
190.15			46	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
186.40			45	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
182.65			44	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
178.90			43	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
175.15			42	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
171.40		4.75 = 4m + 750mm Façade Zone	41	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
167.65		Glazing Setback to Hunter St:	40	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
163.90		4.75m typical	39	3.75	1,264	4,742		82	309		1,183	4,433	143	80	1,040
160.15		5.35m ◿ 0.60m	38	3.75	1,264	4,742		102	380	layered	1,162	4,361	143	80	1,020
156.40	HIGH RISE OFFICE	5.95m ◿ 0.60m	37	3.75	1,264	4,742		123	459	layered	1,142	4,283	143	80	999
152.65	Motor Room Level	6.55m ◿ 0.60m	36	3.75	1,264	4,742		143	537	layered	1,121	4,205	183	78	938
148.90	Lift Over Run / Void	9.00m ◿ 2.45m	35	3.75	1,264	4,742		507	1,698	layered	757	3,043	174	75	563
145.15	Terrace / Lift Tranfer Level	9.00m ◿ 0.00m	34	3.75	1,264	4,742		507	1,901		757	2,840	172	102	570
141.40			33	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
137.65			32	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
133.90			31	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
130.15			30	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
126.40			29	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
122.65			28	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
118.90			27	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
115.15			26	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
111.40		4.75 = 4m + 750mm Façade Zone	25	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
107.65		Glazing Setback to Hunter St:	24	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
103.90		4.75m typical	23	3.75	1,264	4,742		82	309		1,183	4,433	183	78	999
100.15	MID RISE OFFICE	5.35m ◿ 0.60m	22	3.75	1,264	4,742		102	380	layered	1,162	4,361	183	78	979
96.40	Fire stair transfer level	5.95m ◿ 0.60m	21	3.75	1,264	4,742		123	459	layered	1,142	4,283	193	90	949
90.40	Plant / Lift MR	6.55m ◬ 0.60m / 7.15m ◿ 0.60m	20	6.00	1,287	7,725	layered	153	904	layered	1,134	6,821			
86.65	Meeting Rooms	9.00m ◿ 1.85m	19	3.75	1,311	4,998	layered	504	1,688	layered	807	3,310	263	117	591
82.90	Terrace / Lift Tranfer Level	9.00m ◿ 0.00m	18	3.75	1,341	5,027		504	1,890	layered	837	3,137	268	117	591
79.15			17	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
75.40			16	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
71.65			15	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
67.90			14	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
64.15	LOW RISE OFFICE		13	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
60.40			12	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
56.65		4.75 = 4m + 750mm Façade Zone	11	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
52.90		Glazing Setback to Hunter St:	10	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
49.15		4.75m typical	9	3.75	1,341	5,027		82	309		1,259	4,718	223	79	1,032
45.40		5.25m ◿ 0.50m	8	3.75	1,341	5,027		103	383	layered	1,238	4,644	223	79	1,015
41.65		6.00m ◿ 0.75m	7	3.75	1,341	5,027		128	478	layered	1,212	4,549	223	79	989
37.90		6.90m ◿ 0.90m	6	3.75	1,341	5,027		159	593	layered	1,181	4,434	223	79	958
31.90	Podium Plant	8.00m ◬ 1.10m / 9.50m ◿ 1.50m	5	6.00	1,341	7,737		188	1,532	layered	1,153	6,204			
28.15	Podium Level 04	Meeting Rooms	4	3.75	1,622	6,526	layered	766	2,746	layered	856	3,780			621
24.40	Terrace / L03	Hunter St Podium Roof Terrace	3	3.75	2,101	6,653	layered	1,186	2,939	layered	915	3,714			677
20.40	Podium Level 02	Co-working	2	4.00	2,101	8,262		513	2,054		1,587	6,209			1,378
15.40	Podium Level 01	Commercial Lobby	1	5.00	2,101	10,609		554	2,772	layered	1,546	7,837			1,352
10.40 *	Ground Level	Laneway Retail	GL	5.00	2,101	10,503	layered	584	2,921	layered	1,517	7,583			1,048
6.10	Basement B01	Food Market & Bligh Metro / Loading	B01		1,647						1,775				555
2.00	Basement B02	Health + Wellness Reception	B02		1,647						1,775				687
-2.00	Basement B03	Health + Wellness Treatments & Studios	B03		1,647						1,549				1,335
-6.00	Basement B04	Health + Wellness Gym	B04		1,647						1,549				1,335
-9.50	Basement B05	End of Trip	B05		1,647						1,549				1,335
-15.00	Basement B06	Commercial Car Stacker	B06		808						952				

* Highest existing footpath RL outside vehicular entry zone is RL 10.40, and lowest existing footpath RL is RL 8.70.

Site Area: 2,108.1 m²

	Envelope Area	Envelope Volume	Façade Zone + Articulation Area	Façade Zone + Articulation Volume	GBA Area	GBA Volume	CORE A. Area	FSR	GFA
Above Ground	70,693 m²	279,300 m³	10,912 m²	43,442 m³	59,781 m²	235,769 m³	8,127	**22.43 : 1**	47,284 m²
				16%			16%		
Below Ground:							Excluding EoT	**1.86 : 1**	3,912 m²
					9,149 m²		Including EoT:	**2.49 : 1**	5,247 m²
Total:					68,930 m²		Above & Below:	**24.92 : 1**	52,531 m²

APPENDIX A

DEVELOPMENT PLANS