

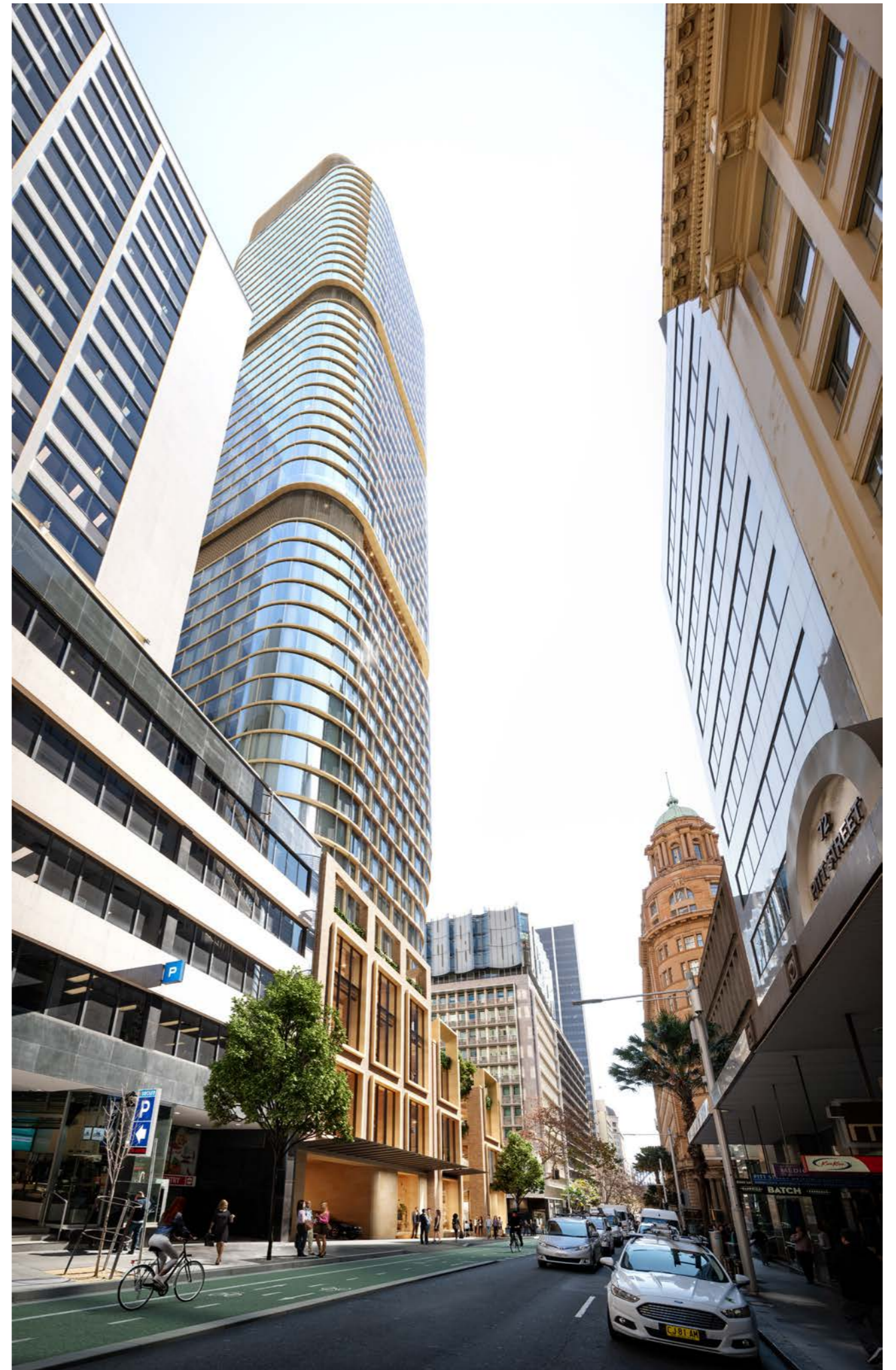
Attachment A4

**Urban Design Report – Bates Smart – 15-25
Hunter and 105-107 Pitt Street, Sydney -
Part 3**

8.0

Envelope Solar Analysis

15-23 Hunter Street and
105-107 Pitt Street Sydney



8.1 Overshadowing Analysis

The proposed envelope complies with clause 6.19 of the Sydney Local Environmental Plan (LEP) 2012 and has been designed to prevent additional overshadowing to public places specified in the plan.

The only location outlined in the LEP that the subject site could impact upon is Martin Place, between George Street and Pitt Street.

An LEP Objective requests that no new development may cause additional overshadowing to Martin Place between the hours of 12pm and 2pm from 14th April to 31st August.

The following shadow impact analysis has been undertaken on 14th April and 31st August at the above specified times to demonstrate the compliance of the proposed envelope, noting that the intended period of protection is outside the winter months. We have also included a worst case analysis on the 21st of June.

The analysis takes into consideration all existing site context as well as built forms that have been granted development consent. These include:

- / 20 O'Connell Street DA
- / Martin Place Metro North DA
- / Wynyard Place DA

Image source: Bates Smart

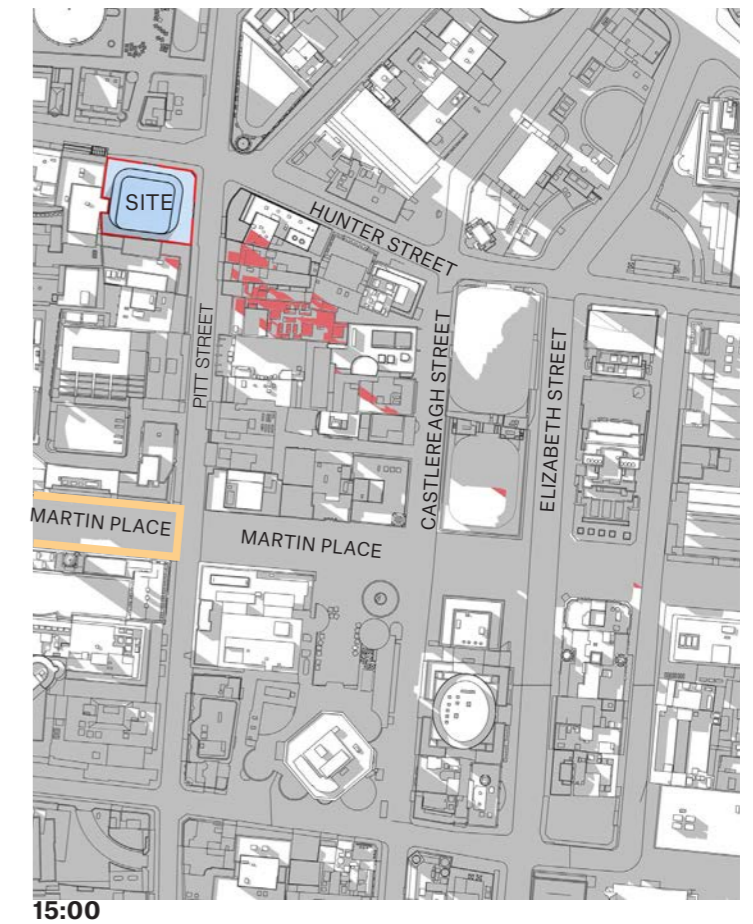
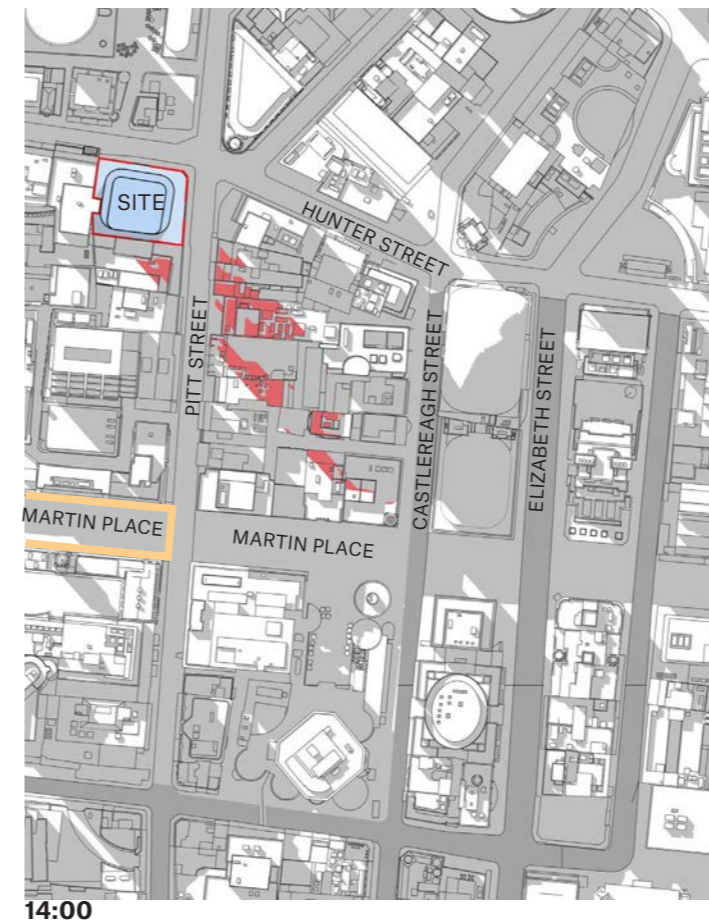
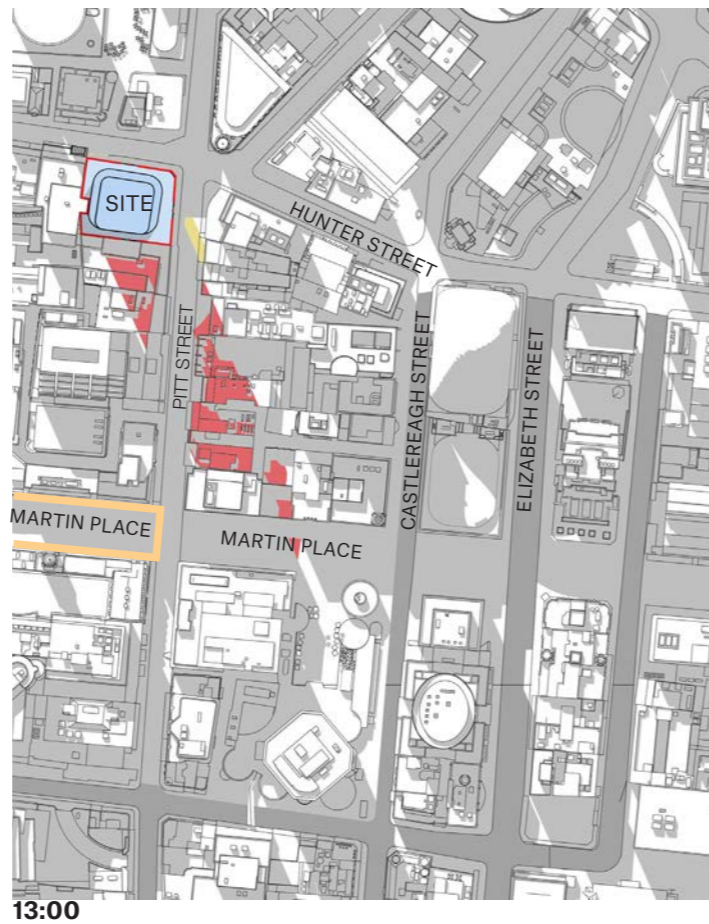
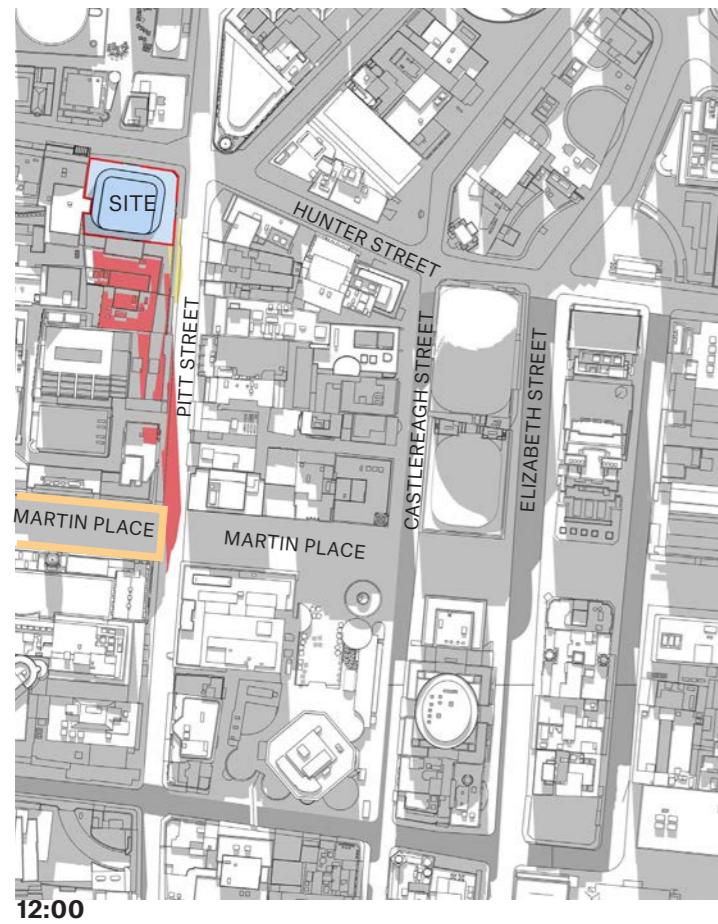
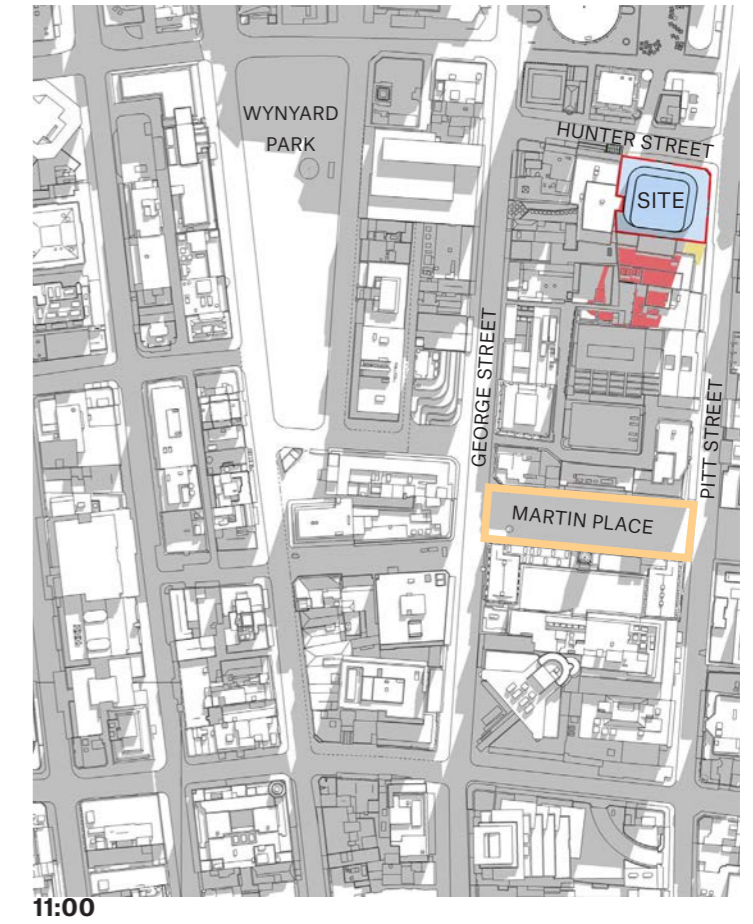
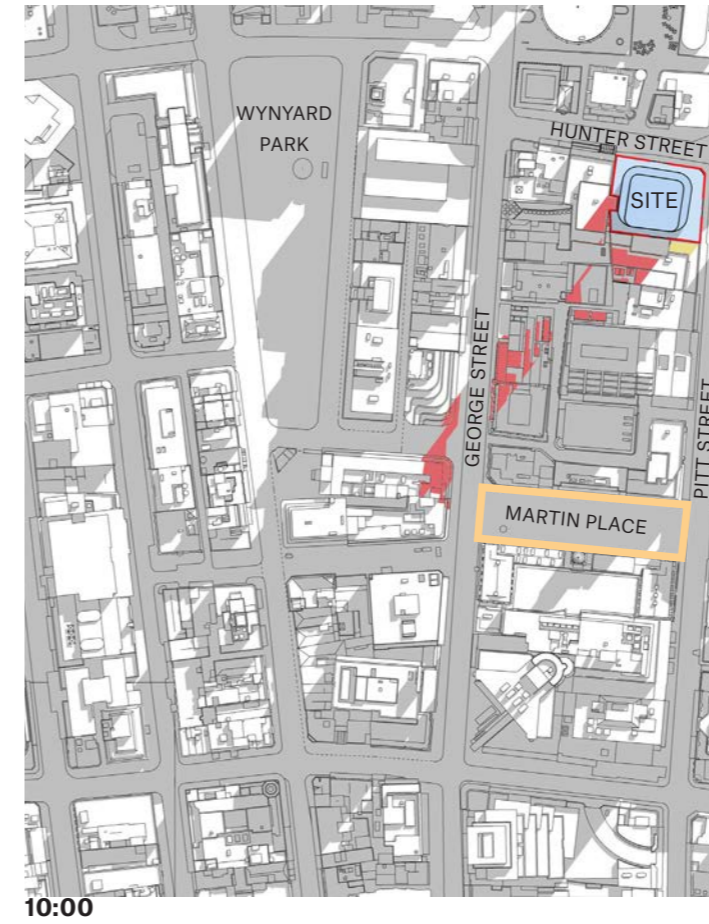
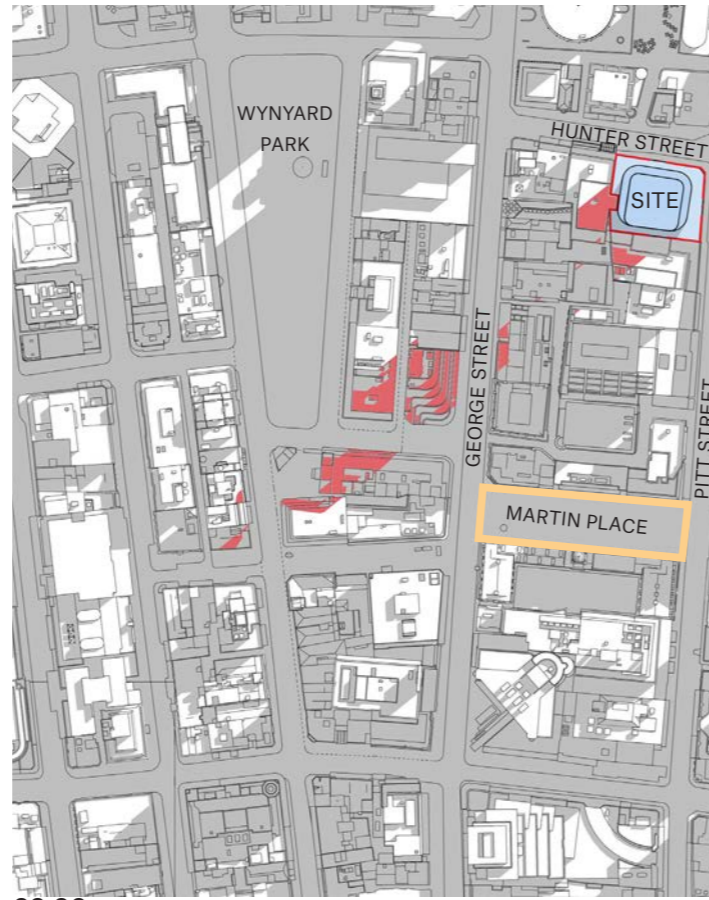


14TH APRIL - OVERSHADOWING ANALYSIS

KEY

- 15-23 Hunter Street and 105-107 Pitt Street Proposed Envelope
- Additional Overshadowing
- Reduced Overshadowing
- Locations requiring no additional overshadowing as per Sydney LEP 2012

Image source: Bates Smart, created using a 3d city model provided under license from AAM Group

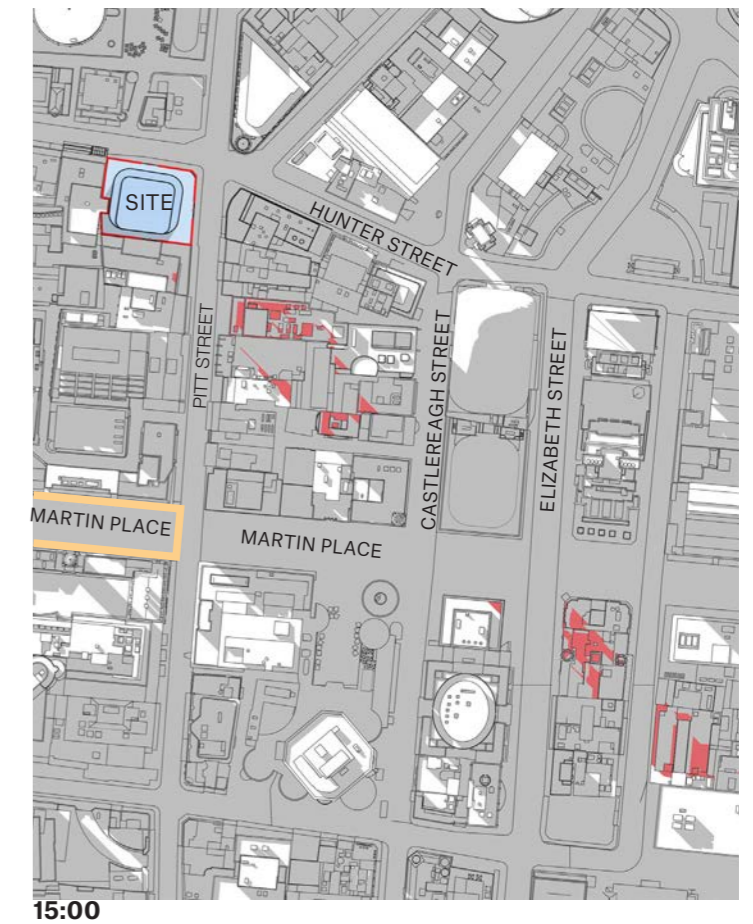
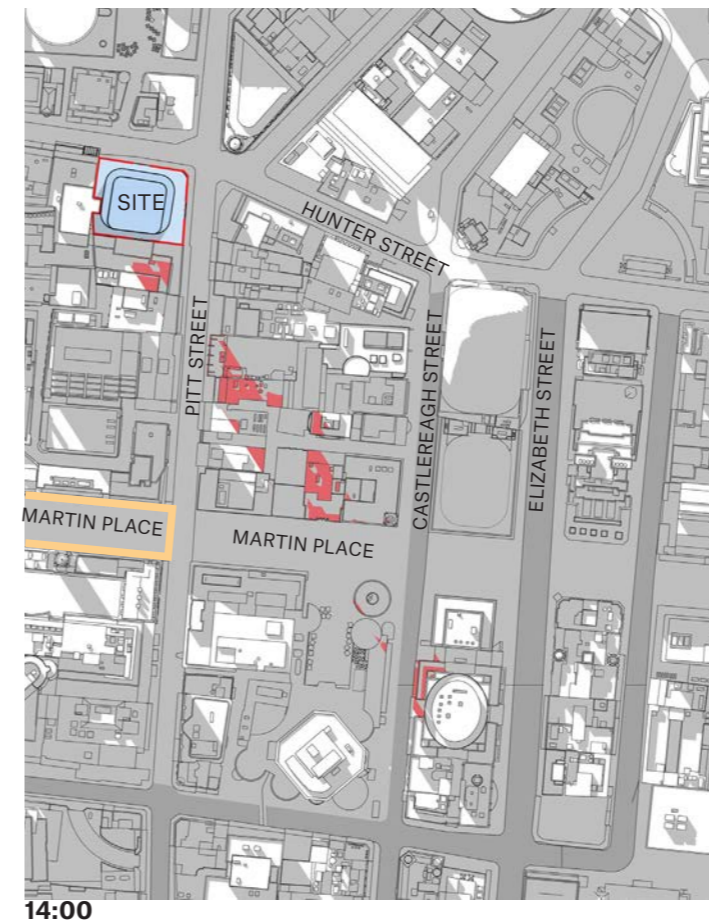
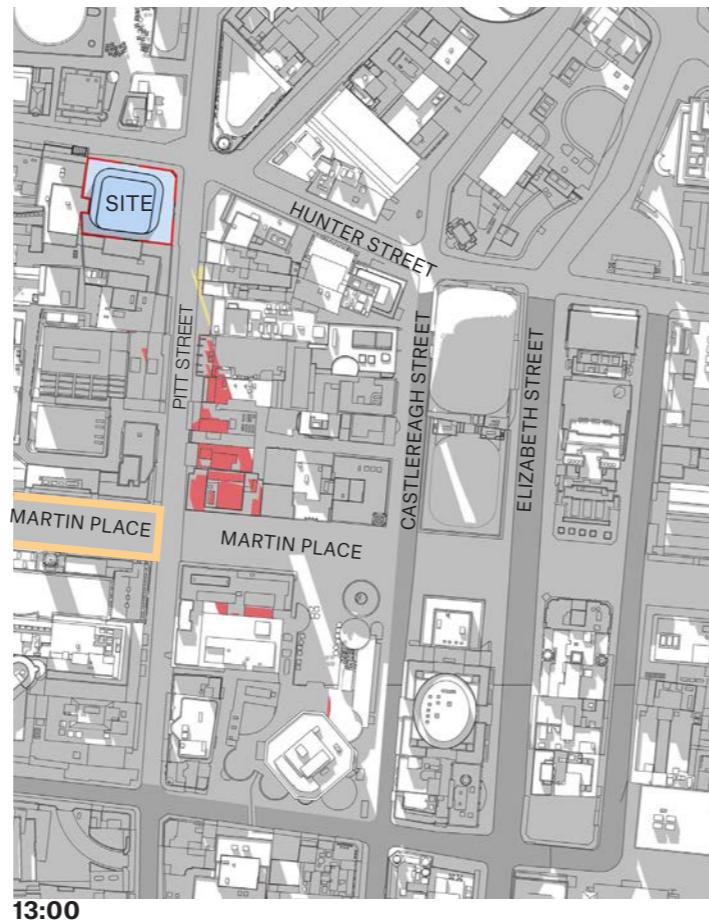
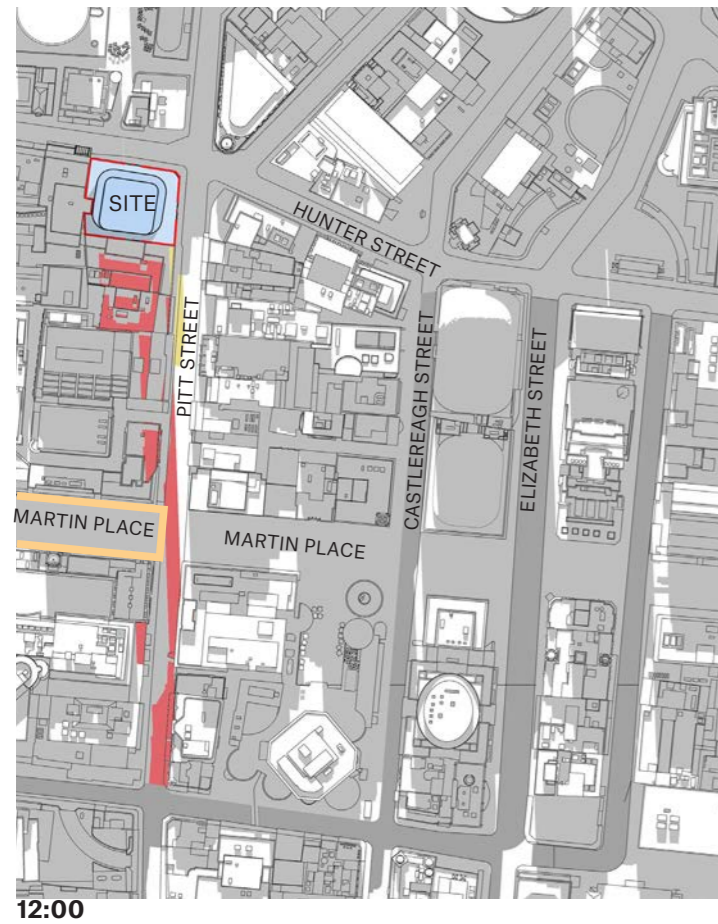
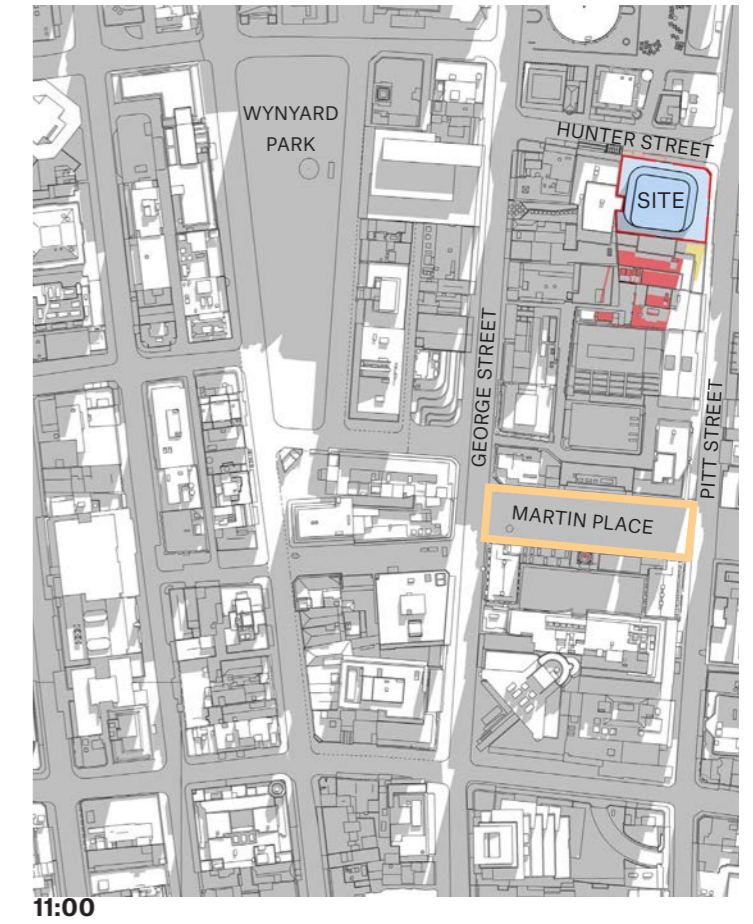
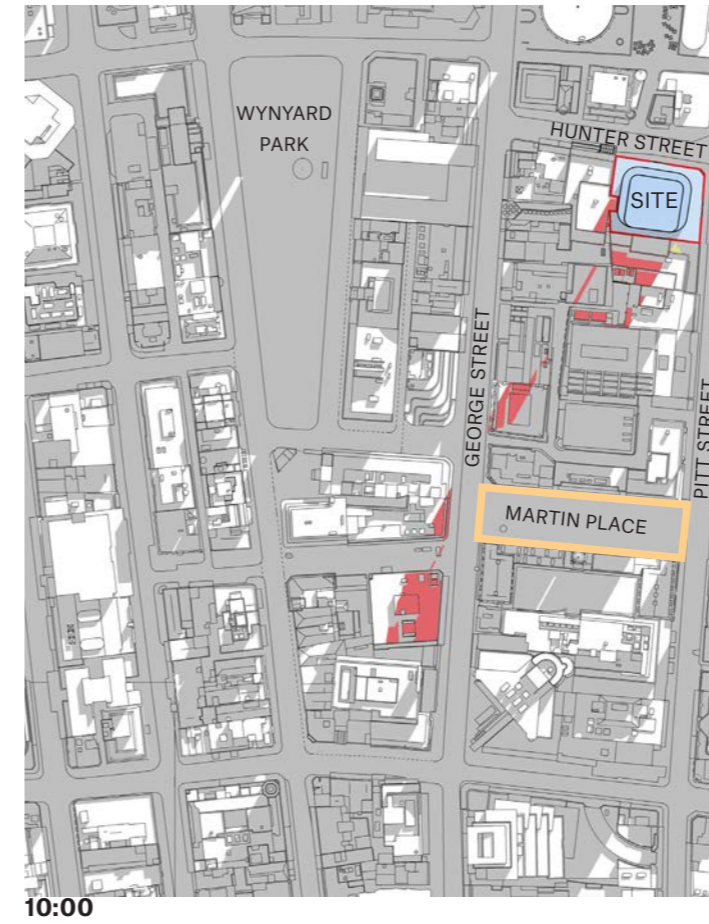
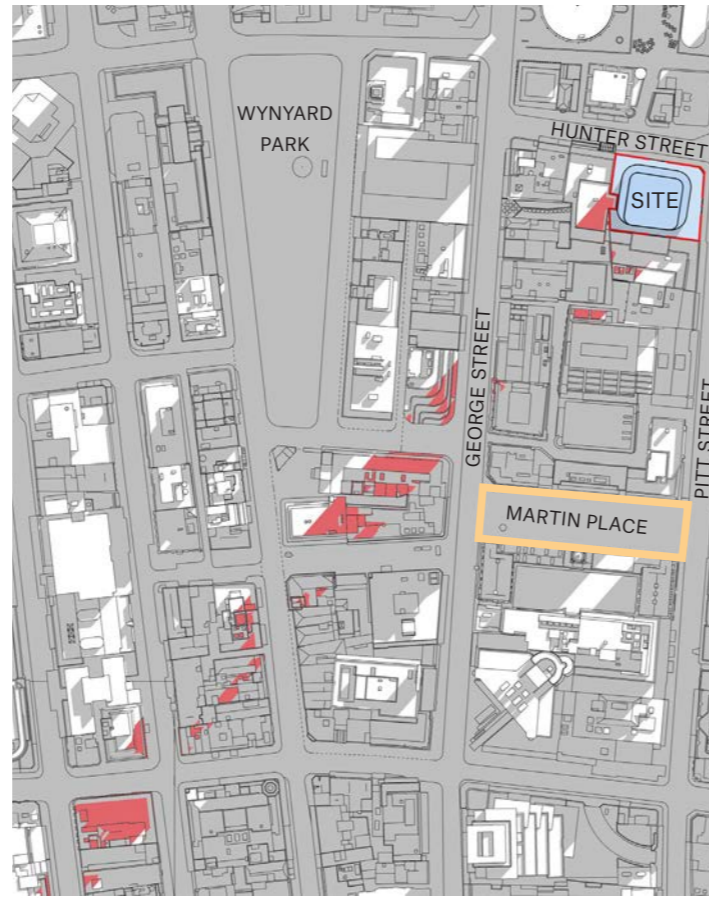


14TH APRIL - OVERSHADOWING ANALYSIS

KEY

- 15-23 Hunter Street and 105-107 Pitt Street Proposed Envelope
- Additional Overshadowing
- Reduced Overshadowing
- Locations requiring no additional overshadowing as per Sydney LEP 2012

Image source: Bates Smart, created using a 3d city model provided under license from AAM Group

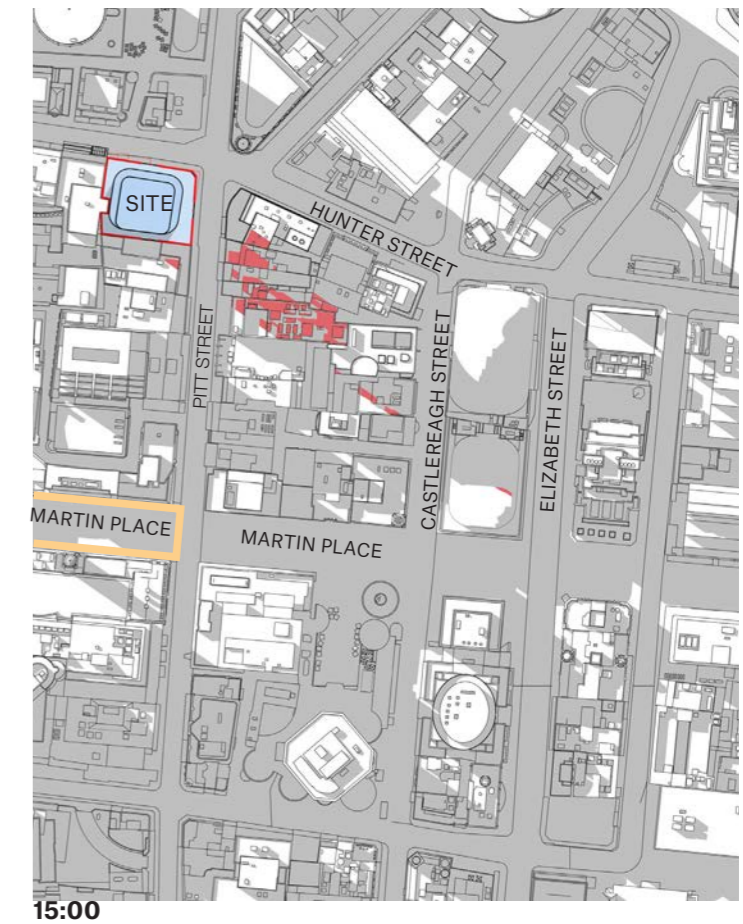
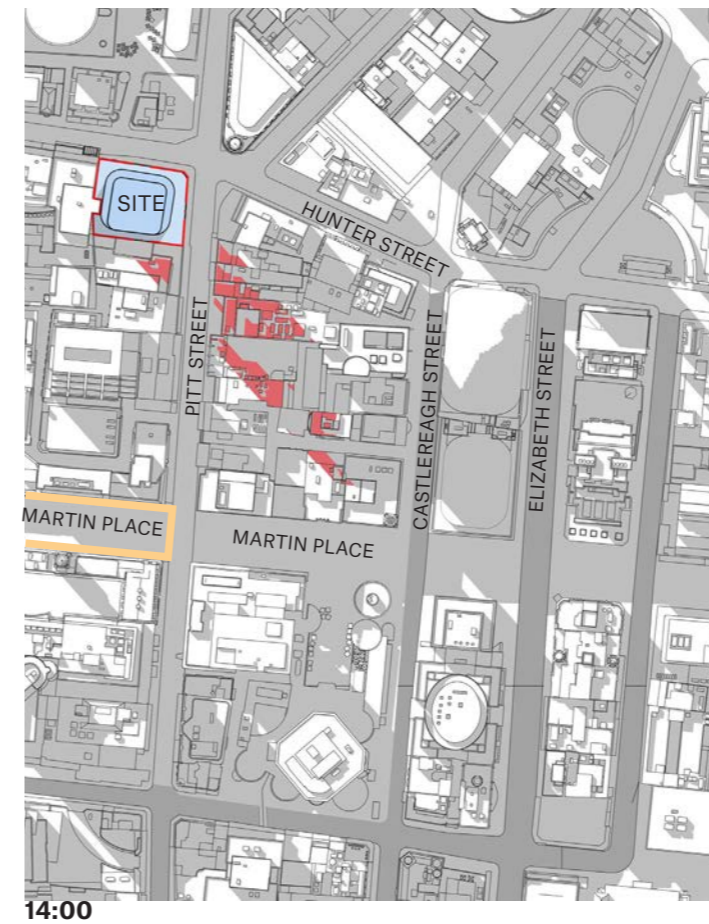
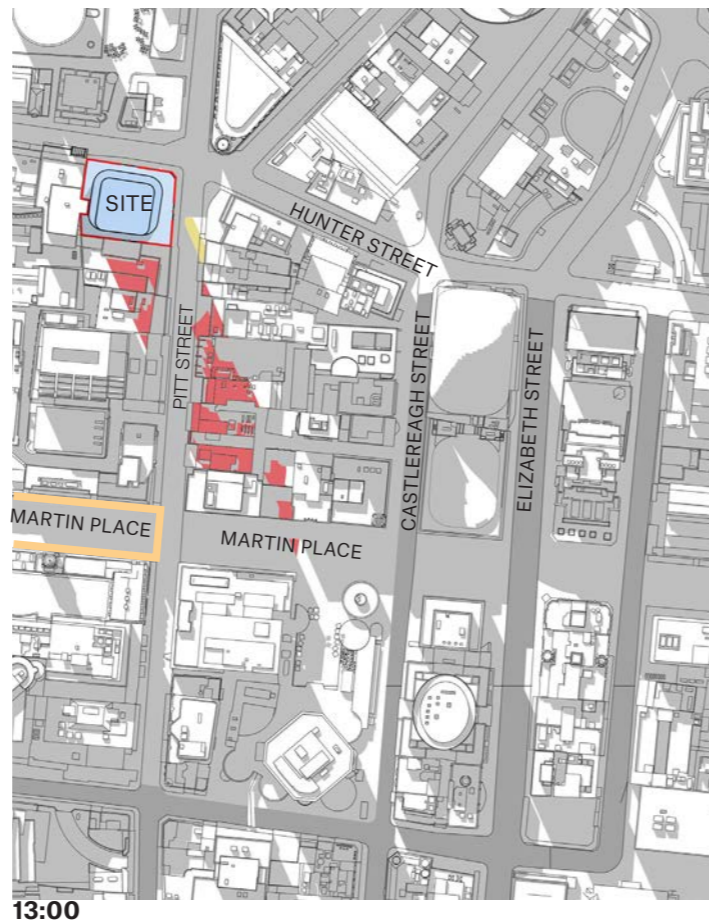
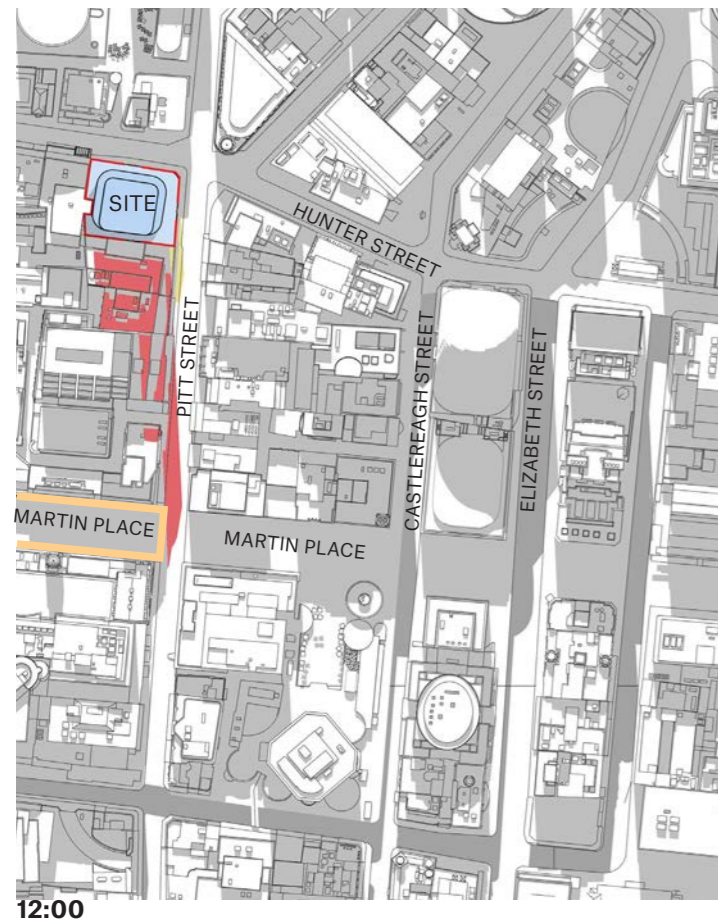
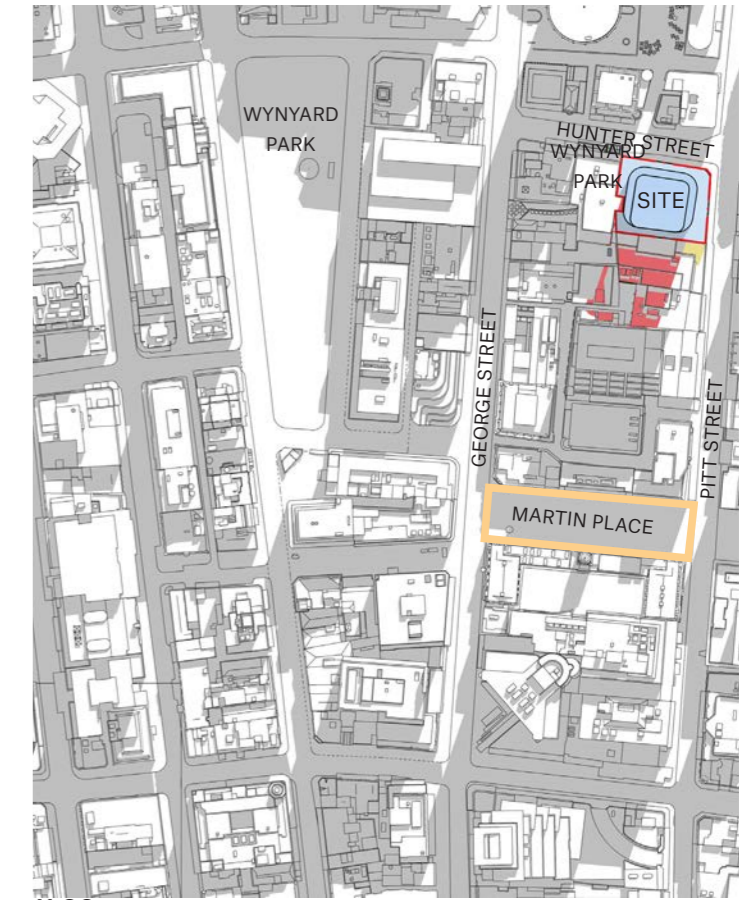
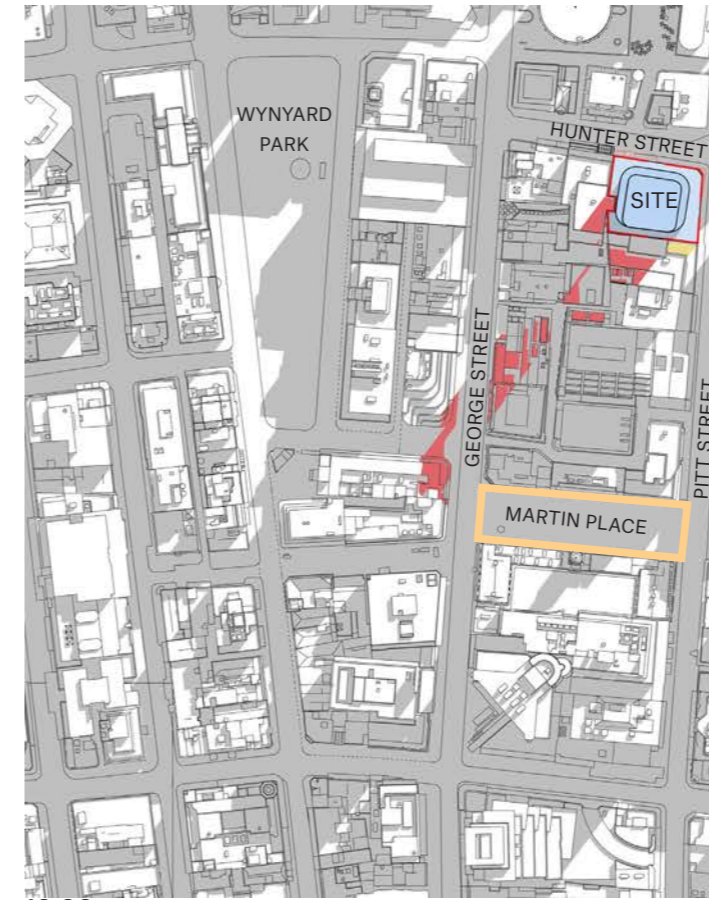
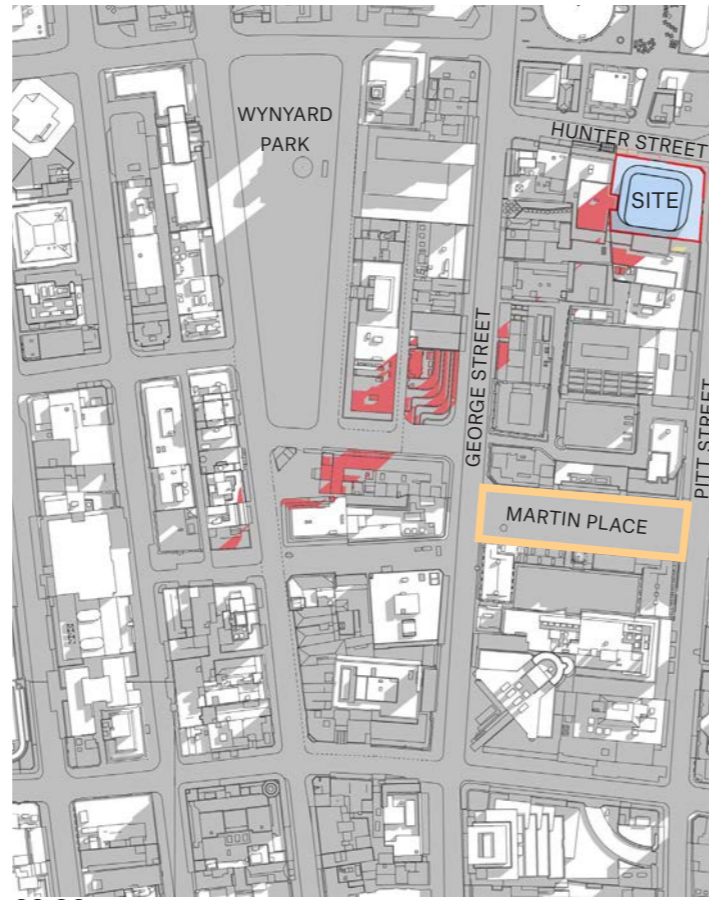


14TH APRIL - OVERSHADOWING ANALYSIS

KEY

- 15-23 Hunter Street and 105-107 Pitt Street Proposed Envelope
- Additional Overshadowing
- Reduced Overshadowing
- Locations requiring no additional overshadowing as per Sydney LEP 2012

Image source: Bates Smart, created using a 3d city model provided under license from AAM Group

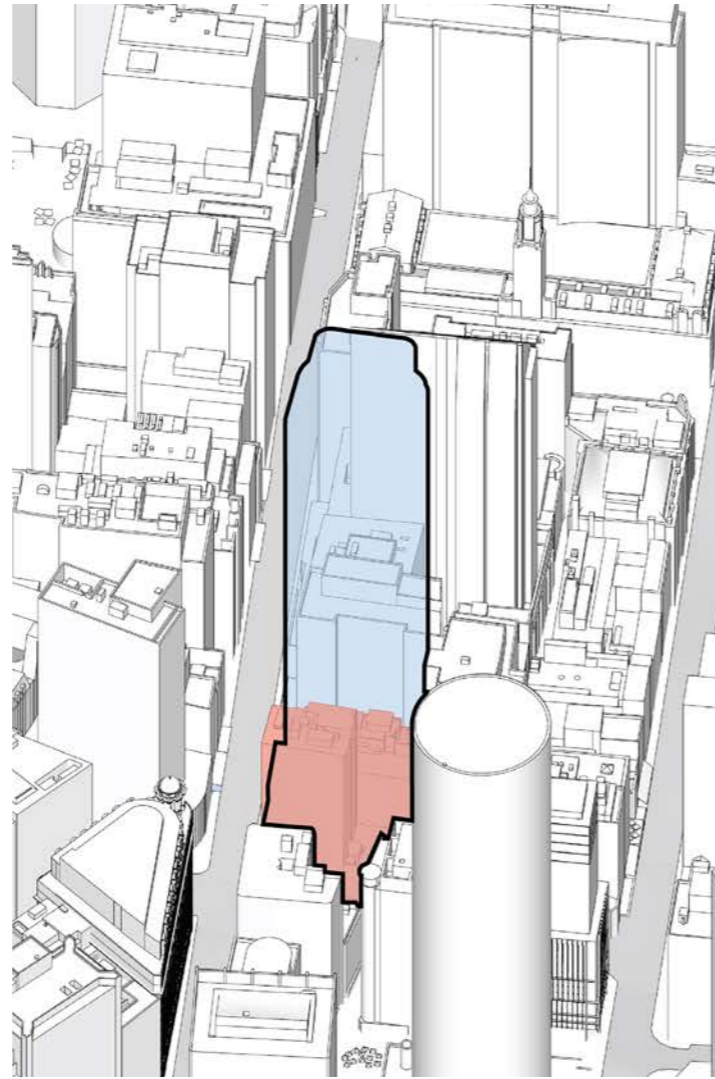


8.2 Views From The Sun

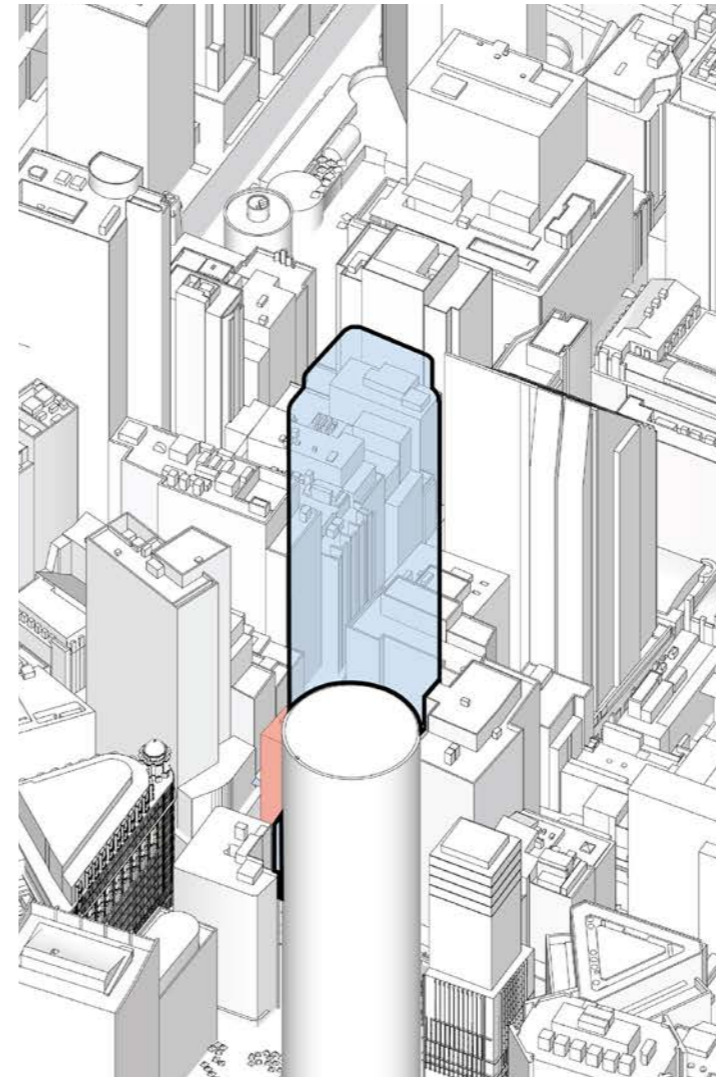
14TH APRIL - VIEWS FROM THE SUN

KEY

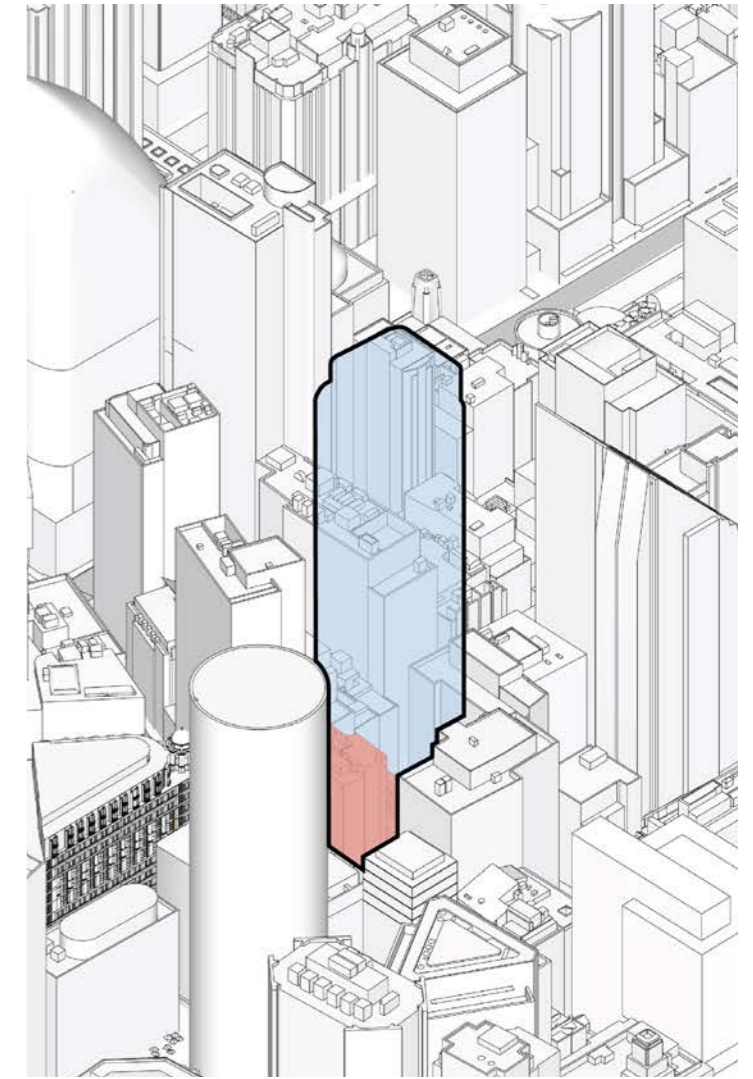
- 15-23 Hunter Street and 105-107 Pitt Street
Proposed Envelope
- Existing massing on site



12:00



13:00



14:00

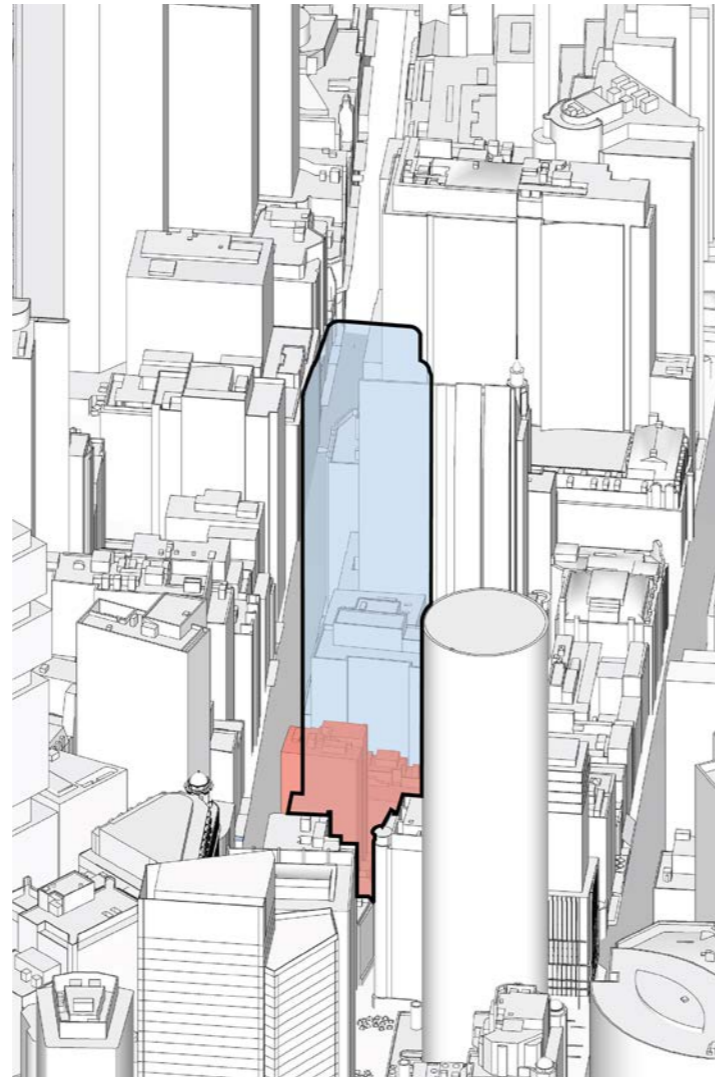
Image source: Bates Smart, created using a 3d city model provided under license from AAM Group

21ST JUNE - WINTER SOLSTICE - VIEWS FROM THE SUN

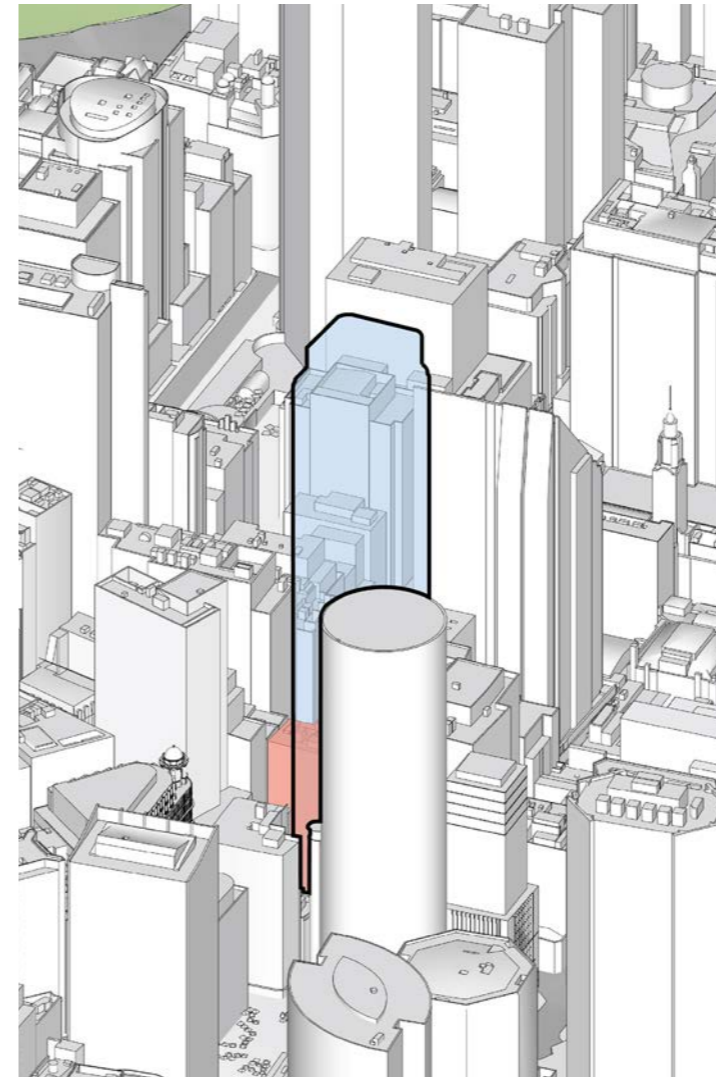
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15-23 Hunter Street and 105-107 Pitt Street
Proposed Envelope

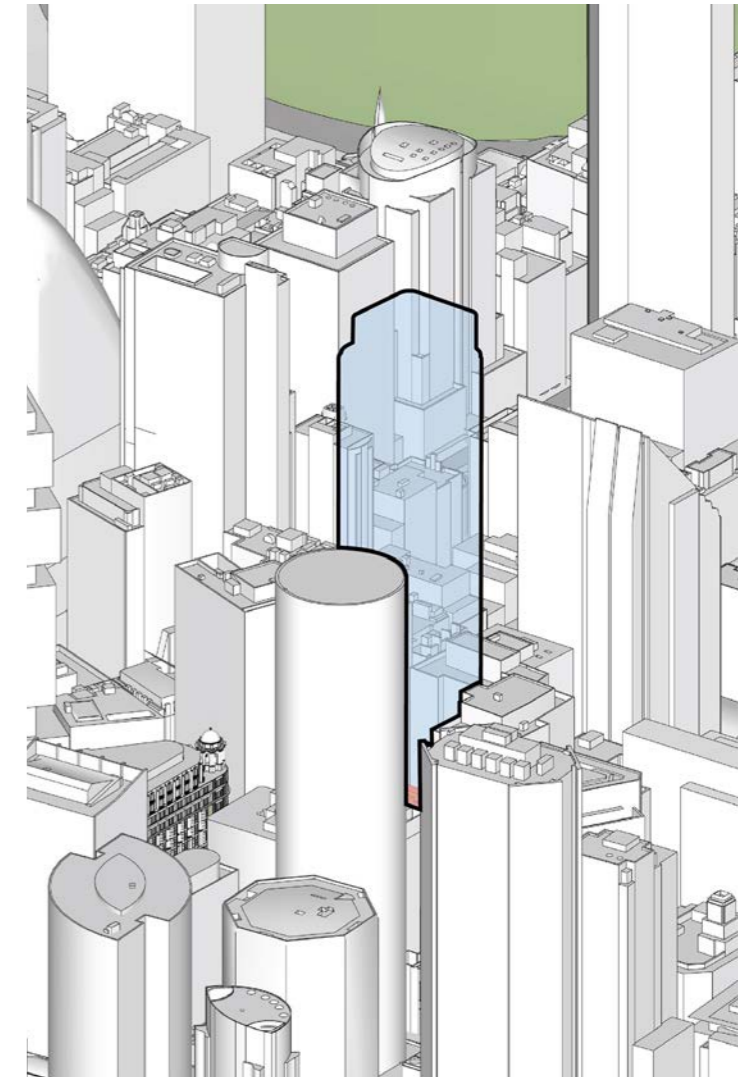
Existing massing on site



12:00



13:00



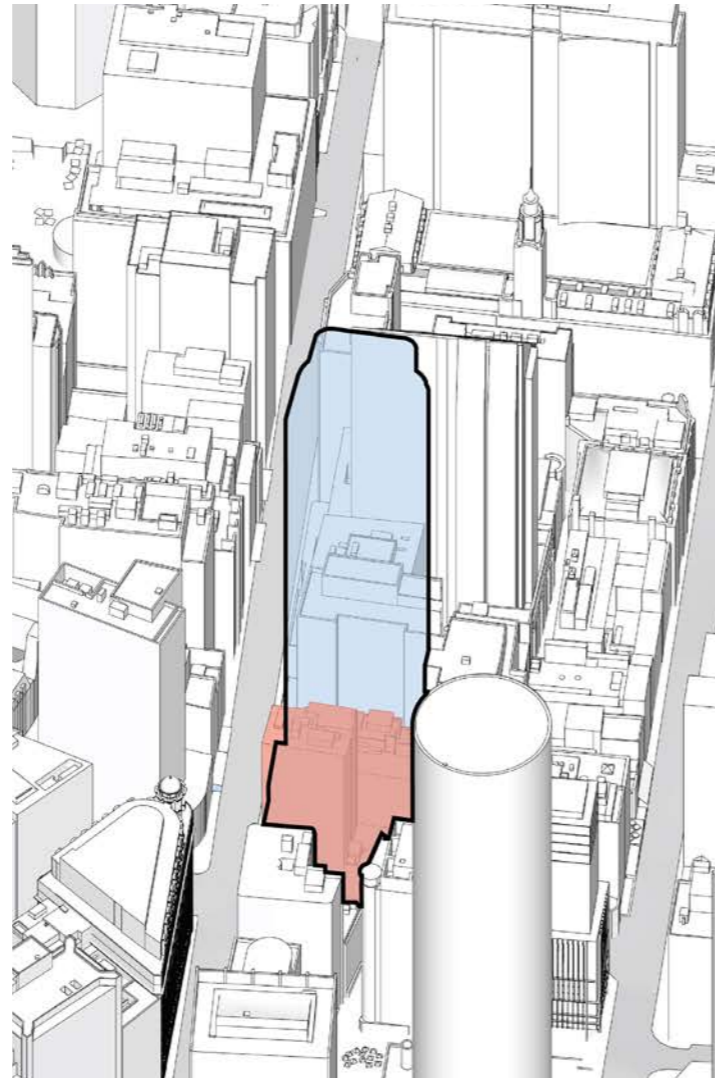
14:00

31ST AUGUST - VIEWS FROM THE SUN

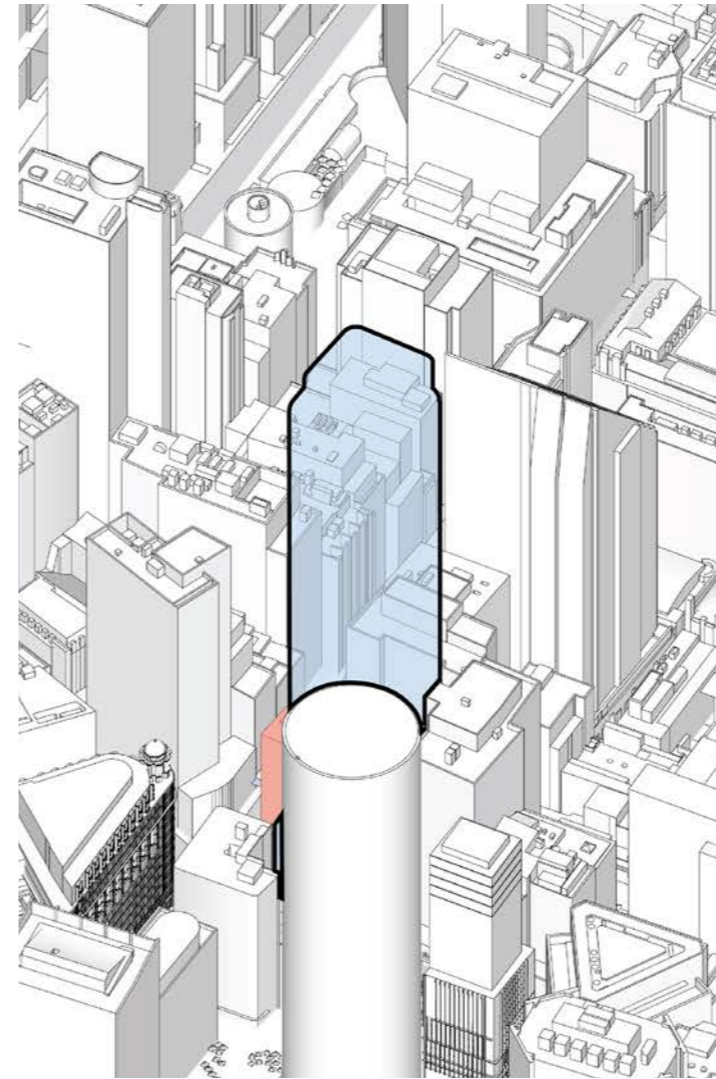
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15-23 Hunter Street and 105-107 Pitt Street
Proposed Envelope

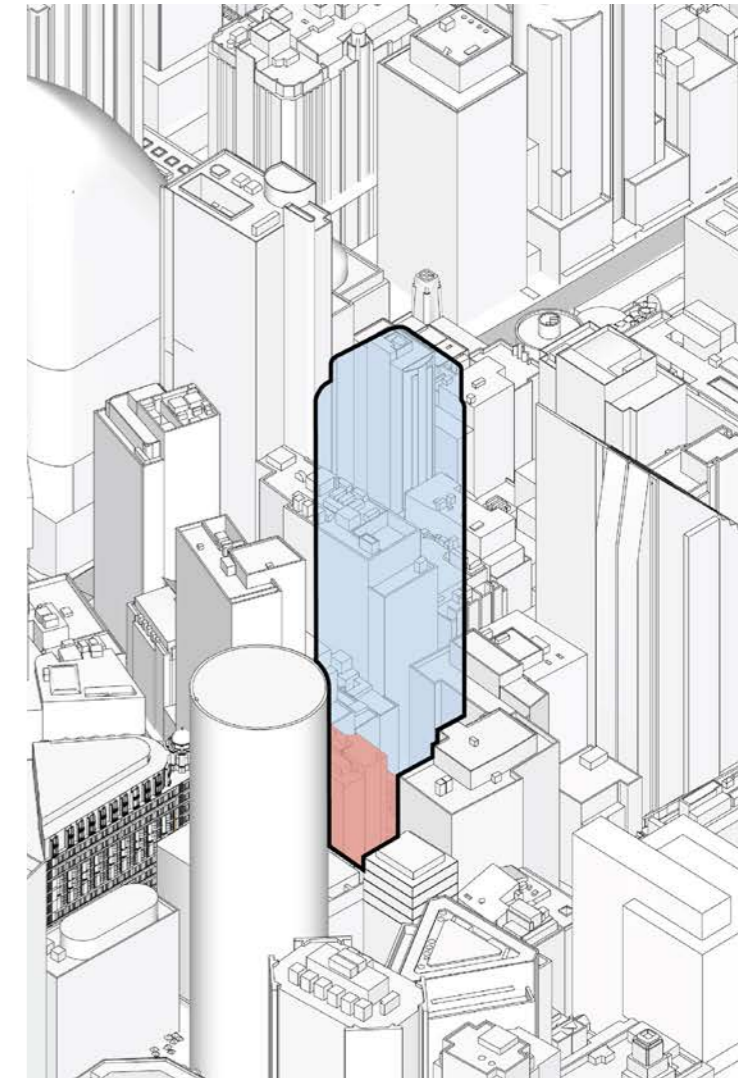
Existing massing on site



12:00



13:00



14:00

9.0

**Reference
Design**

15-23 Hunter Street and
105-107 Pitt Street Sydney

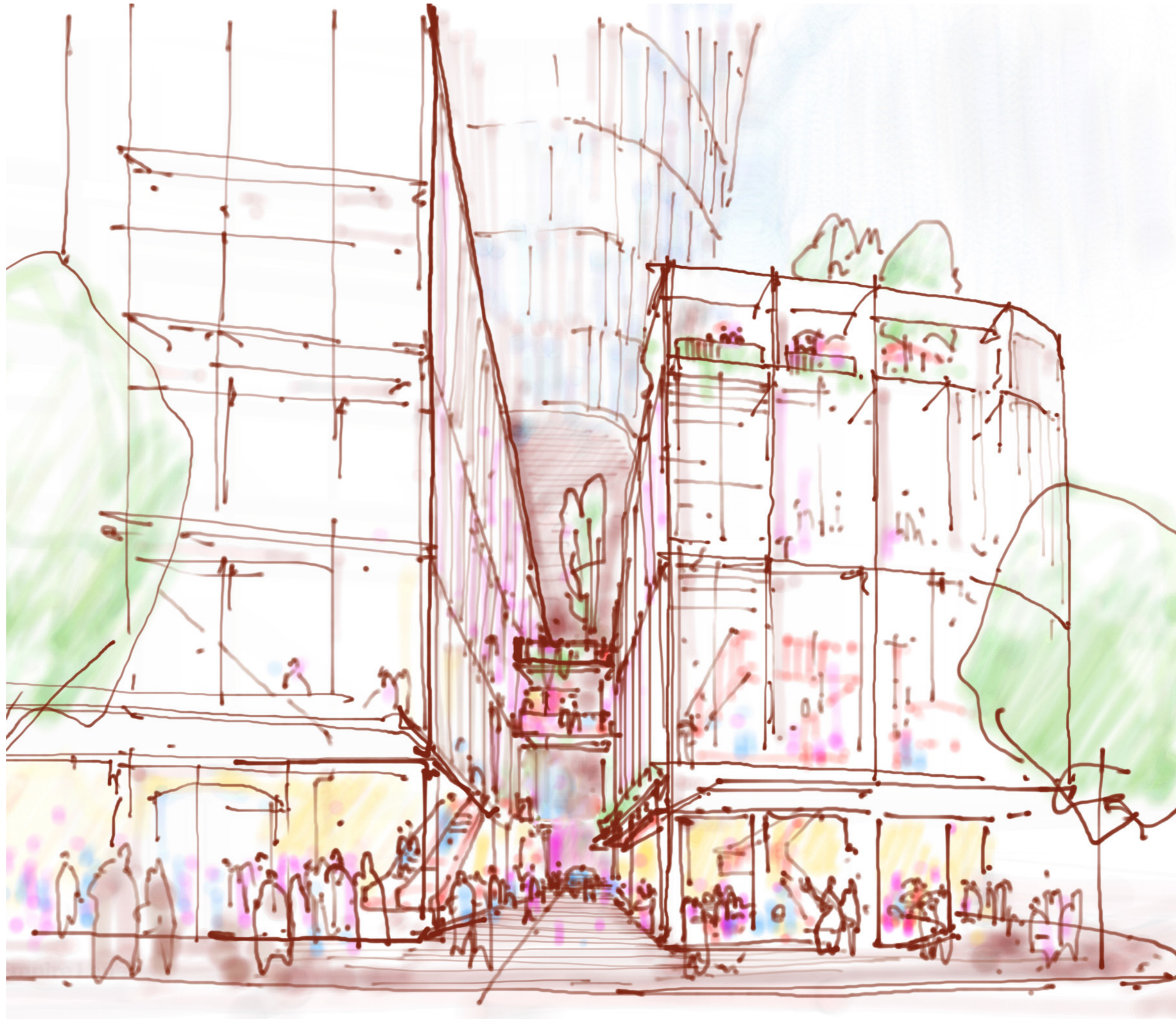


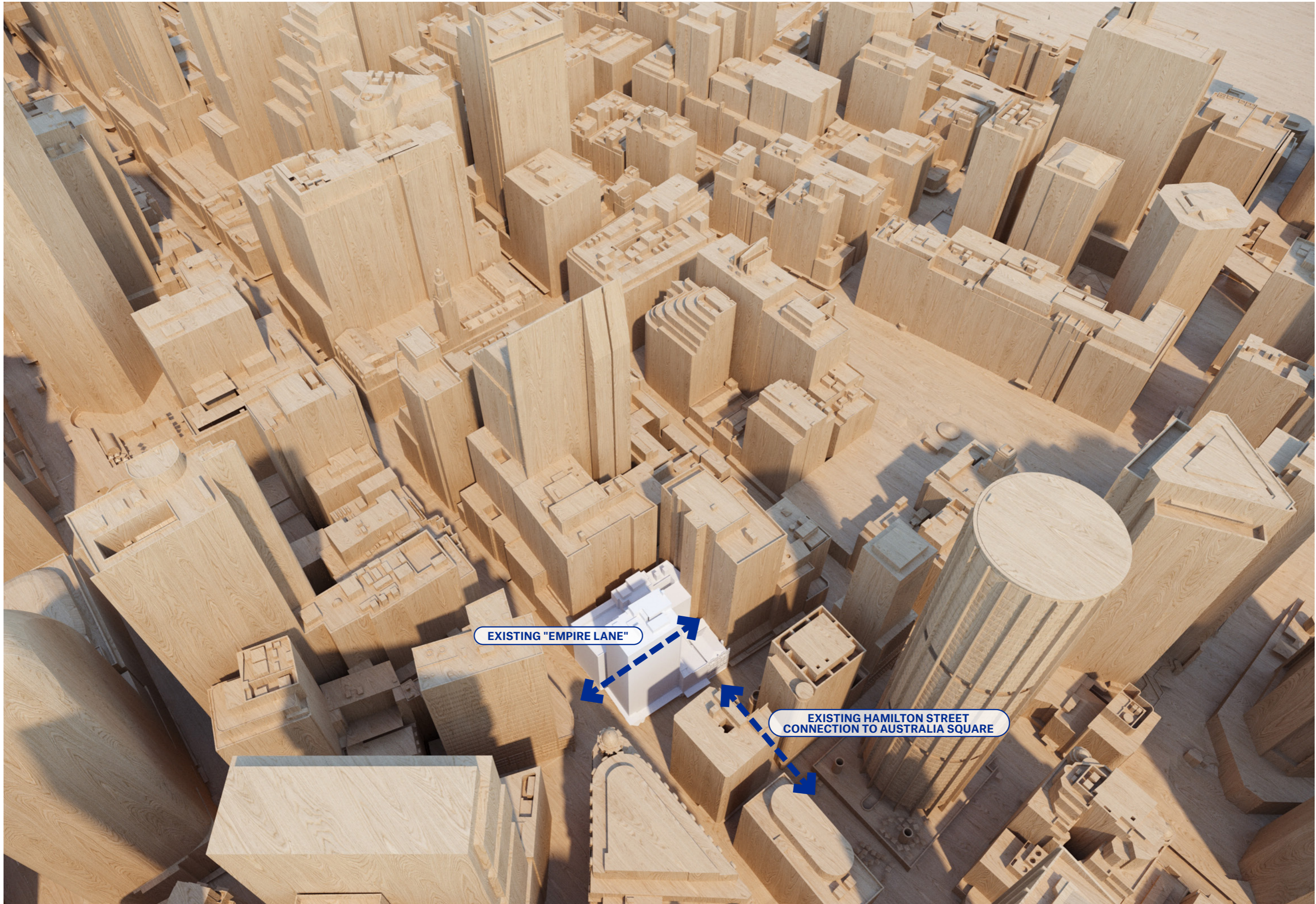
Reference Design Drawing Set

The indicative reference design is a potential scheme used to demonstrate an appropriate outcome can be delivered within the proposed envelope. This is an indicative reference only, and it will be superseded by an architectural design competition.

Particular attention is paid to access requirements, potential yield, and the envelope's relationship to its context.

The drawings and artist's impressions are indicative and are not suggested to constitute a final product.





EXISTING "EMPIRE LANE"

EXISTING HAMILTON STREET
CONNECTION TO AUSTRALIA SQUARE

Laneway Concept

BRIEF: LETTER FROM CITY OF SYDNEY:

The treatment of 15-17 Hunter Street within the proposal requires careful consideration, including the impacts of any proposed cantilever over the building and its improved integration, and recognition, within the reference design.

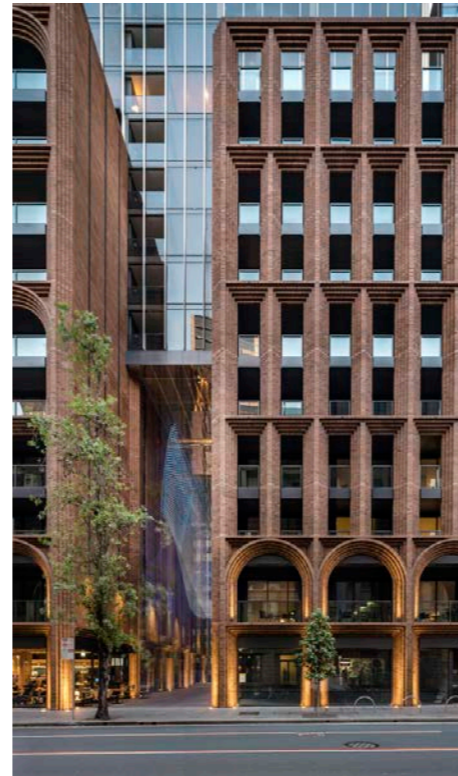
Retaining and activating the current private 'laneway' that extends into the site from Pitt Street could help improve integration of 15-17 Hunter Street and improve the integration of future development into the surrounding urban fabric.

The proposal should strive to protect the prevalent fine grain character of Hunter and Pitt Streets.

LANEWAY / THROUGH-SITE LINK PRECEDENTS:



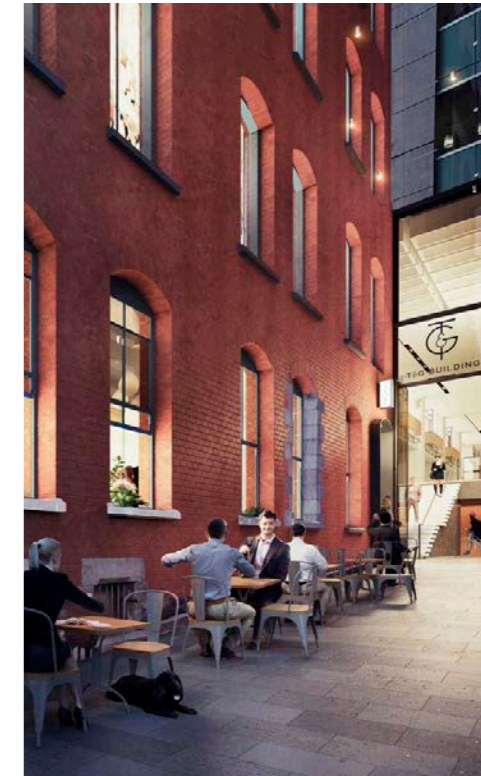
161 Castlereagh Street
Image: John Gollings



161 Clarence Street
Image: Martin Siegner



151 Clarence Street
Image: Brett Boardman



161 Collins Street Melbourne
Image: Jefferson Protomartir

Below Ground Concept

Health / Wellness / Lifestyle

UNDERGROUND FOOD HALL PRECEDENTS



David Jones Food Hall Bondi Junction



UNDERGROUND FOOD MARKET HALL



Dexus And Frasers Central Place Sydney

UNDERGROUND FOOD MARKET HALL



Dexus And Frasers Central Place Sydney

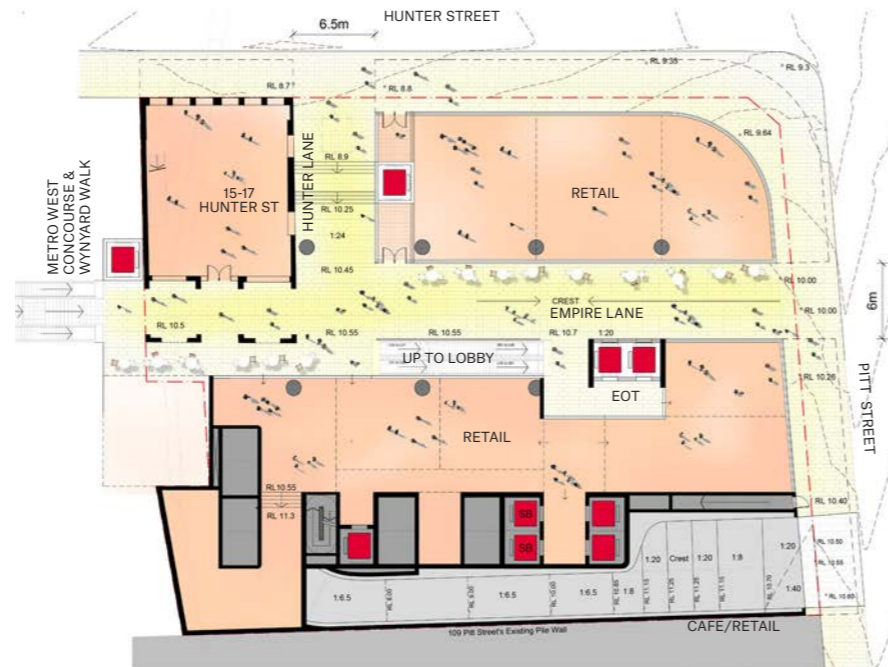
Summary

Ground Level And Basement Plans

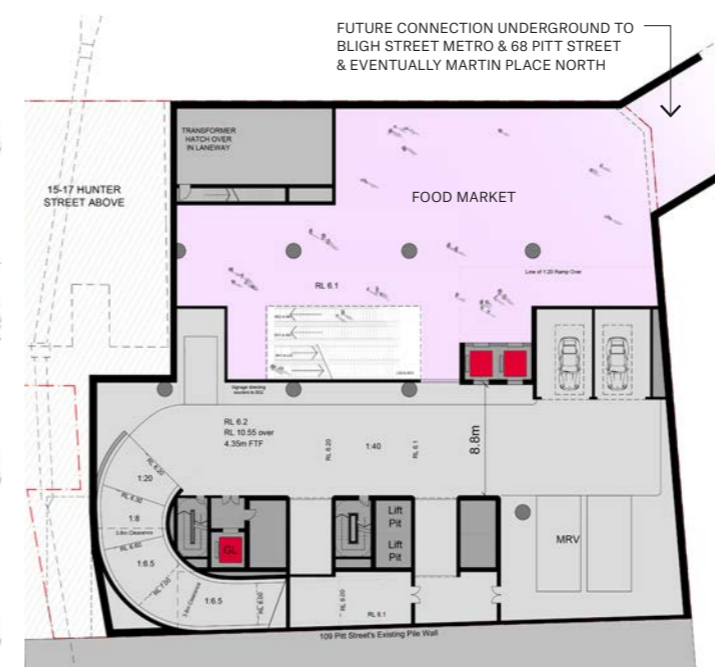
B01 is a Food Market and act as an extension of the Empire Lane entertainment tenancies above. It allows for a potential connection to Martin Place Metro's Bligh Street Station.

B02 is a reception for a world class Health and Wellness facility, encompassing treatment rooms, meditation, physiotherapy & yoga studios on B03, and fitness facilities including swimming pool, gym, and sauna on B04.

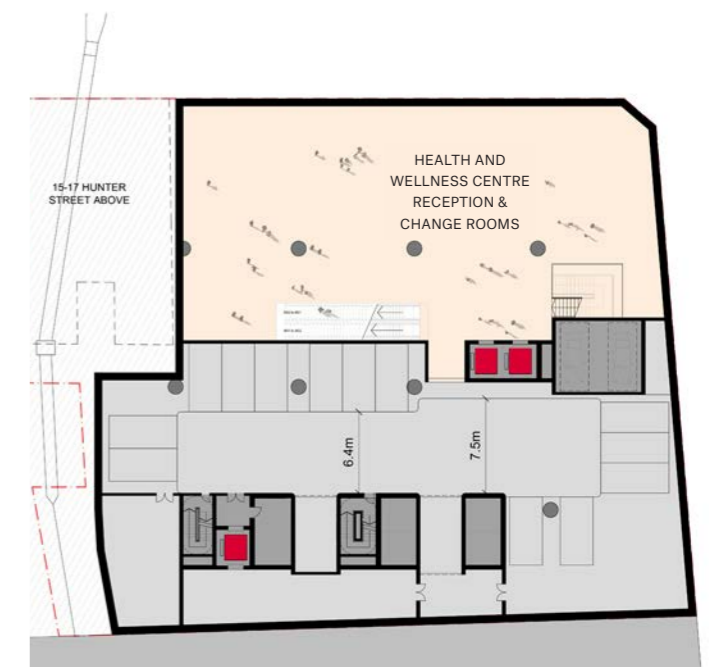
The Health & Wellness centre is designed to supplement to the EOT facilities below B05 will be a dedicated EOT offering.



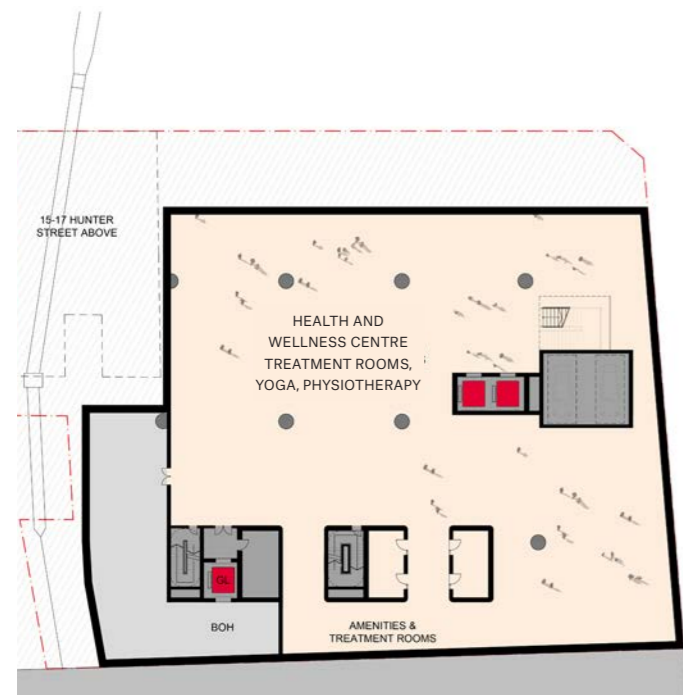
GROUND LEVEL



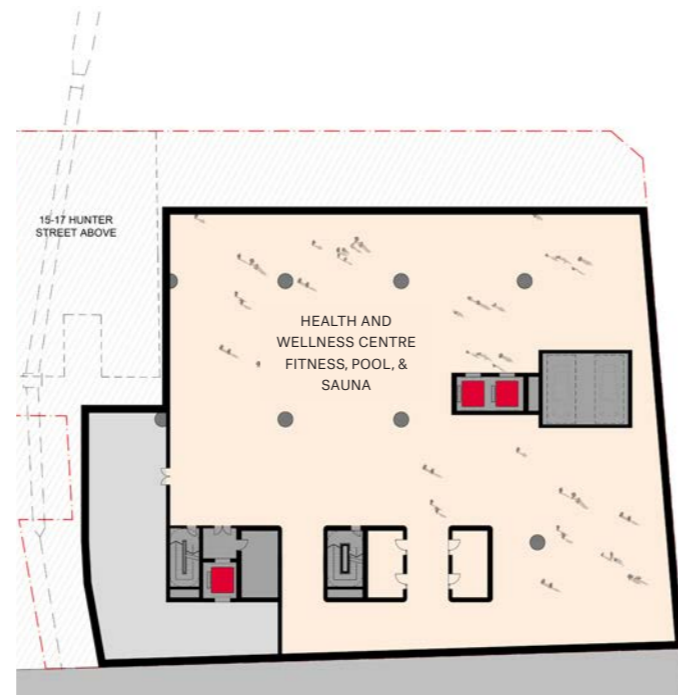
BASEMENT 01



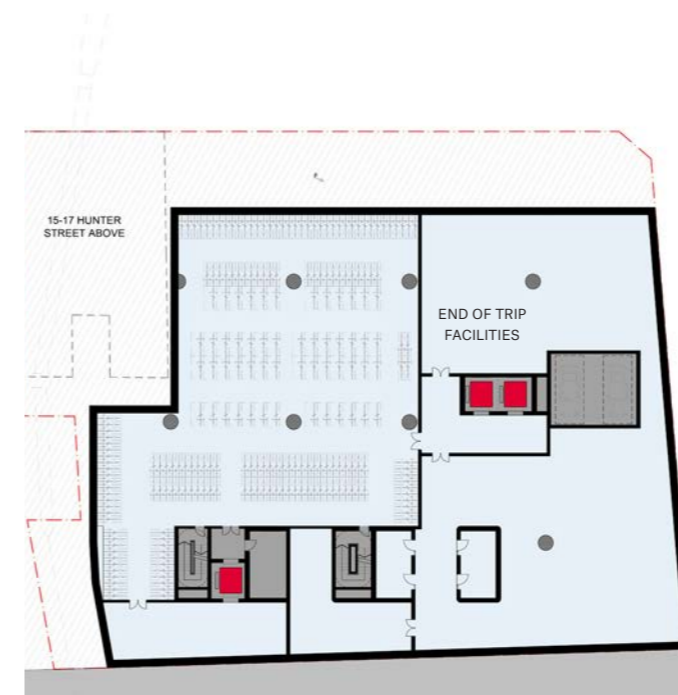
BASEMENT 02



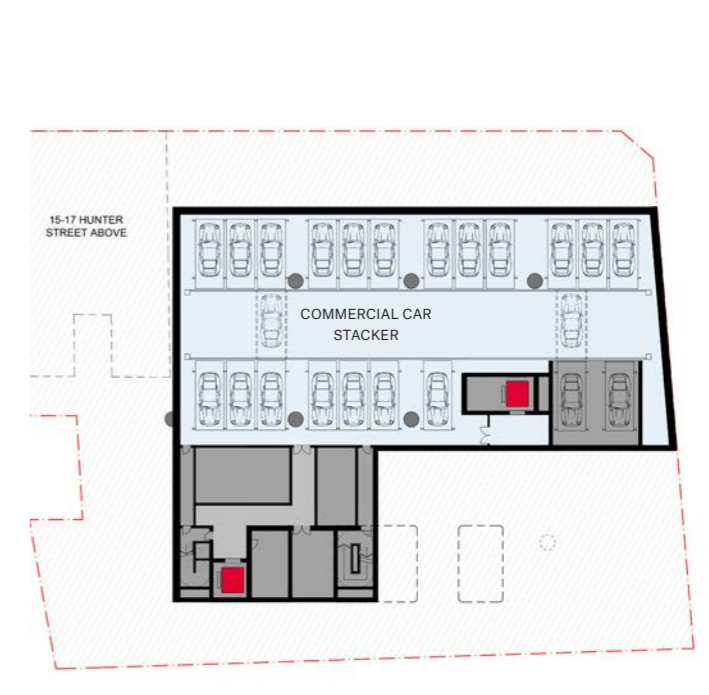
BASEMENT 03



BASEMENT 04



BASEMENT 05



BASEMENT 06

1:600 @ A3

Interface with Metro Site

Diagrammatic Cross Section

DAP COMMENTS ADDRESSED

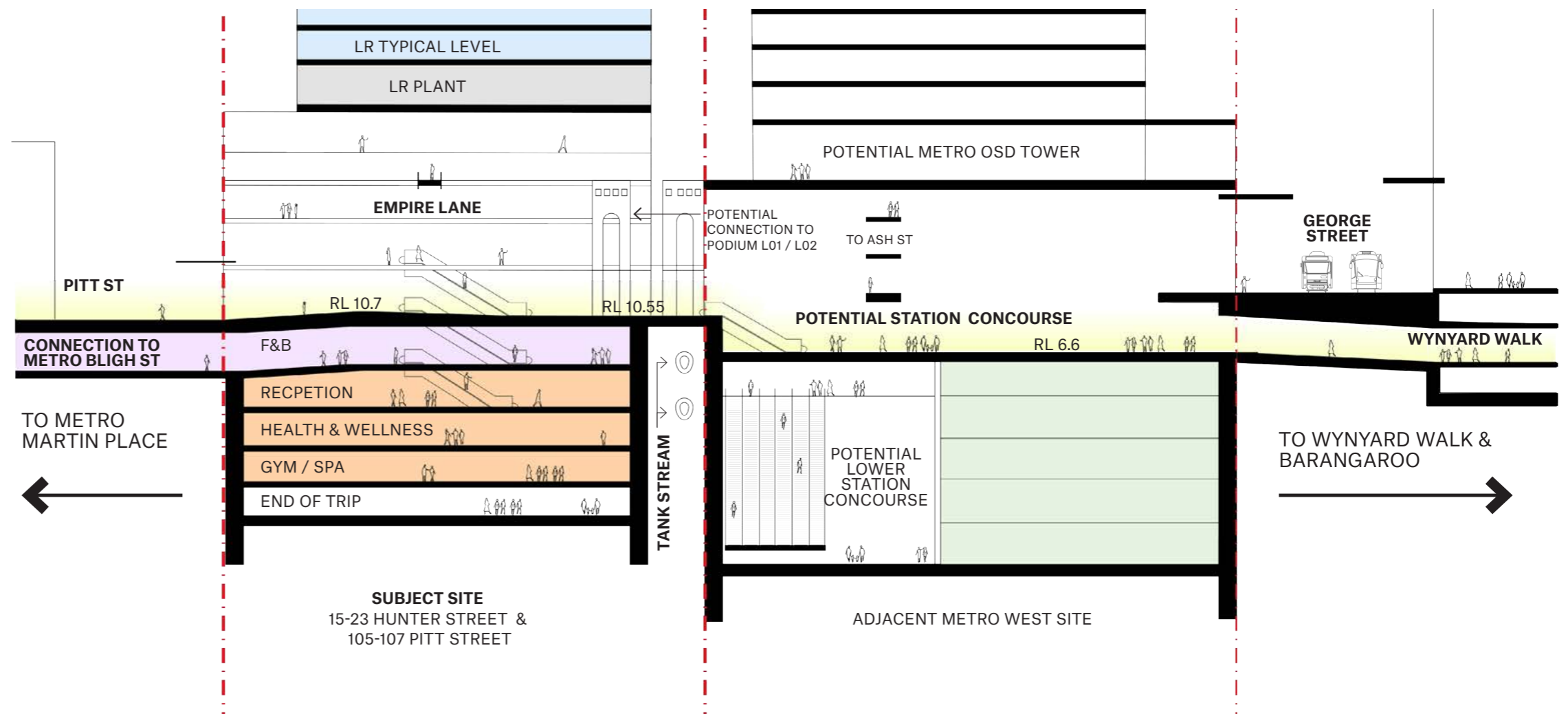
Pedestrians are prioritized with vehicular traffic entirely removed from the laneway. A clear connection to the Metro West concourse is maintained.

Flood levels: Empire Lane must crest at RL 10.70, And Hunter Lane must crest at RL 10.10 .

Basement levels are considered and purposeful, with clear wayfinding and access. The B01 F&B floor is envisaged as a designed food market with connections through to Metro Bligh Street.

B02 is a reception for a world class Health and Wellness facility, encompassing treatment rooms, meditation, physiotherapy & yoga studios on B03, and fitness facilities including swimming pool, gym, and sauna on B04.

B05 will be a dedicated EOT offering, supplemented by the Health & Wellness Centre.

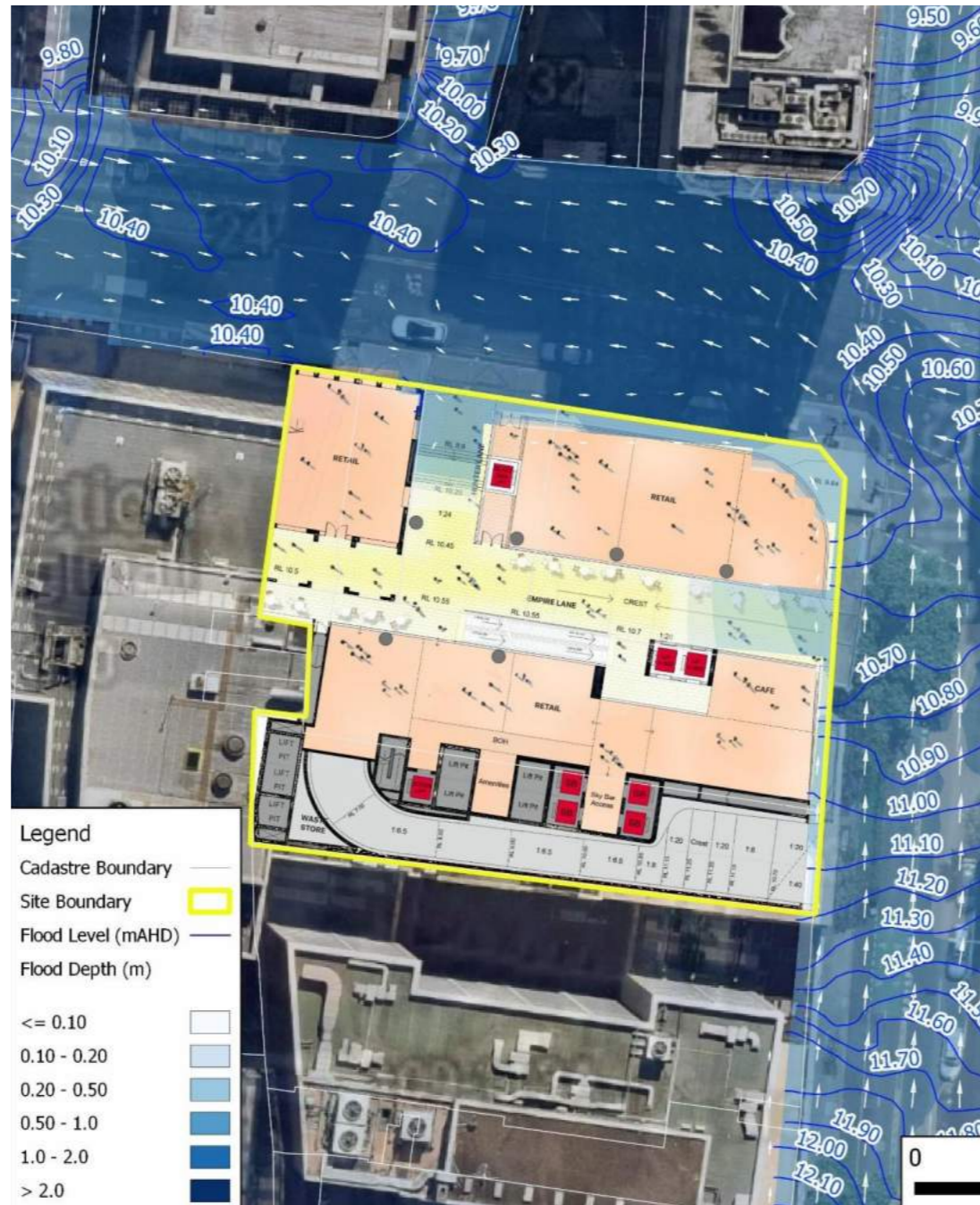


Summary

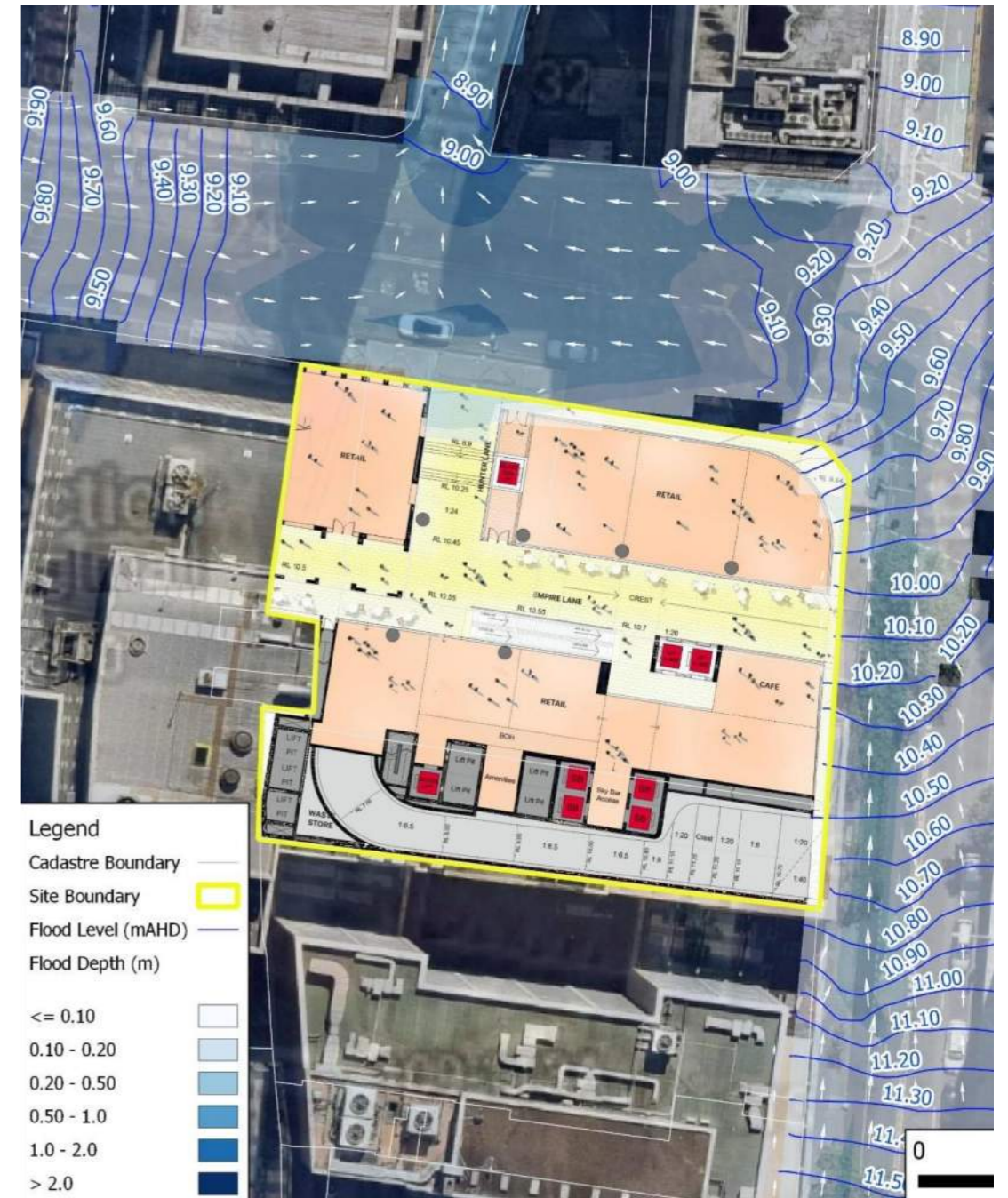
Mitigating Potential Flood Impact

A desire to mitigate potential flood impacts has led to raised ground floor & laneway levels.

The Metro West concourse may potentially be immediately next door at ~ RL 6.6; as such flood protection to the concourse from an entry located in the laneway must be considered. As such, levels have been raised to ensure adequate protection to the potential station concourse.



PMF LEVELS

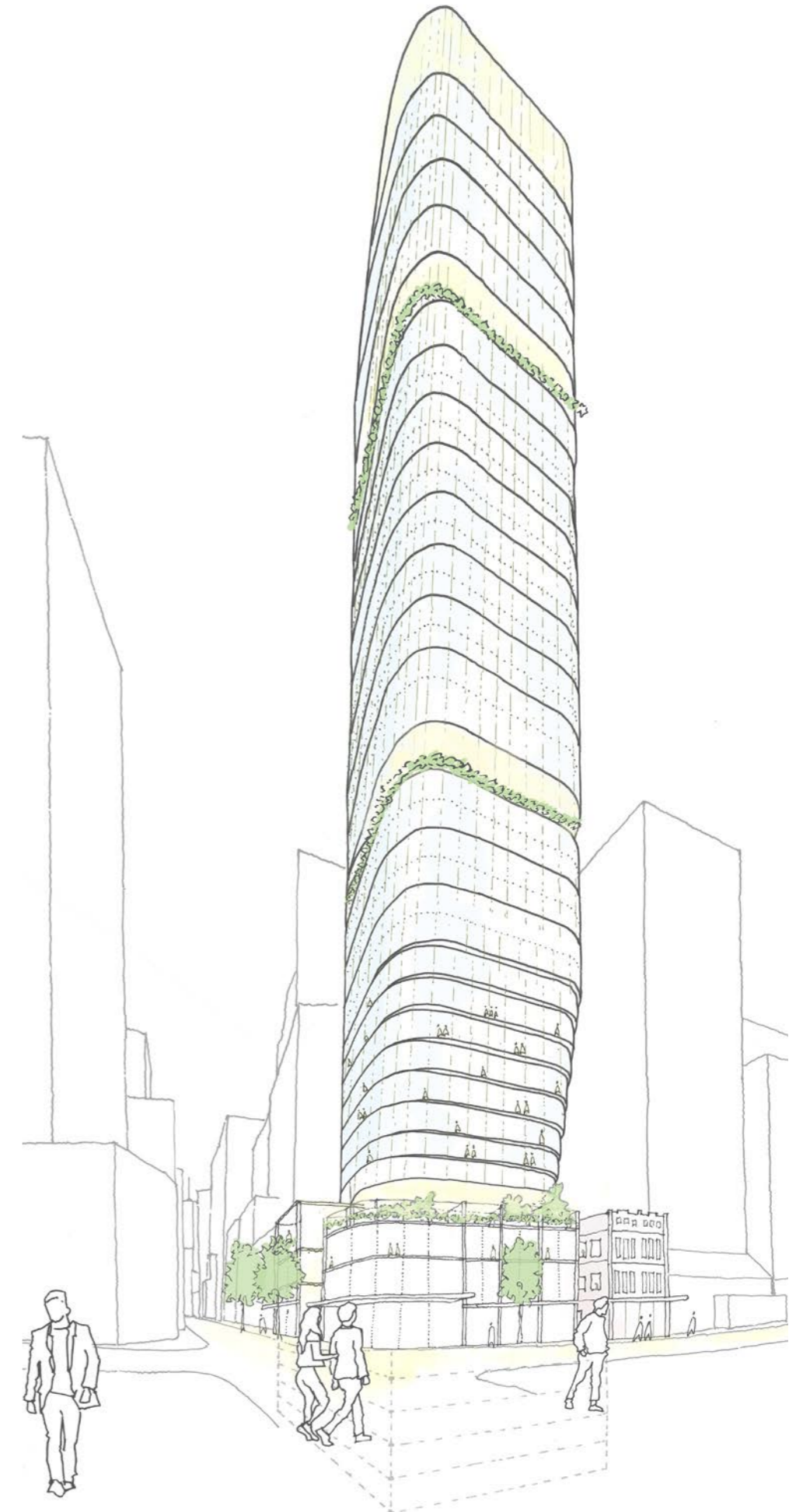
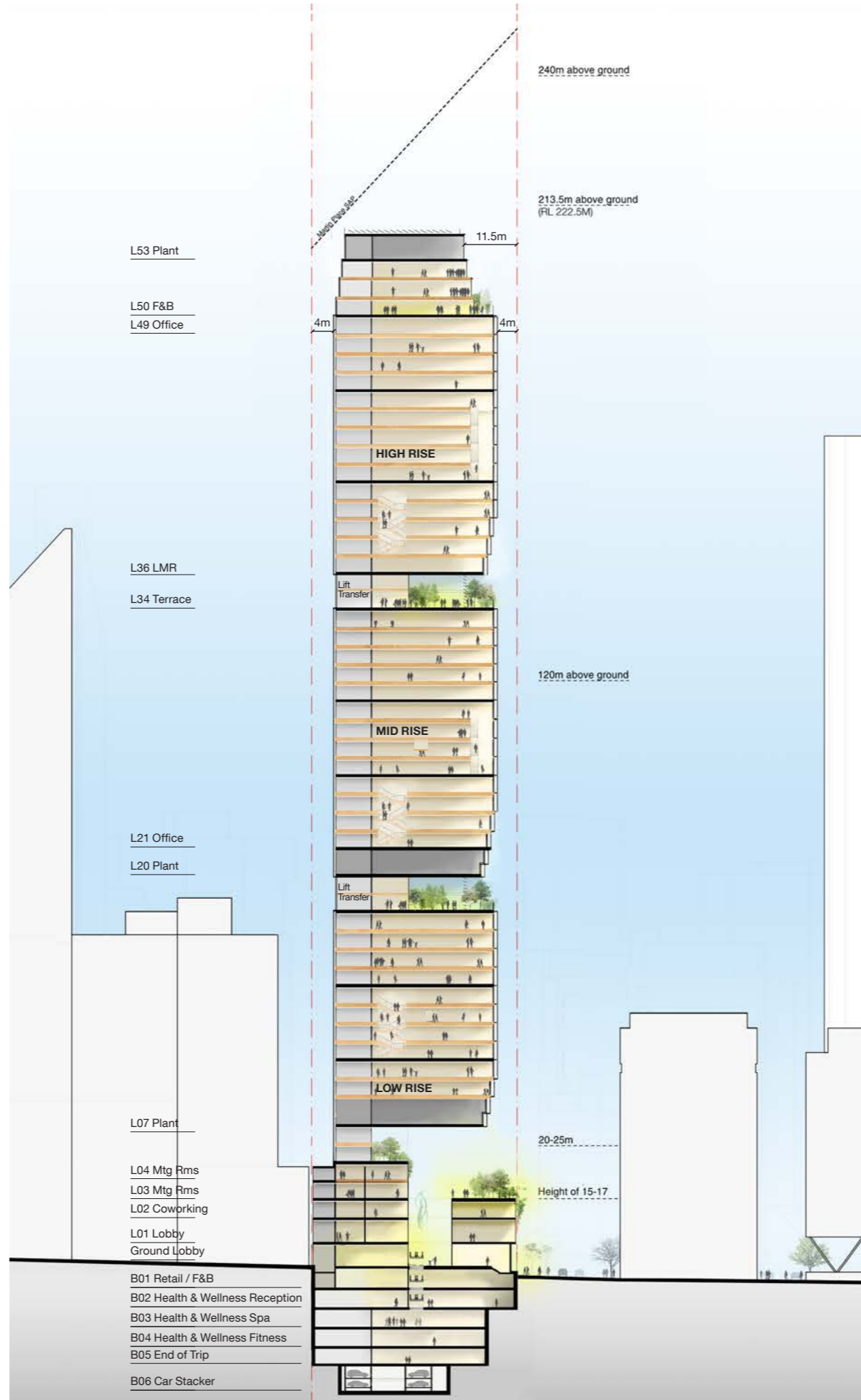


1% AEP LEVELS

1:500 @ A3

Reference Design Drawing Set

INDICATIVE SECTION

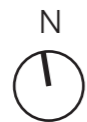


1:1000 @ A3

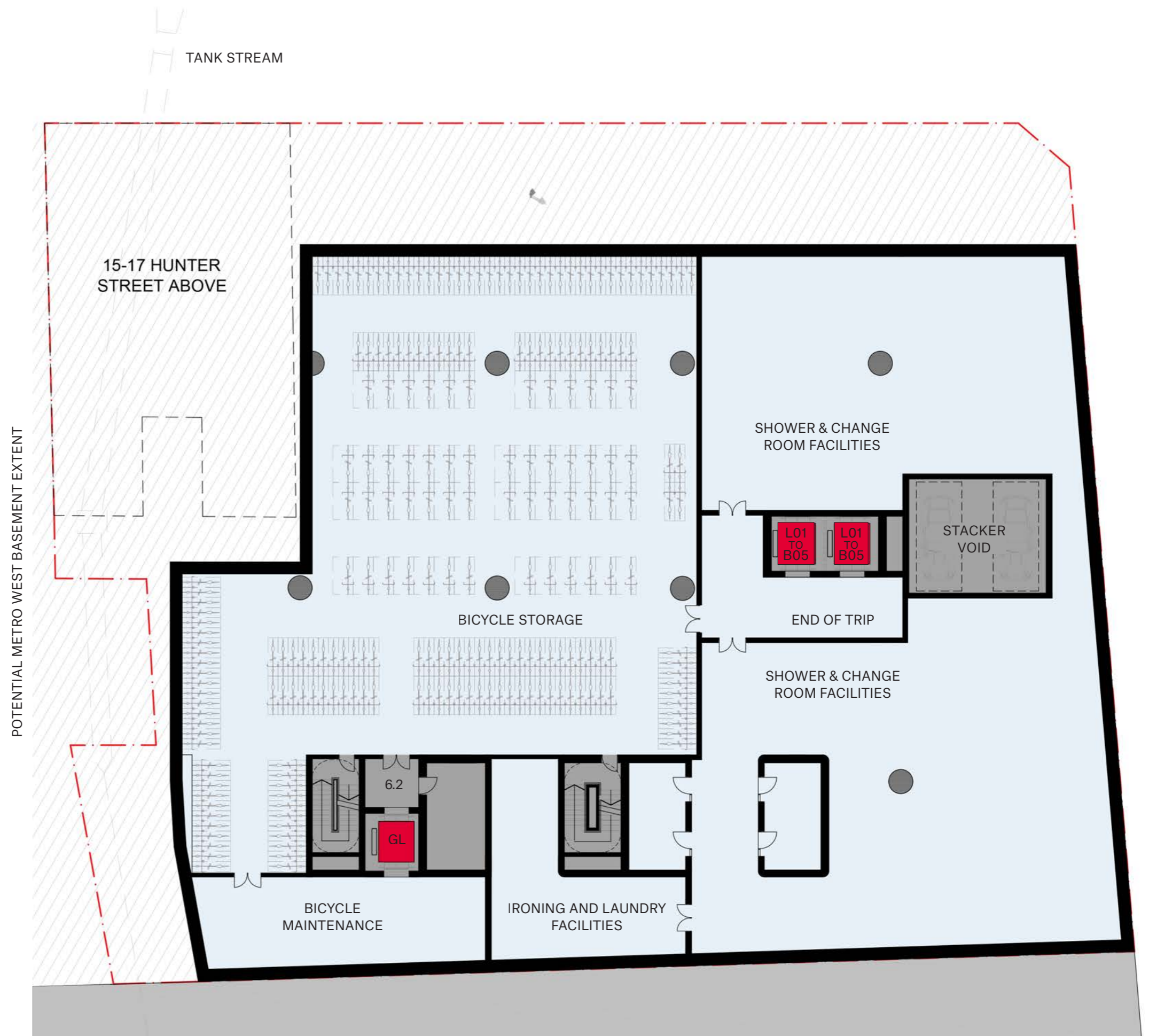
BASEMENT 06



1:200 @ A3

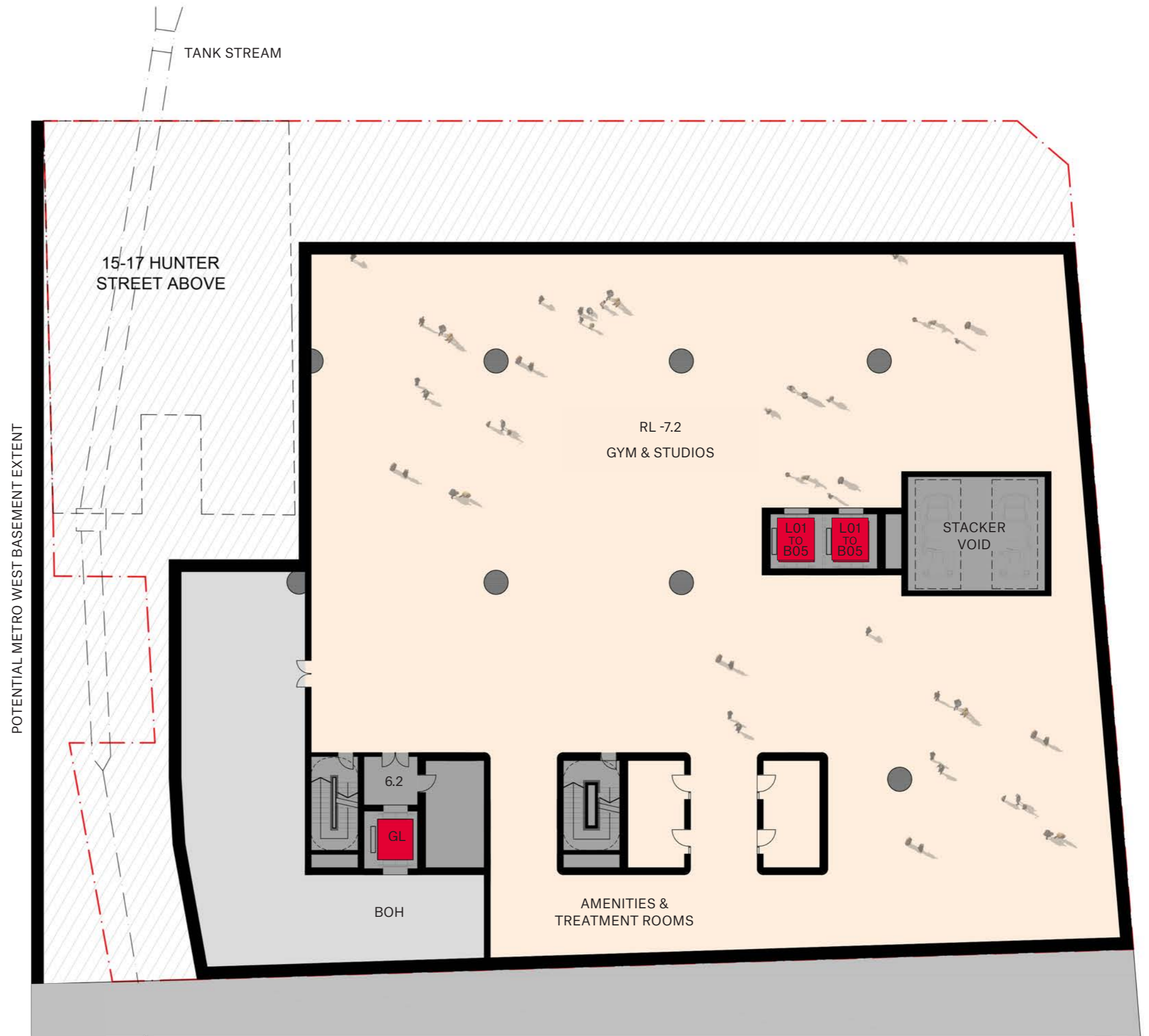


BASEMENT 05



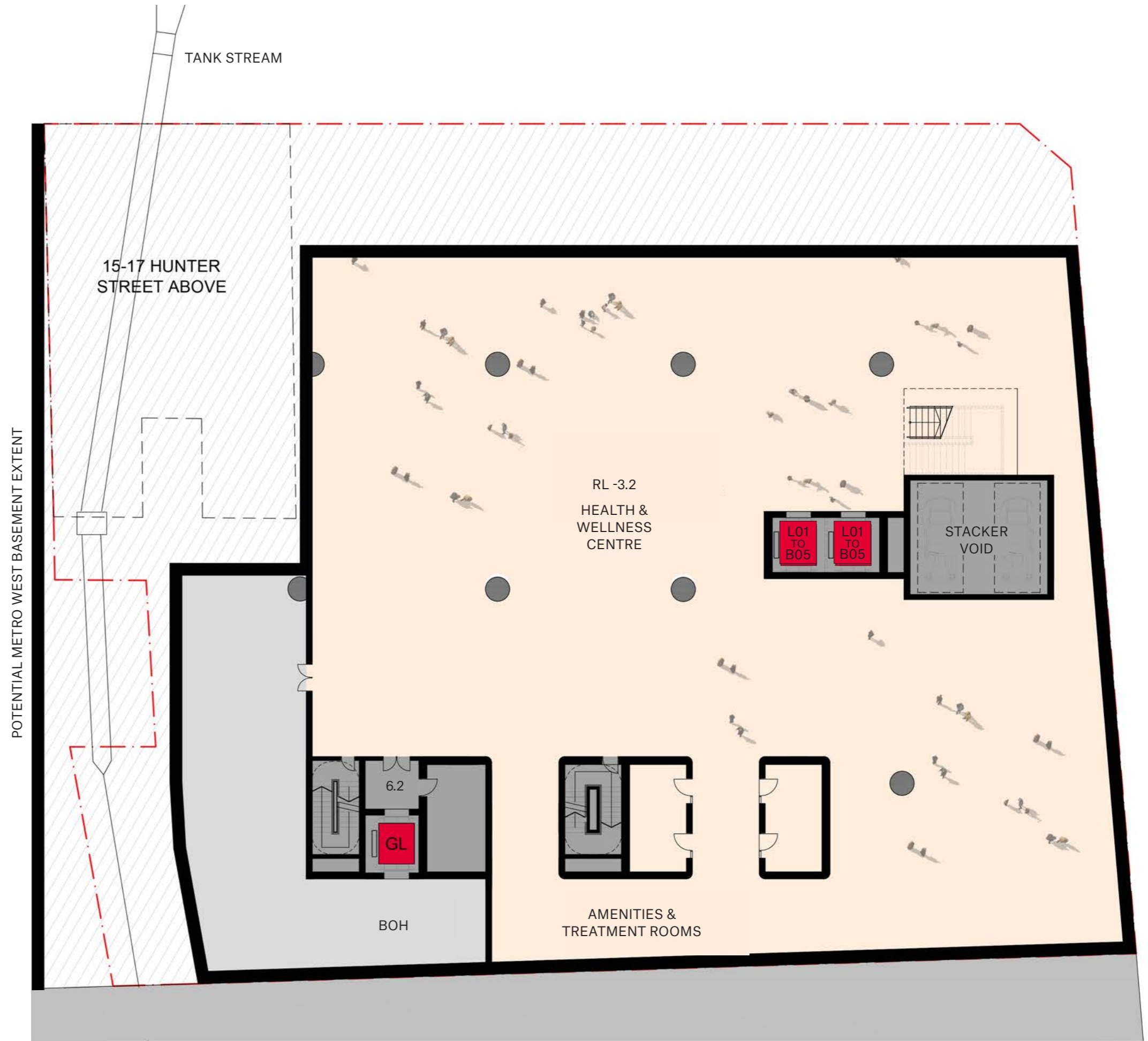
1:200 @ A3

BASEMENT 04



1:200 @ A3

BASEMENT 03



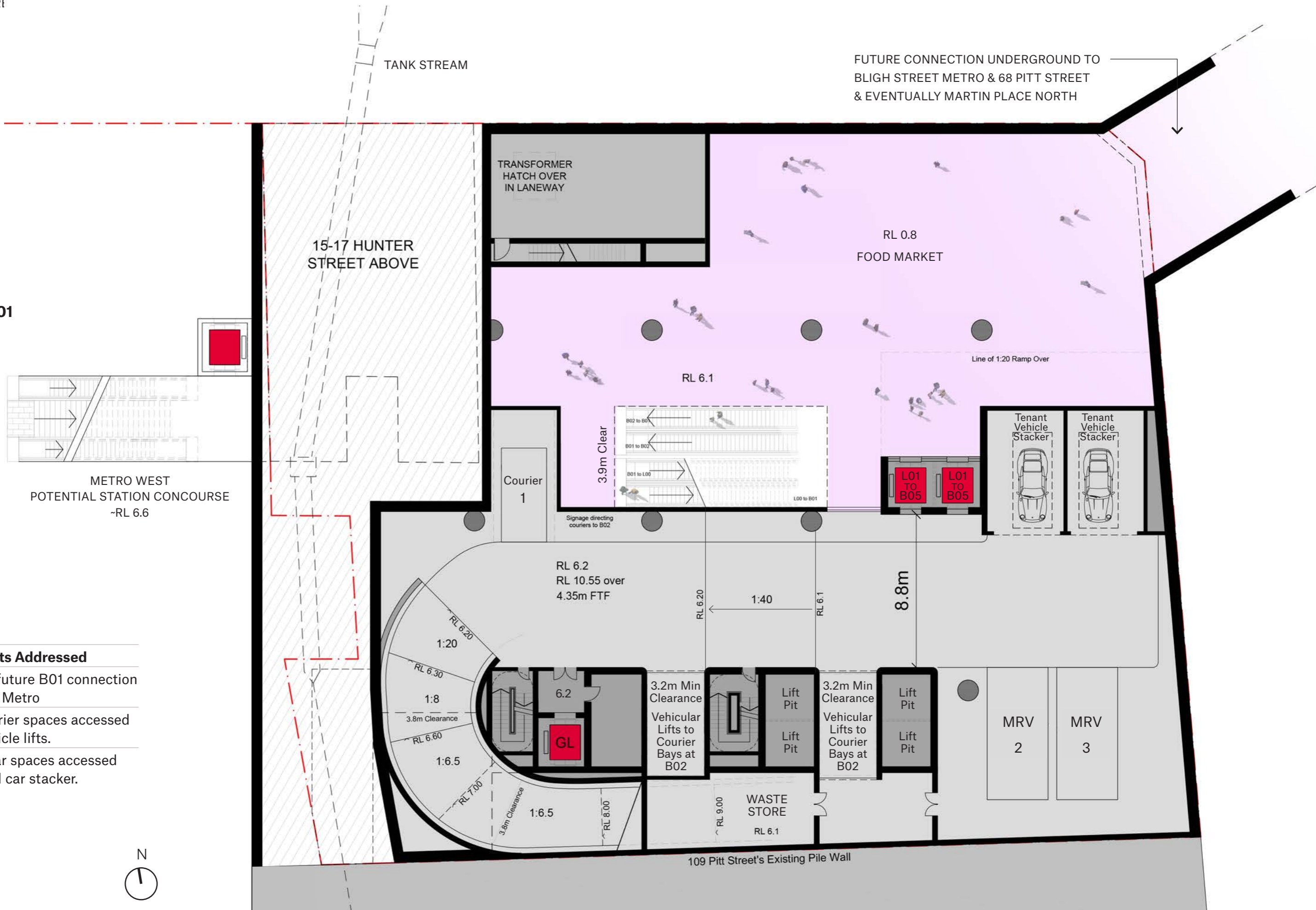
1:200 @ A3

BASEMENT 02



1:200 @ A3

BASEMENT 01



METRO WEST
POTENTIAL STATION CONCOURSE
~RL 6.6

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.



1:200 @ A3

LEVEL 01



1:200 @ A3

HUNTER STREET

LEVEL 02

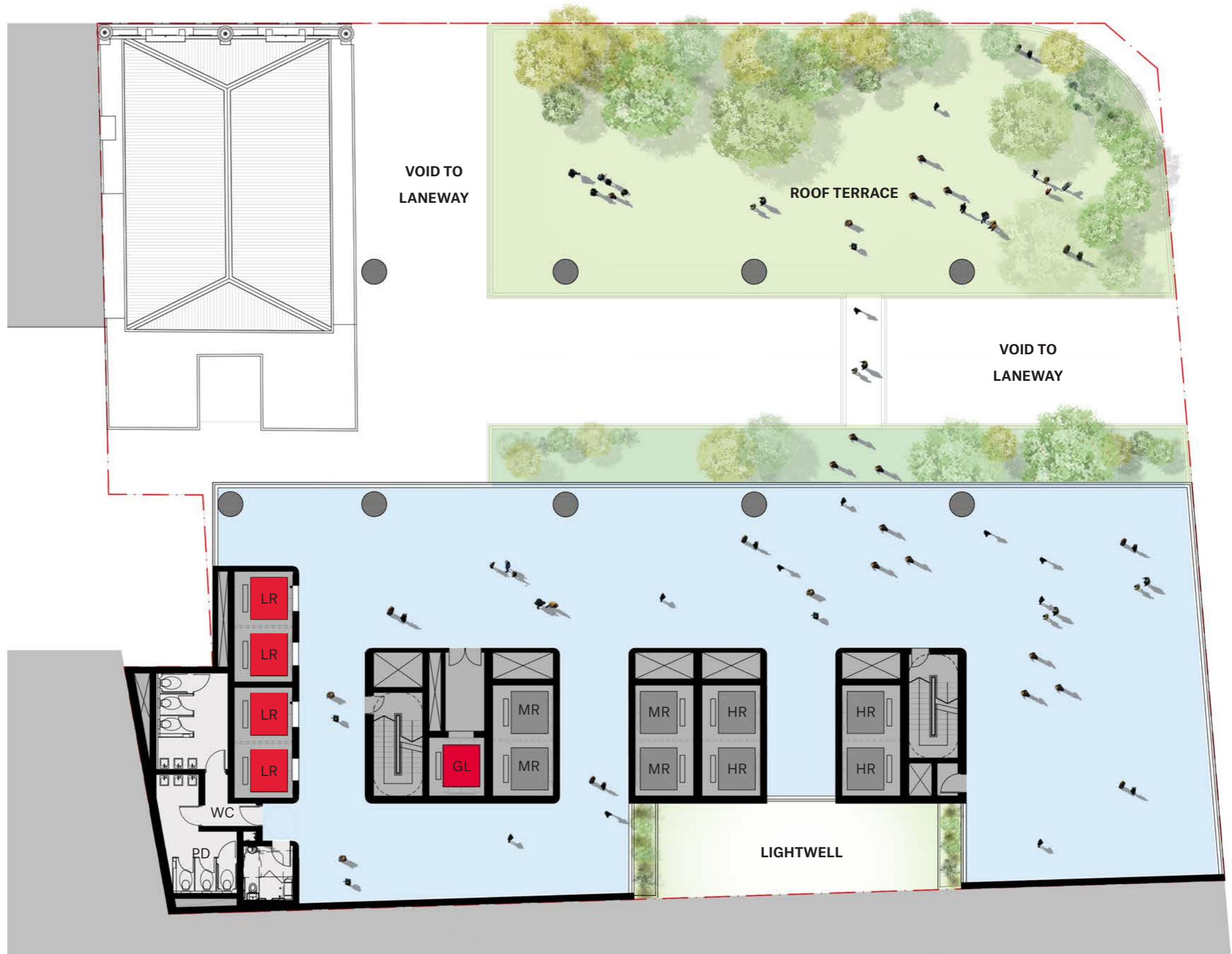


PITT STREET

1:200 @ A3

HUNTER STREET

LEVEL 03
Hunter Street Podium
Landscaped Terraces

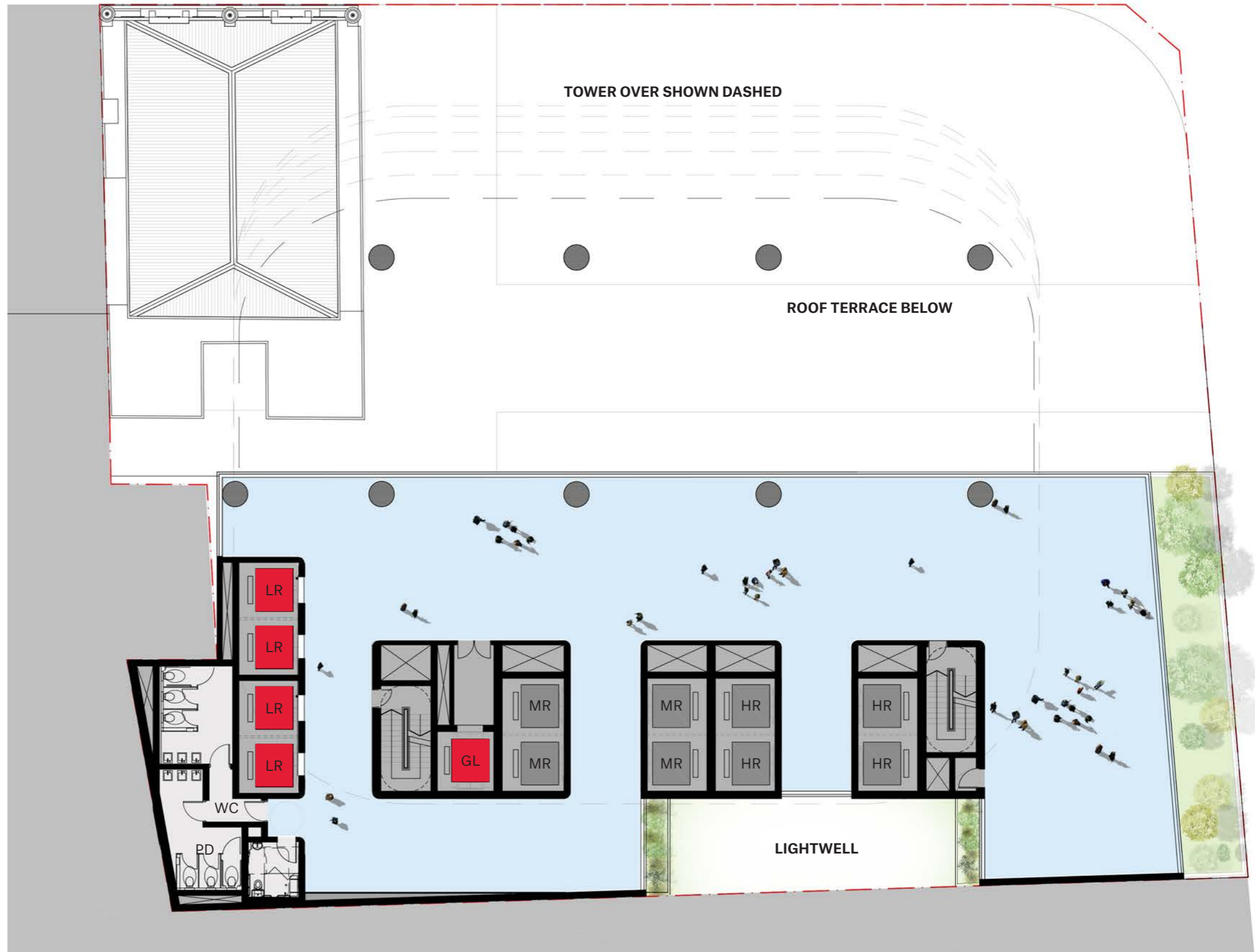


PITT STREET

1:200 @ A3

HUNTER STREET

LEVEL 04



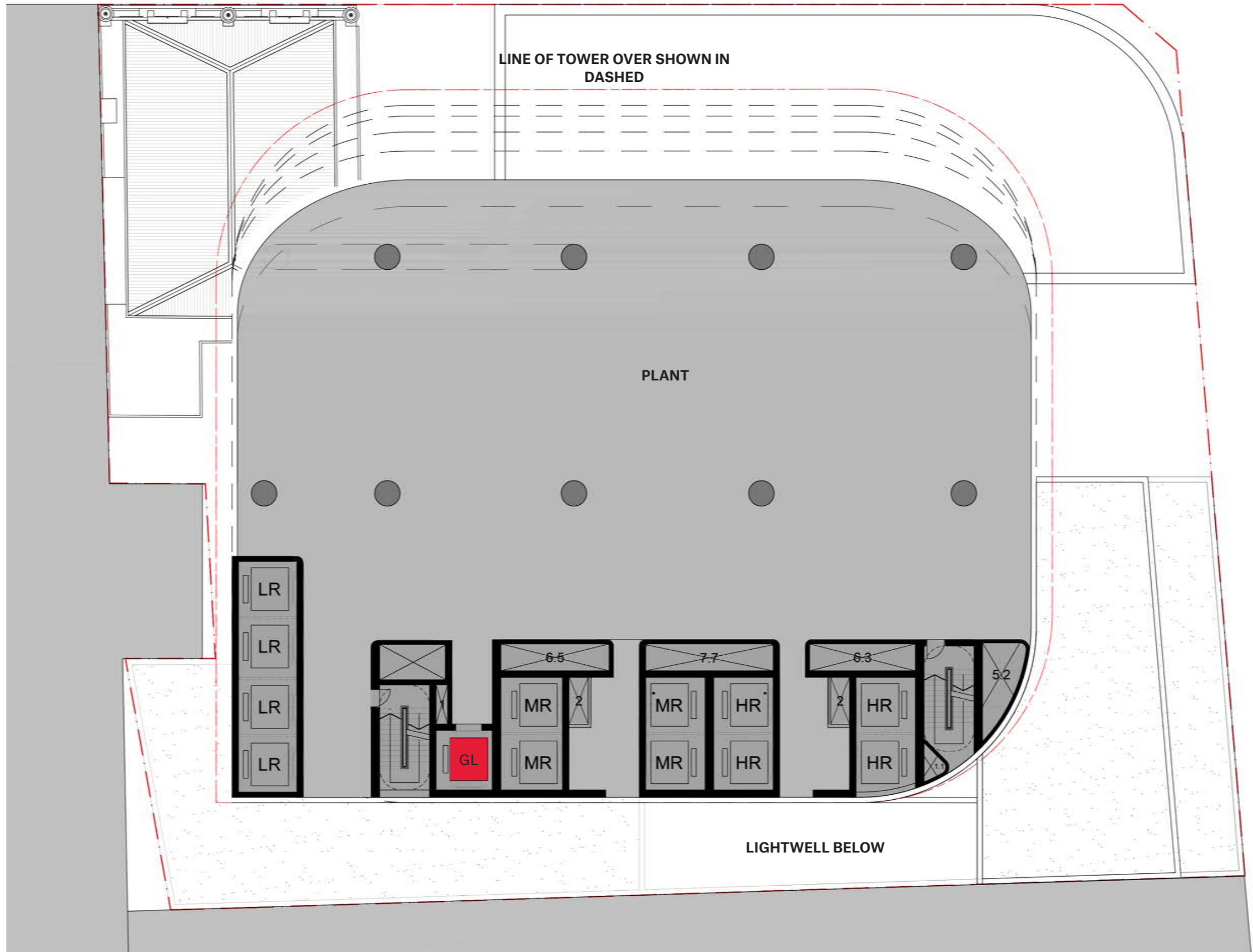
PITT STREET

1:200 @ A3

HUNTER STREET

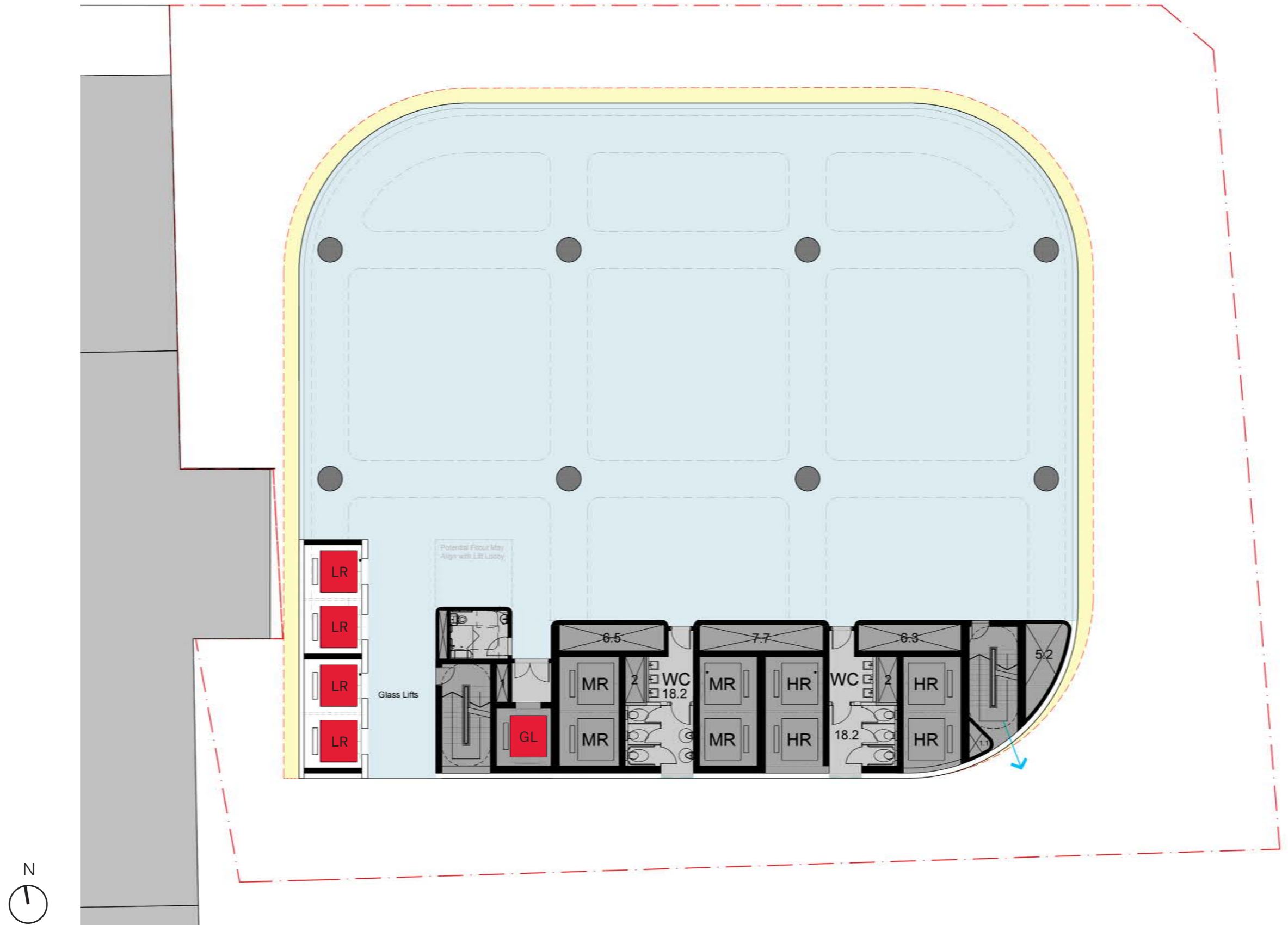
LEVEL 07 PLANT

PITT STREET



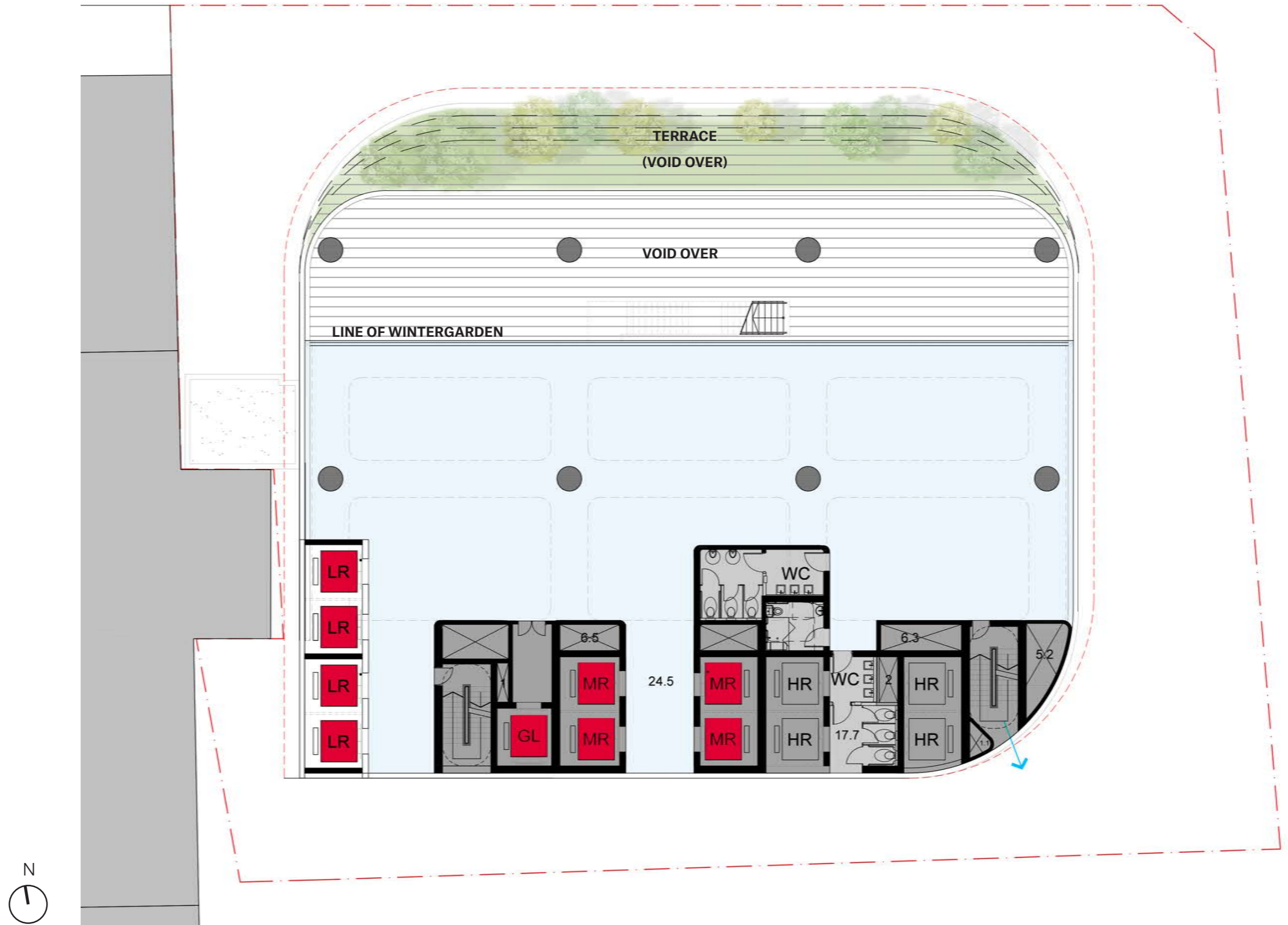
1:200 @ A3

LOW RISE



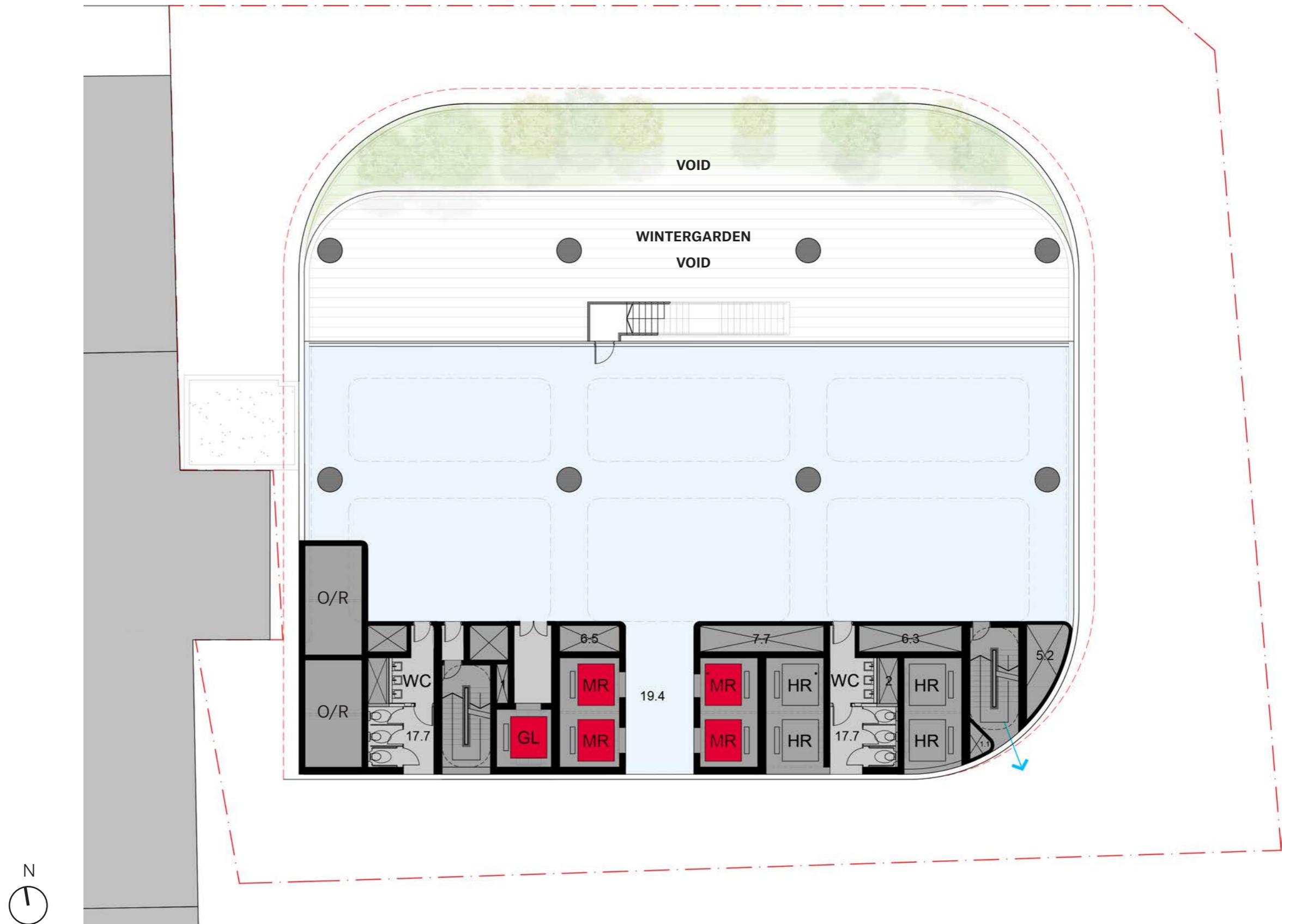
1:200 @ A3

LEVEL 18 LIFT TRANSFER



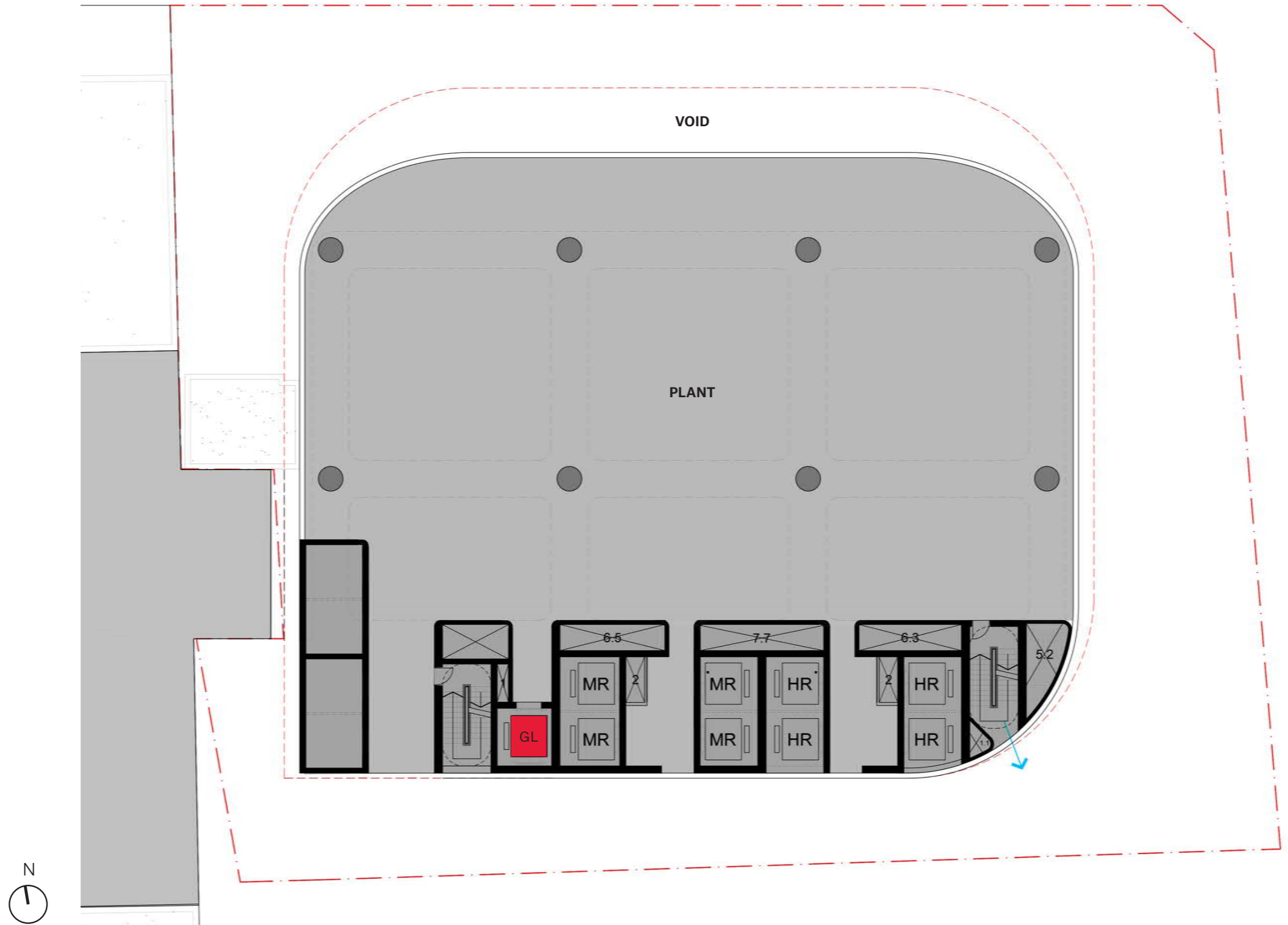
1:200 @ A3

**LEVEL 19 TERRACE
& WINTERGARDEN VOID**



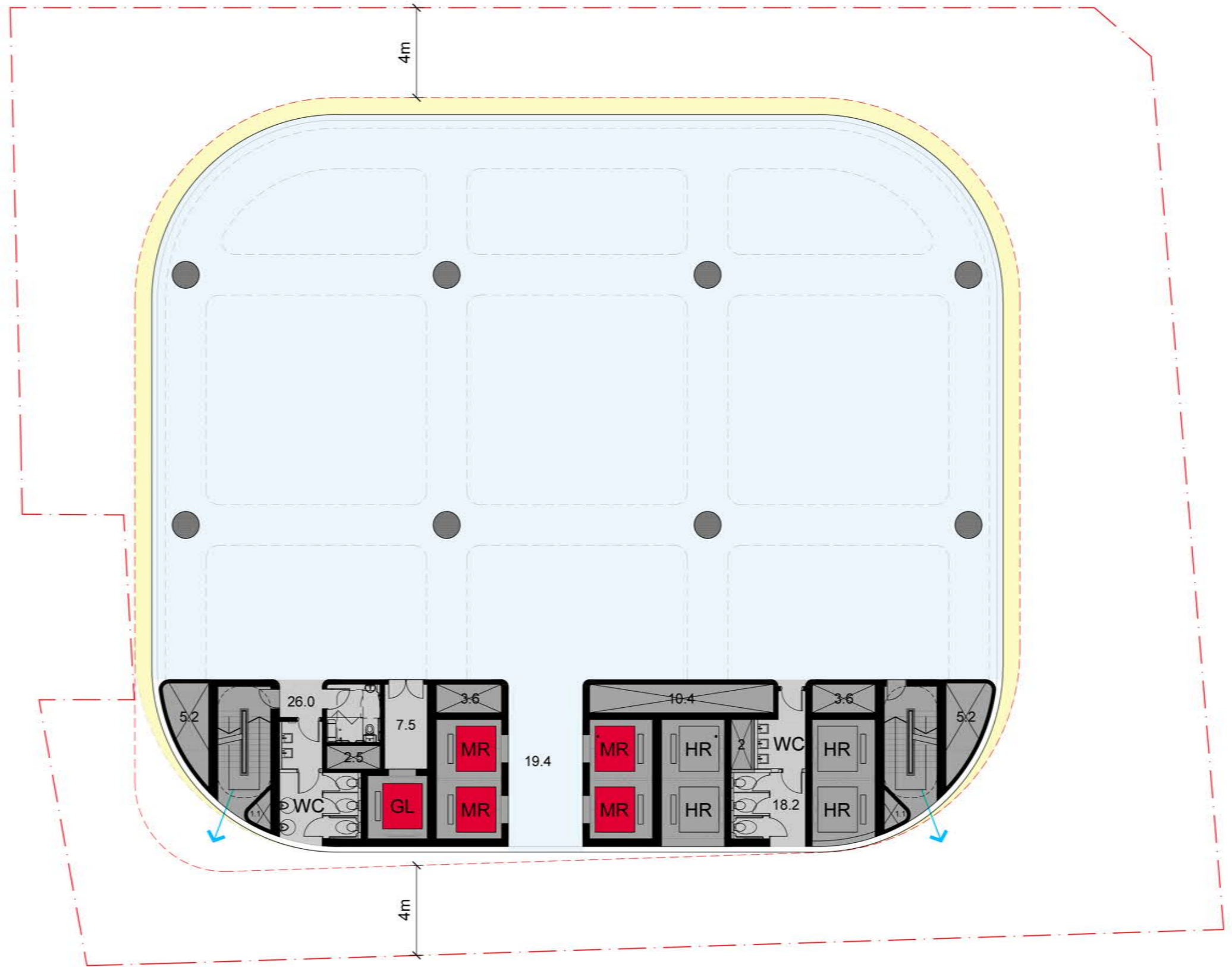
1:200 @ A3

LEVEL 20 LOW RISE PLANT



1:200 @ A3

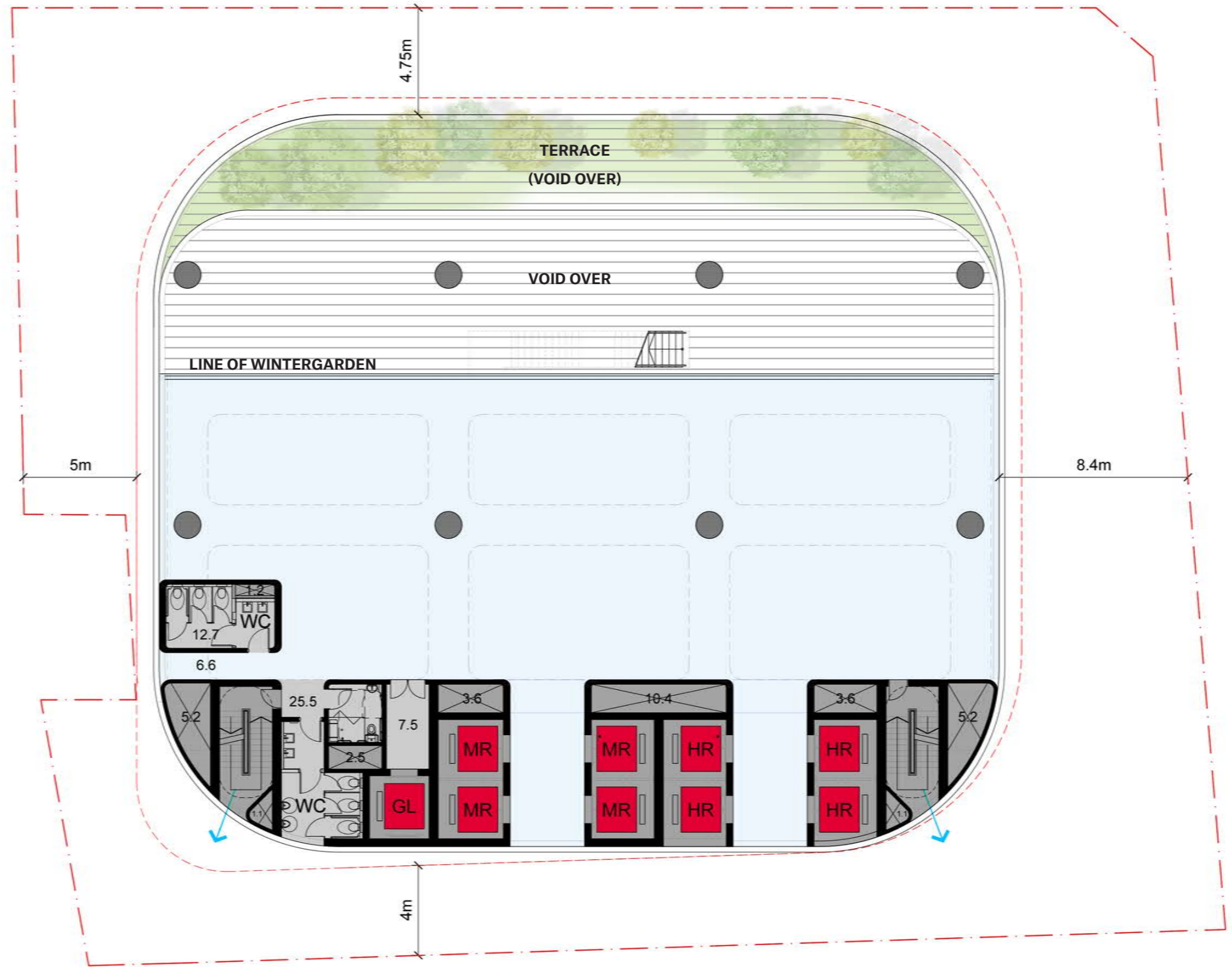
MID RISE



1:200 @ A3



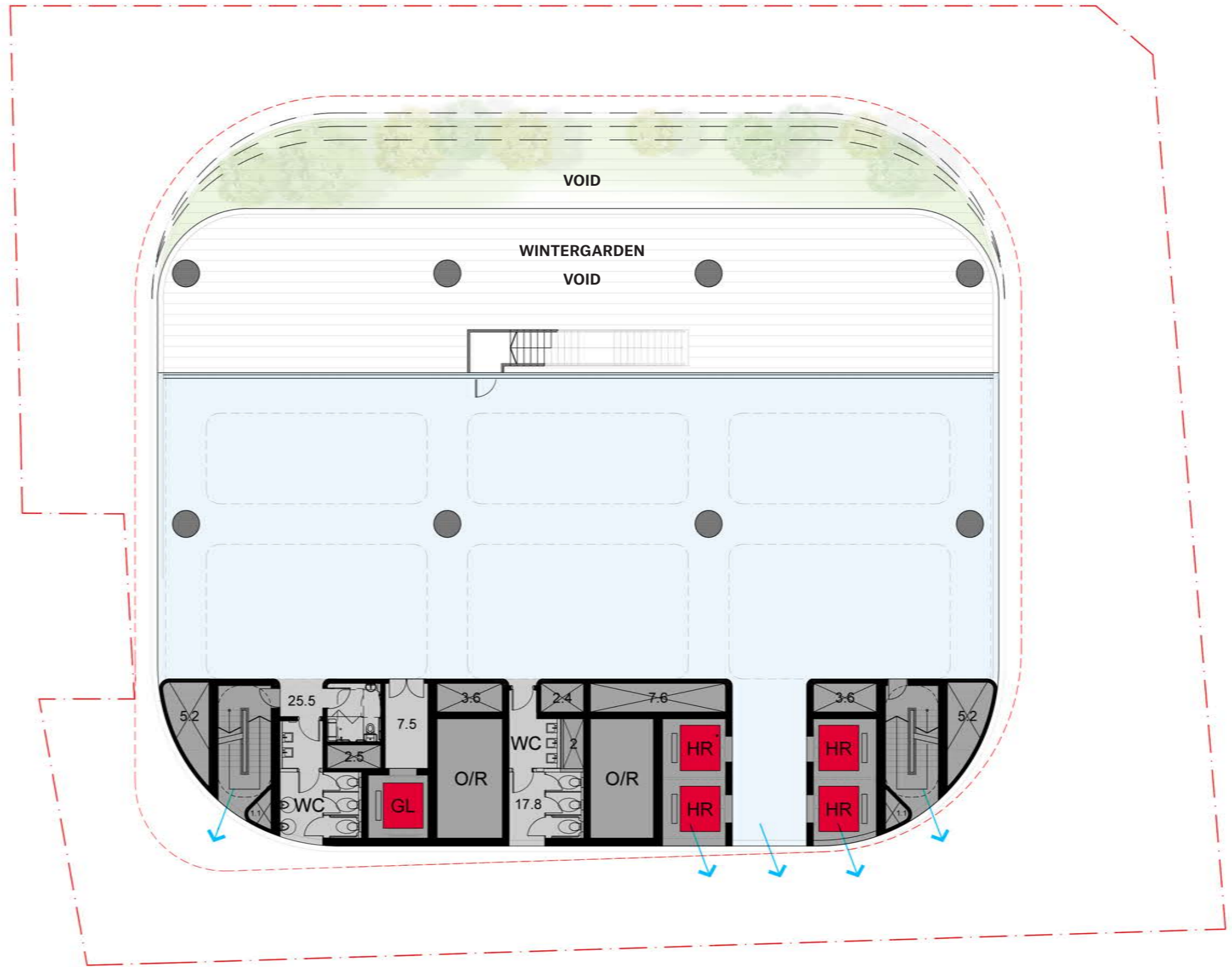
LEVEL 34 LIFT TRANSFER



1:200 @ A3



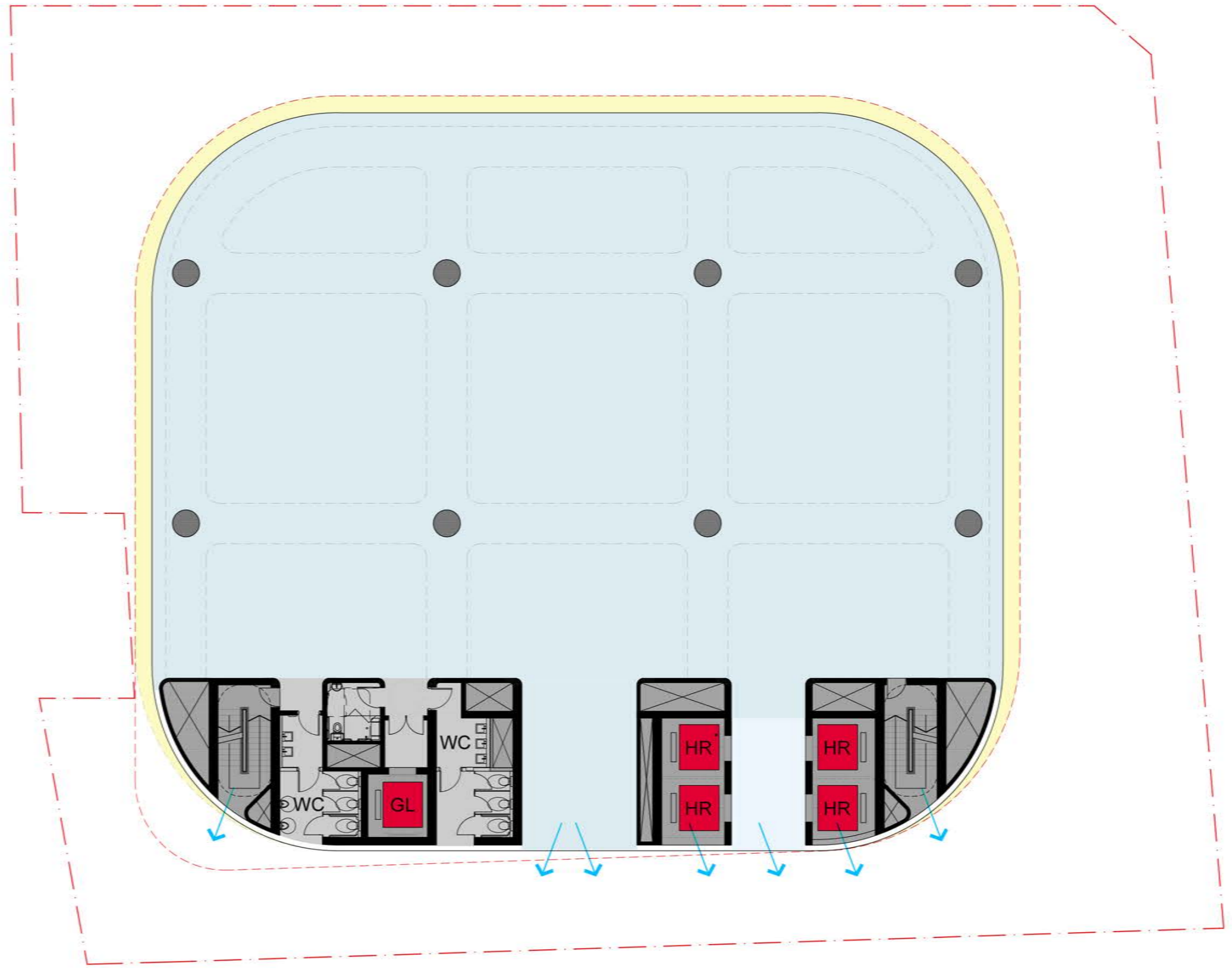
LEVEL 35 OVER RUN FLOOR



1:200 @ A3

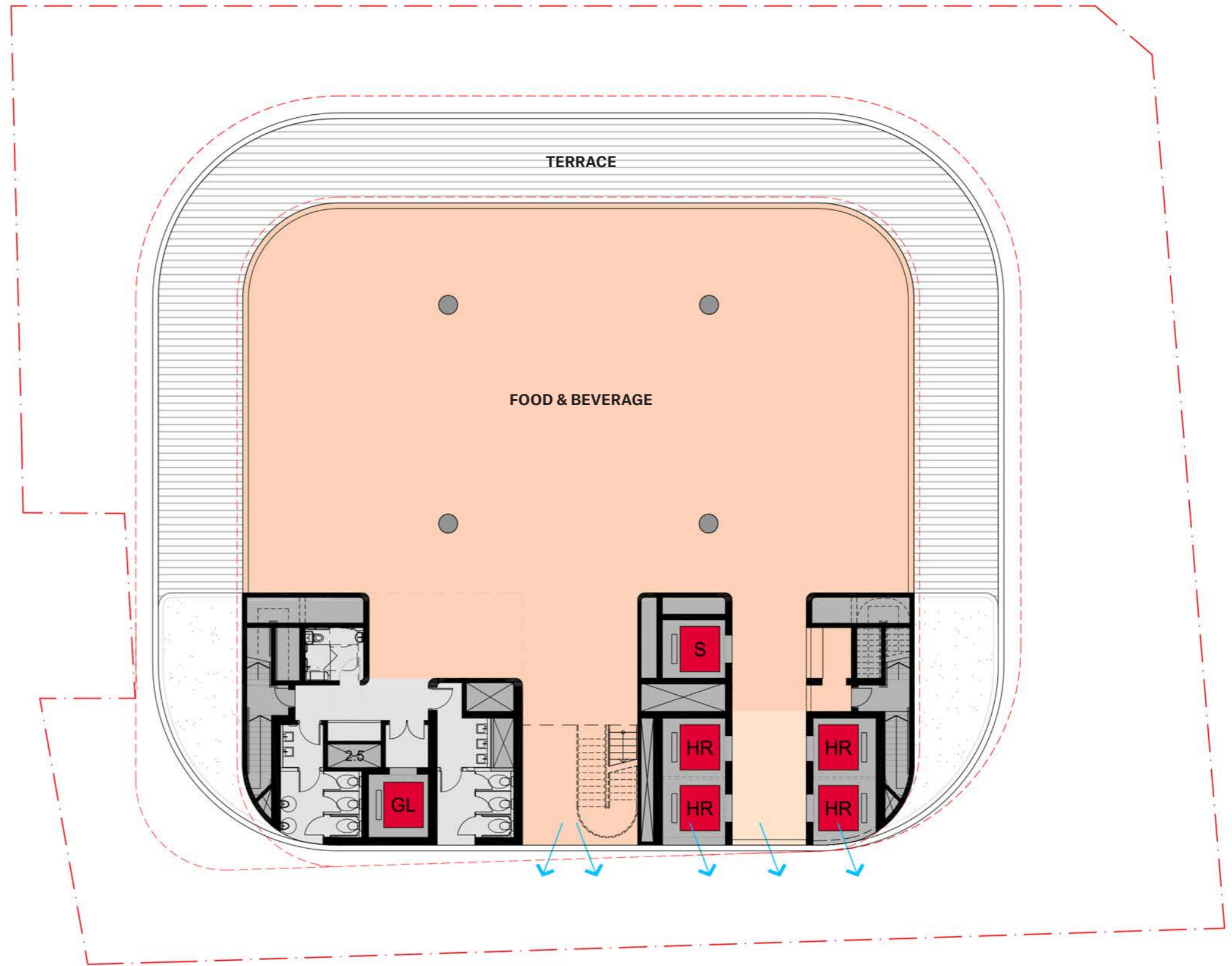


HIGH RISE



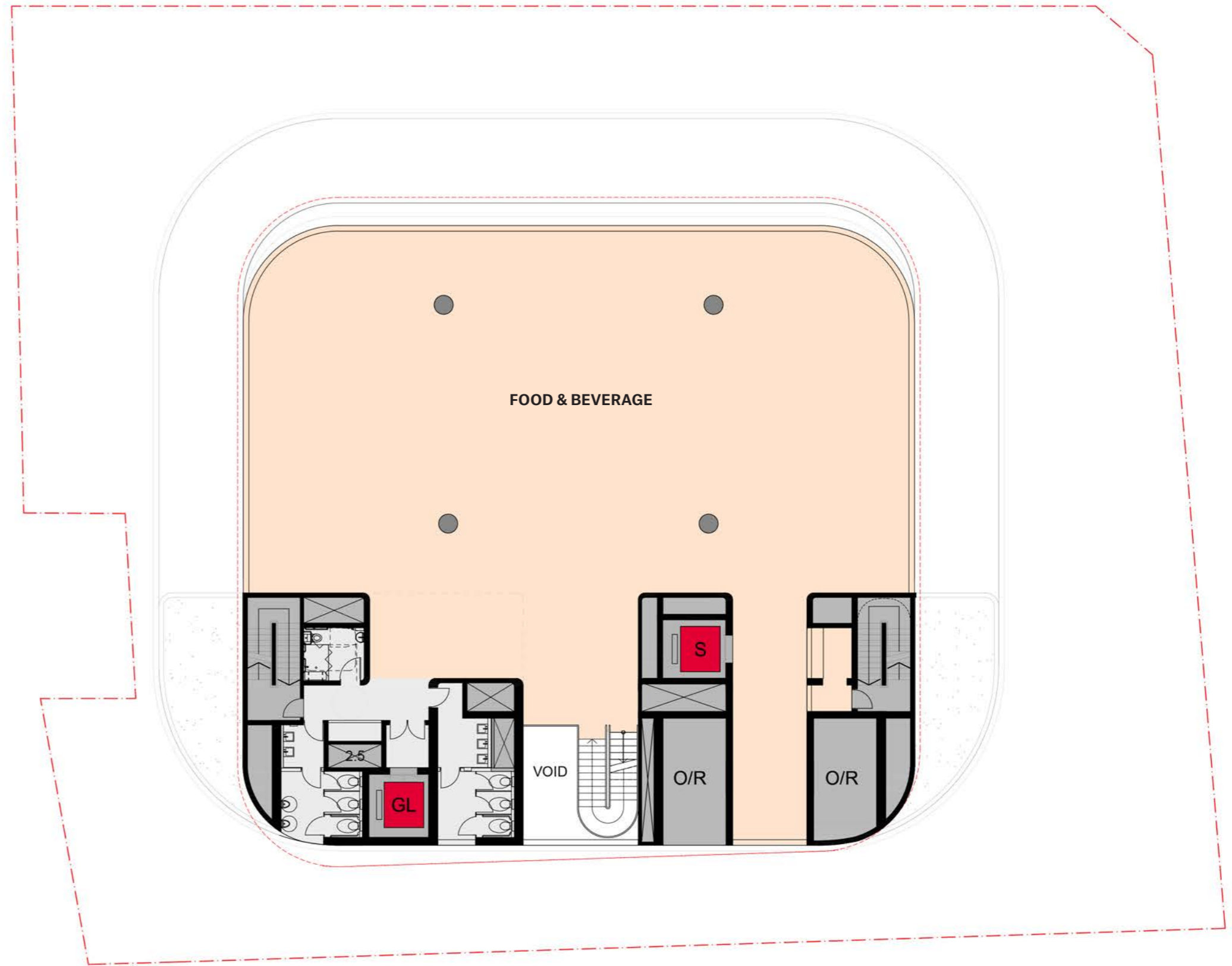
1:200 @ A3

LEVEL 50
Food & Beverage Lounge



1:200 @ A3

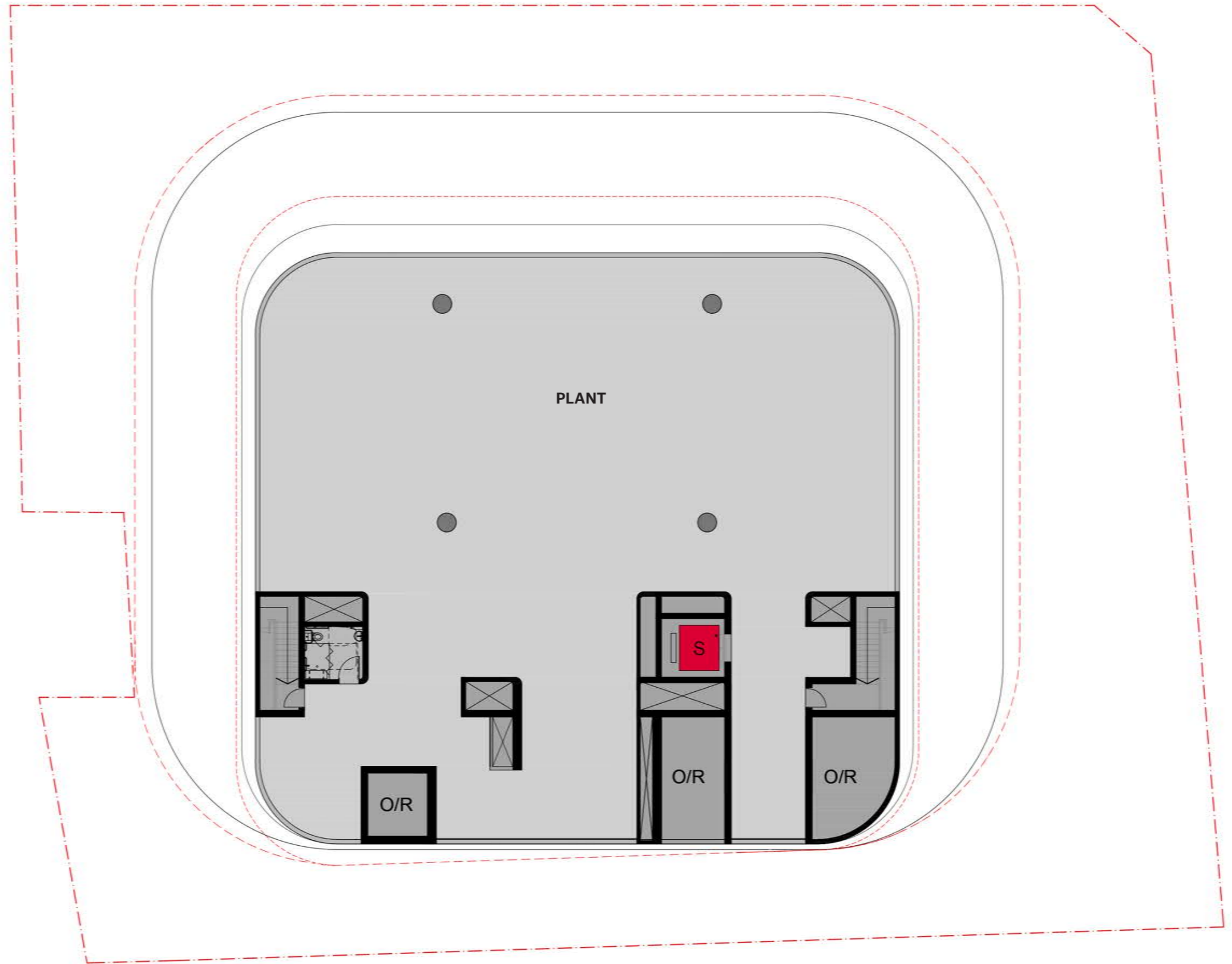
LEVEL 51 & 52
Food & Beverage Lounge



1:200 @ A3

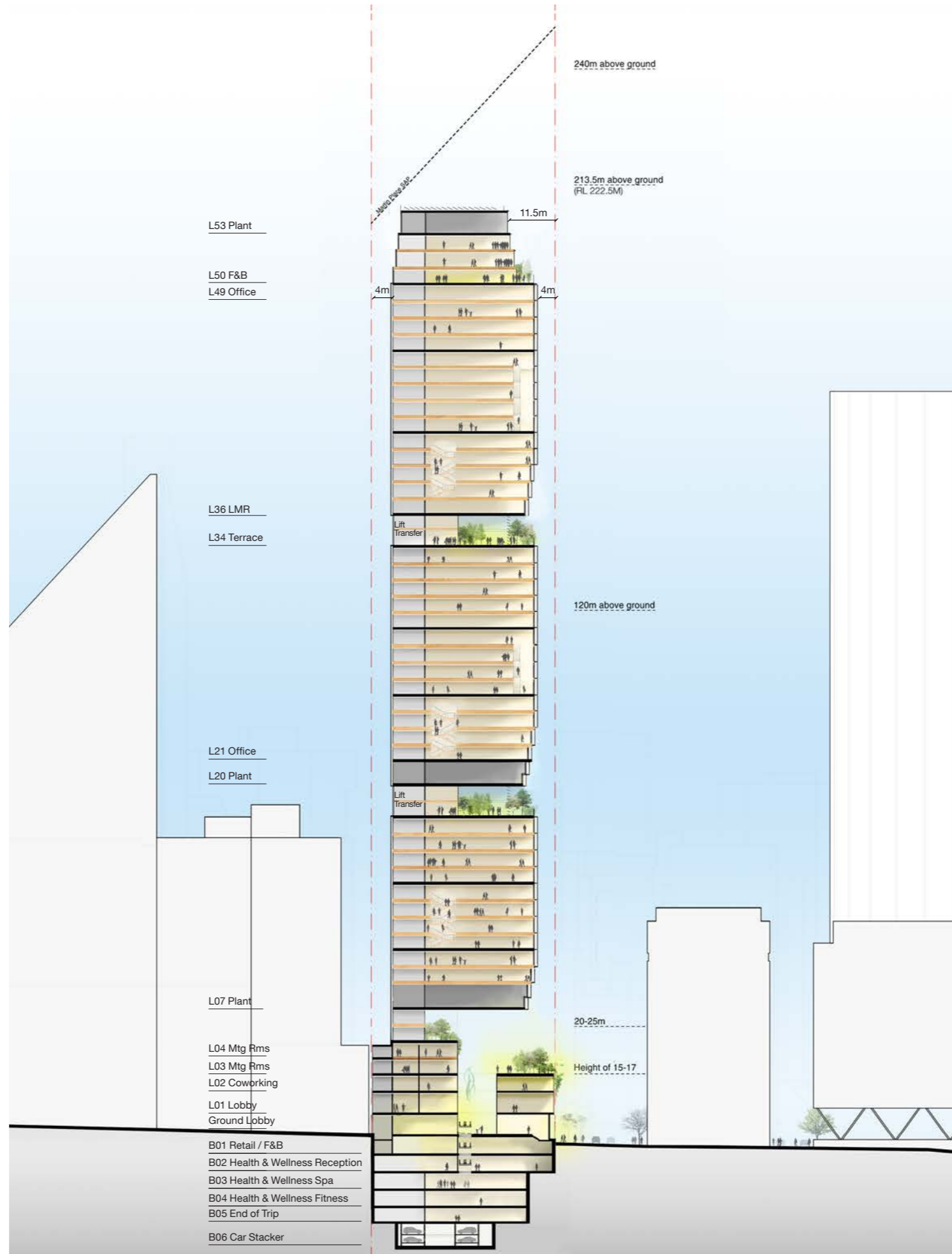


LEVEL 53 PLANT



1:200 @ A3

INDICATIVE SECTION



1:1000 @ A3

HUNTER & PITT STREET - INDICATIVE AREAS

AREAS SCHEDULE

RL	DESCRIPTION	LEVEL	HEIGHT m	Envelope		Combined AA + FZ		GBA Area m ²	CORE Allowan (Excl. GFA) m ²	GFA Area m ²
				Area m ² GEA	Area m ²	Area m ²	Area m ²			
222.45	Top of Envelope									
216.45	PLANT	53	6.00	568	65	503	0			
212.70	Lift OR / F&B	52	3.75	875	30	845	143	702		
208.95	Lift OR / F&B	51	3.75	875	30	845	143	702		
205.20	HR Lift Terminates / F&B	50	3.75	1,129	50	1,079	143	936		
201.45		49	3.75	1,279	82	1,197	143	1,054		
197.70		48	3.75	1,279	82	1,197	143	1,054		
193.95		47	3.75	1,279	82	1,197	143	1,054		
190.20		46	3.75	1,279	82	1,197	143	1,054		
186.45		45	3.75	1,279	82	1,197	143	1,054		
182.70		44	3.75	1,279	82	1,197	143	1,054		
178.95		43	3.75	1,279	82	1,197	143	1,054		
175.20		42	3.75	1,279	82	1,197	143	1,054		
171.45		41	3.75	1,279	82	1,197	143	1,054		
167.70		40	3.75	1,279	82	1,197	143	1,054		
163.95		39	3.75	1,279	82	1,197	143	1,054		
160.20		38	3.75	1,279	102	1,177	143	1,034		
156.45		37	3.75	1,279	123	1,156	143	1,013		
152.70		36	3.75	1,279	143	1,136	183	953		
148.95	Lift Over Run / Void	35	3.75	1,279	507	772	174	598		
145.20	Terrace / Lift Tranfer Level	34	3.75	1,279	507	772	172	600		
141.45		33	3.75	1,279	82	1,197	183	1,014		
137.70		32	3.75	1,279	82	1,197	183	1,014		
133.95		31	3.75	1,279	82	1,197	183	1,014		
130.20		30	3.75	1,279	82	1,197	183	1,014		
126.45		29	3.75	1,279	82	1,197	183	1,014		
122.70		28	3.75	1,279	82	1,197	183	1,014		
118.95		27	3.75	1,279	82	1,197	183	1,014		
115.20		26	3.75	1,279	82	1,197	183	1,014		
111.45		25	3.75	1,279	82	1,197	183	1,014		
107.70		24	3.75	1,279	82	1,197	183	1,014		
103.95		23	3.75	1,279	82	1,197	183	1,014		
100.20		22	3.75	1,279	82	1,197	183	1,014		
96.45	Fire stair transfer level	21	3.75	1,279	102	1,177	183	994		
90.45	Plant / Lift Over Run & MR	20	6.00	1,279	123	1,156	193			
86.70	Meeting Rooms	19	3.75	1,283	153	1,130	263	867		
82.95	Terrace / Lift Tranfer Level	18	3.75	1,283	504	779	263	516		
79.20		17	3.75	1,283	504	779	268	511		
75.45		16	3.75	1,283	82	1,201	223	978		
71.70		15	3.75	1,283	82	1,201	223	978		
67.95		14	3.75	1,283	82	1,201	223	978		
64.20		13	3.75	1,283	82	1,201	223	978		
60.45		12	3.75	1,283	82	1,201	223	978		
56.70		11	3.75	1,283	82	1,201	223	978		
52.95		10	3.75	1,283	103	1,180	223	957		
49.20		9	3.75	1,283	128	1,155	223	932		
45.45		8	3.75	1,283	159	1,124	223	901		
39.45	Plant / Setback Level	7	6.00	1,283	188	1,095	223			
35.70	VOID (Articulation)	6	3.75	1,283	1,060	223	223	0		
31.95	VOID (Articulation)	5	3.75	1,283	1,060	223	223	0		
28.20	Pod 4	4	3.75	1,623	741	882	260	622		
24.45	Pod 3	3	3.75	1,678	733	945	268	677		
20.70	Pod 2	2	3.75	2,101	513	1,588	210	1,378		
15.70	Pod 1	1	5.00	2,101	554	1,547	195	1,352		
10.70	Ground Level Entry Lobby	GL	5.00	2,101	584	1,517	469	1,048		
	Basement B01 Food Market & Bligh Metro/Loading	B01		1,647		1,647		555		
	Basement B02 Health + Wellness Reception	B02		1,647		1,647		687		
	Basement B03 Health + Wellness Treatment Studios	B03		1,647		1,647		995		
	Basement B04 Health + Wellness Fitness	B04		1,647		1,647		995		
	Basement B05 End of Trip	B05		1,647		1,647		991		
	Basement B06 Car Stackers	B06		808		808				

	Envelope	Architectural Articulation	GBA	Core Amoun	GFA	FSR
	Above Ground:	70,666	11,140 16%	59,526	10,261 46,927 m ²	22.26 :1
	Below Ground:	9,043 m ²		9,043 m ²	4,223 m ²	2.00 :1
	Total:	79,709 m ²		68,569 m ²	51,150 m ²	24.26 :1

Timber Casette Construction Precedents



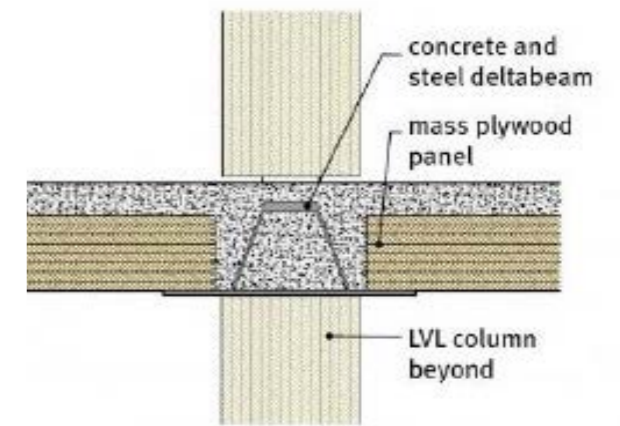
1.



2.



4.



Floor Detail of NIR's Innovative Structural System

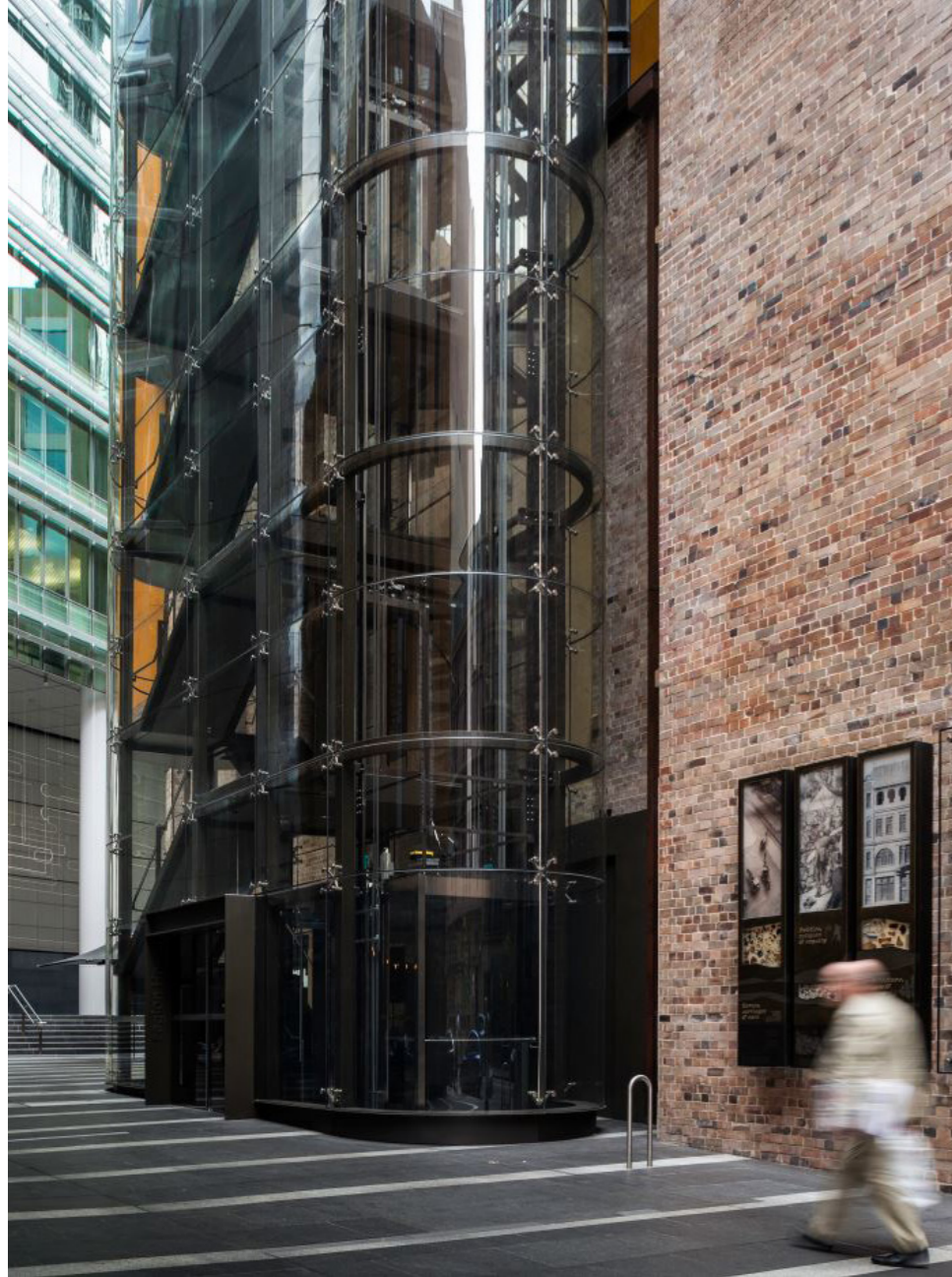
3.



5.

- Clockwise Top L-R:**
1. Adidas North American Headquarters, Portland
 2. Adidas North American Headquarters, Portland
 3. New Industrial Revolution Centre Biotech Labs, Portland
 4. New Industrial Revolution Centre Biotech Labs, Portland
 5. Adidas North American Headquarters, Portland

Vertical Transportation Precedents



161 Castlereagh Street / Legion House
Image: John Gollings



Leadenhall Building
Image: Various
Escalator: Kone Travelmaster 120 Semi-Outdoor



Design Advisory Panel Feedback

PEDESTRIAN PRIORITY IN THE LANEWAYS

DAP was concerned that the creation of a pedestrian priority laneway with outdoor dining is not compatible with the constraints of vehicle access and servicing requirements, and compounded by issues of flooding and universal access. It is noted that the revised reference scheme ground floor plan provided on 10 December 2021 removes the pedestrian and vehicle shared laneway arrangement.

Retail activation would be required within the lanes to ensure these spaces are attractive and do not appear as a 'back of house' area. This should be detailed on updated reference plans.

PARKING AND SERVICE VEHICLE SPACE

The revised ground floor plan increases the service vehicle spaces from 4 to 6 (potentially 7) spaces, however this is still considered to be too low, noting the DCP requires 17 spaces. This suggests the proposal is trying fit on the ground floor what would normally be provided below ground.

DAP recommended a review of the cycle access and amenity proposed. Potential conflicts between vehicles, pedestrians and cyclists need to be minimised, and any lifts to the end of trip facilities need to be of an appropriate size to accommodate bikes. The location of the end of trip facilities, and how these will be accessed, are not clear on the updated ground floor plan and this information will need to be provided in revised documentation.

BASEMENT DESIGN

DAP was concerned about the proposed five levels of underground retail/gym, and how the underground levels interface with the Tank Stream tunnels. DAP questioned the viability of the underground retail if they are not connected to the Metro station and associated underground access. It was also noted that the five levels of underground retail exacerbate the loading and servicing issues.

Updated plans would need to be provided to detail any changes to this proposed arrangement. Any through-site pedestrian links to the future Metro to the west will need careful coordination regarding access widths and levels. This is not yet evident.

It is also recommended that if there are discussions with Metro regarding potential connections with this site, these should be provided to us so we understand this and can incorporate these into our considerations of controls for the site.

HERITAGE

DAP supported the heritage listing of 15-17 Hunter Street, although further investigation is needed on the interface between new and old at ground floor, and heritage objects in the building. There is also a need to acknowledge the Tank Stream in the public domain.

Details should be provided for the treatments of the ground and upper floors of the rear of this building, including the hoists, which should be visible due to their heritage significance. It is also unclear how this building would relate to the flood planning levels in the laneway.

ARTICULATION ALLOWANCE

DAP recommended that refinement of the building envelope should provide the previously recommended 15% articulation provision.

ADDRESSED



Laneway is completely pedestrianized. All vehicular traffic is via Pitt Street. Due to flooding requirements, it is not possible to use a conventional ramp to go up, crest, and go down fast enough to go under the laneway. As such, vehicular lifts are used.

ADDRESSED



16 spaces for service vehicles / couriers are provided. This is comprised of: five spaces at L00 (including two MRV bays), four spaces at B01, & seven spaces at B02.

Traffic engineers at WSP have reviewed the proposed design and believes the revised layouts will provide a successful level of amenity & service.

ADDRESSED



A clear ground level link is provided to Metro Hunter Street.

A direct B01 connection to Metro's Bligh Street entrance is envisaged.

Only 2 levels are considered to be F&B.

B03 & B04 are Gym / Spa, with EOT at B05.

ADDRESSED



The rear of 15-17 Hunter Street is predominantly retained in the current proposal. Specifically the upper levels will be retained in their current configuration. The lower two levels of the rear will include strategic openings to allow pedestrian flow to the metro concourse. The hoists and arches will be retained, and reference to the original function of the rear as a warehouse style loading area will be provided.

ADDRESSED

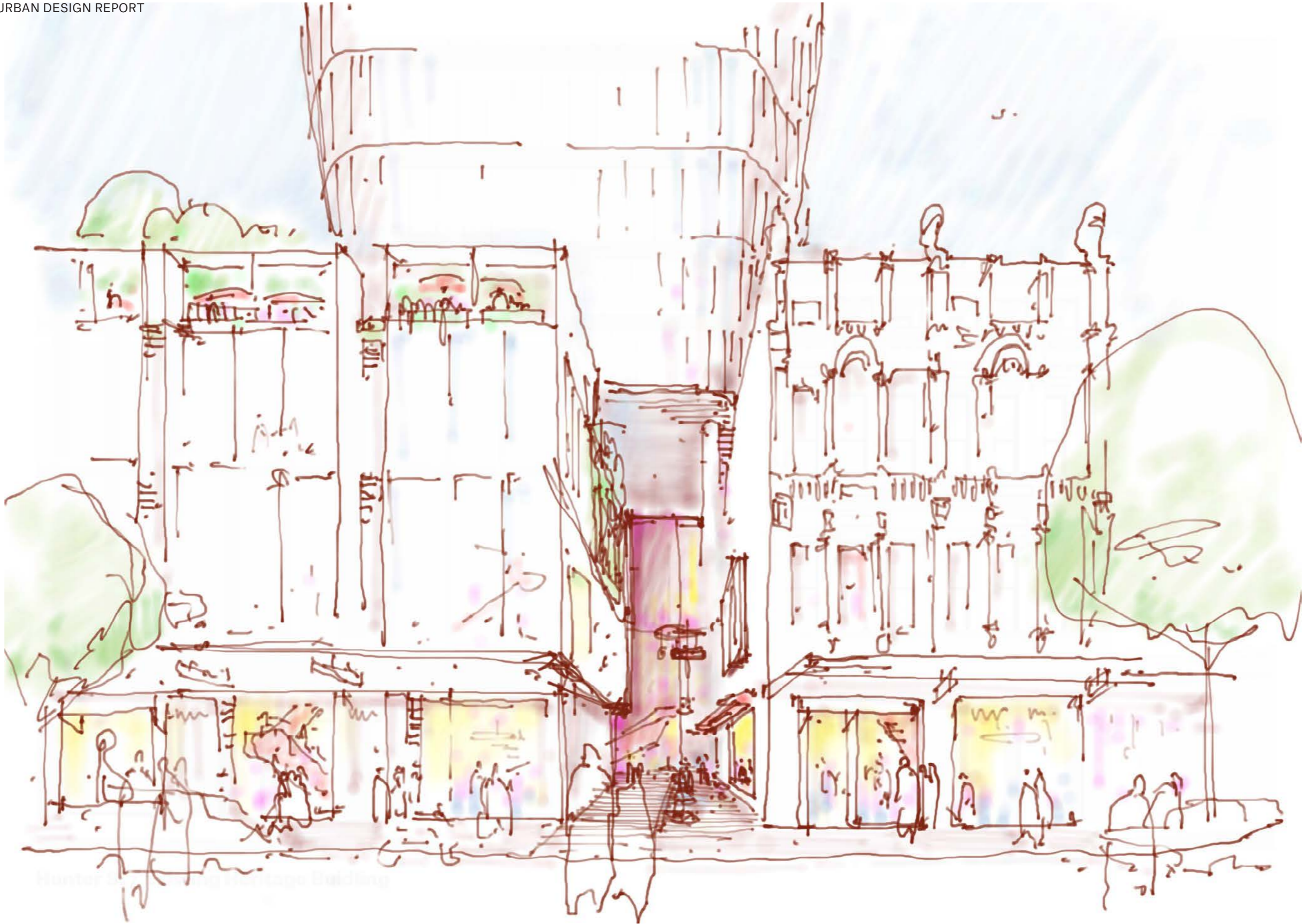


The requested articulation level has been adopted.

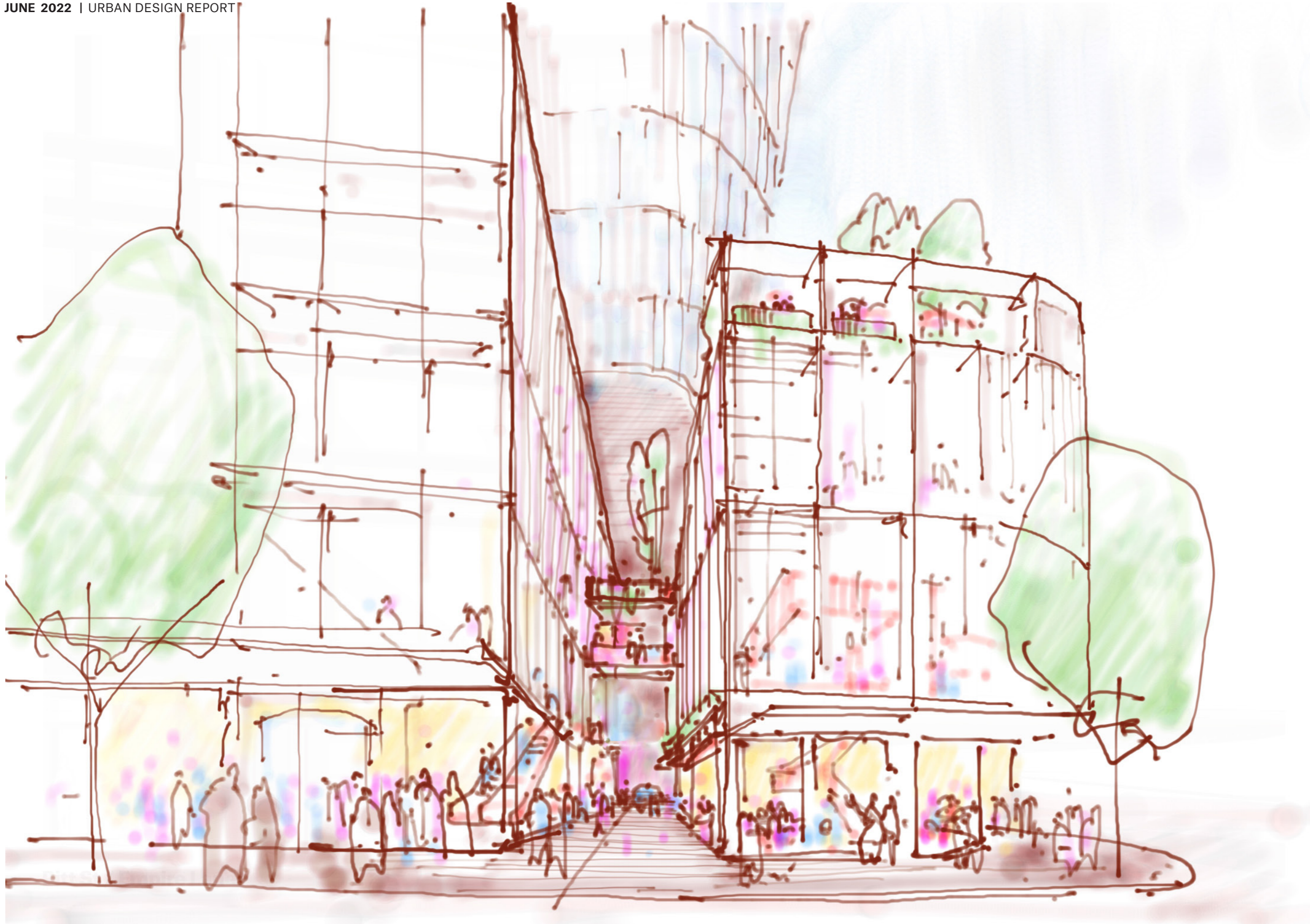


ARTISTS' IMPRESSIONS

15-23 Hunter Street and
105-107 Pitt Street Sydney



Hunter Lane



Empire Lane

Corner of Hunter
& Pitt Streets

BATES SMART



Hunter Street Looking East

BATES SMART



Pitt Street Looking North

BATES SMART











