



# FORBES RESIDENCES

DESIGN REPORT\_REV E  
OCTOBER 2019

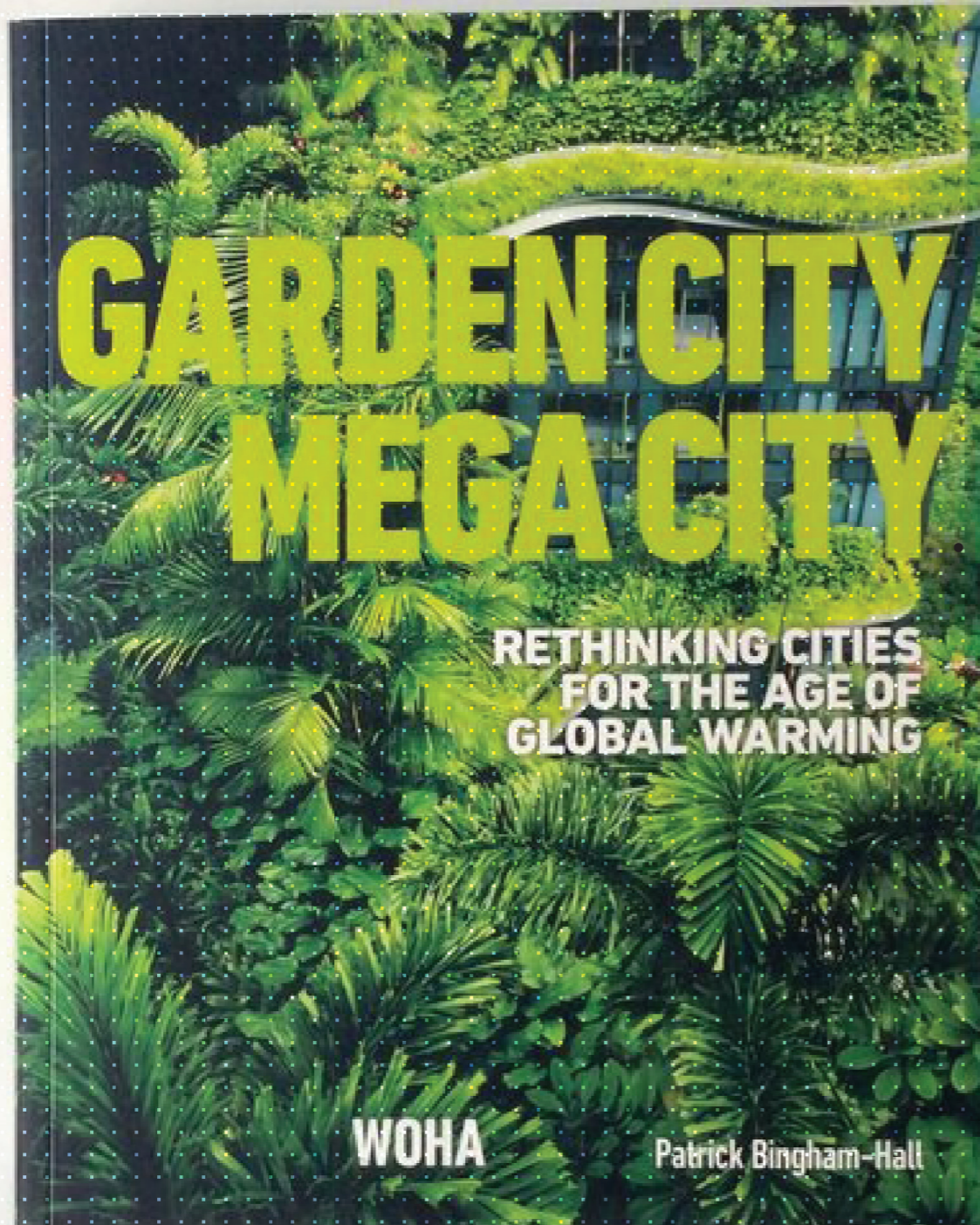
The following Design Report is in  
support of the application for

10-14 FORBES ROAD &  
40A,B,C KISHORN ROAD  
APPLECROSS

W O H A x M J A

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## FROM THE **GROUND UP**, THIS PROJECT HAS BEEN CAREFULLY CONSIDERED IN REGARDS TO **WOHA'S FIVE RATINGS**, OUTLINED IN THEIR BOOK:

- **GARDEN CITY MEGA CITY:**
- RETHINKING CITIES FOR THE AGE OF GLOBAL WARMING
- WOHA & Patrick Bingham-Hall, Pesaro Publishing

The Five Ratings were conceived by WOHA to address antiquated & ineffective planning metrics, where measures of success were based purely on economic productivity and capital cost efficiency, rather than their overall contribution to the city as components within a self-sufficient system.

Cities must now be made of, by and for people. Sociable architecture and sustainable cities have now become the 21st Century priorities, and building developments need to be assessed in terms of their contribution to social and environmental sustainability, as well as their economic viability.

In order to redirect the priorities of 20th century rationalist (de-personalised) planning, and to emphatically reinstall the notion of the 'greater good', WOHA have created 5 new social and ecological ratings for all city developments.

# WOHA'S FIVE RATINGS:

## 1 Green Plot Ratio

The amount of landscaped surfaces compared to a development's site area.

The measurement includes all new and preserved vegetation, vertical and horizontal landscaping, water features, lawns and trees, raised planters, and urban farms.

All buildings need to encourage bio-diversity, reduce the urban heat island effect, provide shade and cooling, improve air quality, soften the harshness of the cityscape, restore wildlife habitats, and re-connect people with nature.

## 2 Community Plot Ratio

The amount of community space allocated within a development's site area.

The measurement includes fully public areas, semi-private communal spaces, care centres, libraries, restaurants, cafés, and community centres.

The amenity of an urban precinct is largely determined by the quantity and quality of its community spaces. The buildings should encourage human interaction and facilitate social gatherings. Human scale, accessibility, and inclusivity, are crucial to the success of community integration.

## 3 Civic Generosity Index

The extent to which a development encourages and facilitates the public life of a city.

The index rates the value of a development's public attributes, such as urban connections, shared relaxation areas, sheltered walkways, gardens, and artworks.

In a sociable city, buildings should be judged by their 'human' characteristics...are they friendly, generous, and accommodating?

## 4 Ecosystem Contribution Index

The degree to which a development supplements a city's ecosystem.

The index rates a building's capacity to maintain connections between natural habitats; its intention to provide food, water and shelter for local wildlife, and settings for native plants; and its implementation of an environmentally sensitive method for water management.

As land in cities can be more successfully adapted for wildlife preservation than that of agricultural zones, building developments now play a key role in regenerating a city's (and a region's) ecological processes. In order to reverse the unprecedented environmental degradation caused by rapid urbanisation, a city's architects, planners, and developers must view buildings as homes for flora and fauna, as well as people.

## 5 Self-Sufficiency Index

A development's capacity to provide its own energy, food and water.

The index rates the success of a development's energy, food and water production; the amount of its surfaces allocated to solar collection and urban farming; and the extent of its systems for recycling and harvesting natural resources.

In a sustainable city, buildings must aim to be completely self-sufficient... they must produce as much energy as they consume, and preferably more, in order to compensate for existing high-maintenance buildings.

**We have evaluated Forbes Residences against these ratings and summarise the results on page 66**



10\_Principles

# CONTEXT+ CHARACTER

**Perth  
needs to  
densify,  
but there's a  
resistance  
to highrise  
housing..**



**The quarter-acre block with a back lawn, a shed and a hills hoist is a cultural icon and many are resistant to other, denser forms of housing...**

**...a threat to Perth's laidback suburban lifestyle?**



**To them, the  
future seems  
worse...**



**less green and more  
crowded, noisy, &  
congested.  
certainly very  
different to the present**



The question we're asking is...

# HOW CAN WE MAKE DENSER HOUSING THAT ACTUALLY GIVES **MORE OF** **WHAT WE LOVE?**



Can Applecross be more pleasant, leafier, quieter, and yet with more facilities, more support for long term and older residents?

Can Applecross share more of itself with friends, relatives and new arrivals?





**Multi-level housing is usually perceived as something which takes away from the district and doesn't give back...**

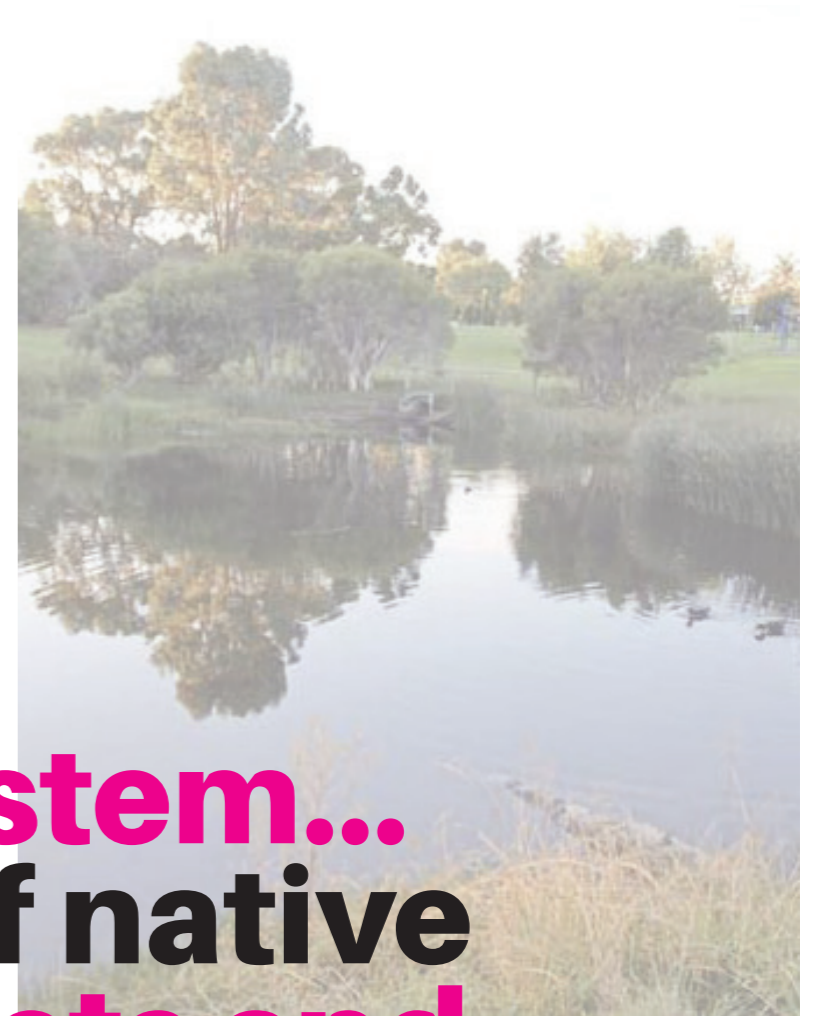


**This project will challenge that notion...**



**Forbes Residences will use the space we create in the sky for more than just homes...**

**Gardens and playgrounds will create even more spaces for birds and animals, whilst solving water and energy needs**



**It will create its own **Eco-system...**  
with a beautiful landscape of native  
plants, attracting **birds, insects and**  
**animals** as it treats **waste water for**  
**use in the gardens****



# Every three floors will have a vibrant Skygarden

The segmentation of the building into separate **three storey neighbourhoods** facilitates a sense of community. Interactions are kept intimate, with neighbours able to build **quality relationships** with each other.



## The design and layout references and extends Applecross vertically

The Skygardens will be shared by up to **24 apartments, reflective of the average Applecross street block**. The vertical spacing of the trees in each Skygarden also references the **distance between trees at street level**.

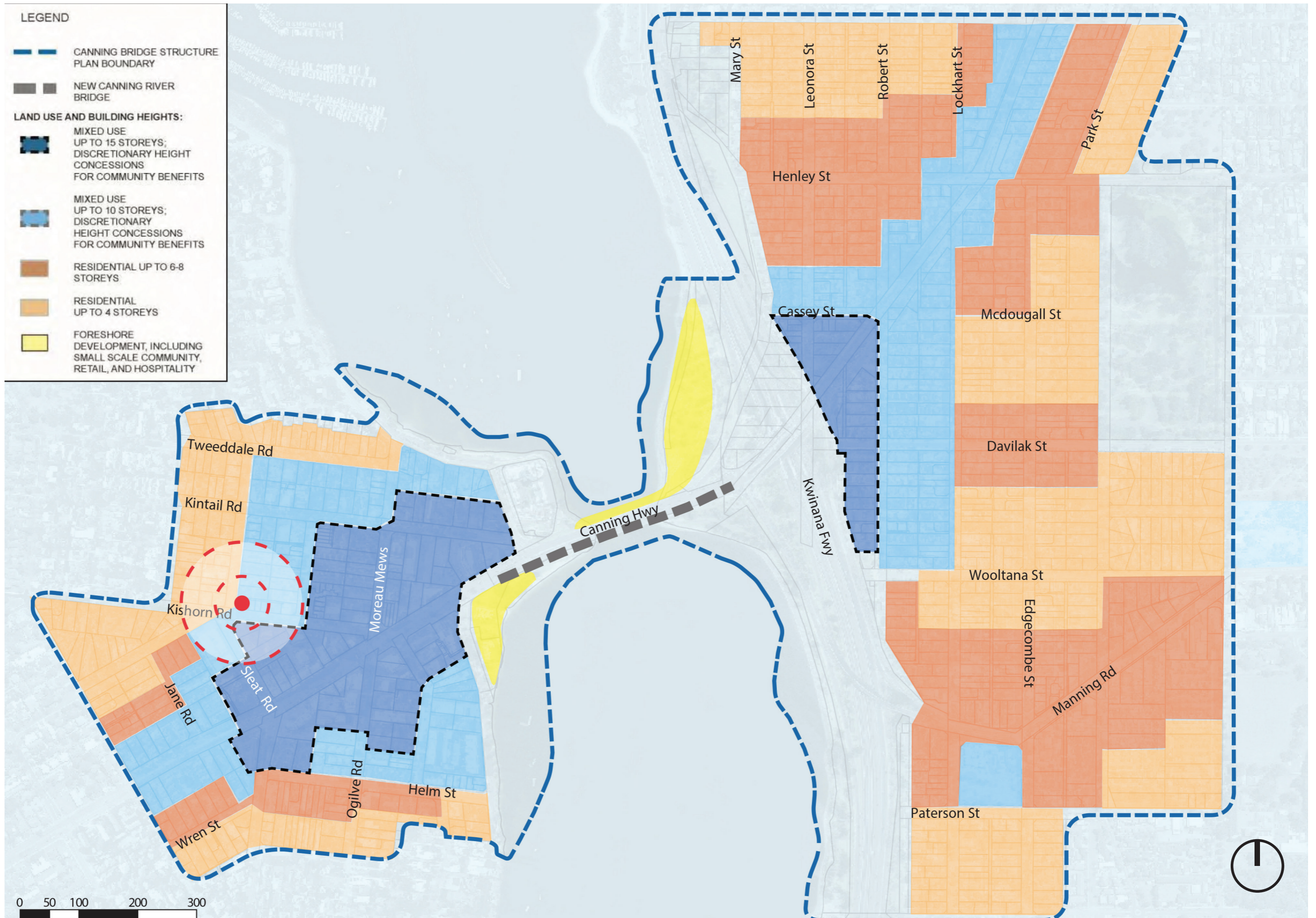


**It's a vertical  
Applecross  
in the sky,  
speaking to  
the past by  
giving us  
what we  
need for the  
future**

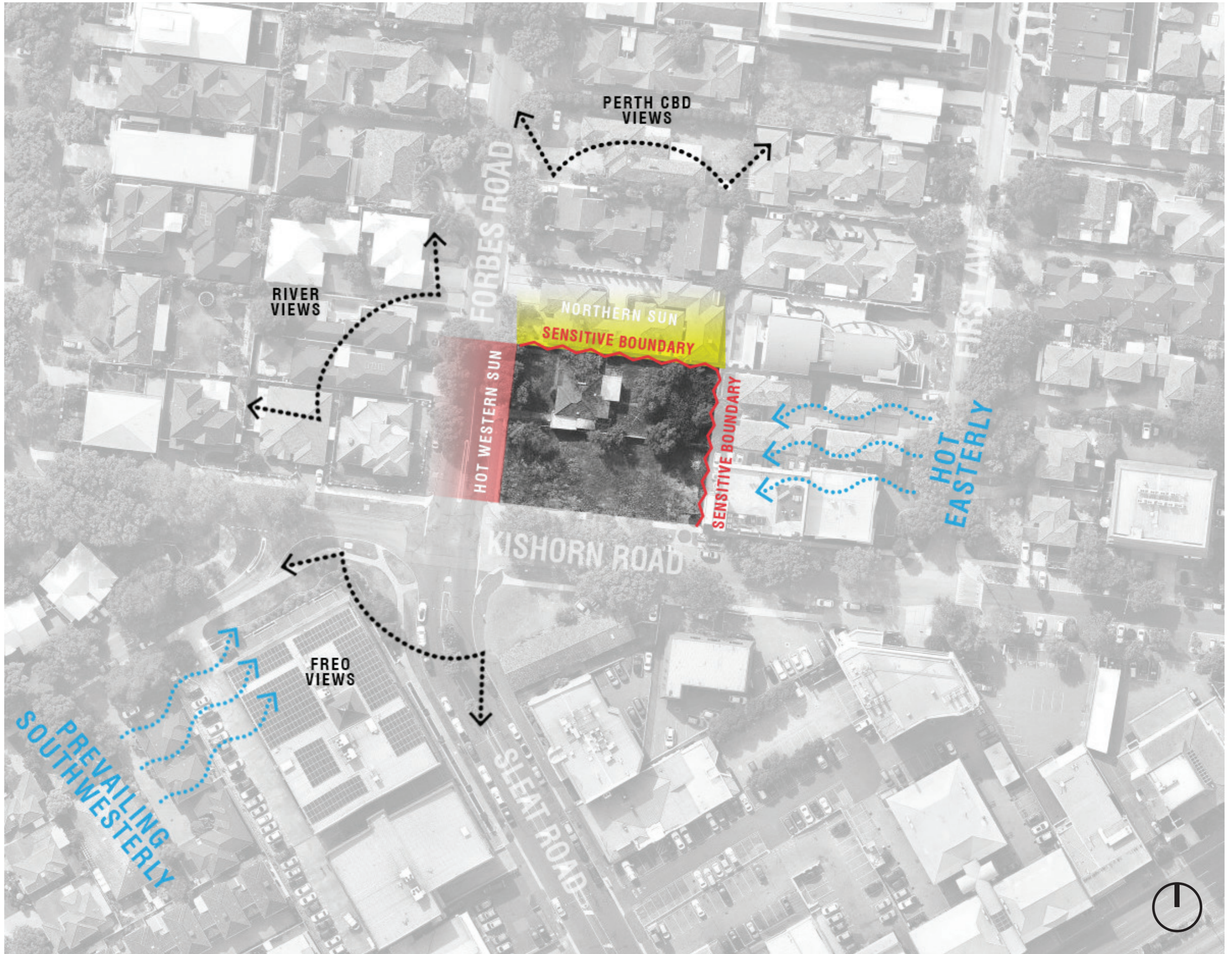
**SITE** **10-14 Forbes Road & 40A, B, C Kishorn Road**  
Applecross



# SITE Canning bridge Activity Centre Plan



# SITE Analysis

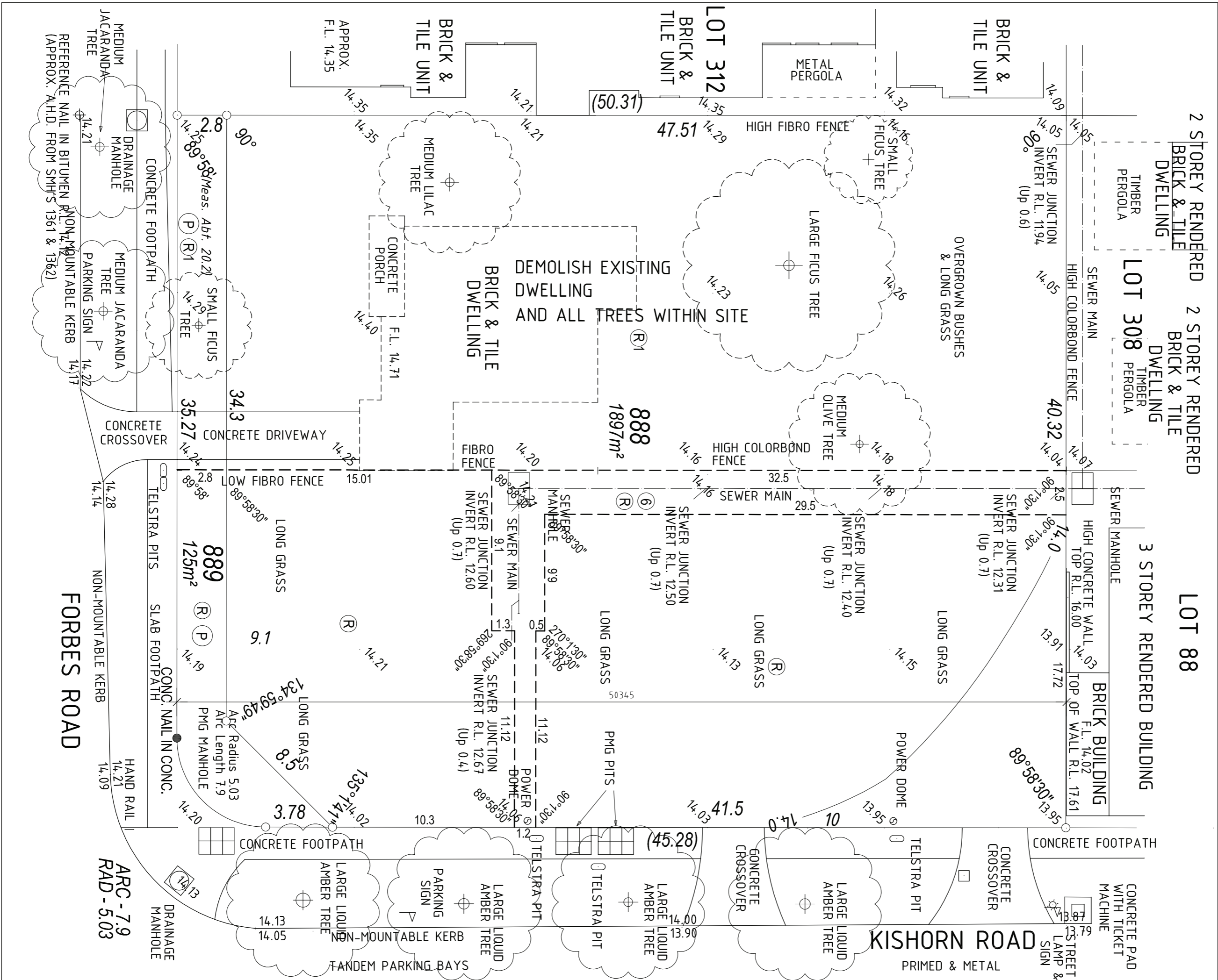


REV.	DATE	AMENDMENT	INIT.
1	18.11.18	DA ISSUE	MEC
2	29.01.19	REVISED DA ISSUE	MEC
A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC

**CARLTON SURVEYS**  
 Licensed Surveyors  
 SUITE 4, 160 BURSWOOD ROAD,  
 BURSWOOD, W.A., 6100.  
 TEL 9361 5358 FAX 9361 3457  
 E-mail : carlton@carlton-surveys.com.au

CONTOUR AND FEATURE  
 SURVEY OF LOTS 311 &  
 800 - 804 INCLUSIVE  
 #10-14 FORBES ROAD &  
 #40A-40C KISHORN RD,  
 APPECROSS

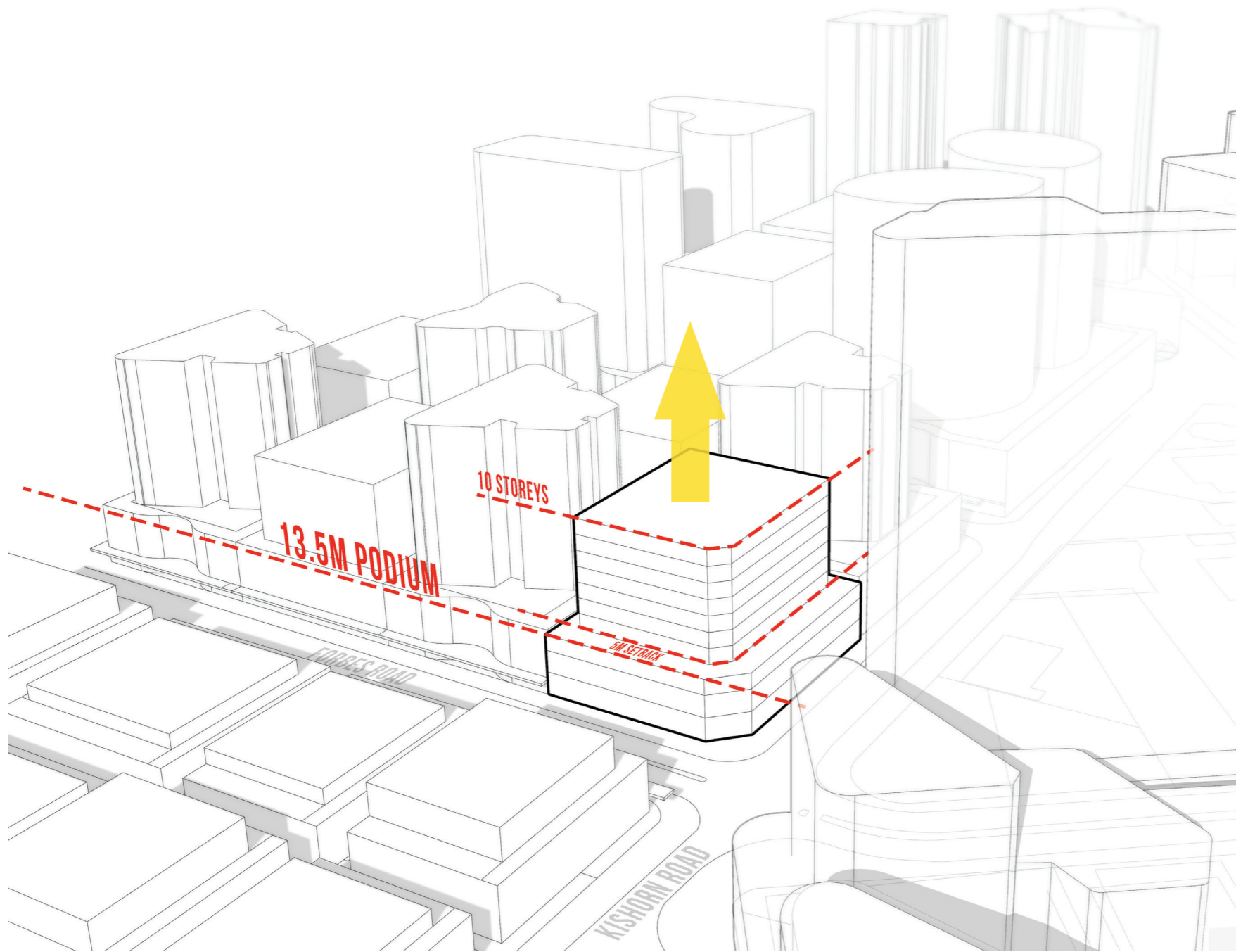
CLIENT	APEX VIEW PTY LTD
PROJECT	FORBES RESIDENCES
PROJECT ADDRESS	10-14 FORBES RD APPECROSS
MJA PROJECT NUMBER	18003
TRUE NORTH	PROJECT NORTH
SCALE	1:200 @ A3
STATUS	ISSUED FOR DA
DRAWING	EXISTING SITE SURVEY
DRAWING NO.	DA.01
DRAFTER	MEC
CHECKED	MEC
REV.	C



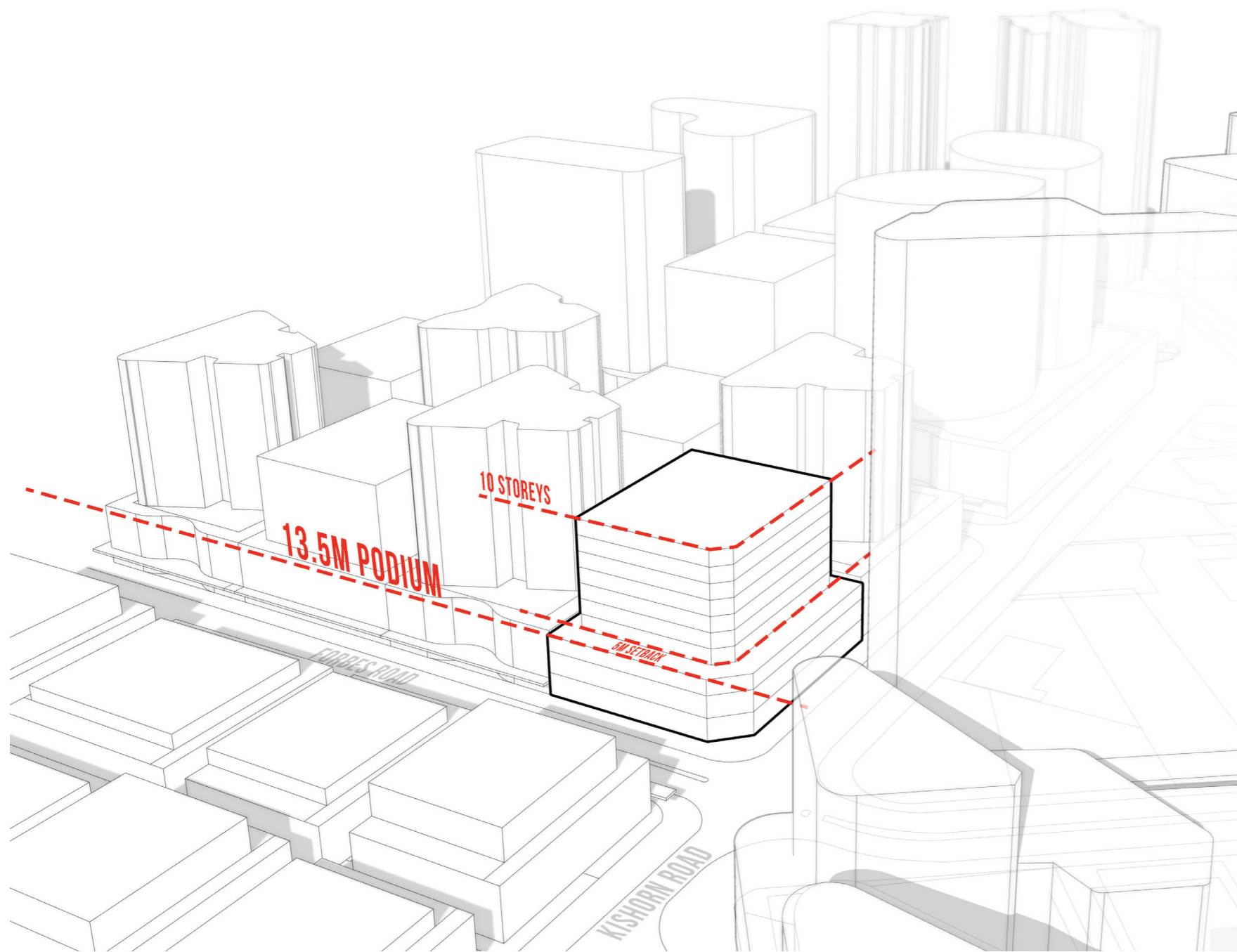
# SITE Plan

Site Plan 1:1000

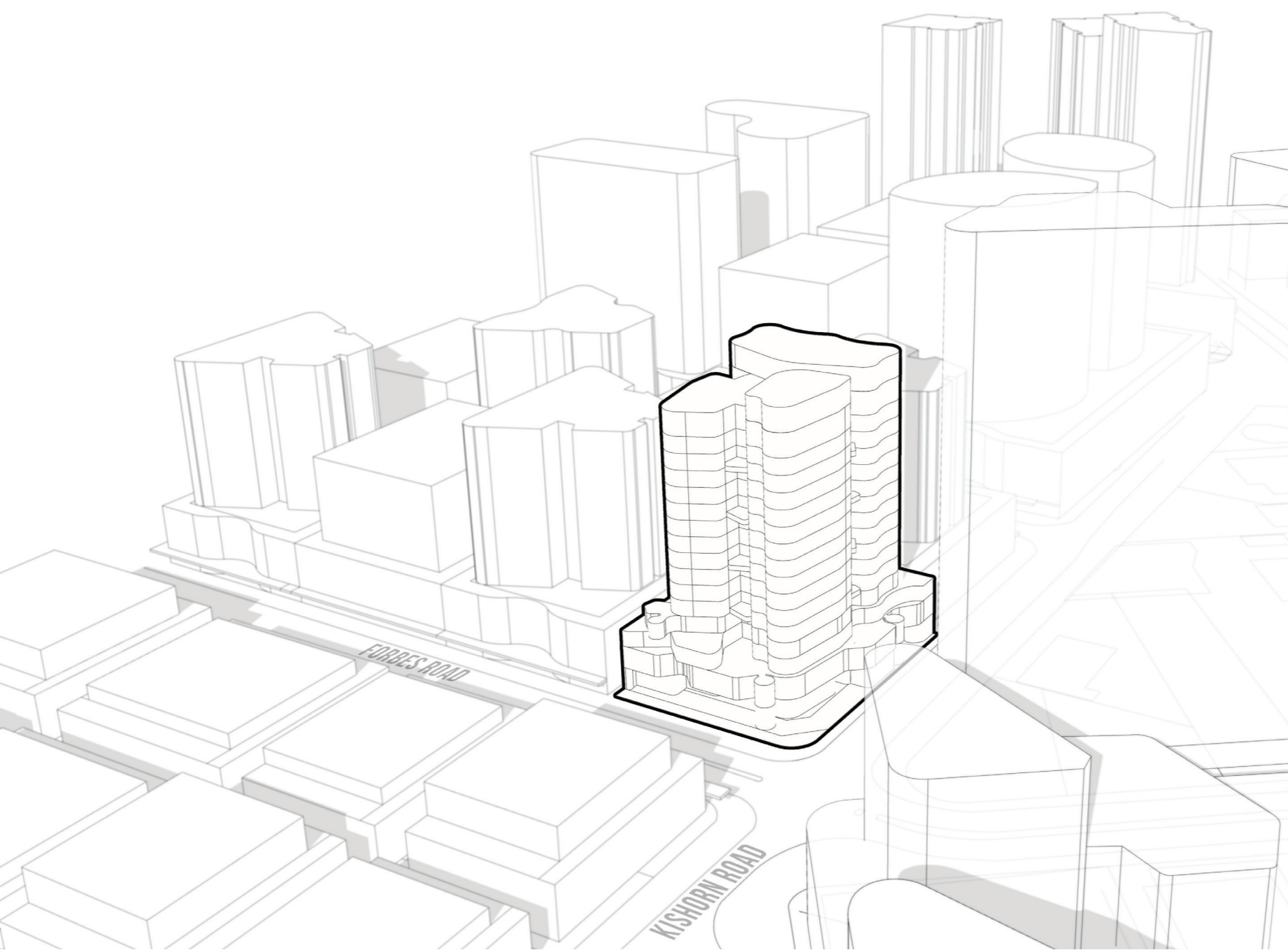




**We understand that to go above 10 storeys we need discretion and must comply with all clauses of **element 21**, plus at least four clauses of **element 22** of the Canning Bridge Activity Centre Plan (CBACP)**



**A 10 storey compliant building in the M10 zone (built out to its maximum setbacks) has **15,988m<sup>2</sup>** of total floor plate area**



**Forbes Residences has a total floor plate area of **19,798m<sup>2</sup>****

$$19798\text{m}^2 - 15988\text{m}^2 = 3,810^2$$

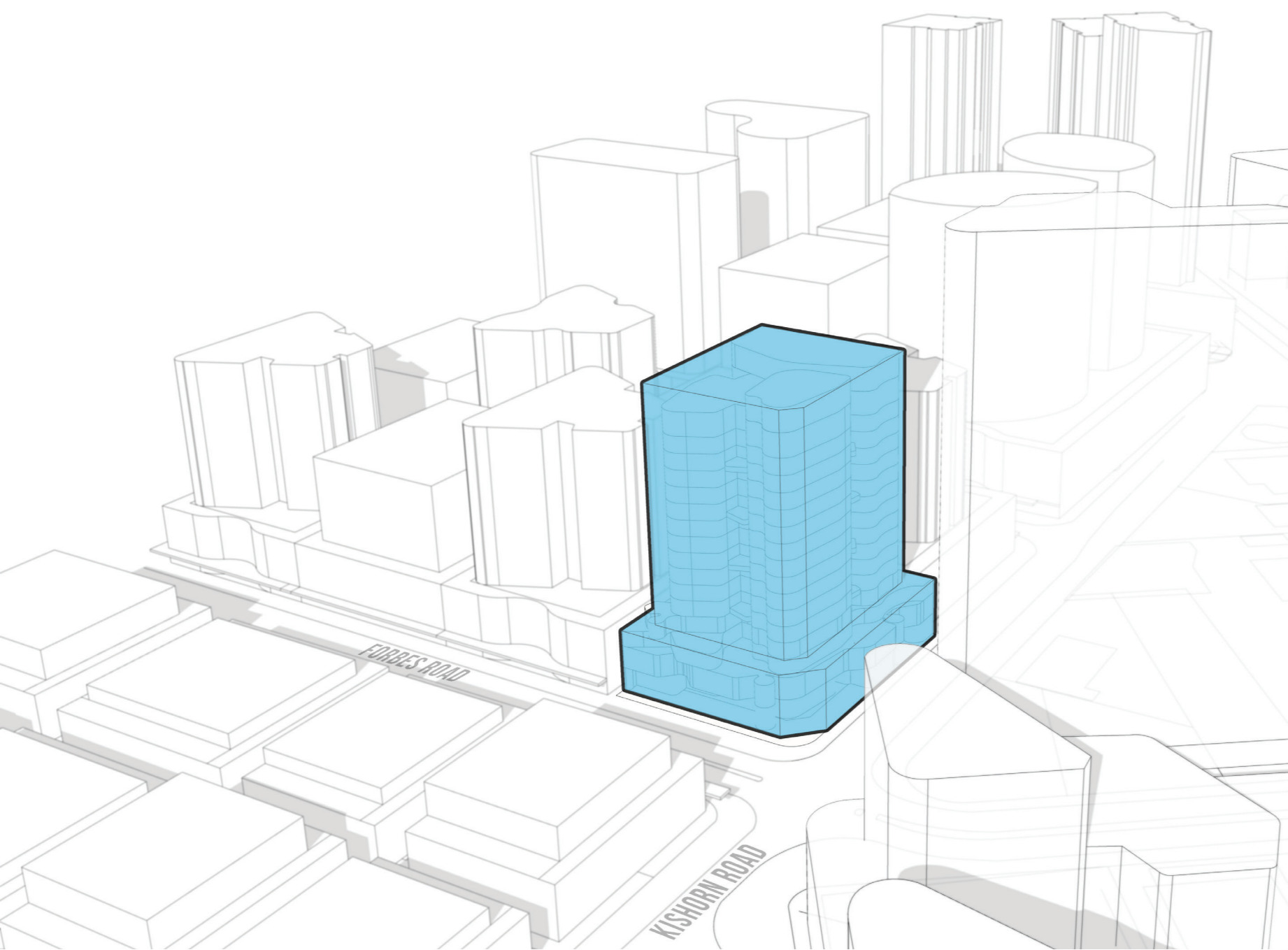
Forbes Residences                      10 Storey Complaint

**We therefore recognise that we have an increase in floor plate area of**

**3,810m<sup>2</sup>**

**over a compliant 10 storey building**





**In response to this, Forbes Residences has increased average setbacks, significantly reducing excess bulk and overshadowing.**

**The building is sculpted in form, resulting in an average setback increase of **2503m<sup>2</sup>**.**

**This can be subtracted from our initial increase of floor plate area:**

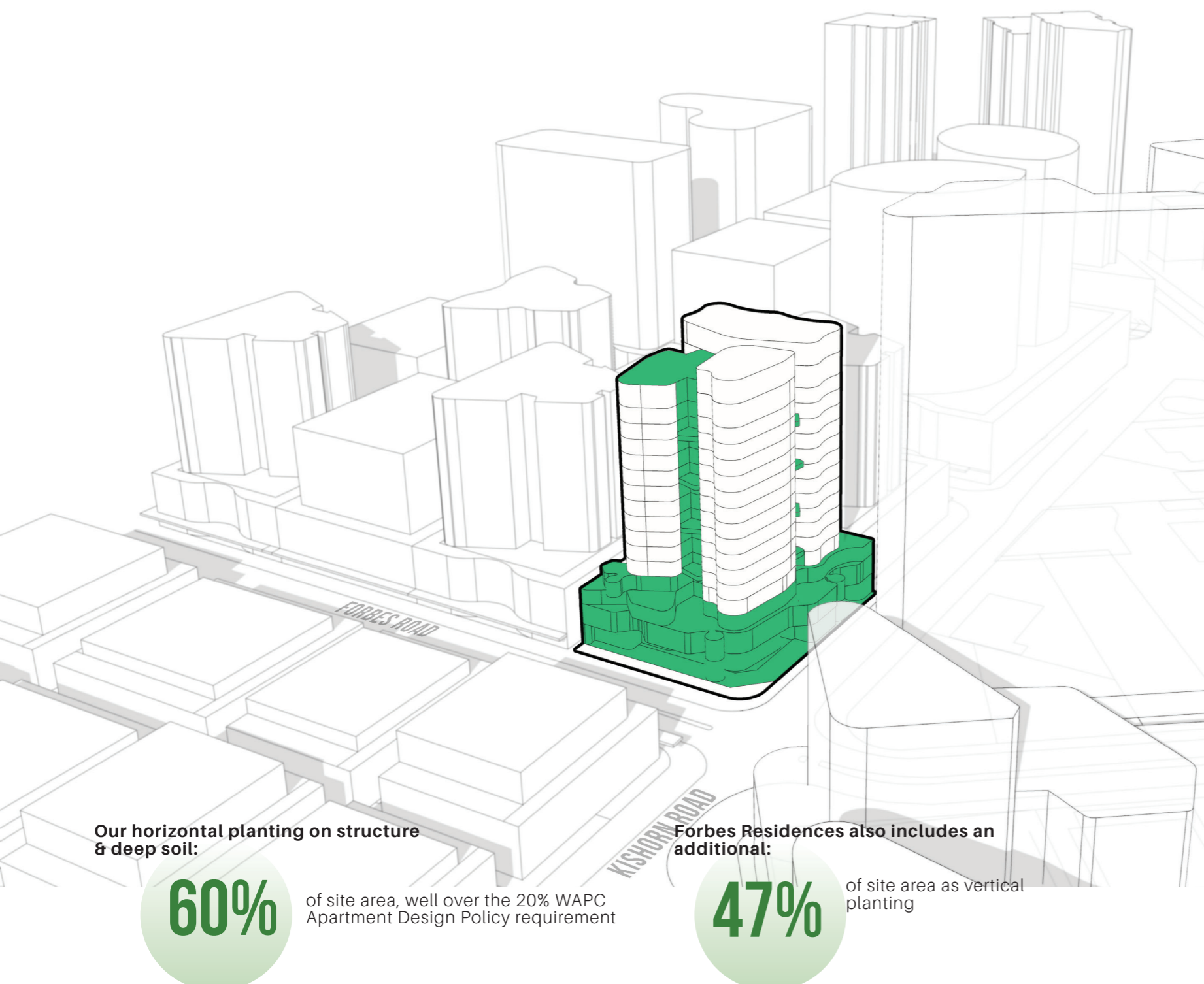
$$3810\text{m}^2 - 2503\text{m}^2$$

Increase of floor plate area (m<sup>2</sup>)

Averaged Setback Increase (m<sup>2</sup>)

$$= \mathbf{1,307\text{m}^2}$$

New increase of floor plate area



Our horizontal planting on structure & deep soil:

**60%**

of site area, well over the 20% WAPC Apartment Design Policy requirement

Forbes Residences also includes an additional:

**47%**

of site area as vertical planting

This equates to:

**107% GREEN PLOT RATIO**

**We are also over & above open space & landscaping, with a total landscaping area of 4108m<sup>2</sup> ... or 2085m<sup>2</sup> more than the minimum required in the CBACP**

$$1,307\text{m}^2 - 2085\text{m}^2$$

Current increase of floor plate area (m<sup>2</sup>)

landscaping area increase (m<sup>2</sup>)

**= -778m<sup>2</sup>**







New benefit surplus of floor plate area

\*see LANDSCAPE AREAS table, page 52

**This means that from a starting increase in floor plate area of 3,810m<sup>2</sup>...**

**...through considered design strategies we have not only reduced this number to ZERO but have in fact gone past it into the negative, which means we're actually now providing an additional benefit surplus of +778m<sup>2</sup>**

# We meet all six requirements of Element 21, with:

<i>21.1 Exemplary design is proposed in the opinion of the Design Advisory Group; and</i>	 + Exemplary design
<i>21.2 For development in the M15 Zone, the site shall have a minimum area of 2,600 m<sup>2</sup>; or</i>	(not applicable)
<i>21.3 For development in the M10 Zone, the site shall have a minimum area of 2,000 m<sup>2</sup>.</i>	 + Complies (site area, 2023m <sup>2</sup> )
<i>21.4 In addition to Clause 21.1 and Clause 21.2 or 21.3, the applicant proposes the following:</i>	
<i>21.4.1 The proposed development has been designed with regard for solar access for adjacent properties taking into account outdoor living areas, major openings to habitable rooms, solar collectors and balconies.</i>	 + See Overshadowing Analysis - page 42
<i>21.4.2 The proposed development meets or exceeds a 5 Star rating under the national rating scheme of the Green Building Council of Australia.</i>	 + See Sustainability - page 57
<i>21.4.3 A traffic statement is submitted showing that the additional floorspace allowed will not unduly impact on the surrounding centre.</i>	 + See Traffic Management Report
<i>21.4.4 The proposed development includes the provision of infrastructure which supports area wide resource efficiency, such as plant and equipment required to reduce the demand for either building or area wide service infrastructure</i>	 <ul style="list-style-type: none"><li>+ Naturally ventilated basement via wind scoops</li><li>+ Naturally ventilated corridors &amp; lobbies</li><li>+ Greywater dripline reticulation system</li><li>+ Three points of daylight to floor plate, reducing need for artificial lighting</li><li>+ Photo Voltaics</li></ul> See more: Sustainability - page 57

# ...and we meet **seven** requirements of **Element 22:**

Element 22.1.1 (1 of 7)

High quality **active street frontages**, furniture and landscaping

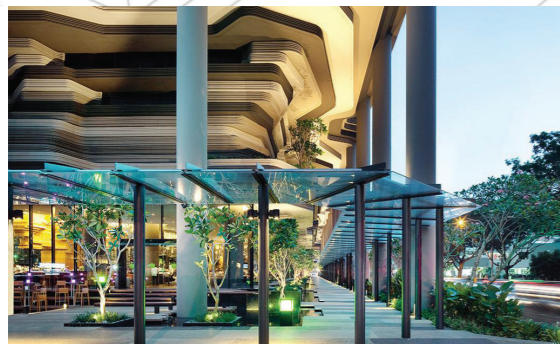
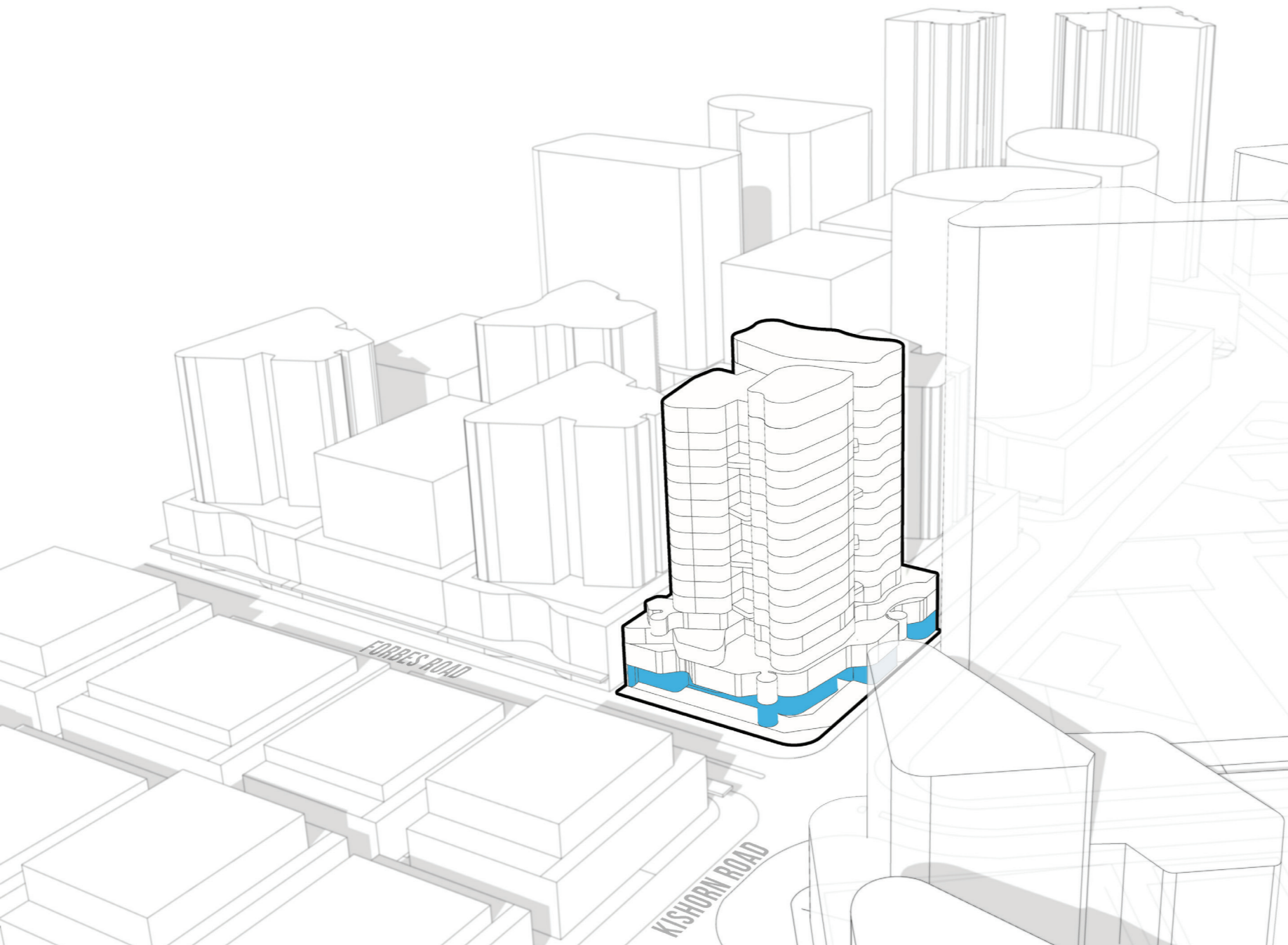
**Compliant frontage:**

76 metres  
(82m - 6m crossover)

**Our frontage:**

151 lineal metres

By manipulating the contour of ground floor glazing and creating an island hospitality tenancy we can significantly extend the active frontage.



**778m<sup>2</sup>**

Current benefit surplus of floor plate area

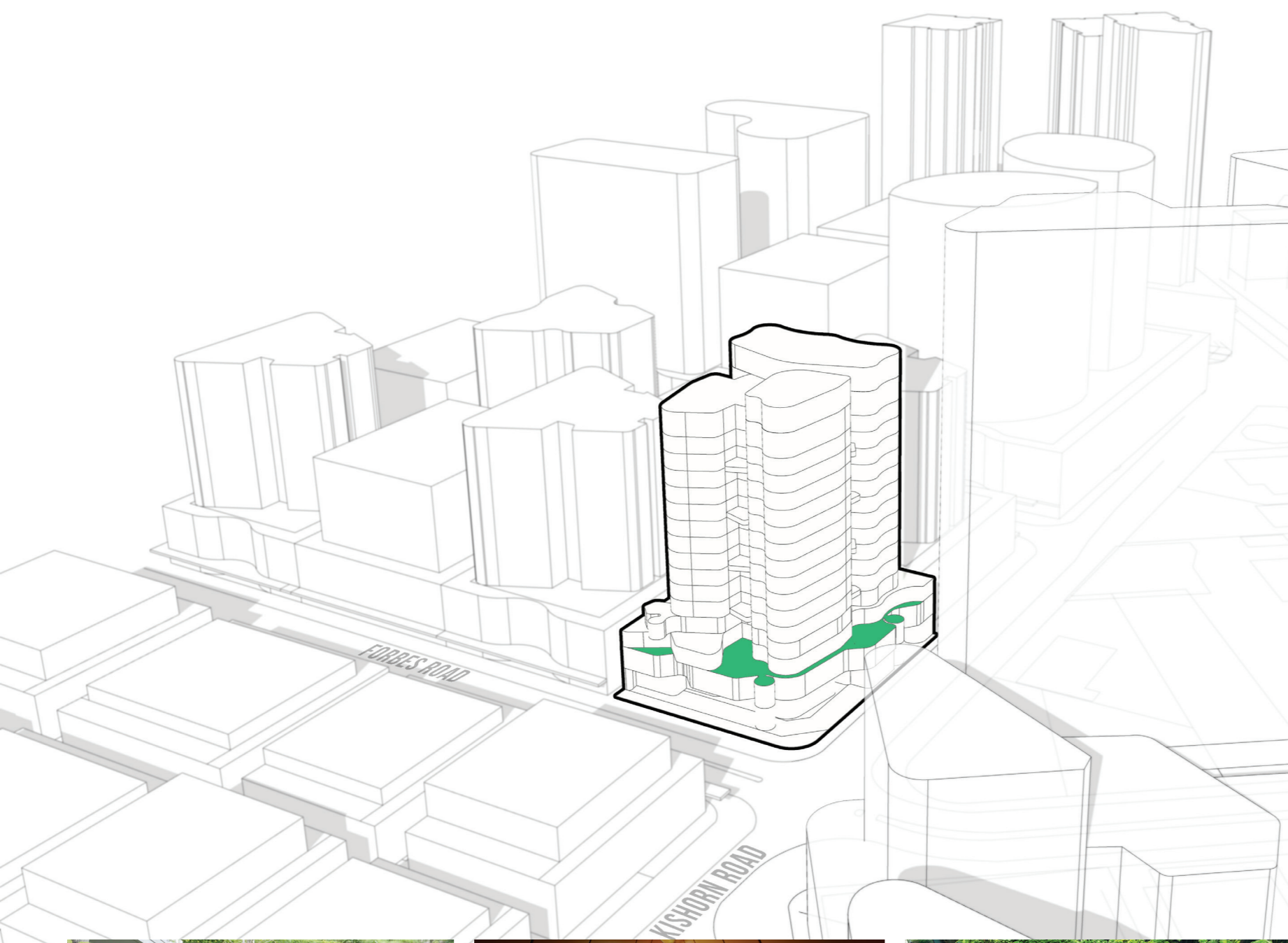
Provision of **landscaped spaces** and/or other facilities accessible to the public such as rooftop and/or **podium level gardens**

## Community Garden on Level 1 Multiple landscaped areas on ground and first

If neighbours are coming to our corner cafe/bar why can't they take their coffee up to the podium and enjoy it up there too?

We believe a publicly accessible community garden that **wraps around the free venting podium** can provide an active use to the space and a break out point for members of the co-share.

Its location within the podium makes it **more intuitively accessible via a prominently placed public stair**; ideal for a general public who are not accustomed to having access to a private residential high-rise.



$$= 778m^2 + 199m^2 + 300m^2$$

Current benefit surplus of floor plate area

Community Garden

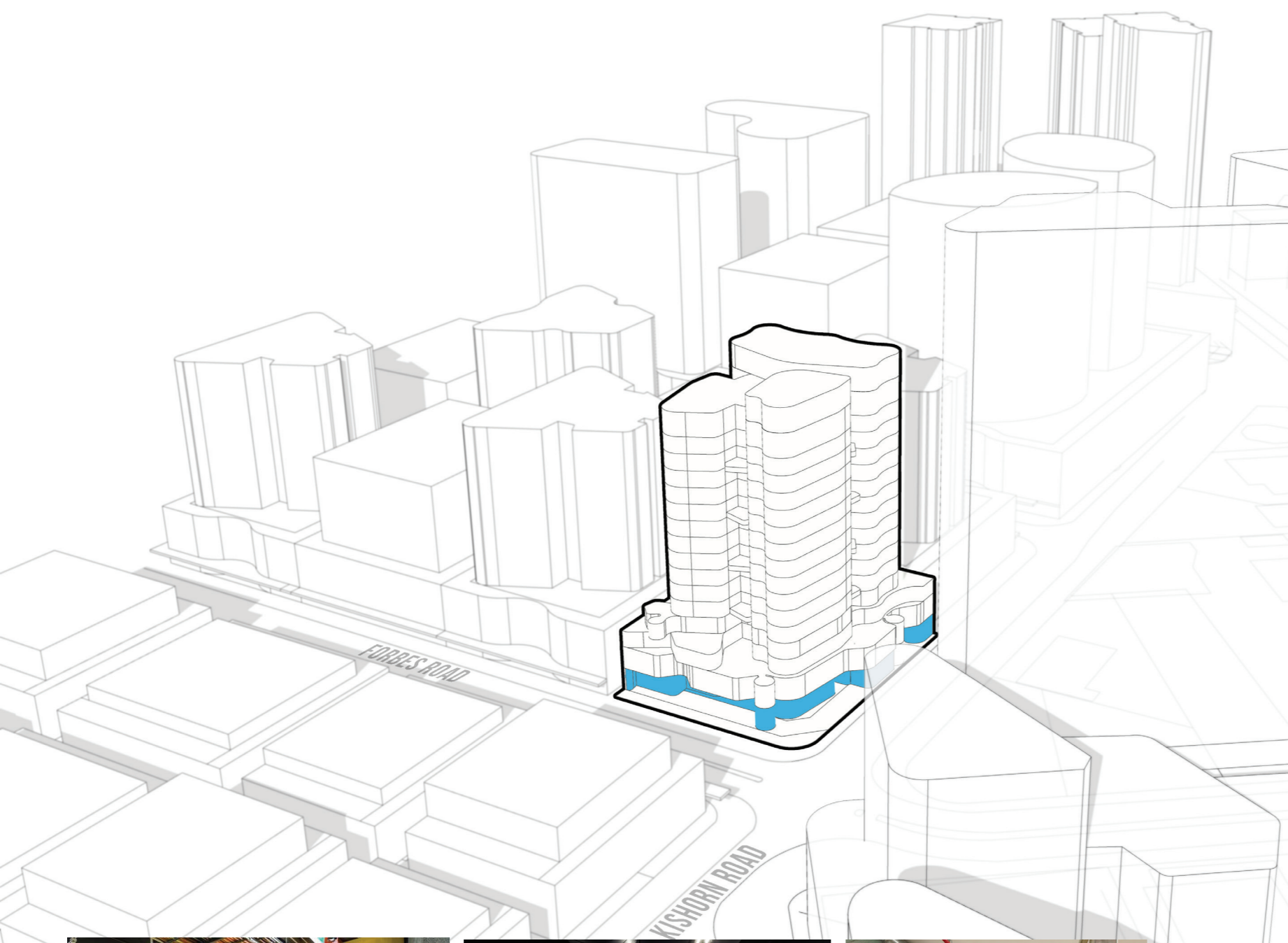
300m<sup>2</sup> alfresco & new public space on this prominent corner

$$= 1,277m^2$$

New surplus of floor plate area (incorporating community benefit areas)



Provision of **public facilities** such as toilets, showers and sheltered bike storage.



## Bike storage End of Trip (EoT) facilities

As the CBACP develops it's critical that there is increased infrastructure that can facilitate a **walking / riding / public transport** approach to life by residents and the public.

Forbes Residences accommodates this need by incorporating **extensive EoT facilities on the ground floor**, for both the general public and tenants of the building.



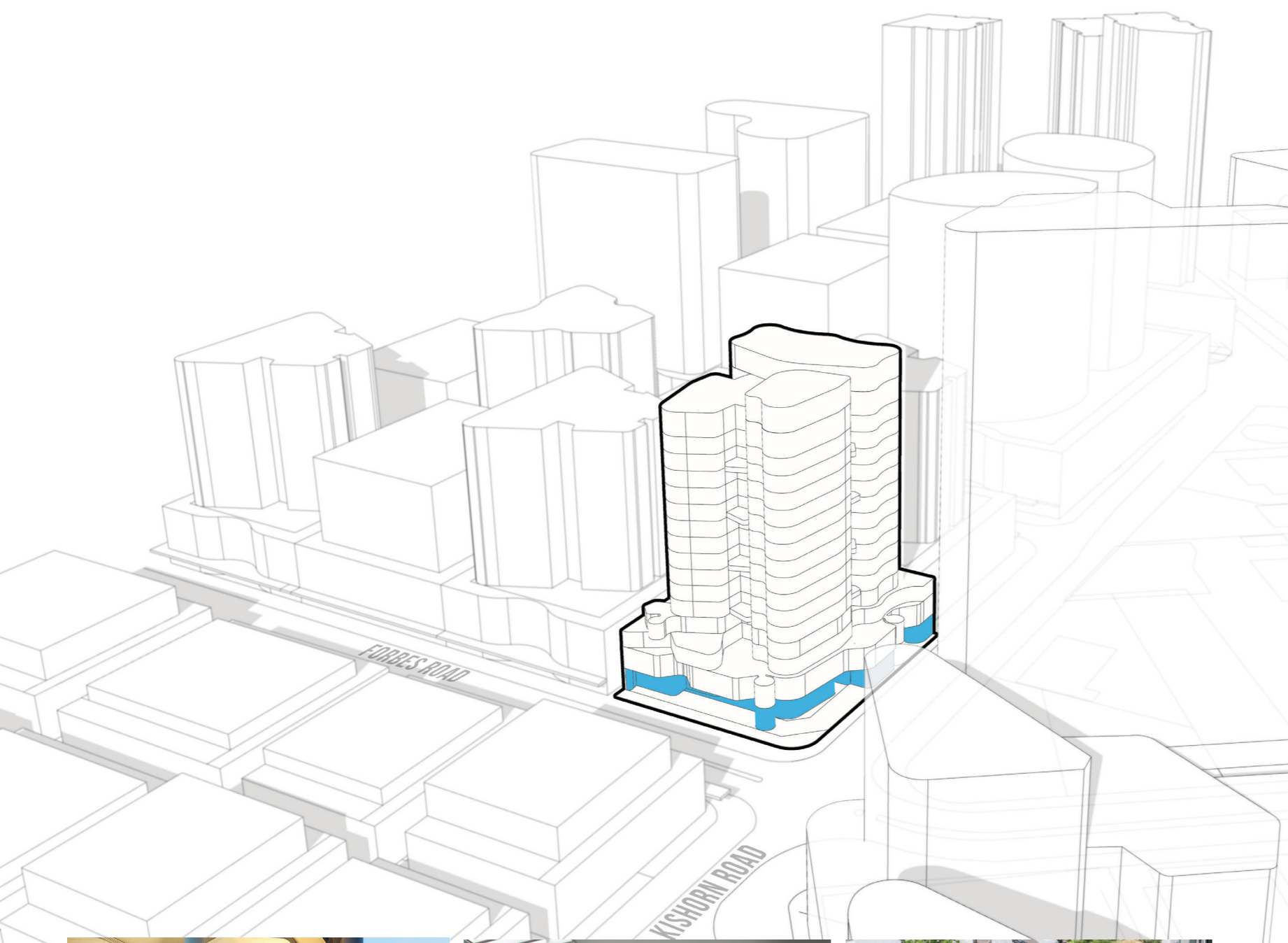
$$= 1,277\text{m}^2 + 100\text{m}^2$$

Current benefit surplus of floor plate area      EoT facilities

$$= 1,377\text{m}^2$$

New benefit surplus of floor plate area (incorporating community benefit areas)

## Improvement to **pedestrian networks**



### **New pedestrian throughfares on ground** **New Planning Control Area land boundary adherence**

The dynamic ground floor is catered to pedestrian movement, allowing an organic flow of foot traffic through the site via new pedestrian throughfares.

In addition to this, we are accommodating for any potential future planning by adhering to the new Planning Control Area land boundary.



$$= 1,377\text{m}^2 + 291\text{m}^2$$

Current benefit surplus of floor plate area      Pedestrian Throughfare

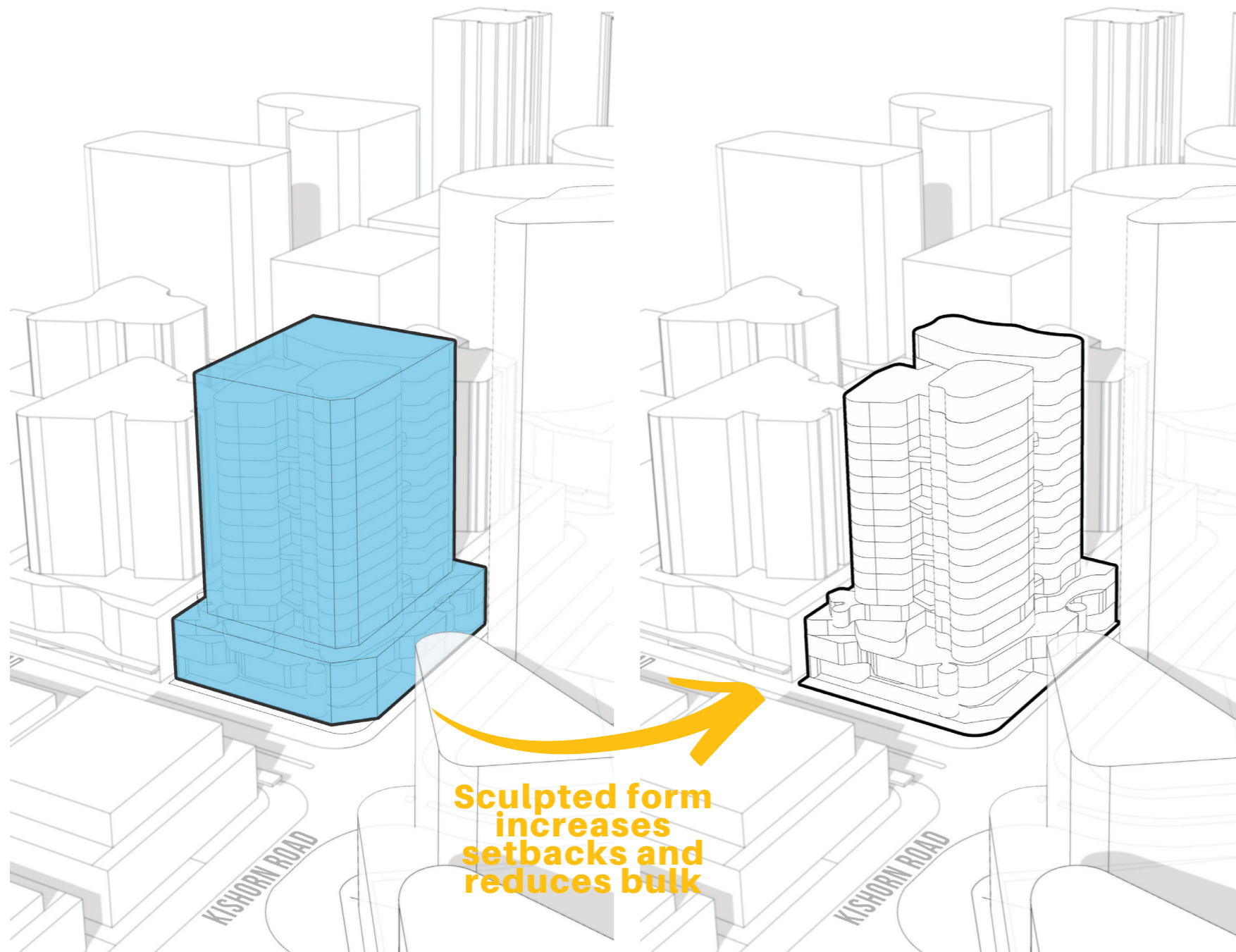
$$= 1,668\text{m}^2$$

New benefit surplus of floor plate area (incorporating community benefit areas)

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**Provision of view corridors and/or mid-winter sunlight into adjacent properties**

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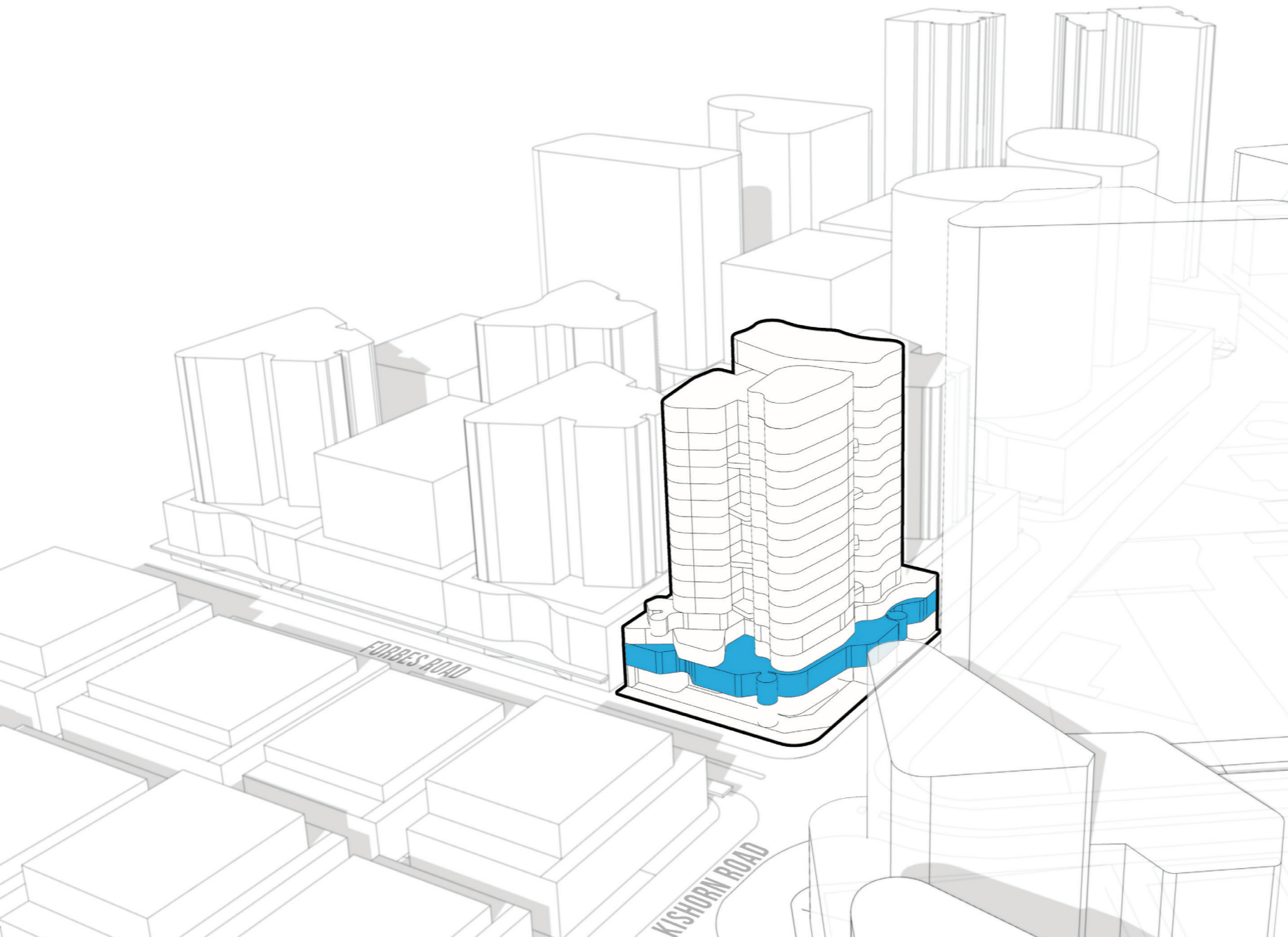
## **Sculpted built form reduces bulk**

The contoured and sculpted built form of the building allows for a significant volume of the building to be removed. This reduced bulk optimises view corridors and sunlight access to neighbouring properties.

**= 1,668m<sup>2</sup>**

Current benefit surplus of floor plate area (incorporating community benefit areas)

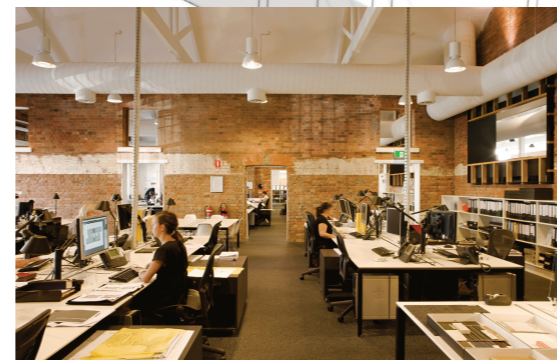
**Provision of community, communal and/or commercial meeting facilities.**



**Co-working spaces  
Commercial spaces  
Retail / Food & Bev**

*In response to the public consultation and recommendation from the City, we have relocated the podium parking to the basement, allocating more prime podium space to the Applecross community.*

Level one includes generous Co-Working & Commercial spaces, and an enlarged Community Garden.



**= 1,668m<sup>2</sup> + 917m<sup>2</sup>**

Current benefit surplus of floor plate area

community, communal and/or commercial meeting facilities

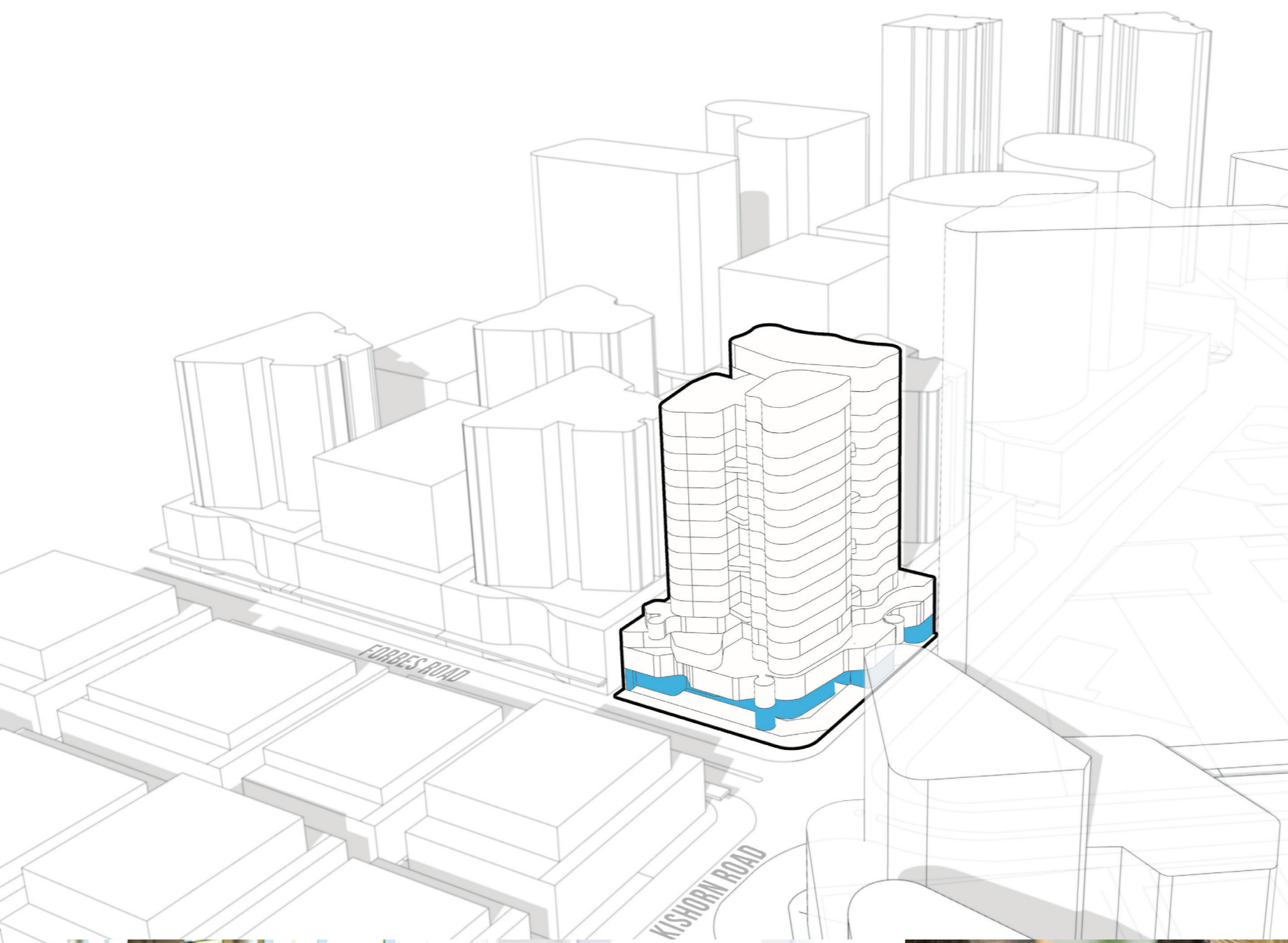
**= 2,585m<sup>2</sup>**

New benefit surplus of floor plate area (incorporating community benefit areas)

---

**Provision of community, communal and/or commercial meeting facilities.**

---



## 225m<sup>2</sup> Community Hall

*In response recommendations from the DRP, we have relocated the podium parking to the basement, allocating more prime podium space to the Applecross community.*

Doing this has allowed the addition of a 225m<sup>2</sup> publicly-oriented Community Hall. The Hall will be a **vibrant venue and home to an exciting roster of events**, from health seminars to yoga classes.

In addition to this, the peripheral garden landscaping on this level has been significantly increased, further integrating the building into it's surrounding environment, much more effectively than was possible with the previous scheme's podium level parking.



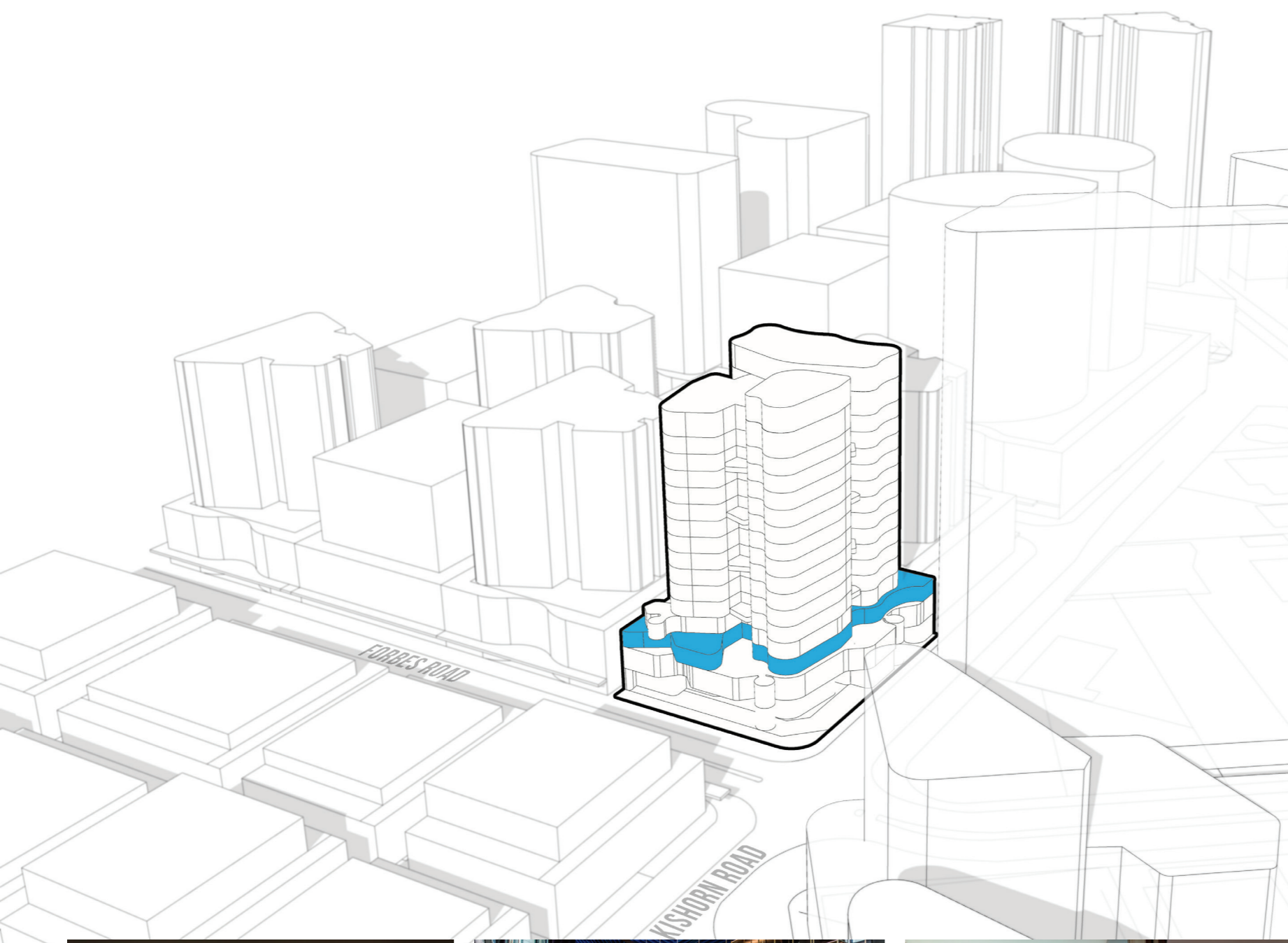
$$= 2,585\text{m}^2 + 225\text{m}^2$$

Current benefit surplus of floor plate area      community, communal and/or commercial meeting facilities

$$= 2,810\text{m}^2$$

New benefit surplus of floor plate area (incorporating community benefit areas)

The development comprises a hotel.



## Short Stay Hotel

There is a **critical shortage** of short stay options in the city of Melville.

Increasingly around the world, tourists are interested in more **local/neighborhood stays** rather than in anonymous CBD hotels. Forbes Residences will localise these short stay tenants onto their own discrete floor on level 2, separate from permanent residents, with their own dedicated lobby and lift.

This boutique offer will **increase the amount of rooms** in the local area by **35%**.



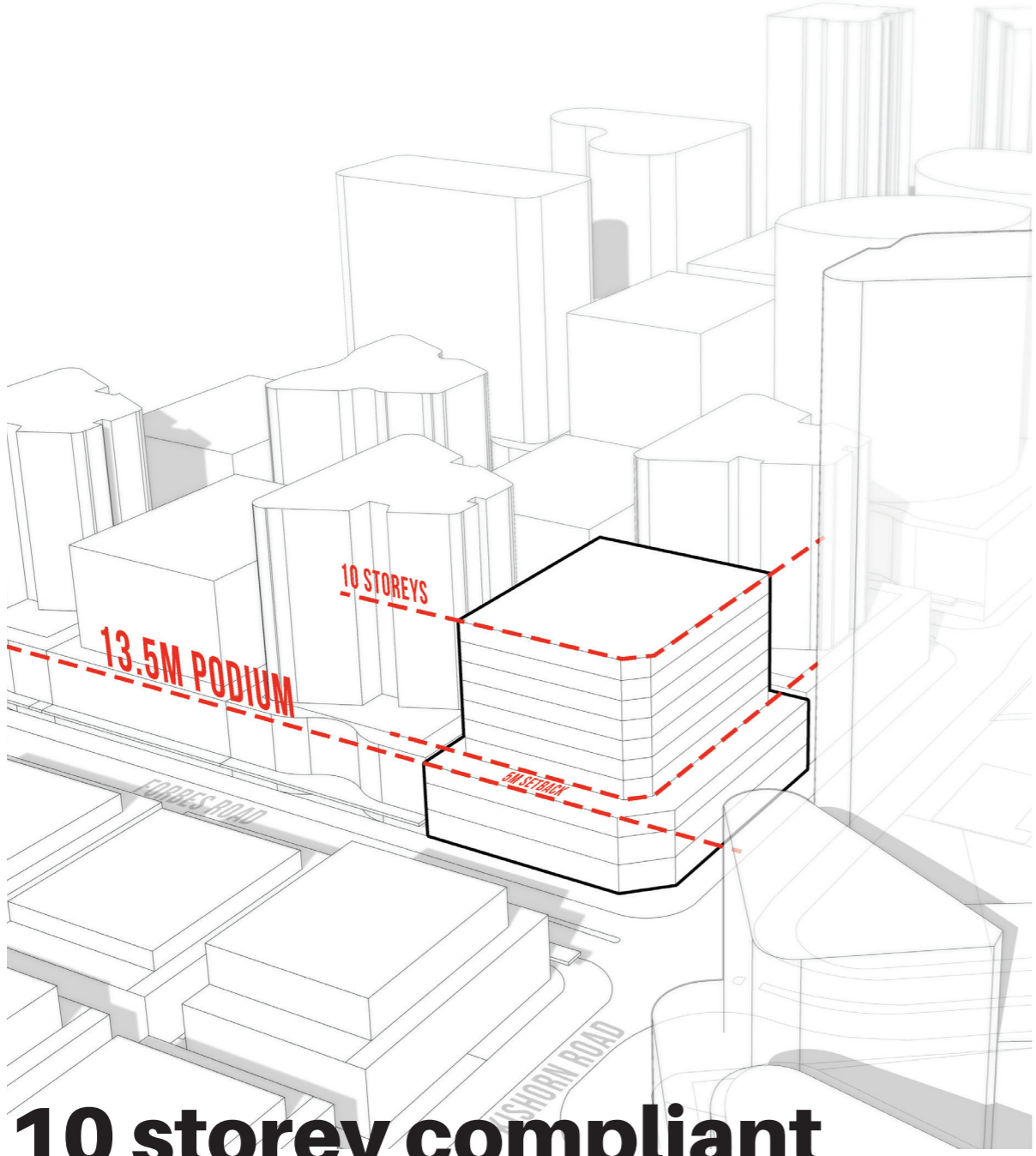
$$= 2,810\text{m}^2 + 1041\text{m}^2$$

Current benefit surplus of floor plate area      Short Stay Floor Plate

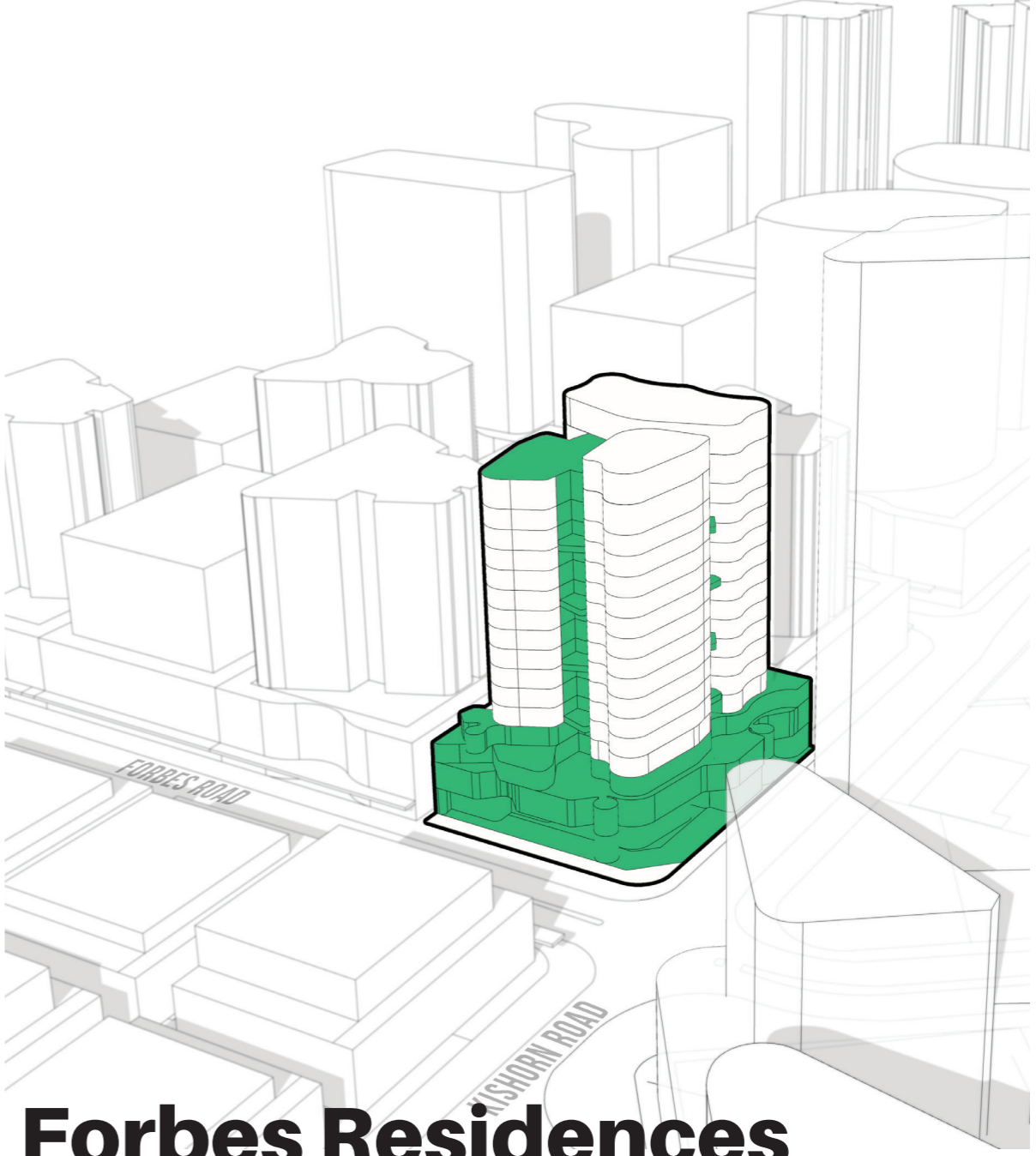
$$= 3,851\text{m}^2$$

New benefit surplus of floor plate area (incorporating community benefit areas)

# So let's take another look at the comparison between the 10 storey compliant building and Forbes Residences...



**10 storey compliant**  
15,988m<sup>2</sup> of total floor plate area



**Forbes Residences**  
19,798m<sup>2</sup> of total floor plate area

1.

$$\begin{array}{r} \text{Forbes} \\ \text{Residences} \end{array} \quad \begin{array}{r} 10 \text{ storey} \\ \text{compliant} \end{array} \\ \hline 19,798 - 15,988$$

$$= +\underline{3,810\text{m}^2} \text{ increase in floor plate area}$$

From **+3,810m<sup>2</sup>** we can subtract the following three figures:

2.

$$2,503 - 2,085 - 3,073 = \underline{-3,851\text{m}^2}$$

averaged setback increase (m<sup>2</sup>)  
(see pg.22)

landscape increase (m<sup>2</sup>)  
(see pg.23)

element 22 surplus (m<sup>2</sup>)

- community garden
- public alfresco
- public facilities (EoT) area
- pedestrian throughfare
- community & co-share areas
- short stay area

(see Appendix, pg.67)

3.

**This not only reduces the 3,810m<sup>2</sup> deficit to ZERO, but in fact gives an additional 3851m<sup>2</sup> of benefit back to the City of Melville and the community**

$$\begin{array}{r} \text{Surplus benefit of} \\ \text{floor plate area (m}^2\text{)} \end{array} \quad \begin{array}{r} \text{Typical Floor} \\ \text{Area (m}^2\text{)} \end{array} \\ \hline 3,851 / 1,037 \\ = 3.7$$



**This is the equivalent to 3.7 floors of community benefit**

# In conclusion, we see community benefit as:

- + providing a significant **setback compliance & increase** through a considered built form, that reduces bulk and overshadowing
- + exemplary **greenery & landscaping**, that provides a landmark building that directly responds and contributes positively to the natural environment of Applecross
- + meeting seven requirements of element 22 by providing numerous **community oriented facilities**, such as an extended and vibrant street frontage, an exclusive Community Hall, a Community Garden, extensive and varied co-share & commercial spaces, a short stay hotel and public end of trip facilities

# Imagine a building where...

## Eleanor is a yoga instructor...

...and lives locally in Applecross. Every Tuesday and Thursday she walks to Forbes Residences to teach a public yoga class at the Community Hall on level one. She shares the hall with a weekly rotating roster of community classes and events.

## Laura is a mum...

...who lives down the road from Forbes Residences. Every Thursday she takes her six-month-old for a playdate with her best friend and her ten-month-old, after grabbing a coffee at the Forbes Residences Café on the ground floor.

This Friday they're attending a parenting seminar in the Community Hall on level 1. Before the seminar they order a takeaway coffee and climb the public stairs to the Community Garden, where they let the little ones have a play while they wait for it to start.

## Justin runs a small start-up...

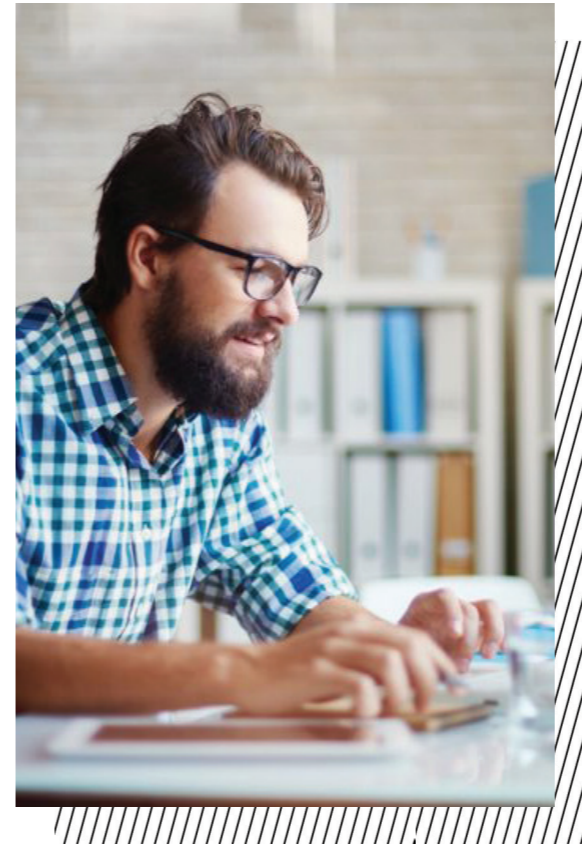
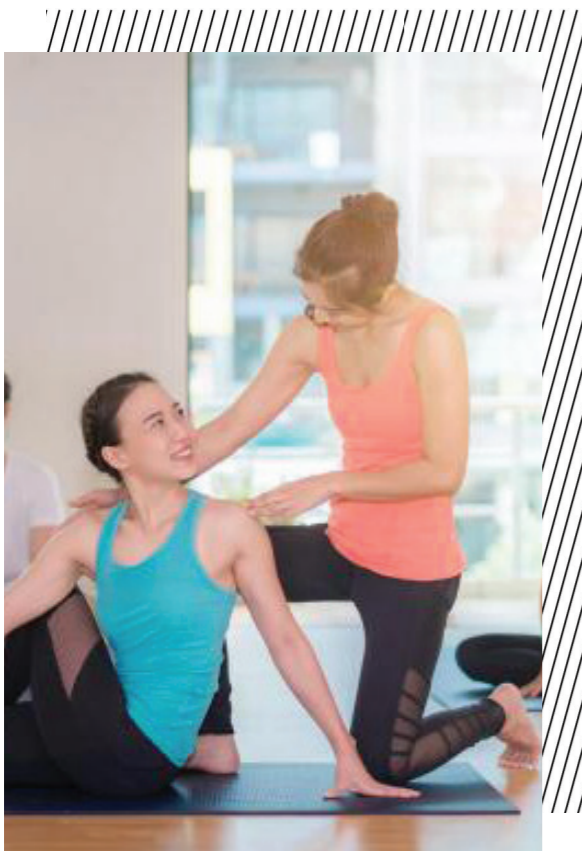
...developing mobile apps. He is just getting off the ground and is taking advantage of the co-working facilities at Forbes Residences. Each morning he hops on his bike and rides to the co-working space, using the public End-of-Trip facilities to freshen up.

Sometimes he uses Forbes Residences as a base, parking his bike there and catching a bus to the city for a meeting. Being at the very early stages of his start-up, Justin loves being able to use a vibrant, co-shared space at a minimal cost.

## Elizabeth and Frank are visiting...

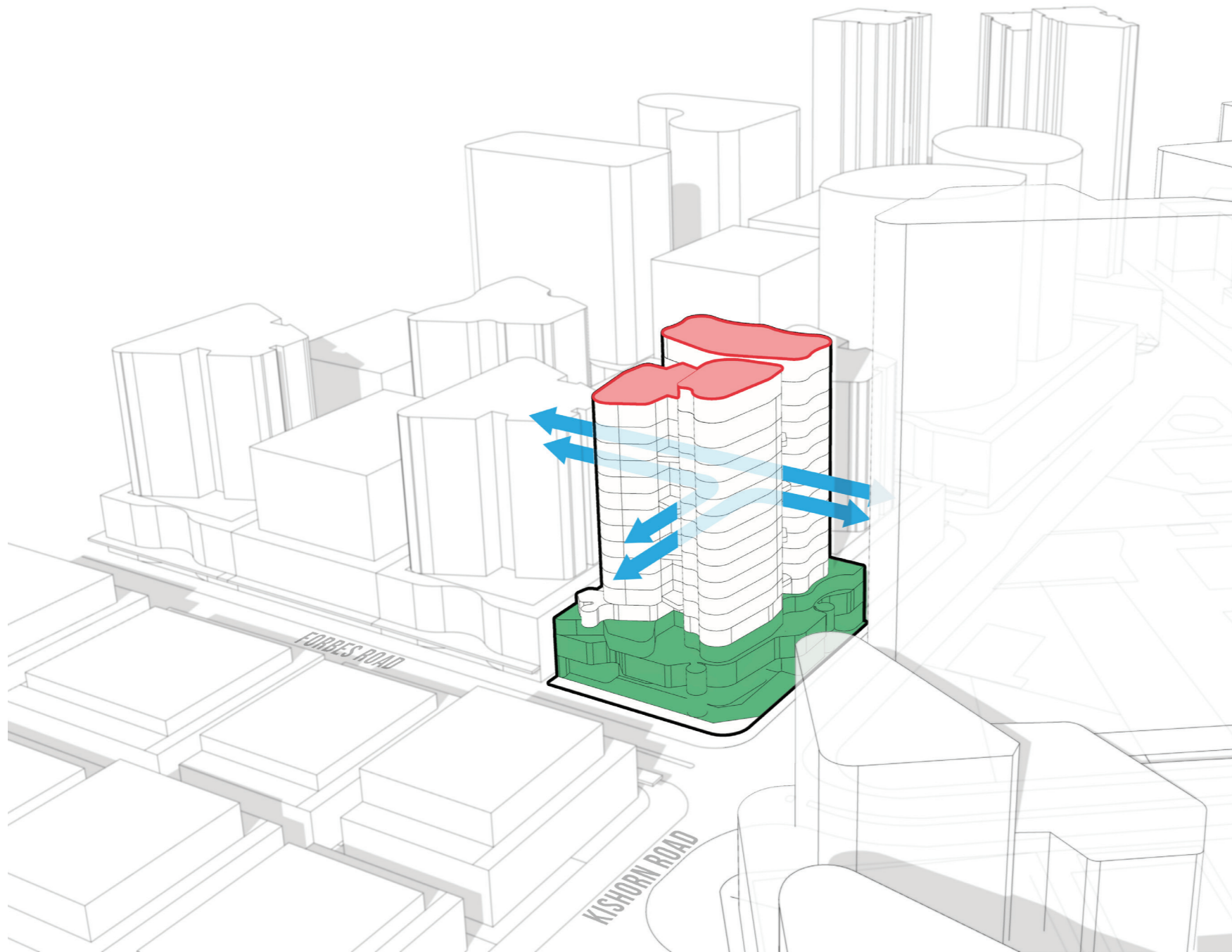
...from overseas, here to see their newly born grandson, Jack, whose parents live on Level 5. The convenience of being so close to their daughter and grandson, while also being able to give them (and have) their own space is extremely beneficial to them.

They love the convenience of taking the lift up to visit them each day and giving the tired parents a break by taking their older granddaughter, Julie, to the podium Community Garden on level 1.



This building will offer unique, inclusive opportunities that will benefit the **entire Applecross community.**

# BUILT FORM+ SCALE



## Tower

The tower is divided into a cluster of three "Jacaranda Petals", which allow the homes to be majority corner homes, with circulation spaces located at the perimeter. As shown in the setback analysis, this façade articulation also significantly reduces bulk.

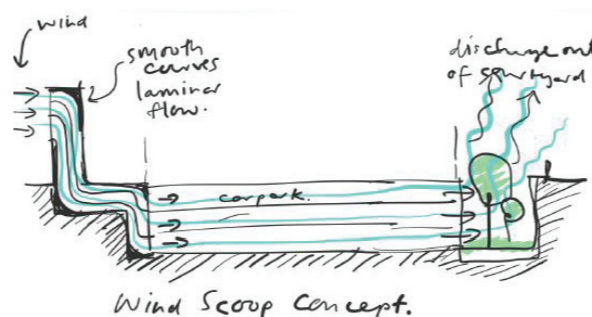
## Natural Ventilation

The separation of the built form into three petals allows for the building to be naturally ventilated. Naturally vented corridors/lobbies can have a large effect on energy use - in a study by the City of Sydney, the common areas used up to 60% of the total energy use in highrise residential towers.

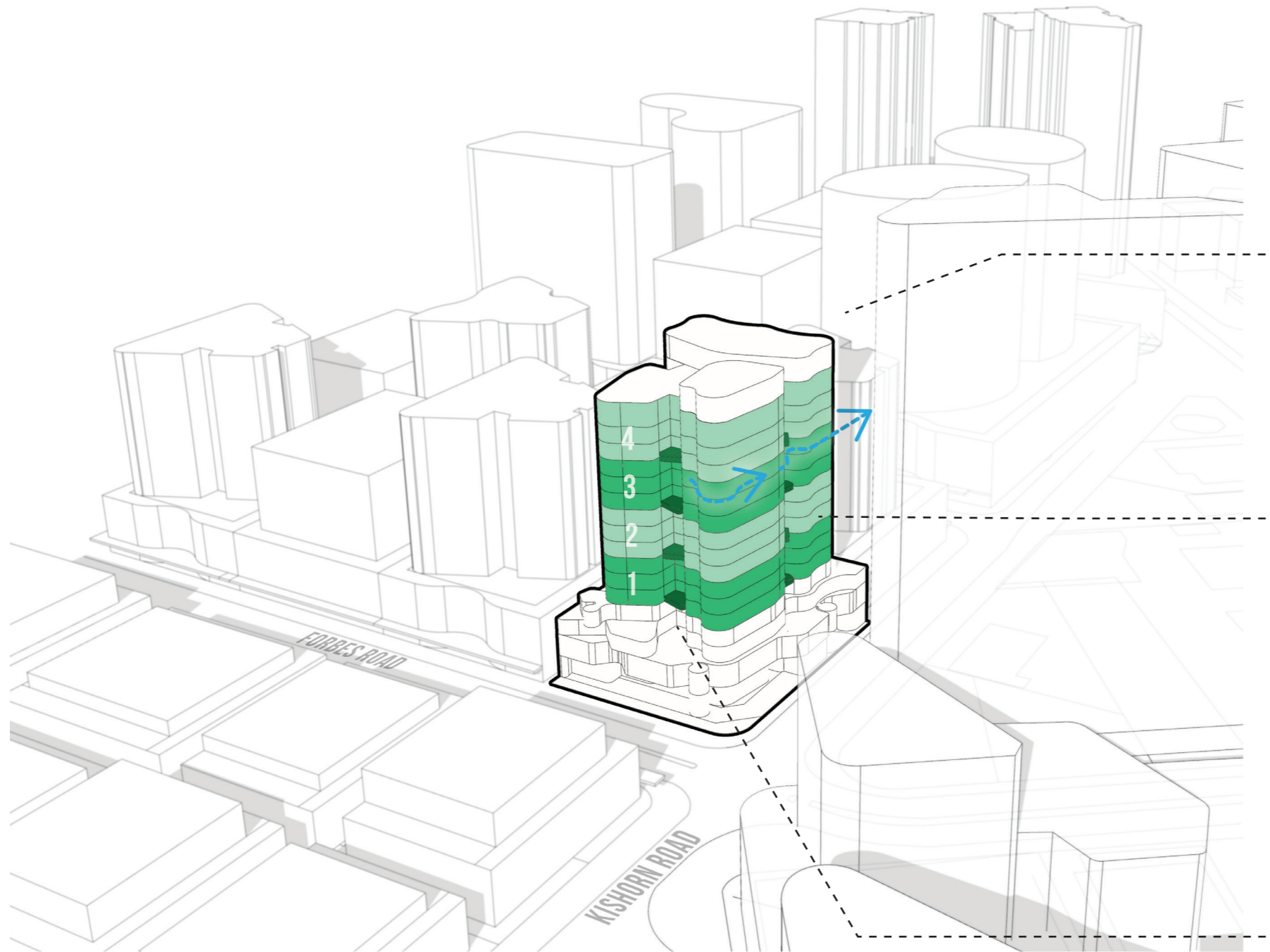
## Podium

The first three levels are expressed as a planted facade that connects the street trees to the vertical gardens, with contoured & stepped planters that both enhance the corner and allow more space to plant trees.

Below ground windscoops are used to drive fresh air into the basement parking. This will reduce the long-term energy consumption.



# BUILT FORM+ SCALE



## Rounded Aesthetic

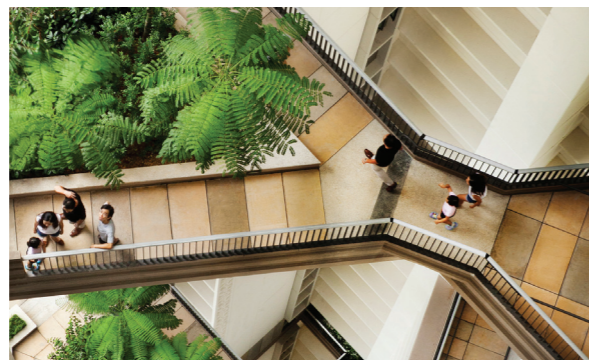
The **rounded shape** creates less turbulence and downdrafts as the **wind flows more smoothly** around the building.

## Four Vertical Neighbourhoods

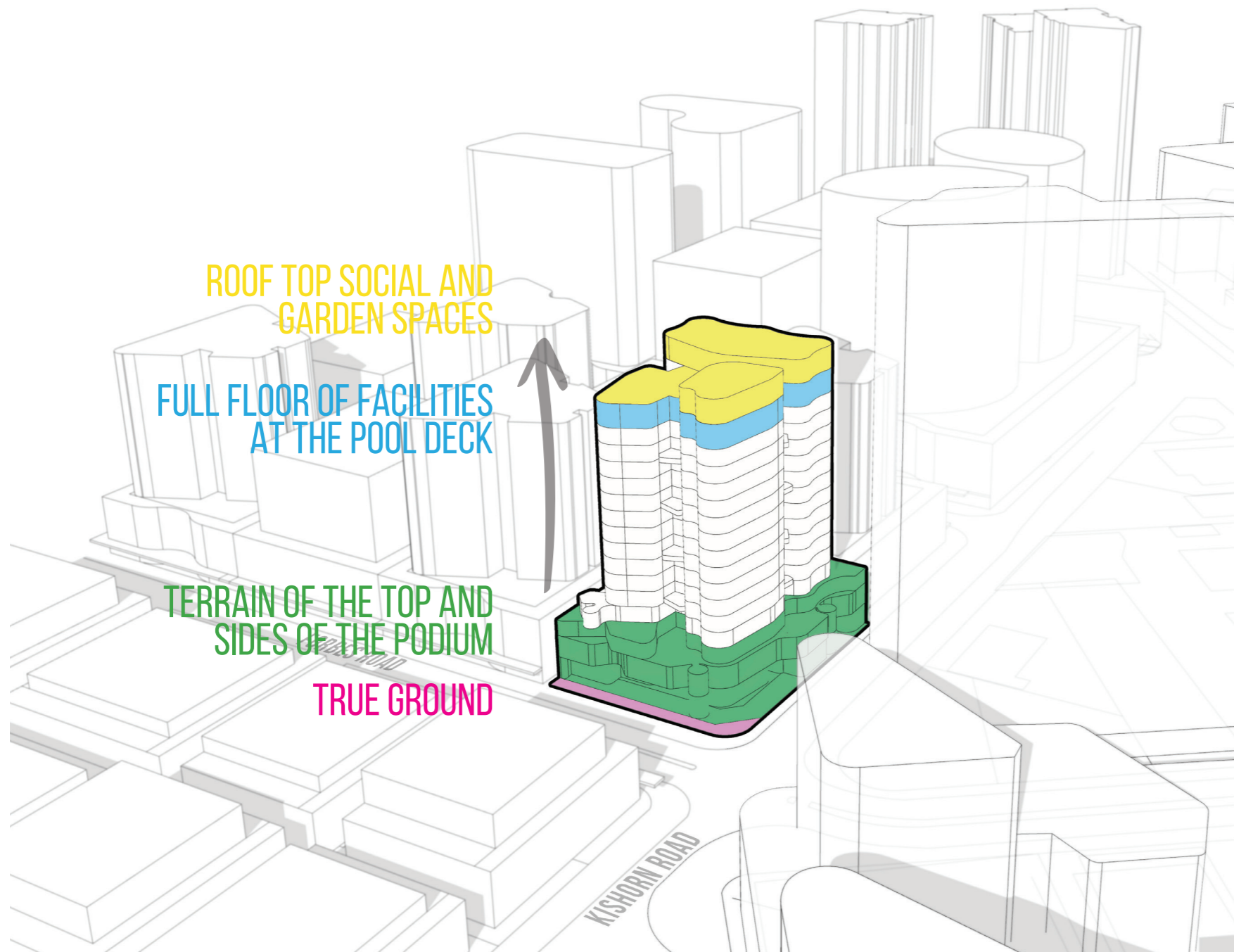
Naturally ventilated and lit lobbies which are divided into **vertical neighbourhoods**, each with their own Skygardens and character. In this development, rather than a tower of over 88 homes, it is a cluster of **4 vertical neighbourhoods**, each with 8-24 homes.

## Four Skygardens

The **skygardens** are located in recessed, protected pockets which create a more protected microclimate.



# BUILT FORM+ SCALE

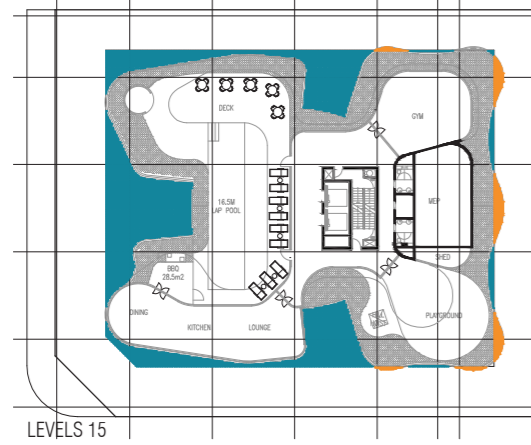


## Multiple Ground Levels

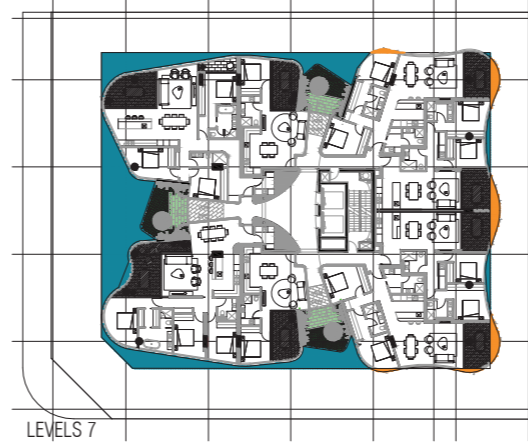
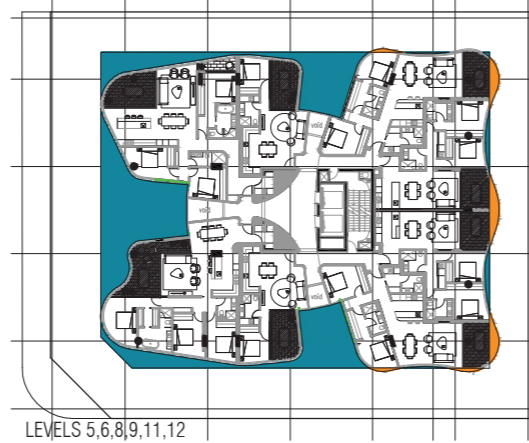
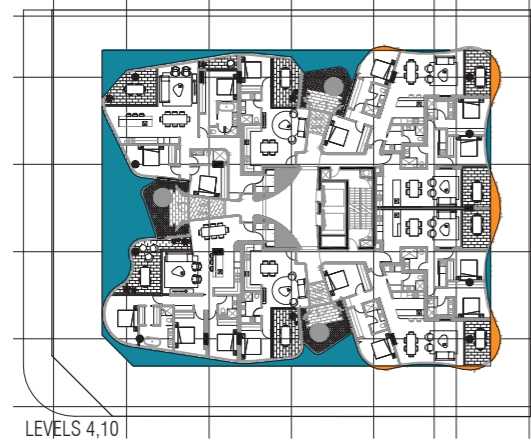
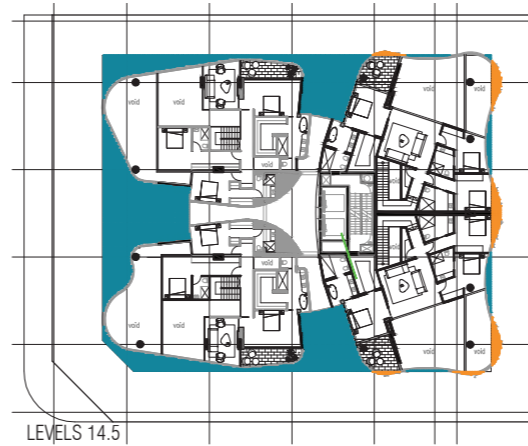
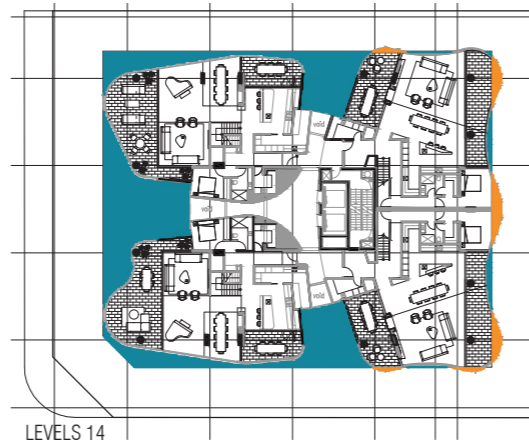
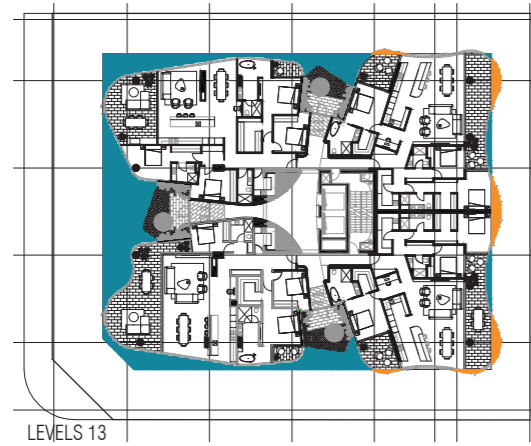
The high amenity spaces are created through a series of "ground planes" where social activities take place.



# SETBACK CALCULATIONS



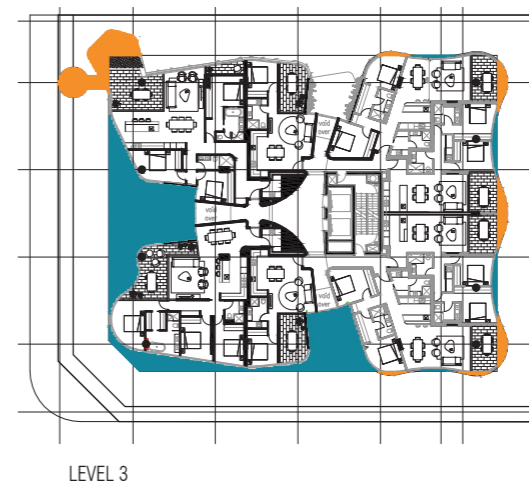
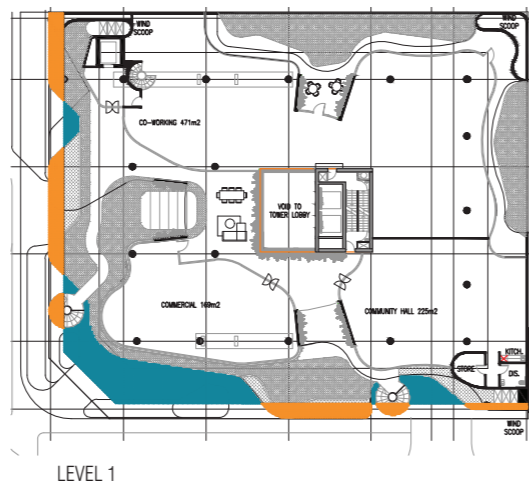
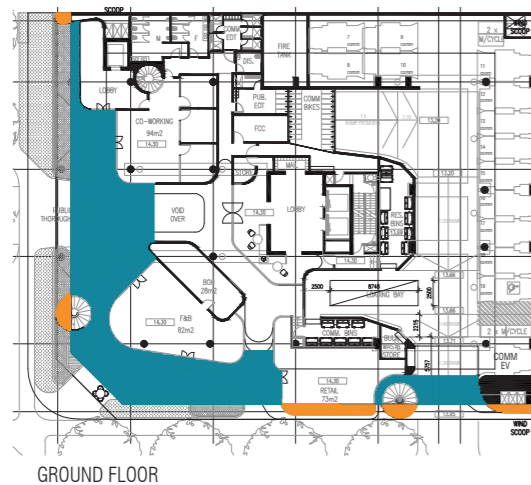
TOWER



LEVEL	increase	encroachment	AVE
ROOF			
15	178	14	164
14.5	178	14	164
14	178	14	164
13	118	14	104
12	178	14	164
11	178	14	164
10	121	14	107
9	178	14	164
8	178	14	164
7	118	14	104
6	178	14	164
5	178	14	164
4	121	14	107
3	127	36	91
2	277	15	262
1	83	55	28
G	248	24	224
<b>TOTAL</b>	<b>2815</b>	<b>312</b>	<b>2503</b>

2503m<sup>2</sup> of INCREASED SETBACK AREA

PODIUM

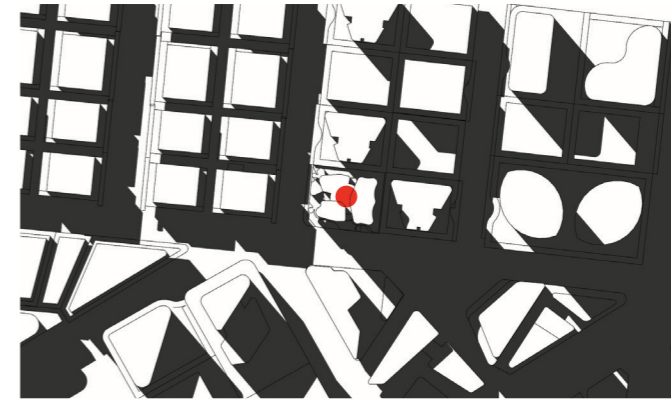
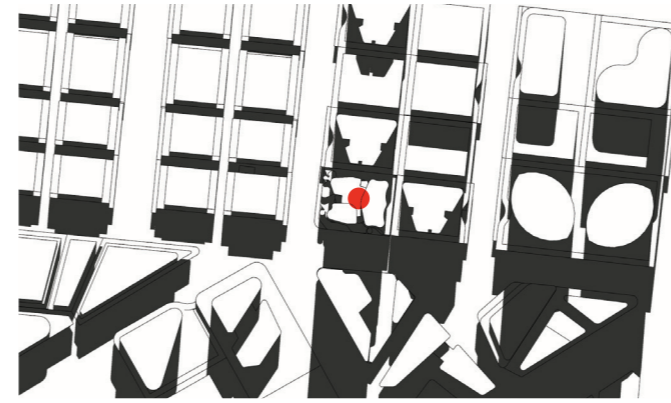
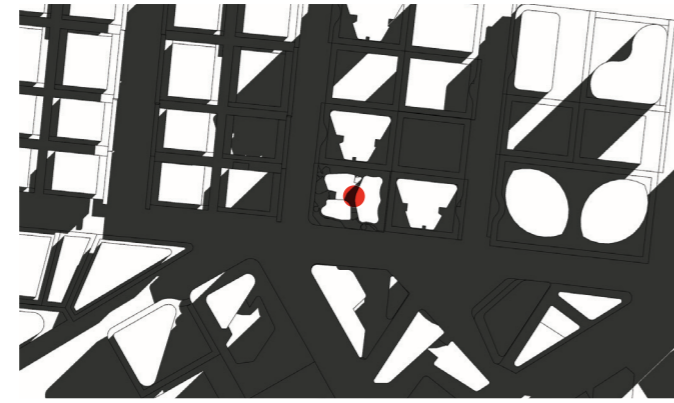


# winter

Overshadowing  
Analysis

**Forbes  
Residences**

10 Storey  
Compliant

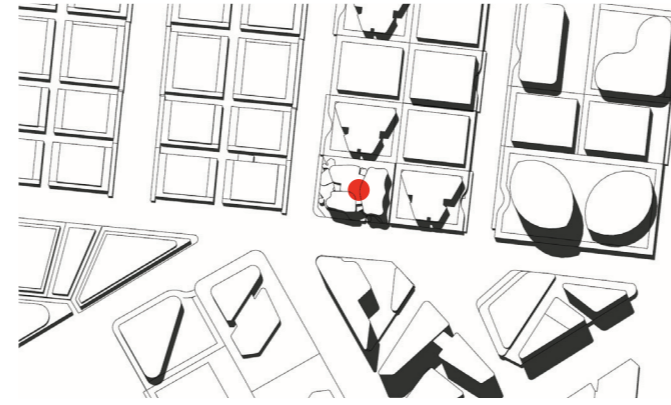
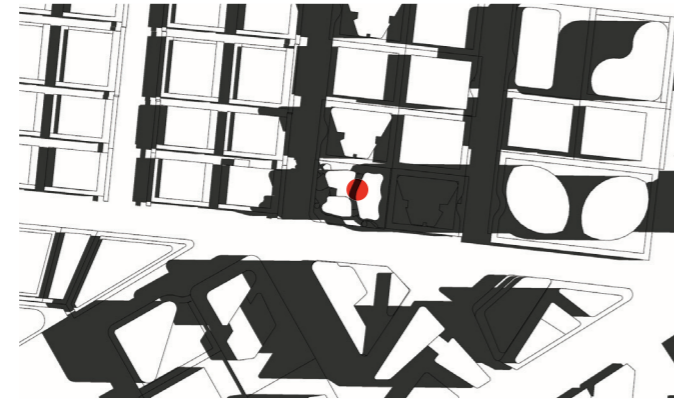


# summer

Overshadowing  
Analysis

**Forbes  
Residences**

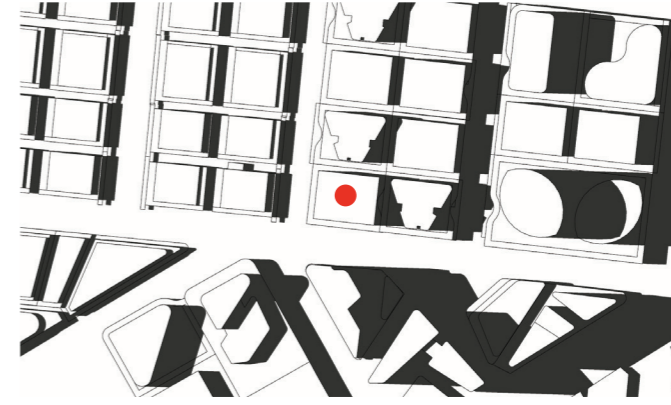
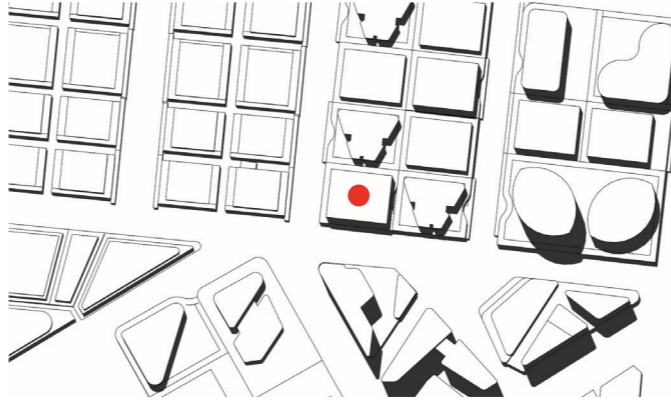
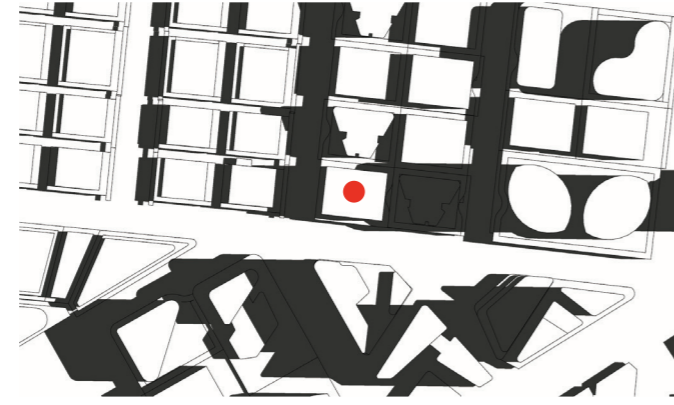
10 Storey  
Compliant



9am

12pm

3pm





## PEDESTRIAN WIND ENVIRONMENT STATEMENT

10-14 FORBES ROAD, APPLECROSS, PERTH

WE212-02F01(REV0)- WS REPORT

SEPTEMBER 23, 2019

Prepared for:

Mustera Property Group PTY

15 McCabe Street,  
North Fremantle,  
WA 6159

### WINDTECH Consultants Pty Ltd

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Sydney | Dubai | London | Melbourne | Mumbai | New York | Hong Kong | Singapore

10\_Principles

# BUILT FORM+ SCALE

## Wind Analysis

\*\* Please see DA application for full Wind Report \*\*

- + The WindTech reports states that the scheme is 'relatively exposed' to the three predominant wind directions for the Perth region - the easterly, south-west, and westerly winds
- + However **suitable wind conditions can be met** with the **implementation of wind treatments** at trafficable areas within the scheme
- + These solutions will be **developed and implemented** through design development to achieve optimal outcomes



**Street analysis\_**  
**Pedestrian & Vehicle Entrance from Kishorn Road**



**Street analysis\_**  
**Entrance from Forbes Road**



# FORBES RESIDENCES



# FORBES RESIDENCES

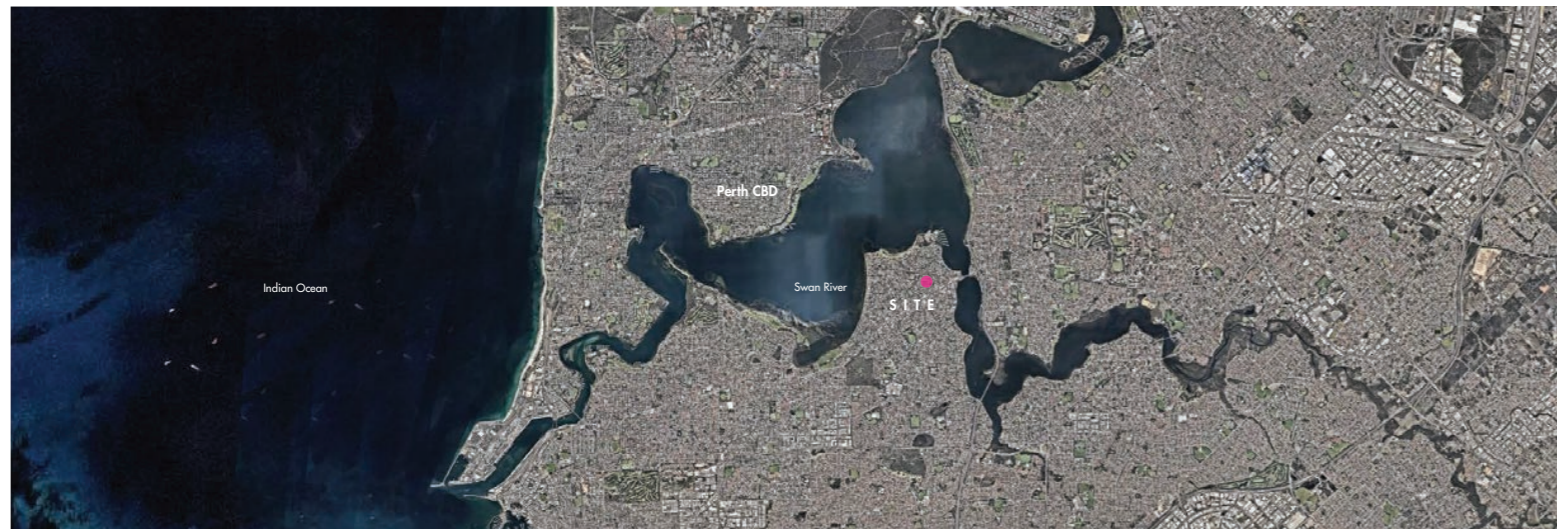
10\_Principles

# LANDSCAPE QUALITY

## Landscape Design Report

FORBES Residences  
Applecross, Western Australia

Landscape Schematic  
Revised DRP Issue - 190917



FORBES RESIDENCES  
APPLECROSS

W O H A x M J A | C A P A  
architecture | landscape  
design

Landscape architects CAPA have provided a detailed landscape strategy, with the following three key issues of concern being addressing in the following pages:

1. **Overall  
Landscape  
Strategy**
2. **Water  
Efficient  
Landscapes**
3. **Wind  
Initiatives**

These three issues will demonstrate how the landscaping in this scheme will be achieved **in the Perth climate.**

# 1. Overall Landscape Strategy

## Considered Plant Selection:

### Vertical Planting

Plant selections will be resilient clinging type affixed to the trellis structure

Linear planters placed every 1.5m in height, behind a fixed trellis system set off from the building to allow ease of maintenance access behind

### Ground & Podium Levels

resilient & low maintenance native plants selected



## Other Considerations:

Continuing input and expertise

...during design development and input by a specialised vertical softscape engineer

Final analysis

...and accompanying certification be submitted as part of the Building License Issue as a commitment to provide a system that will provide a sustained outcome

**The project's team approach is to include the right expertise, appropriate system, evaluate proven examples of installed examples that have thrived over a reasonable period of time in Perth.**

# 2. Water Efficient Landscapes



## A four tiered strategy:

### 1. Plant selections (low water requirement)

- + In principle, the majority of the softscape ground planting selections are endemic and **have a low water requirement**
- + The scheme will also include some feature exotics; offering **flowering, deciduous trees** and shade qualities

### 2. Reduced evaporation losses

- + The majority of plantings are located in **raised planters** reducing water evaporation loss
- + Gravel mulching selected for wind will also provide a **blanket layer** for reducing water evaporation
- + Irrigation is provided **below the mulch layer** which offers greatly improved efficiency

### 3. Efficient water supply

- + All plantings will be irrigated via efficient **inline drip irrigation system** which will cater for water mains and recycled water supply
- + Where achievable, the plantings will be **hydro-zoned** according to water requirements, allowing the reticulation to the endemic plantings to be **separately controlled and greatly reduced** following their establishment period

### 4. Water recycling

- + The project will also include infrastructure and provision for a significant capacity for **re-using water for irrigation**, consistent with WA Health Department guidelines for multi-residential developments and use
- + **A grey water recycling system** has been appropriately sized for a maximum of 5000L per day, that will collect water from Short Stay Accommodations shower and handbasins and EoT shower facilities. The ozone treated water will be dispelled via the dripline

# 3. Wind Initiatives



## Skygardens

Landscaping elements benefit from the recessed design of the Skygardens

Skygarden trees will be permanently guyed with vertically tensioned wiring supports and collars and a trunk anchoring system

Smaller trees to the podium areas will be guyed with stainless tripod arrangement

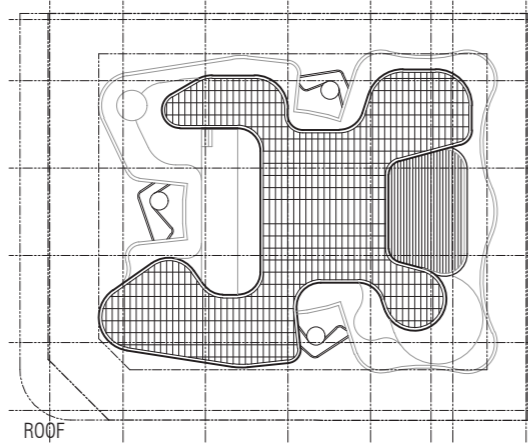
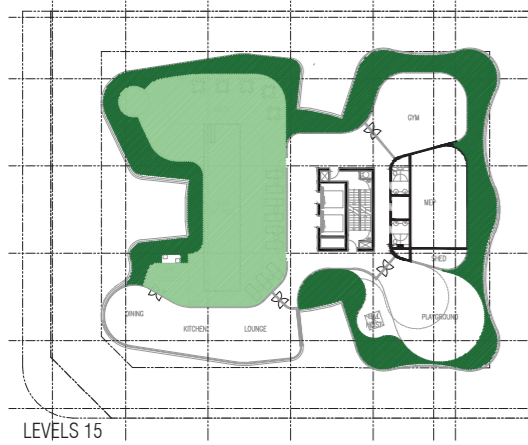
## Vertical Trellis'

Vertical trellis elements will require considered planting selection to optimise solar access and wind protection

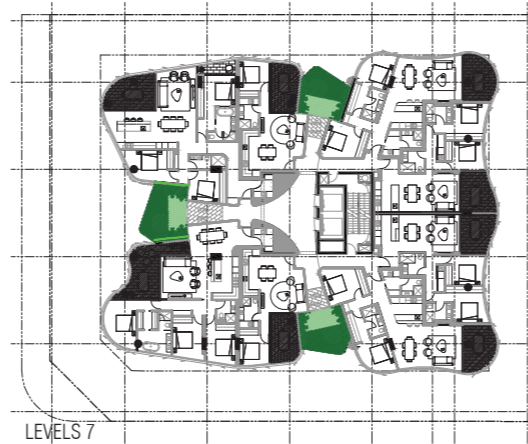
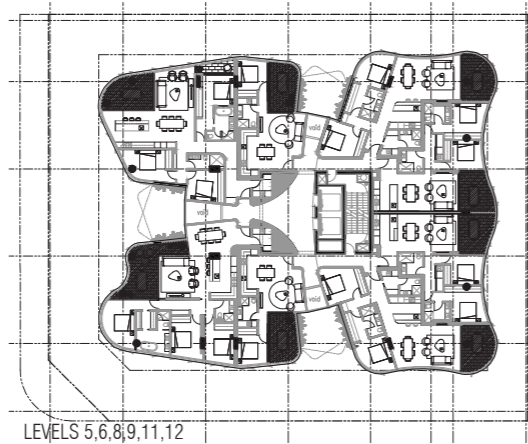
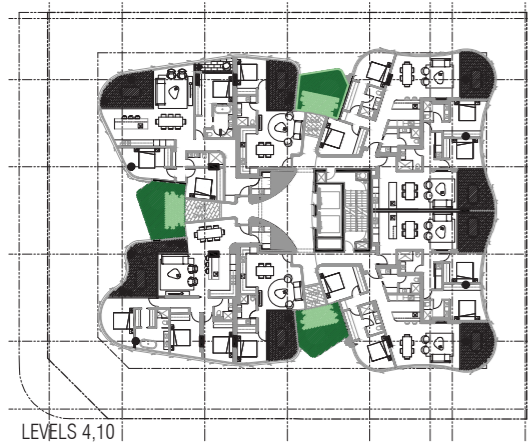
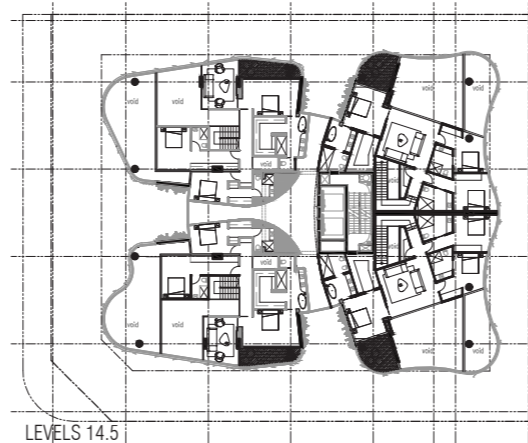
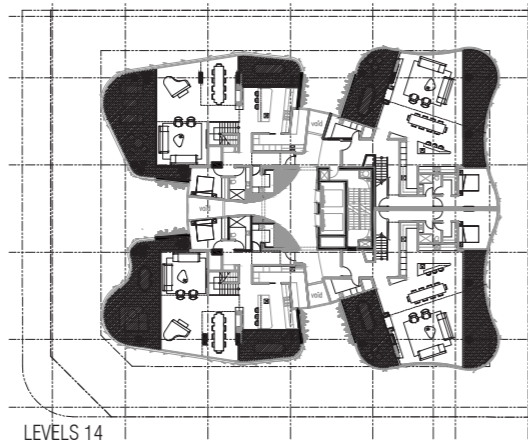
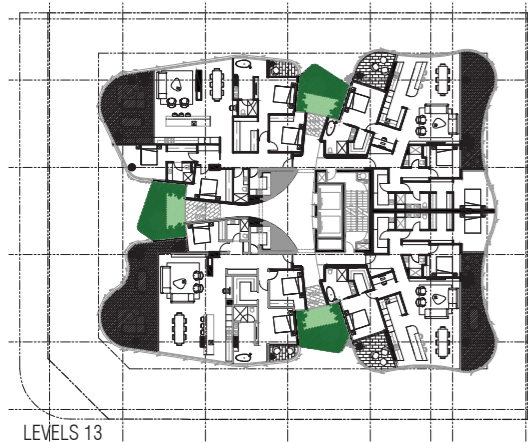
Each of these trellis arrangements will be tested during design development

# LANDSCAPE CALCULATIONS

TOWER



- LANDSCAPE AREA
- PLANTING ON STRUCTURE
- DEEP SOIL
- BALCONIES > 12M2



## BALCONIES > 12M2

LEVEL	AREA (m <sup>2</sup> )
ROOF	-
15	-
14.5	39
14	-
13	130
12	108
11	108
10	108
9	108
8	108
7	108
6	108
5	108
4	108
3	123
2	-
1	-
G	-
<b>TOTAL</b>	<b>1264</b>

**TOTAL BALCONY OVER 12M2 AREA**  
= 1264m<sup>2</sup>

## VERTICAL LANDSCAPE AREAS

LEVEL	PLANTING ON STRUCTURE (m <sup>2</sup> )
North	307
West	330
South	307
<b>TOTAL</b>	<b>944</b>

**TOTAL VERTICAL LANDSCAPE AREA**  
= 944m<sup>2</sup>

## CBACP REQUIREMENTS

(BALC + VERT + HORIZ) / SITE AREA  
 = (1264m<sup>2</sup> + 944m<sup>2</sup> + 1899.96m<sup>2</sup>) / 2023m<sup>2</sup>  
 = 4107.96 / 2023  
 = 2.03  
**203% OF THE MINIMUM REQUIRED IN THE CBACP (Clause 10.3)**

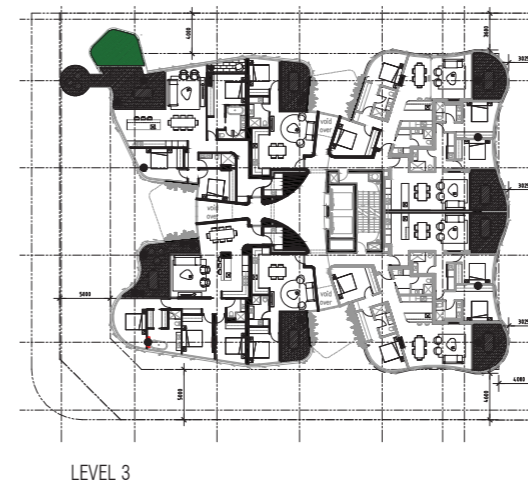
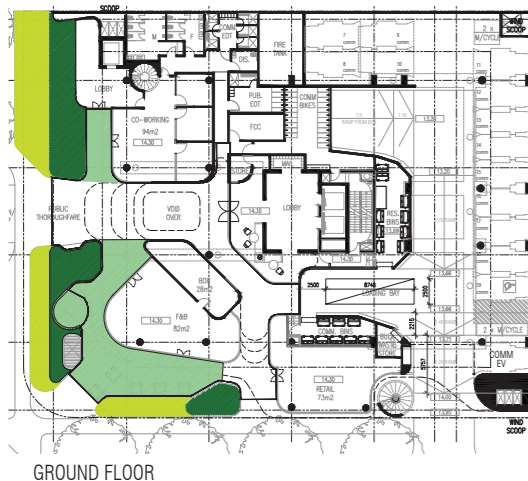
## WAPC APARTMENT DESIGN POLICY REQUIREMENTS

(HORIZ.PLANTING ON STRUCT + DEEP SOIL) / SITE AREA  
 = (1126.06m<sup>2</sup> + 91.01m<sup>2</sup>) / 2023m<sup>2</sup>  
 = 1217.07 / 2023  
 = 0.60 OR 60%  
**40% MORE THAN THE MINIMUM REQUIRED 20% IN THE WAPC (Clause 3.4.1)**

## GREEN PLOT RATIO CALCULATION

(HORIZ.PLANTING ON STRUCT + DEEP SOIL + VERT LANDSC) / SITE AREA  
 = (1126.06m<sup>2</sup> + 91.01m<sup>2</sup> + 944m<sup>2</sup>) / 2023m<sup>2</sup>  
 = 2161.07 / 2023  
 = 1.07 OR 107%  
**107% GREEN PLOT RATIO**

PODIUM

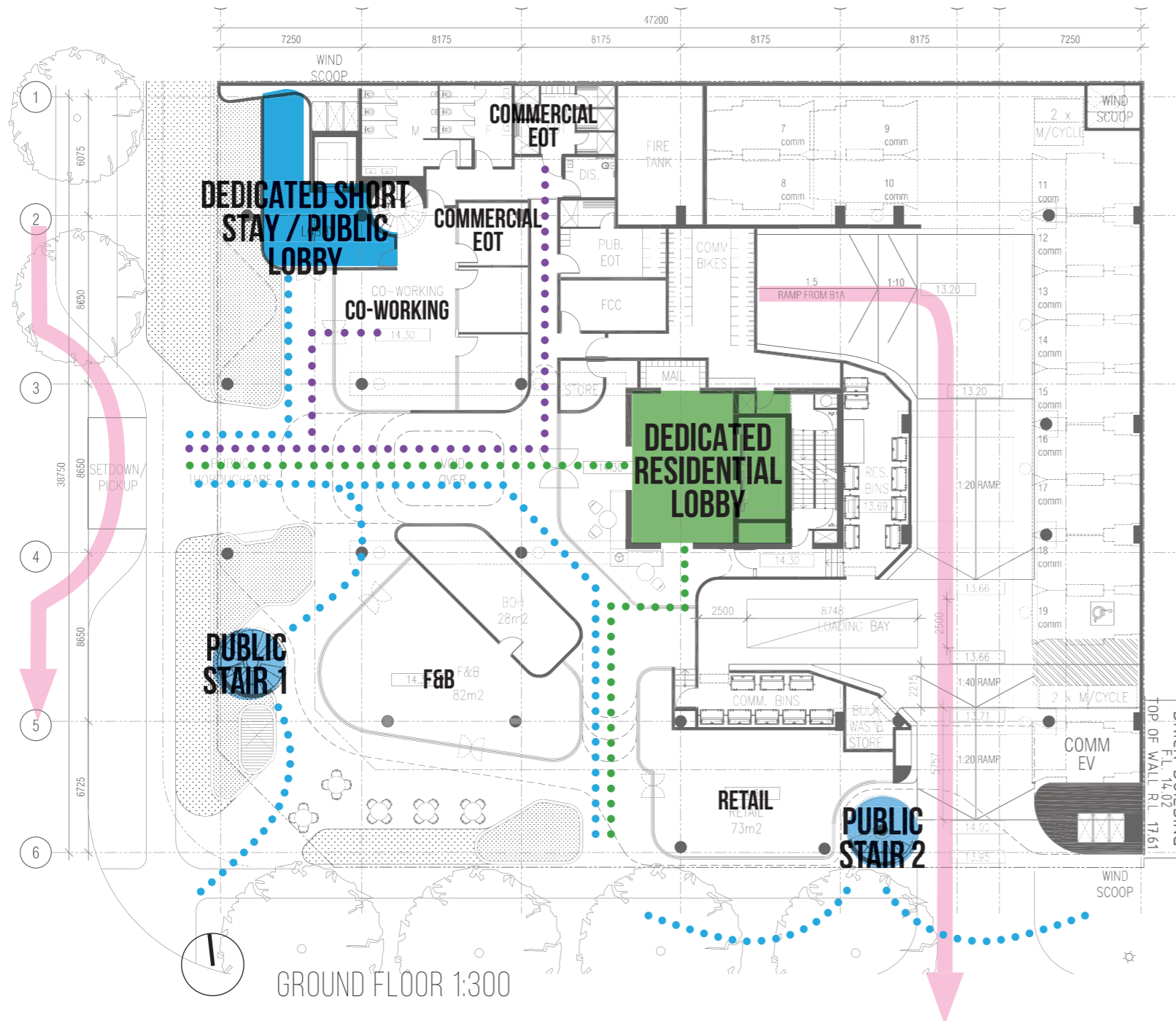


## HORIZONTAL LANDSCAPE AREAS

LEVEL	LANDSCAPED ZONES (m <sup>2</sup> )	PLANTING ON STRUCTURE (m <sup>2</sup> )	DEEP SOIL (m <sup>2</sup> )	TOTAL LANDSCAPE AREA/LEVEL (m <sup>2</sup> )
15	255	235	-	490
14	-	42.41	-	42.41
13	16.74	42.43	-	59.17
7	16.74	42.43	-	59.17
5-6, 8-9, 11-12	-	-	-	0
4 & 10	33.48	85.2	-	118.68
3	-	14.4	-	14.4
2	39.46	237.7	-	277.16
1	199.47	340.7	-	540.17
G	122	85.79	91.01	298.8
<b>TOTAL</b>	<b>682.89</b>	<b>1126.06</b>	<b>91.01</b>	<b>1899.96</b>





**TOTAL HORIZONTAL LANDSCAPE AREA**  
= 1899.96m<sup>2</sup>

# FUNCTIONALITY+ BUILD QUALITY

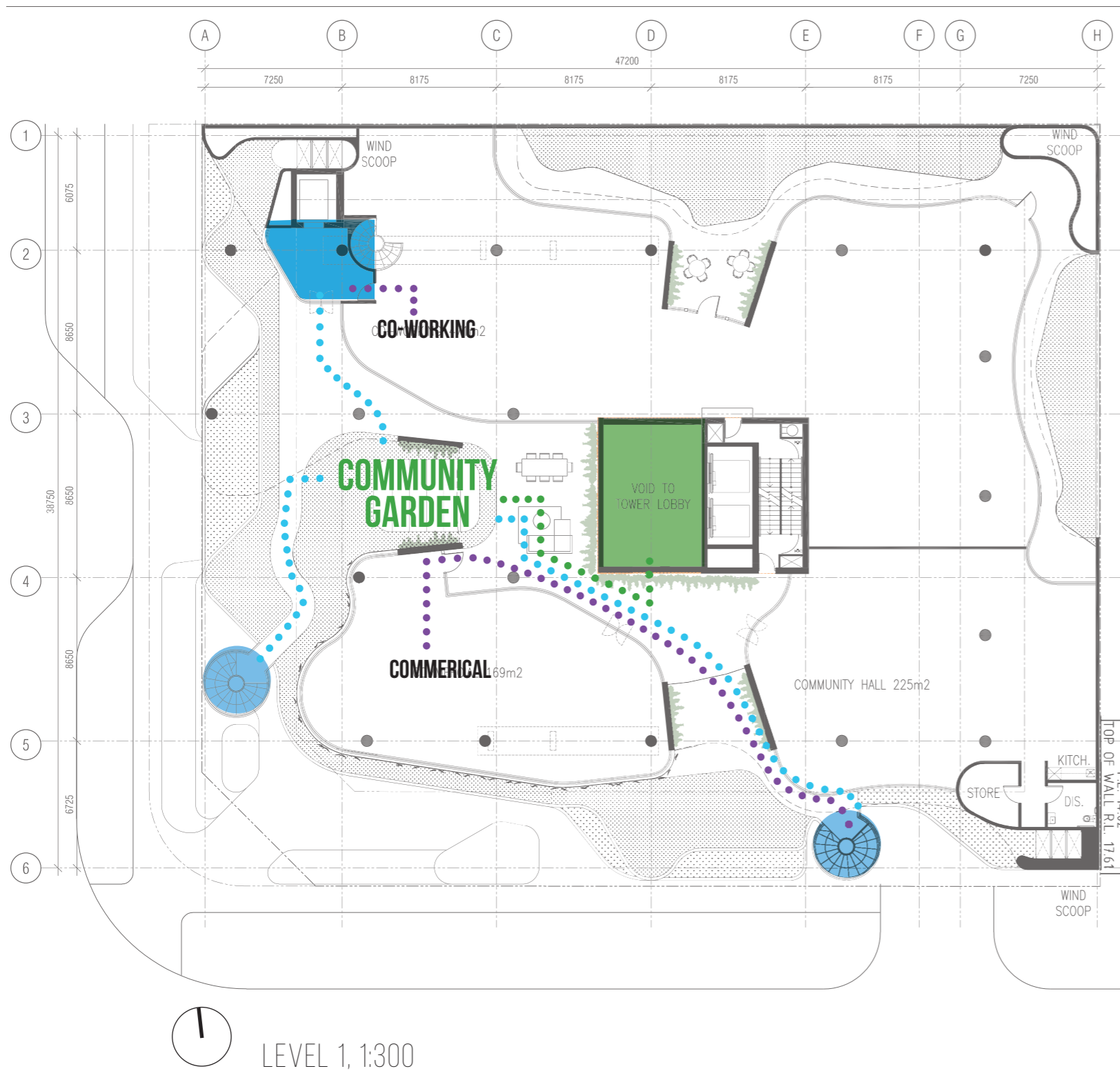


## A Highly Functional Ground Floor..

- + The streetscape interface balances, **SHORT STAY**, **COMMERCIAL**, **RESIDENTIAL** and **PUBLIC** access requirements
- + Well considered plan facilitates pedestrian flow across site
- + Vehicle access is separated, reducing potential conflict (drop-offs via Forbes Road and residential and short stay parking entrance via Kishorn Road)
- + Separate, dedicated entry lobbies separates private residential from short stay / public access
- + Universally accessible ground floor, no ramps required

-  Commercial
-  Residential
-  Public & Short Stay
-  Vehicle

# FUNCTIONALITY+ BUILD QUALITY



## ...Leading to a Highly Communal Level 1

- + Pedestrian friendly access to Level 1 amenities
- + Attractive public garden space and terrace
- + Productive co-working environment
- + Multiple passive surveillance points for heightened security

- Commercial
- Residential
- Public



TW18073 – Forbes Residences

23 September 2019

City of Melville  
Locked Bag 1  
BOORAGOON WA 6954



1300 251 070  
Level 1, 604 Newcastle St  
Leederville WA 6007  
PO Box 454  
Leederville WA 6903  
info@taliconsultants.com.au  
www.taliconsultants.com.au

Dear Sir/Madam

**Forbes Residences, 10-14 Forbes Road & 40A,B,C Kishorn Road, Applecross**

We understand that the key changes from the previous submission are the following architectural changes:

- Typical Floor plate increased from 1047m<sup>2</sup> to 1096 m<sup>2</sup>. An increase of 49m<sup>2</sup>;
- Typical floor plate increased from 7 apartments to 8 apartments;
- Apartments reduced from 97 to 88;
- Lifts reduced from 3 to 2;
- Core redesigned to accommodate the Bin Chute within;
- Bin chute in now discretely located with access through the core;
- Discharge point in the bin room has been moved south;
- Short stay increased from 15 to 16 units;
- Commercial Area increased in area to 889m<sup>2</sup>;
- Community Hall increased in size from 188m<sup>2</sup> to 225m<sup>2</sup>;
- Residential Parking reduced from 135 to 123 bays;
- Commercial parking increased from 17 to 19 bays. This in a response to additional commercial floor area created;
- EV charging points increased from 1 to 2. One located in residential parking area and other in the commercial parking zone;
- Commercial bike parking has increased;
- End of trip showers for commercial has increased;
- Building height has been reduced by 5 storeys equating to 17.1m;
- Amenity level has been moved to the roof; and
- Landscaped area changes.

We confirm that the Waste Management Plan initiatives can still be achieved in line with the report that was originally submitted.

If you require any further information, please do not hesitate to contact the undersigned.

Yours sincerely

Jennifer Wroe  
Waste Management Consultant  
**TALIS CONSULTANTS**  
D 6557 5221  
E: [jennifer.wroe@taliconsultants.com.au](mailto:jennifer.wroe@taliconsultants.com.au)

10\_Principles

# FUNCTIONALITY+ BUILD QUALITY

## Waste Management Plan

\* \* Please see DA Application for full WMP \* \*

### Conclusions:

According to the Talis report the proposal provides **a sufficiently large Bin Storage Area**

...for collection and storage of refuse and recyclables based on the anticipated waste generation rates and a suitable configuration of receptacles

The above is achieved using:

#### Residential Waste

- + Five 660L refuse receptacles, collected by the City three times each week; and
- + Three 660L recyclables receptacles, collected by the City three times each week

#### Commercial Waste

- + Four 660L refuse receptacles, collected by the City three times each week; and
- + Two 660L recyclables receptacles, collected by the City three times each week



61 York Street  
 Subiaco WA 6008  
 P.O.Box 42 Subiaco WA 6904  
 Phone: +61 (08) 9382 4199  
 Fax: +61 (08) 9382 4177  
 Email: admin@transcore.net.au

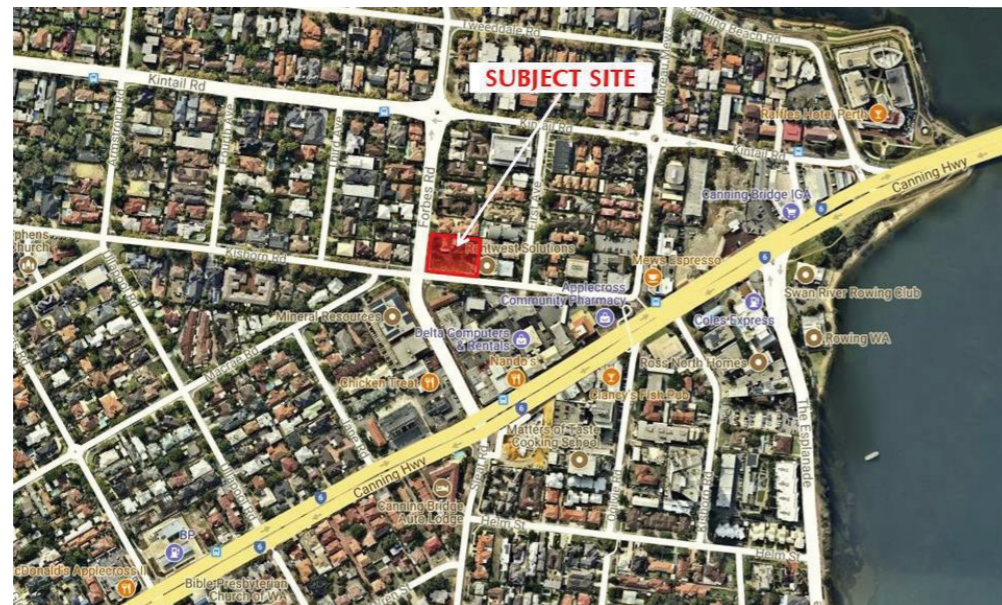


transport planning • traffic engineering • transport modelling  
 TRANSCORE PTY LTD ACN 094 951 318 ABN 19 094 951 318

Technical Note: No. 1a Date: 12/09/2019  
 Project No: t18.004  
 Project: **PROPOSED MIXED USE DEVELOPMENT LOTS 10-14 FORBES ROAD & 40A, B & C KISHORN ROAD, APPLECROSS**  
 Subject: **PROPOSED LAND USE MODIFICATIONS**

**INTRODUCTION**

In February 2019 Transcore prepared a Transport Impact Statement report (hereafter TIS 2019) for the proposed mixed-use development at Lots 10-14 Forbes Road and 40A, B & C Kishorn Road in Applecross, in the City of Melville. The subject site is located at the northeast corner of Forbes Road/Kishorn Road/Sleat Road intersection approximately 165m north of the Sleat Road/Canning Highway intersection as shown in in **Figure 1**.



**Figure 1: Location of the subject site**

# FUNCTIONALITY+ BUILD QUALITY

## Transport Impact Statement

\*\*Please see DA Application for full TIS\*\*

### Conclusions:

"...it is concluded that **the traffic generation of the proposed new development is reduced when compared to the original proposal.**

As a result, the results of impact assessment of the previous scheme on the local road network, discussed in TIS 2019 report, including the outcome of the Forbes Road/Kishorn Road/Sleat Road capacity assessment (i.e. SIDRA assessment specifically requested by the City's technical department), is still current and valid, albeit conservative.."



10\_Principles

# SUSTAINABILITY

## Beyond Five Star Greenstar

### UNIQUE TO PERTH, PASSIVE HIGHRISE

We are committed to a minimum 5 star greenstar rating but what we want to do is take on some of the some critical aspects of energy use which fall through the cracks of rating tools.

Communal lobby areas in towers often don't have access to light and are rarely naturally vented so significant energy is wasted heating them in summer in the early morning and cooling in winter in the late afternoon to maintain 23.5° climate control. City of Sydney research has found that 60% of energy use is in common areas.

This proposal allows three points of daylight to the floorplate as well as three points of venting via mechanically operated louvres which will remain open unless in fire mode.

The floorplate's unique shape also maximises external wall surface and potential for daylighting to apartments, thus reducing the need for artificial lighting during the day for the residents.



# 10\_Principles SUSTAINABILITY

## An Integrated Landscape

As mentioned previously, we are **OVER+ABOVE** green plot ratio with **107%** of site area allocated to planting.

If you relate this to the requirements of the CBACP we are:

**203%**  
of the minimum  
landscaping required in  
**CLAUSE 10.3**

*(total planting) (site area)*  
4107.96 / 2023  
= 2.03  
OR 203% of the minimum 100% of  
site area required in Clause 10.3  
of the CBACP

**We want to change the public perception that buildings destroy nature. We want people to see buildings that **integrate, restore and expand** the natural environment.**



## 10\_Principles **AMENITY**

### **Comfortable, Engaging spaces**

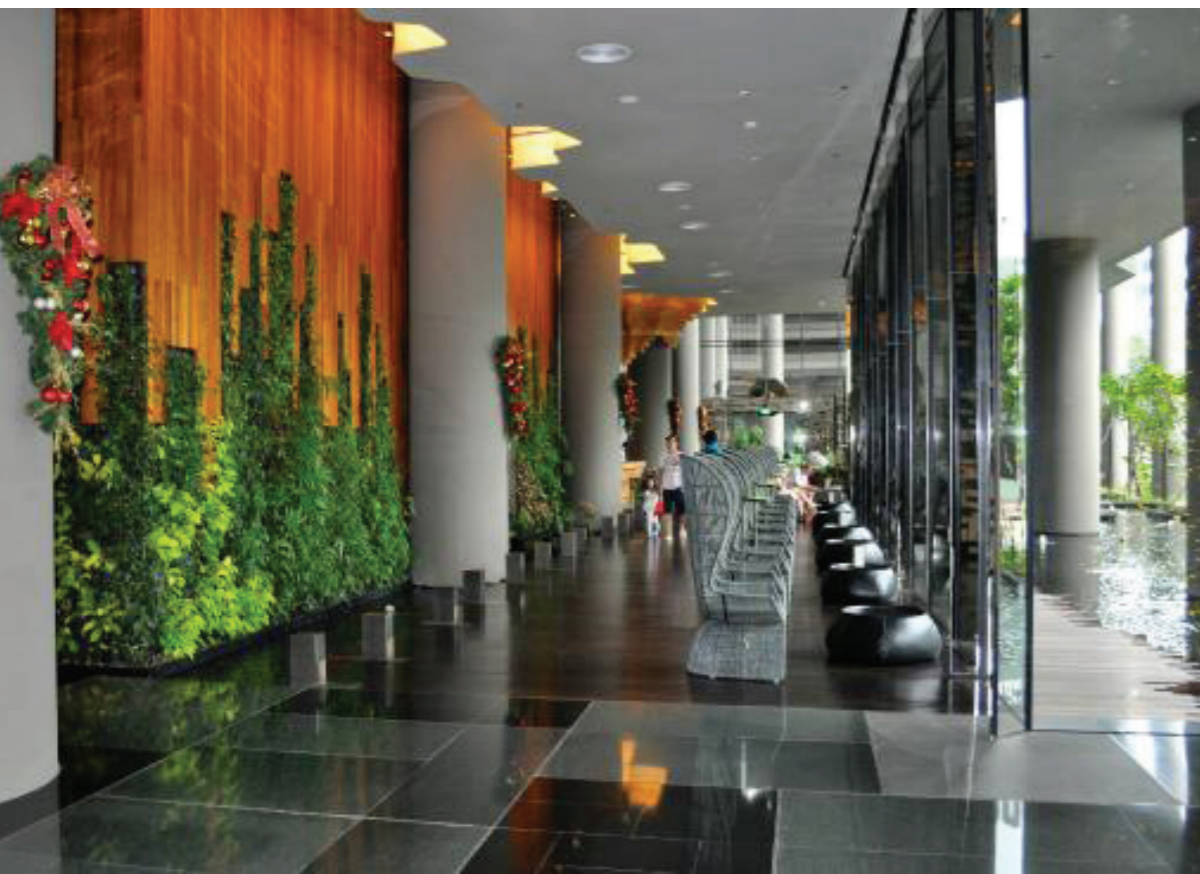
- + Unique floorplate shape allows for three points of venting via mechanically operated louvres
- + Unique floorplate shape maximises external wall surface and daylight to apartments
- + Four Skygardens shared over multiple levels each provide community gardens and greenery
- + Dual aspect apartments
- + Large terraces open directly from indoor living areas
- + Visual privacy enforced throughout, with no cross-views between apartments
- + High quality fixtures and fitting to reduce ongoing costs
- + Communal facilities provide areas for larger gatherings
- + Full height glazing



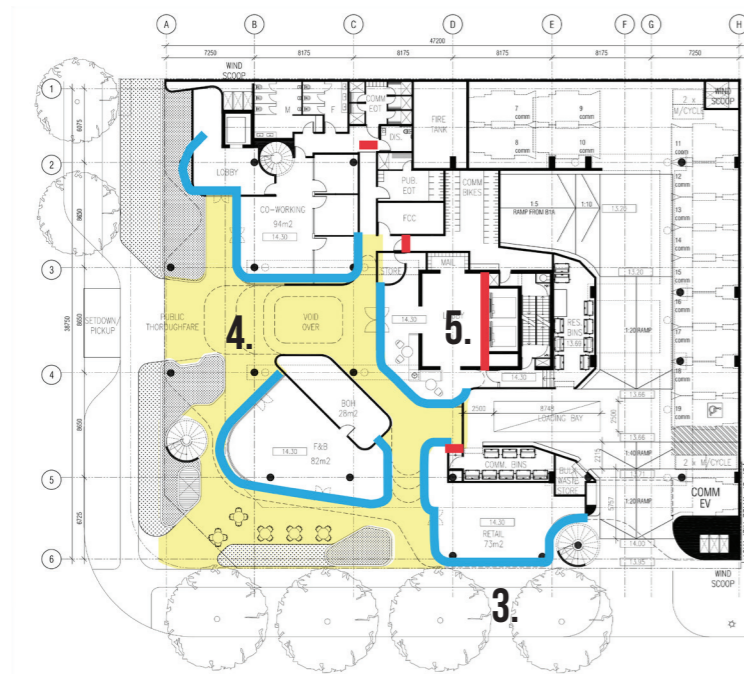
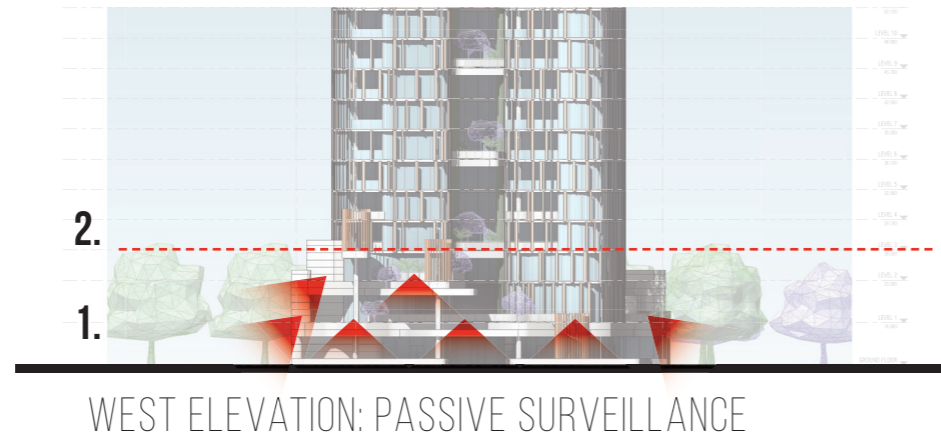
## 10\_Principles **LEGIBILITY**

### **Effective Communication**

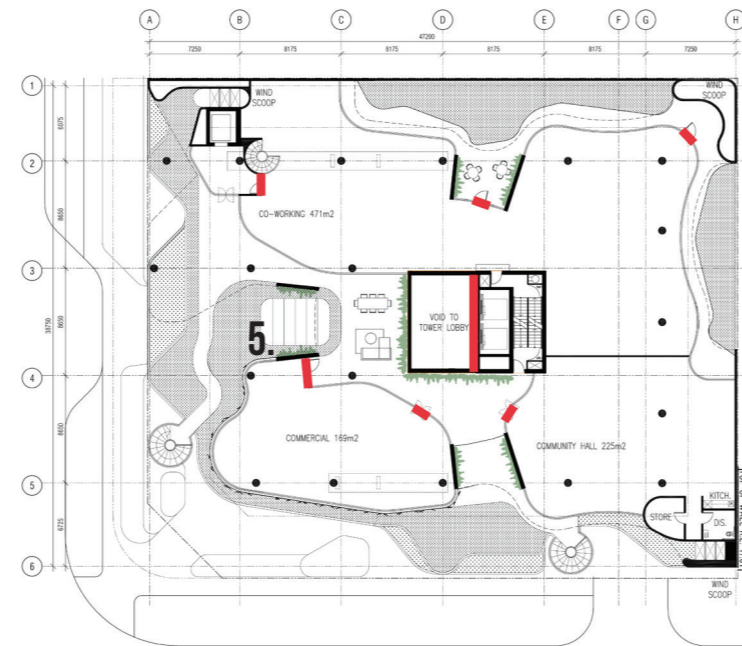
- + Clear separation of residential, short stay, and commercial entries
- + Opportunities for integrated signage within built form
- + Sight lines considered at pedestrian & vehicle entries
- + Open core facilitates wayfinding on apartment levels



# 10\_Principles SAFETY



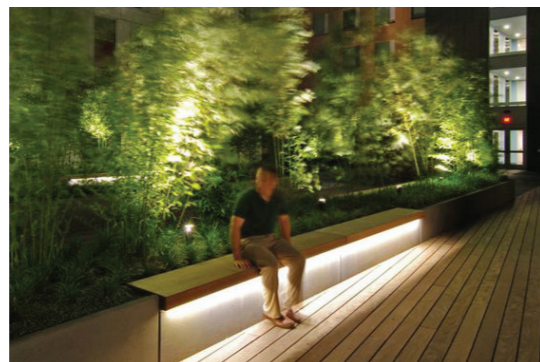
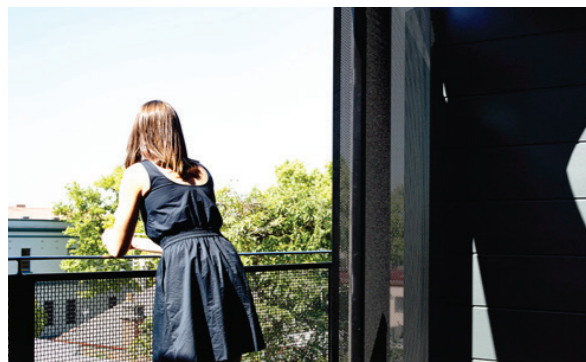
🕒 GROUND FLOOR



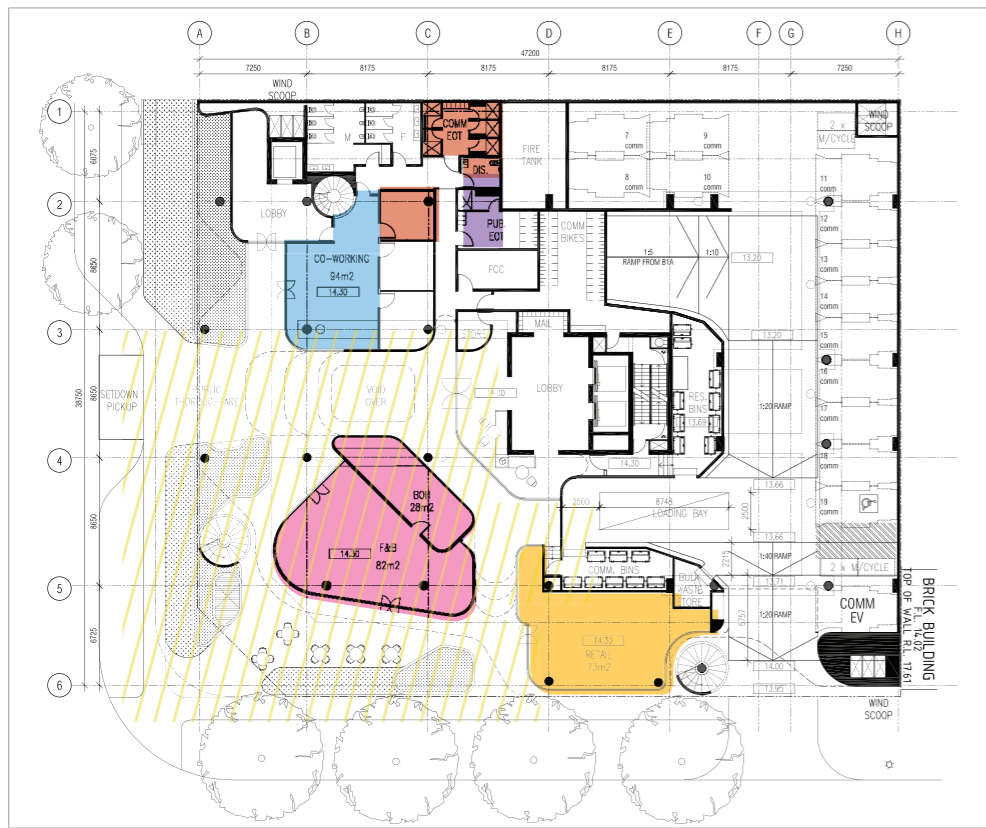
🕒 LEVEL 1

## Safe & Secure

1. Strong passive surveillance from podium levels
2. Residences and Short Stay apartments buffered from ground floor by two storeys
3. Commercial frontages maximise glazing to street
4. Well lit and active ground floor
5. Secured entrances with no entrapment spaces



# PUBLIC COMMUNITY

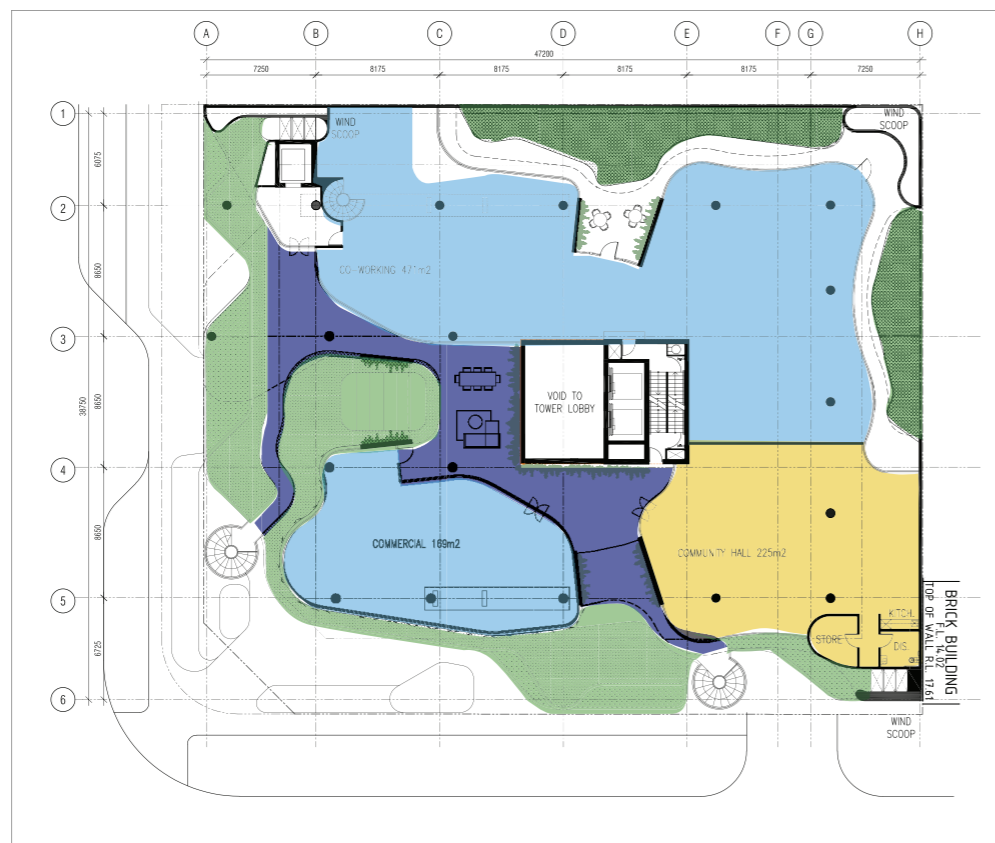


- Commercial Co-Working
- Commercial EOT
- Public EOT
- Food & Beverage
- Retail
- Verandah Garden improves pedestrian environment

GROUND FLOOR

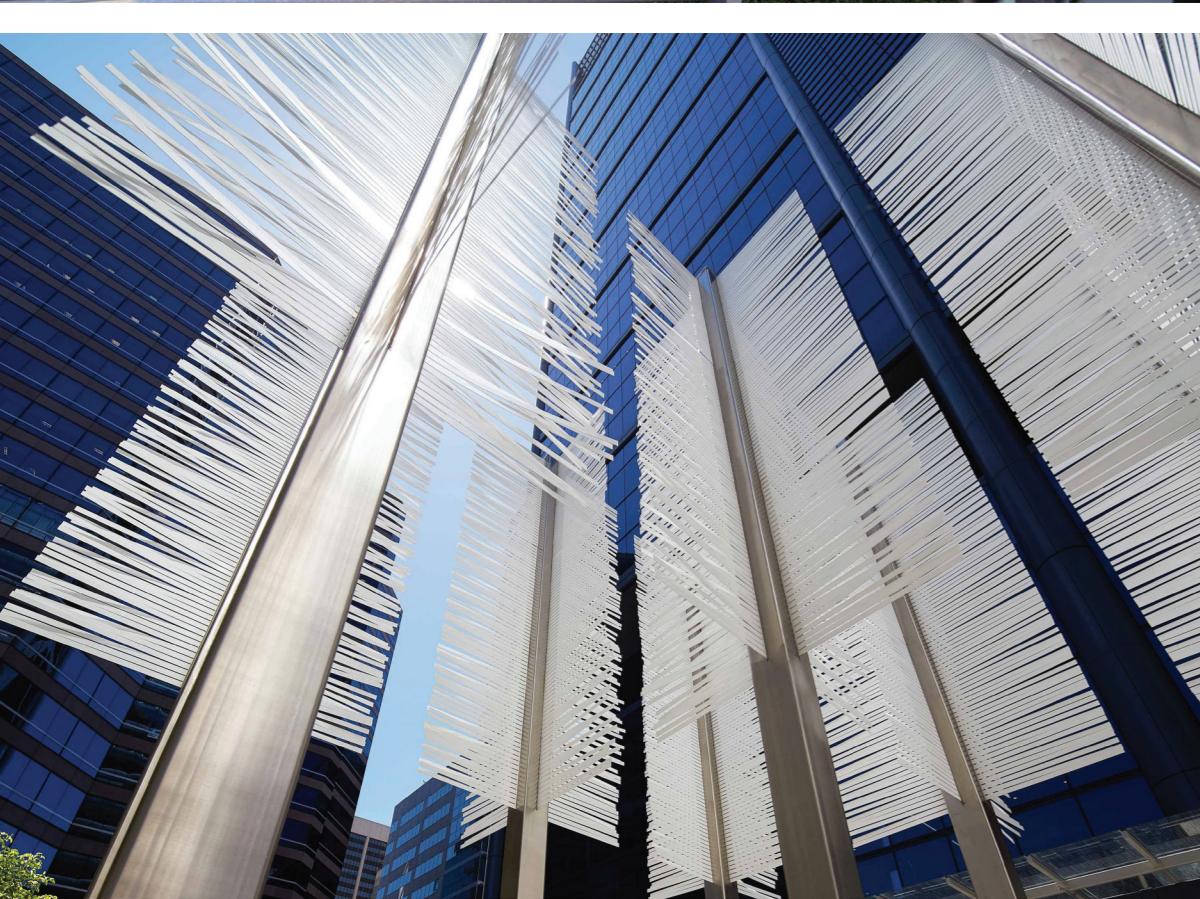
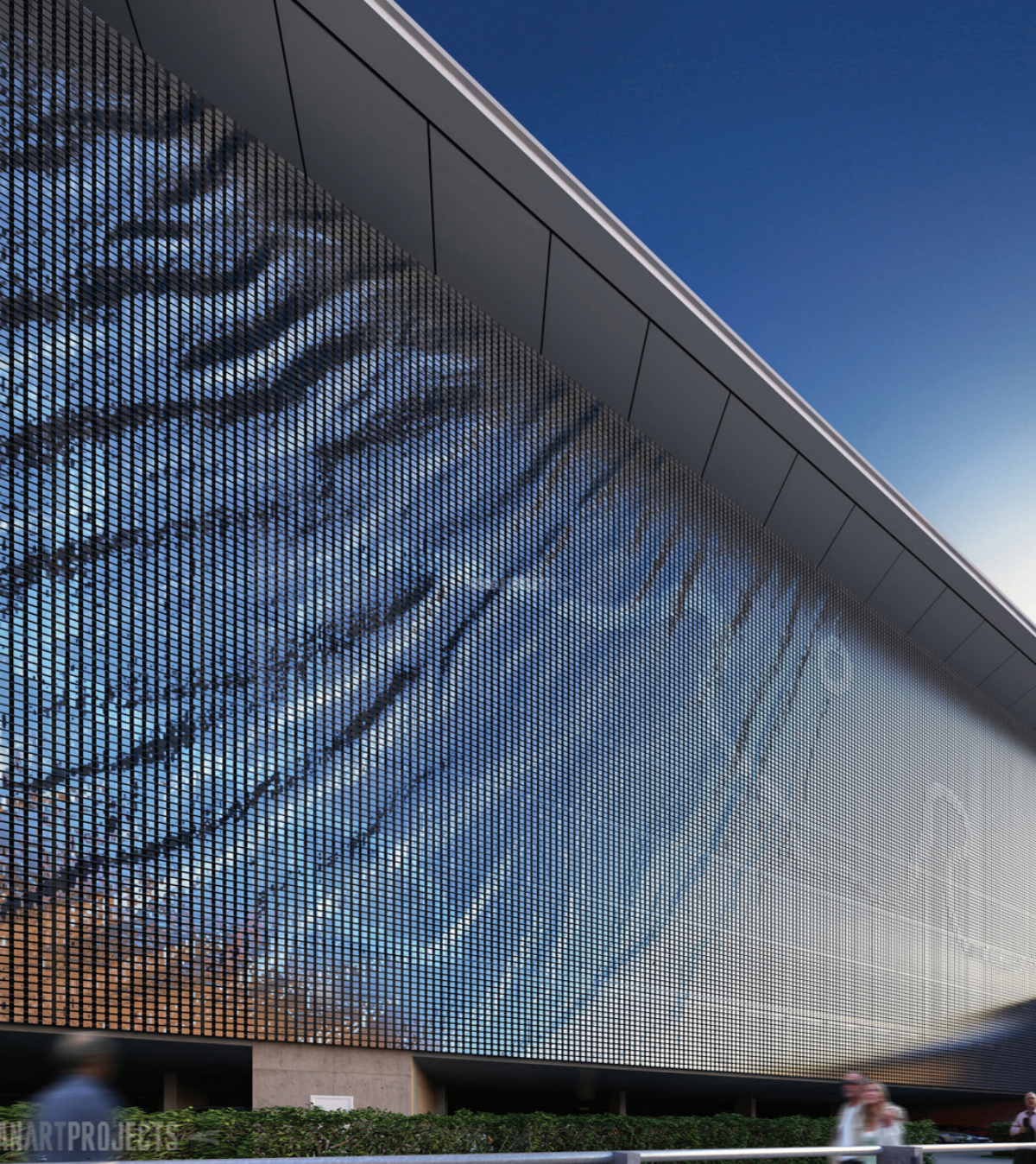
## Ground Floor & Level 1

- + Ground floor Verandah Garden creates better pedestrian environment
- + Active commercial tenancies create a safer environment
- + Co-working space enables flexible working arrangements
- + Public gardens encourage community engagement



- Commercial / Co-Working
- Public Community Garden
- Public Community Terrace
- Public Community Hall

LEVEL 1



10\_Principles

# PUBLIC COMMUNITY

## Inspiring Public Artwork

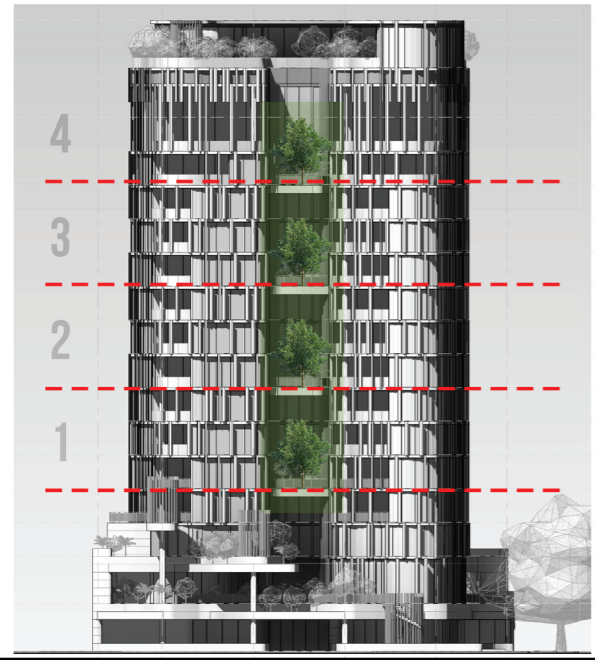
With the emphasis on natural systems and sustainability, an artwork that makes visible the processes in the building is desired.

Some options include kinetic sculptures as part of the wind scoops that show the wind.

We believe the best location for public art is for it to clad the SW corner of the podium above the F&B. The rippling surface would be animated by the prevailing wind and create endless interest for the alfresco diners.

As per the guidelines of the CBACP, this concept will be developed and fine tuned with a recognised artist.

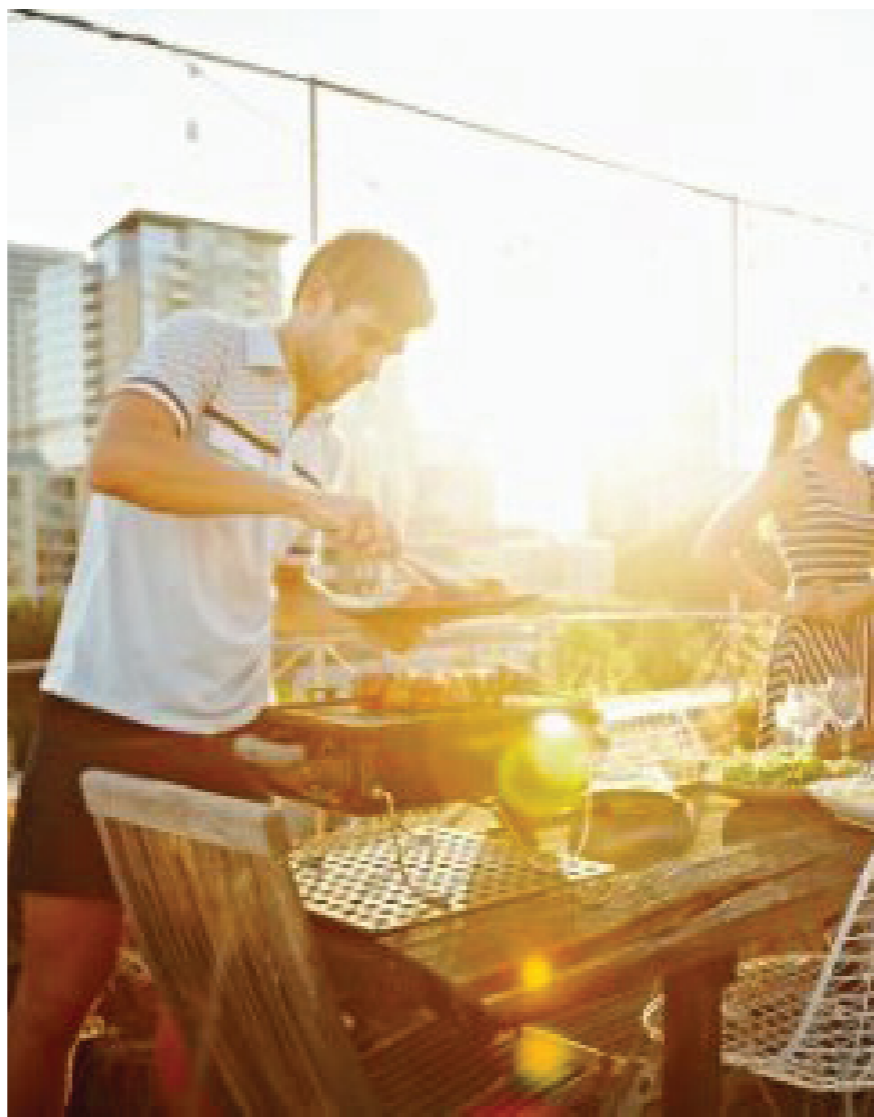
# RESIDENTIAL COMMUNITY



**SKYGARDENS**

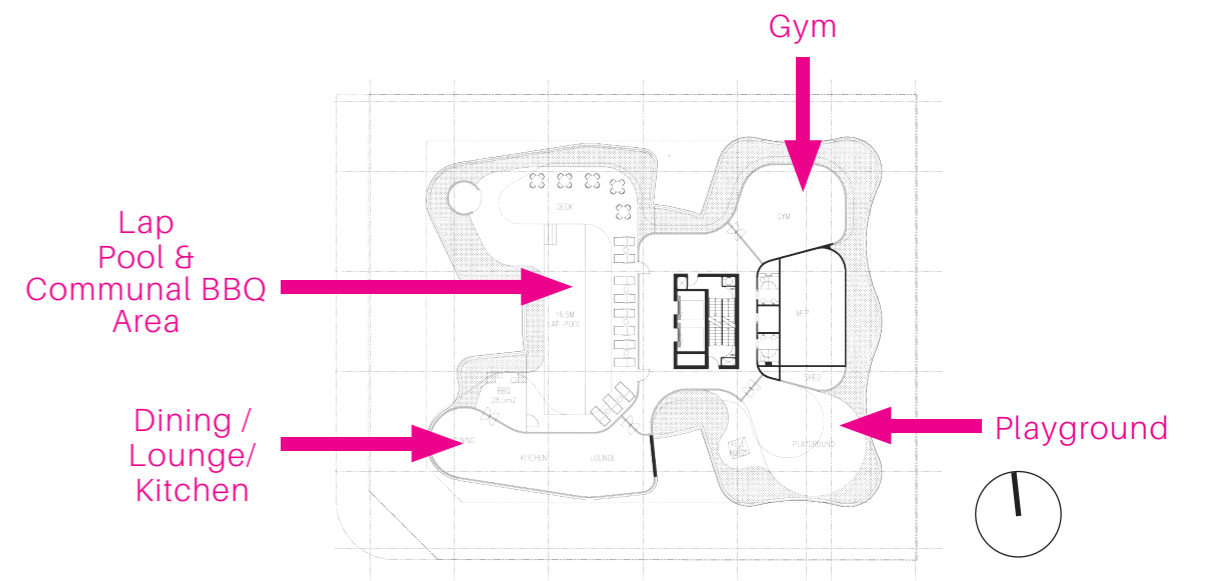


**ROOF TERRACE**

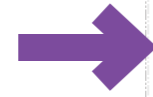


## Live / Work / Play

- + Diverse mix of apartments sizes and types
- + Four Skygardens localise community interactions within the building
- + Neighbourhoods of 8-24 homes over three floors share a lobby & Skygarden. 21 homes is the average number of houses on a typical Applecross suburban street block
- + Level 15 provides opportunity for residents to meet and socialise with their neighbours



Level 15 - Amenities



10\_Principles

# AESTHETICS

## Landmark Design

- + The curved floor plate is comprised of three petals, evoking the organic form of a Jacaranda blossom
- + The greenery of the building's vegetation is a significant part of its aesthetic, starting with the lush greenery of the podium base and running up the recesses of the facade between the petals, accentuated by Skygardens at approximately every third floor
- + The contoured levels of the podium create a distinctive interface and transition between the ground and tower and facilitates public engagement by opening up views and allowing public access to above ground levels



# SO WHATS THE SCORE?

## 1 Green Plot Ratio

The amount of landscaped surfaces compared to a development's site area.

The measurement includes all new and preserved vegetation, vertical and horizontal landscaping, water features, lawns and trees, raised planters, and urban farms.

All buildings need to encourage bio-diversity, reduce the urban heat island effect, provide shade and cooling, improve air quality, soften the harshness of the cityscape, restore wildlife habitats, and re-connect people with nature.

✓ 107%

## 2 Community Plot Ratio

The amount of community space allocated within a development's site area.

The measurement includes fully public areas, semi-private communal spaces, care centres, libraries, restaurants, cafés, and community centres.

The amenity of an urban precinct is largely determined by the quantity and quality of its community spaces. The buildings should encourage human interaction and facilitate social gatherings. Human scale, accessibility, and inclusivity, are crucial to the success of community integration.

✓ 152%

## 3 Civic Generosity Index

The extent to which a development encourages and facilitates the public life of a city.

The index rates the value of a development's public attributes, such as urban connections, shared relaxation areas, sheltered walkways, gardens, and artworks.

In a sociable city, buildings should be judged by their 'human' characteristics...are they friendly, generous, and accommodating?

✓ 5/5

## 4 Ecosystem Contribution Index

The degree to which a development supplements a city's ecosystem.

The index rates a building's capacity to maintain connections between natural habitats; its intention to provide food, water and shelter for local wildlife, and settings for native plants; and its implementation of an environmentally sensitive method for water management.

As land in cities can be more successfully adapted for wildlife preservation than that of agricultural zones, building developments now play a key role in regenerating a city's (and a region's) ecological processes. In order to reverse the unprecedented environmental degradation caused by rapid urbanisation, a city's architects, planners, and developers must view buildings as homes for flora and fauna, as well as people.

✓ 60-80%

## 5 Self-Sufficiency Index

A development's capacity to provide its own energy, food and water.

The index rates the success of a development's energy, food and water production; the amount of its surfaces allocated to solar collection and urban farming; and the extent of its systems for recycling and harvesting natural resources.

In a sustainable city, buildings must aim to be completely self-sufficient... they must produce as much energy as they consume, and preferably more, in order to compensate for existing high-maintenance buildings.

TBC...



# APPENDIX

- + Element 22 surplus area calculation
- + Architectural Drawings

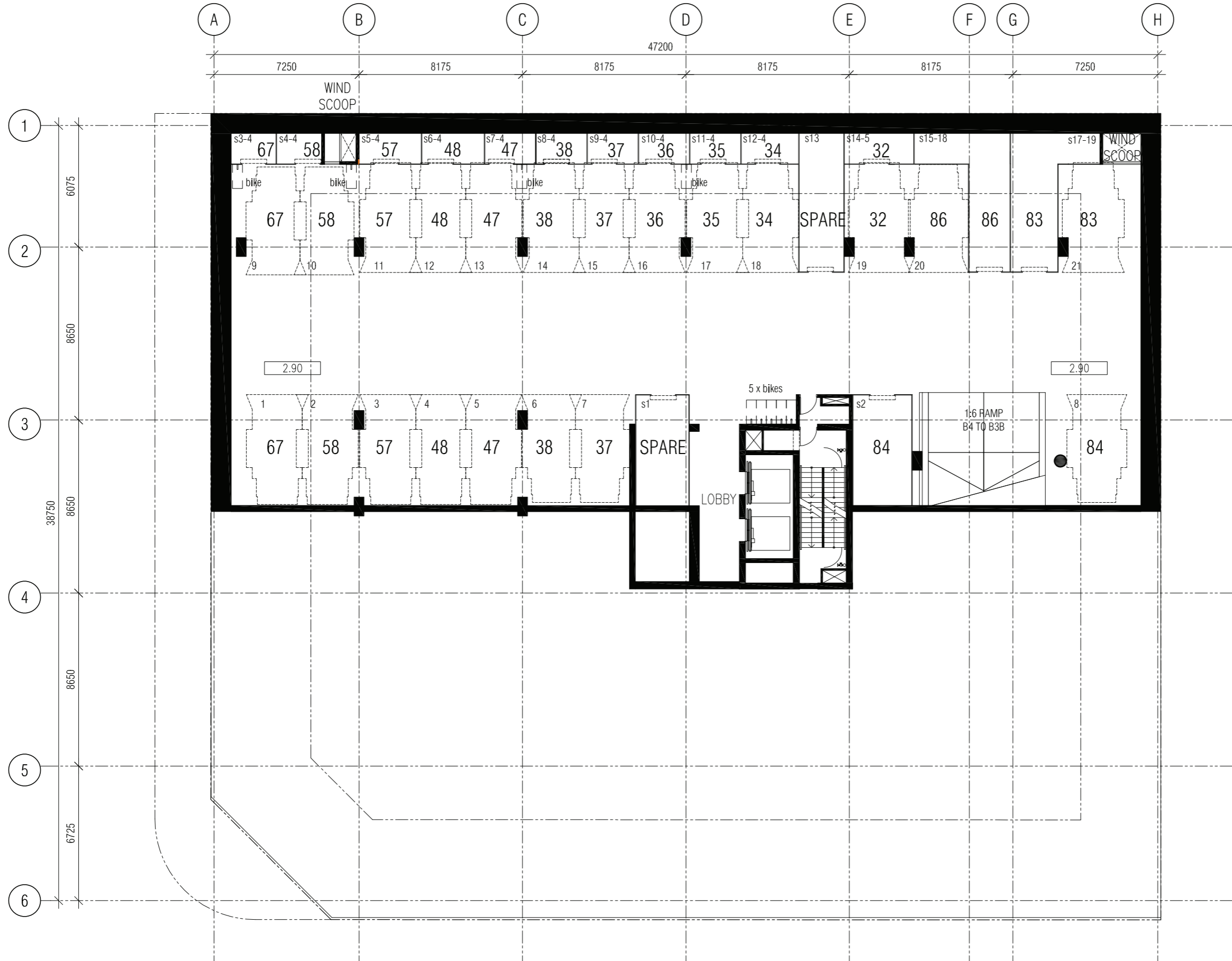
## Total **element 22** floor area surplus:

$$\begin{array}{ccccccc} \mathbf{199m^2} & + & \mathbf{300m^2} & + & \mathbf{100m^2} & + & \mathbf{291m^2} & + & \mathbf{917m^2} & + & \mathbf{225m^2} & + & \mathbf{1041m^2} \\ \text{Community} & & \text{300m}^2 \text{ alfresco} & & \text{EoT facilities} & & \text{Pedestrian} & & \text{Commercial} & & \text{Community Hall} & & \text{Short Stay Floor Plate} \\ \text{Garden} & & \text{\& new public} & & & & \text{Throughfare} & & \text{Co-working} & & & & \\ & & \text{space on this} & & & & & & \text{Retail / F\&B} & & & & \\ & & \text{prominent} & & & & & & & & & & \\ & & \text{corner} & & & & & & & & & & \end{array}$$

**= 3073m<sup>2</sup>**  
of element 22 surplus



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A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC





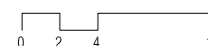
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TRUE NORTH  PROJECT NORTH 

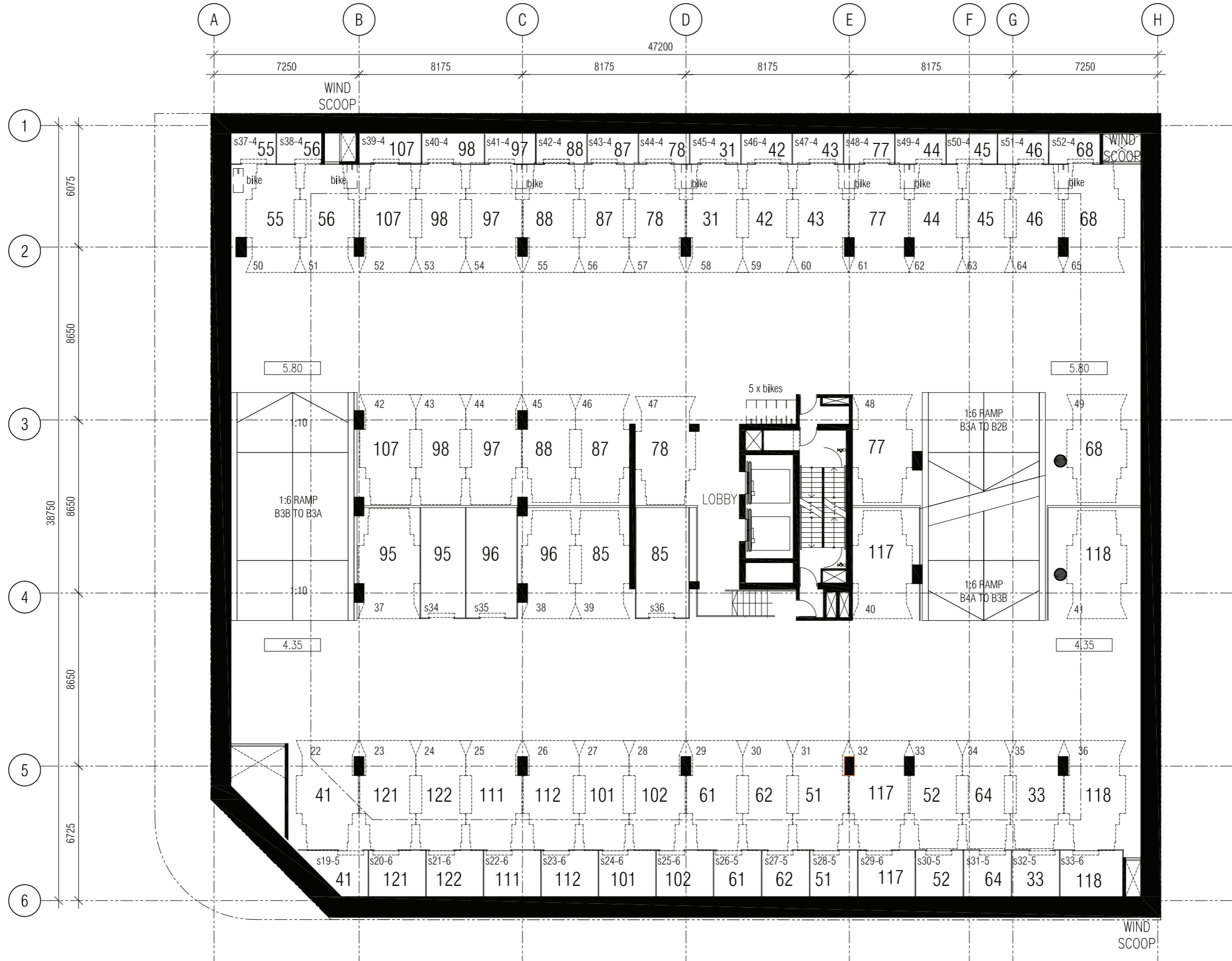
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B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC




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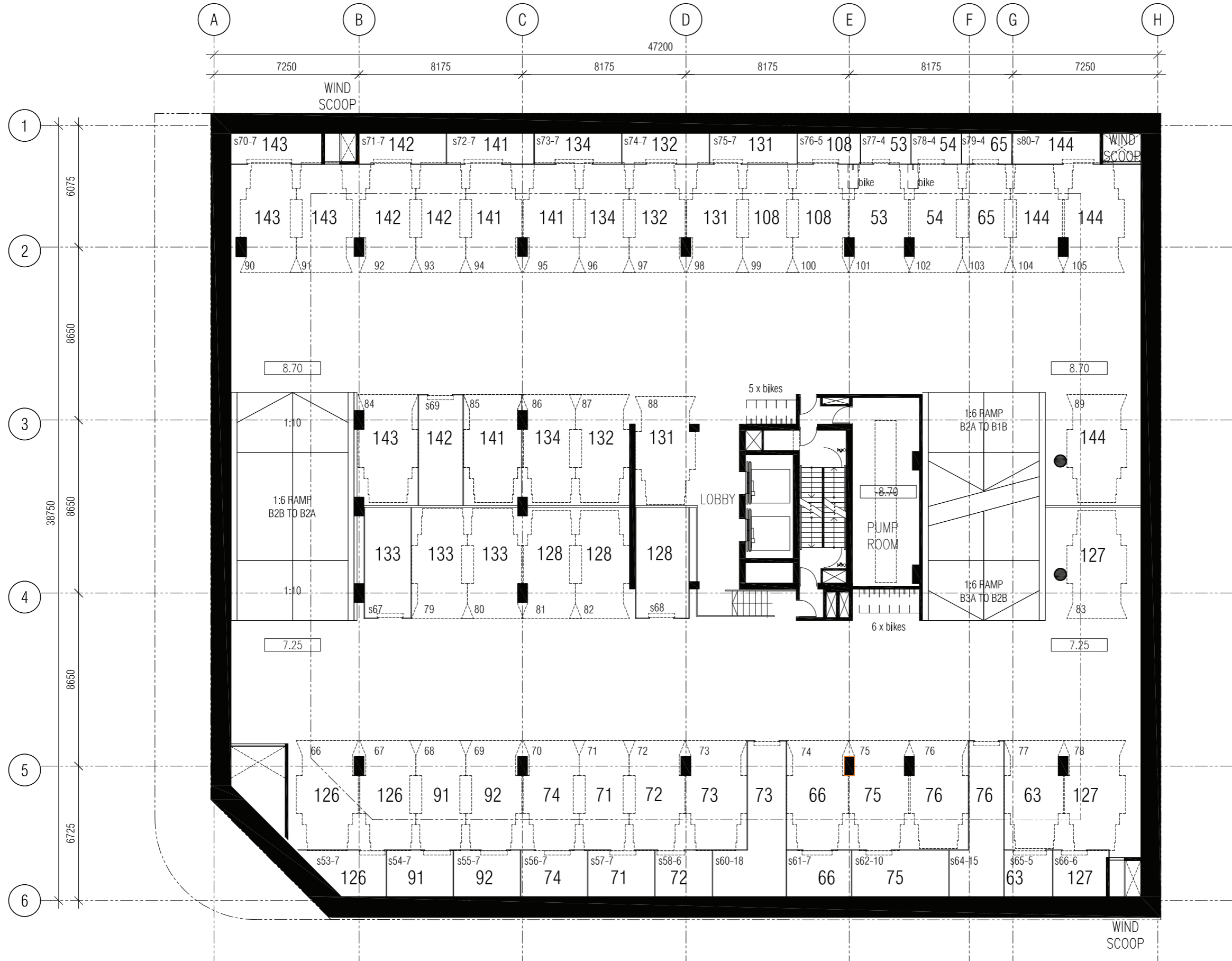
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A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC



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BASEMENT 2

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A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC

NOTE:

TOTAL RESI. CAR BAYS	122
TOTAL SHORT STAY CAR BAYS	07
TOTAL CO-WORK CAR BAYS	17
TOTAL F & B BAYS	02
EV RESI CHARGING BAY	01
EV COMM CHARGING BAY	01

TOTAL CAR BAYS 150



\* CAR BAYS TO BE CAPABLE OF UTILISING INDIVIDUAL STACKER SYSTEM


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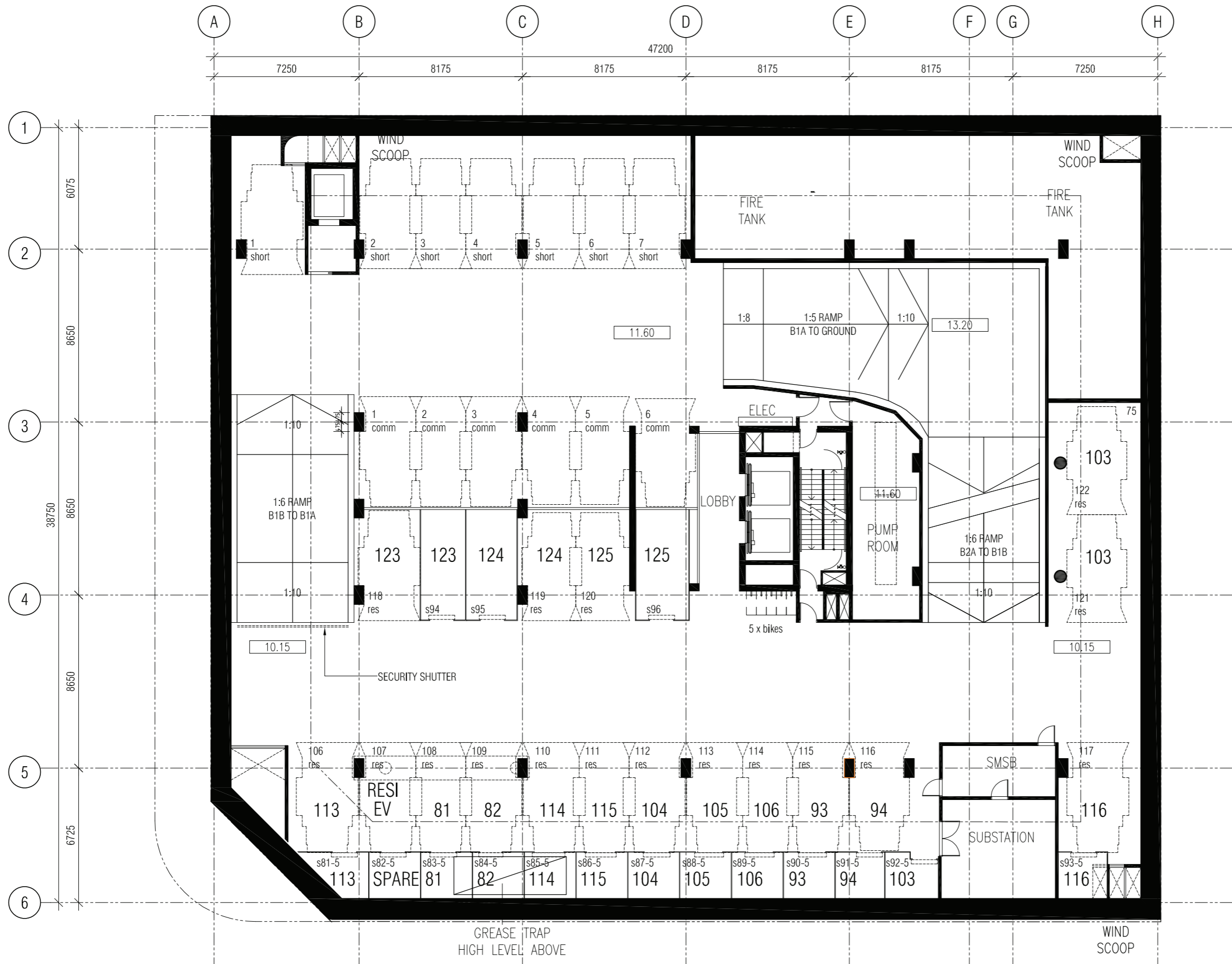
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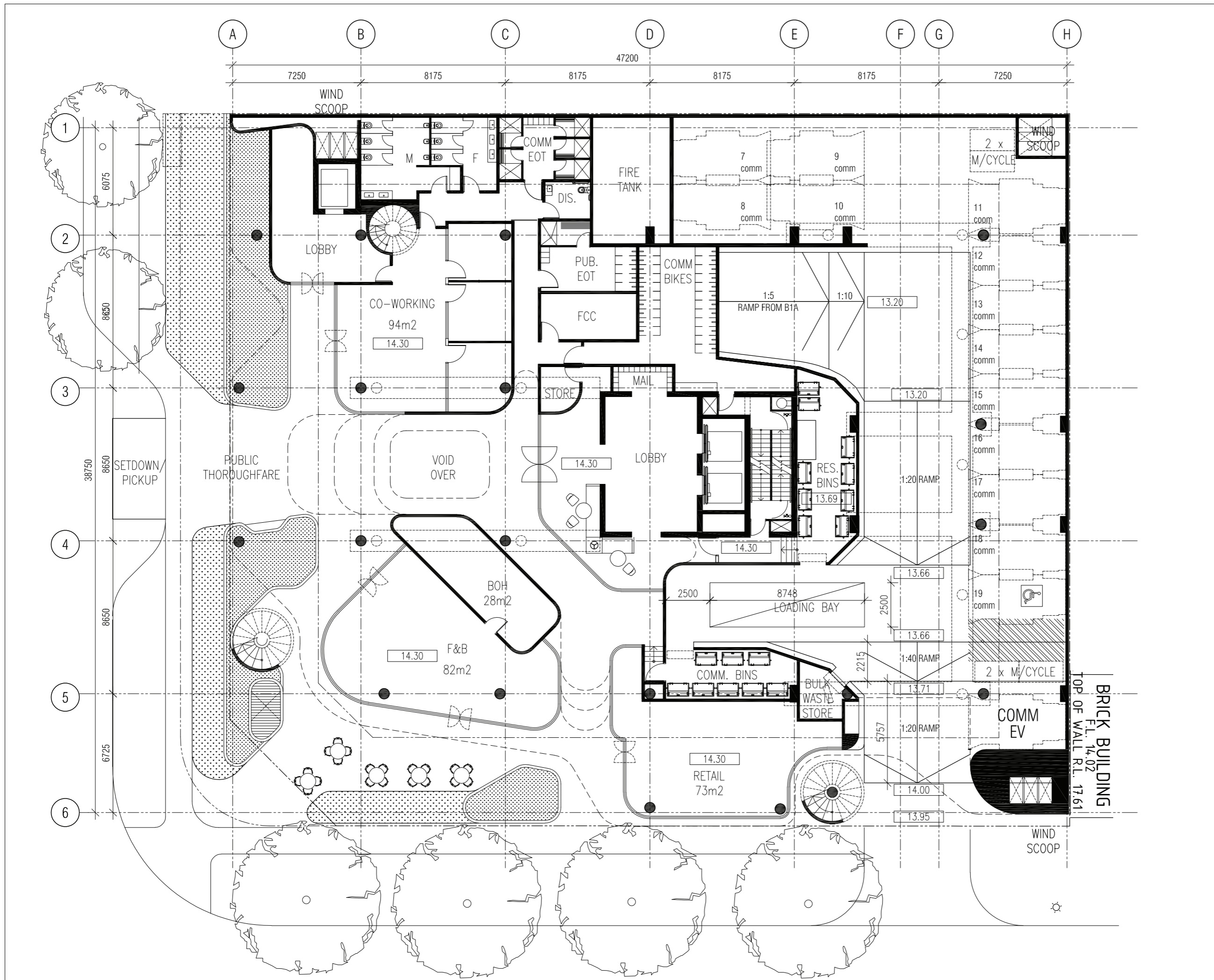
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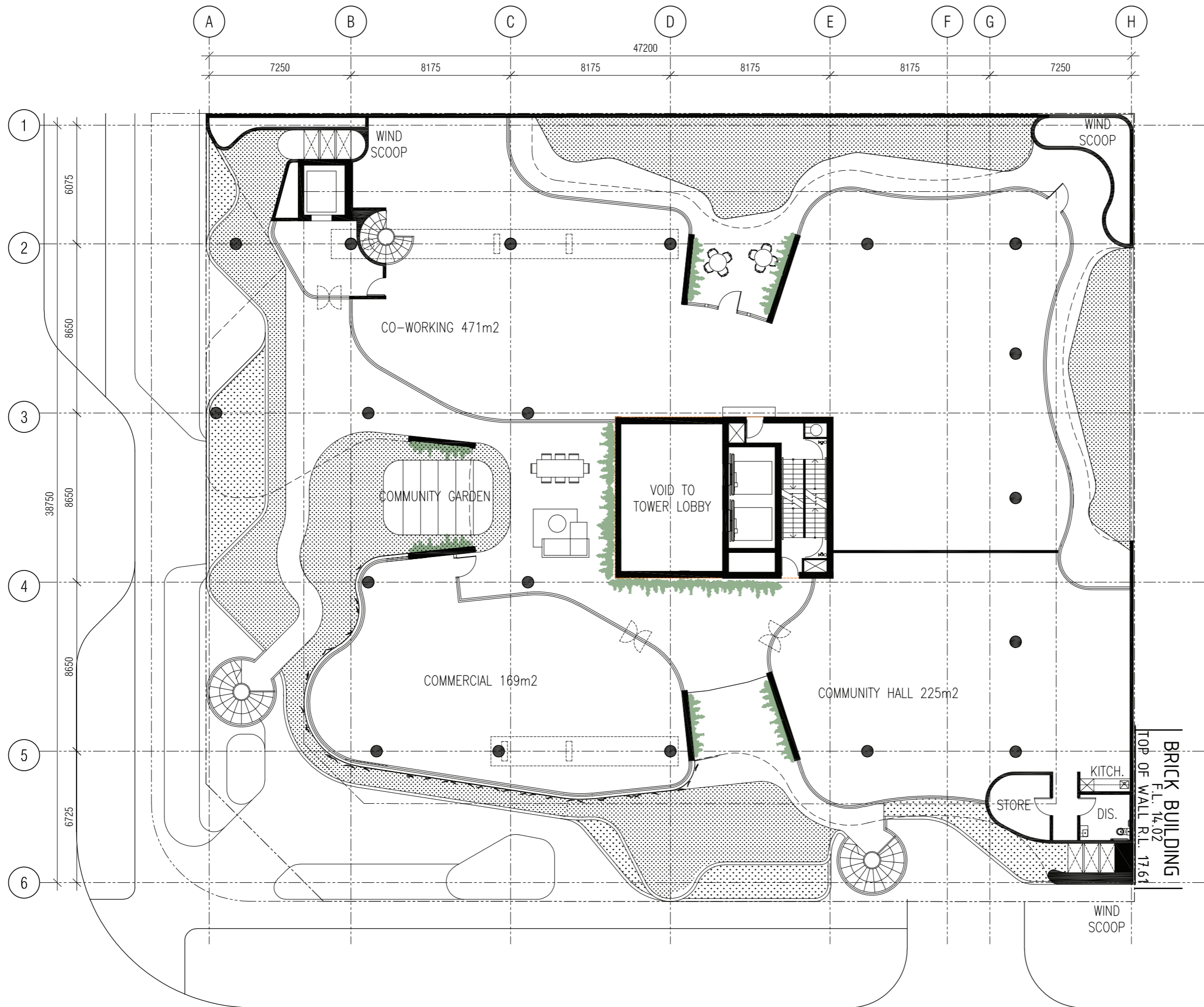
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5	21.02.19	PRIVACY SCREENING ADDED	MEC
A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC



**BRICK BUILDING**  
 F.L. 14.02  
 TOP OF WALL R.L. 17.61

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A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
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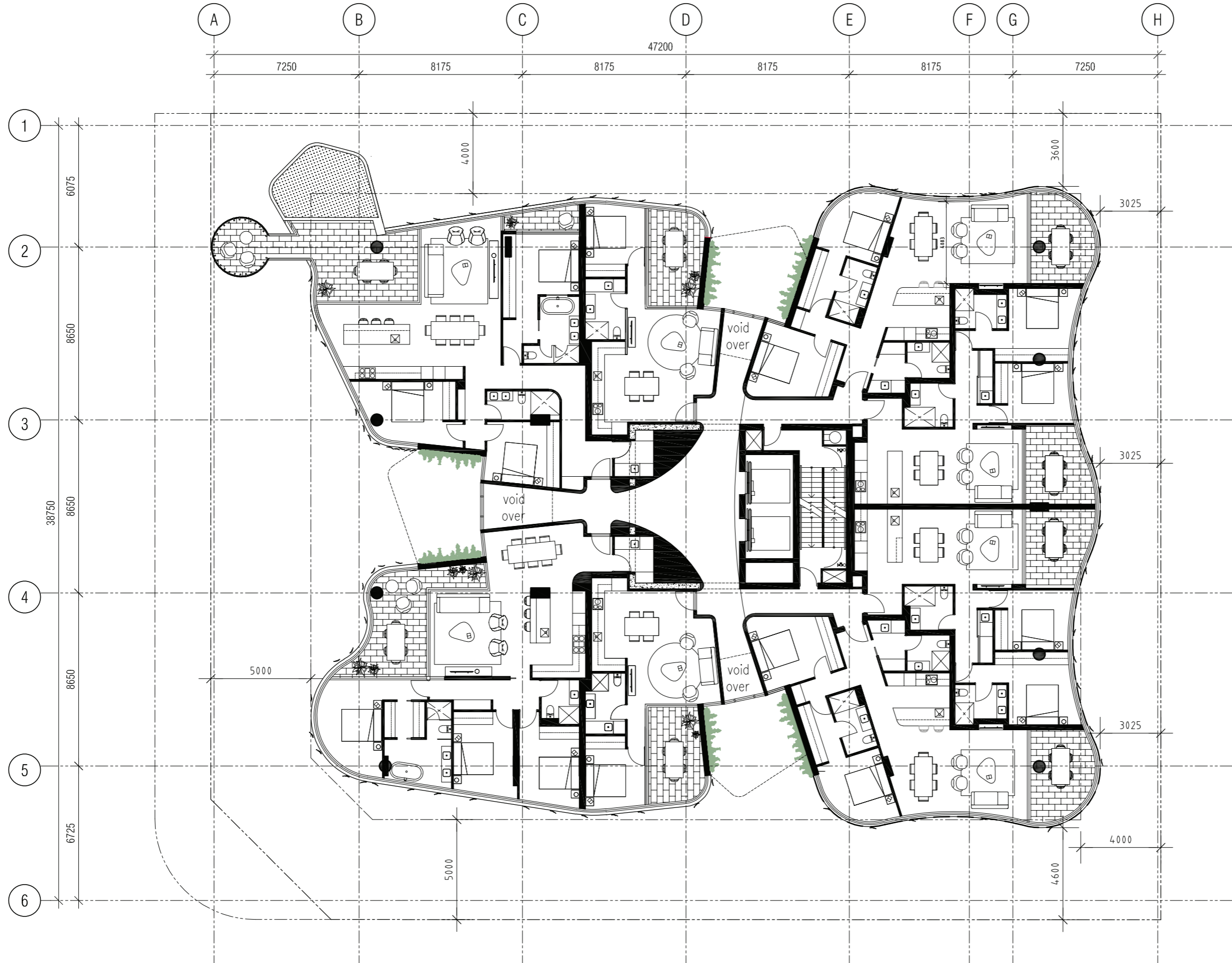
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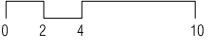
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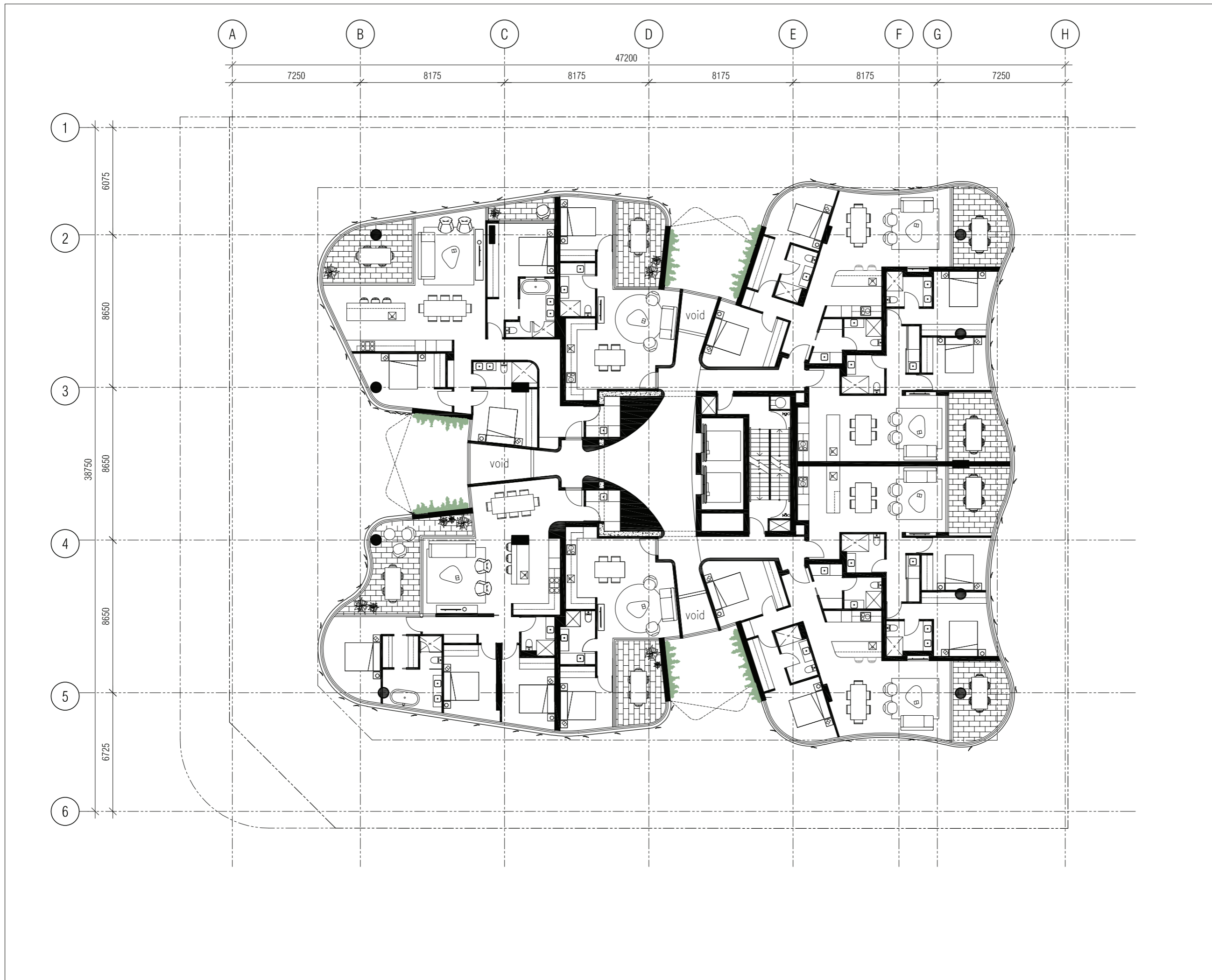
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PROJECT ADDRESS	10-14 FORBES RD APPLECROSS
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STATUS	ISSUED FOR DA
DRAWING	LEVELS 4 & 10
DRAWING NO.	DA.10
DRAFTER	MEC
CHECKED	MEC
REV.	C





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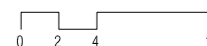
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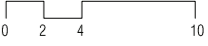
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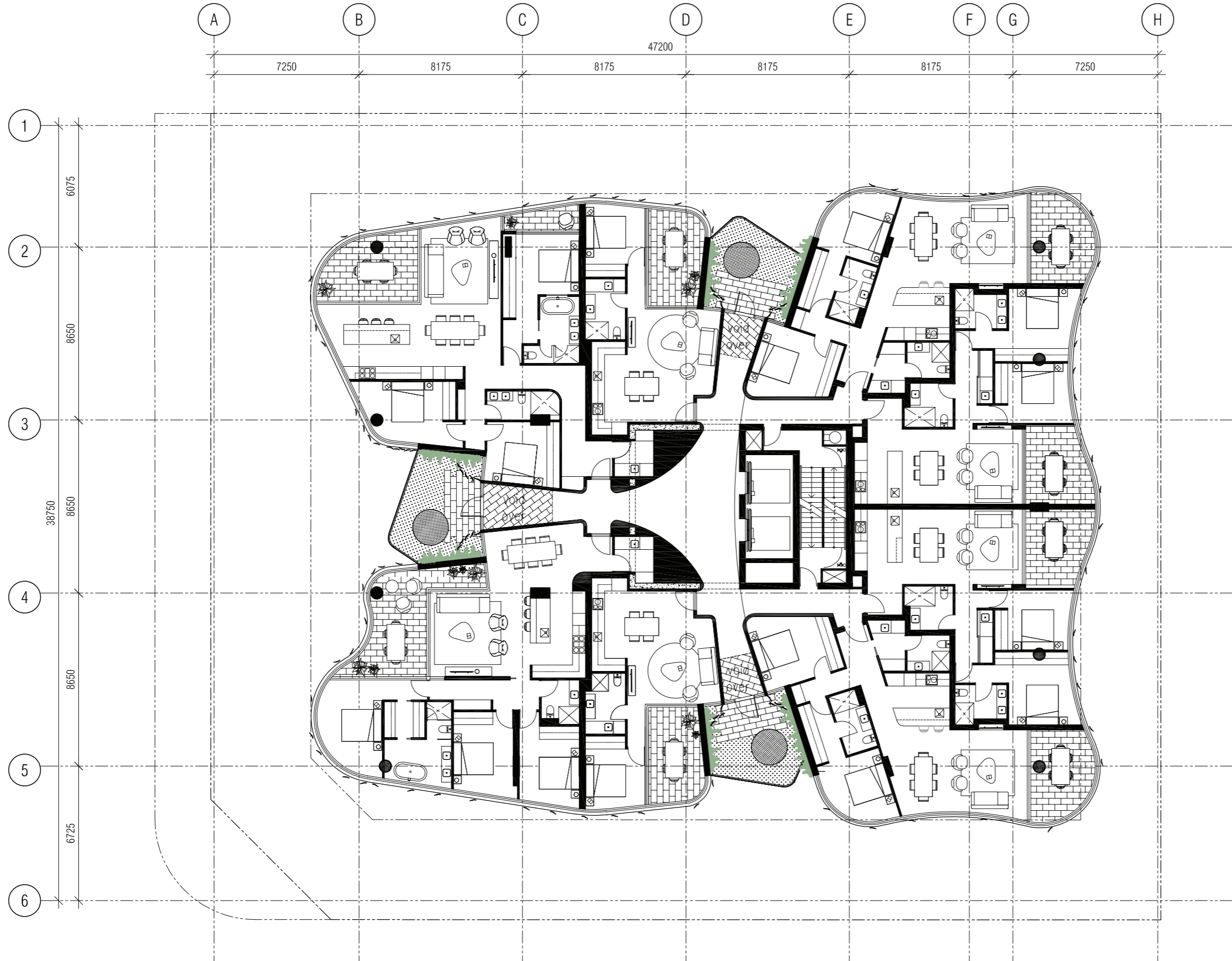
TRUE NORTH  PROJECT NORTH 

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 FORBES RESIDENCES

PROJECT ADDRESS  
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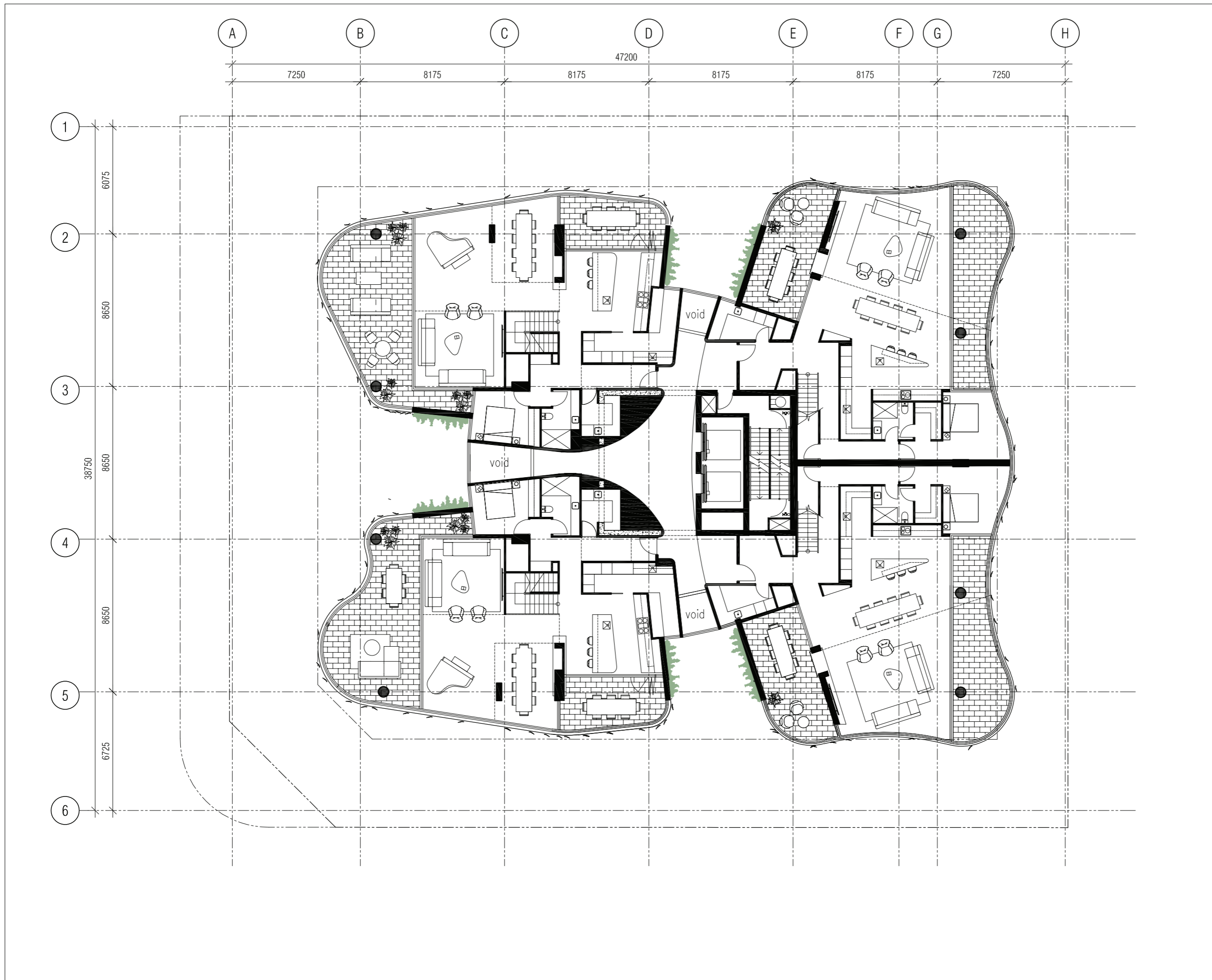
TRUE NORTH  PROJECT NORTH 

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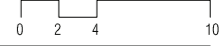
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FORBES RESIDENCES

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10-14 FORBES RD  
APPLECROSS

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18003

TRUE NORTH  PROJECT NORTH 

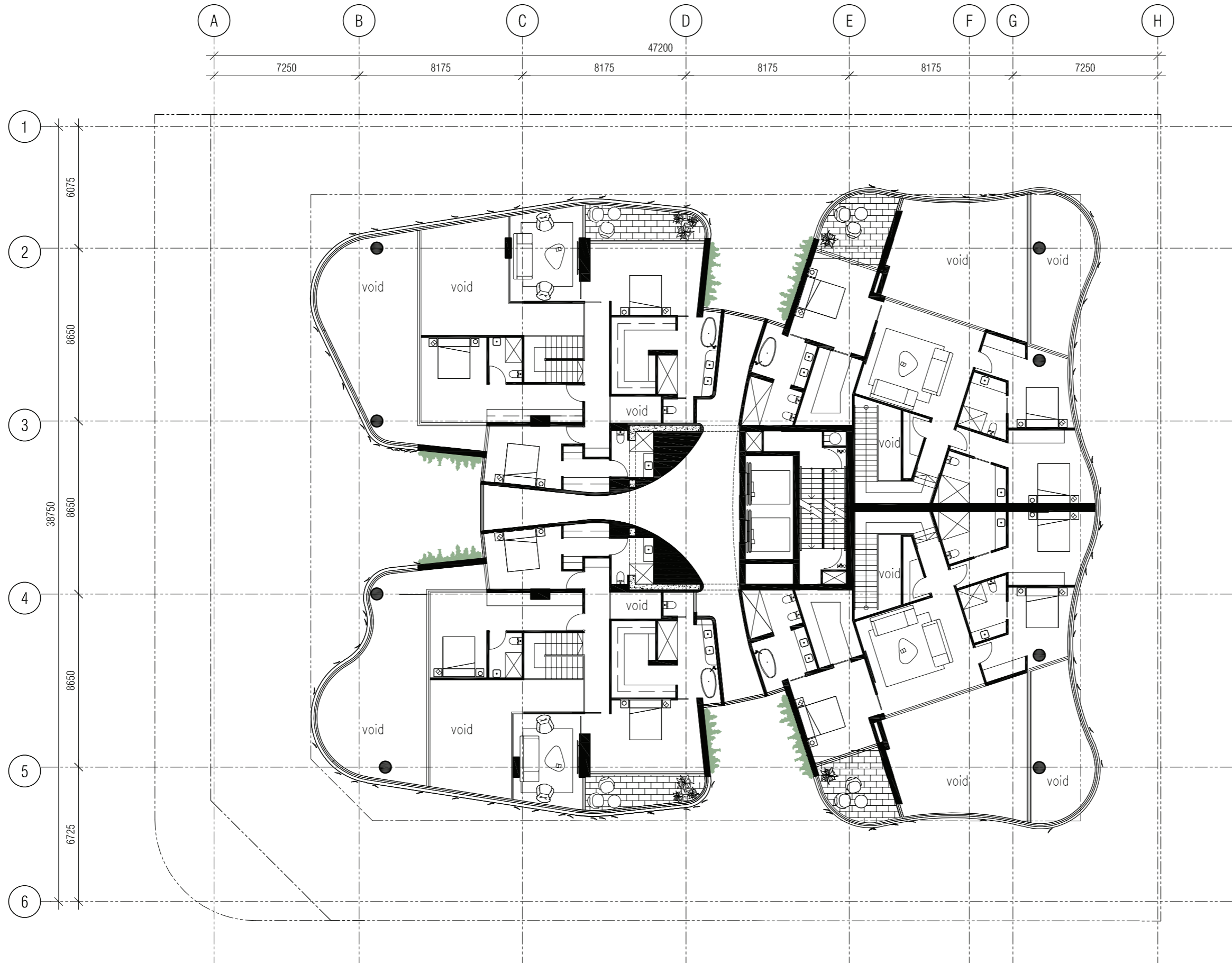
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B	18.09.19	DRP ISSUE	MEC
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PROJECT  
**FORBES RESIDENCES**

PROJECT ADDRESS  
**10-14 FORBES RD  
 APPLECROSS**

MJA PROJECT NUMBER  
**18003**

TRUE NORTH  PROJECT NORTH 

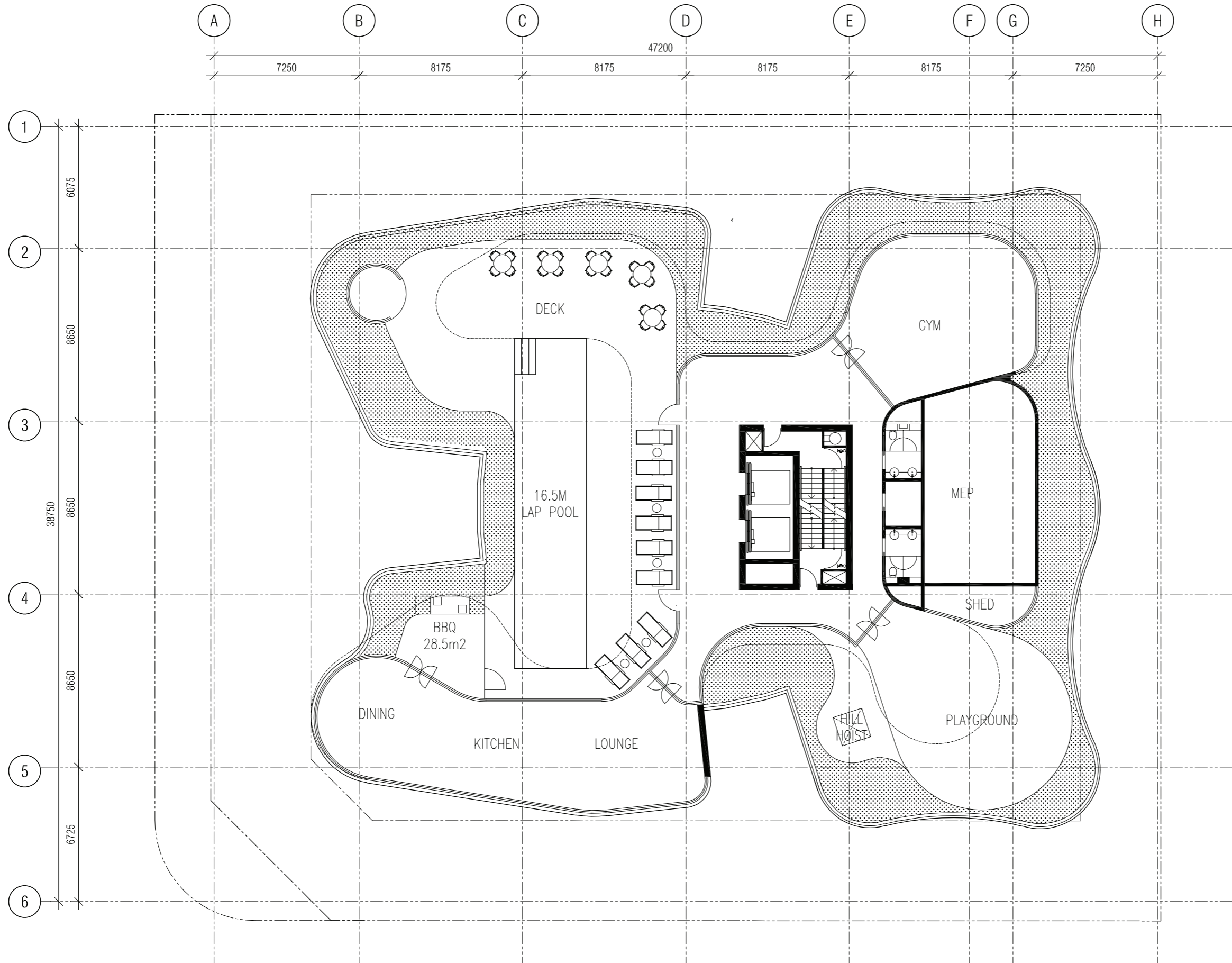
SCALE  
**1:200 @ A3** 

STATUS  
**ISSUED FOR DA**

DRAWING  
**LEVEL 14 Mezz**

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.15	MEC	MEC	C

REV.	DATE	AMENDMENT	INIT.
1	18.11.18	DA ISSUE	MEC
2	29.01.19	REVISED DA ISSUE	MEC
3	21.02.19	PRIVACY SCREENING ADDED	MEC
A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC






CLIENT  
 APEX VIEW PTY LTD

PROJECT  
 FORBES RESIDENCES

PROJECT ADDRESS  
 10-14 FORBES RD  
 APPECROSS

MJA PROJECT NUMBER  
 18003

TRUE NORTH  PROJECT NORTH 

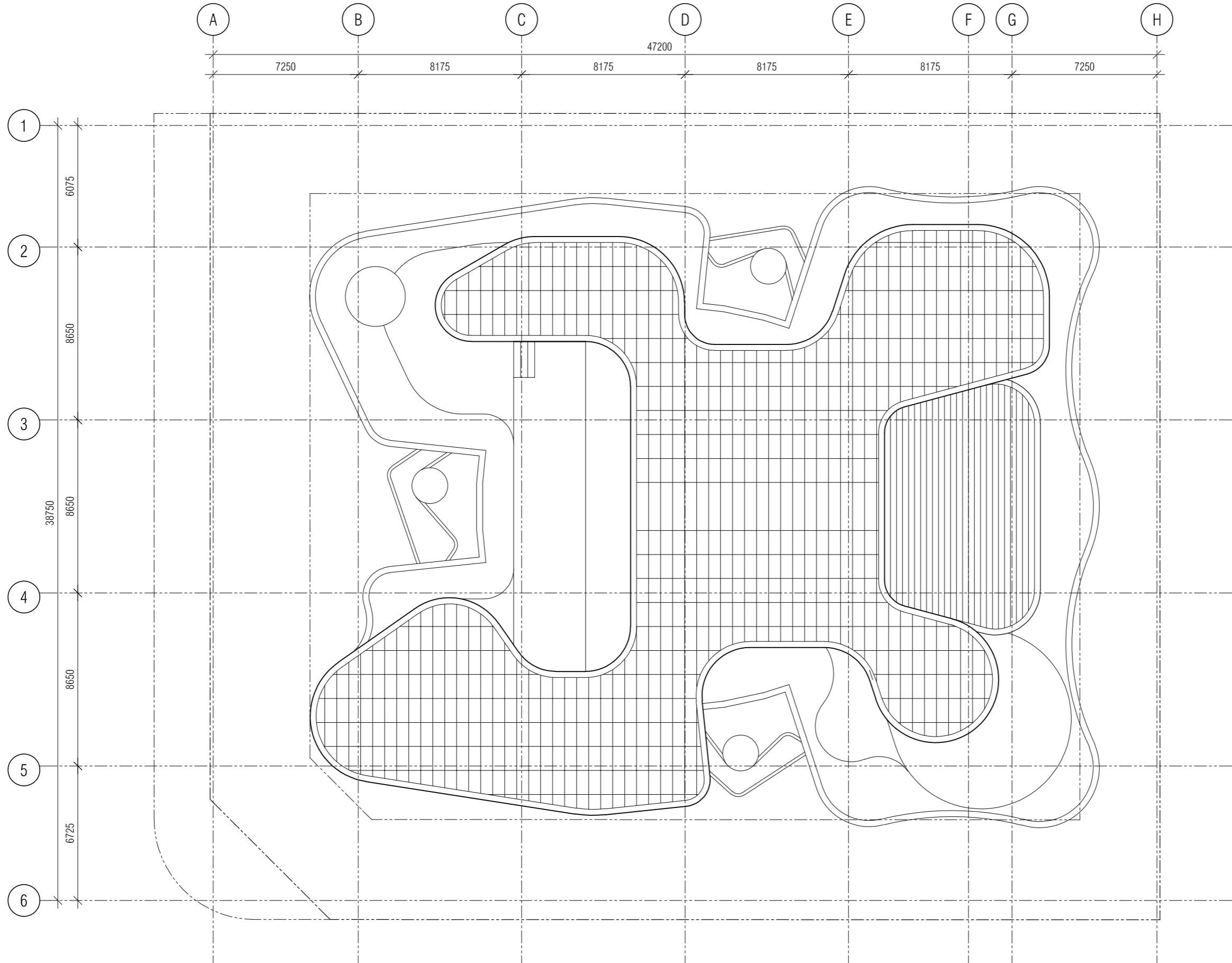
SCALE  
 1:200 @ A3 

STATUS  
 ISSUED FOR DA

DRAWING  
 LEVEL 15 - AMMENITIES

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.16	MEC	MEC	C

REV.	DATE	AMENDMENT	INIT.
1	18.11.18	DA ISSUE	MEC
2	29.01.19	REVISED DA ISSUE	MEC
3	21.02.19	PRIVACY SCREENING ADDED	MEC
A	09.09.19	CONSULTANT REVIEW ISSUE	MEC
B	18.09.19	DRP ISSUE	MEC
C	25.09.19	DA ISSUE	MEC






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PROJECT  
 FORBES RESIDENCES

PROJECT ADDRESS  
 10-14 FORBES RD  
 APPLECROSS

MJA PROJECT NUMBER  
 18003

TRUE NORTH  PROJECT NORTH 

SCALE  
 1:200 @ A3 

STATUS  
 ISSUED FOR DA

DRAWING  
 ROOF PLAN

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.17	MEC	MEC	C

REV.	DATE	AMENDMENT	INIT.
1	18/09/19	DRP ISSUE	MEC
2	25/09/19	DA ISSUE	MEC



South Elevation



West Elevation

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PROJECT  
 FORBES RESIDENCES

PROJECT ADDRESS  
 10-14 FORBES RD  
 APPLECROSS

MJA PROJECT NUMBER  
 18003

SCALE @ A3  
 1 : 400

STATUS  
 ISSUED FOR DA  
 DRAWING

WEST + SOUTH ELEVATIONS

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.18	CP	MEC	2

# WOHA

x

MJA **studio**

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REV.	DATE	AMENDMENT	INIT.
1	18/09/19	DRP ISSUE	MEC
2	25/09/19	DA ISSUE	MEC



North Elevation



East Elevation

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PROJECT  
FORBES RESIDENCES

PROJECT ADDRESS  
10-14 FORBES RD  
APPLECROSS

MJA PROJECT NUMBER  
18003

SCALE @ A3  
1 : 400

STATUS  
ISSUED FOR DA  
DRAWING

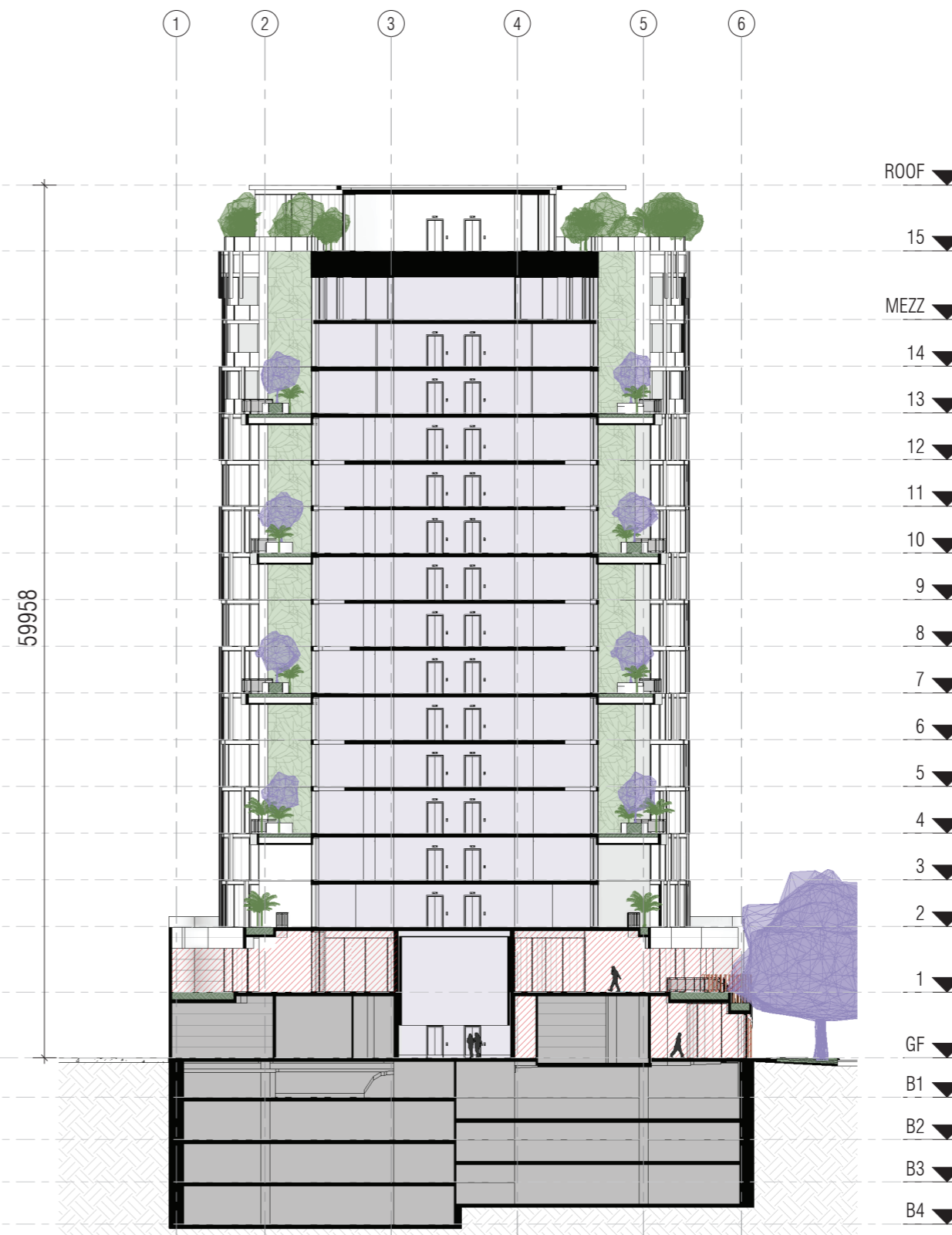
EAST + NORTH ELEVATIONS

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.19	CP	MEC	2

REV.	DATE	AMENDMENT	INIT.
1	18/09/19	DRP ISSUE	MEC
2	25/09/19	DA ISSUE	MEC



Section 1



Section 2

CLIENT

APEX VIEW PTY LTD

PROJECT

FORBES RESIDENCES

PROJECT ADDRESS

10-14 FORBES RD  
 APPECROSS

MJA PROJECT NUMBER

18003

SCALE @ A3

1 : 400

STATUS

ISSUED FOR DA

DRAWING

SECTIONS

DRAWING NO.	DRAFTER	CHECKED	REV.
DA.20	CP	MEC	2



# FORBES RESIDENCES