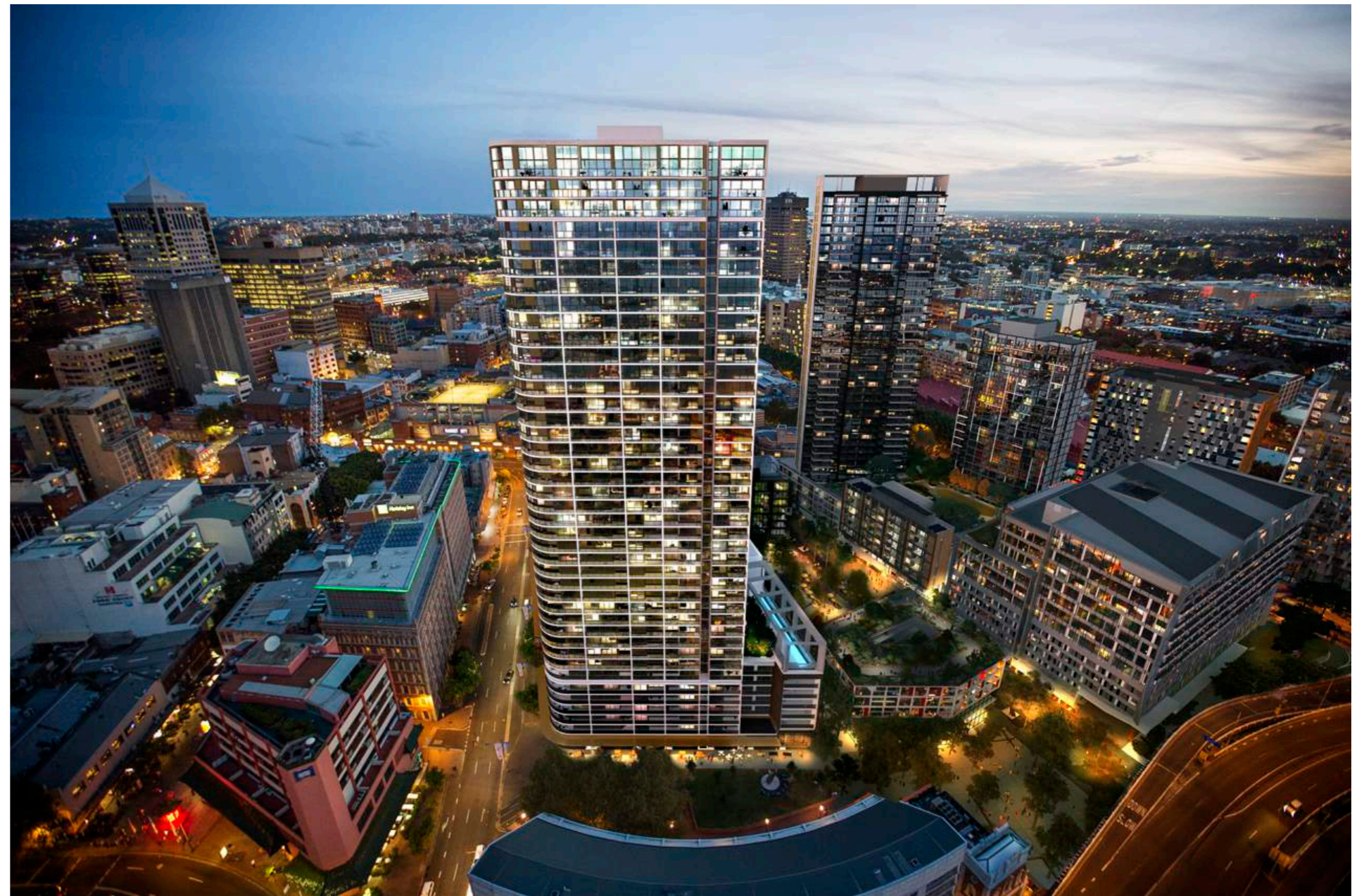


Tzannes

Darling Square NE Plot

Design Report for Section 96 Application to Modify SSDA7



Prepared for
Lendlease
December 2016



01	Executive Summary
1.1	Introduction
1.2	Overview of Proposed Modifications
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Executive Summary

01



This report supports an application made under section 96 of the Environmental Planning and Assessment Act 1979 (EP&A Act) to modify Development Consent, SSD 6626 relating to the development of the North East Plot of Darling Square which is part of the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP).

Development Consent SSD 6626 was granted on 16 April 2015 by the delegate of the Minister for Planning for the following components of development:

- site preparation works including demolition of existing Sydney Entertainment Centre;
- staged construction of 8 storey, 19 storey and 41 storey buildings, including a 5 storey podium, to be used for:
 - 2,050m² retail floor space at ground floor level;
 - 445 above ground car parking spaces and storage; and
 - 581 residential apartments
- various public domain improvements including:
 - provision of footpath treatment to the northern and eastern frontages and associated landscaping along the northern boundary; and
 - interim surface treatments to the southern and western frontages.

This section 96 application (the Modification Application) constitutes the first modification to the consent. This Modification Application follows the approval and current assessment of a number of SSDAs within the SICEEP site as set out in Table 1.

EXECUTIVE SUMMARY

1.1 Introduction

Table 1 – Status of initial SICEEP SSD DAs

DA No	Description of Application	Status
12_5752	SICEEP Core Facilities – Exhibition Centre, Convention Centre, The Theatre, Event Deck and Tumbalong Park	Approved: 22 August 2013
MOD 1	S96(1A) - various	Approved: 20 February 2014
MOD 2	S96(1A) – various	Approved: 18 July 2014
MOD 3	S96(1A) – various	Approved: 1 July 2015
13-5878	Darling Square Concept Proposal	Approved: 5 December 2013
MOD 1	S96(1A) – various	Approved: 26 November 2015
MOD 2	S96(1A) – various	Approved: 4 October 2016
6010	Western Plot (Student Accommodation – Building W2)	Approved: 7 May 2014
MOD 1	S96(2) – various	Approved: 1 April 2016
6013	North-West Plot (Public car park/ commercial office building)	Approved: 7 May 2014
MOD 1	S96(2) – various	Approved: 20 July 2015
MOD 2	S96(1A) – various	Approved: 26 November 2015
<i>MOD 3</i>	<i>S96(1A) – various</i>	<i>Under Assessment</i>
6011	South-West Plot (Mixed Use Residential Development)	Approved: 21 May 2014
MOD 1	S96(1A) – various	Approved: 27 July 2015
6116	ICC Hotel	Approved: 15 June 2014
MOD 1	S96(1A) – various	Approved: 8 July 2015
6626	North-East Plot (Mixed Use Residential Development)	Approved: 16 April 2015
<i>MOD 1</i>	<i>S96(1A) – various</i>	<i>Subject of this application</i>
6831	ICC Hotel fit-out, façade lighting system and subdivision	Approved: 16 October 2015
7133	Western Plot (Student Accommodation – Building W1)	Approved: 1 April 2016
7021	<i>North Plot (Community and Retail Building and Public Open Space)</i>	<i>Under Assessment</i>
6633	<i>South East Plot (Mixed Use Residential Development)</i>	<i>Under Assessment</i>

EXECUTIVE SUMMARY

1.2 Overview of Proposed Modification

This Section 96 Application seeks approval for a range of modifications as set out in the following chapter.

The amendments are the result of design development, including amendments made in light of the continual design of surrounding buildings and public domain elements, are illustrated on the amended Architectural Drawings. These changes are to be expected in any project, especially given the nature and scale of the approved North East Plot development.

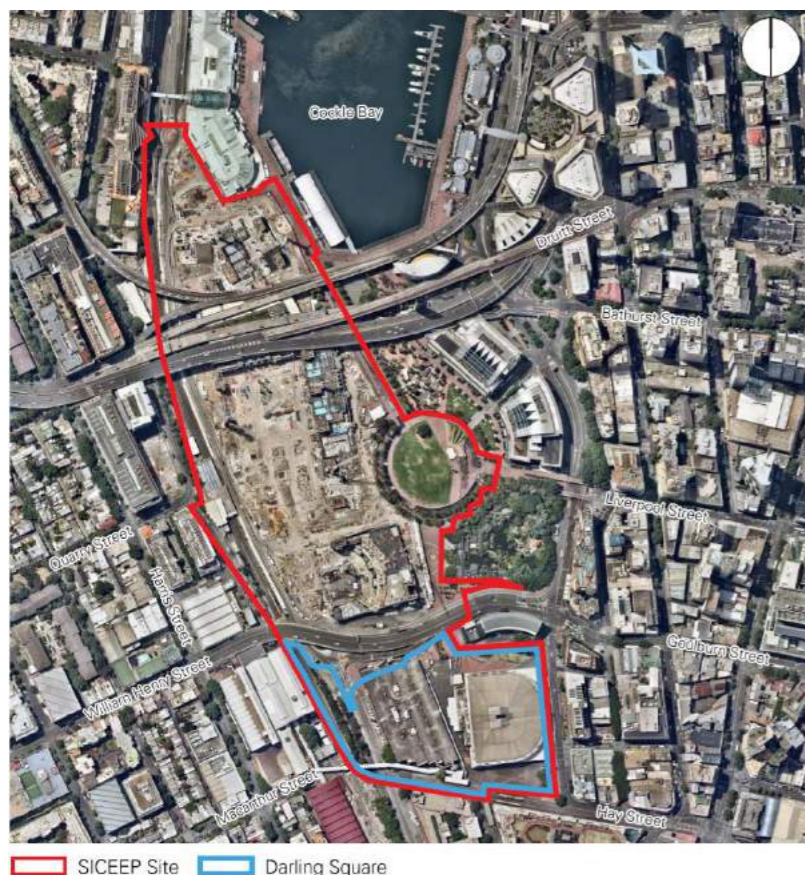


Figure 1: Aerial Photograph of the SICEEP Site

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south (refer to Figure 1).

The Darling Square Site is:

- located in the south of the SICEEP Site, within the northern portion of the suburb of Haymarket;
- bounded by the Powerhouse Museum to the west, the Pier Street overpass and Little Pier Street to the north, Harbour Street to the east, and Hay Street to the south; and
- irregular in shape and occupies an area of approximately 37,701m².

The Modification Application Site relates to the North East Plot and surrounds as detailed within the drawings submitted in support of Modification Application. Figure 2 illustrates the North East Plot in the approved Concept Proposal.

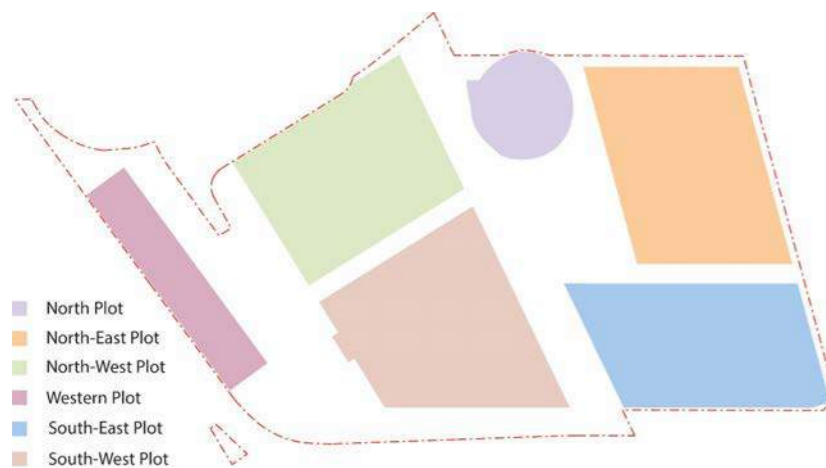


Figure 2: Concept Proposal Development Plots

Proposed Modifications

02

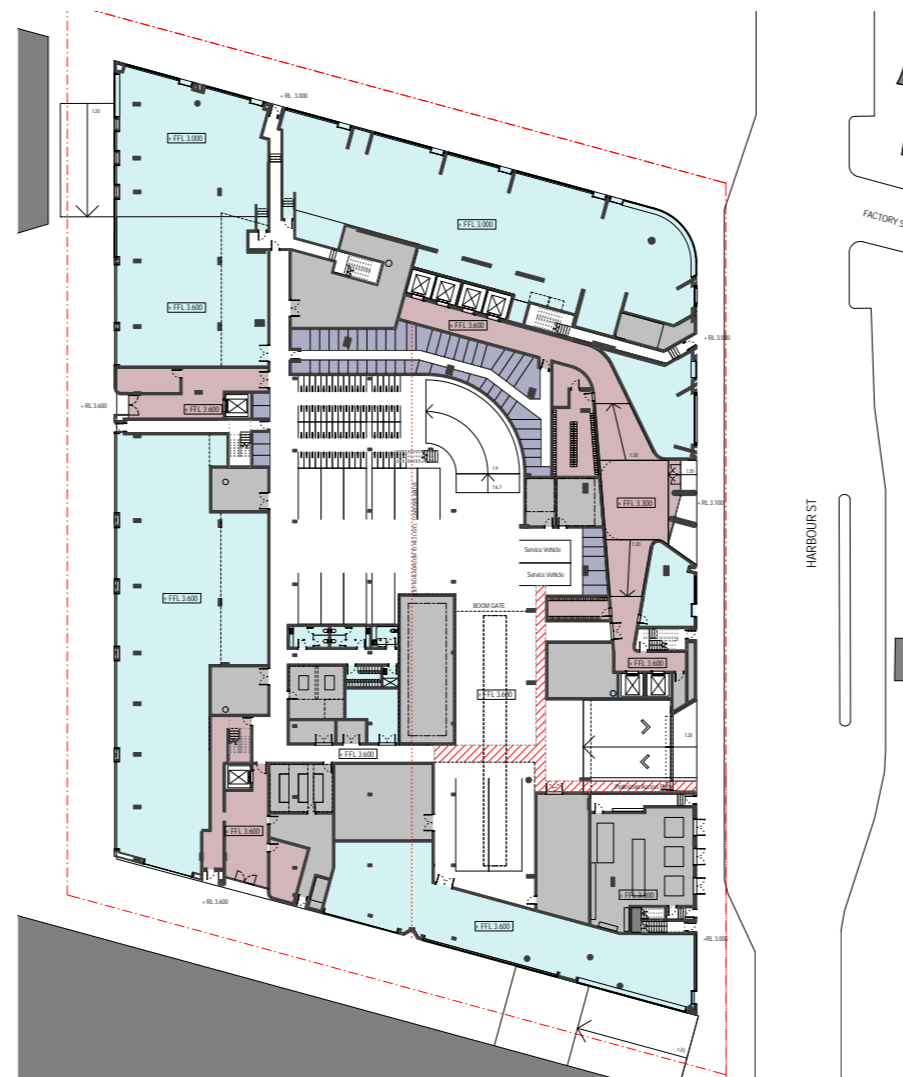


PROPOSED MODIFICATIONS

2.1 Internal Amendments - Ground Level Plan

New amenities have been incorporated within the North East Plot ground floor to provide the following:

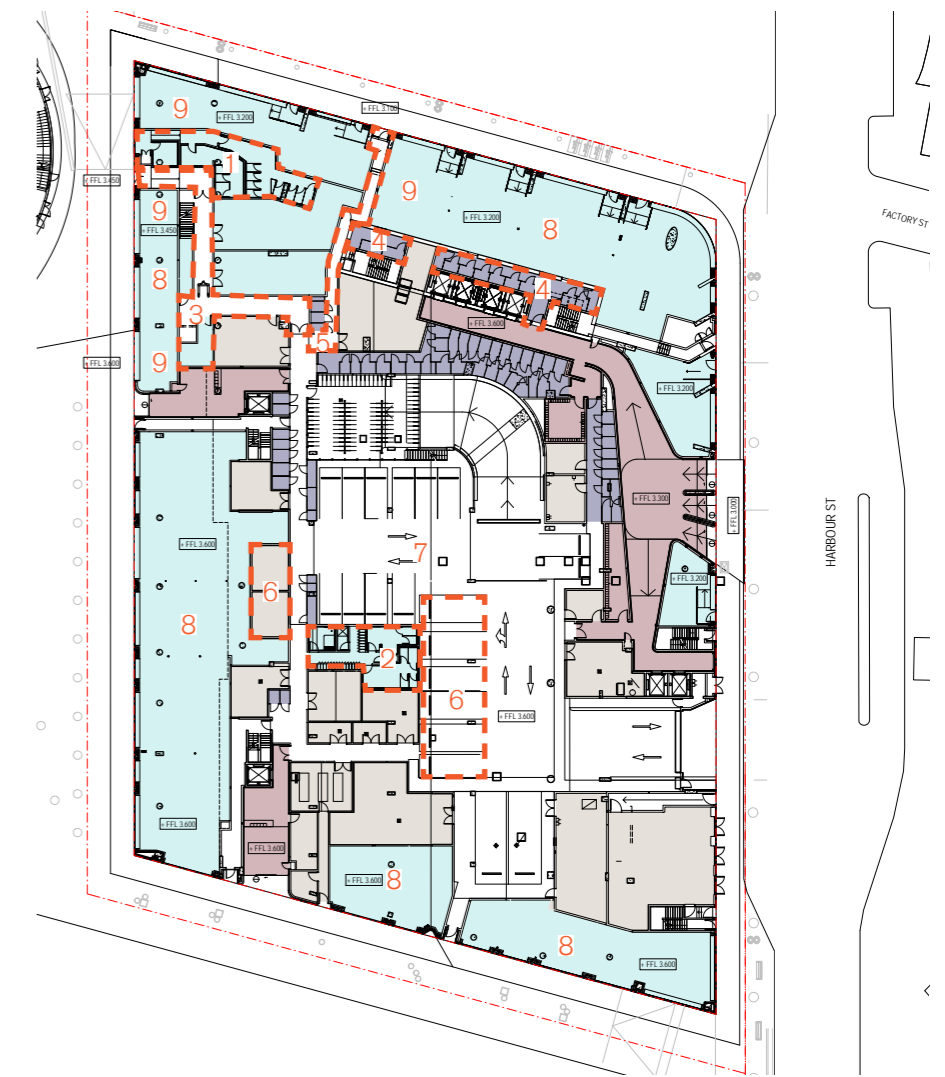
1. Additional provision of public toilets to support the future operation of NE Plot Retail, N Plot and the Square. Male toilets will have 3 pans and 7 urinals. Female toilets will have 8 pans;
2. Improved BOH facilities for the retail tenancies, inclusive of waste room, cool room, liquor storage and goods hoist;
3. 6 service bays have been provided for loading and unloading to support the North Plot (SSDA10) including the addition of corridor access and 2 existing loading bays amended such that they now service both the North Plot and the NE Plot.
4. Additional storage cage area allocated to optimise space usage and provide easier tenant access;
5. Realignment of egress stair;
6. Relocation of fire tank to provide additional loading bays;
7. General updates to planning resulting from design development;
8. Overall retail GFA reduction from 2050sqm to 1986sqm due to expansion of the BoH supporting N Plot operations
9. Public domain and retail levels have been changed in accordance with the flood mitigation strategy. The transition has been managed internally through ramps installed within applicable tenancies with minor level transitions from the public domain.



Approved SSDA7 Floor Plan - Ground

LEGEND

 	APPROVED STAGE 2 ENV.
 	FOYER
 	RETAIL
 	RESIDENTIAL STORAGE
 	SERVICE
 	SOFT LANDSCAPING



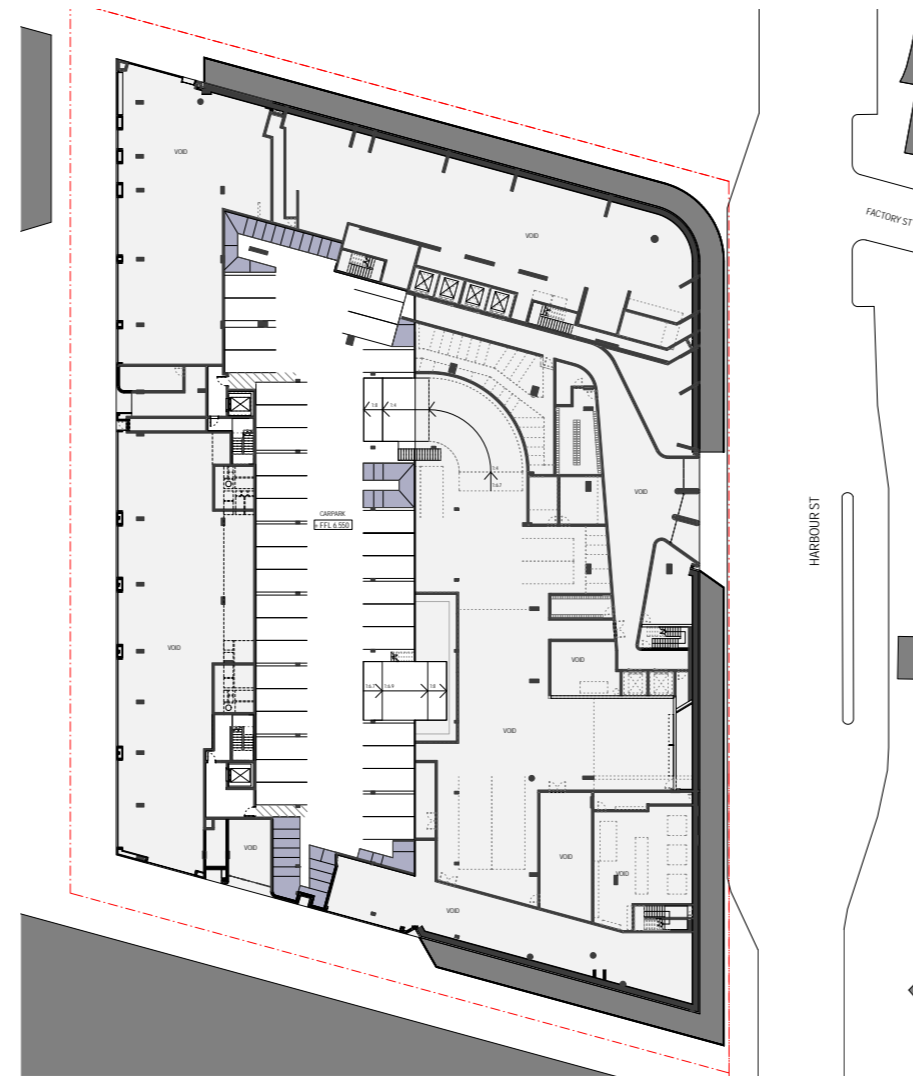
Proposed S96 Floor Plan - Ground

PROPOSED MODIFICATIONS

2.1 Internal Amendments - Mezzanine Level Plan

Additional back of house and plant areas inclusive of managers office and dry storage have been added to meet the operational requirements of the retail tenancies in the North Plot (1). Additional storage cage area allocated to optimise space usage and provide easier access (2).

- LEGEND
- APPROVED STAGE 2 ENV.
 - 1 BEDROOM
 - 1 BEDROOM + STUDY
 - 2 BEDROOM
 - 2 BEDROOM, 1 BATH
 - 3 BEDROOM
 - 4 BEDROOM
 - FOYER
 - RETAIL
 - RESIDENTIAL STORAGE
 - SERVICE
 - SOFT LANDSCAPING



Approved SSSA7 Floor Plan - Mezzanine



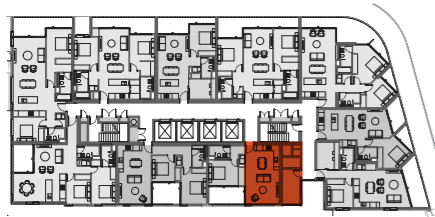
Proposed S96 Floor Plan - Mezzanine

PROPOSED MODIFICATIONS

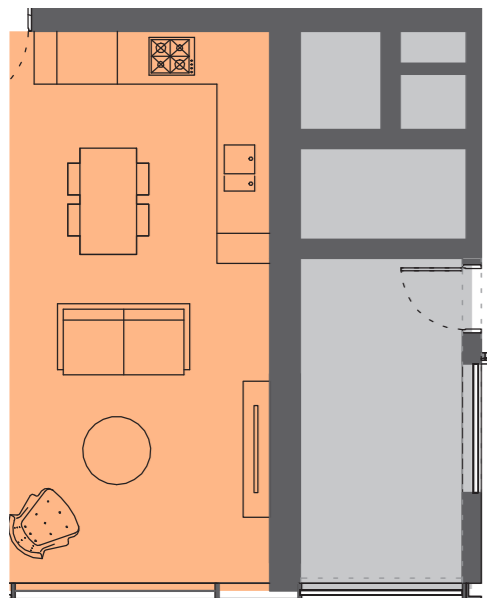
2.2 Internal and External Amendments - Level 34-39 & NE3 South Facade

As a result of design development, efficiencies have been identified in the allocation of plant space allowing plant rooms on Level 34 - 37 to be converted to study areas for the adjacent apartments (Refer to Appendix 2 for SEPP65 and ADG compliance summary). The louvres have therefore been replaced with glazing to provide the required amenity to these rooms. In addition, the redundant louvres to the roof plant have been replaced with opaque glass, consistent with the facade glazing system. Refer to the Development Summary in the appendices for resulting changes to the GFA.

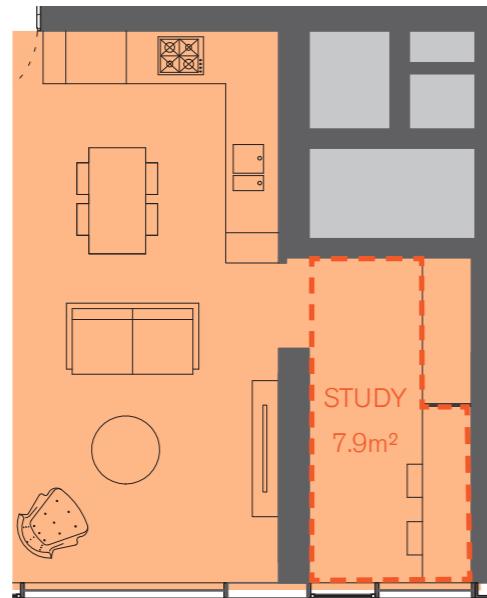
As a result of the amendments, the glazing has been extended to L38-40 for consistency in the facade detailing.



Keyplan



Approved SSDA7 Floor Plan - Level 34-37



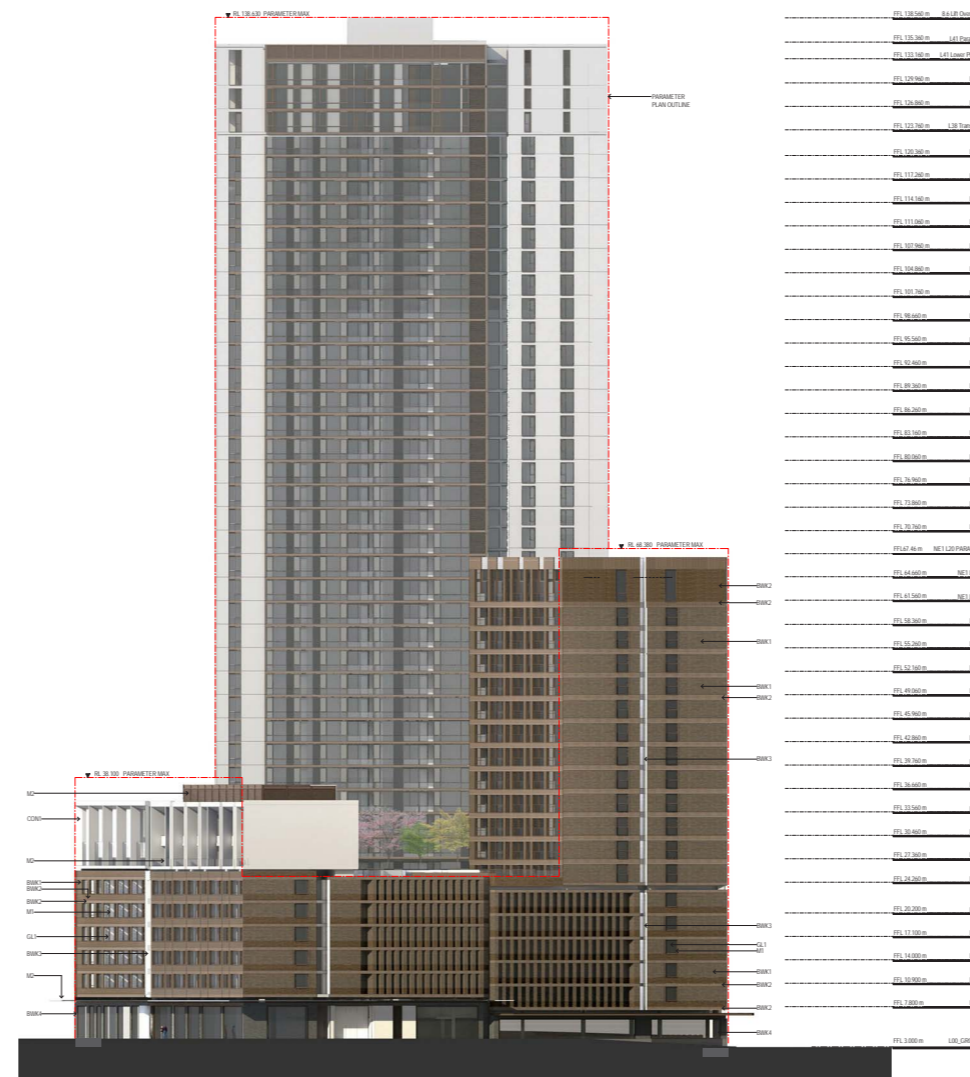
Proposed S96 Floor Plan - Level 34-37



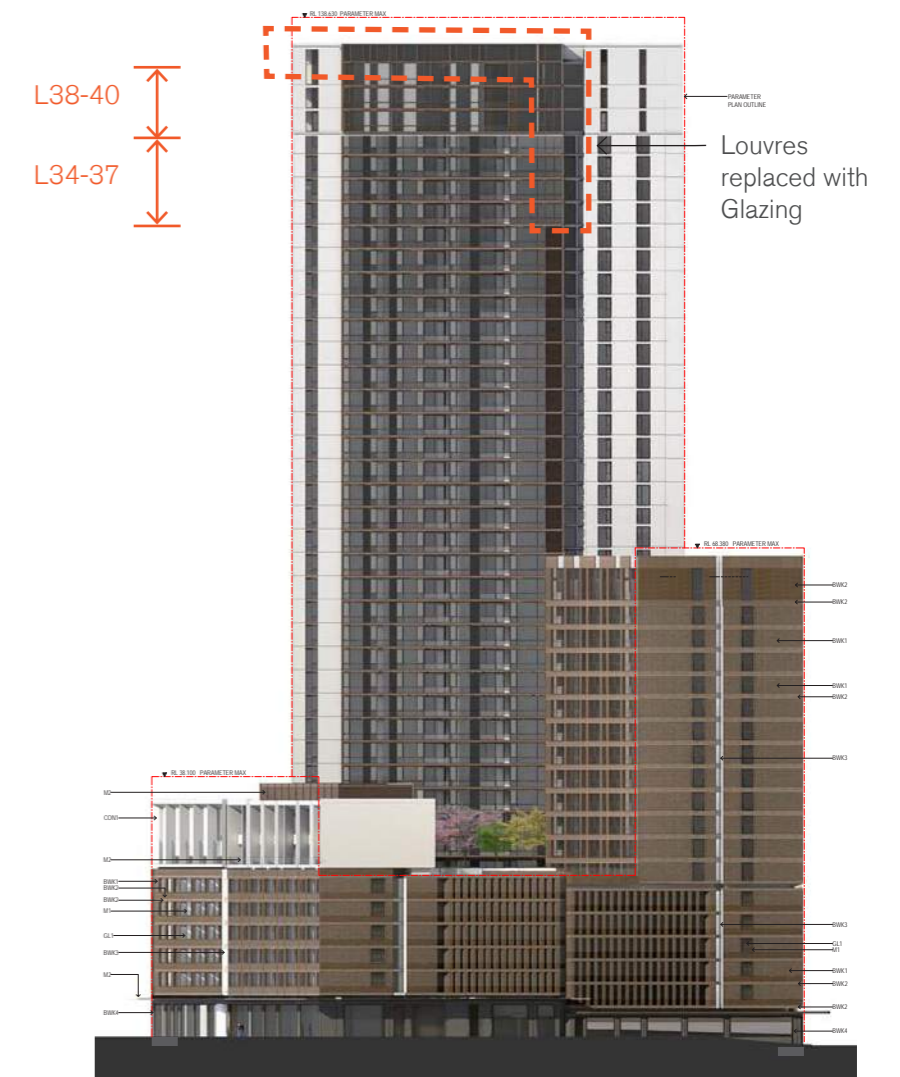
Approved SSDA7 Floor Plan - Level 38-39



Proposed S96 Floor Plan - Level 38-39



Approved SSDA7 NE3 Tower South Elevation



Proposed S96 NE3 Tower South Elevation



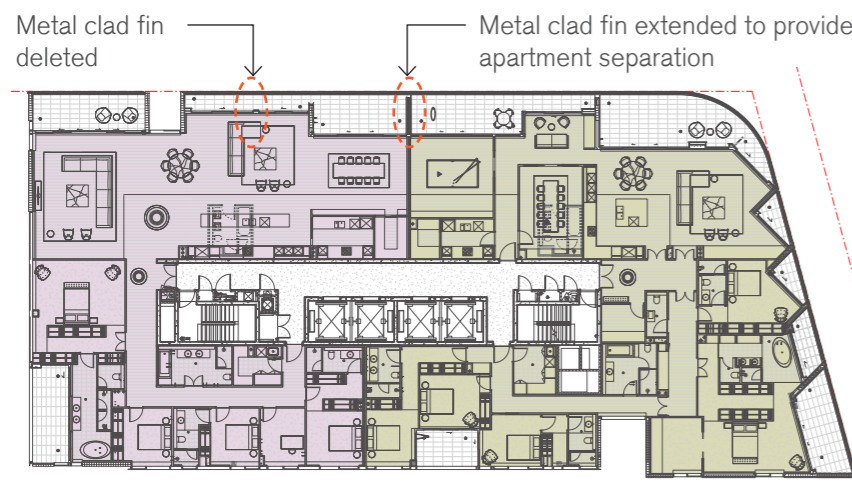
PROPOSED MODIFICATIONS

2.2 Internal and External Amendments - Level 40 and NE3 North Elevation

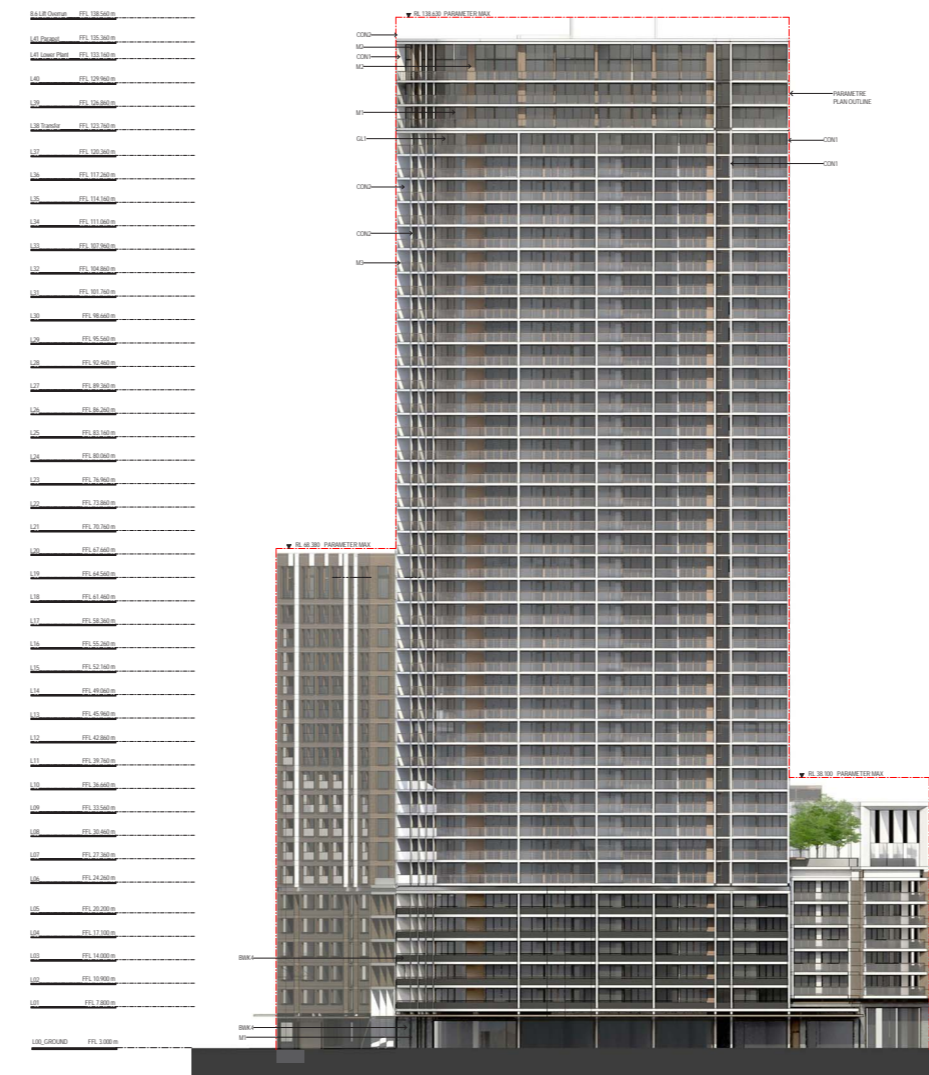
The apartments on Level 40 have been reduced from 6 (2 x 4bed, 2 x 3bed, 2 x 2 bed) to 2 (1 x 5 bed, 1 x 4 bed) following discussions with prospective purchasers. This has resulted in internal layout amendments and a slight modification to the detailing of the dividing balcony walls whilst maintaining the alignment and vertical rhythm of the tower facade. Refer to appendices for SEPP65 and ADG Compliance Summary.



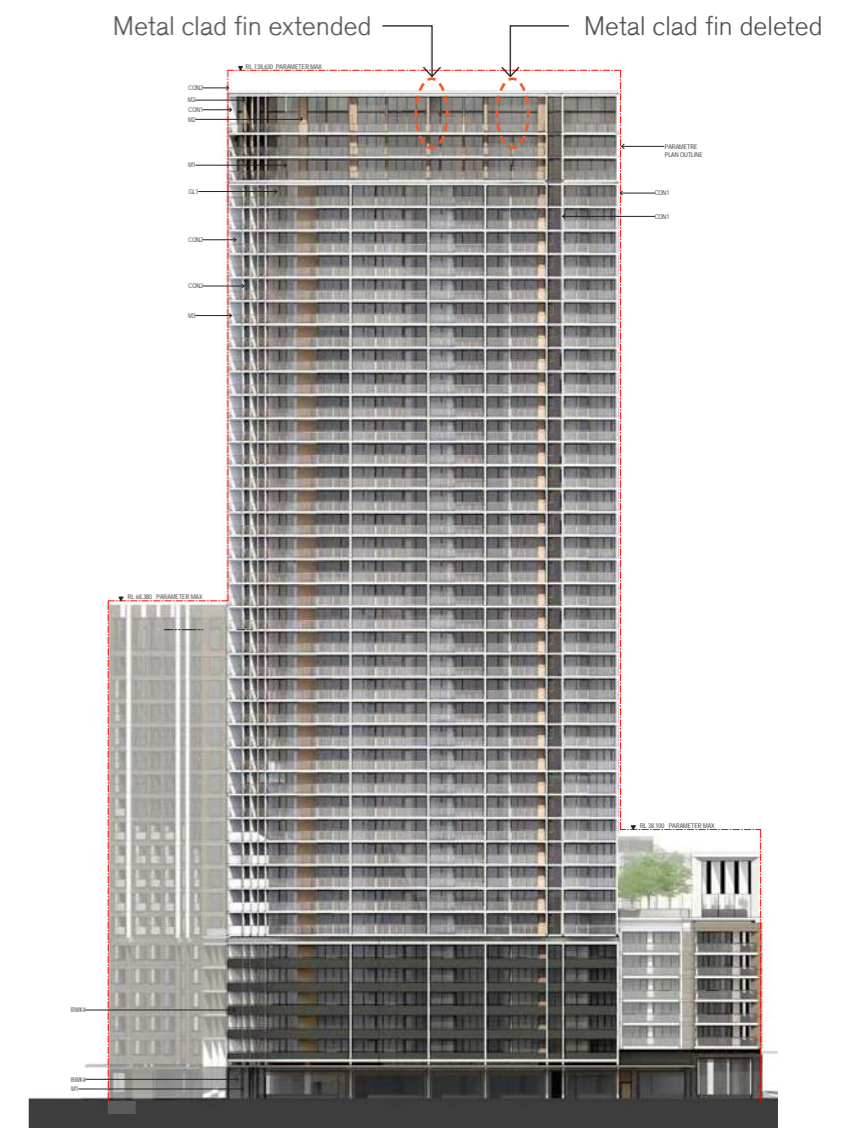
Approved SSDA7 Floor Plan - Level 40



Proposed S96 Floor Plan - Level 40



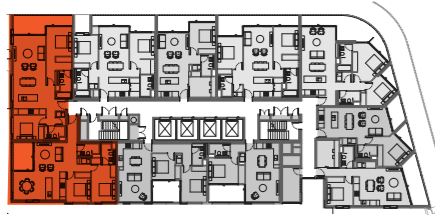
Approved SSDA7 NE3 Tower North Elevation



Proposed S96 NE3 Tower North Elevation

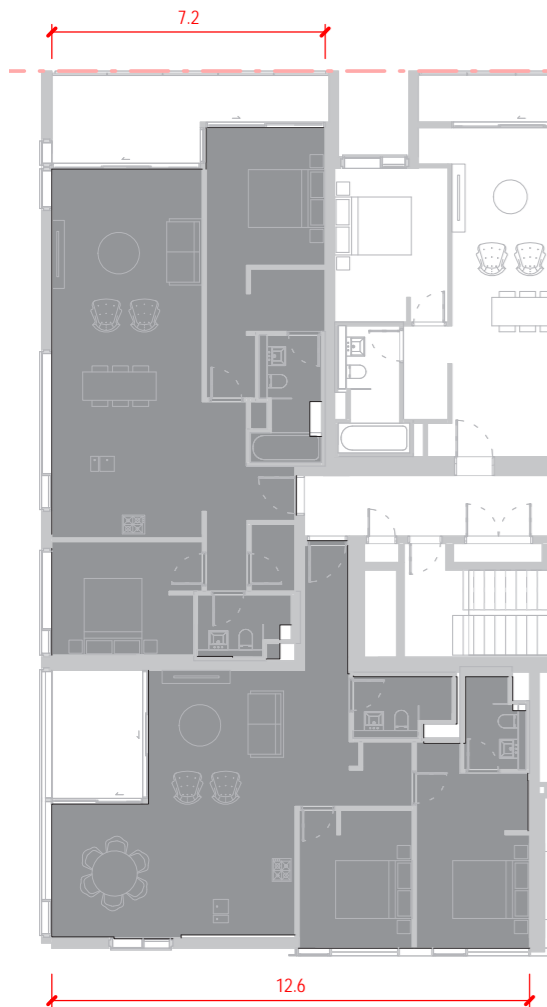
PROPOSED MODIFICATIONS

2.2 Internal and External Amendments - NE3 West Elevation

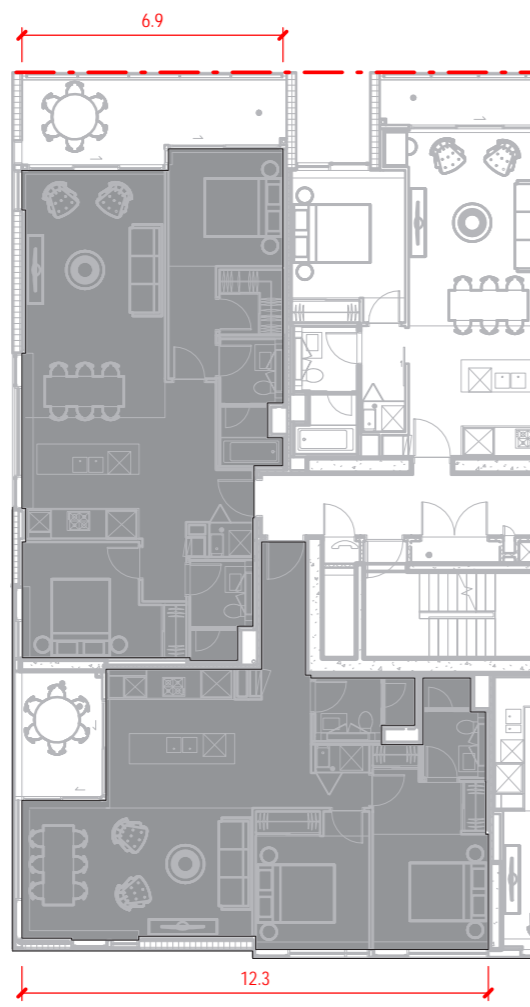


Keyplan

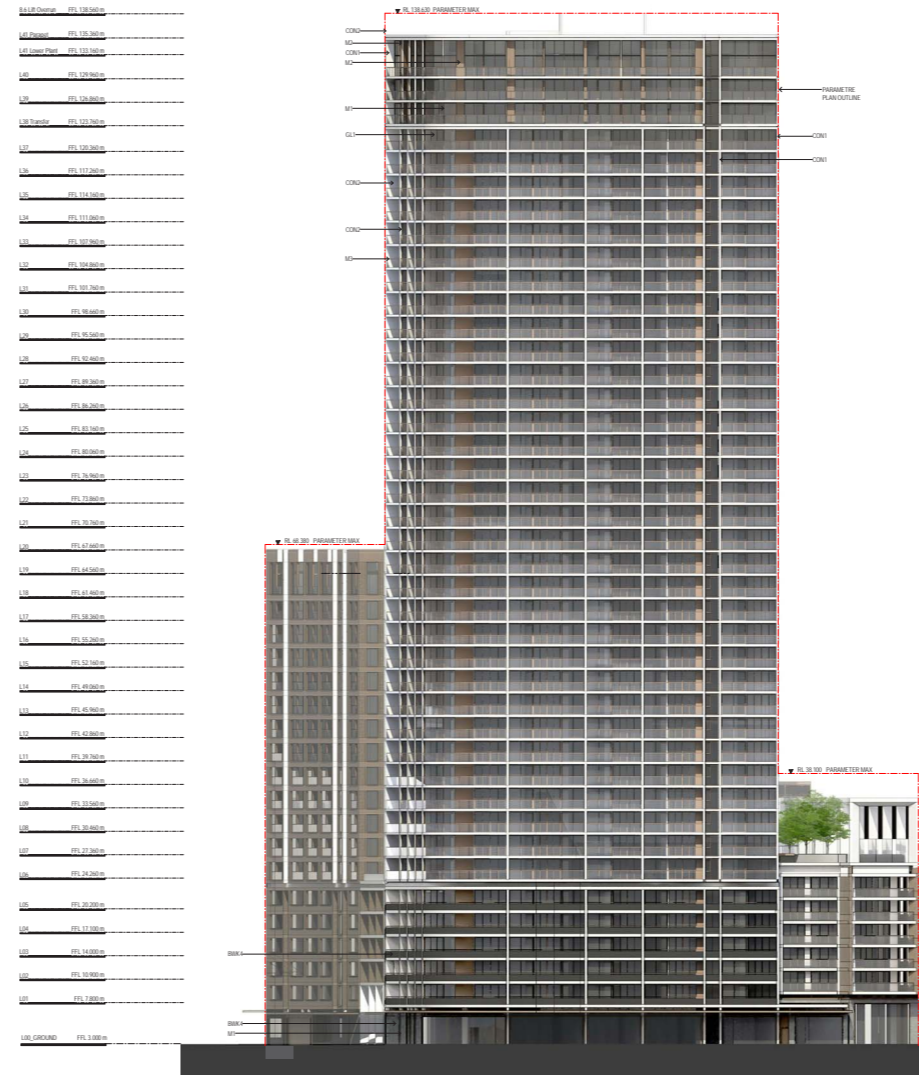
The NE3 tower floor plate has been reduced in width by 300mm by moving the western tower facade east. This is due to the optimization in planning of the two western apartments. This applies on floors L06 to L37. This reduction also resulted in slight amendments to the planning on upper levels L38-L40. Refer Appendices 3.1 - Development Summary and 3.2 - SEPP65 and ADG Compliance.



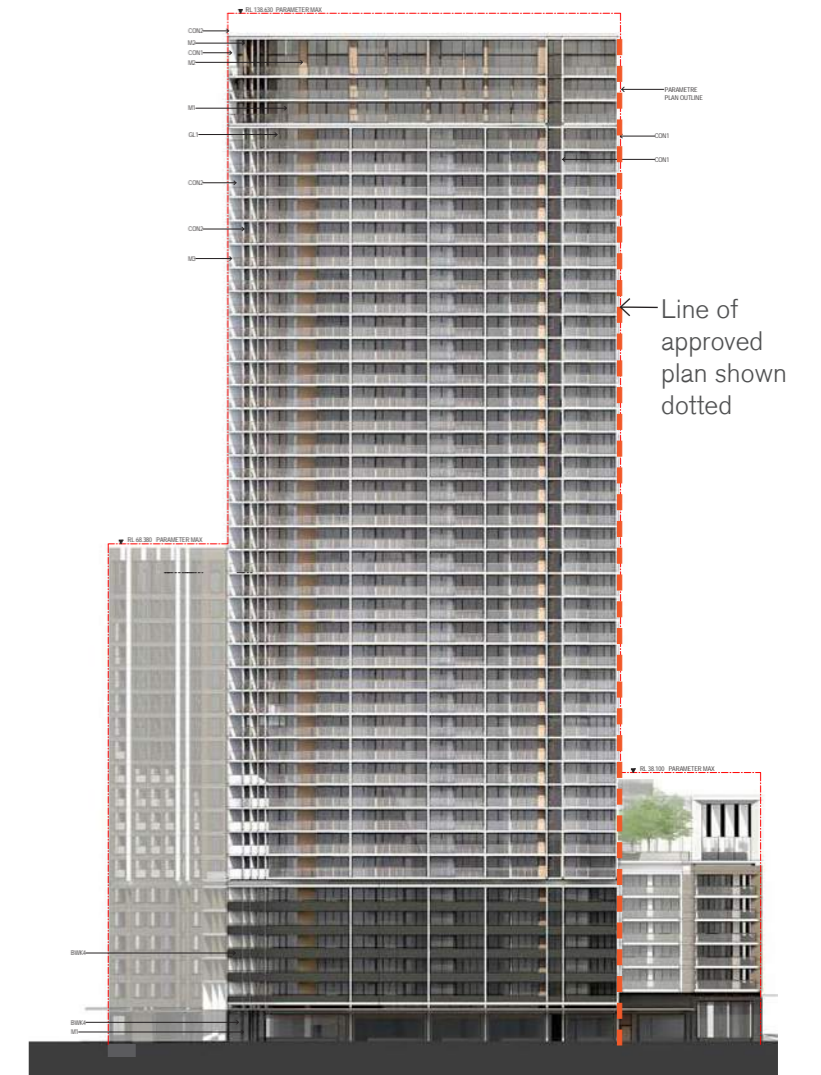
Approved SSDA7 Floor Plan - Typical



Proposed S96 Floor Plan - Typical



Approved SSDA7 NE3 Tower North Elevation



Proposed S96 NE3 Tower North Elevation



PROPOSED MODIFICATIONS

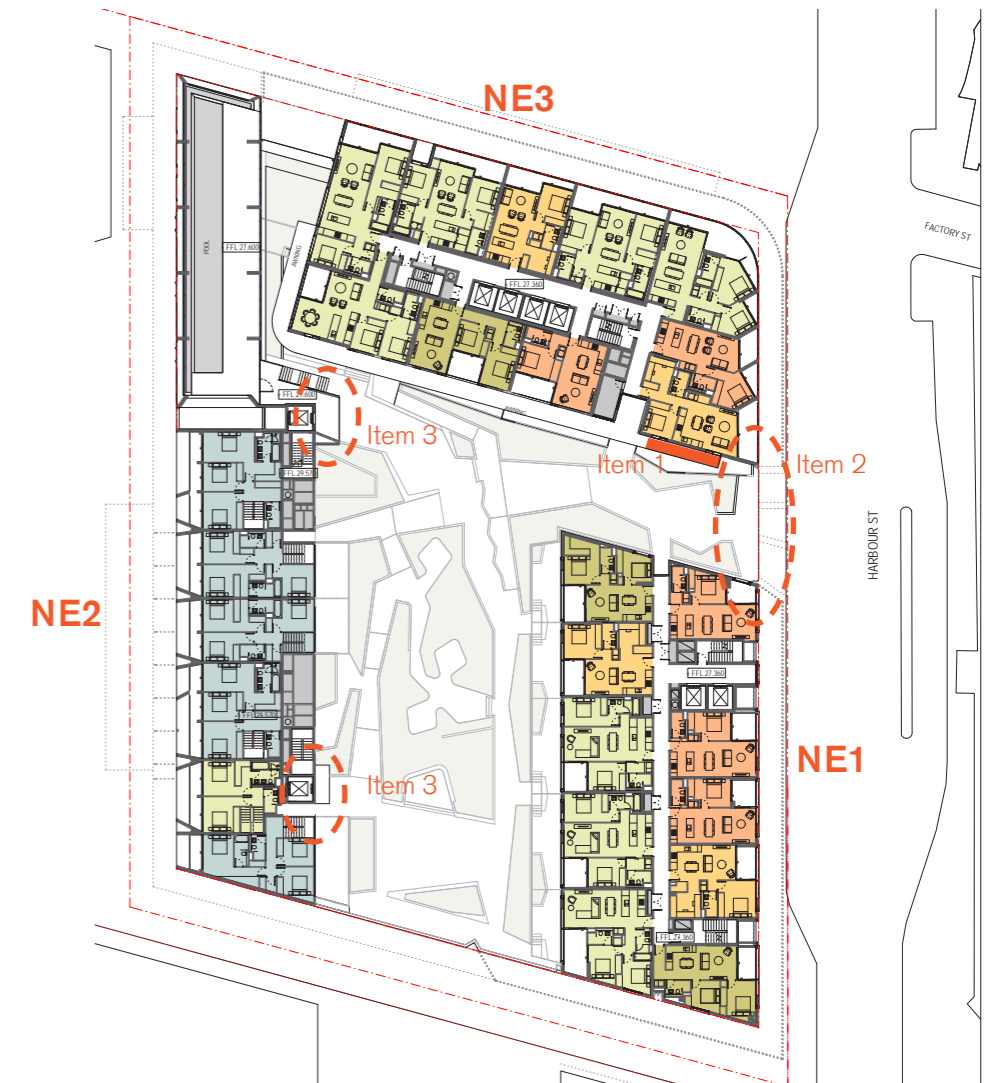
2.3 External Amendments - Podium Plan

Minor modifications are proposed to the podium to improve the amenity for the occupants. These include:

1. An extension of the podium awning at the base of the NE3 tower. This will mitigate the wind effects to the podium apartment located to the South East of the tower.
2. The planted edges between NE1 and NE3 have been setback 1-1.5m from the balustrade. This removes any climbing ledges and eliminates the need to increase the balustrade beyond 1100mm high.
3. A framed masonry portal has been added to the lifts of NE2 to provide weather protection as further detailed on page 15.



Approved SSDA7 Floor Plan - Podium



Proposed S96 Floor Plan - Podium

PROPOSED MODIFICATIONS

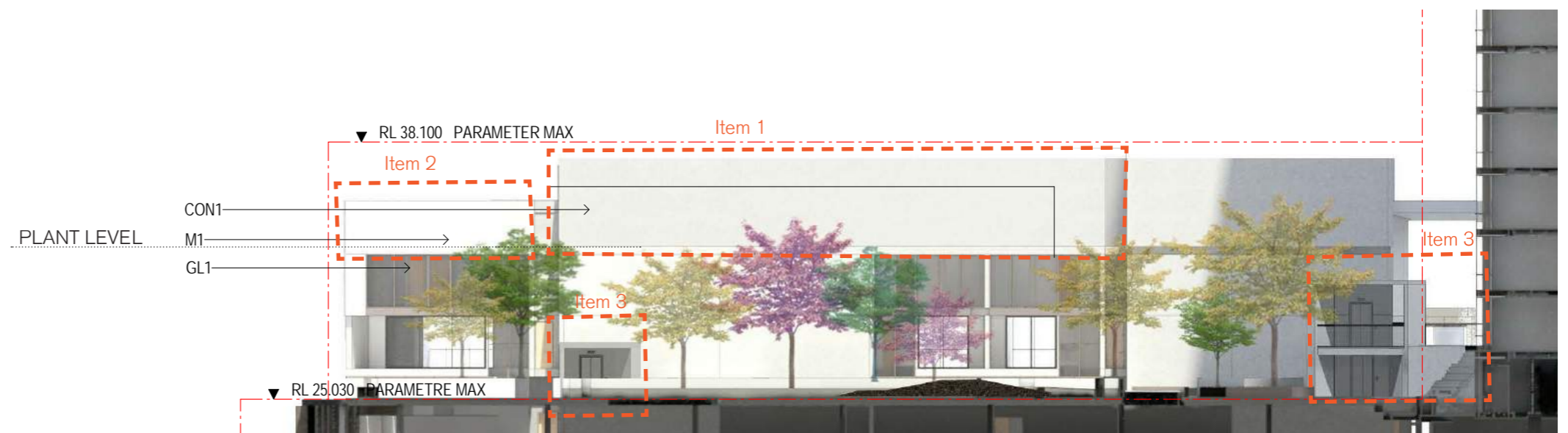
2.3 External Amendments - NE2 East Facade

The Eastern facade of the NE2 building has been amended to address the following:

1. Redundant plant louvres have been replaced with a class 2 concrete finish, consistent with the remaining facade.
2. Due to the plant floor levels, the glass has been lowered to match the apartment ceiling height.
3. A framed masonry portal has been added to the lifts of NE2 to provide weather protection.



Approved SSDA7 NE2 East Elevation



Proposed S96 NE2 East Elevation



PROPOSED MODIFICATIONS

2.3 External Amendments - NE3 Tower West Facade Glazing

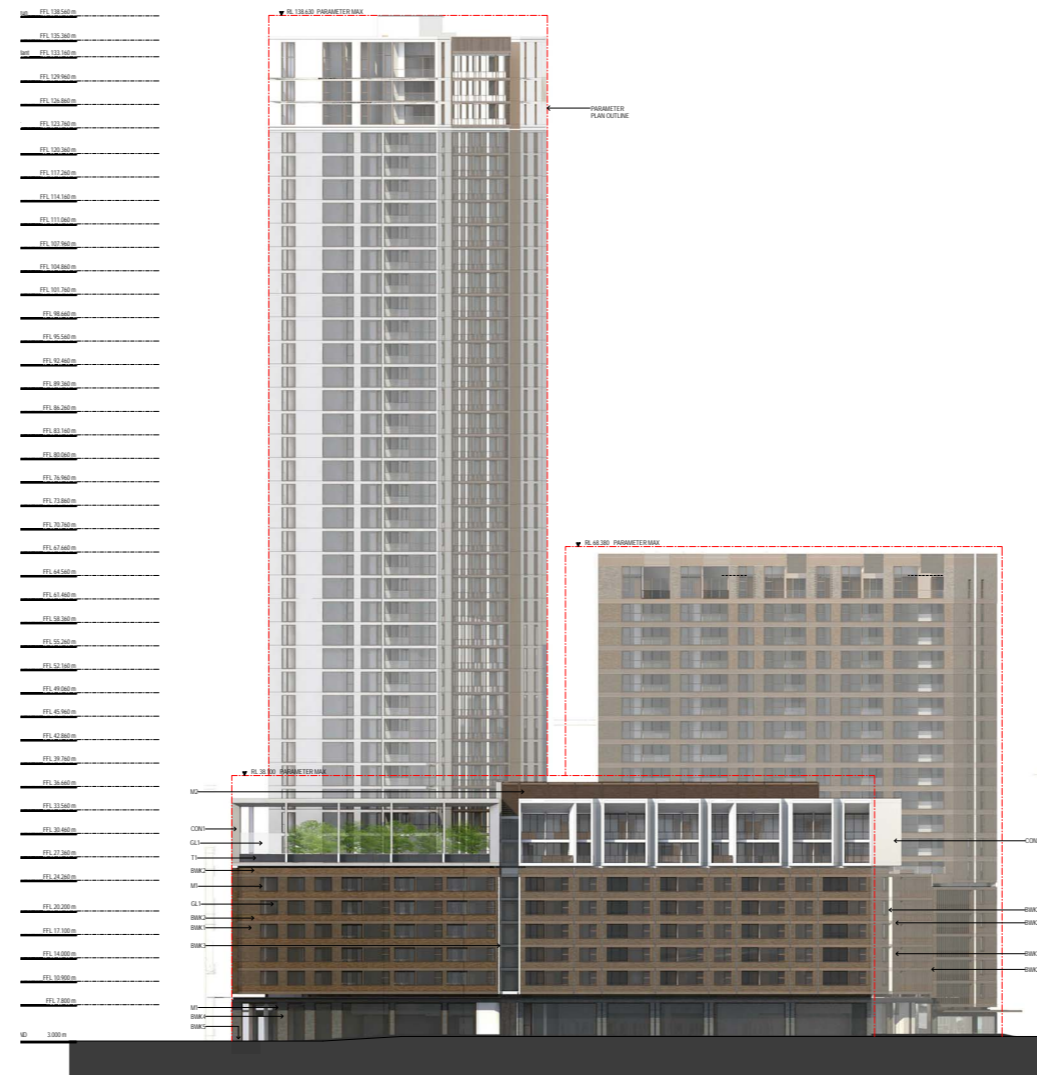
The extent of glazing to Level 38-40 has been slightly increased to better address the internal planning of the L38 to L40 apartments and improve their amenity.



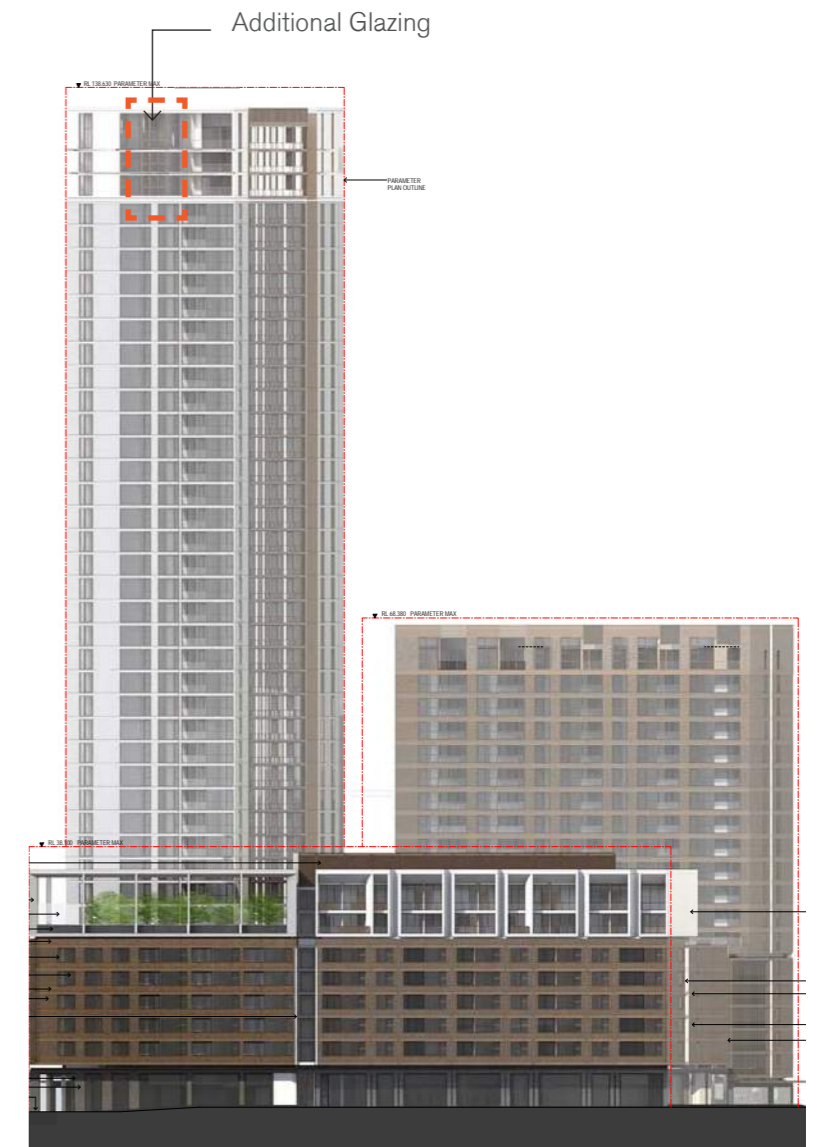
Approved SSDA7 Floor Plan - Level 38-39



Proposed S96 Floor Plan - Level 38-39



Approved SSDA7 NE3 Tower West Elevation



Proposed S96 NE3 Tower West Elevation

PROPOSED MODIFICATIONS

2.3 External Amendments - NE3 Tower Awning

The detailing above the solid awning at the ground level has been refined to reinforce the tower form and simplify the transition of the awning heights.



Approved SSDA7 NE3 Tower North Elevation



Proposed S96 NE3 Tower North Elevation



PROPOSED MODIFICATIONS

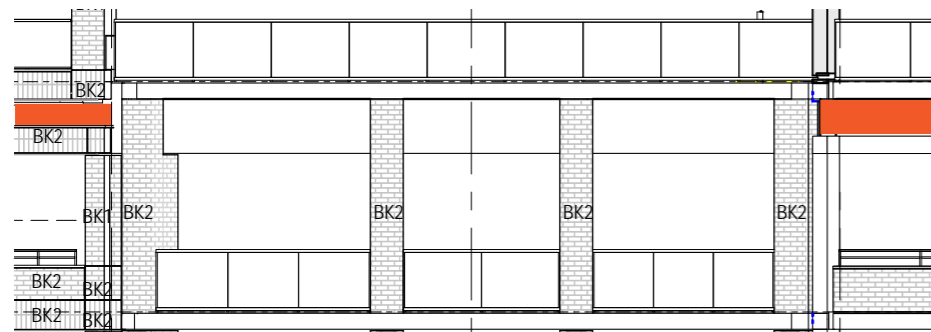
2.2 External Amendments - Foyer Parapet

The alignment between NE1 and NE3 re-entrant could not be achieved due to the following reasons:

- Brick dimensions and setout of the soldier course
- Concrete thickness of the re-entrant to NE3
- Services reticulation for the overland flow and hydraulic pipes of the podium transferring down to ground causing a misalignment in the vertical face of the foyer re-entrant and NE3 re-entrant

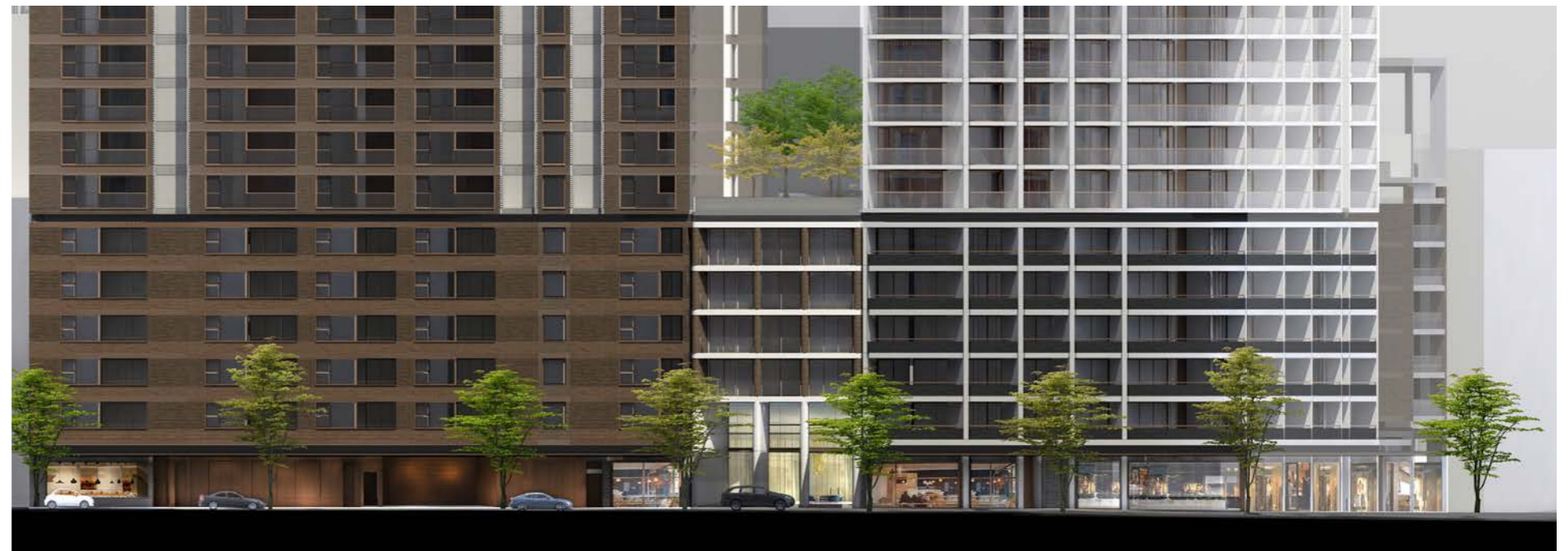
To preserve the design integrity and intent of the re-entrant, the foyer detailing has been amended. The columns over the foyer have been extended to re-inforce the vertical fenestration of the entry. The amendments retain the following key principles:

- Preserves the alignment of the parapet folds and key datums which articulate the podium re-entrant
- Provides a transition between NE1 brick building and NE3 tower
- The character of the built form is retained.



Proposed East Elevation Detail

■ Re-entrant



Approved SSSA7 East Elevation



Proposed S96 East Elevation

Brick columns extended and soffit modified



PROPOSED MODIFICATIONS

2.3 External Amendments - Retail Portals West Facade

Additional brick columns have been added to the NE2 ground floor elevation. The detailing of the columns is consistent with the current piers and align with the fenestration to the building above.

The additional columns also reduce the spans of the openings and provide flexibility to the tenancy sizes.



Approved SSDA7 NE3 Tower West Elevation



Proposed S96 NE3 Tower West Elevation

Additional Columns

PROPOSED MODIFICATIONS

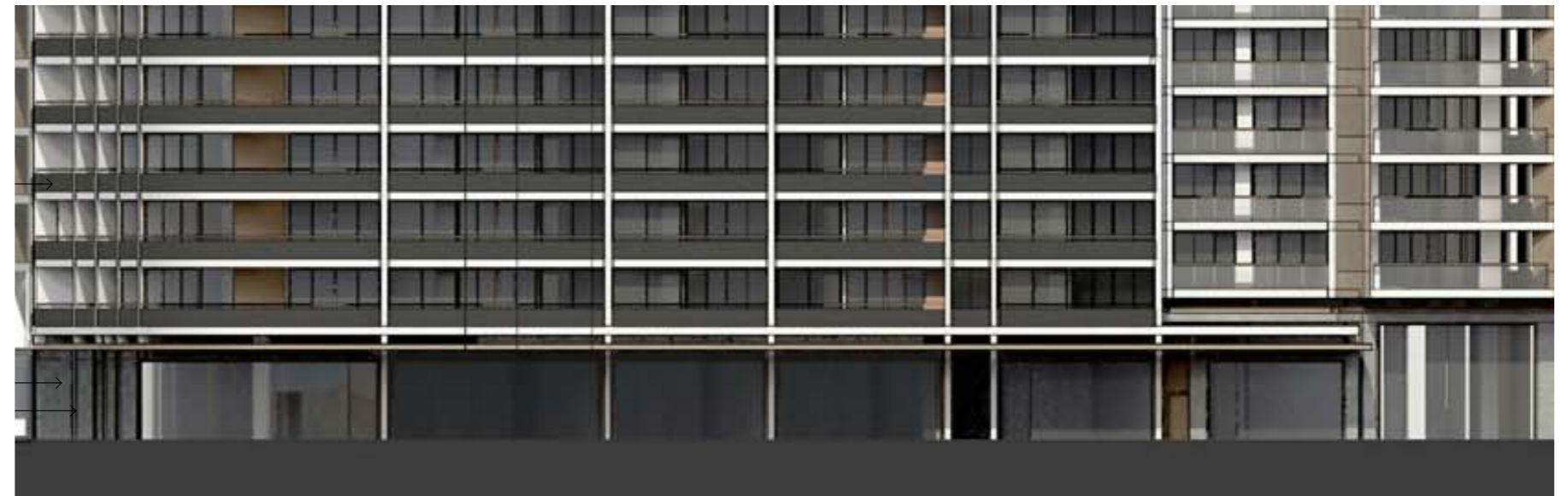
2.3 External Amendments - Retail Base with flood freeboard

Additional brick piers and brick upstands have been added to the retail base along Factory Lane, Harbour Street and Little Hay.

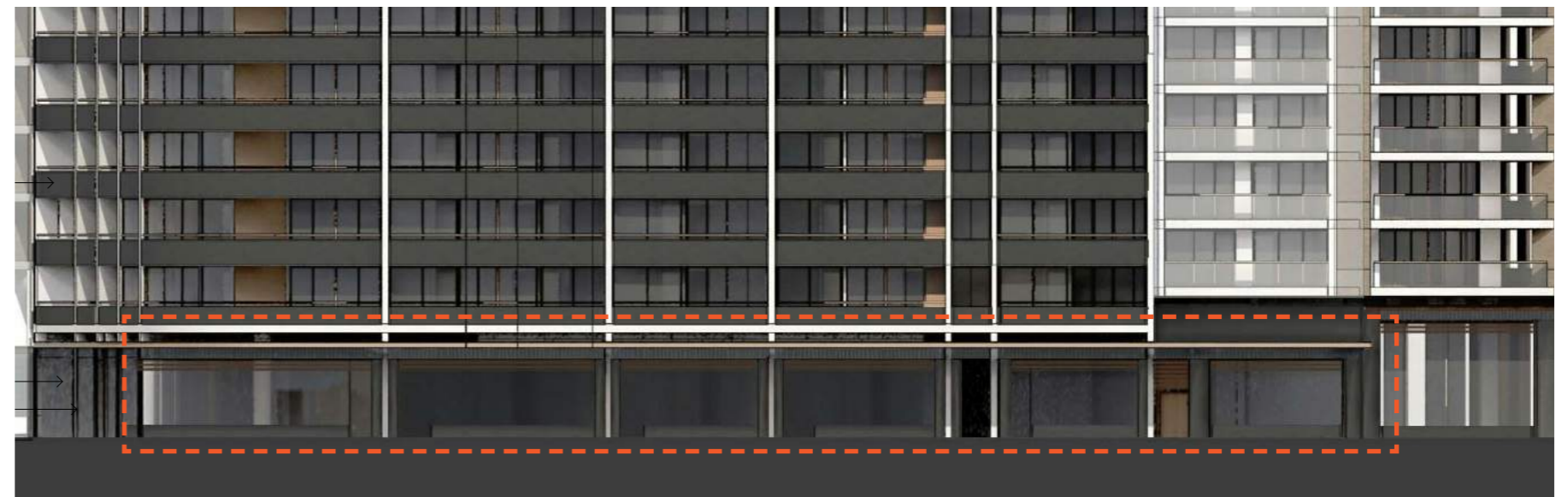
The addition of the brick provides a consistent language to all the openings around the North East Plot, with slight variations where an upstand is required as a flood mitigation response.

Establishing a considered and consistent character for the retail base will provide a coherent identity to the retail tenancies of the North East Plot and further reinforce the building coming to ground.

This approach to the base building retail design will still allow for retail tenants to have the flexibility to infill the portals with a 'kit of parts' to suit each individual use.



Approved SSSA7 NE3 Retail base - Factory Lane



Proposed S96 NE3 Retail base - Factory Lane

PROPOSED MODIFICATIONS

2.3 External Amendments - Louvres on South Facade

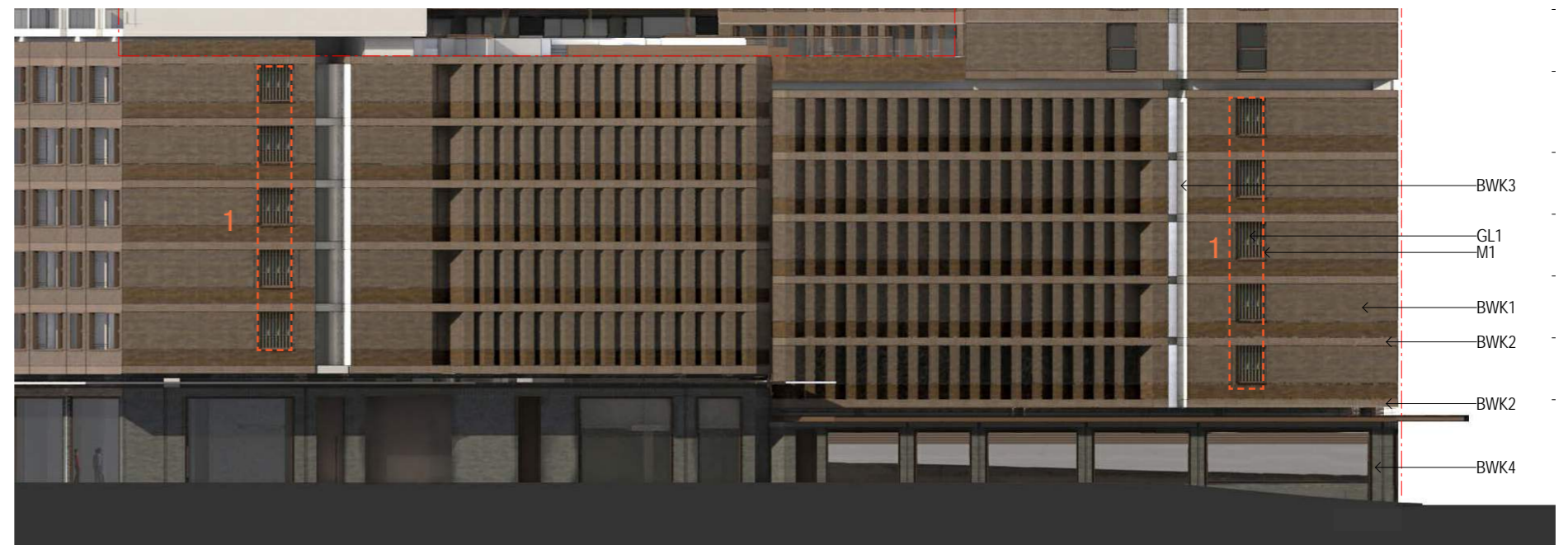
Vertical aluminium screens added to the southern windows of habitable rooms along the southern facade on levels 1 to 5 to address privacy and overlooking concerns triggered by the proximity and the design of SE Plot (SSDA6633).



Proposed S96 South Elevation Louvres - Little Hay



Approved SSSDA7 South Elevation - Little Hay



Proposed S96 South Elevation - Little Hay

Appendices

03

Development Summary

	DA (RTS)	S96	Difference
Non-Residential (GFA)	2050 m2	1986 m2	-64 m2
Residential (GFA)	51,602 m2	51494 m2	-108 m2
Total	53652 m2	53480 m2	-172 m2
Difference			

Accommodation Summary Table

Type	DA Total	% of DA Total	S96 Total	% of S96 Total
1 Bed	251	43%	251	43.5%
2 Bed	308	53%	306	53.0%
3 Bed	16	3%	14	2.4%
4 Bed	6	1%	5	0.9%
5 Bed	0	0%	1	0.2%
Total	581	100%	577	100.0%

Carparking

	DA Total	S96 Total
Residents - Standard	436	436
Residents - Accessible	9	9
Retail and Retail Loading	4	10
Visitors	0	0
Total	449	455

S96 Amendments (Residential)

Item	Per Floor	Total Area
NE3 Width Reduction L6		-9 m2
NE3 Width Reduction L7-L37	-8.1	-243 m2
NE3 Width Reduction L38-L39	-11.7	-23 m2
Penthouse Replan L40		-6 m2
Studies L34-L37		45 m2
Riser / Wall Thickness		-29 m2
Storage		157 m2
Total		-108 m2

Appendices
3.2 SEPP65 and ADG Compliance - Table

Darling Square NE Plot
SEC96
ADG Compliance Table

Description No. of each apartment type affected	A NE3 S 1Bed (L34-L37) 4	B NE3 NW Western Apartment 33	C NE3 SW Western Apartment 33	D L40 4 Bed 1	E L40 5 Bed 1
4A Solar Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area	✓	The development complies overall.	✓	✓	✓
4B Ventilation At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	✓	Apartment is above L10 and balcony is not fully enclosed.	✓	✓	✓
Habitable rooms to be naturally ventilated	✓	✓	✓	✓	✓
4D Apartment Areas (Figures 1 to 3) Minimum areas for apartments					
Studio: 35					
1 Bed: 50	✓	64.5sqm			
2 Bed: 70 (plus 5 for each bathroom over 1)		✓	85.6sqm	✓	83sqm
3 Bed: 90 (plus 5 for each bathroom over 1)					
4 Bed: 102 (plus 5 for each bathroom over 1)				✓	367sqm
5 Bed: 114 (plus 5 for each bathroom over 1)					✓
Room Sizes					
Bedroom Areas (master 10sqm, other 9sqm)	✓	✓	✓	✓	✓
Bedroom Widths (minimum 3m)	✓	✓	✓	✓	✓
Living Room Widths (Studio, 1B = 3.6m, 2B+ = 4m)	✓		3.7 x 7.2m living room with dual aspect on the façade	✓	3.6 x 6.1m living room with dual aspect on the façade
Robes					
Bedrooms (master 1.8m, other 1.5m)	✓	✓	✓	✓	✓
4E Balconies (Figures 1 to 3)					
Studio: 4					
1 Bedroom: 8 (minimum depth 2m)	✓				
2 Bedroom: 10 (minimum depth 2m)		✓			
			Balcony is 7.7sqm which is less than the required minimum of 10sqm. We deem this to be acceptable given the balcony is operable on two sides and the adjacent living space is located on the corner of the floorplate with a significant amount of amenity and access to natural light.		
3+ Bedroom: 12m2 (minimum depth 2.4m)				✓	> 20sqm
				✓	> 20sqm

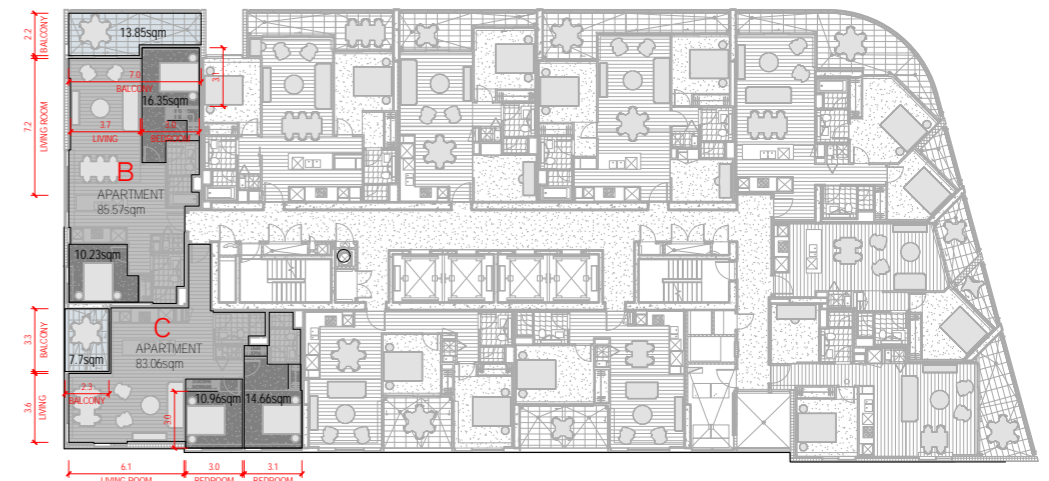


Figure 1 - NE3 - 400mm reduction in 2 x western apartments L6-L39

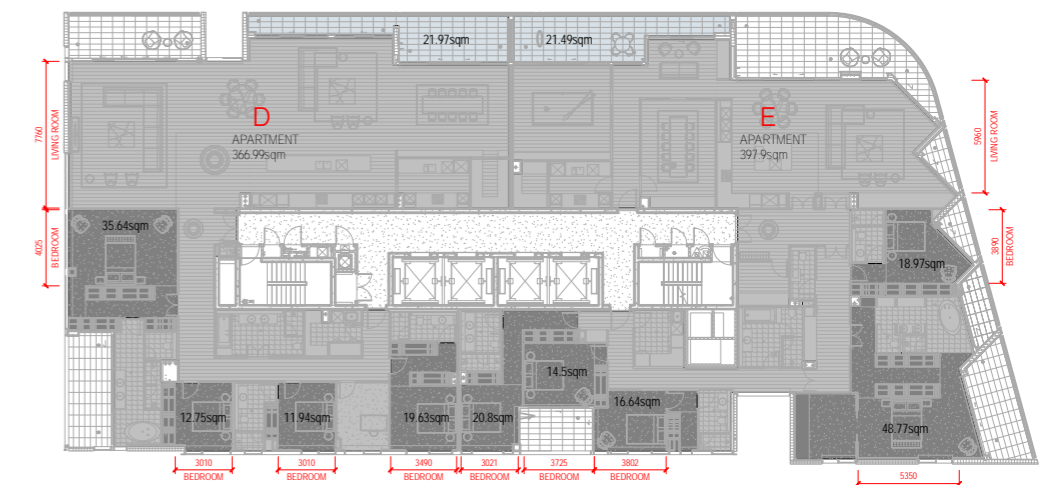


Figure 2 - NE3 - Penthouse redesign L40

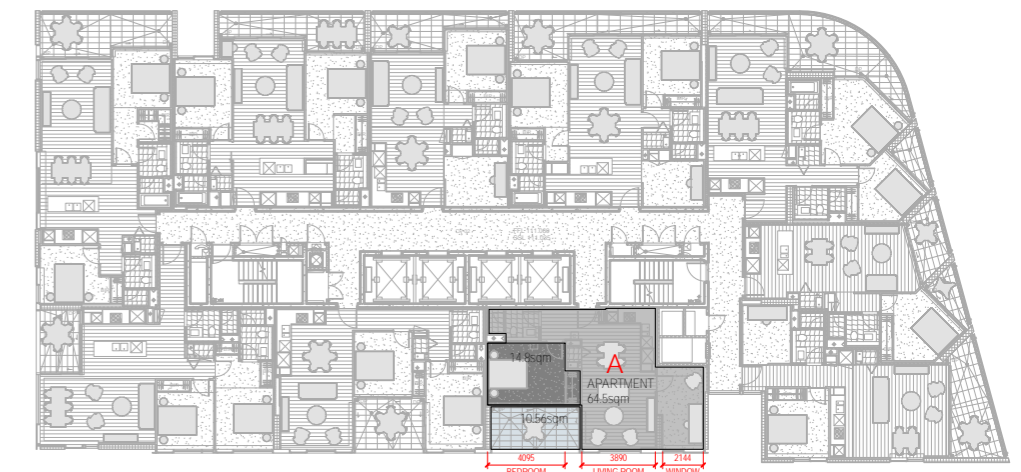
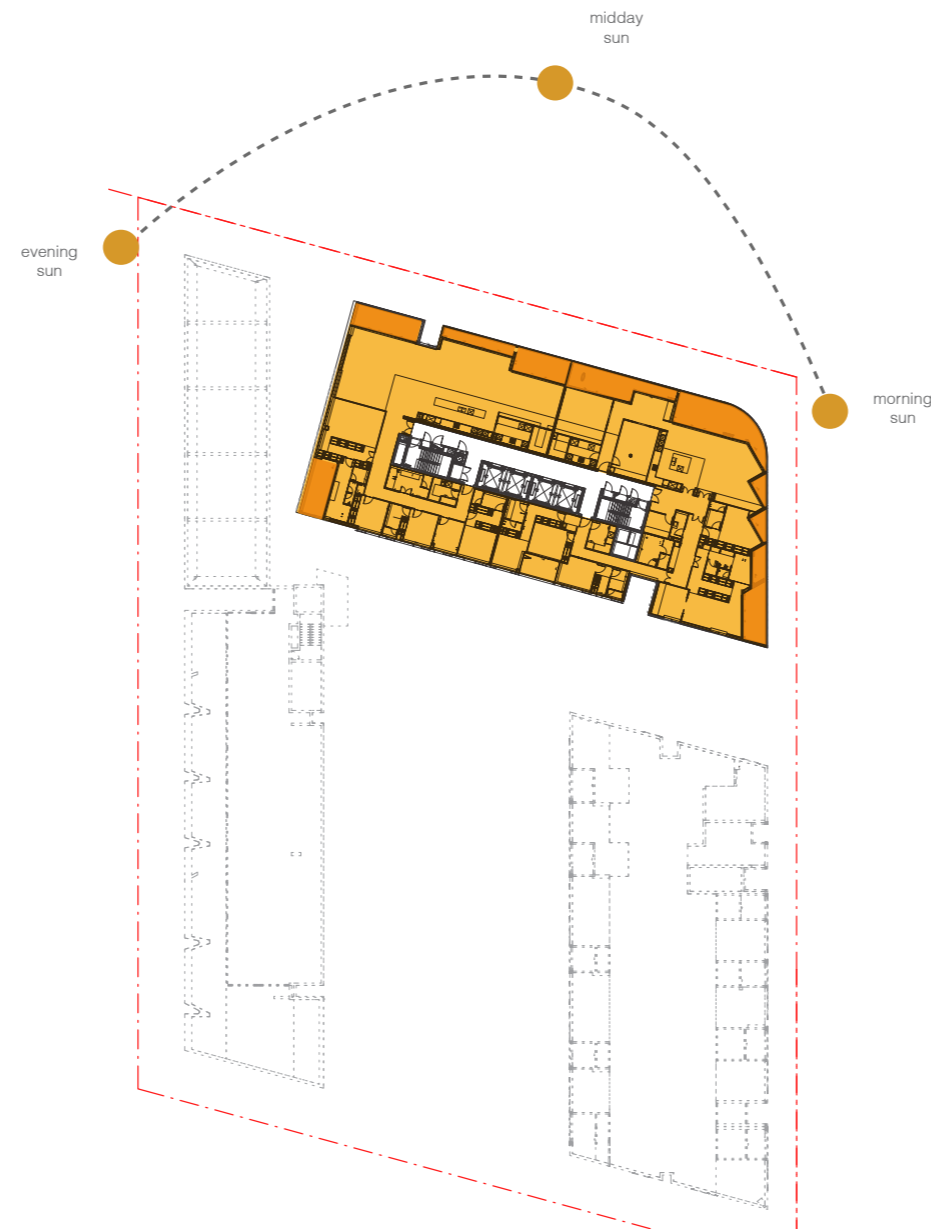


Figure 3 - NE3 - Plant converted to studies L34-L37



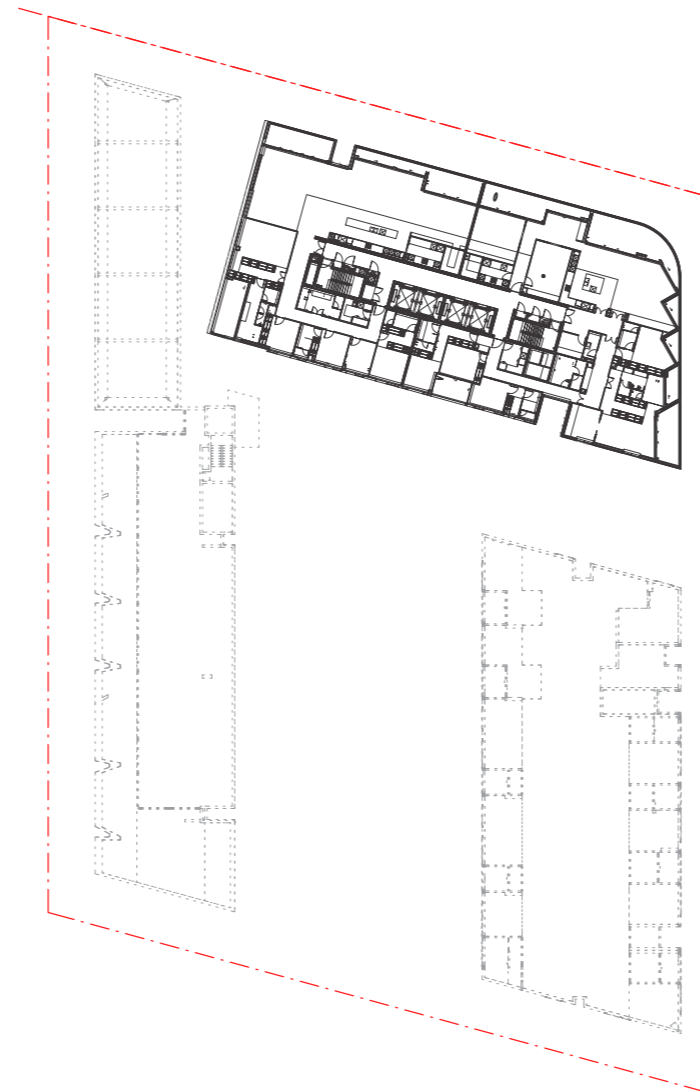


S96 – L40 Living Room and Balconies with 2 or more hours of solar access during winter solstice

Solar Compliance

SEPP 65 Requirement	70%
ADG Requirement	70%
<hr/>	
Approved Scheme	70.9%
Proposed Scheme	70.9%





S96 – L40 South Facing, Single aspect apartments

South Facing Apartments

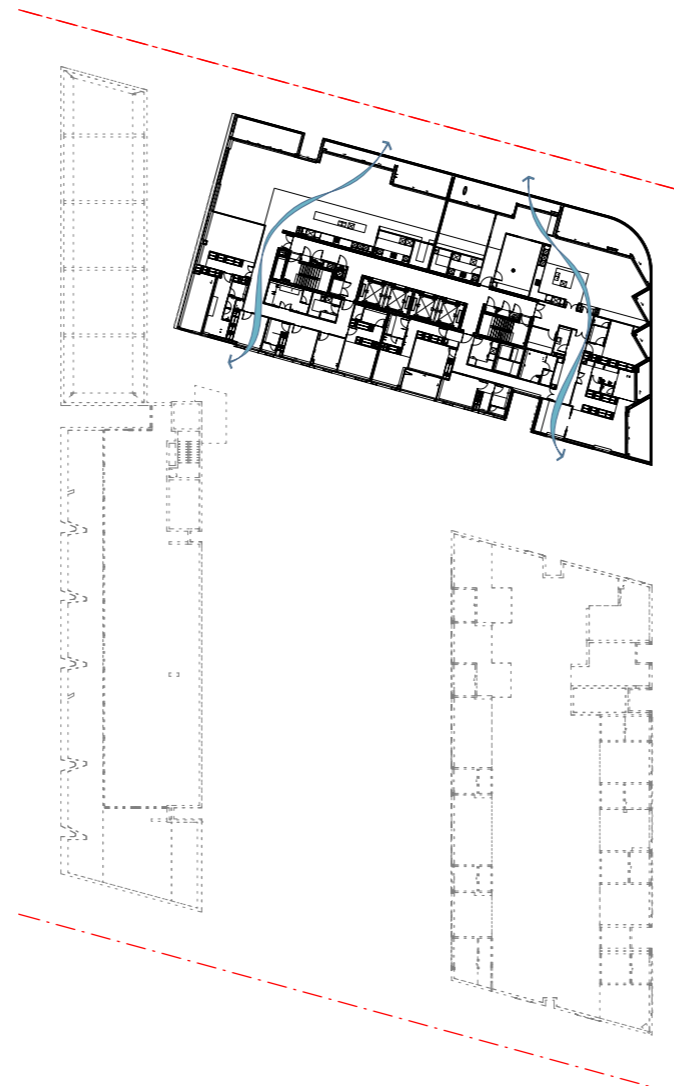
SEPP 65 Requirement < 10%

Apartment receiving no sun
between 9am and 3pm

ADG Requirement < 15%

Approved Scheme 11.5%

Proposed Scheme 11.4%



Ventilation Compliance

SEPP 65 Requirement >60%

ADG Requirement >60%

All apartments above 10 storeys considered cross ventilated given wind pressure on facade.

Apartment changes subject of this S96 all occur above 10 storeys. As such they are all 100% cross ventilated according to the ADG. Apartments below 10 storeys remain as per DA Approval.

S96 – Cross Ventilation: 38.8% (RFDC) As noted in the DA wind report, and with the ADG, apartments above 10 storeys are considered naturally ventilated. L40 = 100%

