

4-6 Bigge Street, Liverpool

Submitted to Liverpool City Council
On Behalf of Land and Housing Corporation

JULY 2019



REPORT REVISION HISTORY

Revision	Date Issued	Revision Description			
01 Draft for issue to LAHC	17/05/19	Revision tracking notes			
		Prepared by	Verified by		
		Lotti Wilkinson Senior Project Planner	Staple		
			Stephen Kerr Executive Director		
02 Updated	16/07/19	Revision tracking notes			
for issue to LAHC		Prepared by	Verified by		
		Lotti Wilkinson Associate	Staple		
			Stephen Kerr		
			Executive Director		
02 Updated	08/08/19	Revision tracking notes			
for issue to LAHC		Prepared by	Verified by		
		Lotti Wilkinson Associate	Staple		
			Stephen Kerr Executive Director		

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Clause 4.6 Request 4-6 Bigge Street, Liverpool 19-033 August 2019

1. INTRODUCTION

This is a formal written request that has been prepared in accordance with Clause 4.6 of the *Liverpool Local Environmental Plan 2008* (LLEP 2008) to support a development application submitted to Liverpool City Council for the construction of a nine-storey residential flat building containing 52 affordable housing units at 4-6 Bigge Street, Liverpool ("the site").

The objectives of Clause 4.6 are to provide an appropriate degree of flexibility in applying development standards to achieve better outcomes for, and from, development.

As the following request demonstrates, a better planning outcome would be achieved by exercising the flexibility afforded by Clause 4.6 in the particular circumstances of this application.

The development standard that this request seeks approval to vary is the Height of Buildings control in Clause 4.3 of the LLEP 2008.

The numeric value of the Height of Buildings development standard is 35 metres.

The development standard is not specifically excluded from the operation of Clause 4.6 of LLEP 2008.

This request has been prepared having regard to the Department of Planning and Environment's *Guidelines* to Varying Development Standards (August 2011) and relevant decisions in the New South Wales Land and Environment Court and New South Wales Court of Appeal¹.

In Initial Action Pty Ltd v Woollahra Municipal Council [2018] NSWLEC 118 ("Initial Action"), Chief Justice Preston provided further clarification on the application of Clause 4.6 and the preconditions which must be satisfied for consent to be granted pursuant to Clause 4.6(4). That is, the consent authority must form two positive opinions of satisfaction under Clause 4.6(4)(a), as summarised below:

- the written request has adequately demonstrated that the matters under Clause 4.6(3) are satisfied, being that compliance with the standard is unreasonable or unnecessary, and there are sufficient environmental planning grounds to justify contravening the development standard. It is not the consent authority's role to directly form an opinion as to whether these matters are satisfied, rather indirectly by the satisfaction that the written request has addressed these matters.
- be **directly satisfied** that the proposed development satisfies Clause 4.6(4)(a)(ii), being the proposed development will be in the public interest because it is consistent with the objectives of the zone and the objectives of the development standard. The consent authority must form this opinion directly, rather than indirectly satisfied that the written request has adequately addressed these matters.

The consent authority does not have to directly form the opinion of satisfaction regarding the matters in Clause 4.6(3), but only indirectly form the opinion of satisfaction that the applicant's written request has adequately addressed the matters required to be demonstrated by Clause 4.6(3) (Initial Action [25]).

In Sections 3 and 4 of this request, we have explained how flexibility is justified in this case in terms of the matters explicitly required by Clause 4.6 to be addressed in a written request from the applicant. In Sections 4, 5, 6 and 7 we address additional matters that the consent authority is required to be satisfied of when exercising either the discretion afforded by Clause 4.6 or the assumed concurrence of the Secretary.

The following request demonstrates that by exercising the flexibility afforded by Clause 4.6, in the particular circumstances of this application, not only would the variation be in the public interest because it satisfies the relevant objectives of both the R4 High Density Residential zone and the Height of Buildings development standard, but it would also result in a better planning outcome for, and from, the development.

¹ Relevant decisions include: Winten Property Group Limited v North Sydney Council [2001] NSWLEC 46; Wehbe v Pittwater Council [2007] NSWLEC 827; Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 1009; Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 90; Four2Five Pty Ltd v Ashfield Council [2015] NSWCA 248; Moskovich v Waverley Council [2016] NSWLEC 1015; Randwick City Council v Micaul Holdings Pty Ltd [2016] NSWLEC 7 and Initial Action Pty Ltd v Woollahra Municipal Council [2018] NSWLEC 118.



1.1. What is the Environmental Planning Instrument (EPI) that applies to the land and what is the development standard being varied?

The relevant EPI that applies to the land is the Liverpool Local Environmental Plan 2008 (LLEP).

The development standard that this request seeks approval to vary is the Height of Buildings standard in Clause 4.3 of the LLEP.

The numeric value of the Height of Buildings development standard for the site is shown in the Height of Buildings extract at **Figure 1** below. The relevant maximum building height for the site is 35 metres.

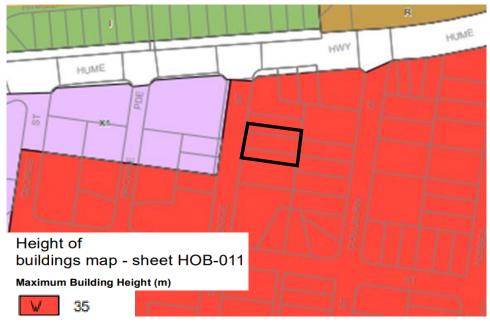


Figure 1: Height of Buildings Map extract, subject site outlined in black (Source: LLEP 2008)



2. EXTENT OF VARIATION

As demonstrated on the plans prepared by Turner Architects, the proposed development has a maximum height at RL55.750, which represents a maximum building height of 36.5 metres measured from existing ground level. Subsequently the proposed development breaches the 35 metre maximum building height development standard prescribed for the site by 1.5 metres.

However, it is important to note that the extent of the variation is related to the roof parapet and rooftop structures including the lift overrun and mechanical plant, with the remainder of the building compliant with the 35 metre development standard for the site.

For further detail, refer to the architectural plans provided at **Appendix 1**.

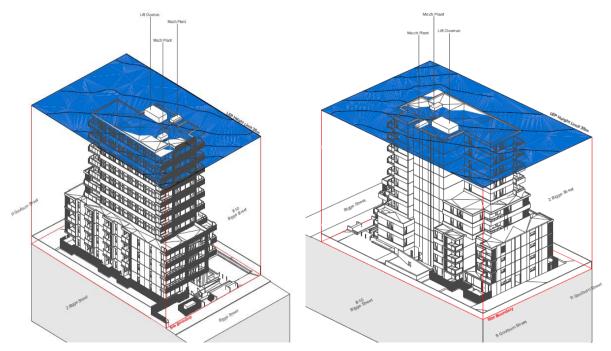


Figure 2: East Elevation (Source: Turner Architects)

Figure 3: South Elevation (Source: Turner Architects)





Figure 4: West Elevation (Source: Turner Architects)



Figure 5: North Elevation (Source: Turner Architects)



Figure 6: East Elevation (Source: Turner Architects)



Figure 7: South Elevation (Source: Turner Architects)



3. COMPLIANCE WITH THE DEVELOPMENT STANDARD IS UNREASONABLE OR UNNECESSARY IN THE CIRCUMSTANCES OF THIS CASE. [CL.4.6 (3)(A)]

3.1. Achieves the objectives of the standard

Compliance with the Height of Buildings development standard is unreasonable or unnecessary in the circumstances of this case because, as explained in **Table 1** (below), the objectives of the development standard are achieved, notwithstanding non-compliance with the standard.²

Table 1: Achievement of Development Standard Objectives.

Objective	Discussion
(a) to establish the maximum height limit in which buildings can be designed and floor space can be	The breach of the standard does not result in an inconsistency with this objective. The proposed development achieves the maximum building height for its habitable storeys. There is no blanket height breach and the elements that are higher than the permissible height include non-habitable floorspace at roof level which include the roof parapet and rooftop structures such as the lift overrun and mechanical plant.
achieved	The anticipated built form is consistent with the floorspace controls. The proposed development has a floor space ratio of 2.22:1, which is lower than the permissible floor space ratio of 2.5:1 for the site, in accordance with State Environmental Planning Policy (Affordable Rental Housing) 2009.
	The proposal is consistent with the existing and desired future character of the immediate area and is not incongruous with the locality, with a number of multistorey residential flat buildings adjacent to the site.
(b) to permit building heights that encourage high quality urban form	The breach of the standard does not result in an inconsistency with this objective. The overall built form (including the height) of the proposal has been carefully designed, along with its bulk and scale to improve residential amenity and provide an attractive and carefully articulated building. The articulation and quality of materials proposed in the built form will result in a modern and desirable development. The rooftop structures which marginally exceed the permissible height limit have been setback to ensure these elements are undiscernible from the intervening streetscape and adjoining dwellings below. Despite the minor variation, the proposed built form is appropriate to the site and is contextually in keeping with the scale of the future character of the area.
(c) to ensure buildings and public areas continue to	The breach of the standard does not result in an inconsistency with this objective. The building is centrally located on the site and the building is predominantly consistent with the required DCP setbacks for the site. An area of communal open

² In Wehbe v Pittwater Council [2007] NSWLEC 827 Preston CJ identified 5 ways in which an applicant might establish that compliance with a development standard is unreasonable or unnecessary and that it is sufficient for only one of these ways to be established. Although the decision concerned SEPP 1, it remains relevant to requests under clause 4.6 as confirmed by Pain J in Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 90, notwithstanding that if the first and most commonly applied way is used, it must also be considered in 4.6(4)(a)(ii). The 5 ways in Wehbe are: 1. The objectives of the development standard are achieved notwithstanding non-compliance with the standard; 2. The underlying objective or purpose is not relevant to the development with the consequence that compliance is unnecessary; 3. The objective would be defeated or thwarted if compliance was required with the consequence that compliance is unreasonable; 4. The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence the standard is unreasonable and unnecessary; or 5. The zoning of the land is unreasonable or inappropriate. The five ways are not exhaustive, and it may be sufficient to establish only one.



Objective	Discussion
receive satisfactory exposure to the sky and sunlight	space for residents is integrated around the perimeter of the building to provide a buffer between the building and the boundary line. This allows for good building separation between adjoining properties and the communal open space, which in turn results in good amenity and solar access. In accordance with the ADG, 37 apartments (71% of apartments) will receive a minimum of 2 hours of direct sunlight between 9am and 3pm at midwinter to living rooms and 41 apartments (79%) will receive 2 hours of direct sunlight between 9am and 3pm at midwinter to their balconies.
	The area of non-compliance will cause minimal overshadowing to adjoining properties, as confirmed in the shadow diagrams provided at Appendix 1 . Additional overshadowing as a result of the breach is limited to a very small extent of the road reserve along Bigge Street and the roof of 8-10 Bigge Street. The additional overshadowing caused by the breach is considered to be negligible.
(d) to nominate heights that will provide an appropriate	The breach of the standard does not result in an inconsistency with this objective. The rooftop structures which exceed the height standard are setback from the roof and will remain largely indiscernible from the intervening streetscape below and from adjoining dwellings.
transition in built form and land use intensity.	When viewed from the streetscape below and adjoining roads, the proposed building will read as a well defined and appropriately scaled residential building, which is compatible with its locality and adjoining development. The building incorporates setbacks at levels four, five and seven which reduce the perceived size and bulk of the building.
	The locality of Warwick Farm and the nearby Liverpool City Centre includes a range of tall developments, with a 15-storey development located to the west of the site at 1 Bigge Street. As such, there is very little opportunity for the additional height to protrude above the established height or dominate the built form in the locality.

Compliance with the maximum height development standard is unreasonable or unnecessary in the circumstances of this case because the objective of the standard is achieved notwithstanding the non-compliance (Test 1 under Wehbe).

4. THERE ARE SUFFICIENT ENVIRONMENTAL PLANNING GROUNDS TO JUSTIFY CONTRAVENING THE STANDARD. [CL. 4.6(3)(B)]

In Initial Action Pty Ltd v Woollahra Council [2018] NSWLEC 2018, Preston CJ observed that in order for there to be 'sufficient' environmental planning grounds to justify a written request under clause 4.6 to contravene a development standard, the focus must be on the aspect or element of the development that contravenes the development standard and the environmental planning grounds advanced in the written request must justify contravening the development standard, not simply promote the benefits of carrying out the development as a whole.

The elements that contravene the maximum building height standard relate to the roof parapet and rooftop structures including the lift overrun and mechanical plant. Due to their location within the central areas of the roof, these structure do not cause unreasonable overshadowing and do not contribute unreasonably to the perceived bulk and scale of the building. When expressed in storeys, the proposal is consistent with the building height stipulated in the LLEP.



5. THE PROPOSAL WILL BE IN THE PUBLIC INTEREST BECAUSE IT IS CONSISTENT WITH THE OBJECTIVES OF THE STANDARD AND THE OBJECTIVES OF THE ZONE. [CL.4.6(4)(A)(II)]

In Section 3 (above), it was demonstrated that the proposal is consistent³ with the objectives of the development standard. The proposal is also consistent with the objectives of the zone as explained in **Table 2** (below).

Table 2: Consistency with Zone Objectives.

Objective	Discussion
To provide for the housing needs of the community within a high density residential environment	The breach of the standard does not result in an inconsistency with this objective. The building height enhances housing needs of the community within a high-density residential environment, providing 29 x one-bedroom and 23 x two-bedroom dwellings. The proposed development assists in providing additional housing within the Liverpool City Centre, nearby to a range of local services, facilities and amenities.
To provide a variety of housing types within a high density residential environment.	The breach does not result in an inconsistency with this objective as it provides a mix of one-bedroom and two-bedroom dwellings within a high density residential development in a location that benefits from good access to transport, employment and local services and facilities.
To enable other land uses that provide facilities or services to meet the day to day needs of residents.	The breach of the standard does not result in an inconsistency with this objective. The proposed development for a residential flat building does not include any non-residential uses. The site is, however, located within the Liverpool City Centre and will support the viability of the uses within the town centre.
To provide for a high concentration of housing with good access to transport, services and facilities.	The breach of the standard does not result in an inconsistency with this objective. The proposed building seeks to provide a high concentration of housing in a location nearby to transport, employment and local services and facilities. The site is located 1km metres north of Liverpool Train Station and 700 metres west of Warwick Farm Train Station.
	There are currently two bus routes which traverse along Bigge Street, in the immediate vicinity of the site frontage, plus a further five bus routes which operate along Campbell Street which are located within 400m walking distance of the site. These bus services include the high-frequency intra-regional Metrobus M90 which operates between Liverpool and Burwood via Moorebank, UWS Milperra, Bankstown, Greenacre, Chullora and Strathfield. The Metrobus services operate seven days per week with weekday services every 15 minutes (every 10 minutes during the morning and afternoon peak) and weekend services every 20 minutes.
	Liverpool Shopping Centre is also located approximately 650m walking distance south-west of the site which includes a large range of essential shops and services including a Coles supermarket, pharmacy, Anytime Fitness, dry cleaners, bank, post office, pharmacy, café and other small shops.

³ In Dem Gillespies v Warringah Council [2002] LGERA 147 and Addenbrooke Pty Ltd v Woollahra Municipal Council [2008] NSWLEC the term 'consistent' was interpreted to mean 'compatible' or 'capable of existing together in harmony'





	The additional height proposed reinforces the objective to provide a high concentration of housing in close proximity to transport, services and facilities.
To minimise the fragmentation of land that would prevent the achievement of high	The breach of the standard does not result in an inconsistency with this objective. The development amalgamates two existing lots, identified as Lot 22 and 23 DP35110. Consolidation of the site provides a unique opportunity to enable a high density residential development on the site.
density residential development.	On their own, the two lots would be unable to accommodate an appropriate built form, massing and density outcomes needed to satisfy the desired future character of the Liverpool City Centre while also satisfying SEPP 65 requirements including building separation. The consolidated lot is able to support an appropriate high density residential development, commensurate with the floor space ratio prescribed under the Affordable Housing SEPP, while marginally exceeding the maximum permissible height control for the site.

As can be seen from **Table 1** and **Table 2**, the proposal is consistent with the objectives of the standard and the objectives of the zone and is therefore considered to be in the public interest.

6. CONTRAVENTION OF THE DEVELOPMENT STANDARD DOES NOT RAISE ANY MATTER OF SIGNIFICANCE FOR STATE OR REGIONAL ENVIRONMENTAL PLANNING. [CL. 4.6(5)(A)]

There is no identified outcome which would be prejudicial to planning matters of state or regional significance that would result as a consequence of varying the development standard as proposed by this application.

7. THERE IS NO PUBLIC BENEFIT OF MAINTAINING THE STANDARD. [CL. 4.6(5)(B)]

Accordingly, there is no public benefit⁴ in maintaining strict compliance with the development standard given that there are no unreasonable impacts that will result from the variation to the Height of Buildings standard. Rather, there are better outcomes for and from the development as a result of the variation sought.

The development complies with the stated objectives of the zone and the development standard seeking to be varied. The development will comprise a residential flat building containing 52 dwellings which are to be used as affordable housing. There are no unreasonable environmental impacts as a result of the variation.

The breach of the height standard is attributed to the roof top structures including the lift overrun, the stair press, photovoltaic system and exhaust. The encroachment, however, is not a means of achieving additional development yield or floor space on the site.

We therefore conclude that the benefits of the proposal outweigh any disadvantage and as such the proposal will have an overall public benefit.

8. CONCLUSION

This Clause 4.6 variation request demonstrates, as required by Clause 4.6 of the Liverpool Local Environmental Plan 2008, that:

 Compliance with the development standard would be unreasonable and unnecessary in the circumstances of this development;

⁴ Ex Gratia P/L v Dungog Council (NSWLEC 148) established that the question that needs to be answered to establish whether there is a public benefit is "whether the public advantages of the proposed development outweigh the public disadvantages of the proposed development"



Clause 4.6 Request 4-6 Bigge Street, Liverpool 19-033 August 2019

- There are sufficient environmental planning grounds to justify the variation with the height standard;
- The development achieves the objectives of the development standard and is consistent with the objectives of the R4 High Density Residential Zone;
- The proposed development, notwithstanding the variation, is in the public interest and there is no public benefit in maintaining the standard; and
- The variation does not raise any matter of State or Regional Significance.

On this basis, therefore, it is considered appropriate to exercise the flexibility provided by Clause 4.6 in the circumstances of this application.



APPENDIX 1

Architectural Plans



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Hutchinson Builders
23 Dunning Avenue, Rosebery NSW 2018

 Rev
 Date
 Approved by
 Issue Name

 A
 15.05.19
 VS
 Development Application

 B
 08.07.19
 VS
 Development Application

Bigge Street Warwick Farm4-6 Bigge Street Warwick Farm NSW 2170 Australia

General

Cover Sheet

Drawing List

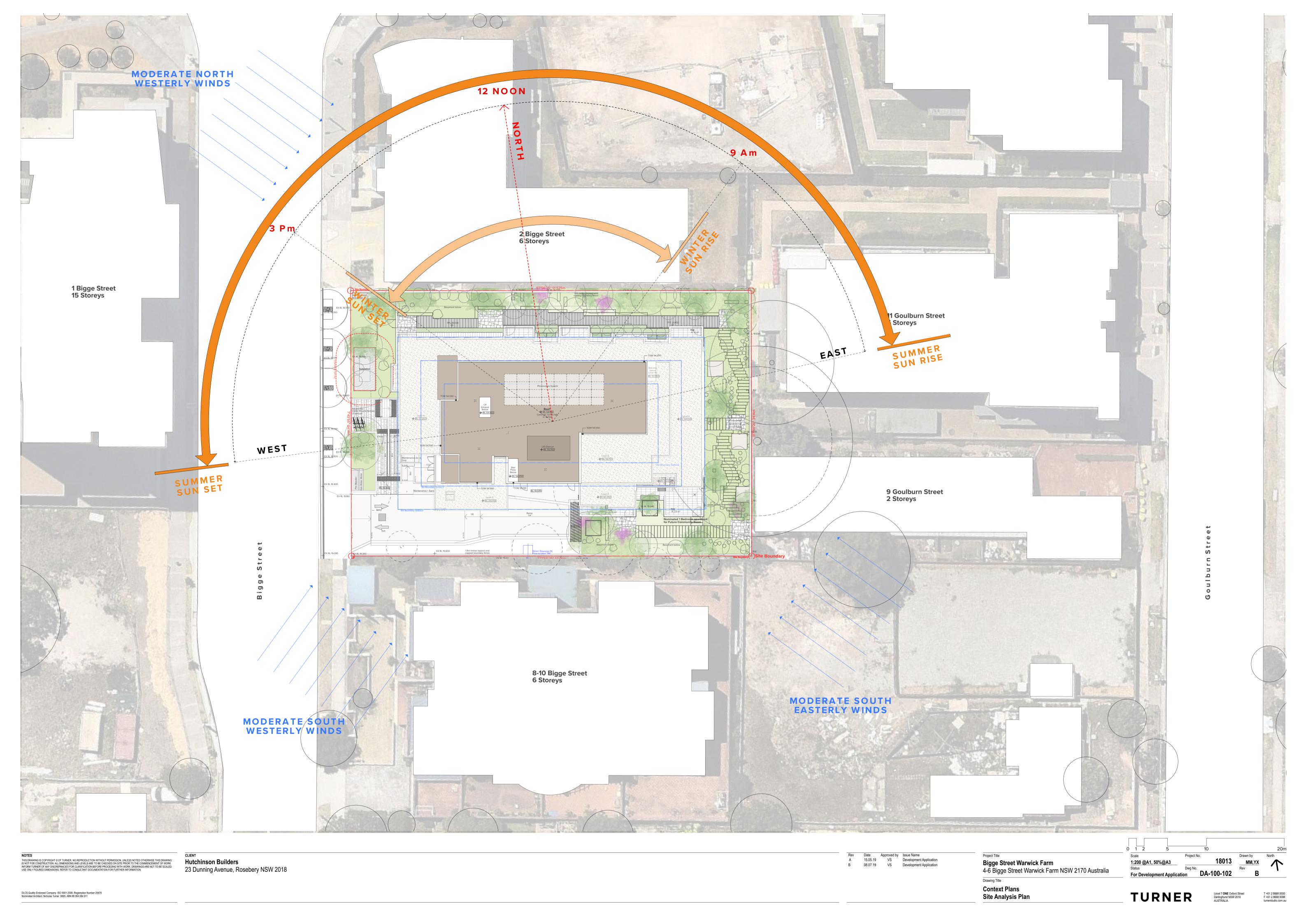
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	DA-001-001	Drawing List	NTS	A1	В
Context P	lans				
	DA-100-101	Location Plan	1:500	A1	В
	DA-100-102	Site Analysis Plan	1:200	A1	В
	DA-100-200	Demolition Plan	1:100	A1	В
GA Plans					
	DA-110-007	Basement Plan	1:100	A1	В
	DA-110-008	Ground Level Plan	1:100	Α1	В
	DA-110-010	Level 01 Plan	1:100	A1	В
	DA-110-020	Level 02 Plan	1:100	Α1	В
	DA-110-030	Level 03 Plan	1:100	Α1	В
	DA-110-040	Level 04 Plan	1:100	Α1	В
	DA-110-050	Level 05 Plan	1:100	A1	В
	DA-110-060	Level 06 Plan	1:100	A1	В
	DA-110-070	Level 07 Plan	1:100	A1	В
	DA-110-080	Level 08 Plan	1:100	A1	В
	DA-110-090	Level 09 Plan	1:100	A1	В
	DA-110-110	Level 10 Plan	1:100	A1	В
	DA-110-120	Roof Plan	1:100	A1	В
GA Elevat	ions				
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	DA-250-020	North Elevation	1:200	A1	В
	DA-250-030	East Elevation	1:200	A1	В
	DA-250-040	South Elevation	1:200	A1	В
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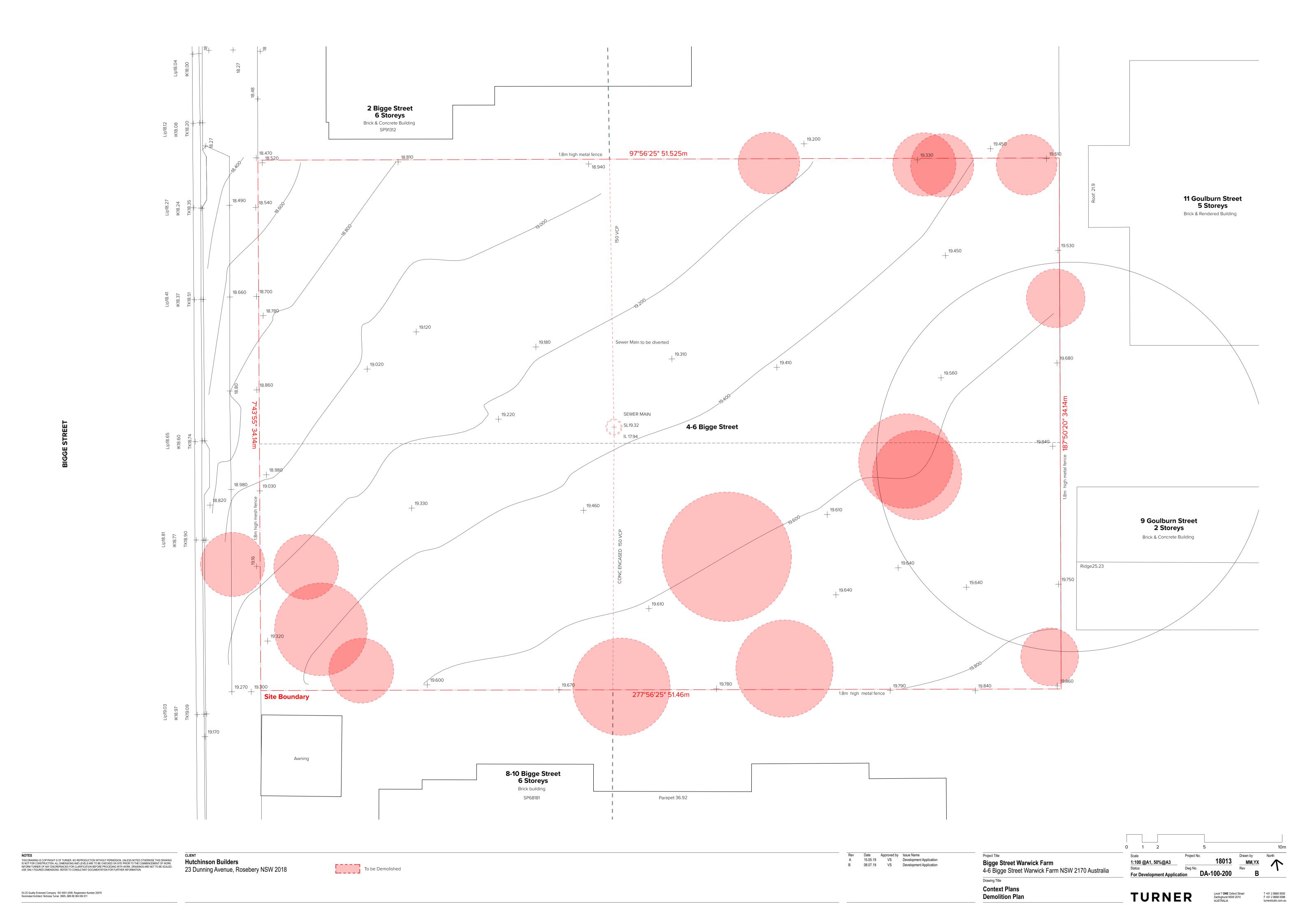
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	DA-710-002	Shadow Diagrams	1:800	A1	В
	DA-710-010	View From Sun Diagrams - 9am to 12:30pm	1:500	A1	В
	DA-710-020	View From Sun Diagrams - 1pm to 3pm	1:500	A1	В
GFA Diag	grams				
	DA-720-001	GFA Diagrams/ GF-L5	1:200	A1	В
	DA-720-002	GFA Diagrams/ L6-L9	1:200	A1	В
Apartme	nt Amenity				
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	DA-730-020	Solar Access & Cross Ventilation	1:200	A1	В
Height P	lane Massing Stud	dy			
	DA-810-010	Height Plane Massing Study	NTS	A1	В
Materials	s & Finishes				
	DA-830-010	Materials & Finishes Selection	1:100	A1	В
Deep so	il & Communal op	en space			
	DA-850-001	Deep soil & Communal open space	1:200	A1	В
	DA-850-003	Communal Open Space Solar Diagram	1:200	A1	В
Adaptab	le Apartments				
	DA-880-010	Adaptable Apartments	1:100	A1	В
3D VIEW	' S				
	DA-900-009	Artist's Impression	NTS	A1	В
	DA-900-010	Artist's Impression	NTS	A1	В

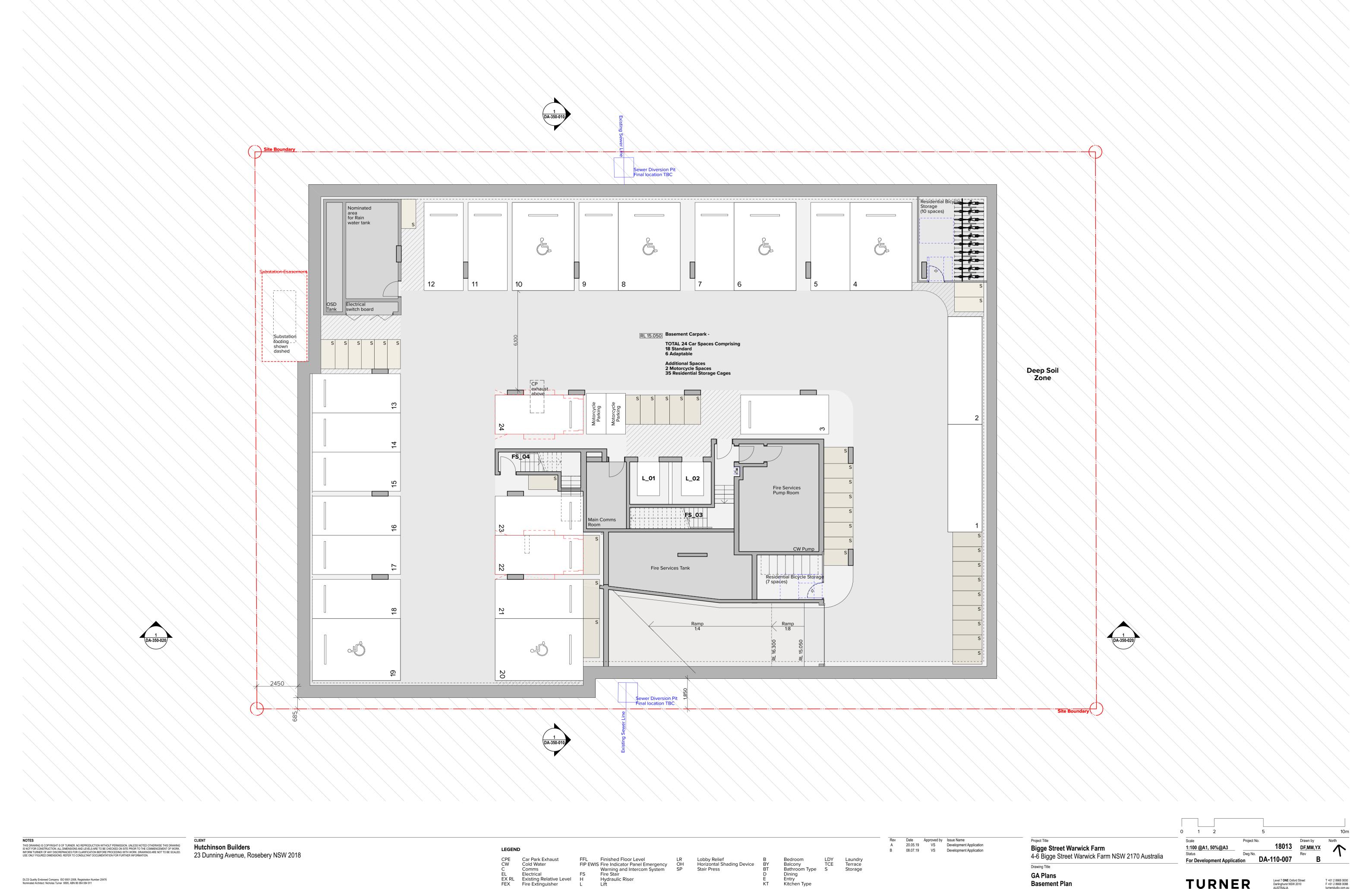
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Drawing List

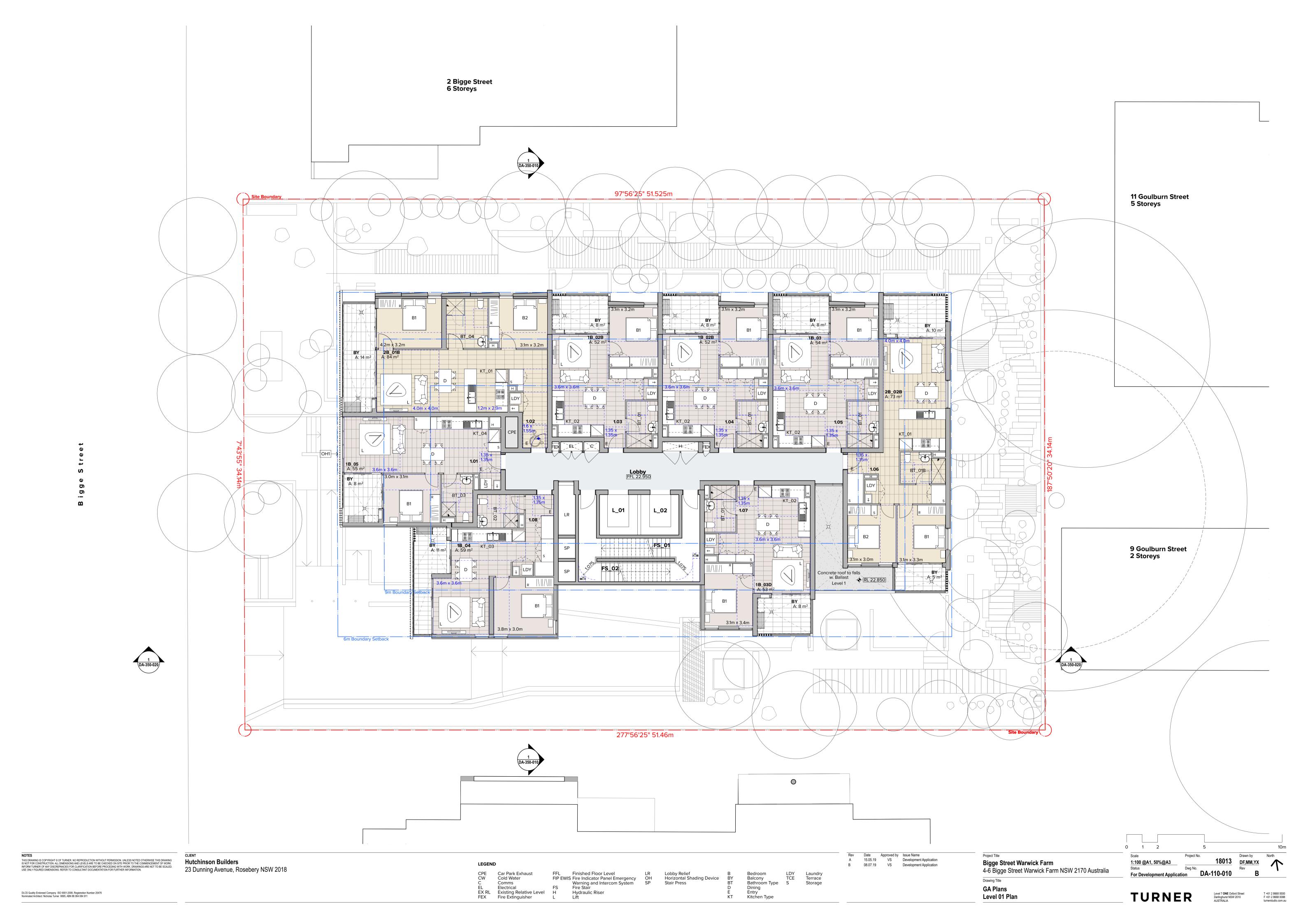


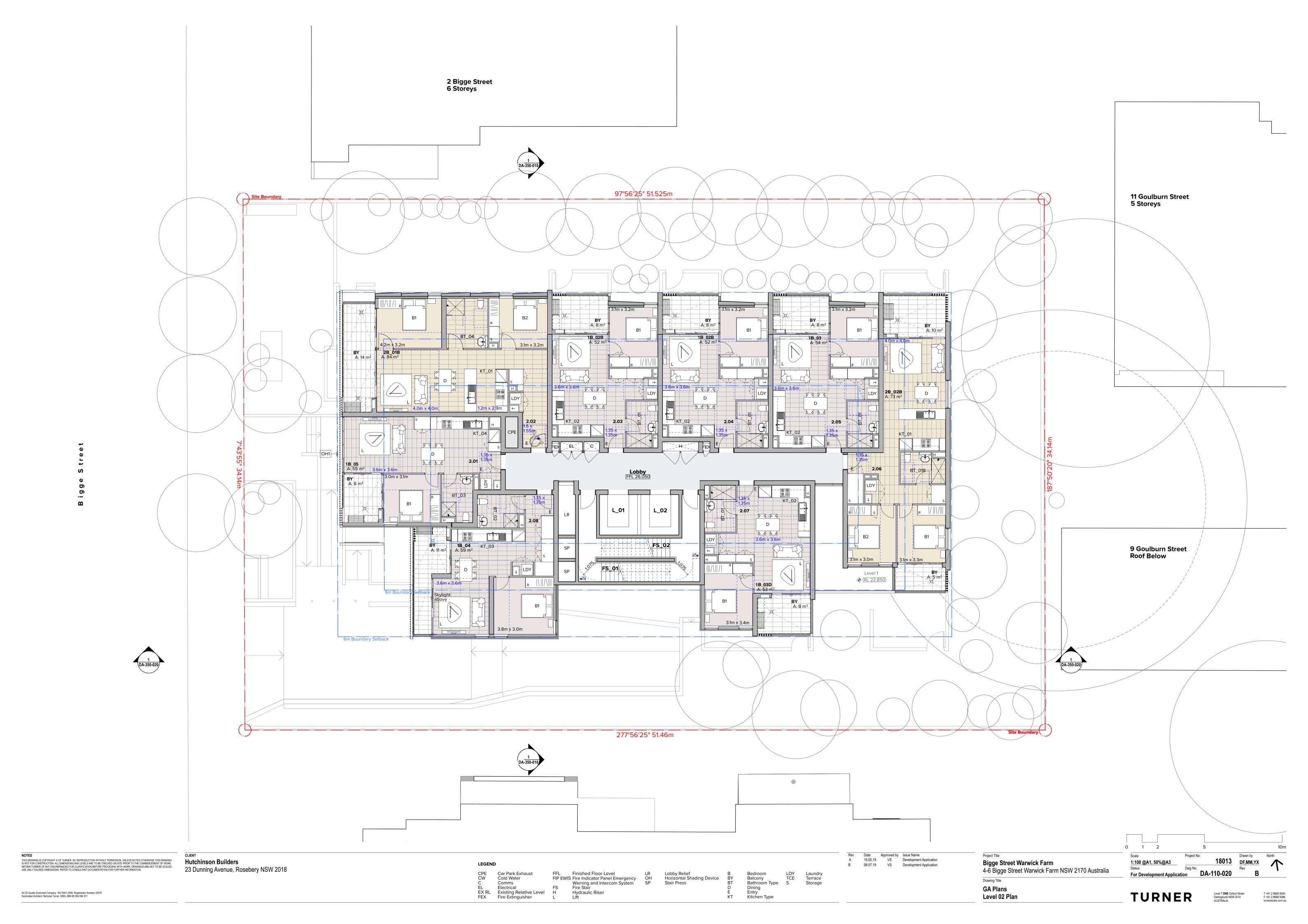


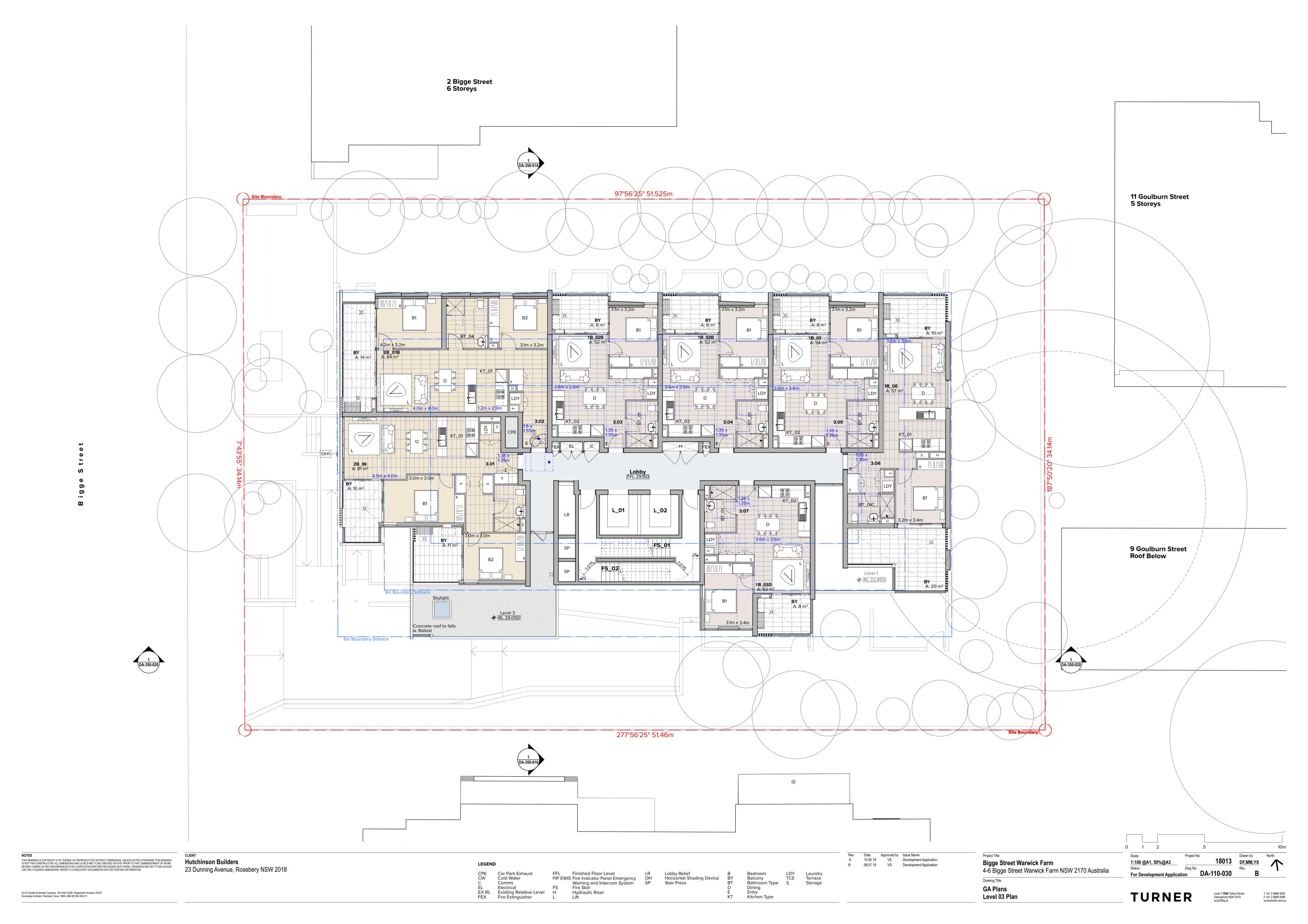


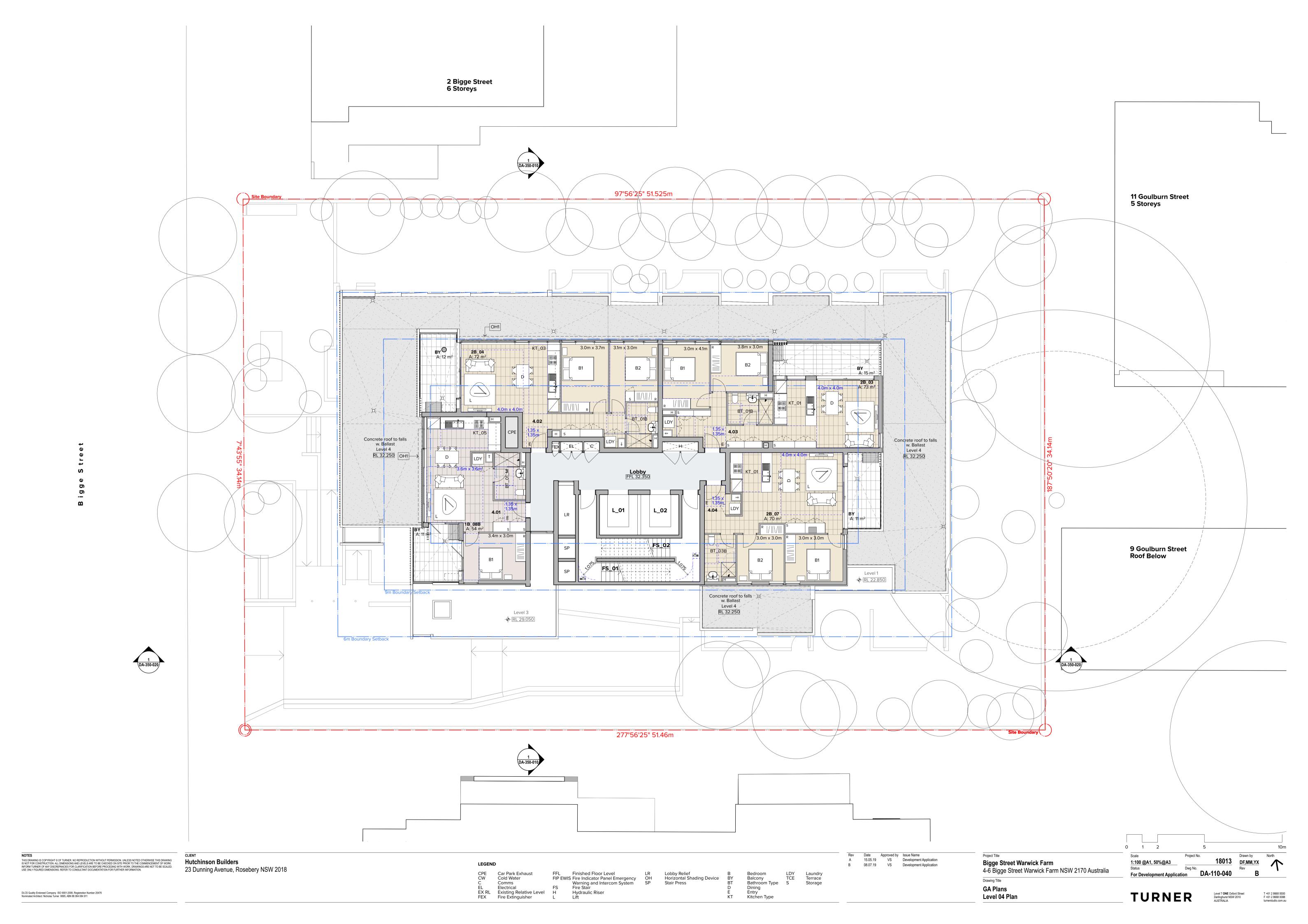


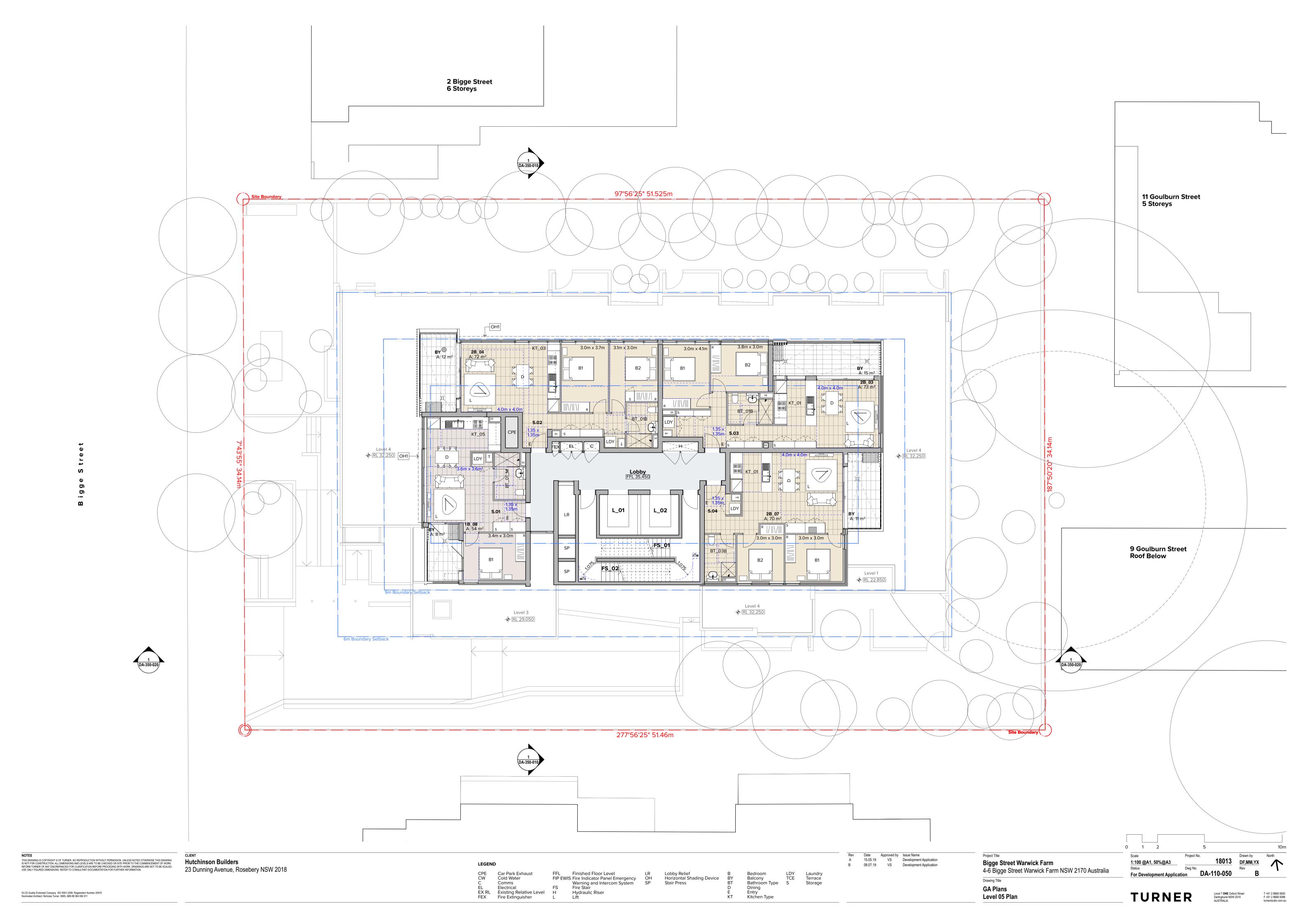
Basement Plan

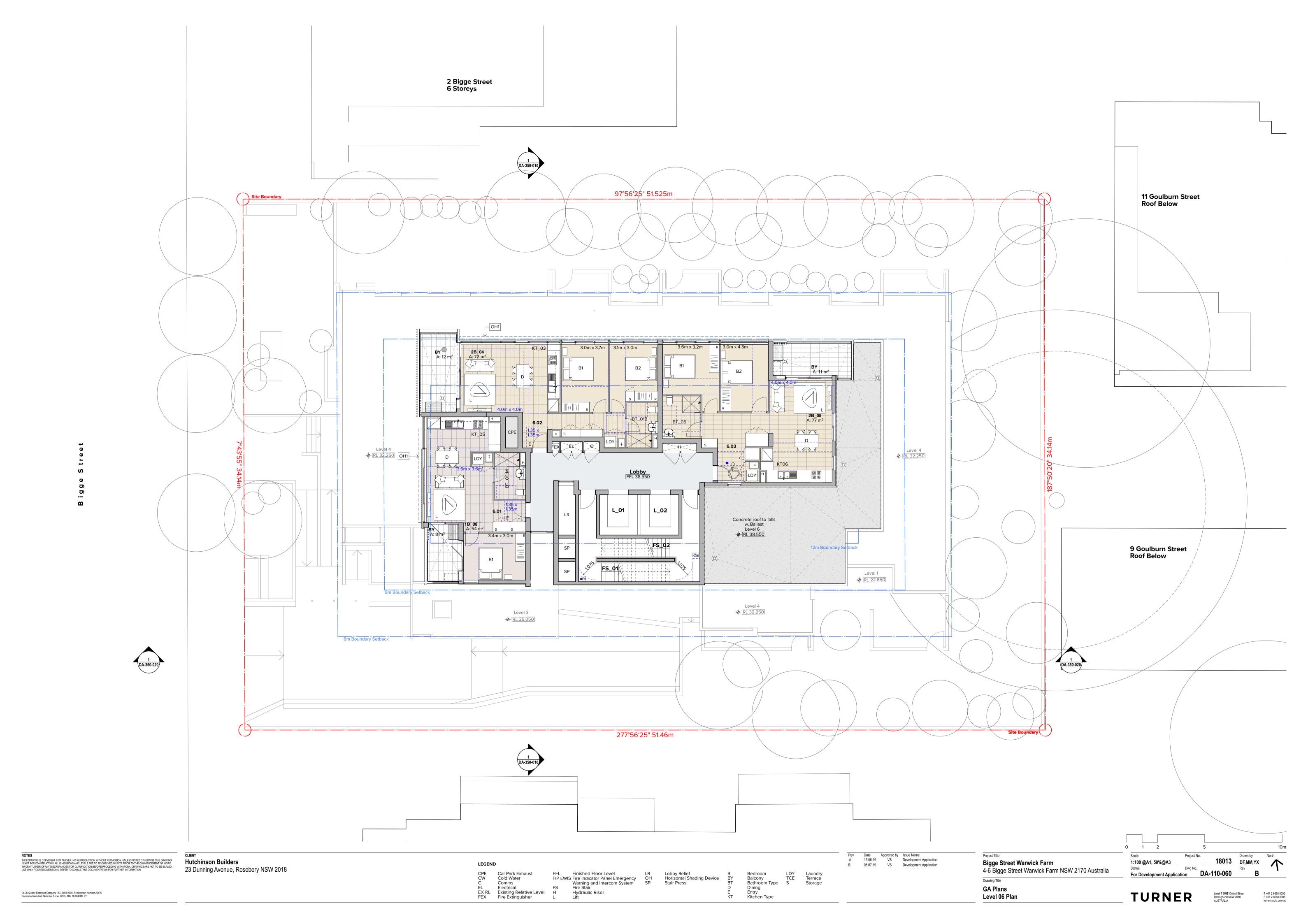


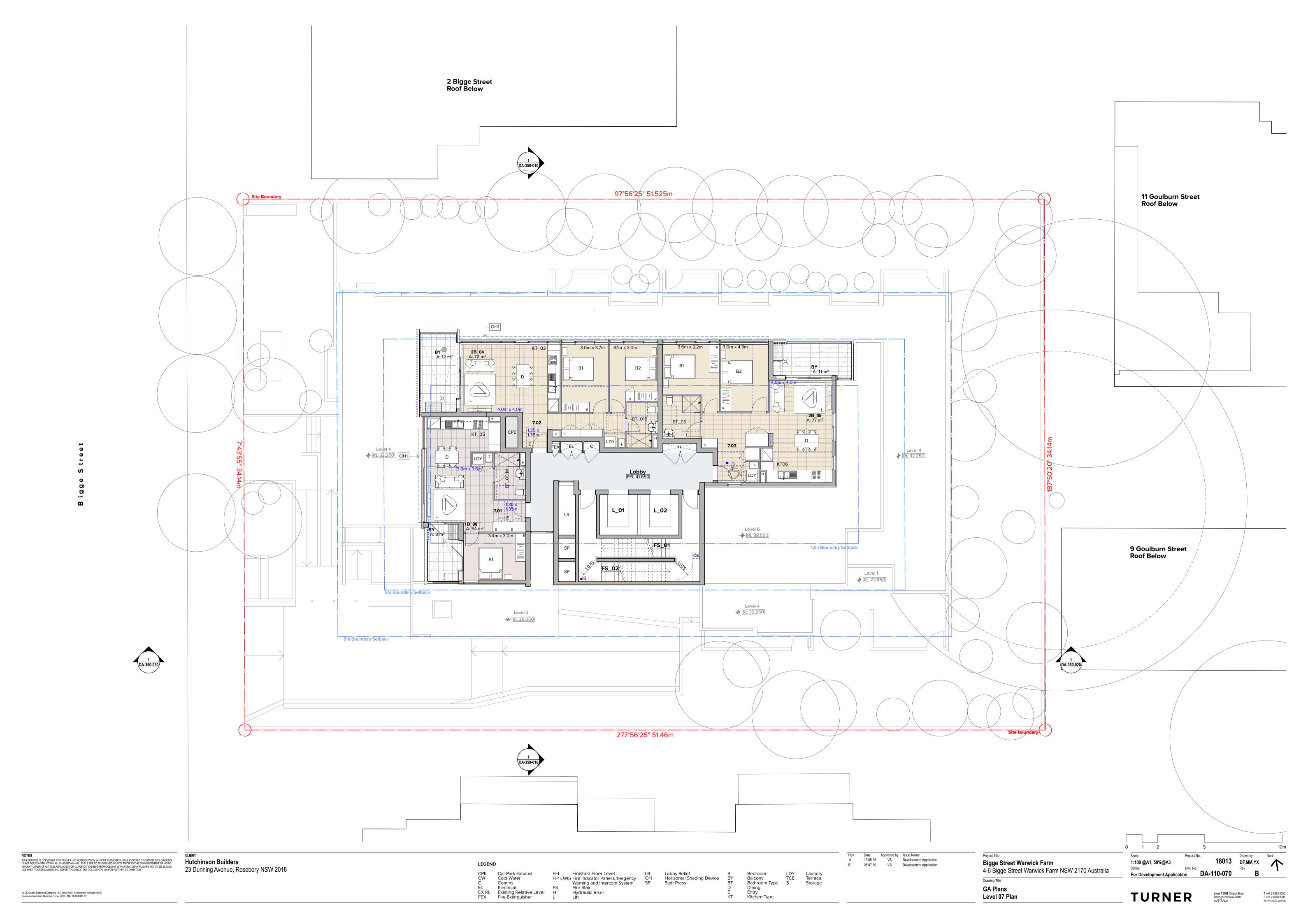


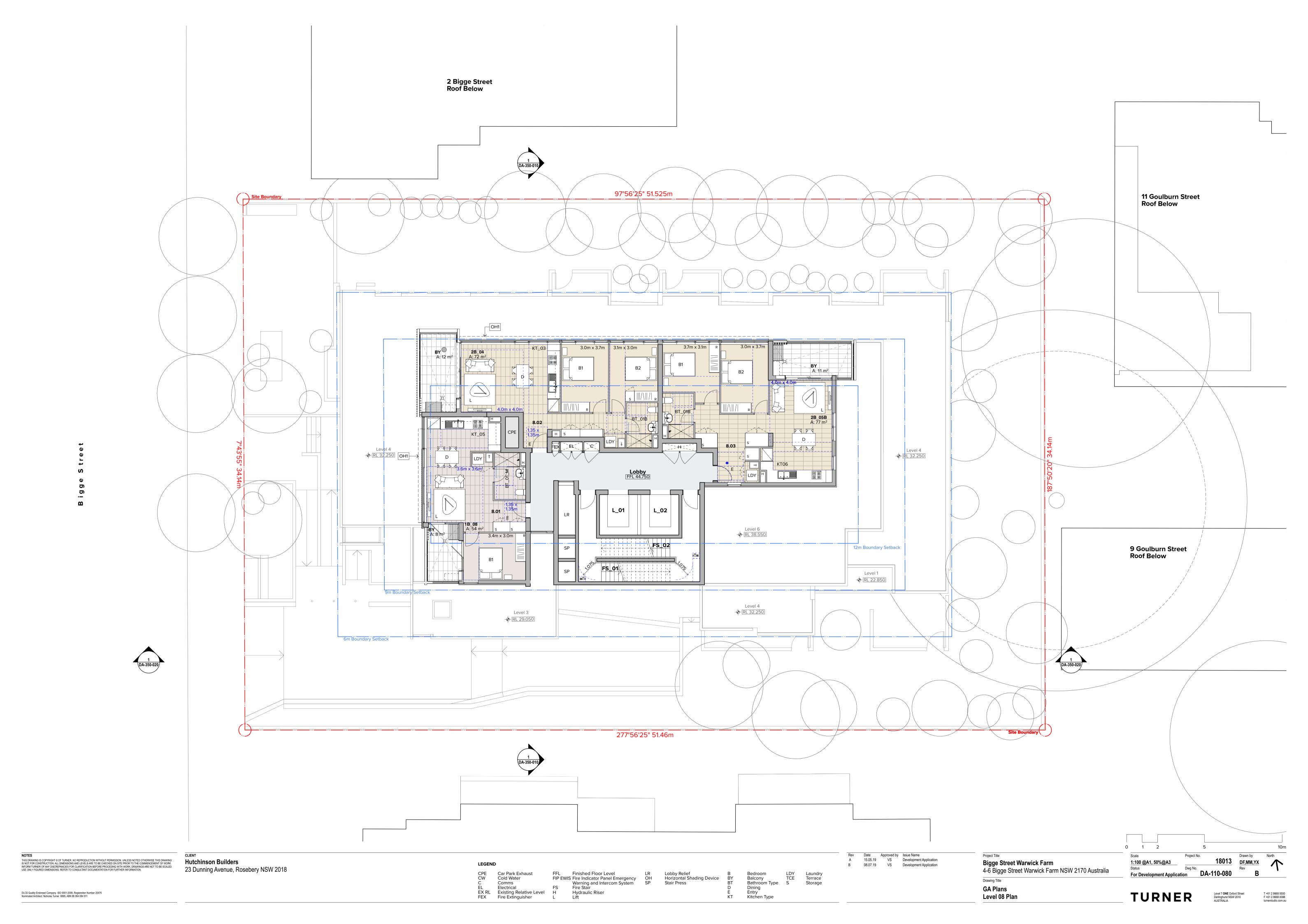


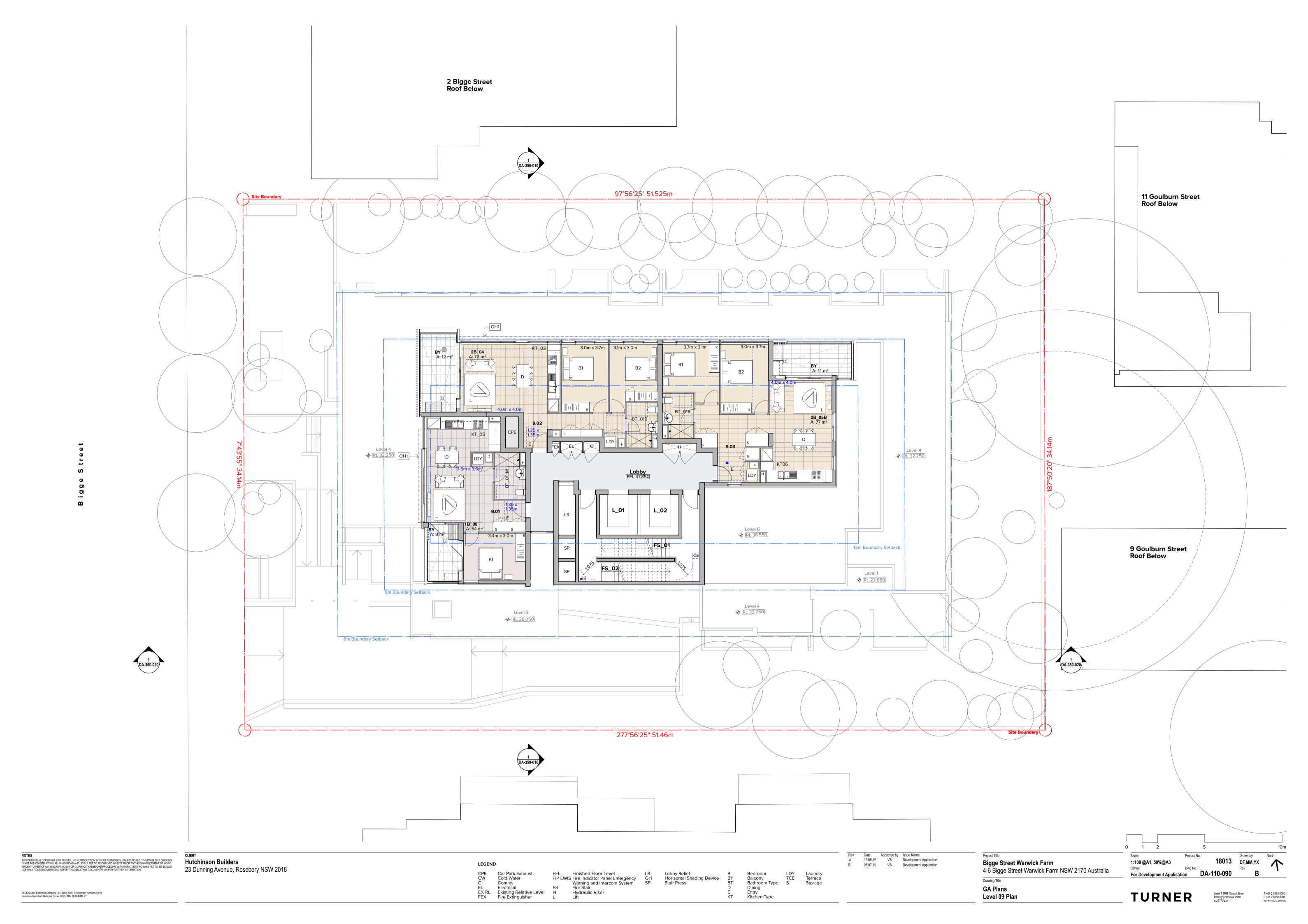


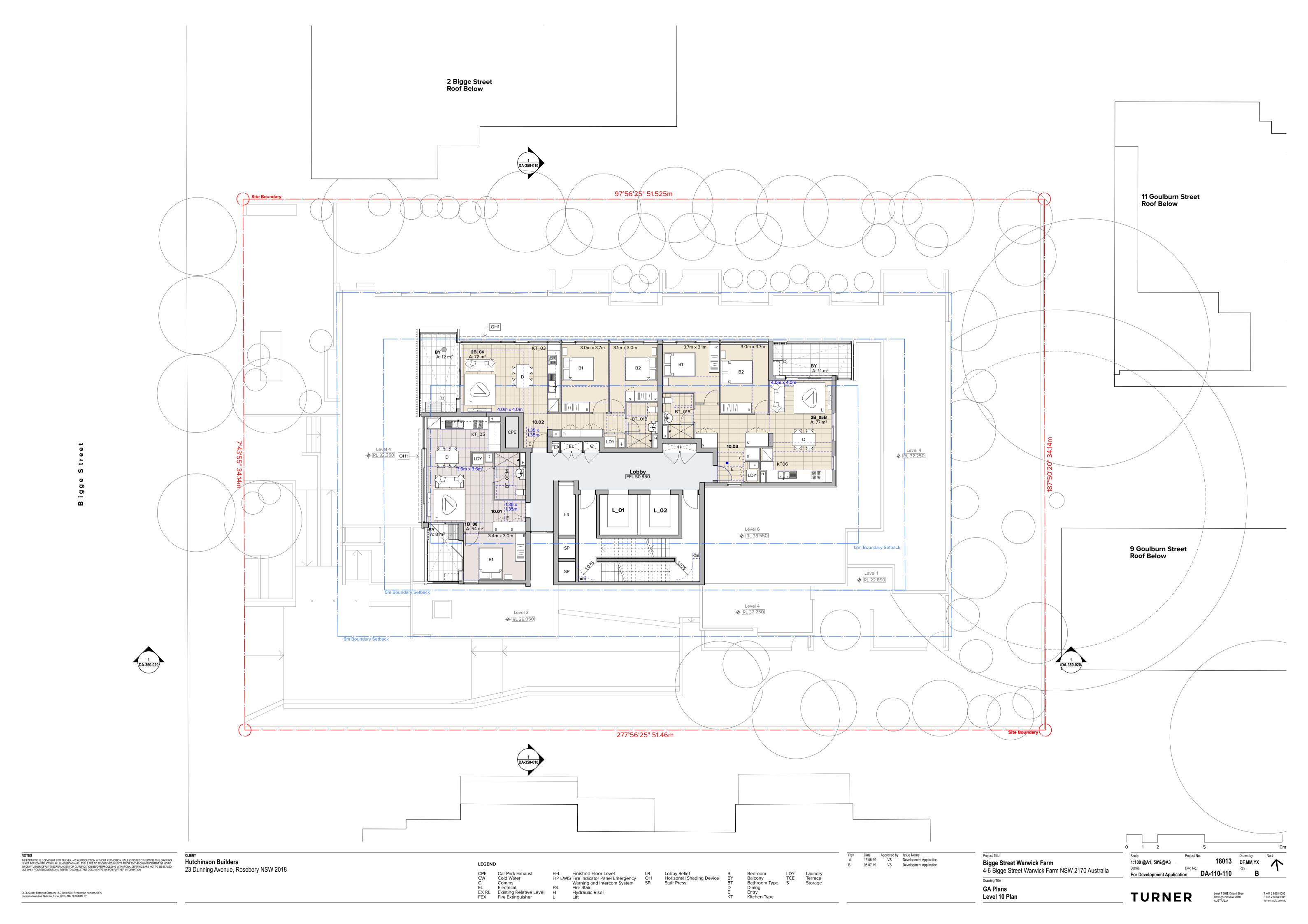


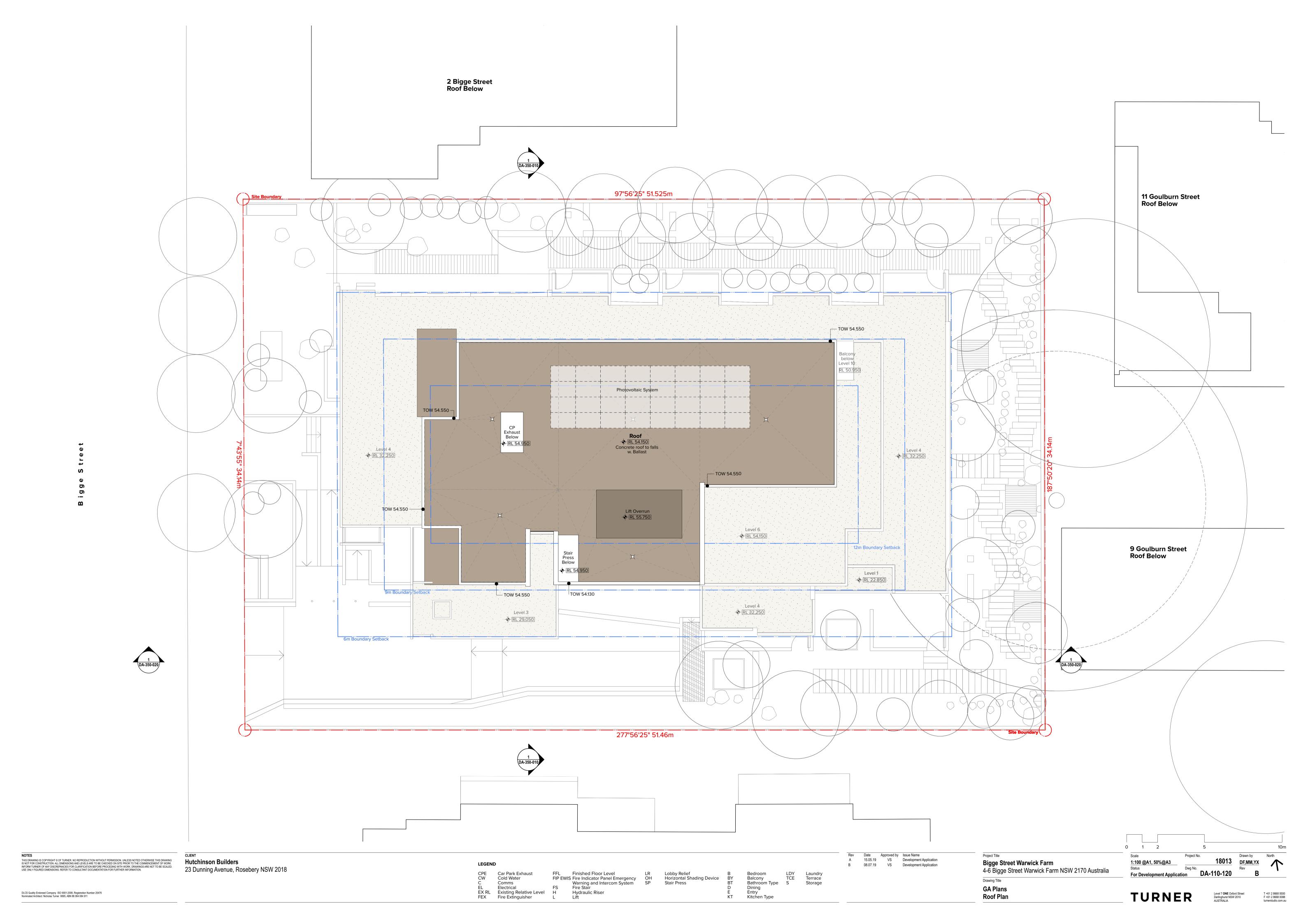










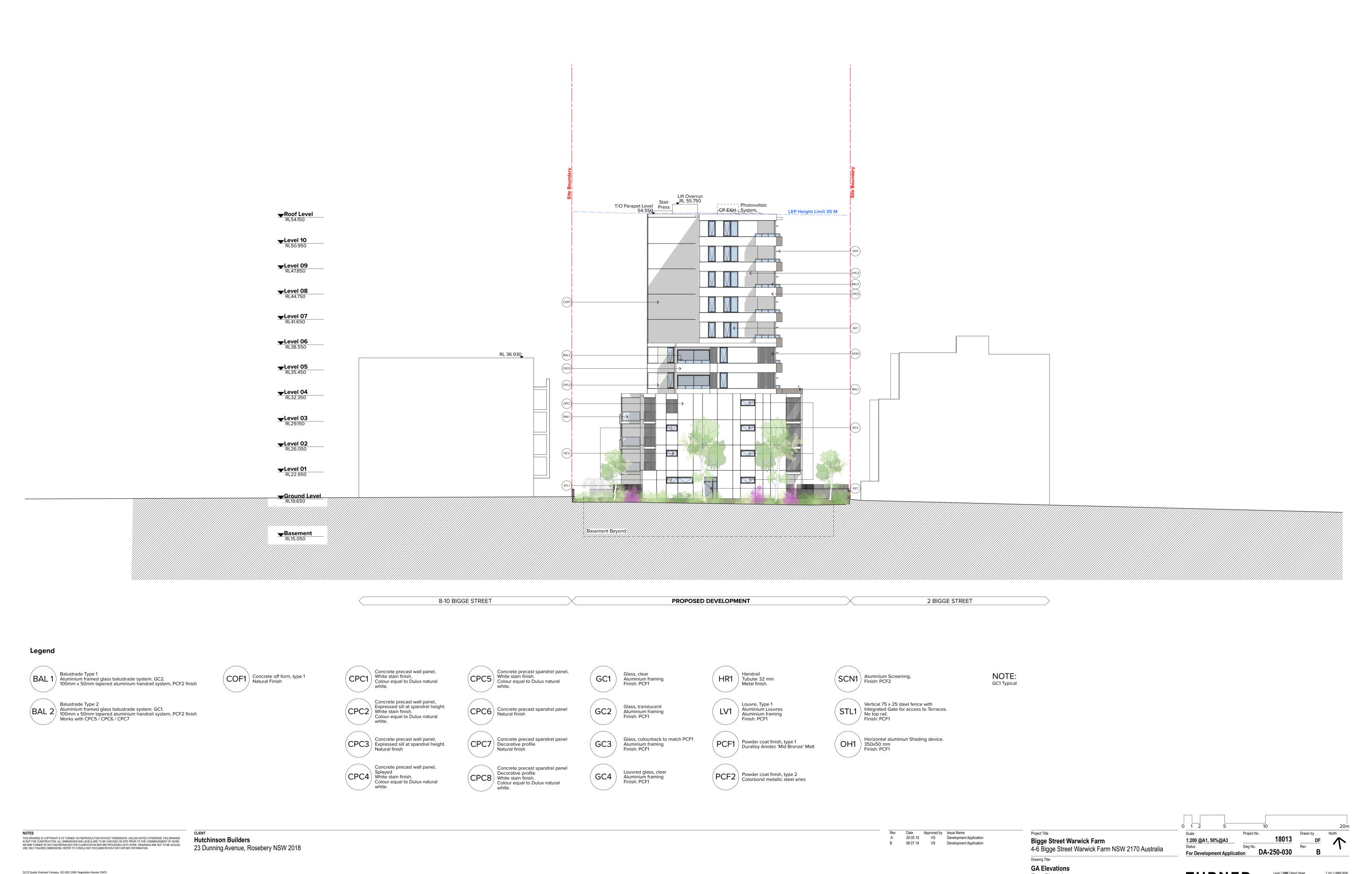




West Elevation



North Elevation



East Elevation



South Elevation



NOTES

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A 28.05.19 VS Development Application
B 08.07.19 VS Development Application

Project Title

Bigge Street Warwick Farm

4-6 Bigge Street Warwick Farm NSW 2170 Australia

Drawing Title

GA Sections
Section AA

O 1 2 5 10 2 20

Scale Project No. Drawn by North

1:200 @A1, 50%@A3 18013 Dwg No.

For Development Application DA-350-010 B



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4-6 Bigge Street Warwick Farm NSW 2170 Australia

Drawing Title

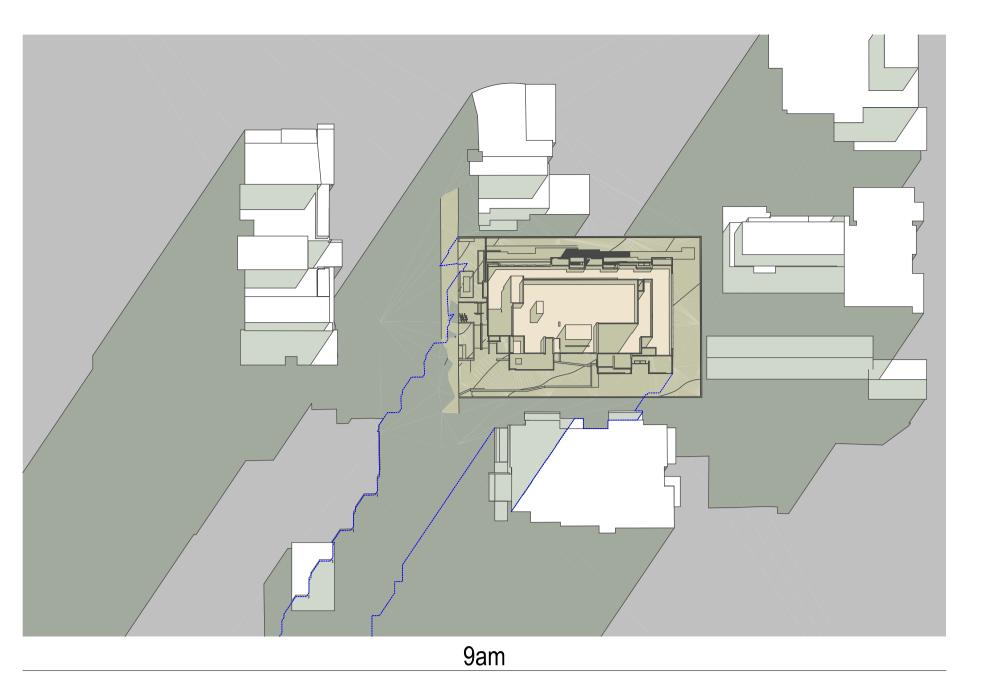
GA Sections
Section BB

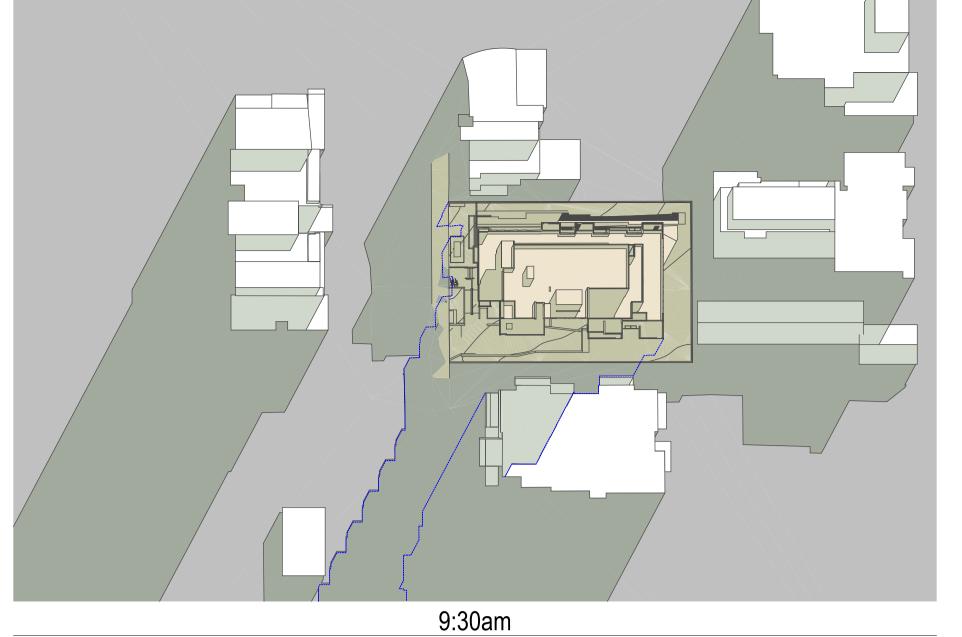
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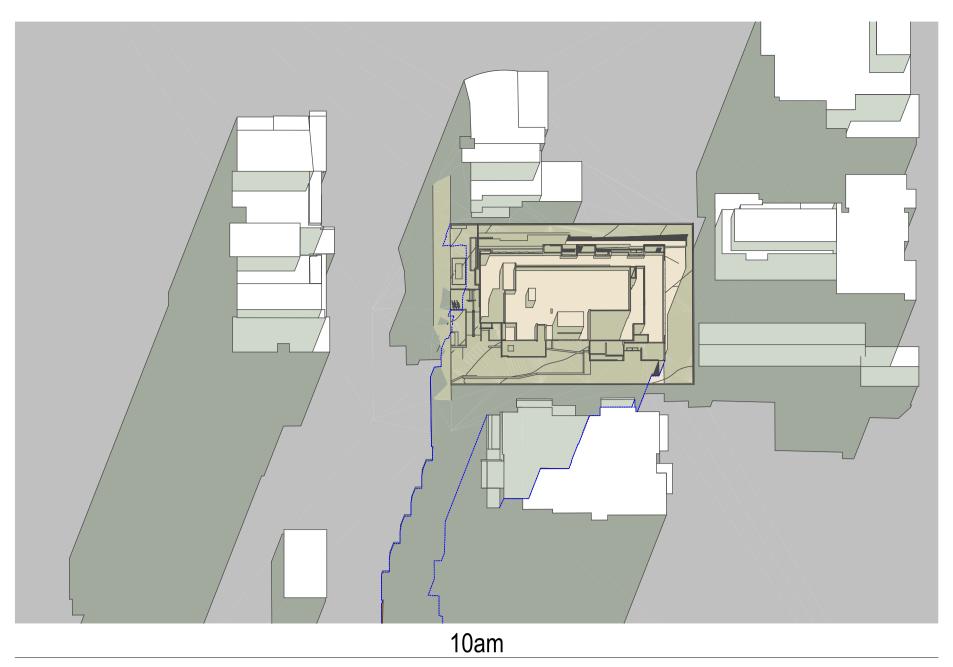
Scale Project No. 18013 Drawn by North

1:200 @A1, 50%@A3 Dwg No.

For Development Application DA-350-020 B





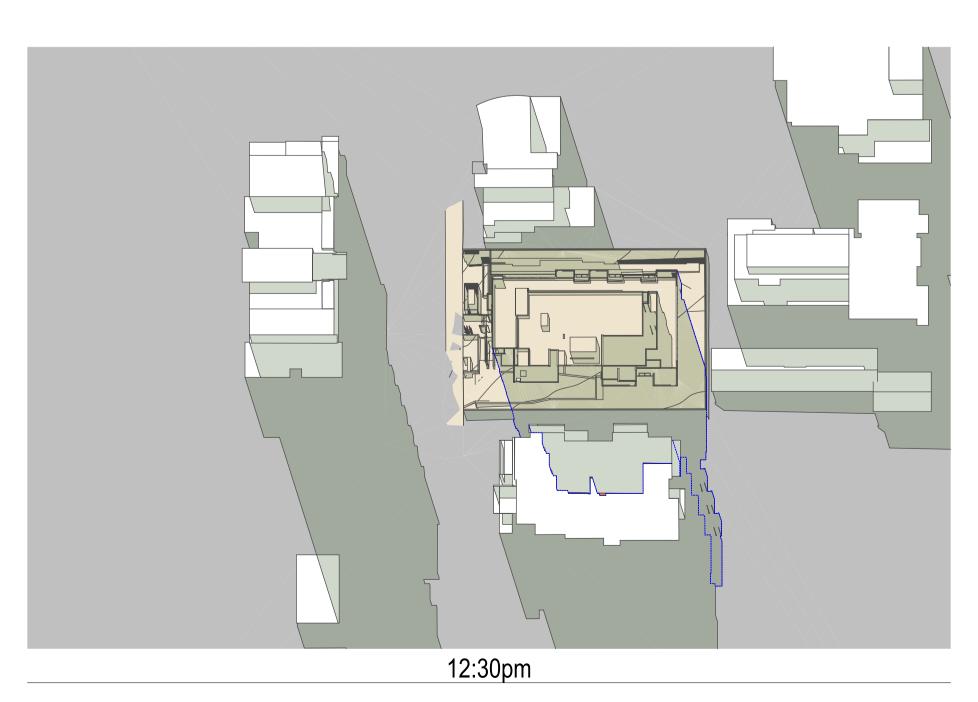














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DLCS Quality Endorsed Company ISO 9001:2008, Registration Number 20476 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911 Hutchinson Builders
23 Dunning Avenue, Rosebery NSW 2018

Rev Date Approved by Issue Name
A 23.05.19 VS Development Application
B 08.07.19 VS Development Application

Project Title

Bigge Street Warwick Farm

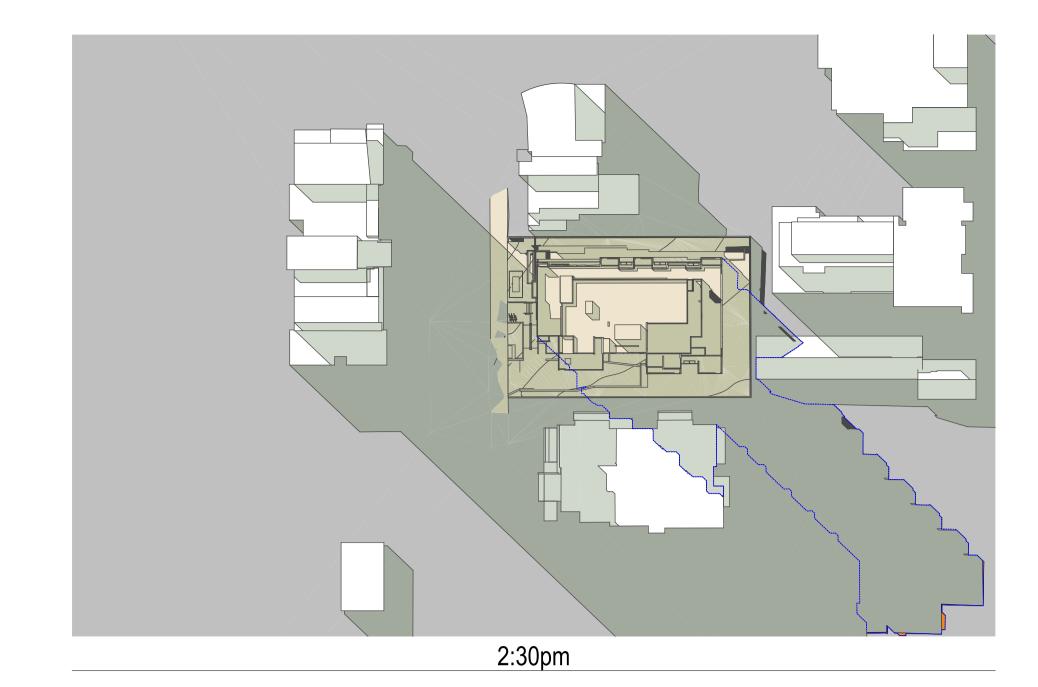
4-6 Bigge Street Warwick Farm NSW 2170 Australia

Drawing Title

Shadow Diagrams
Shadow Diagrams







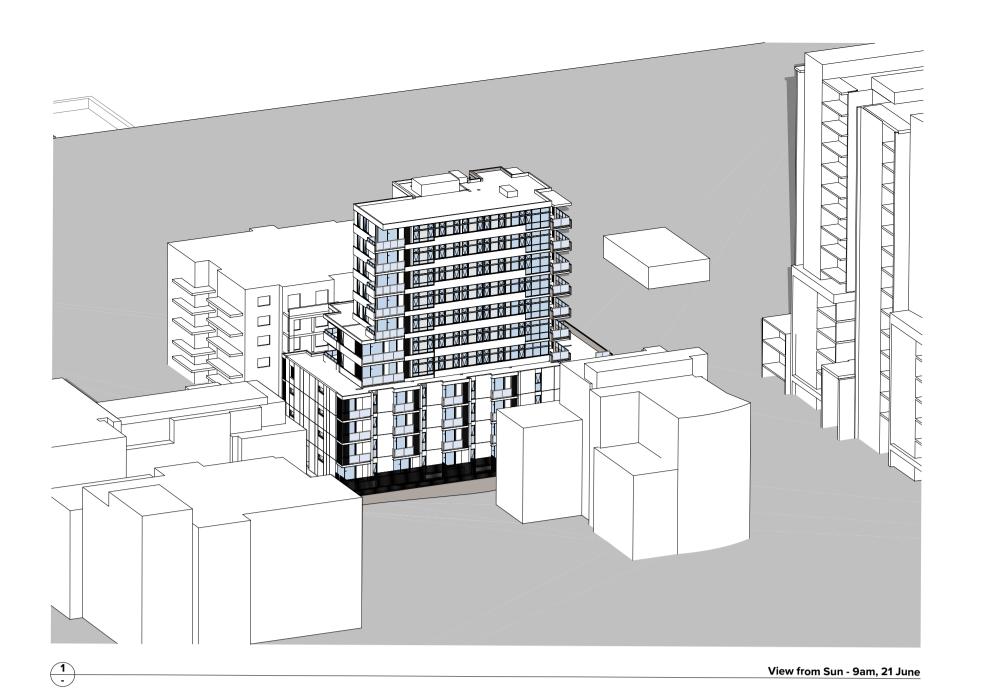


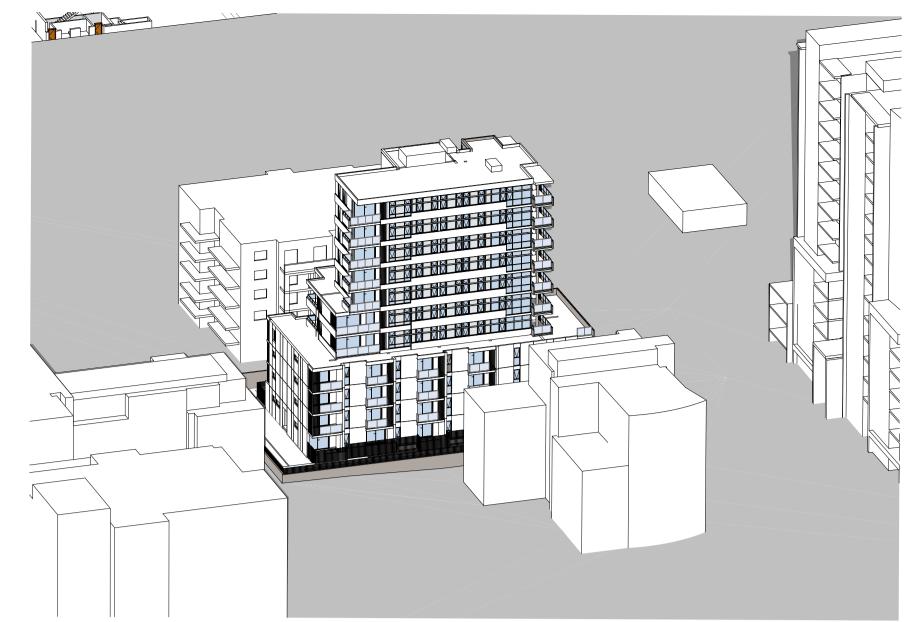
Shadow casted by all buildings

Shadow casted by proposed building

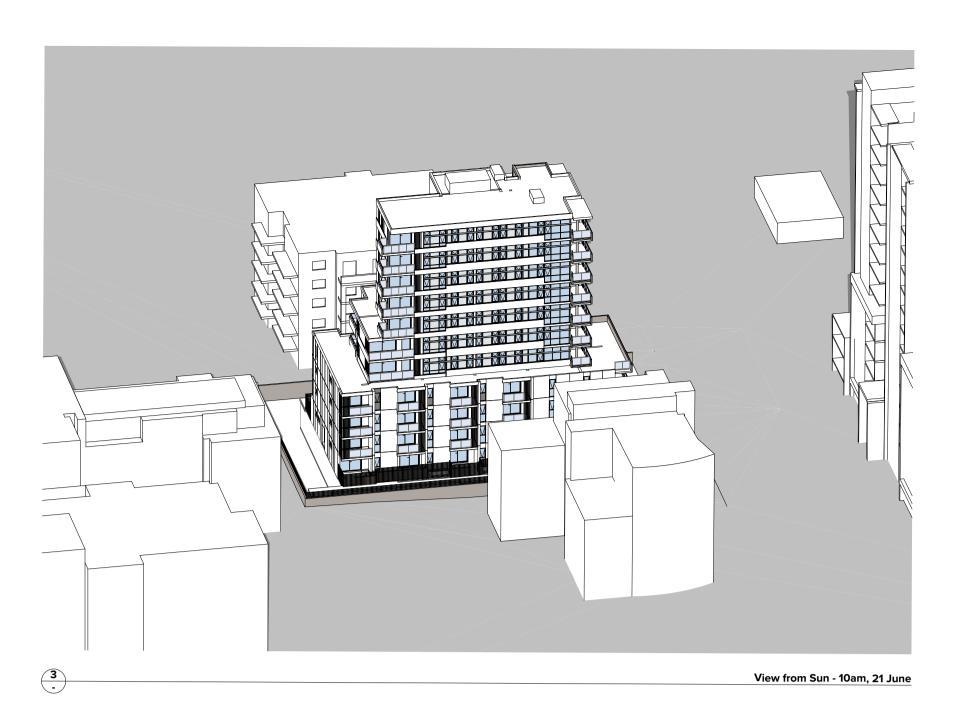
Shadow casted by proposed building over the height limit

DLCS Quality Endorsed Company ISO 9001:2008, Registration Number 20476 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

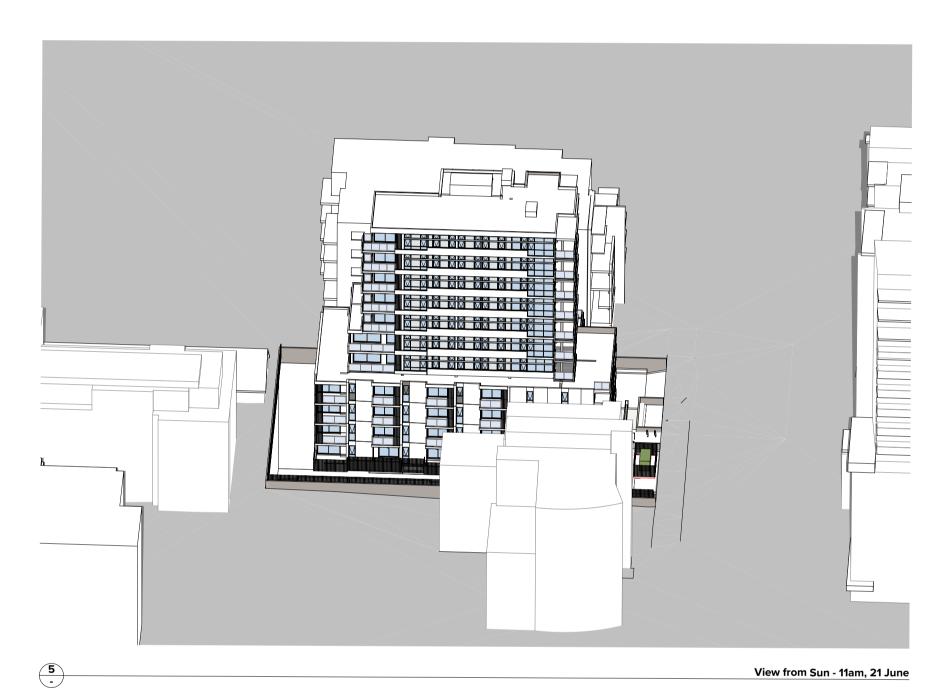


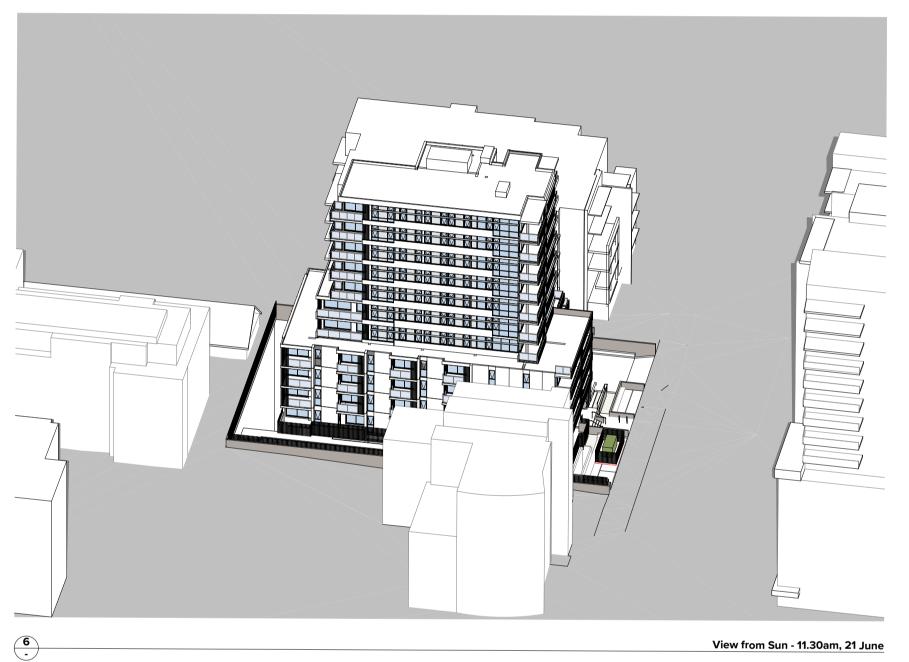


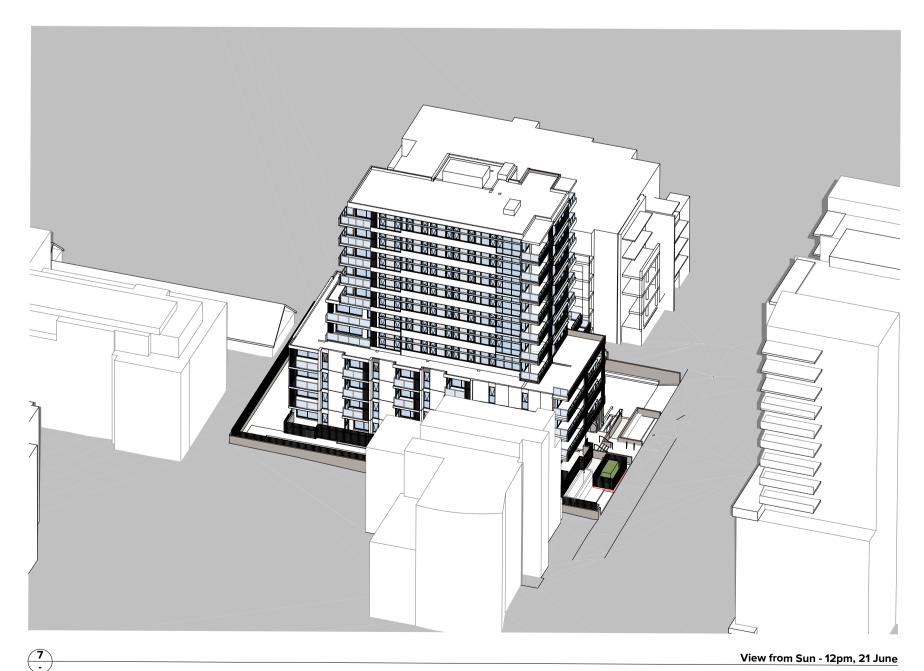
View from Sun - 9.30am, 21 June

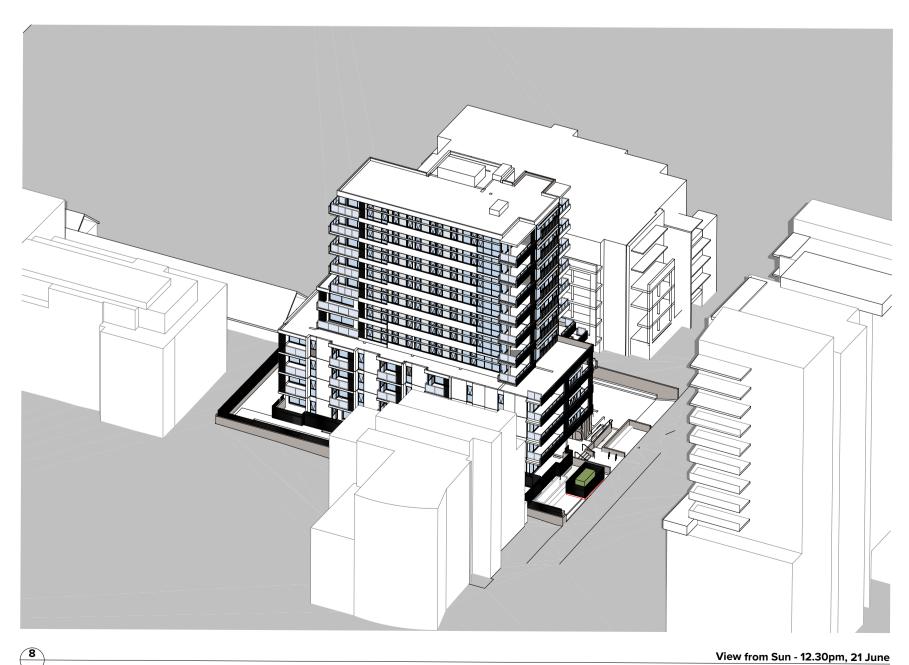












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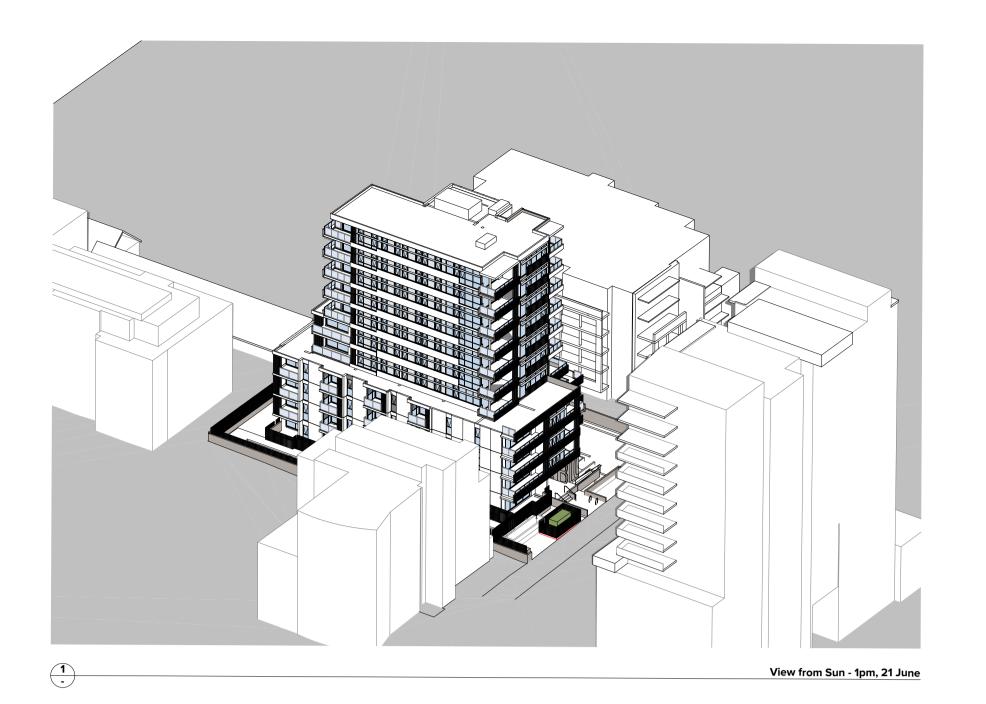
Hutchinson Builders

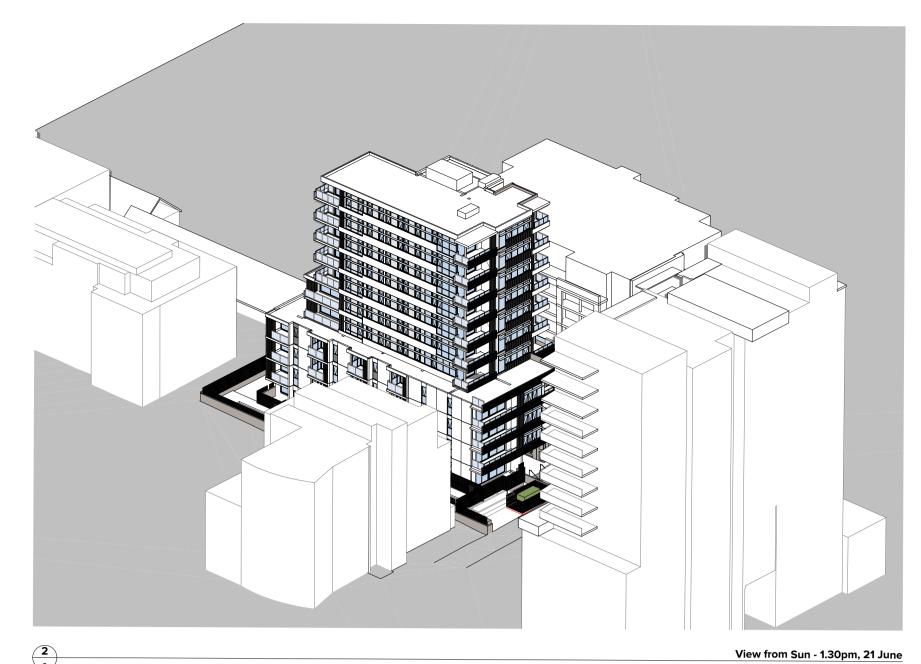
23 Dunning Avenue, Rosebery NSW 2018

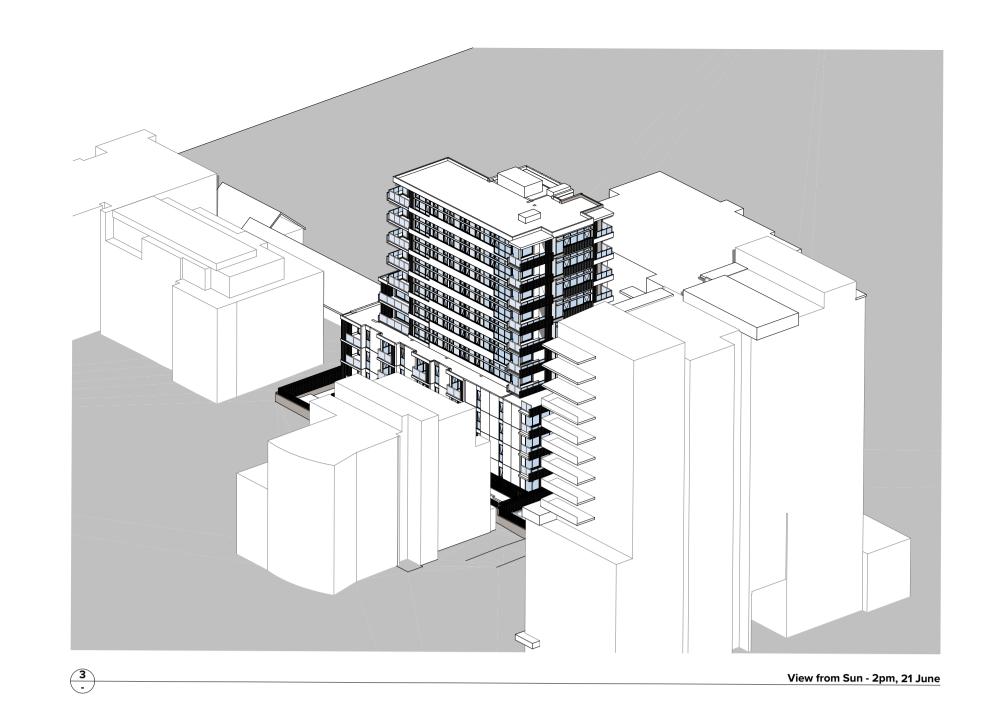
Rev Date Approved by Issue Name
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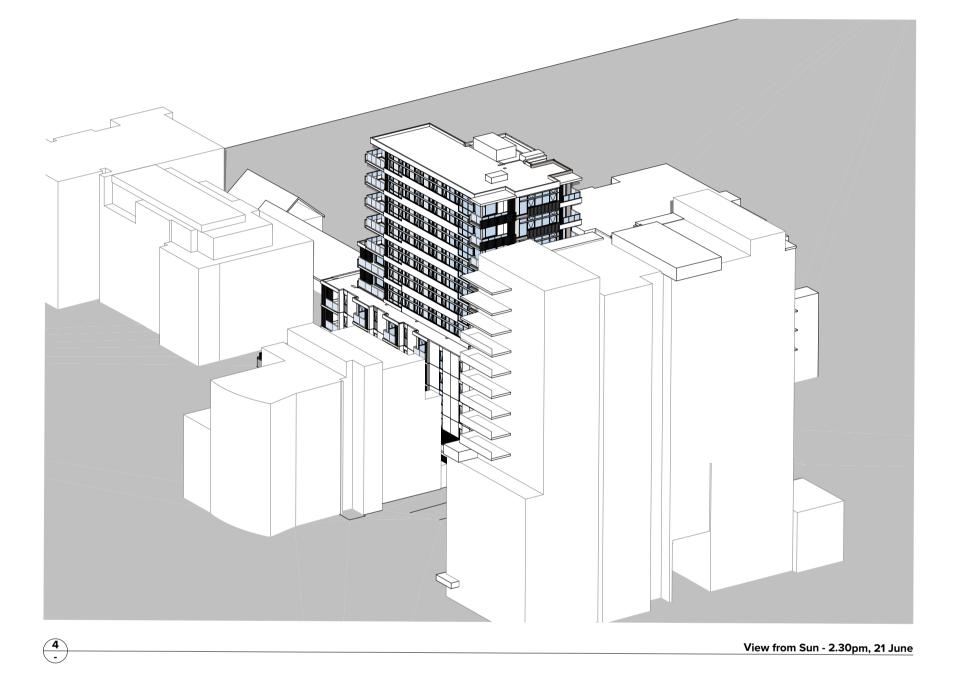
Bigge Street Warwick Farm
4-6 Bigge Street Warwick Farm NSW 2170 Australia

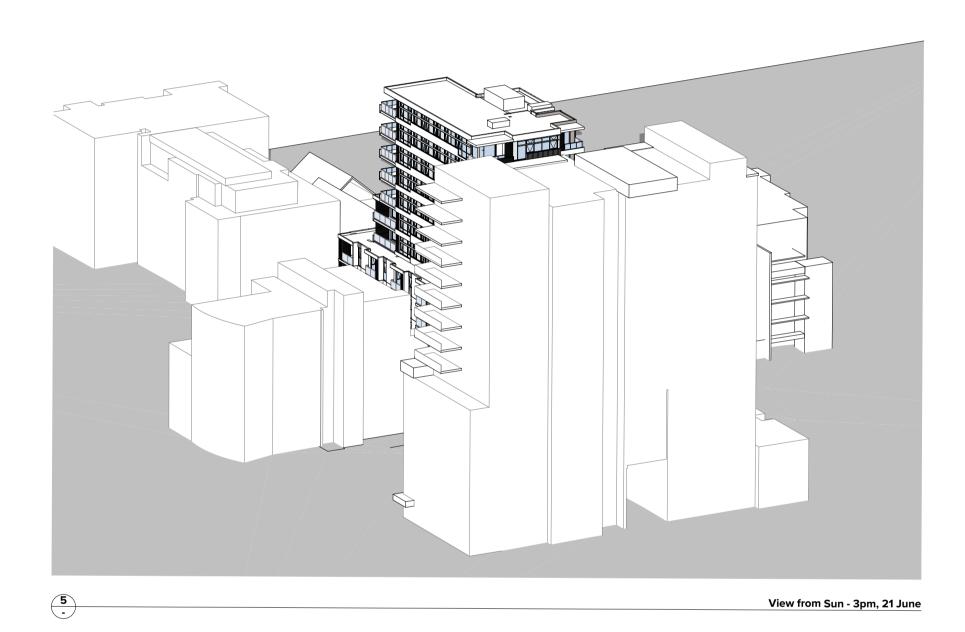
Drawing Title











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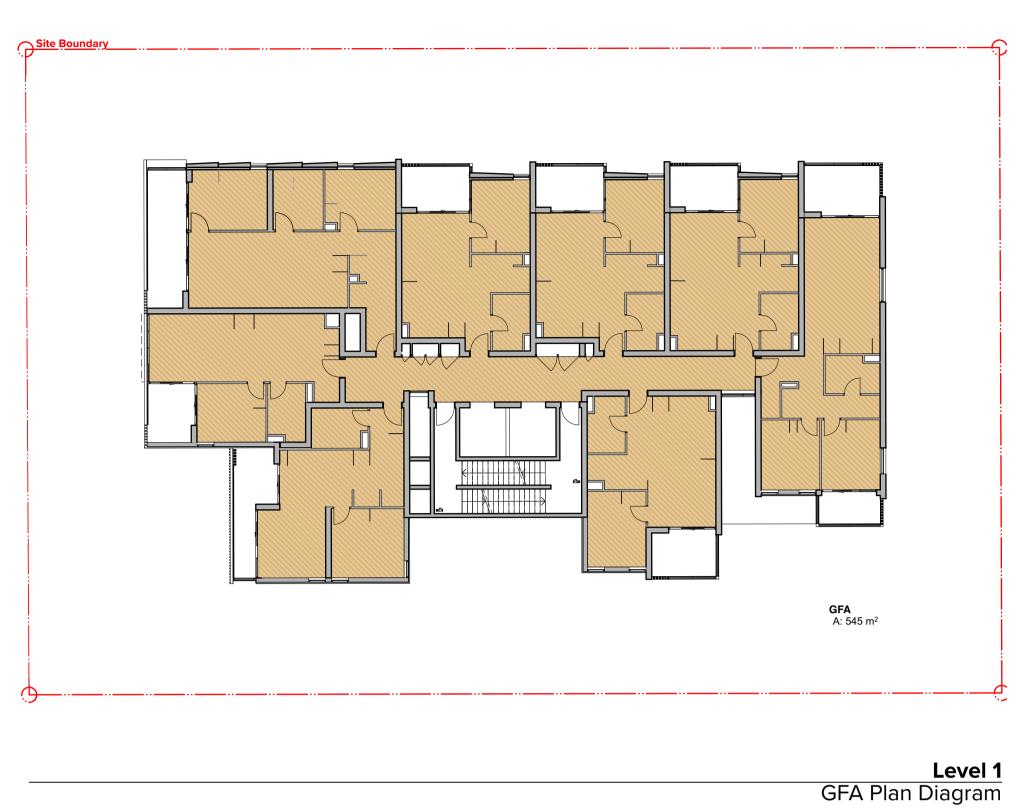
Rev Date Approved by Issue Name
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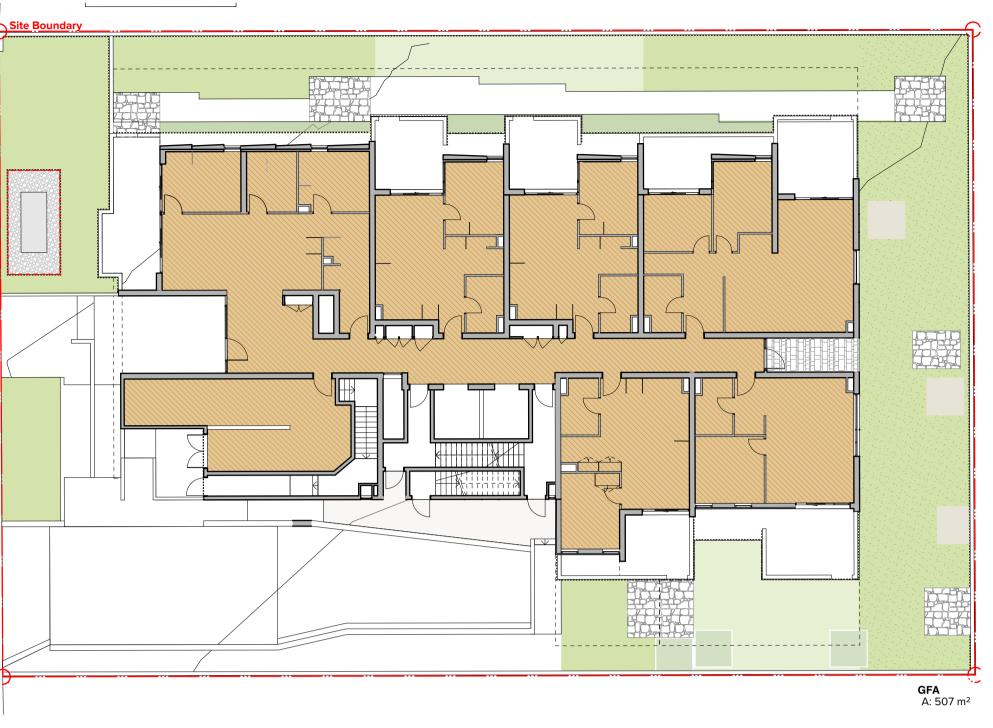
Bigge Street Warwick Farm
4-6 Bigge Street Warwick Farm NSW 2170 Australia

Drawing Title

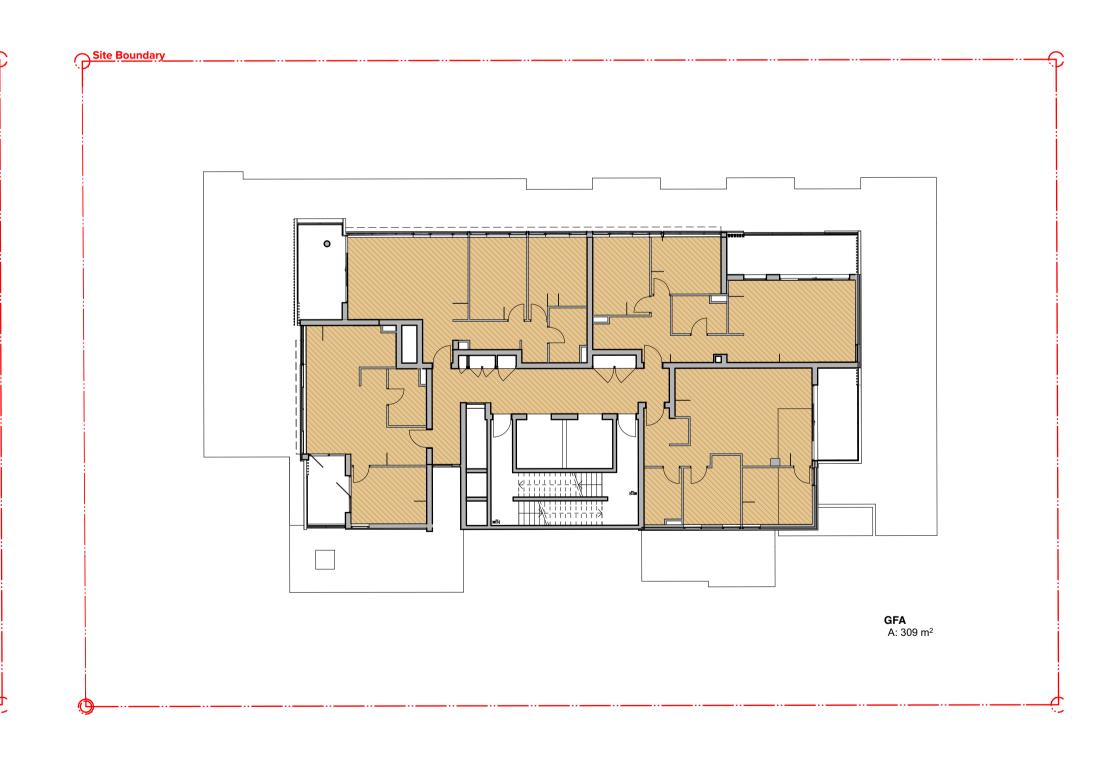
Shadow Diagrams
View From Sun Diagrams - 1pm to 3pm







Ground Level GFA Plan Diagram



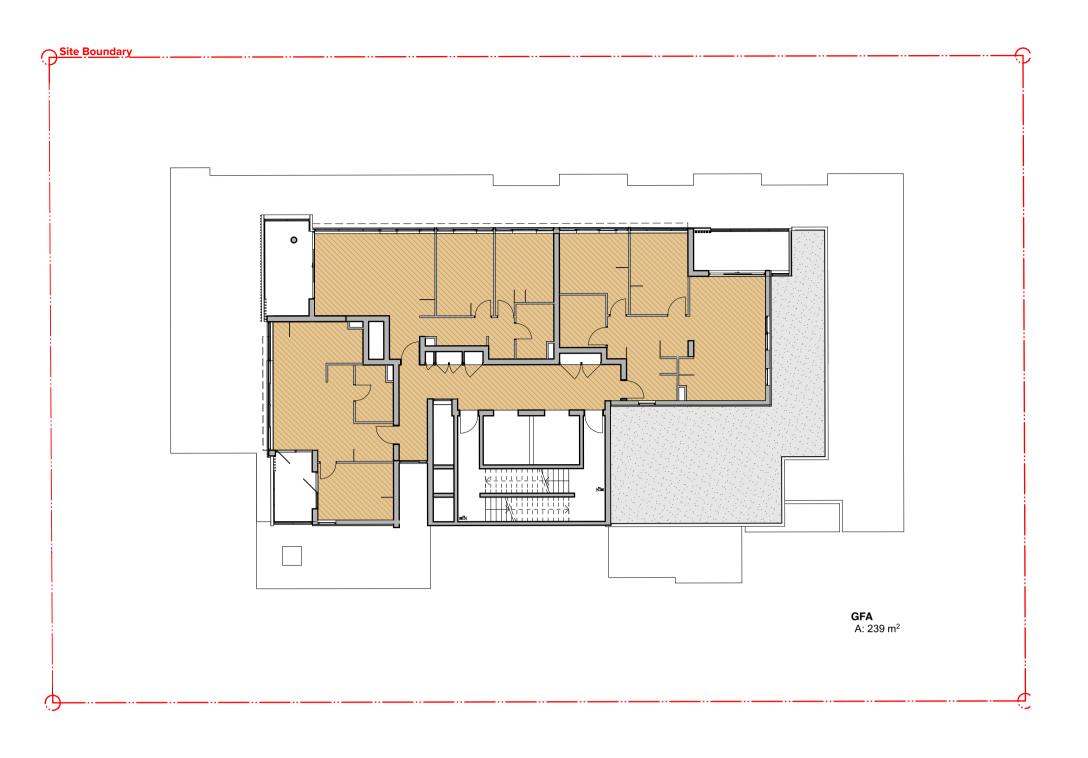
GFA A: 309 m²

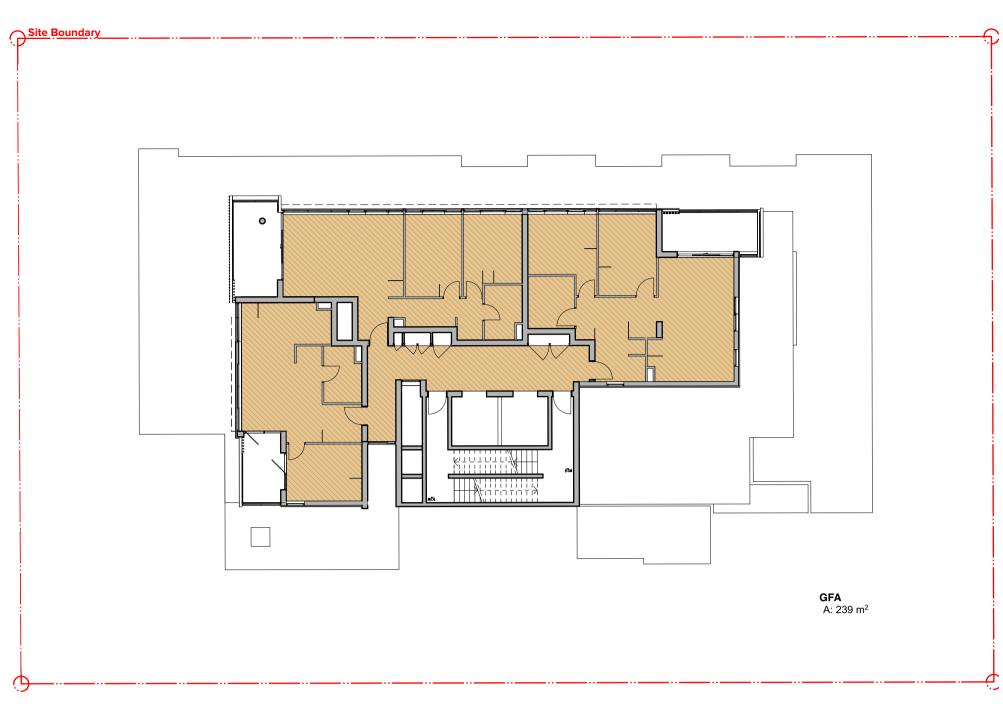
GFA A: 495 m²

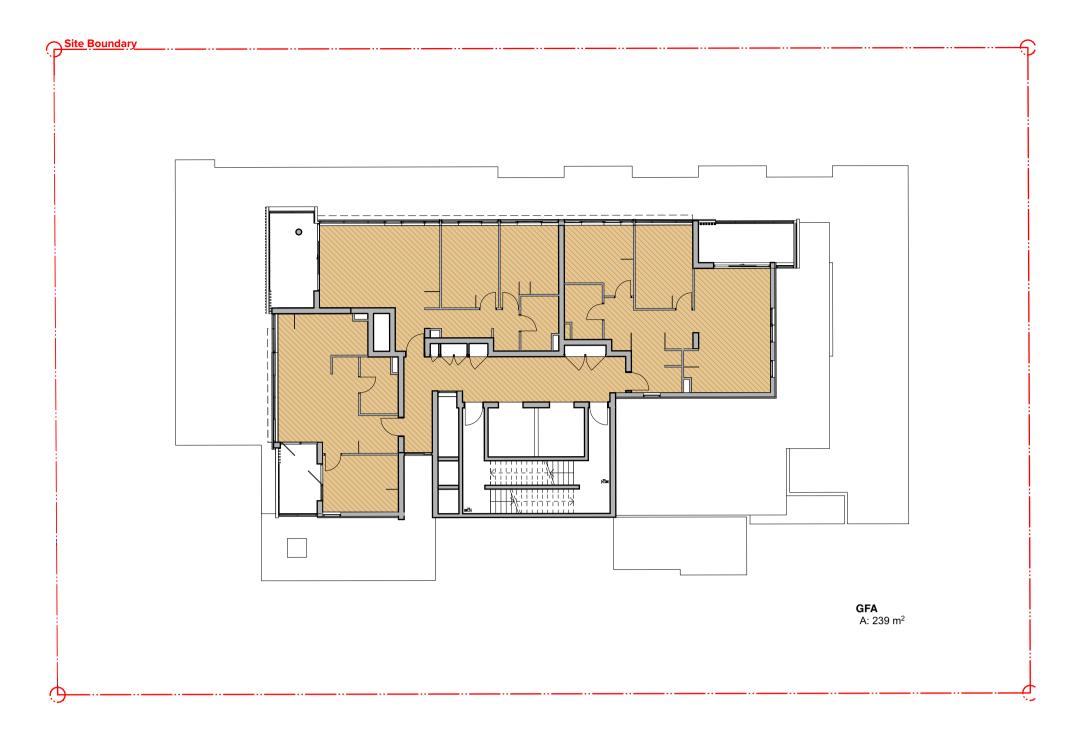
Level 3
GFA Plan Diagram

Level 5
GFA Plan Diagram

Level 4
GFA Plan Diagram



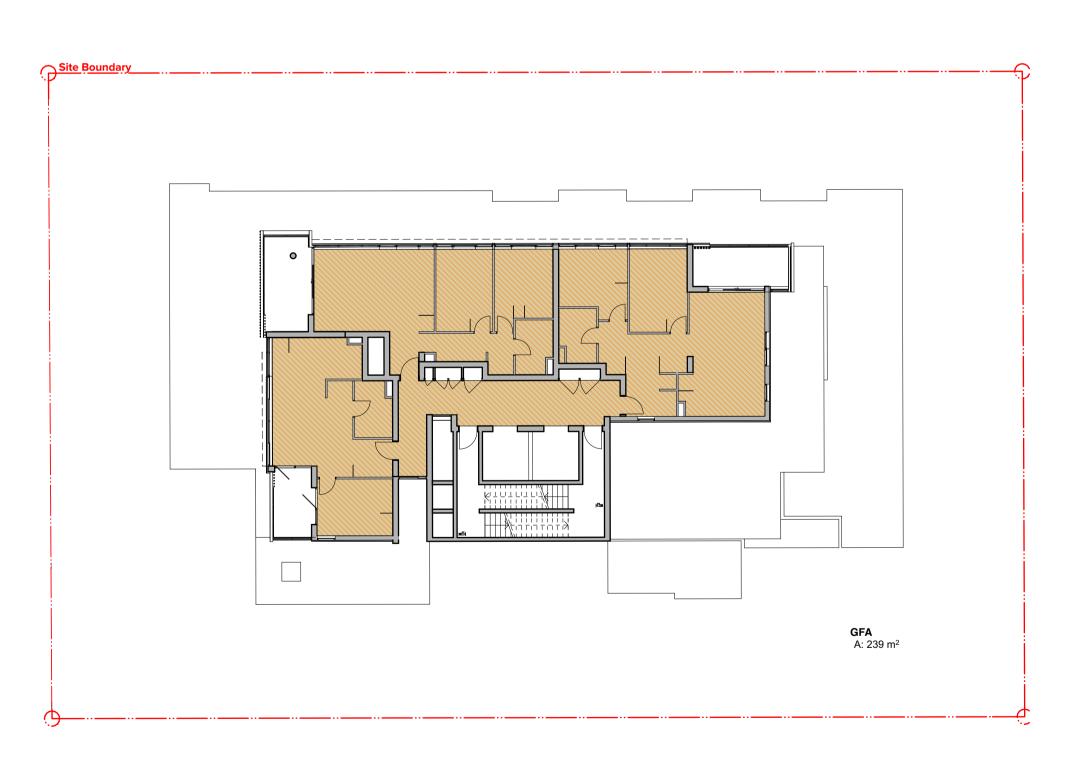


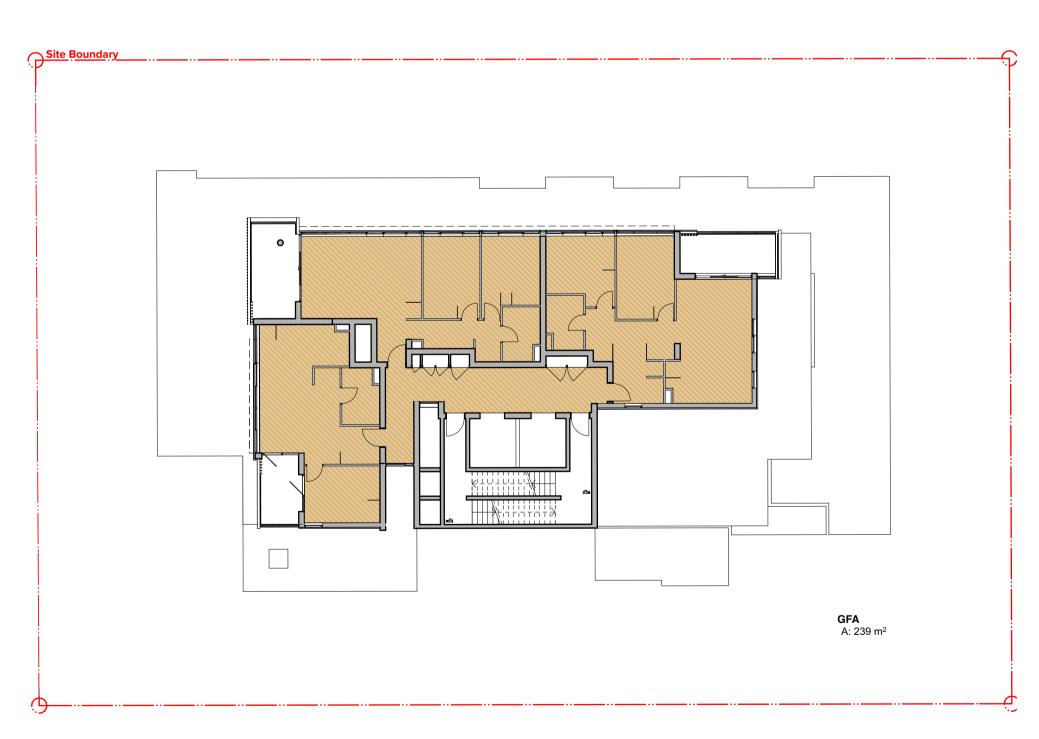


Level 6
GFA Plan Diagram

Level 7GFA Plan Diagram

Level 8
GFA Plan Diagram





Level 10	239 sqm
Total	3908 sqm
SR	
Site area	1757.8 sqm

508 sqm

545 sqm

497 sqm

309 sqm

309 sqm

239 sqm

239 sqm

239 sqm

239 sqm

3908 sqm

2.22:1

GFA Schedule

Level 2

Level 3

Level 4

Level 5

Level 6

Level 7

Level 8

Level 9

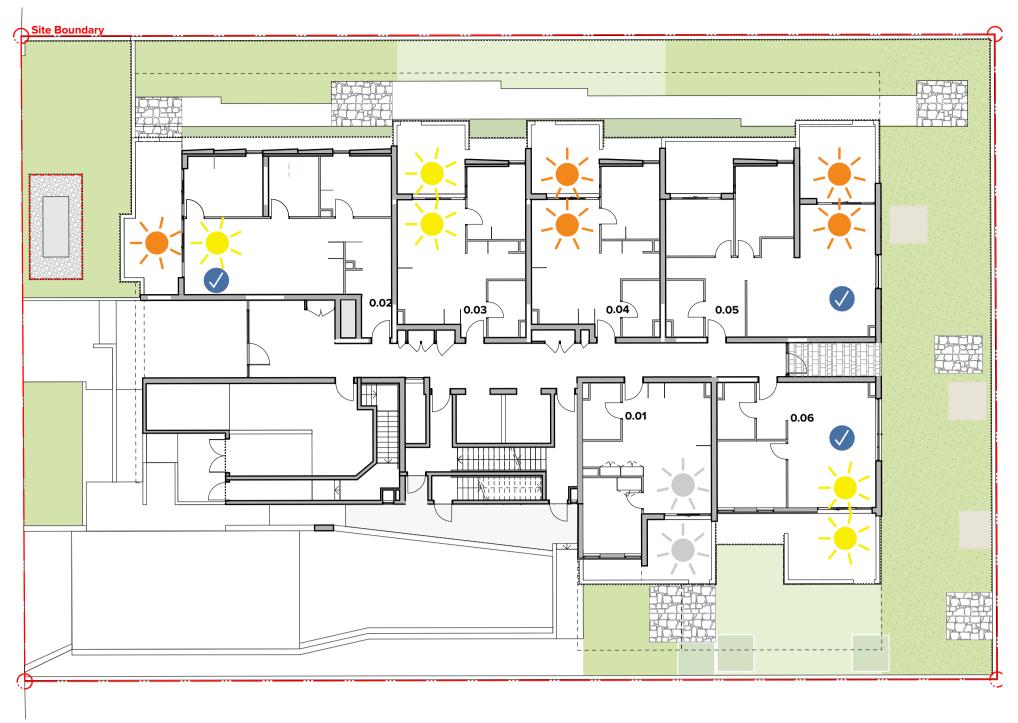
GFA Total

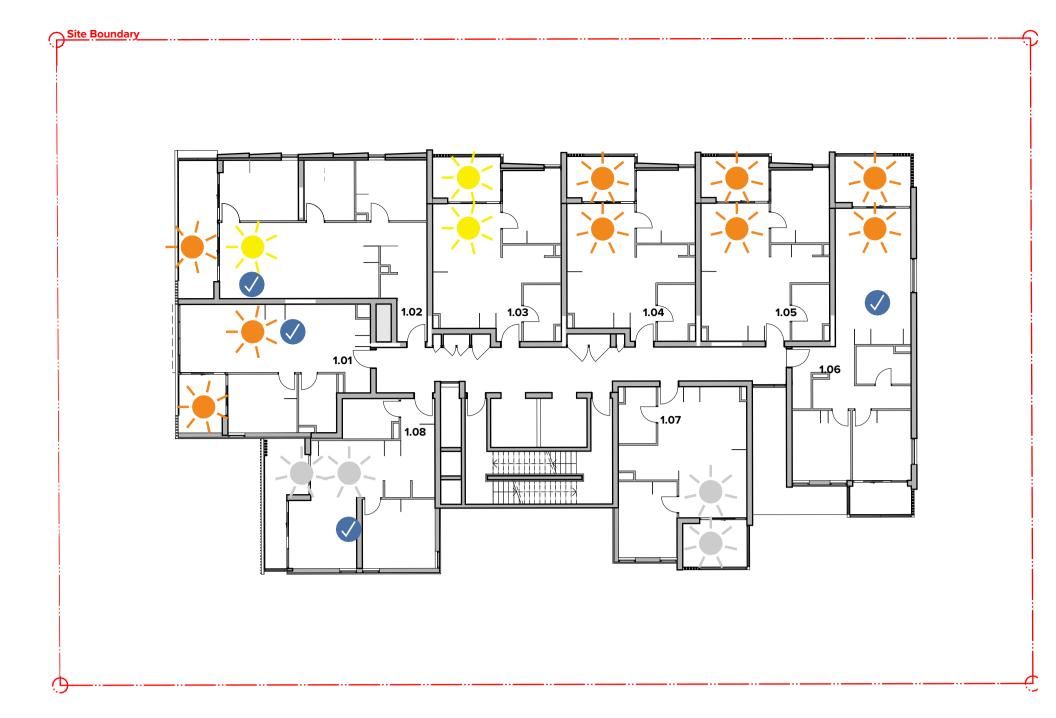
Ground Floor

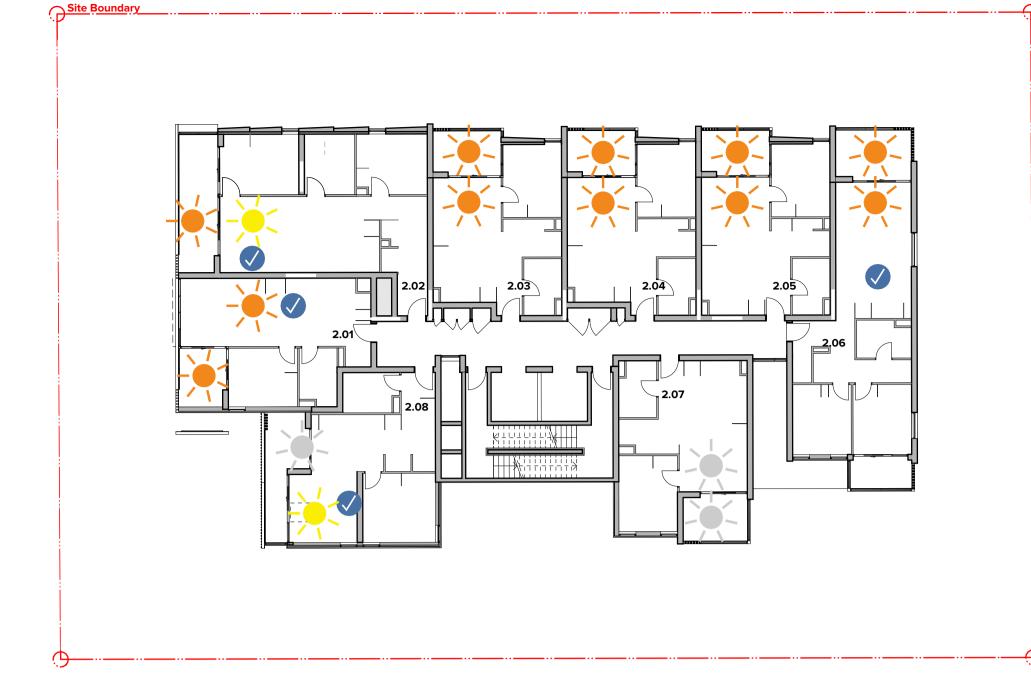
Level 9GFA Plan Diagram

el 10 gram

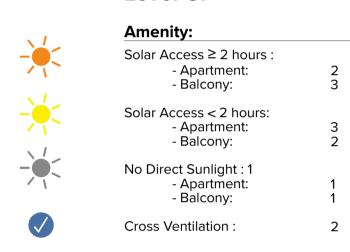
	Level
	GFA Plan Diagra







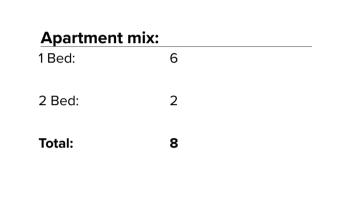




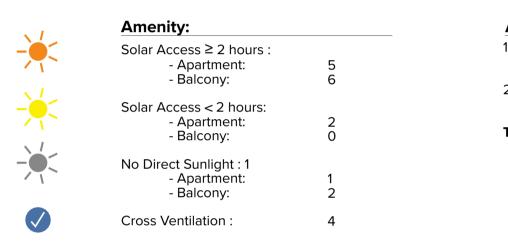


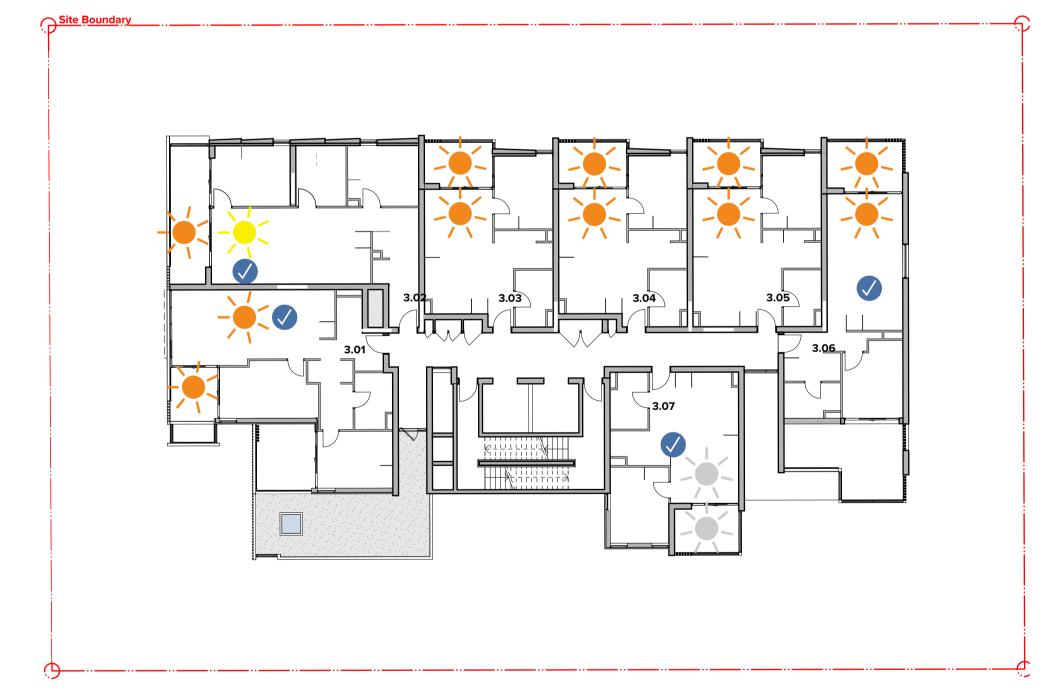


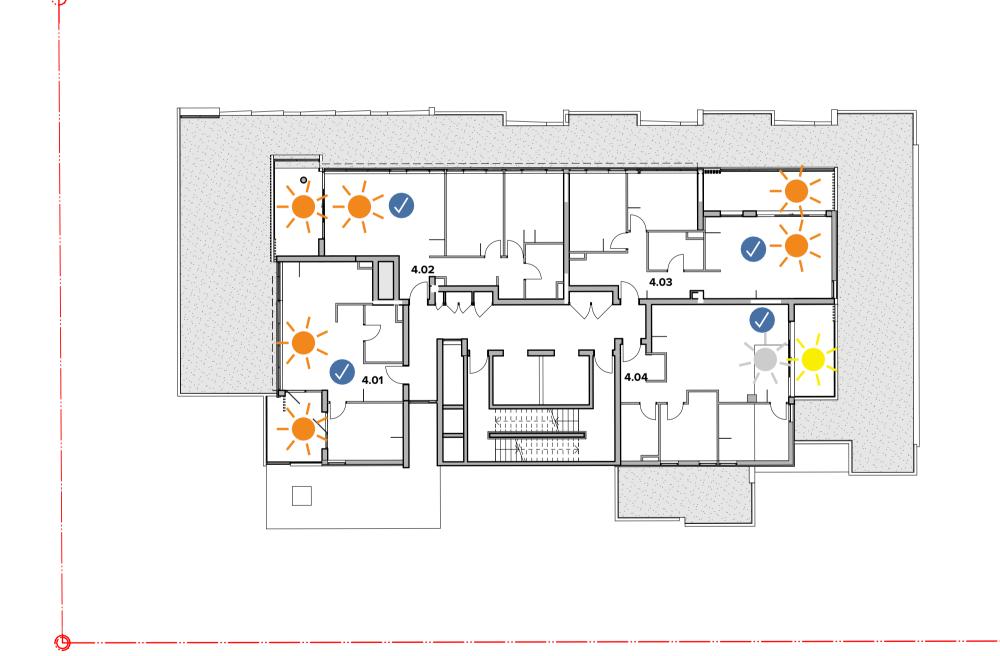
. 1	Amenity:	
	Solar Access ≥ 2 hours : - Apartment: - Balcony:	4 5
	Solar Access < 2 hours: - Apartment: - Balcony:	2 1
	No Direct Sunlight : 1 - Apartment: - Balcony:	2 2
	Cross Ventilation :	4









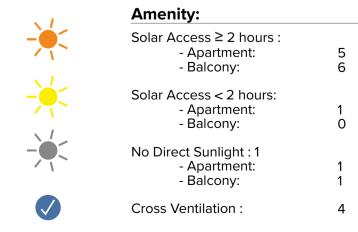




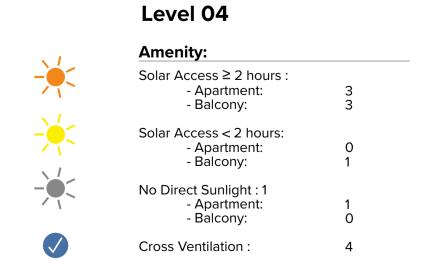
Apartment mix:

2 Bed:

Level 03



Apartment 1 Bed:	5	
2 Bed:	2	
Total:	7	



2 Bed: 3
Total: 4

Level 05

Amenity:	
Solar Access ≥ 2 hours : - Apartment: 3 - Balcony: 3	
Solar Access < 2 hours: - Apartment: - Balcony: 1	
No Direct Sunlight : 1 - Apartment: 1 - Balcony: 0	
Cross Ventilation: 4	

Apartment Amenity

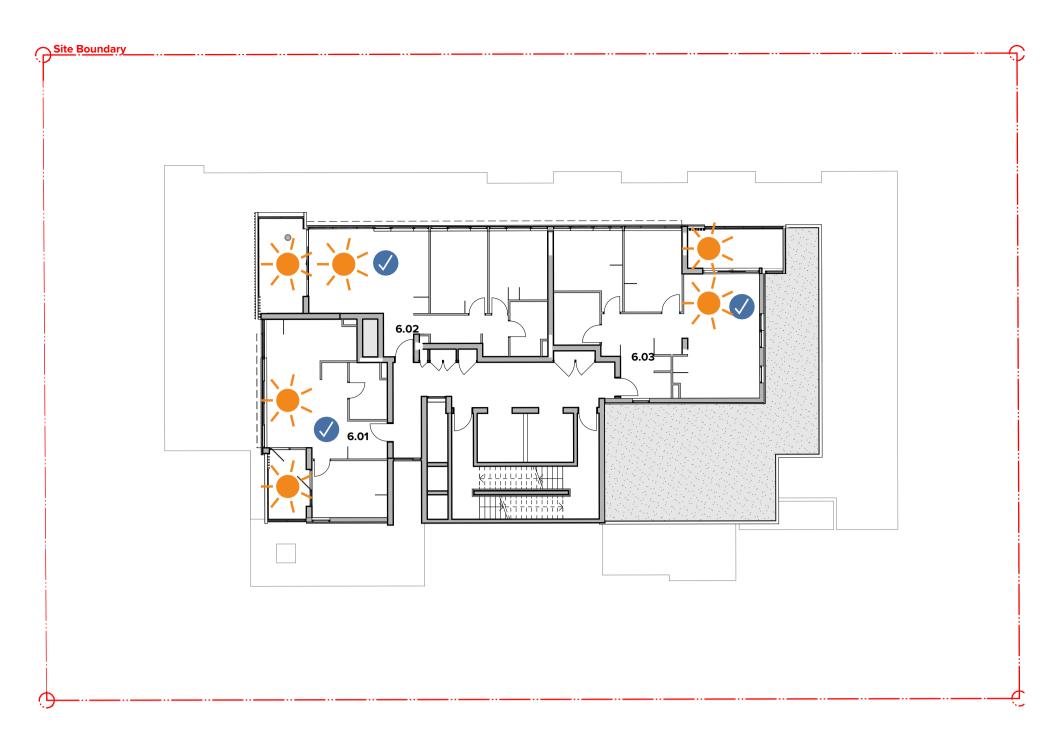
Solar Access & Cross Ventilation

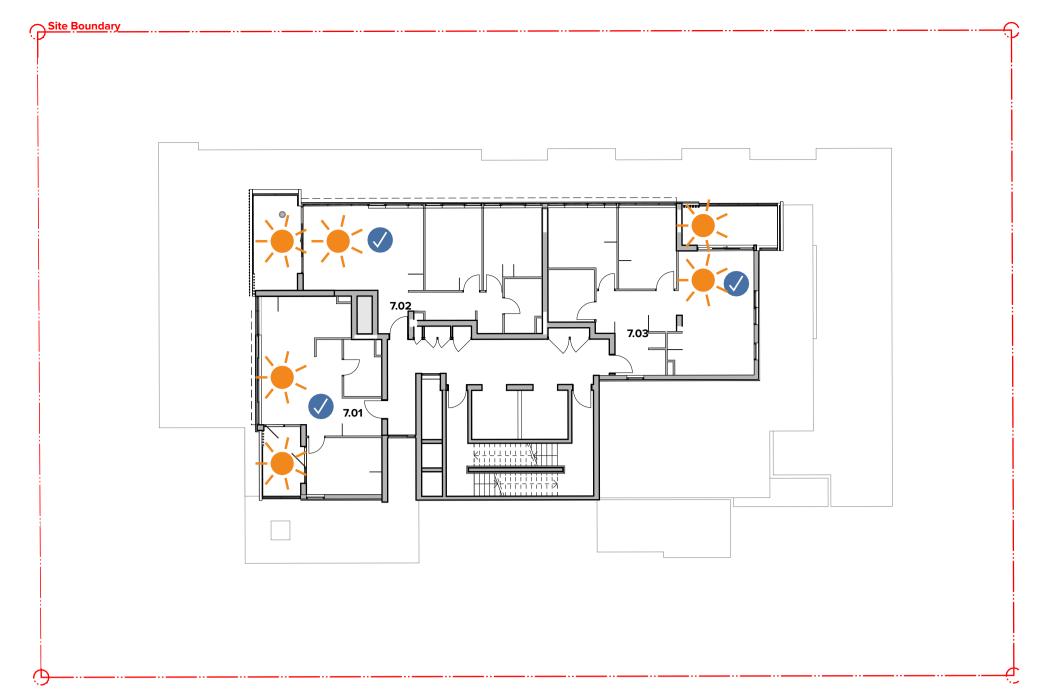
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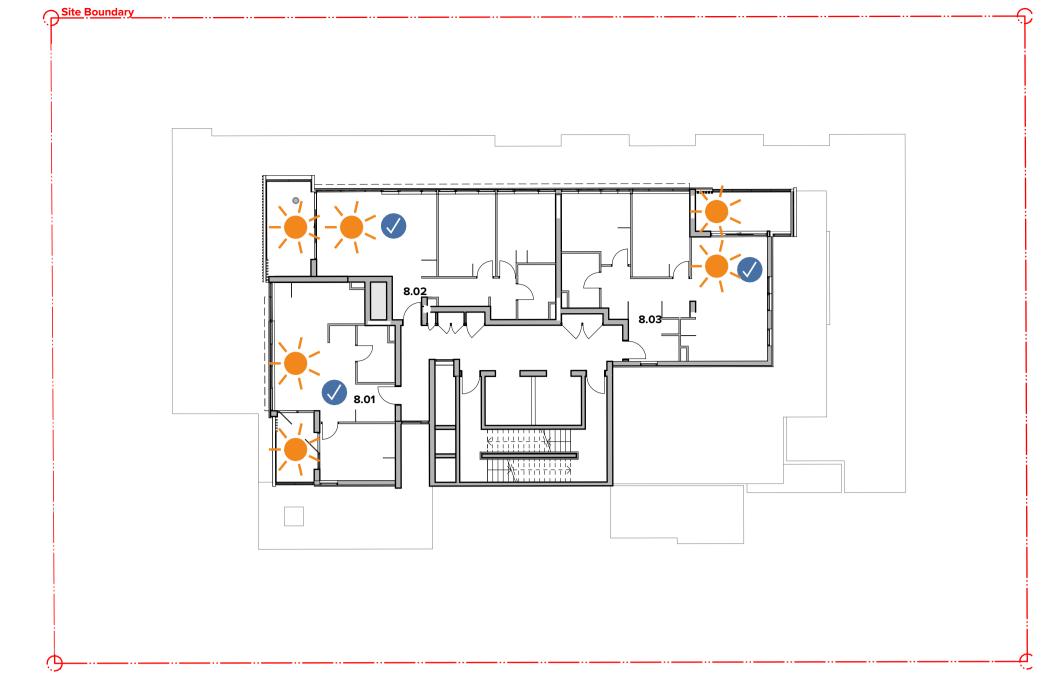
Hutchinson Builders
23 Dunning Avenue, Rosebery NSW 2018



Diago Chroat Manuick Form
Bigge Street Warwick Farm
4-6 Bigge Street Warwick Farm NSW 2170 Australia









	Amenity:	
-	Solar Access ≥ 2 hours : - Apartment: - Balcony:	3
	Solar Access < 2 hours: - Apartment: - Balcony:	0
-	No Direct Sunlight : 1 - Apartment: - Balcony:	0
	Cross Ventilation :	3

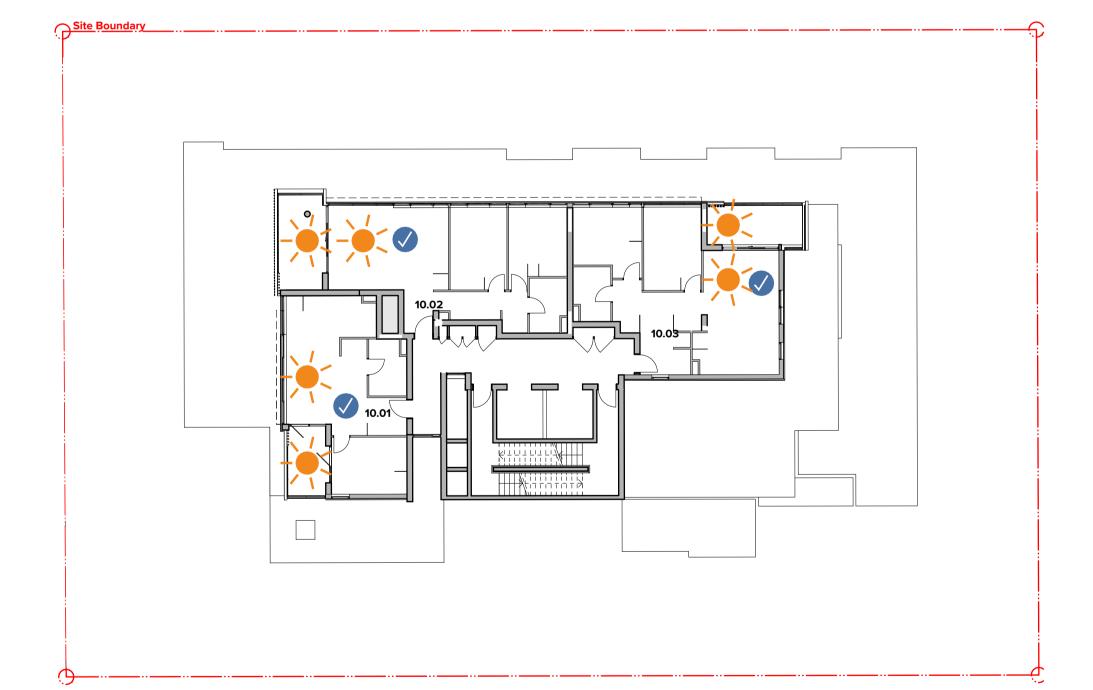
Apartment mix:	
1 Bed:	1
2 Bed:	2
Total	3



Level 07

. 1	Amenity:		
	Solar Access ≥ 2 hours : - Apartment: - Balcony:	3 3	
	Solar Access < 2 hours: - Apartment: - Balcony:	0 0	
	No Direct Sunlight : 1 - Apartment: - Balcony:	0	
	Cross Ventilation:	3	

Apartment	t mix:	
1 Bed:	1	
2 Bed:	2	
Total:	3	



l aval 08

Level 08	
Amenity:	
Solar Access ≥ 2 hours : - Apartment: - Balcony:	3
Solar Access < 2 hours: - Apartment: - Balcony:	0
No Direct Sunlight : 1 - Apartment: - Balcony:	0
Cross Ventilation :	3

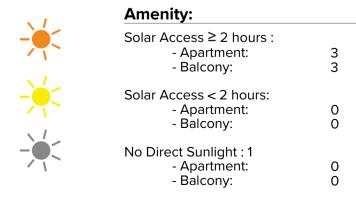
Apartment mix:	
1 Bed:	1
2 Bed:	2
Total:	3

Summary:

Sola	ar Access ≥ 2 hours :		
	- Apartment:	37	71 %
	- Balcony:	41	79 %
Sola	ar Access < 2 hours:		
	 Apartment: 	8	15%
	- Balcony:	5	10%
No	Direct Sunlight : 1		
	- Apartment:	7	13%
	- Balcony:	6	11%
Cro	ss Ventilation :	31	67 9
(Firs	st 9 storeys)		

Apartment mi	ix:	
1 Bed:	28	56%
2 Bed:	24	44%
Total:	52	100%

Level 09



Apartment mix:	
Bed:	1
2 Bed:	2
Total:	3

Level 10

Solar Access ≥ 2 hours :	
- Apartment: - Balcony:	3
Solar Access < 2 hours: - Apartment:	0
- Balcony:	0
No Direct Sunlight : 1 - Apartment:	0
- Apartment: - Balcony:	

1 Bed:	1	
2 Bed:	2	
Total:	3	

Apartment Amenity (with reference to Apartment Design Guide)

Solar Access (Objective 4A-1, Design Criteria 1) Minimum % of apartments achieving 2 hours solar access: ≥ 70% Actual % of apartments achieving 2 hours solar access: **37 apartments = 71%**

Natural Ventilation (Objective 4B-3, Design Criteria 1) Minimum % of apartments to be naturally ventilated: ≥ 60% for the first 9 storeys

Actual % of apartments that are naturally ventilated: 31 apartments = 67%

No Direct Sunlight (Objective 4A-1, Design Criteria 3) Maximum % of apartments receiving no direct sunlight: ≤ 15% Actual % of apartments receiving no direct sunlight: **7 apartments = 13**%

Apartment Amenity

Solar Access & Cross Ventilation

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Hutchinson Builders 23 Dunning Avenue, Rosebery NSW 2018 Rev Date Approved by Issue Name
A 20.05.19 VS Development Application
B 08.07.19 VS Development Application

Bigge Street Warwick Farm 4-6 Bigge Street Warwick Farm NSW 2170 Australia

1:200 @A1, 50%@A3 For Development Application DA-730-020

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23 Dunning Avenue, Rosebery NSW 2018

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A 15.05.19 VS Development Application
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Bigge Street Warwick Farm
4-6 Bigge Street Warwick Farm NSW 2170 Australia

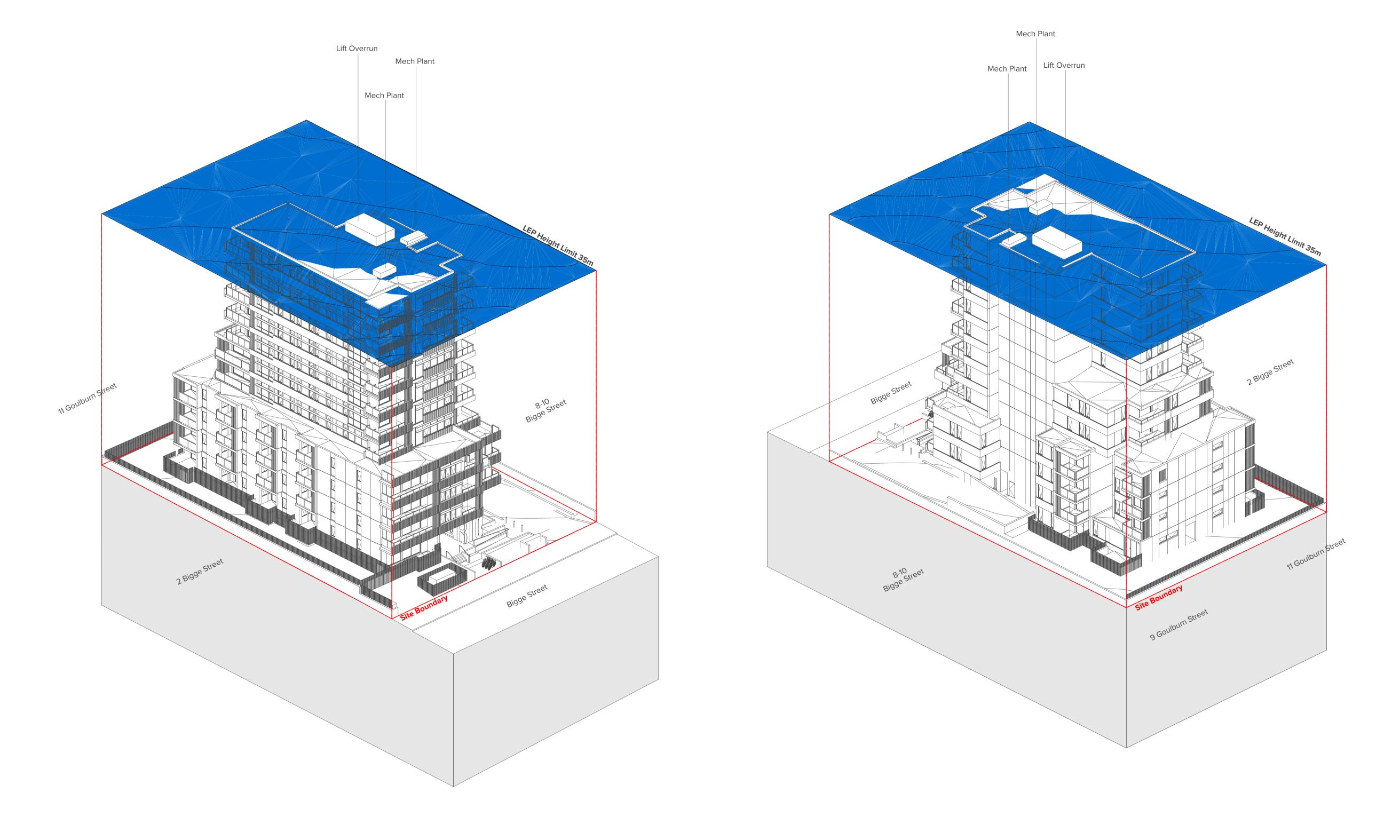
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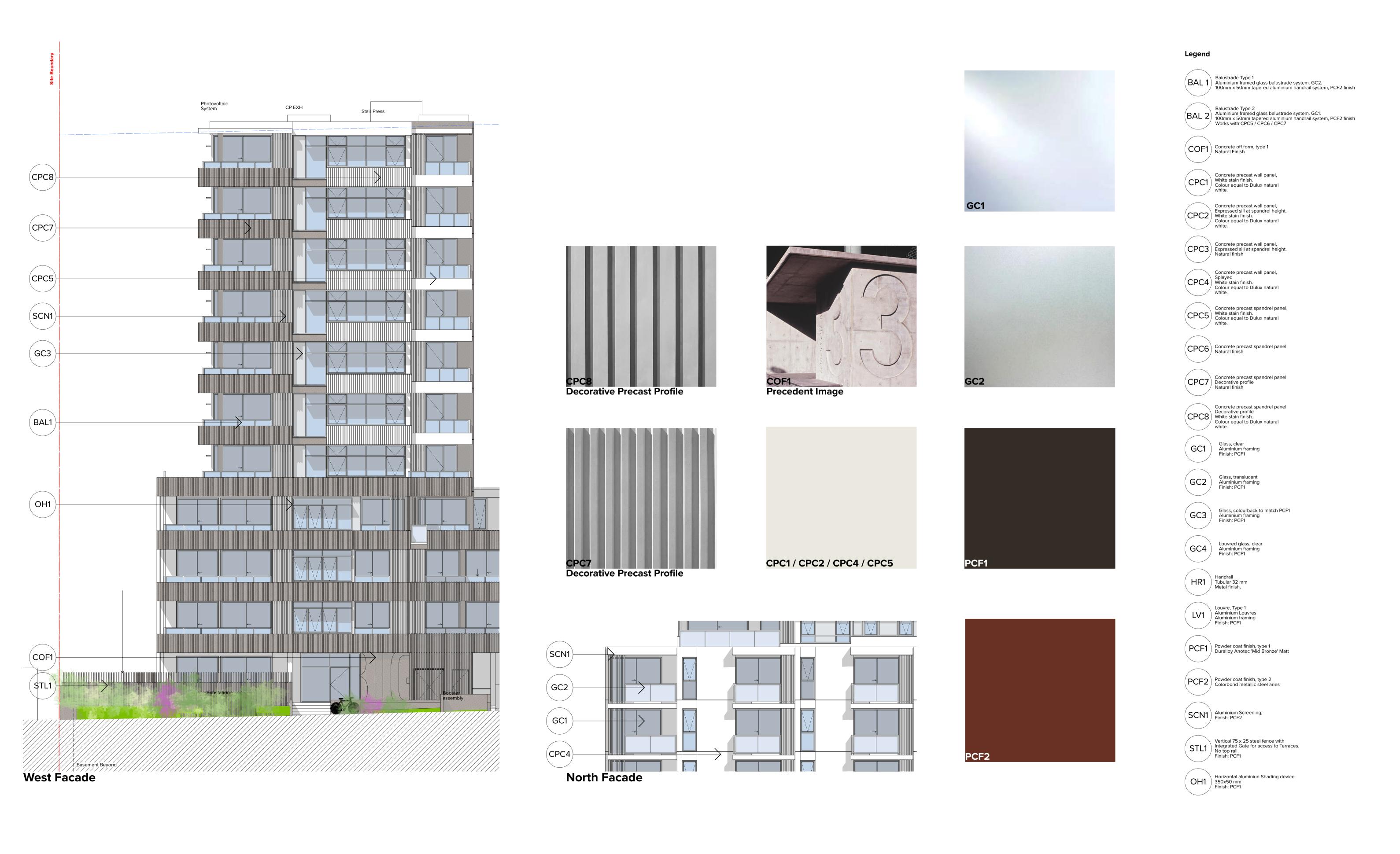
Height Plane Massing Study
Height Plane Massing Study

Scale Project No. 18013 Drawn by North

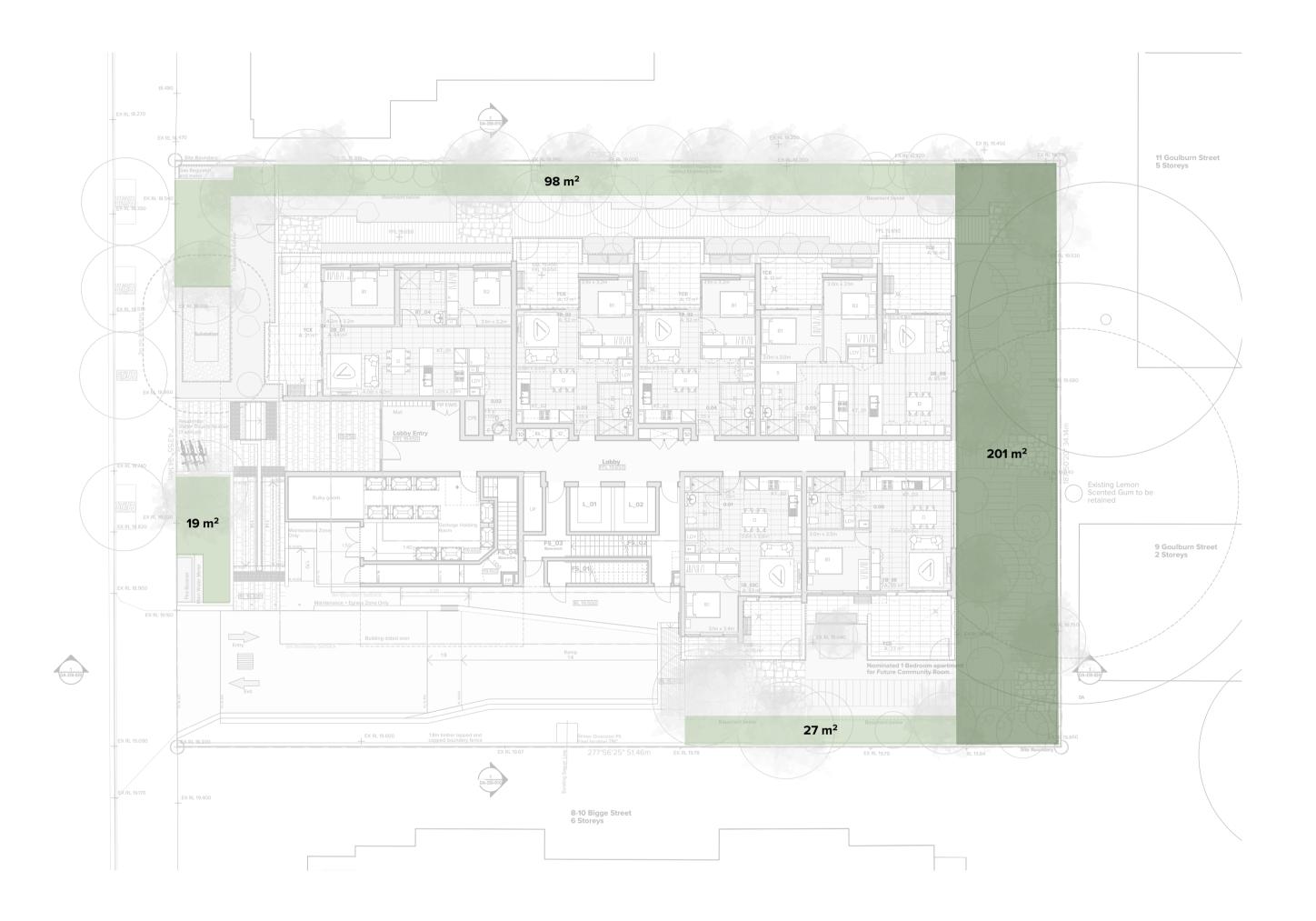
NTS 18013 Dwg No.

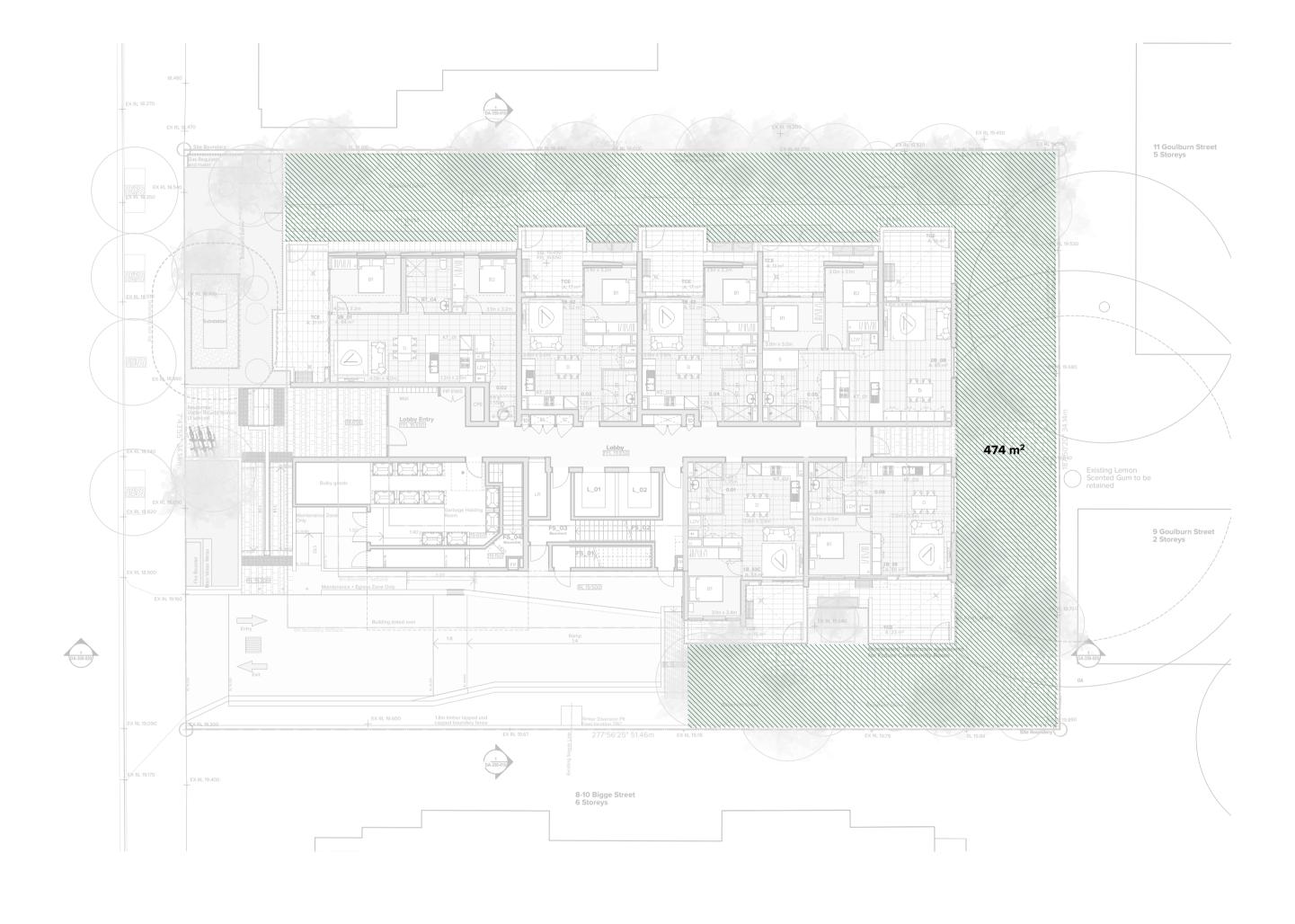
For Development Application DA-810-010 B





Materials & Finishes Selection





Deep Soil Zone:

Deep Soil Zone (6m wide): 201m2

ADG Requirement: Deep Soil Zone minimum width: 6m 7% of Site Area (1757.8m2): 123m2

Deep Soil (Less than 6m width): 144m2

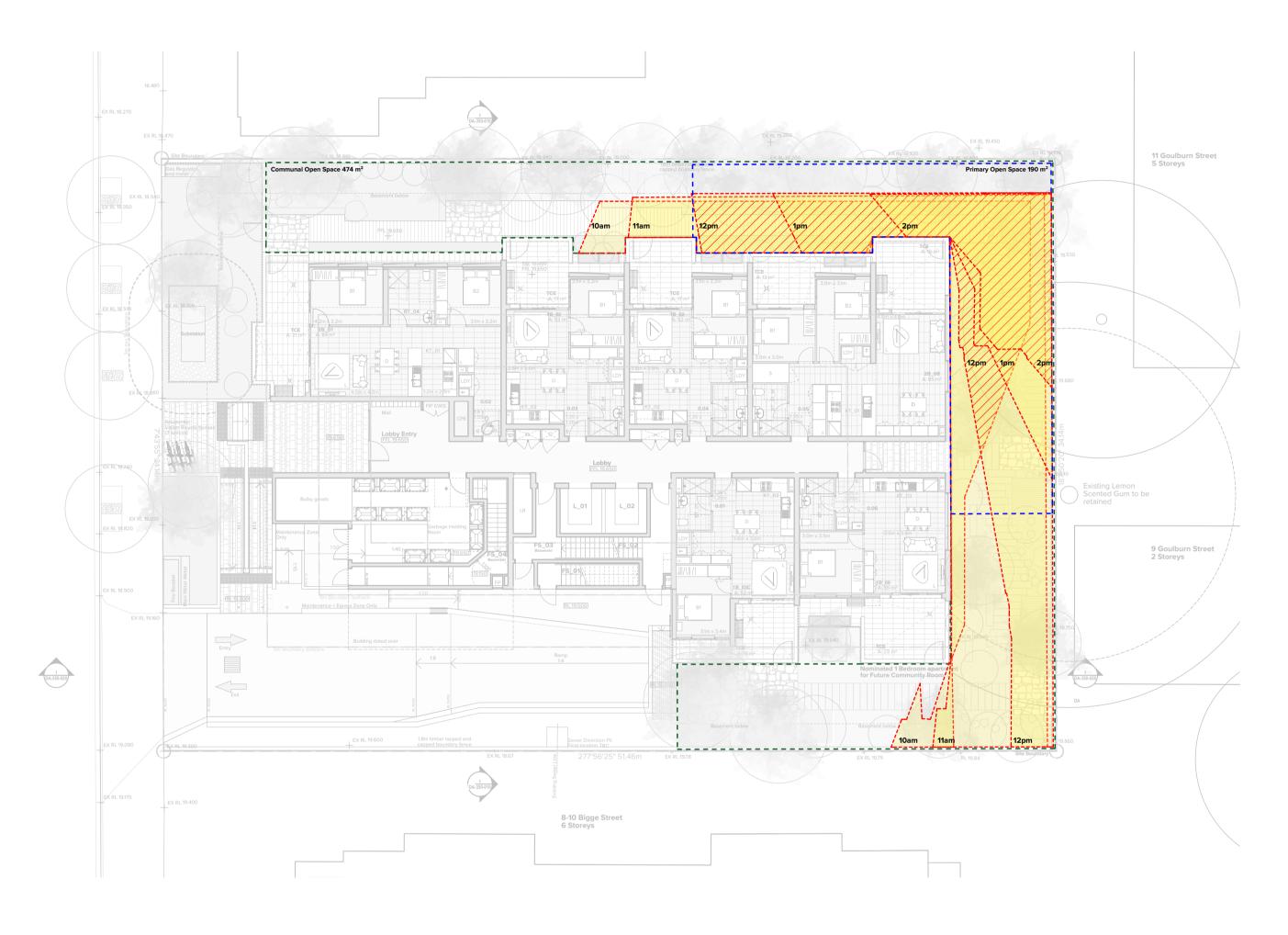
Proposed Deep Soil: 345m2

Communal Open Space:

ADG Requirement: 25% of Site Area (1757.8m2): 439.45m2

Proposed Communal Open Space Area: 474 m2

Deep soil & Communal open space Deep soil & Communal open space



Legend

72722 Communal Open Space 72722 Primary Open Space Zone of Primary Open Space that receives 2+ Hours of sun in mid winter / June 21st (9am-3pm) 102m² = 53% ZZZZArea of the Communal space that receives sun in mid winter / June 21st (9am-3pm) 257m² = 57% _____

ADG Requirement:

Development must achieve a minimum of 50% direct sunlight to the principle usable part of the communal open space for a minimum of 2 hours between 9am - 3pm on 21st June.

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Hutchinson Builders 23 Dunning Avenue, Rosebery NSW 2018
 Rev
 Date
 Approved by VS
 Issue Name

 A
 23.05.19
 VS
 Development Application

 B
 08.07.19
 VS
 Development Application

Bigge Street Warwick Farm 4-6 Bigge Street Warwick Farm NSW 2170 Australia

Deep soil & Communal open space Communal Open Space Solar Diagram

1:200 @A1, 50%@A3

Adaptable Apartments

In all residential flat building developments containing 10 dwellings or more, a minimum of 10% of all apartments are to be designed to be capable of adaptation for access by people with all levels of mobility. Dwellings must be designed in accordance with the Australian Adaptable Housing Standard (AS 4299-1995), which includes pre-adaptable design details to ensure visitability is achieved.

Total number of apartments: 52Total number of adaptable apartments: 6 Percentage of adaptable apartments: 12%



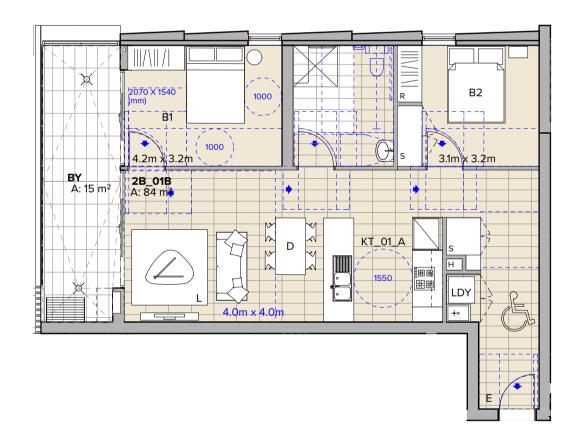
Pre-Adapted Layout - 2B_01B 1:100

1.02 2.02 3.02 Internal area: 84 sqm External area: 15 sqm

Pre-Adapted Layout - 2B_01 (Ground floor with Terrace)

0.02

Internal area: 84 sqm External area: 20 sqm



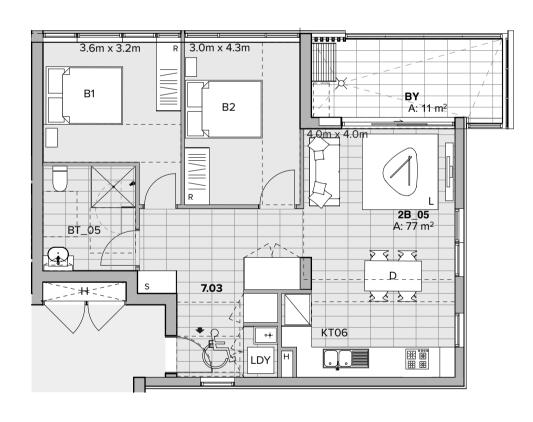
Pre-Adapted Layout - 2B_01B 1:100

1.02 2.02 3.02 Internal area: 84 sqm External area: 15 sqm

Pre-Adapted Layout - 2B_01 (Ground floor with Terrace)

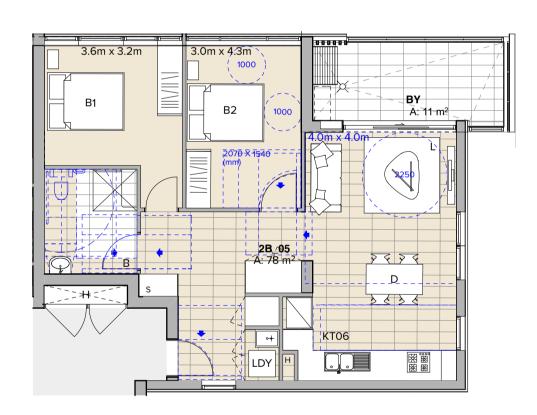
0.02

Internal area: 84 sqm External area: 20 sqm



Pre adapted Layout - 2B_05

Internal area: 77 sqm External area: 11 sqm



POST-Adapted Layout - 2B_05 1:100

Internal area: 77 sqm External area: 11 sqm

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Bigge Street Warwick Farm 4-6 Bigge Street Warwick Farm NSW 2170 Australia

Adaptable Apartments

Adaptable Apartments

1:100 @A1, 50%@A3



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CLIENT
Hutchinson Builders
23 Dunning Avenue, Rosebery NSW 2018

Rev Date Approved by Issue Name
B 08.07.19 VS Development Application

Project Title

Bigge Street Warwick Farm

4-6 Bigge Street Warwick Farm NSW 2170 Australia

3D VIEWS

Artist's Impression

Scale Project No. 18013
NTS 18013
Status Dwg No. Rev B

For Development Application DA-900-009



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3D VIEWS

Artist's Impression