



TWT ST LEONARDS 23-35 ATCHISON STREET, ST LEONARDS

APRIL 2017

NSC POINT 1.	3
NSC POINT 2.	4
NSC POINT 3.	6
NSC POINT 4.	7
NSC POINT 5.	11
NSC POINT 6.	12
NSC POINT 7.	13
NSC POINT 8.	13
NSC POINT 9.	14
APPENDIX _ SOLAR STUDIES	15
APPENDIX _ ATCHISON STREET VIEWS	18
APPENDIX _ PLANS AND SECTIONS	19

This report has been prepared to address the urban design issues in comments made by North Sydney Council (NSC) in a letter dated 5 April (*CONCEPT FOR 25-35 ATCHISON STREET, ST LEONARDS*) in response to the submission of a preliminary concept proposal on 14 March 2017.

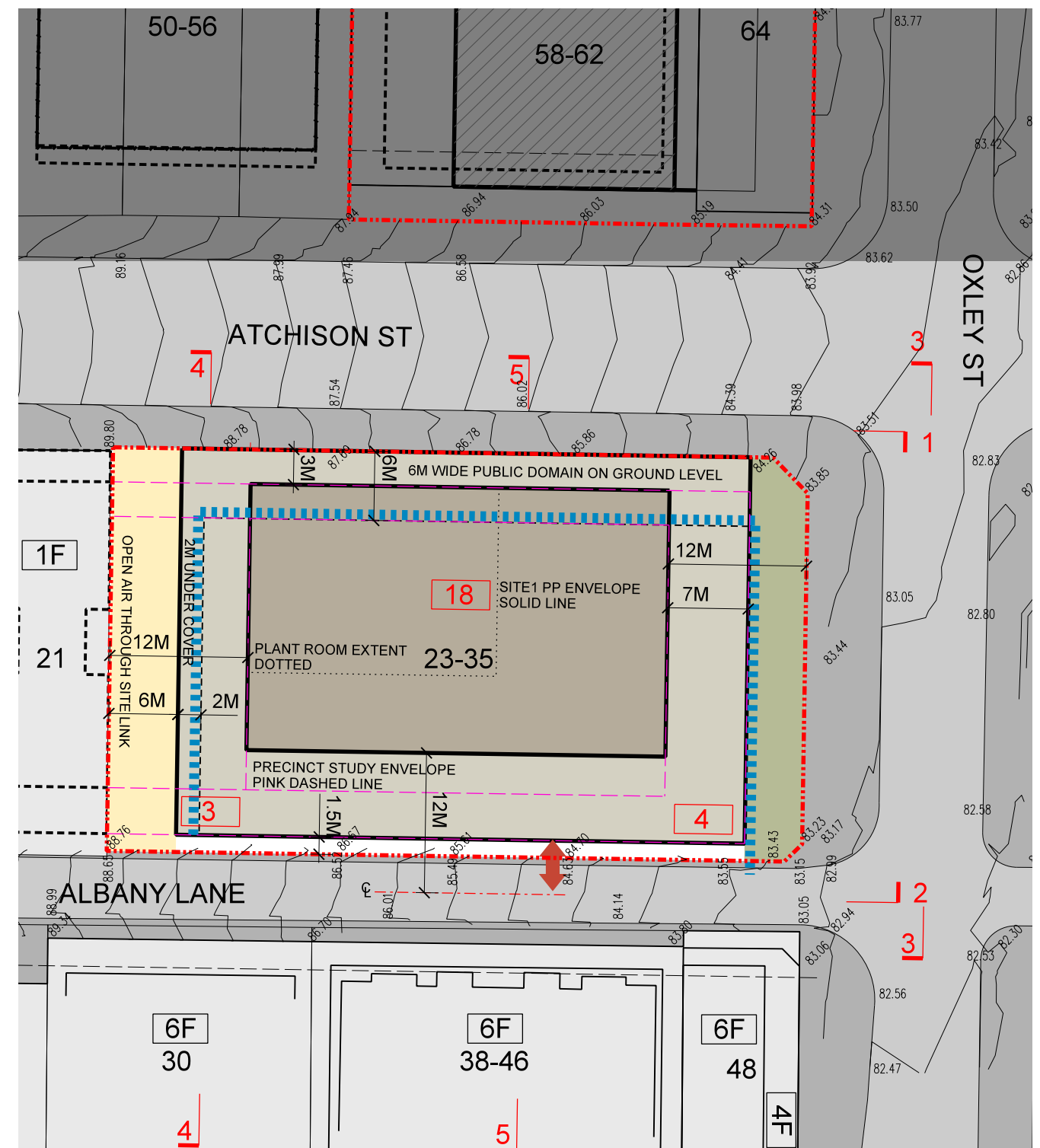
A summary of the changes to the proposal submitted to council on 14 March 2017:

3m ground level setback is reduced to nil setback along Oxley Street linear park zone;

The proposal is revised to reflect a tower apartment (podium) typology without the 8 storey “bridge connector” to the west;

The proposal will provide a public benefit in the form of a 6m wide open air through site link.

A further 2m ground level setback will provide an undercroft weather protection for pedestrians;



NSC Point 1.

Isolation of 21 Atchison Street

NSC : “The proponent is encouraged to continue negotiations with 21 Atchison Street and incorporate the site into the scheme.”

TWT Response:

Evidence of continued negotiations with 21 Atchison Street are provided separately.

NSC: “Alternatively, if negotiations are unsuccessful, the concept proposal for 23-35 Atchison Street is revised to have full regard to the principles and separation requirements of the ADG assuming the future development 21 Atchison Street with nil side setbacks.”

TWT Response:

Design testing was undertaken for 21 Atchison Street. The site is approximately 35.07m deep by 10.17m wide. To the west the Nexus building has a zero setback to 8 storeys with light well that is approximately 6m x 3m in dimension. The tested design utilises floorplates that would be generally applicable under both North Sydney DCP 2013 (DCP 13) and the controls proposed by the St Leonards / Crows Nest Planning Study - Precincts 2 and 3 Precinct (Planning Study).

The proposal is for an 8 storey building with zero setbacks and two light wells that are approximately 6m x 2.5m in dimension with a 4 storey podium street frontage. Due to the Nexus building form it is not possible to construct 21 Atchison Street above 8 storeys. Commercial space is proposed to the first 3 levels and can deliver approximately 1.69:1 FSR. Refer Appendix for Yields Table of 21 Atchison Street.

SEPP 65 and ADG compliance is achievable to both 21 Atchison Street and 23-35 Atchison Street.

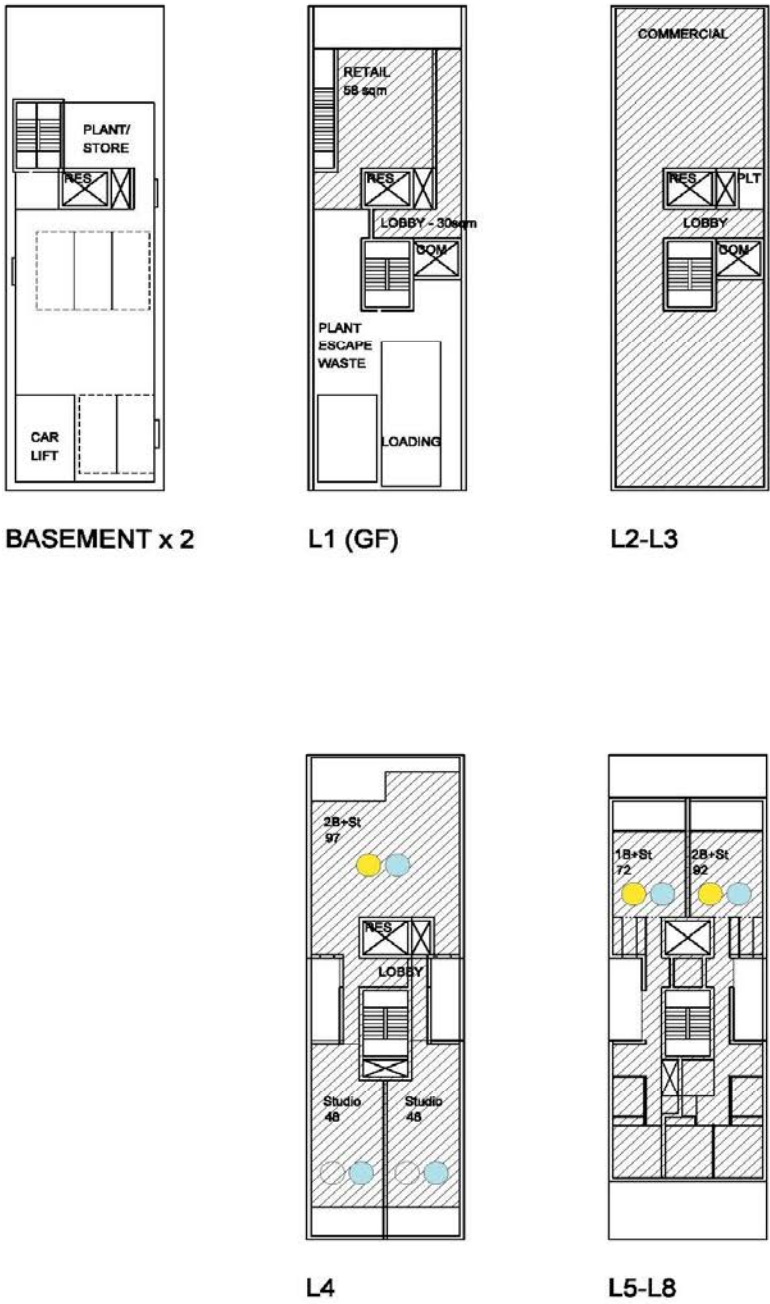


Fig. 1.01 Indicative Floor Plans of 21 Atchison Street

NSC Point 1.

Isolation of 21 Atchison Street

NSC: “Alternatively, if negotiations are unsuccessful, the concept proposal for 23-35 Atchison Street is revised to have full regard to the principles and separation requirements of the ADG assuming the future development 21 Atchison Street with nil side setbacks.”

TWT Response:

Refer Figure 1.02. Indicative Yield table for 21 Atchison St.

ST LEONARDS PRECINCT 3 PLANNING STUDY(13_014)
AUSWIN TWT

PROJECT SUMMARY

21 ATCHISON PP 2017 _ 1.5 N

0

Residential Areas

Site-Building	Storeys	NSA	GFA	FECA	UCA	NSA/GFA
21 ATCHISON	8	851	975	1,108	174	87%
		851	975	1,108	174	

Non Residential Areas

Building	Use	NSA	GFA	FECA	UCA	NSA/GFA
21 ATCHISON	Retail	58	58	56	0	
	L2 and L3 Commercial	537	537	647	0	
Totals		595	595	703	0	

Carparking areas

Site-Building	Use	NSA	GFA	FECA	UCA
21 ATCHISON	Carparking		0	354	0
Total		0	0	594	0

Residential numbers and mix

Building	Unit Type	Studio	1B	1B+Study	2B_Sm	2B_Lg	3B
	Mix	18%	0%	36%	0%	45%	0%
	Average NSA	48	50	72	75	93	95
21 ATCHISON		2	0	4	0	5	0
		2	0	4	0	5	0

Carparking numbers

	Residential	Non Residential
21 ATCHISON	8	1
	8	1

Site Summary

FECA+UCA - Residential	1,282
FECA+UCA - Non residential	703
FECA+UCA - Carparking	594
FECA+UCA - Total	2,579
GFA - Non Residential	595
GFA - Residential	975
GFA - Total	1,569
Site Area - Total	352.6
FSR - Non Residential	1.69
FSR - Total	4.45
No. of apartments	0
No. of cars	9

Disclaimer

This is for high level feasibility only and all project

Site FSR

	Residential	Non residential	Total FSR
21 ATCHISON	2.76	1.69	4.45

Site Areas

		Total Site
21 ATCHISON	352.6	352.6

Definitions

Rev A21 ATCHISON FSR Isolated Site Study (Non Re

■ FSR is Floor Space Ratio = GFA (LEP)/Site Area

■ NSA is Nett Sellable Area measured to the inside face of enclosing walls excluding voids above a floor and balconies

■ GFA (LEP) is Gross Floor Area measured as defined by the governing Local Government Authority

■ FECA is Fully Enclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works

■ UCA is Uenclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works

■ Efficiency = NSA/FECA

■ all areas are measured in square metres

■ Efficiency of GBA to GFA for towers at DESIGN TEST %

Fig.1.02. Indicative Yield Table 21 Atchison St.

NSC Point 2.

Nil podium setback along Atchison Street fails to achieve public domain objectives

NSC : “The proposal is to be amended to incorporate a 3m whole of building setback.”

TWT Response:

The concept proposal seeks to achieve the objective of the 3m setback to create a sense of space and openness at the at the transition point from the high density residential to the dedicated mixed use development leading up into the core of St Leonards without providing a 3m whole of building setback.

The reason for this is that there are 3 recent apartment buildings completed in Atchison Street all of which are not set back 3m at podium level.

- No. 15 Nexus
- No. 9 T1
- No. 5

Of these T1 contributes most positively with a 3m ground level setback that is 2 storeys high and 3m deep and relatively flush with the footpath level. Refer diagrams Fig. 2.01-03.

The proposal seeks to maintain continuity in the existing recently completed streetscape in terms of both the alignments of podiums and towers whilst achieving the public domain objectives. The proposal has Ground Level Upper and Ground Level Lower setback at 6m.

Existing Condition

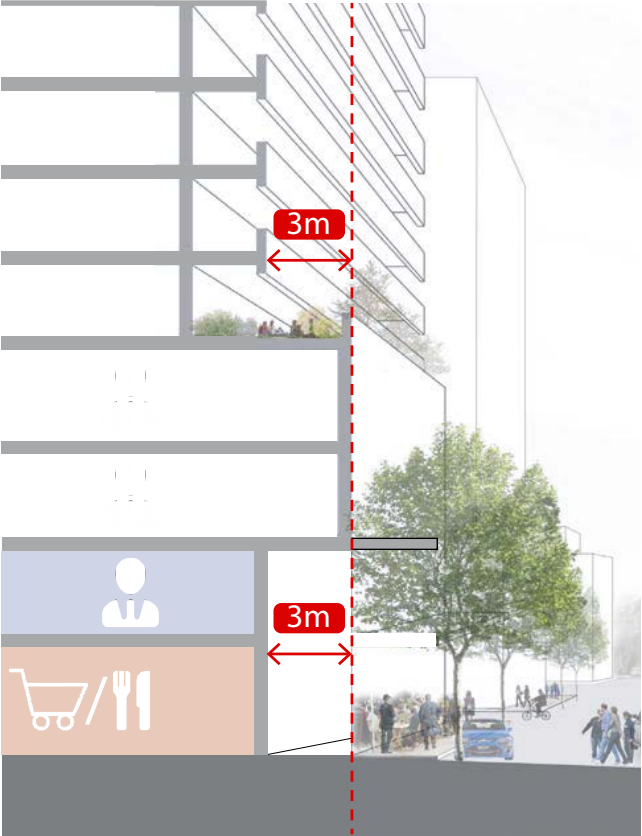


Fig. 2.01 T1, 9 Atchison Street



Existing Condition

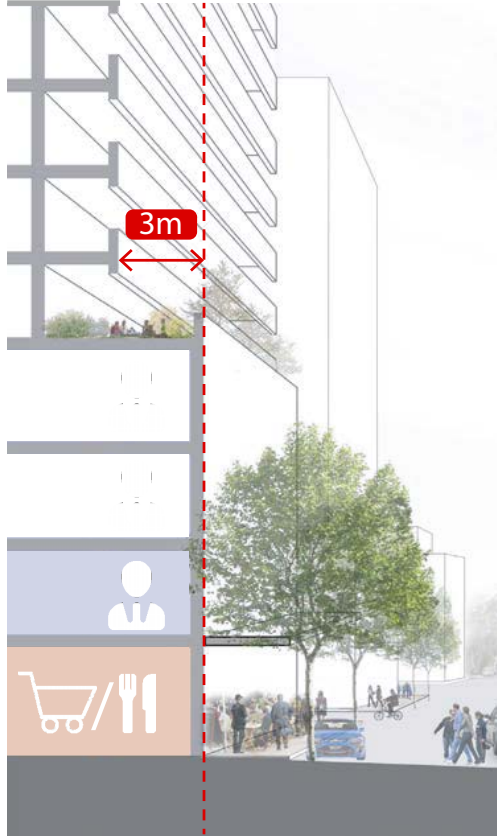
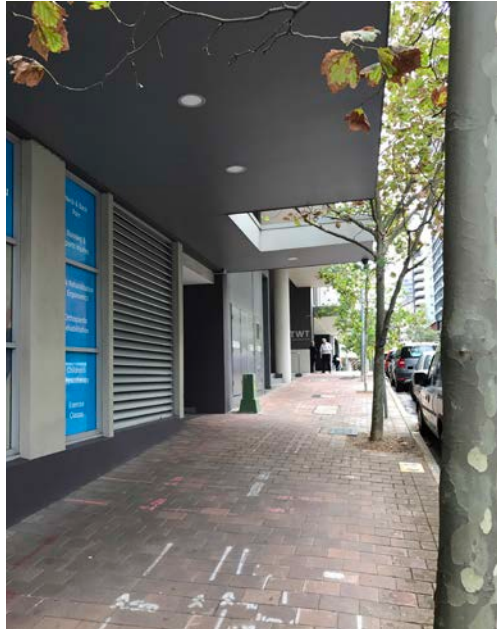


Fig. 2.02 Nexus, 15 Atchison Street



Proposal

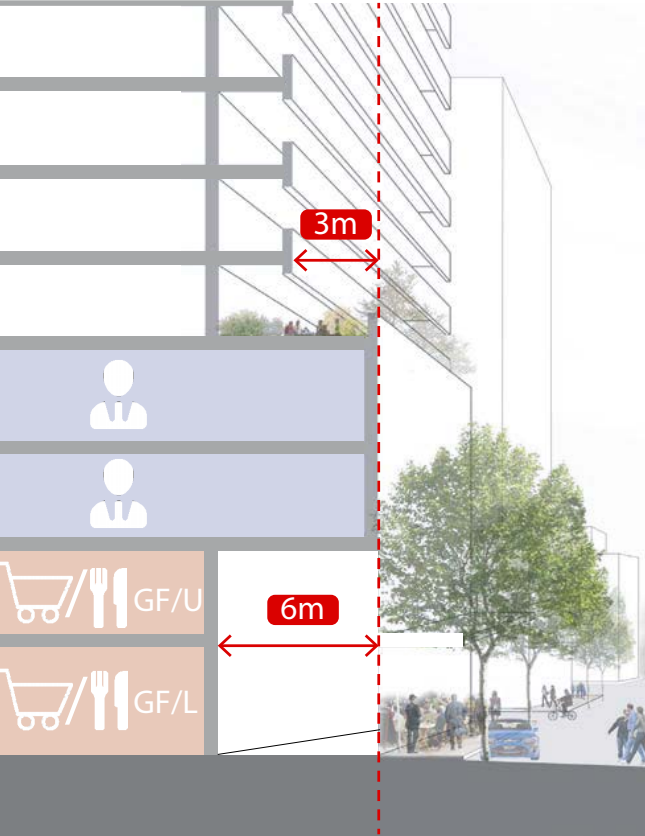


Fig. 2.03 23-35 Atchison Street



NSC Point 2.

Nil podium setback along Atchison Street fails to achieve public domain objectives

NSC: "The revised proposal should have regard to the streetscape upgrade plans for Atchison Street in the Draft Public Domain Upgrade Report – St Leonards."

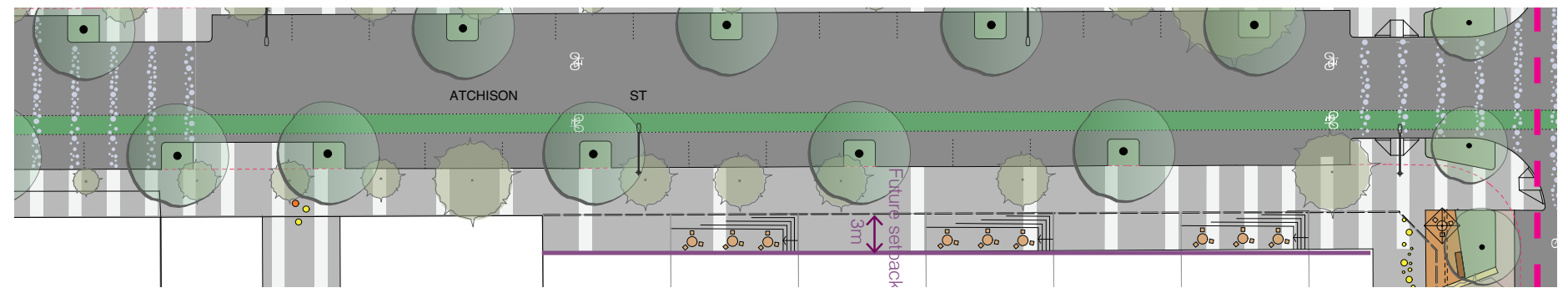


Fig. 2.04 Design Concepts _ Atchison Street, Source: Draft St Leonards Public Domain Upgrade, June 2015

TWT Response:

The public domain objectives will be achieved by the following design actions

1. Provision of a podium form that relates to the scale and alignment of existing podiums on the south side of Atchison Street.
2. Both the Ground Floor Lower and Ground Floor Upper commercial spaces are to be set back a minimum 6m from the boundary.
3. Level 1 and level 2 floor plates are only able to project to the boundary for a maximum 60% of the street frontage. This is designed to enable visually dynamic external public space, increase the sense of openness at street level and to increase solar access to outdoor seating areas.
4. Level 1 and 2 floor plates are to project to the podium street alignment to the extent necessary to create the feeling of a podium street wall.
5. (Refer NSC Point 6) The provision of an open to air through site link enables the TWT Site 1 to contribute to the sense of openness whilst maintaining existing street alignments and establishing a clearly discernible street form.

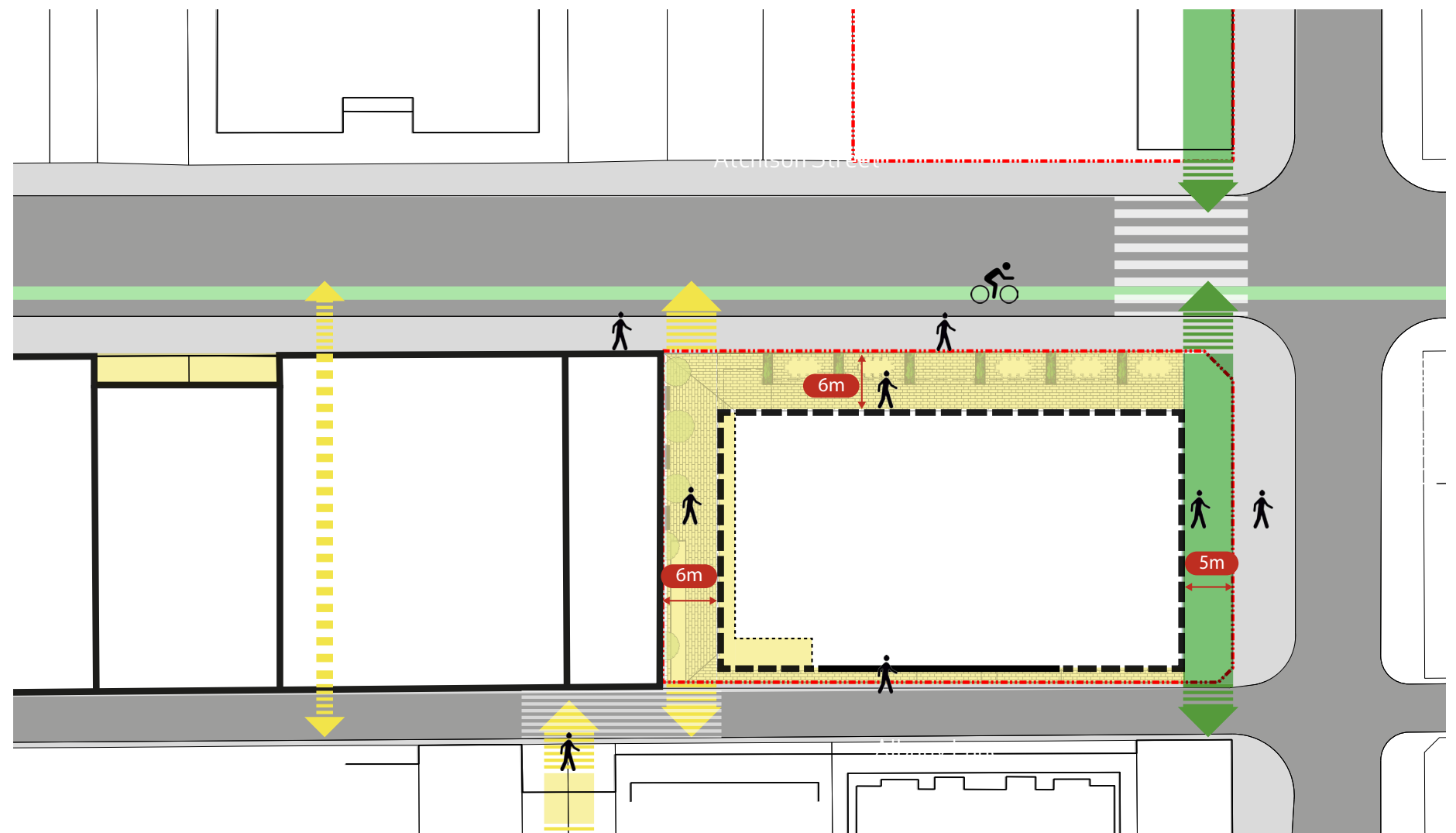


Fig. 2.05 Proposed Public Domain Diagram

NSC Point 3.

Proposal requires a distinct tower element

NSC : “The proposal is revised to reflect a tower apartment (podium) typology without the 8 storey “bridge connector” to the west”

NSC : “The proposal demonstrates how ADG separation distances for the resultant above podium tower form have been applied to the west”

TWT Response:

The concept proposal been modified to provide a distinct tower element with a 12m setback to the western boundary with No. 21 as required by ADG 2F and 3F-1. Refer Fig. 3.01 and Fig. 4.01-4.03.

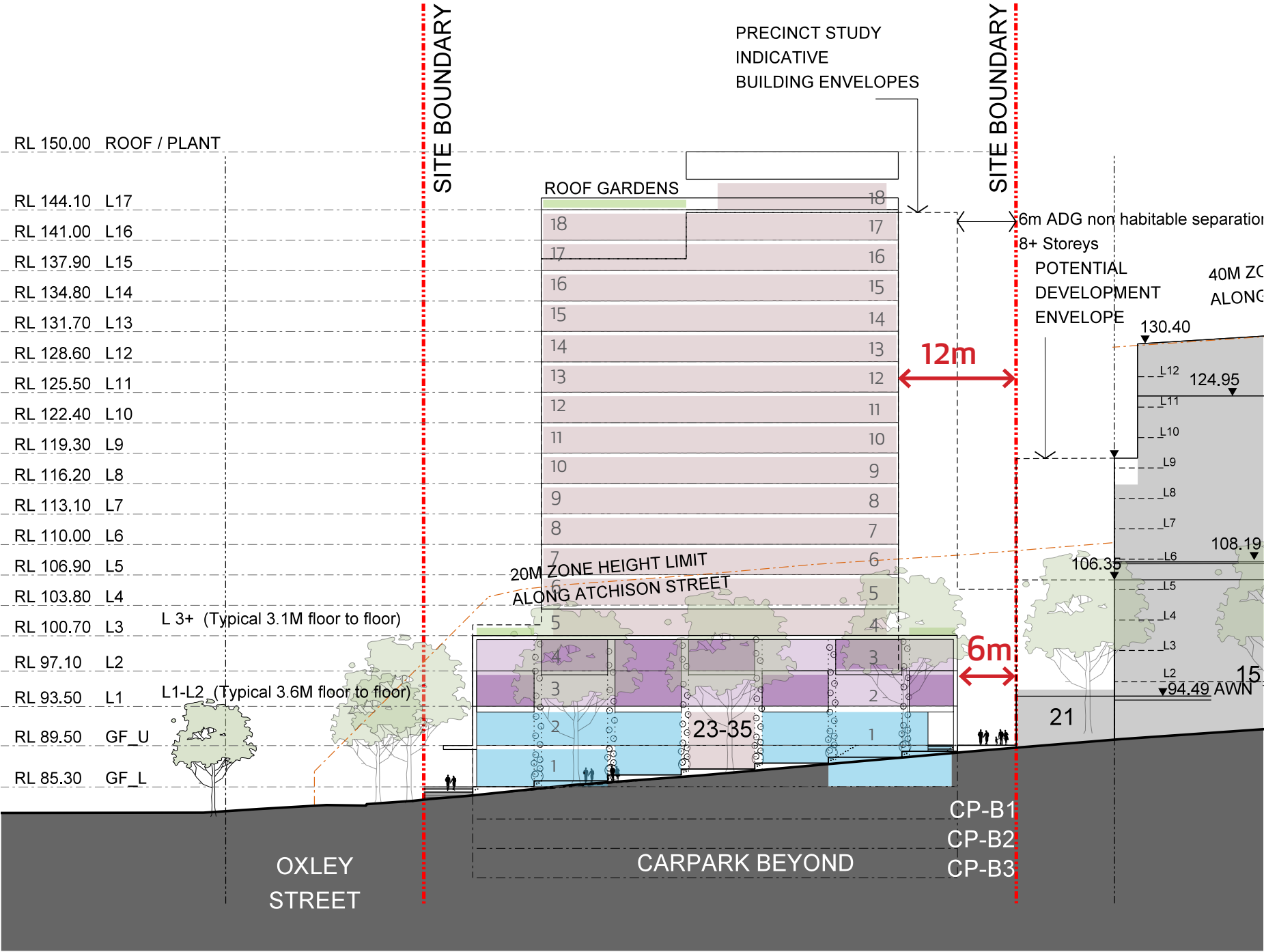


Fig. 3.01 Building Envelope Section / Atchison Street Elevation

NSC Point 4.

Separation or articulation along Albany Lane to be further considered and FSR adjusted

NSC : “The proposal is revised reduce the tower depth to a maximum of 18 metres and/or show how articulation of the tower form will achieve an appropriate level of internal amenity and address SEPP 65 design considerations to the southern properties and amend the FSR estimate accordingly”

NSC : “Please submit an indicative floor plan layout for the tower.”

TWT Response:

The tower depth has been reduced from 24m to 23.1m. Since the tower length is approximately 36.6m and all four facades are available for habitable spaces the floor plans are capable of delivering excellent amenity.

The indicative plan shown here is capable of delivering all key SEPP 65 Part 4 - Amenity criteria.

The SEPP 65 separation to the Albany Lane properties has increased from 18m to 19m. These buildings are generally 6 storeys high. A 19m separation is in excess of minimum separations for buildings up to 8 storeys in the ADG and satisfy the following relevant ADG Objectives;

ADG Objective 4H-1

Noise transfer is minimised by the provision of adequate building separation from neighbouring buildings/adjacent uses

ADG Objective 3F-1

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

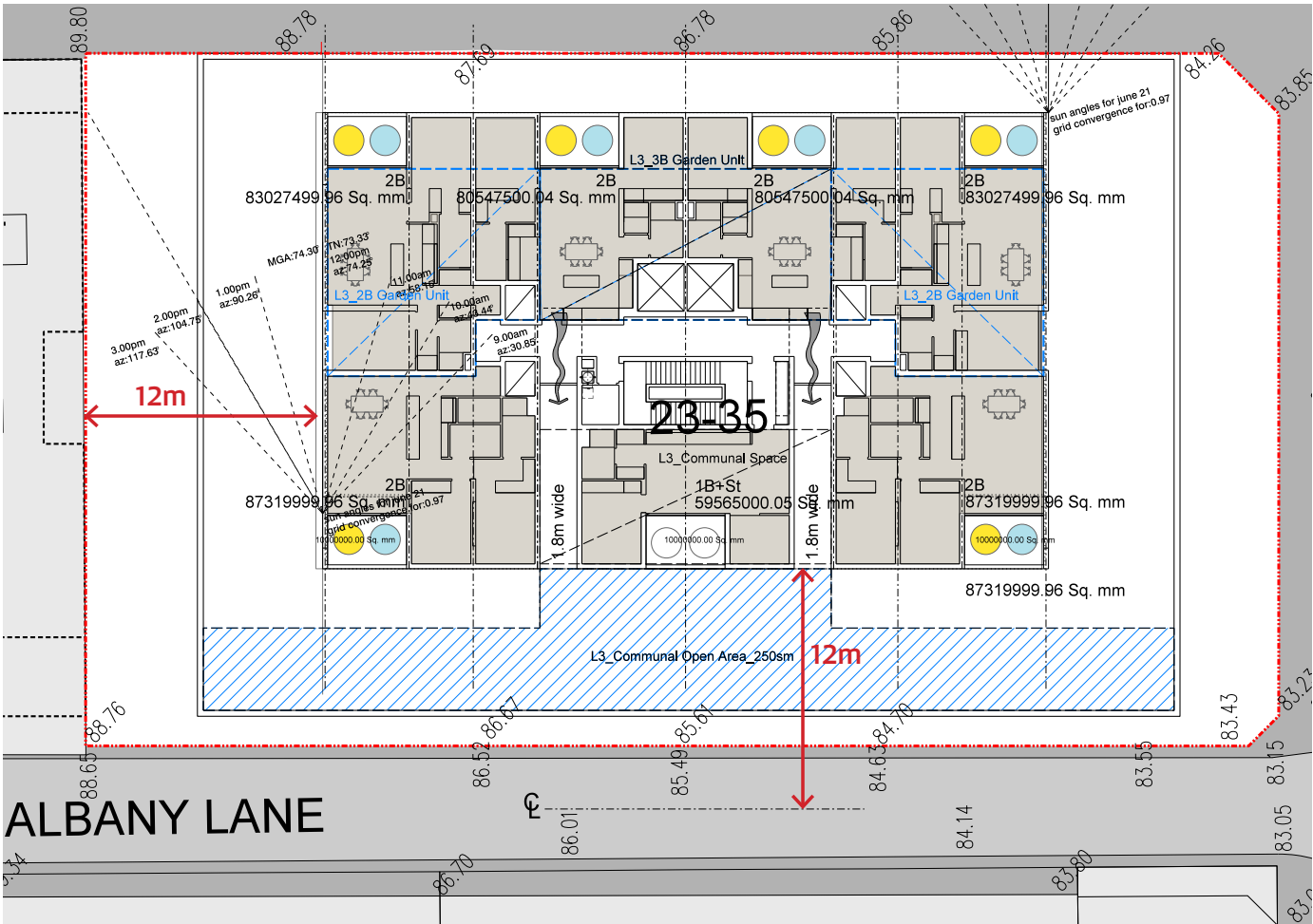


Fig. 4.01 Indicative Floor Plan Layout Of The Tower

	Typical		Estimated Total		
Solar Access	6/7	85%	80/98	81%	
Cross Ventilation	4/7	57%	24/40	60%	(L3-L8)
	6/7	85%	35/40	87%	(L3-L8)
Single Aspect South	1/7	14%	13/98	13%	

Table 4.01 ADG Compliance Table

NSC Point 4.

Separation or articulation along Albany Lane to be further considered and FSR adjusted

NSC : “Please submit plans at 1:200 at A3 that demonstrate the tower is located at least 12 metres from the centre line of the lane.”

TWT Response:

Refer to Fig. 4.02 the revised MASTERPLAN, which shows the 12m setback of the tower from the centreline of Albany Lane and ADG compliant separations to the west boundary.

The above podium form has been reduced in depth by 1m to 23.1m as shown in Fig. 4.03 the building envelope drawing of the Oxley Street façade.

Master Plan at 1:200 at A3 is provided in Appendix.

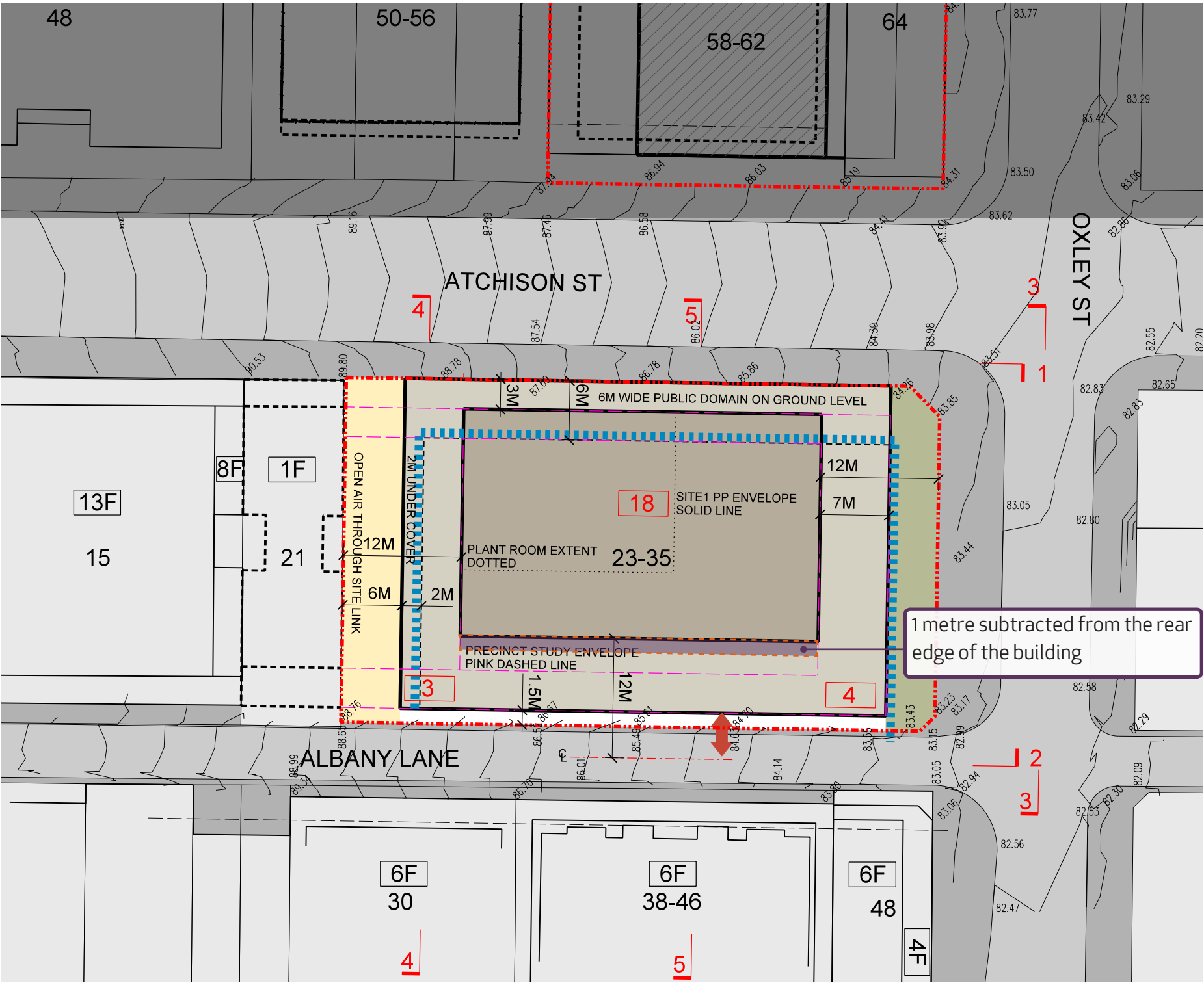


Fig. 4.02 Indicative Master Plan

NSC Point 4.

Separation or articulation along Albany Lane to be further considered and FSR adjusted

NSC : “Please submit a statement addressing how the built form design will achieve SEPP 65 design considerations.”

TWT Response:

This statement addresses Principle 2 Built Form and Scale and Principle 6 Amenity to show how the proposed built form design will achieve SEPP 65 design considerations.

Principle 2: Built Form and Scale

The scale, bulk and height of the proposal is a response to the desired future character as set out in the height and setback controls in the Planning Study and supports the vision for the North district set out in the Draft North District Plan.

The proposed built form creates, for properties fronting Albany Lane, new vistas and outlooks to new elements of the public domain including the pedestrian through site link and the Oxley Street linear park. In Atchison Street the podium form is designed to align with the existing podium and existing tower setbacks while providing increased setbacks with excellent solar access at ground level to facilitate north facing alfresco dining. The built form footprint will enable a minimum 15% of the site area (316sm) to be retained as deep soil in the pedestrian link and in the linear park.

The compliant ADG separations are shown on Fig. 4.02 the Masterplan drawing.

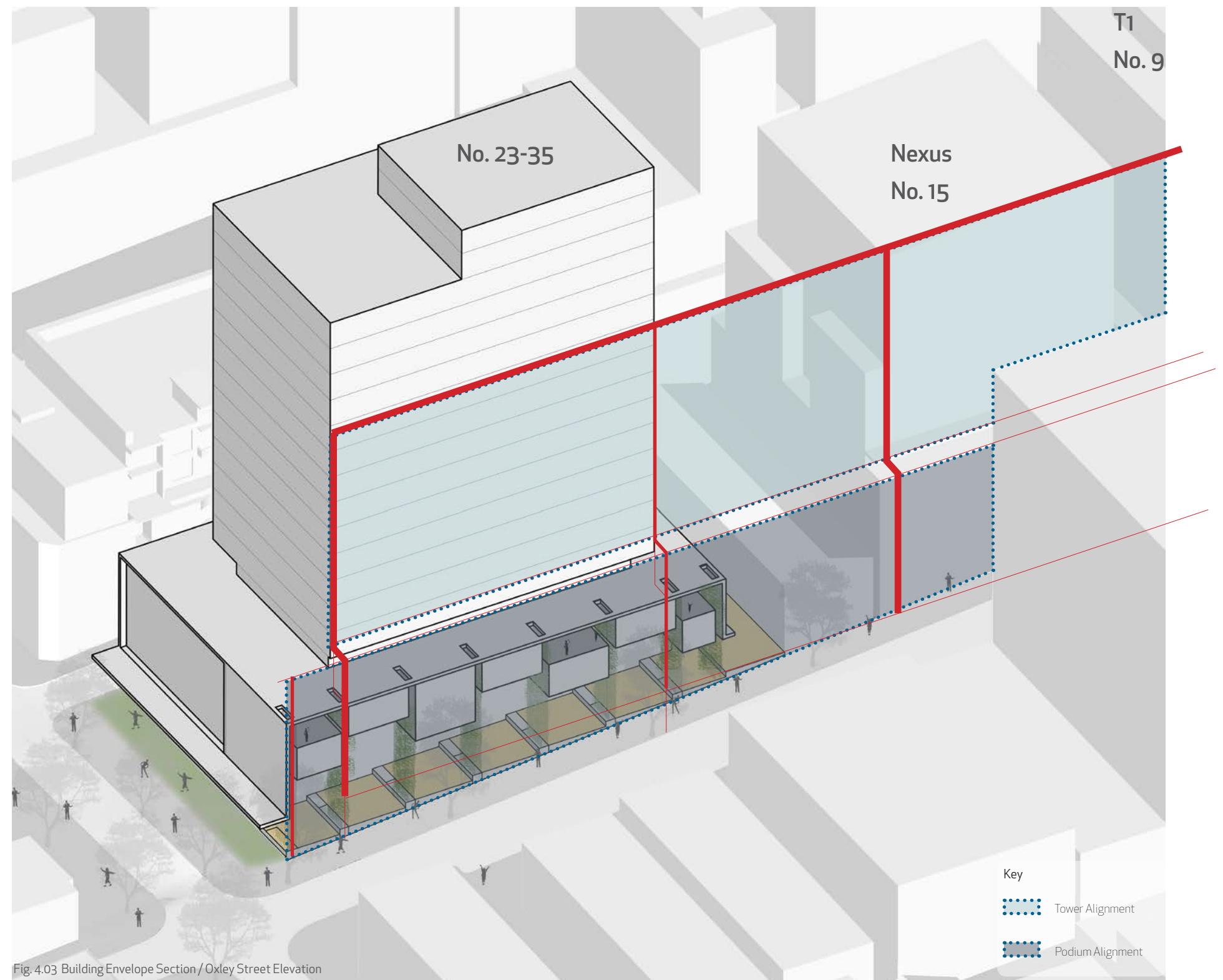


Fig. 4.03 Building Envelope Section / Oxley Street Elevation

NSC Point 4.

Separation or articulation along Albany Lane to be further considered and FSR adjusted

NSC : “Please submit a statement addressing how the built form design will achieve SEPP 65 design considerations.”

TWT Response:

Principle 6: Amenity

The indicative typical floor plan shown above is capable of delivering the following SEPP 65 Part 4 - Amenity criteria.

4A Solar and Daylight access:

- 4A-1 85% (6/7) typical. If potential overshadowing from No.21 to the south western corner apartment was taken into consideration the lower levels of this plate may reduce to 71% (5/7)
- 4A-1 Solar and Daylight access: A maximum 14% (1/7) of apartments on the plate receive no direct sunlight between 9am and 3pm

4B Natural ventilation:

- 4B-1 All habitable rooms are naturally ventilated
- 4B-2 The layout and design of single aspect apartments maximises natural ventilation
 - To south facing apartments: with internal bathrooms and laundries having access to external air.
 - To north facing apartments: with a plenum ceiling ducts system 1m2 in area.to effectively create cross ventilation equal to apartments indicated in ADG Fig 4B.8 cross through apartments
- 4B-3.1 85% (6/7) are effectively naturally cross ventilated. 57% (4/7) are corner units and 28% (2/7) are shallow depth 7.7m (11m incl. plenum) cross plenum apartments. Within Level 3-7 (first nine floors) 20/33 (60%) are cross ventilated by ADG described means.
- 4B-3.2 Overall depth of the cross through plenum apartments are less than 18m with an effective depth of 11m glass line to opening.
- 4B-3 Design guidance: The floor plate includes 57% dual aspect apartments and all apartment depths are less than 8.2m. In the cross through plenum apartments there are no corners, doors or rooms that might obstruct airflow.

4D Apartment size and layout:

- 4D-1.1 1B + Study is 59sm and 2B apartments are minimum 83sm
- 4D-1.2 every habitable room including the 1B study has a window in an external wall.
- 4D-2 habitable room depths are all less than 6.75m and in open plan layouts the kitchen wall is a maximum 7.7m from a window.
- 4D-3All apartments comply with minimum bedroom areas and have 4m living room widths

4E Private open space and balconies:

- 4E-1. All balconies have a minimum area of 10sm and a minimum depth of 2.5m

4F Common circulation spaces:

- 4F-1.1 The maximum number off apartment corridor is 7.
- 4F-1.2 The indicative apartment mix has 98 apartments which equates to 49 apartments per lift.
- 4F-1 Generally corridors are minimum 1.6m wide with a 2m width in the lift lobby. A 2.1x1.6m space is provided at the end of each corridor. Corridors are naturally day lit and ventilated on each side. Corridors are 21m long and articulated with a centrally located lobby and chatting nooks with a place for furniture or seating at the windows.

4G Storage:

- 4F-1.1 50% x minimum storage volumes are able to be provided accessible from circulation areas.

Communal open space

- 3D-1.1 The required communal open space area is 530sm. The proposal will deliver 340sm of communal open space at the roof top and the balance 190sm at the Level 3 podium
- 3D-1.2 Both communal open spaces will be capable of achieving in excess 50% sunlight for 2 hours between 9am and 3pm in mid-winter.

NSC Point 5.

Potential to increase non-residential floor space near the planned metro station adjusted

NSC : “The proposal is revised to incorporate a 4-storey non-residential podium.”

NSC : “Please submit a comparison of the residential and non-residential yield that can be achieved under the current planning controls with the revised scheme that incorporates the above amendments.”

TWT Response:

The proposal has been revised to provide a 4 level podium with non-residential uses.

Notwithstanding that an open to air through site link has been provided a non-residential FSR of 2.0:1 is achievable.

ST LEONARDS PLANNING STUDY PROPOSAL - SITE 1 (16_010)
AUSWIN TWT

PROJECT SUMMARY SITE 1 PP 2017 _ 2.0 Non Resi_Design Measure REVISED FOR COUNCIL_REV L

Residential Areas							
Site-Building	Storeys	NSA	GFA	FECA	UCA	NSA/GFA	NSA/FECA
23-35 ATCHISON	18	8,202	9,721	10,118	1,585	84%	81%
		8,202	9,721	10,118	1,585		

Non Residential Areas							
Building	Use	NSA	GFA	FECA	UCA	NSA/GFA	NSA/FECA
23-35 ATCHISON	GF_L Retail	601	601	612	0	100%	98%
	GF_U Retail/Vet	882	980	1,156	0	90%	76%
	L1_L2 Commercial	2,595	2,595	3,083	0	100%	84%
Totals		4,078	4,176	4,851	0		

Carparking areas							
Site-Building	Use	NSA	GFA	FECA	UCA		
23-35 ATCHISON	Carparking		0	2,962	0		
Total		0	0	3,281	0		

Residential numbers and mix							
Building	Unit Type	Studio	1B+St	1B+St+W/garden	2B	2B+W/garden	3B
	Mix	2%	5%	10%	58%	20%	5%
	Average NSA	45	60	70	83	97	105
23-35 ATCHISON		2	5	10	57	20	5
		2	5	10	57	20	5

Carparking numbers		
	Residential	Non Residential
23-35 ATCHISON	90	8
VISITOR		0
CAR SHARE	2	
	92	8

Site Summary	
FECA+UCA - Residential	11,702
FECA+UCA - Non residential	4,851
FECA+UCA - Carparking	3,281
FECA+UCA - Total	19,835
GFA - Non Residential	4,176
GFA - Residential	9,721
GFA - Total	13,897
Site Area - Total	2,109.8
FSR - Non Residential	2.0 :1
FSR - Total	6.6 :1
No. of apartments	98
No. of cars	100

Disclaimer	This is for high level feasibility only and all projections are approximate
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Site FSR	Residential	Non residential	Total FSR
PP1_23-35 Atchison	4.6	2.0	6.6

Site Areas	Oxley Strip Park	Through Site Link	Total Site
23-35 Atchison	169.6	208.0	2,109.8

Definitions	Rev L	Council comments _ include 6m through site link and full commercial podium. Parking rates updated to DCP 2013 shoptop housing. 18 storeys	28.04.2017
■ FSR is Floor Space Ratio = GFA (LEP)/Site Area			
■ NSA is Nett Sellable Area measured to the inside face of enclosing walls excluding voids above a floor and balconies			
■ GFA (LEP) is Gross Floor Area measured as defined by the governing Local Government Authority			
■ FECA is Fully Enclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works			
■ UCA is Uenclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works			

Fig. 5.01 Yields Table

NSC Point 6.

Potential to provide a through site link

NSC : “The proponent is encouraged to consider the inclusion of an open air laneway, approximately 6m wide, along the western end of the site.”

TWT Response:

The proposal has been revised to provide a 6m wide open laneway with an additional 3m setback to the Ground Floor (Upper) shopfronts to provide covered access.

The proposal Yield Analysis is based on an 18 storey scheme for the following reasons;
1 The proposal has removed residential uses from podium levels to accommodate and increase non- residential uses above the 1.5:1 minimum.

2 The removal of the podium apartments will augment the commercial identity of the podium.

3 The proposal will provide a public benefit that is not specifically identified in the Planning Study in the form of an open air through site link.

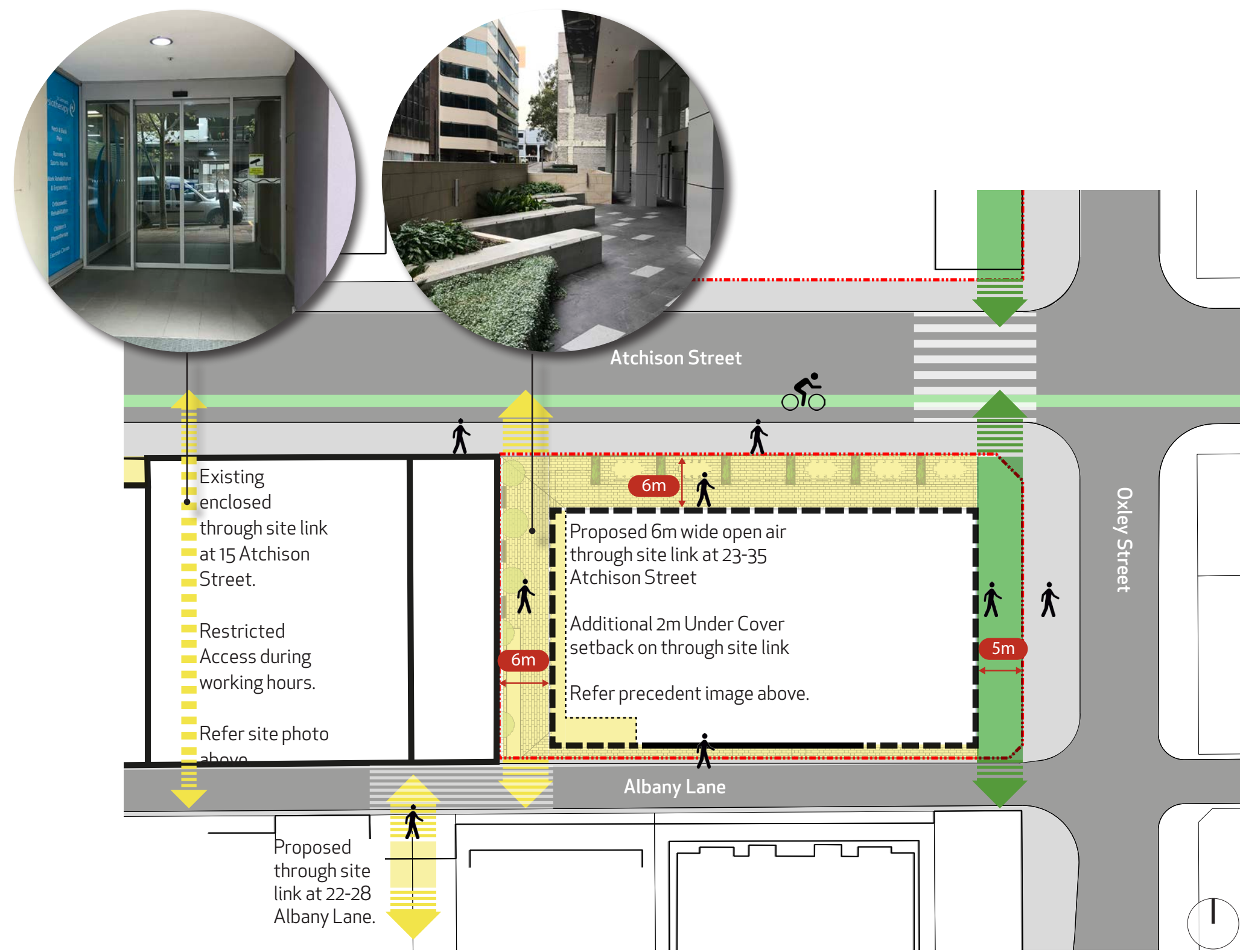


Fig. 6.01 Proposed Public Domain Diagram

NSC Point 7.

More information needed on the concept scheme’s interaction with the ground plane

NSC : “Please submit a ground plane design that shows entry points to the retail tenancies, commercial floors and residential apartments car access and any open air laneway.”

TWT Response:

A Proposed Ground Plane/Public Domain Diagram (Fig. 7.01) is shown here to further explain these points.

NSC Point 8.

Over provision of parking spaces

NSC : “Please update the estimated parking spaces for vehicles in accordance with the revised DCP 2013 rates and ensure allowance is made for substantial bicycle storage facilities in the development”

TWT Response:

The car parking provisions have been updated in accordance with DCP2013. Refer Fig. 5.01 the Yield Table.
The requirement for bicycle facilities is noted.

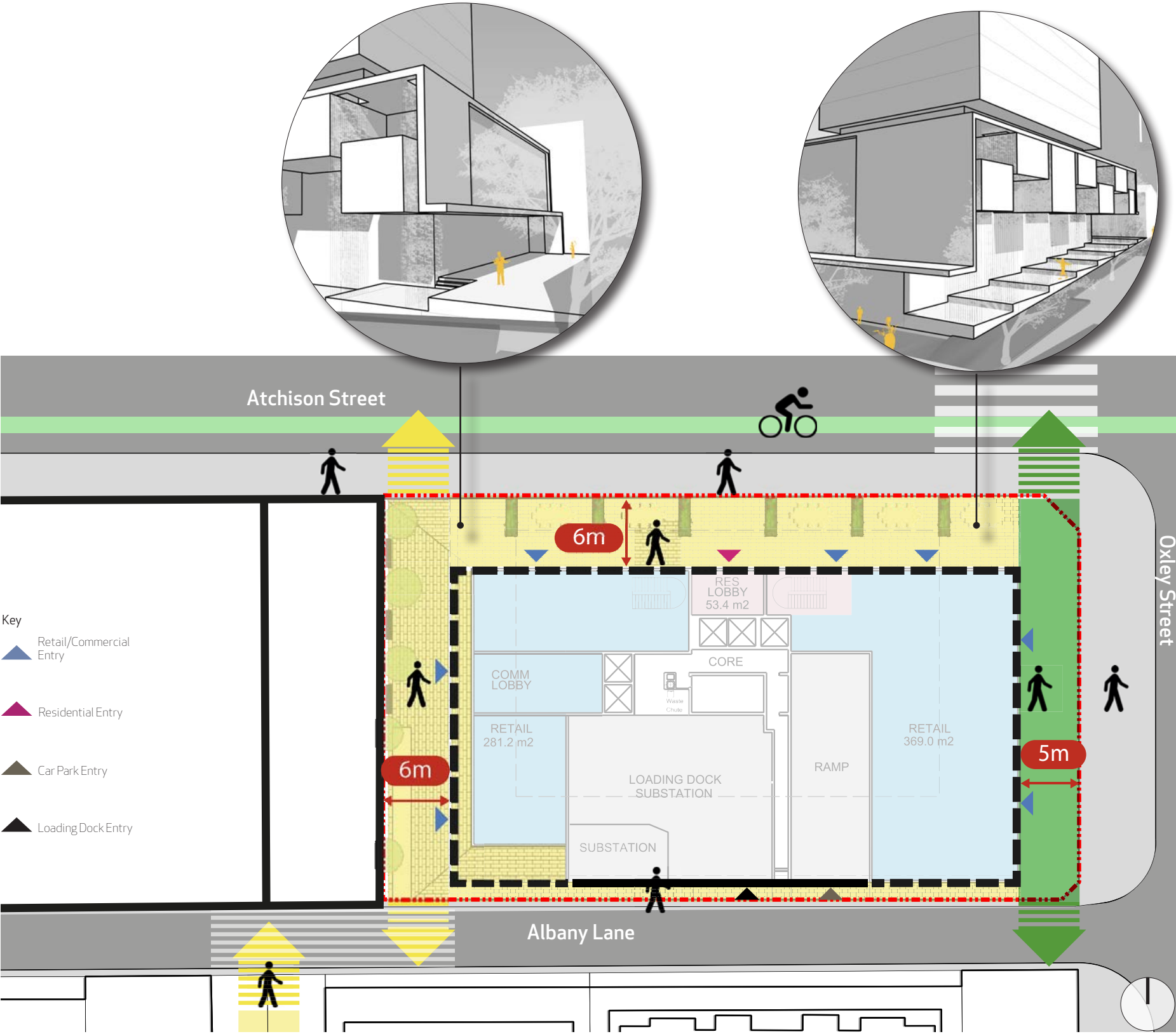


Fig. 7.01 Proposed Ground Plane Diagram

Additional information required for consideration by the Design Excellence Panel

- *Accurate, year round shadow diagrams showing how the built form maximises sunlight access to the streets, Oxley Street linear park and nearby residences;*
- *Context plan demonstrating how the proposed built form envelope reinforces the desired character of the area; and*
- *Landscape plan that demonstrates how the proposal will create a safe, comfortable, accessible, vibrant and attractive public realm and pedestrian environment."*

Solar Studies have been provided in the Appendix, which show that the development will:

- We have assumed we can provide the Context Plan and Landscape Plan will be prepared once the broad principles for the development has been agreed.



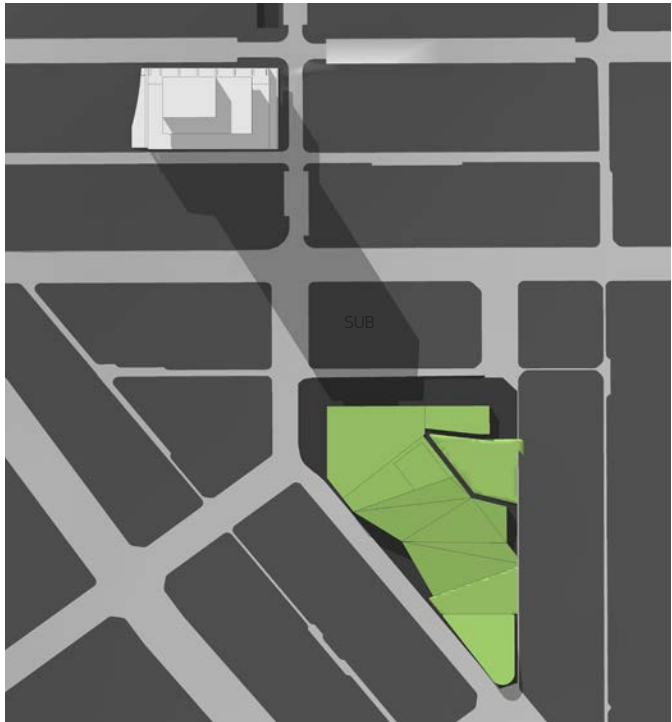
Solar Studies _ Shadow Diagrams



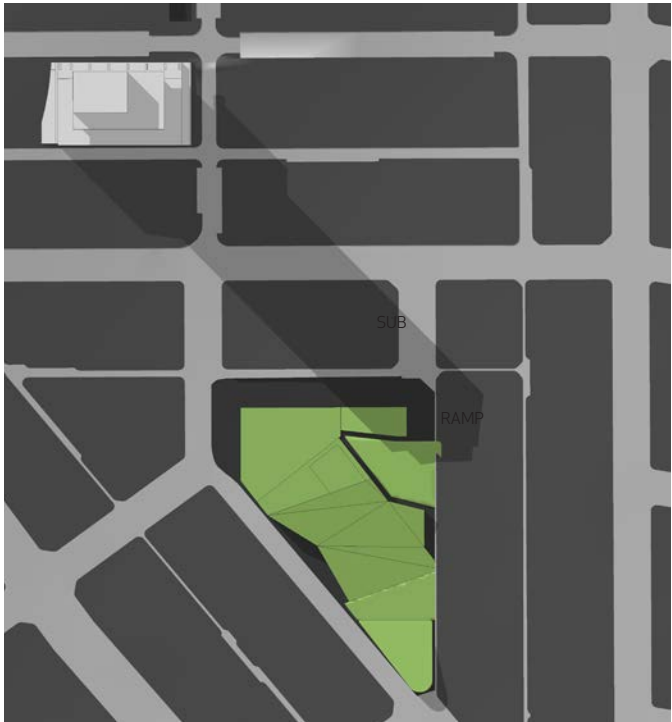
Winter Day _ 9am

Winter Day _ 12pm

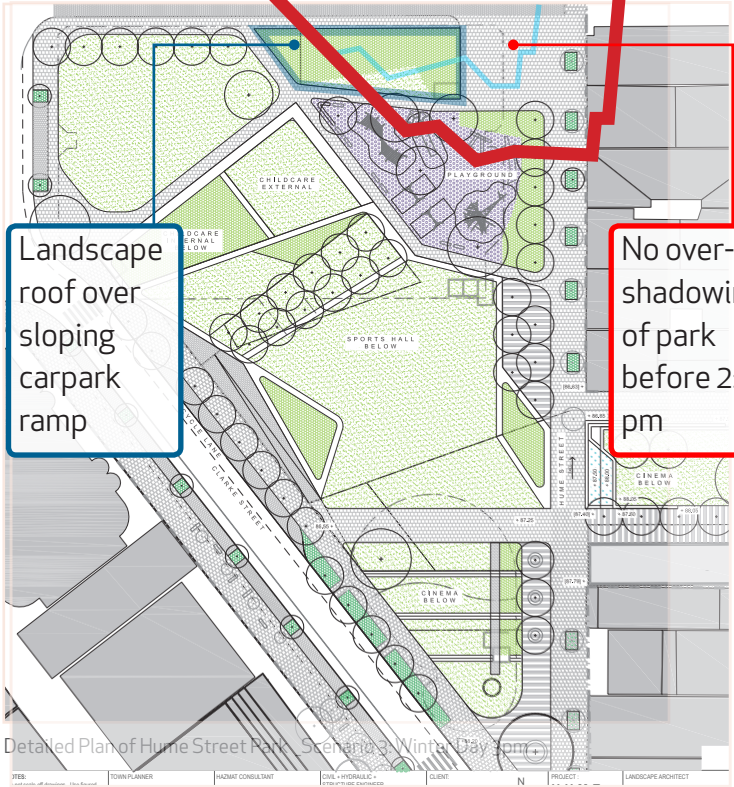
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Winter Day _ 2pm

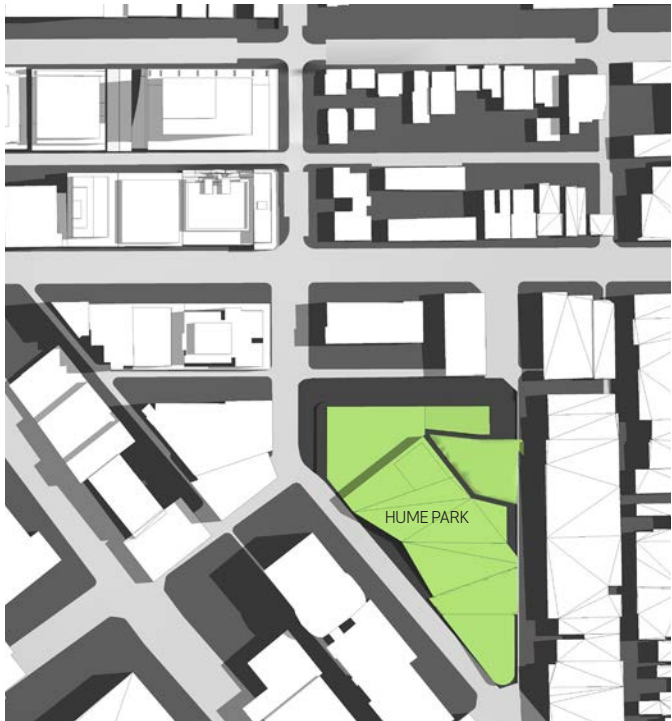


Winter Day _ 3pm

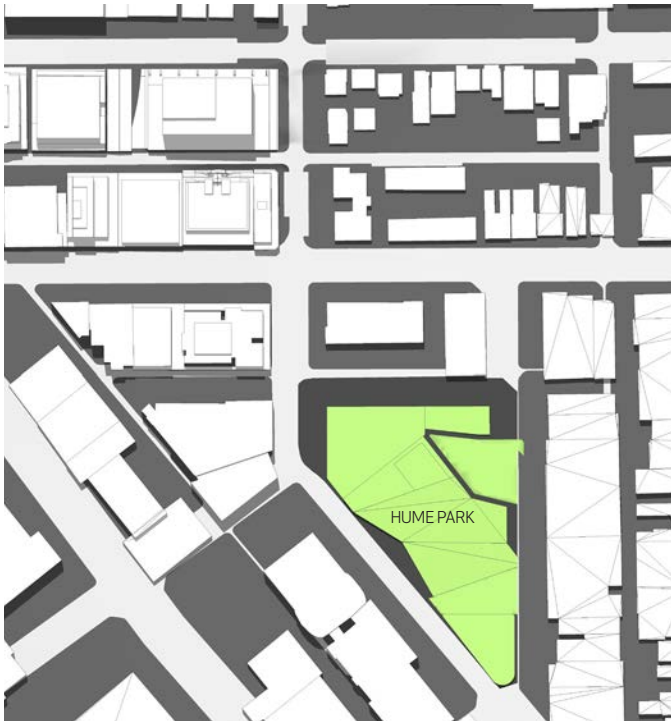


- Key
- 18 Storey Tower Shadow Line
 - 16 Storey Tower Shadow Line
 - Existing Substation

Solar Studies _ Shadow Diagrams



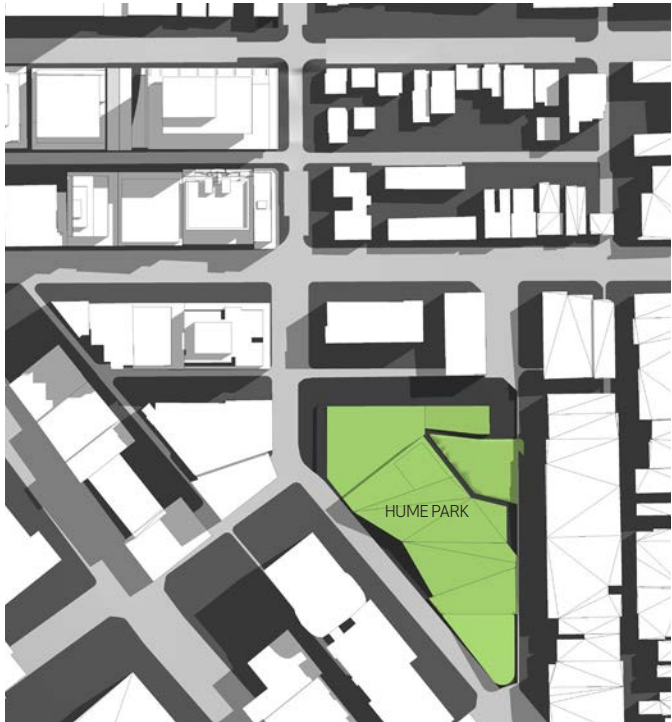
Summer Day _ 9am



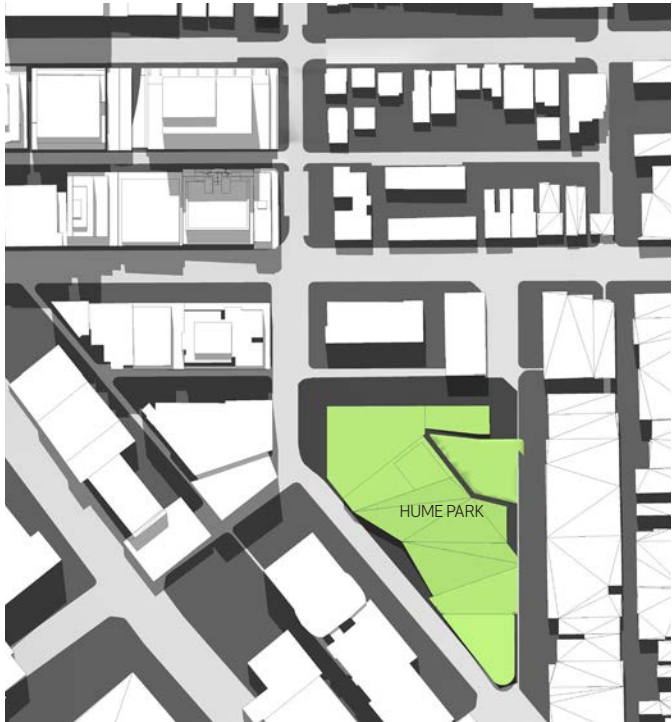
Summer Day _ 12pm



Summer Day _ 3pm



Equinox _ 9am

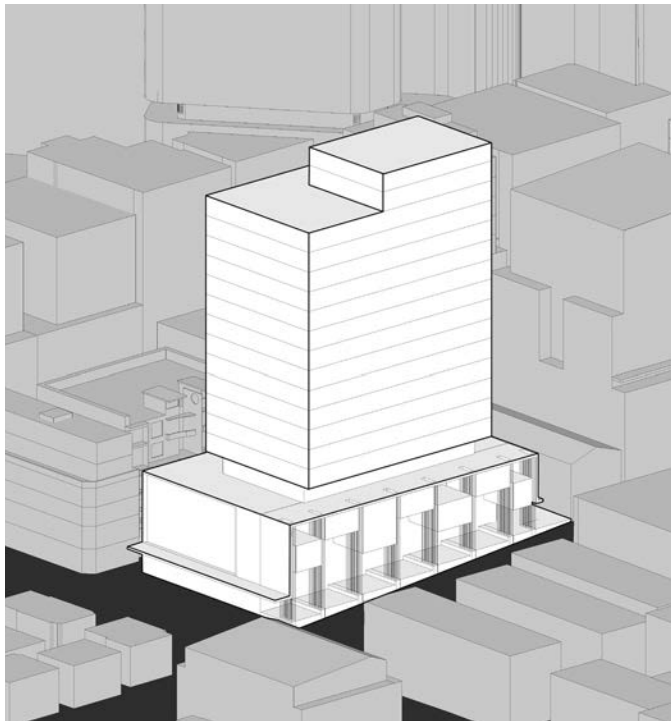


Equinox _ 12pm

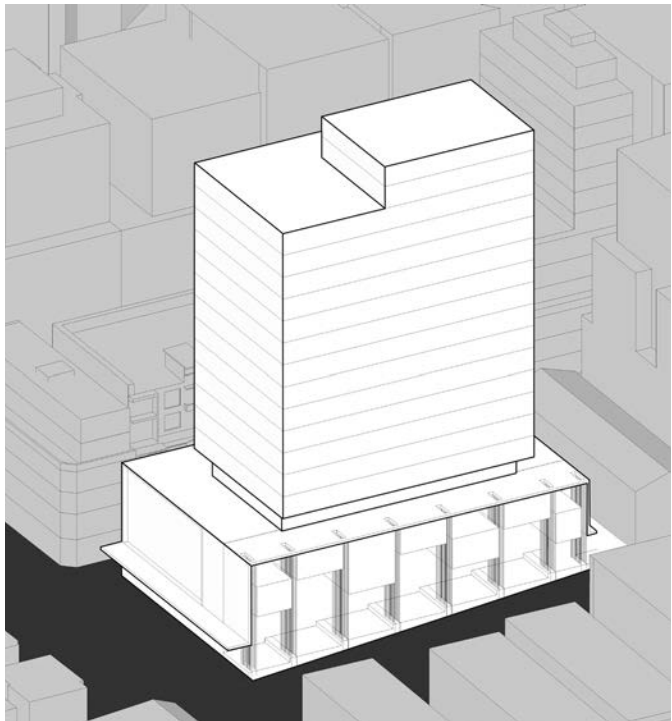


Equinox _ 3pm

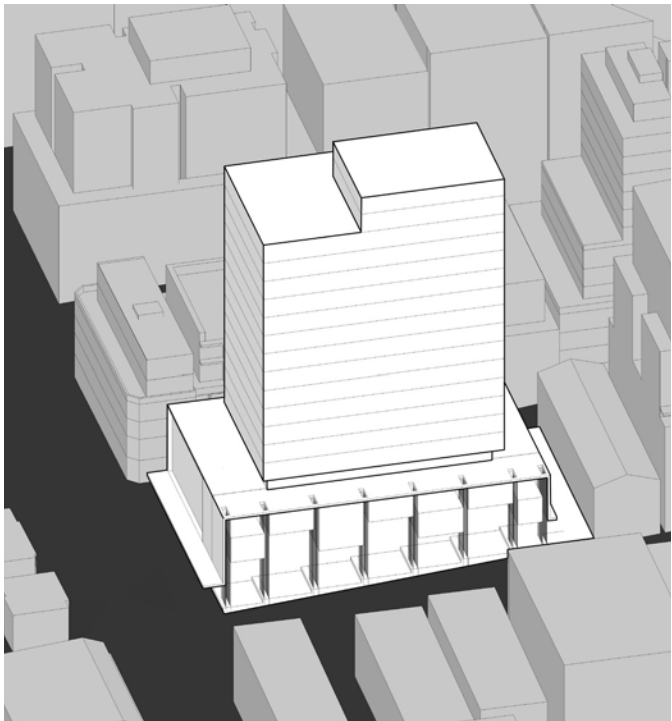
Solar Studies _ Sun Eye Diagrams



Winter Day _ 9am



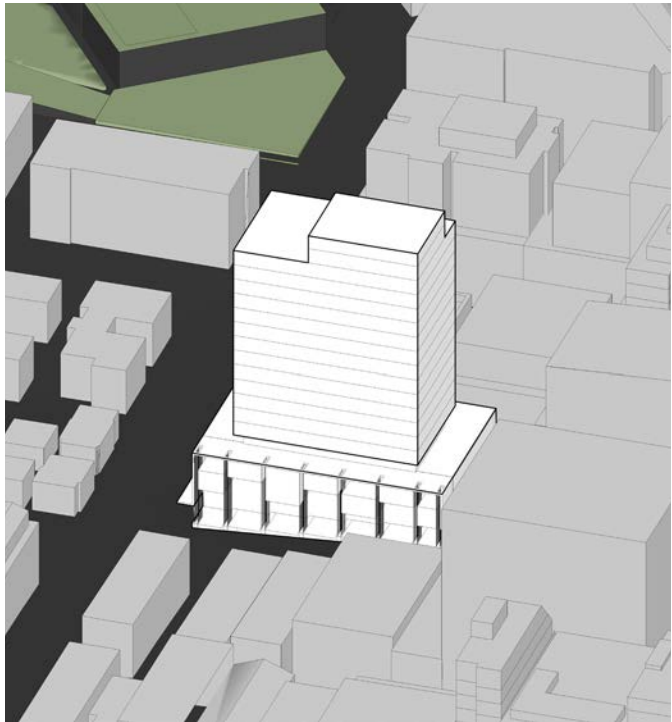
Winter Day _ 10am



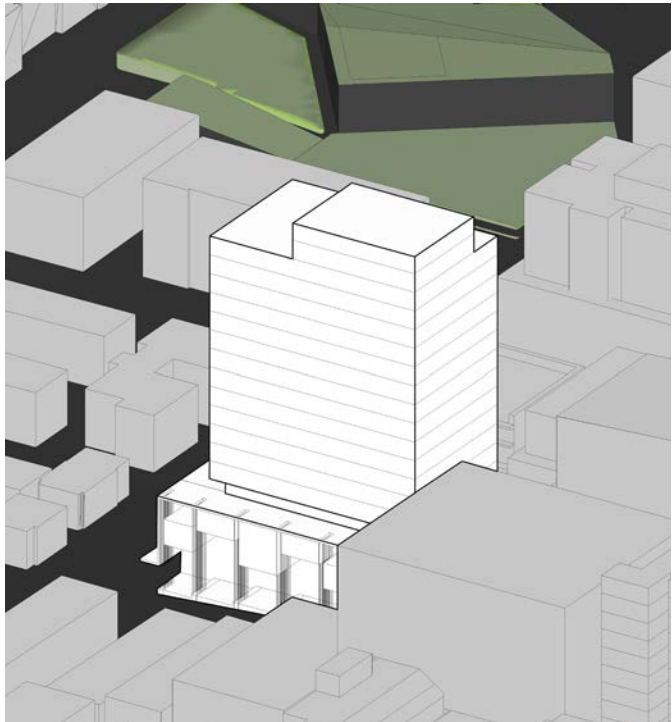
Winter Day _ 11am



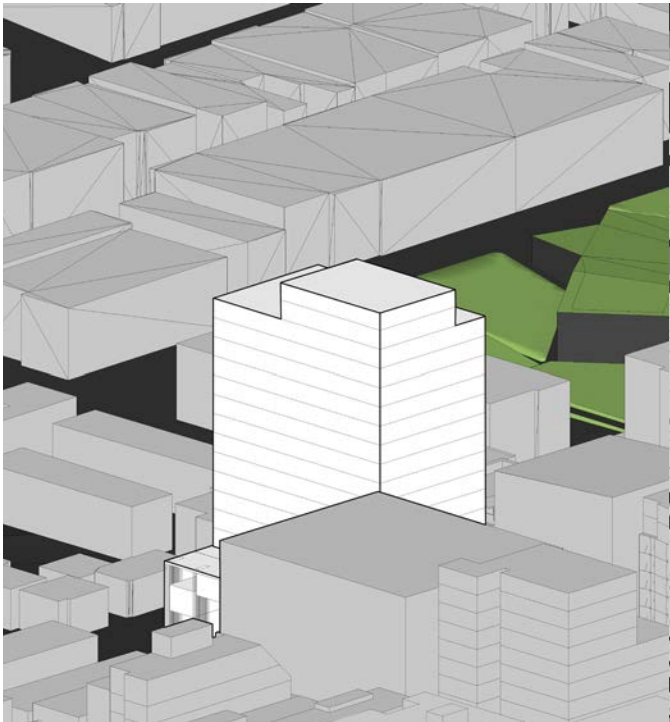
Winter Day _ 12pm



Winter Day _ 1pm

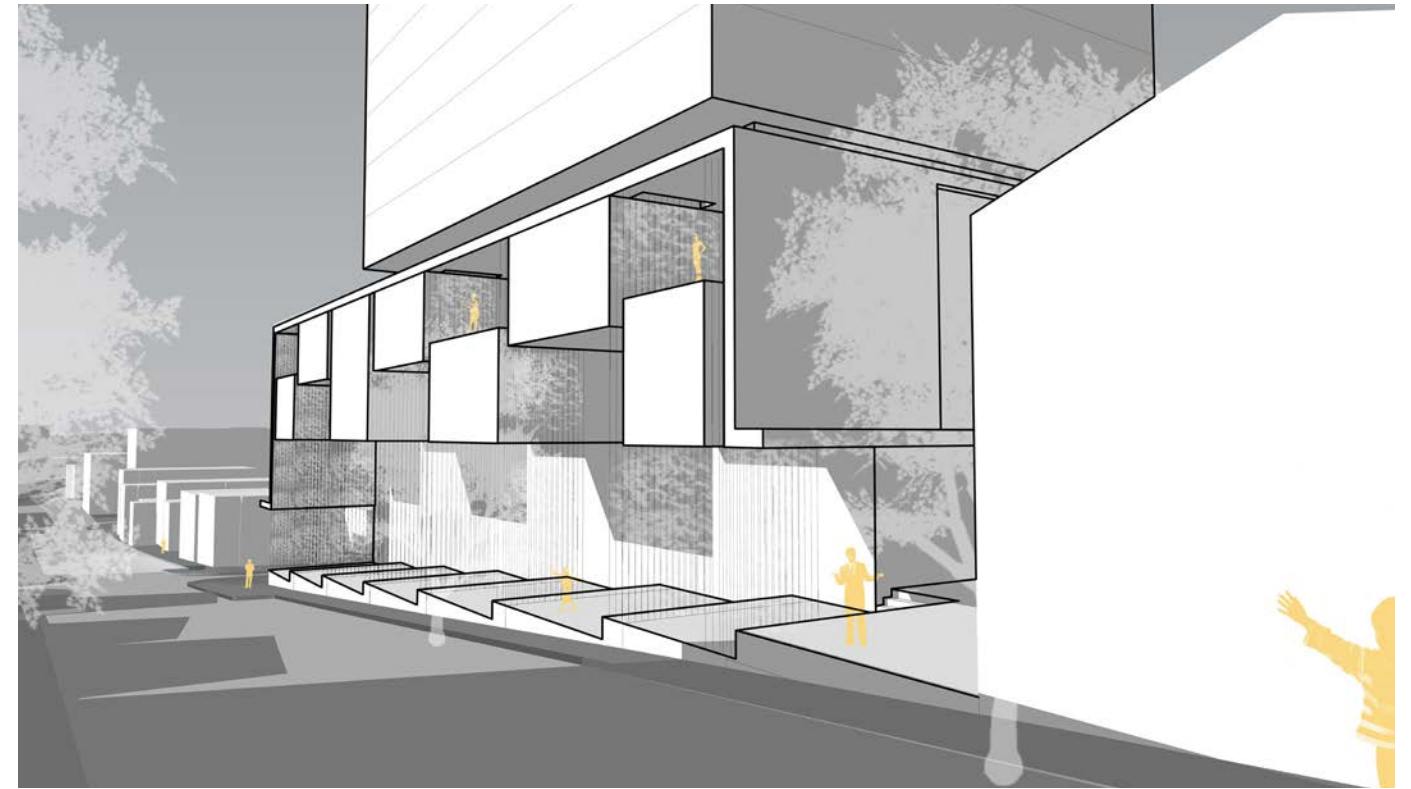


Winter Day _ 2pm



Winter Day _ 3pm

Atchison Street Views _ 3D Working Models



Plans and Sections



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