

Urban Design Report for Geeves Avenue Precinct

No. 471–511 Princes Highway, Rockdale

02 December 2016

Issue to Council: 07 November 2017

Issue to Council: 28 August 2018

Issue to Council: 12 October 2018

Issue to Council: 21 December 2018

Issue for Planner's Review: 12 June 2020

Issue for Planner's Review: 15 June 2020

Issue for Planner's Review: 22 July 2020

Issue for Planner's Review: 15 December 2020

Eeles Trelease pty ltd architects

CONTENTS

1. OVERVIEW: REGIONAL AND LOCAL

Introduction	3
Local Context	4
Site Context and Constraints	5
Rockdale LEP 2011	6
Rockdale DCP 2011	7
Council Massing Studies	8

2. EXISTING TOWN CENTRE

Local Amenities and Services	10
Topography	10
Open Green Space	10
Local Vehicle Movement	11
Pedestrian Movement	11
Neighbouring Developments and Height	12
Opportunities and Precedents	14

3. THE PROPOSAL

Design Response	17
Aerial Views	18
Solar Analysis	19
Compliance with Residential Codes	20
Site Massing Iterations	22
Building Envelope, Separation and Height	24
Pedestrian, Retail and Transport Interface	25
Indicative Sections	26
Indicative Plans	28
Potential Staging	31

4. 3D VISUALISATIONS

Pedestrian Zones and Ground Plane Activation Visualisations	34
---	----

1. OVERVIEW: REGIONAL AND LOCAL

INTRODUCTION

Rockdale Town Centre is located within 12km of the Sydney CBD on a major railway and arterial road, the Princes Highway.

The community's vision for the centre is for it to evolve into a 'great place to shop, work, visit and live'.

The analysis and options in this report are undertaken in the context of the current planning controls and strategies, which include:

- Rockdale Local Environmental Plan 2011
- Rockdale Development Control Plan 2011
- Rockdale Town Centre Masterplan 2012
- Rockdale Town Centre Public Domain Plan 2012

The analysis includes an assessment of the Geeves Avenue Precinct and the condition of its immediate surrounds, a review and commentary on the current controls, and an analysis of nearby developments that are of a similar scale. A base case was tested against the Rockdale DCP outcomes. An improved preferred option is presented in this report. The objective is to deliver a better designed form within the Rockdale Town Centre that will foster a strong sense of community, and create a vibrant place to live and visit.



Ref: Rockdale Town Centre Masterplan, p7

LOCAL CONTEXT

The heart of the Rockdale Town Centre is located around the Rockdale Railway Station. The core is comprised of retail, commercial, light industry, civic centre and high density residential.

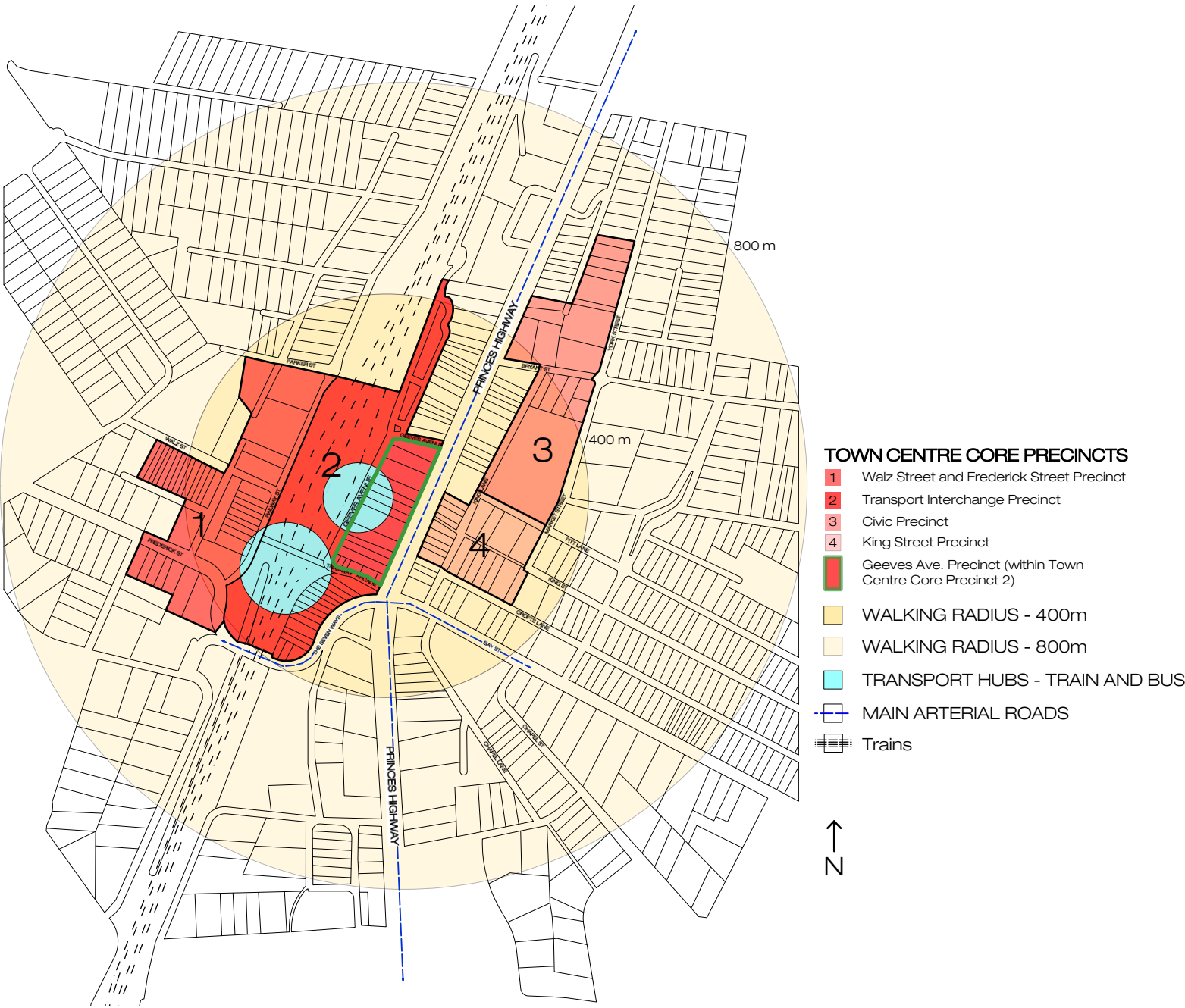
There are four distinct precincts within the core that make up the centre: Walz and Frederick Streets Precinct; Transport Interchange Precinct; Civic Precinct and King Street Precinct.

The main arterial roads are Princes Highway and Bay Street, which turns into The Seven Ways.

The Transport Interchange Precinct is a highly significant area within the Rockdale Town Centre. It is nominated as a 'core' area in the *Rockdale Town Masterplan* and requires the highest level of 'architectural and urban design' as addressed under the proposed *Rockdale Town Centre Public Domain Plan*.

The Transport Interchange Precinct is integral in connecting the areas between the Princes Highway, the Bus Interchange, and the Railway Concourse. It fronts The Seven Ways, the most prominent intersection in Rockdale's Town Centre and has the potential to be the centrepiece of the Town Centre.

Within the Transport Interchange Precinct, the major privately held site is that which links together the elements of the Princes Highway, Seven Ways, Bus Interchange and Railway Concourse. This site is referred to in this document as the Geeves Avenue Precinct. The Geeves Avenue Precinct, comprising 471-511 Princes Highway, enables a high degree of interconnectivity between the elements, and gives prominence to the corner of the Precinct at which they are located. Developing the Geeves Avenue Precinct will create a focal point to the Town Centre and allow for an appropriate urban response to marry the public and private facilities.



Ref: Rockdale Town Centre Masterplan 2012;
Rockdale LEP 2011 Land Zoning Map LZN 004, October 2016

SITE CONTEXT

The Geeves Avenue Precinct sits within the Transport Interchange Precinct. This precinct includes the bus interchange and railway station (T4 Illawarra Line), a commuter car park, and a block of narrow retail shops fronting the Princes Highway with rear access on Geeves Avenue.

The Geeves Avenue Precinct is bounded by Geeves Avenue, Tramway Arcade and Princes Highway, and is partially situated on The Seven Ways intersection. It features a variety of 1-3 storey buildings with an existing subdivision pattern of small, skinny lots. Inhabiting these lots are a mix of retail shops and services for the Rockdale population. These shops have rear access from Geeves Avenue for loading, parking and waste removal. In the middle of these lots is a pedestrian arcade that connects the train station and bus interchange with shops on the Princes Highway and King St Mall. In the arcade, there are more small retail shops and services.

West of the railway station is the Walz Street and Frederick Street Precinct, which offers further retail and services to Rockdale. To the north-east of the Geeves Avenue Precinct is the Civic Precinct, where Rockdale's administration buildings are located, including the Town Hall and Council Chambers. Located to the east of the Geeves Avenue Precinct is the King Street Precinct, a lively retail hub with numerous cafes and restaurants.

CONSTRAINTS

At present, the Interchange Precinct provides an undesirable pedestrian experience.

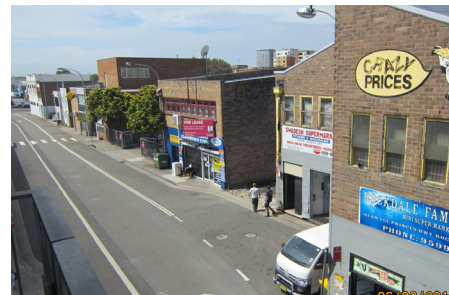
- There is poor way-finding; pedestrians have trouble orientating themselves in the area.
- Vehicles take priority in this area. There is consistent loud noise and congestion along the Princes Highway, making it unpleasant to be in the retail area.
- Vehicle and pedestrian movements conflict along Geeves Avenue due to narrow paths and inconvenient crossing locations.
- There is no easy, safe link between other town centre core precincts, the Princes Highway, the bus interchange and the railway station.
- The lots are small and narrow, with varying building sizes and purposes.



Geeves Avenue



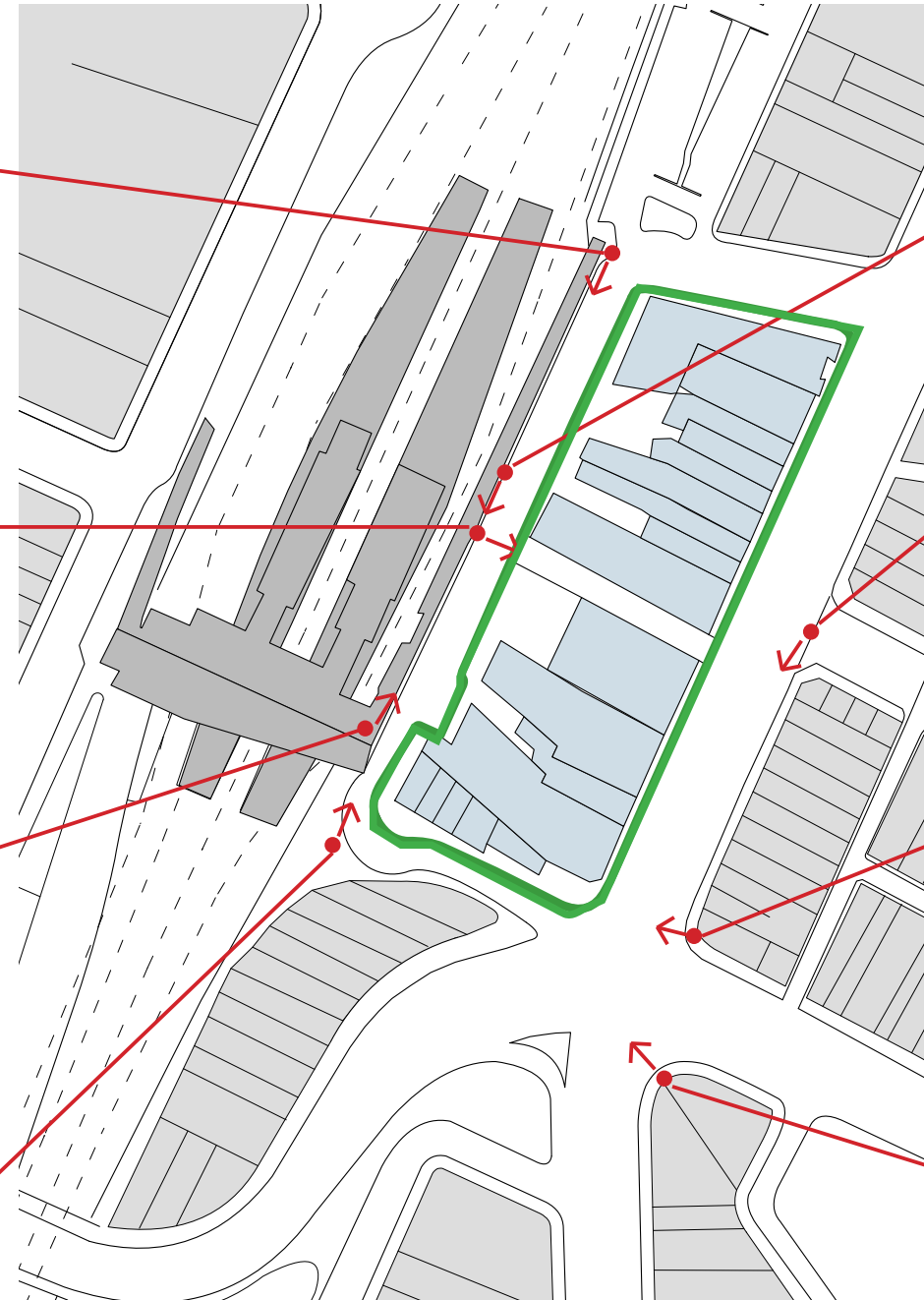
Commonwealth Bank Arcade, viewed from Geeves Avenue



Geeves Avenue, viewed from the railway concourse



Geeves Avenue, viewed from the corner of Tramway Arcade



Geeves Avenue Precinct

Ref: Rockdale Town Centre Masterplan 2012



Geeves Avenue, view to Tramway Arcade



Commonwealth Bank Arcade, viewed from Princes Highway



Tramway Arcade, viewed from the corner of Princes Highway and Bay Street



Intersection of Tramway Arcade and Princes Highway, viewed from The Seven Ways

EXISTING PLANNING CONTROLS
ROCKDALE LEP 2011

INTRODUCTION

A summary of the key items affecting the development is provided here.

ZONING

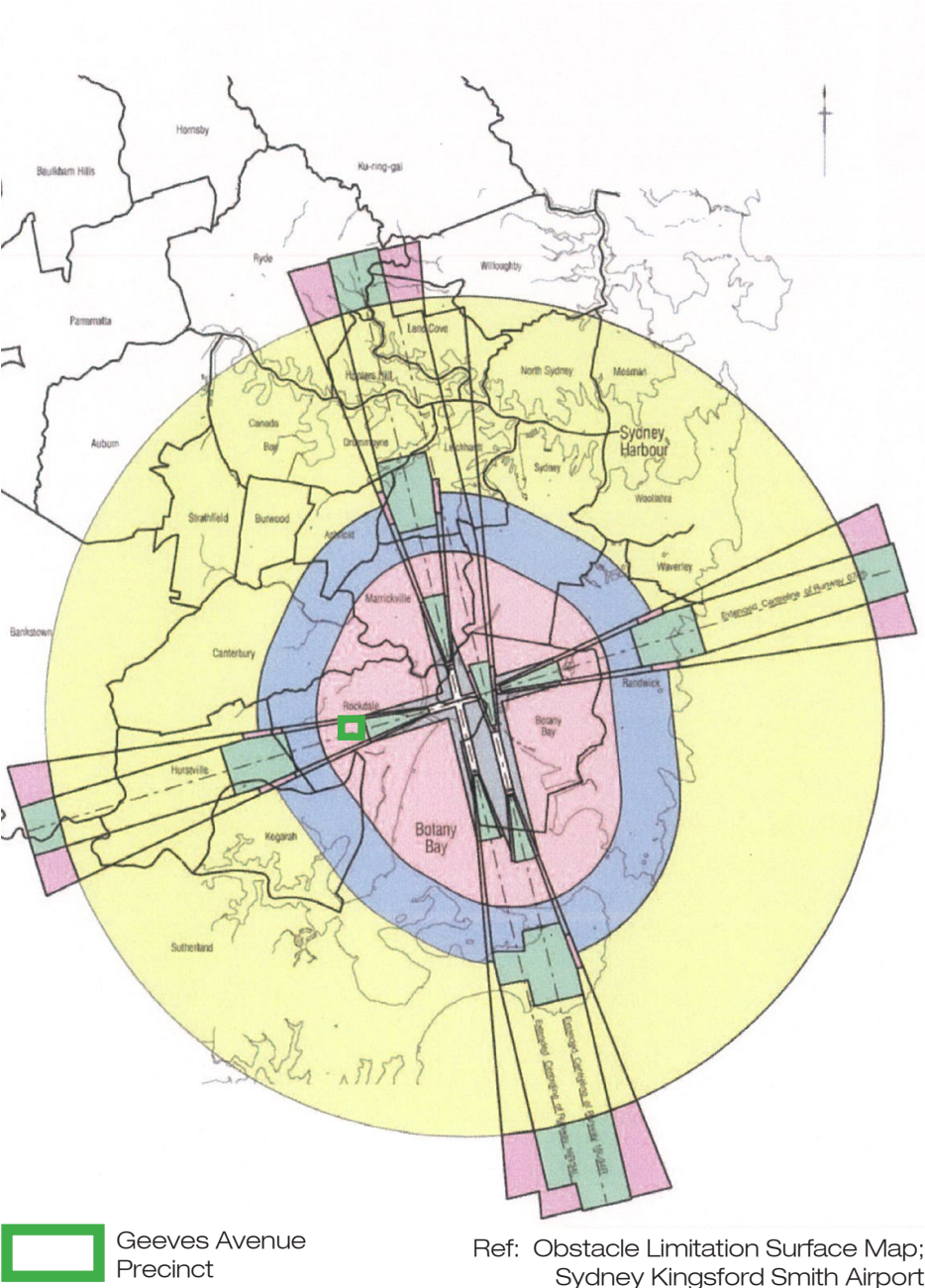
The Rockdale LEP 2011 applies a **B2 Local Centre** zone across the precinct, consistent with all land within the Rockdale Town Centre.

Objectives of zone:

- To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
- To encourage employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling.
- To accommodate population growth through high density mixed use development that complements the role of retail, commercial, civic and cultural premises in the Rockdale town centre.
- To create a lively Rockdale town centre with an amenable and pedestrian focused public domain activated by building uses that engage with the street.

HEIGHT OF BUILDINGS

Under the Rockdale LEP 2011, the maximum height of building is 22m. As the site forms part of 'Area A', under subclause 4.3(2A) the height of a building may exceed the maximum height by 12 metres on a lot that has an area of at least 1,500 square metres.



FLOOR SPACE RATIO

Under the Rockdale LEP 2011, the floor space ratio control is 2:1. If the lot size is at least 1,500 sqm, the maximum floor space ratio may be exceeded by up to 1:1, per subclause 4.4 (2C).

ACID SULPHATE SOILS

Lots within the precinct are identified as having Class 5 acid sulfate soils.

FLOOD PLANNING

Lots along the western boundary of the precinct are identified as being flood prone land, as are areas to the north-east.

AIR SPACE OPERATION

The site falls within the Inner Horizontal Surface 51 m AHD ring on the Obstacle Limitation Surface Map.

EXISTING PLANNING CONTROLS
ROCKDALE DCP 2011

7.5 ROCKDALE TOWN CENTRE PRECINCT
SETBACKS

New buildings are to respond to the existing streetscape and adjacent buildings.

For the Interchange Precinct (Princes Highway West between Tramway Arcade and Geeves Avenue) a 3m retail level setback for a colonnade is required.

A setback of 2.5m is required at Tramway Arcade and Geeves Avenue for local road widening.

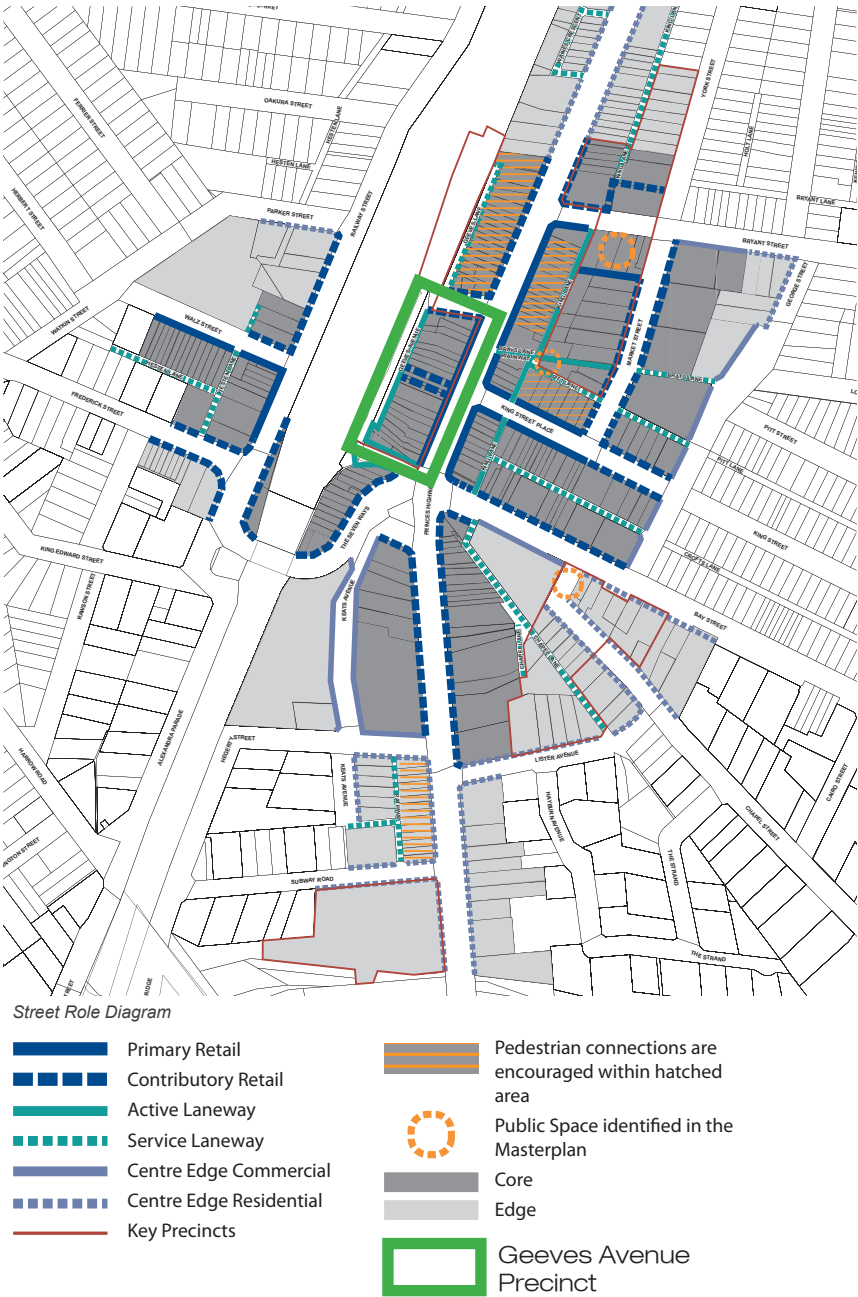
All development is to be built to the side boundary and adjoining developments at the street edge. Portions of the building away from the street edge may be setback from the side boundary. Setbacks must allow for building separation to be achieved.

CHARACTER

The DCP requires buildings fronting the Princes Highway to be single composition, with well-defined elements and features, so as to contribute positively to the arterial core.

Envelope requirements and setbacks are proposed for these buildings. However, they anticipate individual developments along the Princes Highway, rather than the development of the Geeves Avenue Precinct as a whole. The building envelope developed for this precinct is described in The Proposal section of the report.

It is noted that continuous weather protection should be applied to all development, and the design of the street wall buildings should compliment the proportion and scale of the neighbouring street wall buildings.



Ref: Rockdale DCP 2011, 7.5 p42

ACTIVE STREET FRONTAGES

Building uses fronting the public domain at ground level are to promote active frontages where possible. Lots within the precinct must have a primary retail edge fronting Princes Highway, with active laneways along Tramway Arcade and Geeves Avenue (adjacent to the bus interchange) and contributory retail fronting Geeves Avenue to the north.

Note also the desire to create contributory retail along a through site link connecting the bus interchange to the King Street Precinct.

Descriptions of each role is described below.

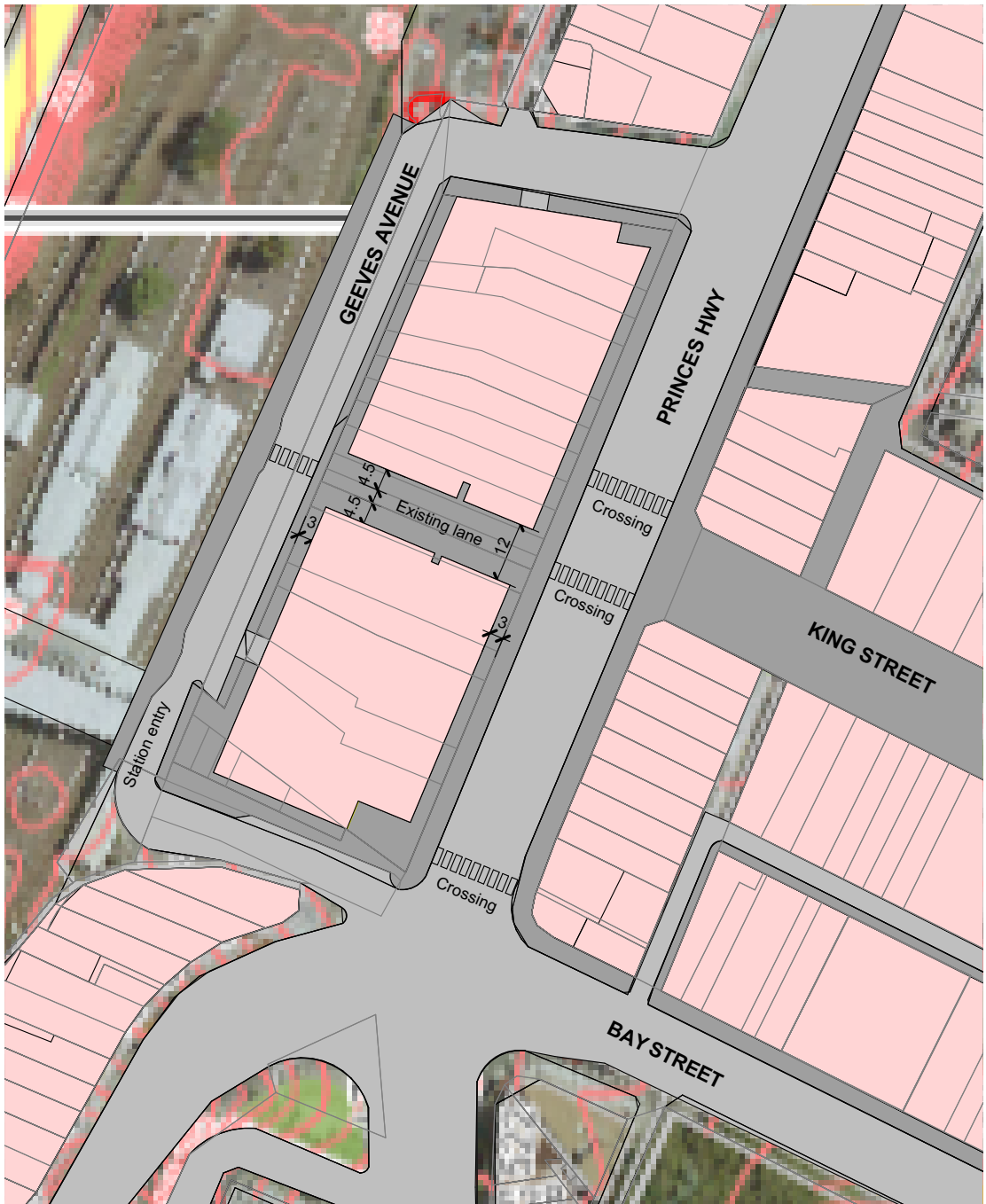
Street role	Description	Standard
Primary Retail	High activity with continuous ground floor retailing	<ul style="list-style-type: none">Minimum 80% of the ground floor frontage to be activated by retail and business premisesResidential lobbies can occupy no more than 20% of the total ground floor frontageNo ground floor residential permittedNo vehicle access permittedNo service access permitted
Contributory Retail	High activity with continuous active frontages	<ul style="list-style-type: none">Ground floor frontage to be activated by retail and business premisesResidential lobbies permitted off Street frontageNo ground floor residential permitted (Except for properties under Schedule 1 in the RLEP 2011)No vehicle access permitted unless the development has no other street frontageNo service access permitted unless the development has no other street frontage
Active Laneway	Vibrant space activated by the co-location of pedestrian activity and service functions	<ul style="list-style-type: none">Ground floor frontage to be activated by retail and business premisesResidential lobbies should be accessed off active lanewaysNo ground floor residential permittedVehicle access permittedService access permitted

Ref: Rockdale DCP 2011, 7.5 p43

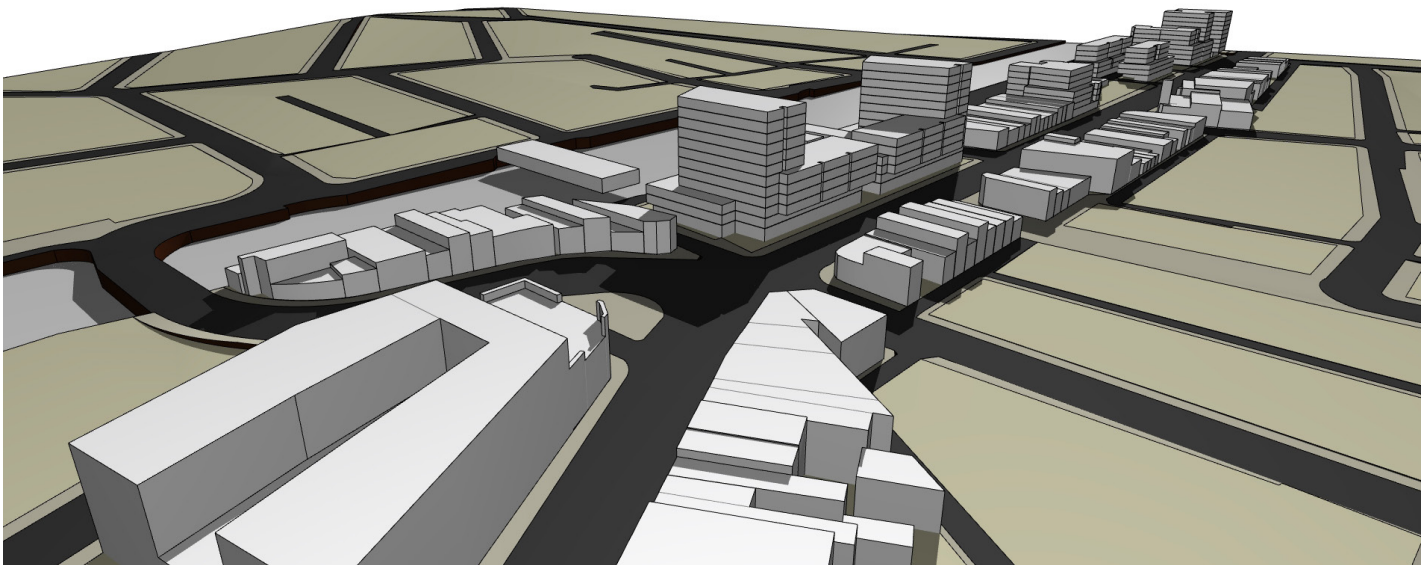
COUNCIL MASSING STUDIES



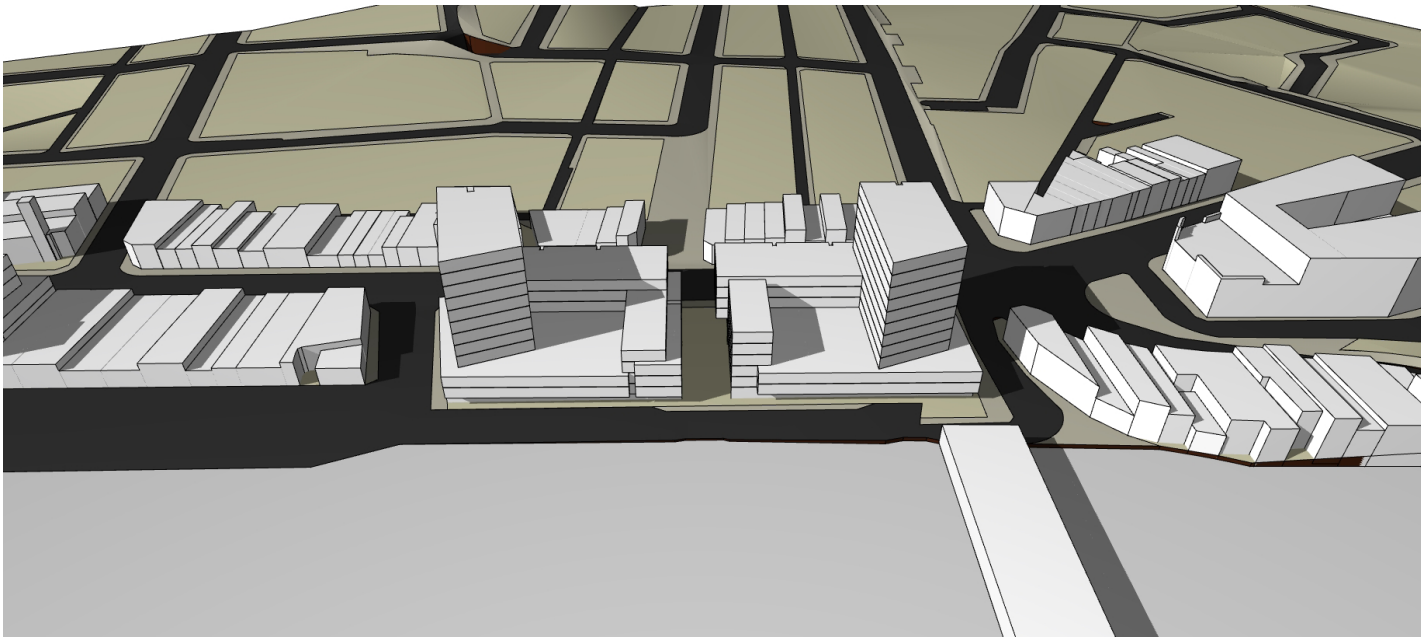
INTERCHANGE PRECINCT
BUILT FORM + HEIGHTS DIAGRAM



INTERCHANGE PRECINCT
GROUND LEVEL SETOUT DIAGRAM



VIEW FROM PRINCES HIGHWAY (SOUTH)



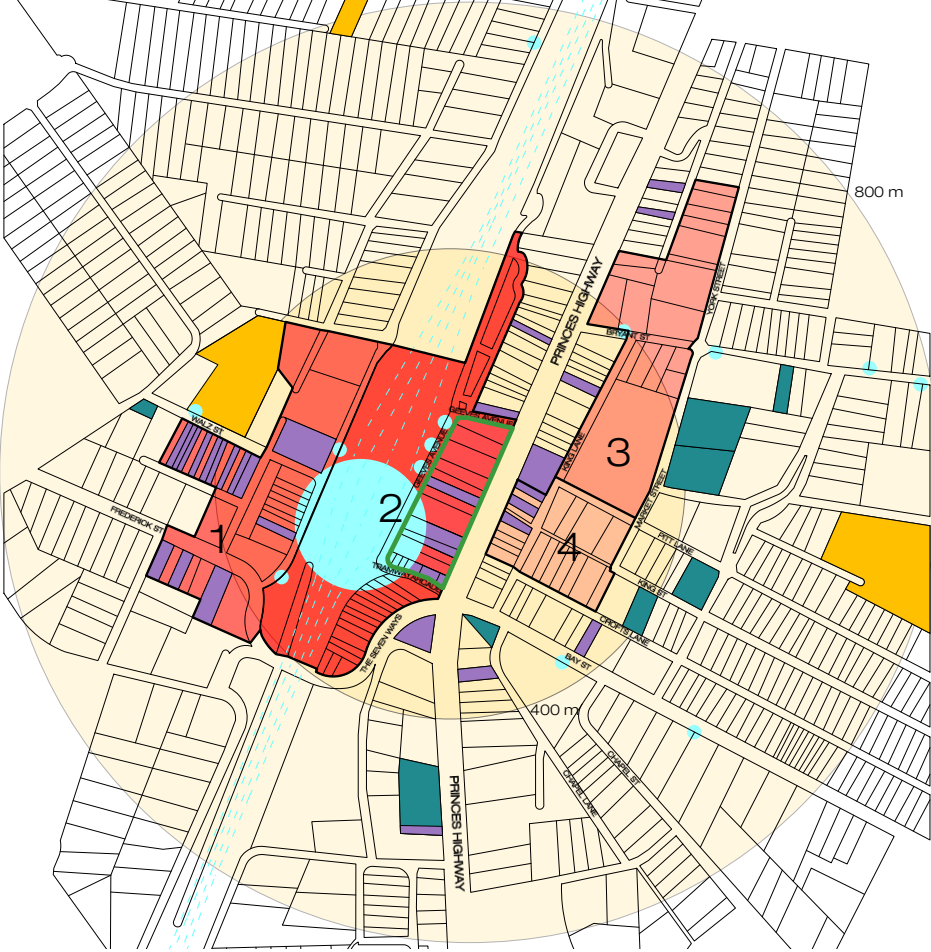
VIEW FROM ROCKDALE STATION (WEST)

Council’s ongoing review of the Rockdale Town Centre Masterplan has produced revisions to the built form outcomes for the interchange precinct.

These drawings, provided by council, demonstrate the preferred built form for the precinct.

These preferred massing options have been used as a guide for the development of the envelope.

2. EXISTING TOWN CENTRE



Ref: Rockdale
Town Centre Masterplan 2012

- TOWN CENTRE CORE PRECINCTS**
- 1 Walz Street and Frederick Street Precinct
 - 2 Transport Interchange Precinct
 - 3 Civic Precinct
 - 4 King Street Precinct
 - Geeves Ave. Precinct (within Town Centre Core Precinct 2)
- WALKING RADIUS - 400m
WALKING RADIUS - 800m
EDUCATIONAL FACILITY
HEALTH CARE
TRANSPORT - BUS AND TRAIN
FOOD

LOCAL AMENITY AND SERVICES

The Town Centre is primarily a hub for transport and small businesses. Local amenities, such as schools and medical facilities, are located further from the Transport Interchange Precinct, along the residential fringe.



Ref: Rockdale
Town Centre Masterplan 2012;
Google Earth, 25/11/16;
SIX Maps

- TOWN CENTRE CORE PRECINCTS**
- 1 Walz Street and Frederick Street Precinct
 - 2 Transport Interchange Precinct
 - 3 Civic Precinct
 - 4 King Street Precinct
 - Geeves Ave. Precinct (within Town Centre Core Precinct 2)
- WALKING RADIUS - 400m
WALKING RADIUS - 800m
TREES
CONTOURS
OPEN GREEN SPACE
PAVED OPEN GREEN SPACE

TOPOGRAPHY

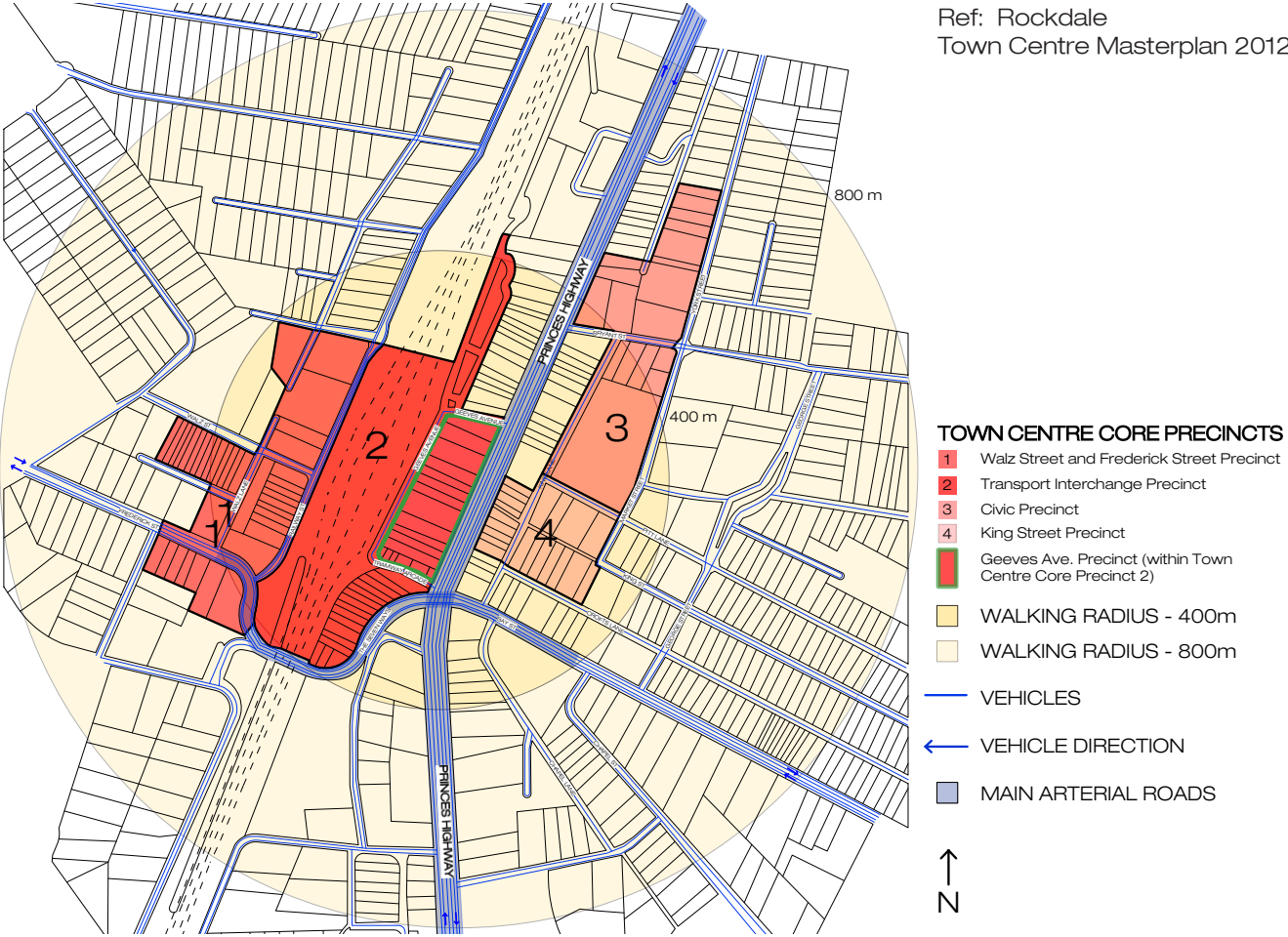
The Town Centre Core Precinct is mainly flat.

On the west side of the railway track, there is a more intimate village atmosphere in contrast with the large, traffic-dominated precincts of the town centre to the east. The main arterial road, Princes Highway, cuts through the Town Centre, parallel to the railway line. Buildings that front this road are not part of a cohesive street presence.

Trees and street planting is at a minimum. The region may benefit from increased planting.

OPEN GREEN SPACE

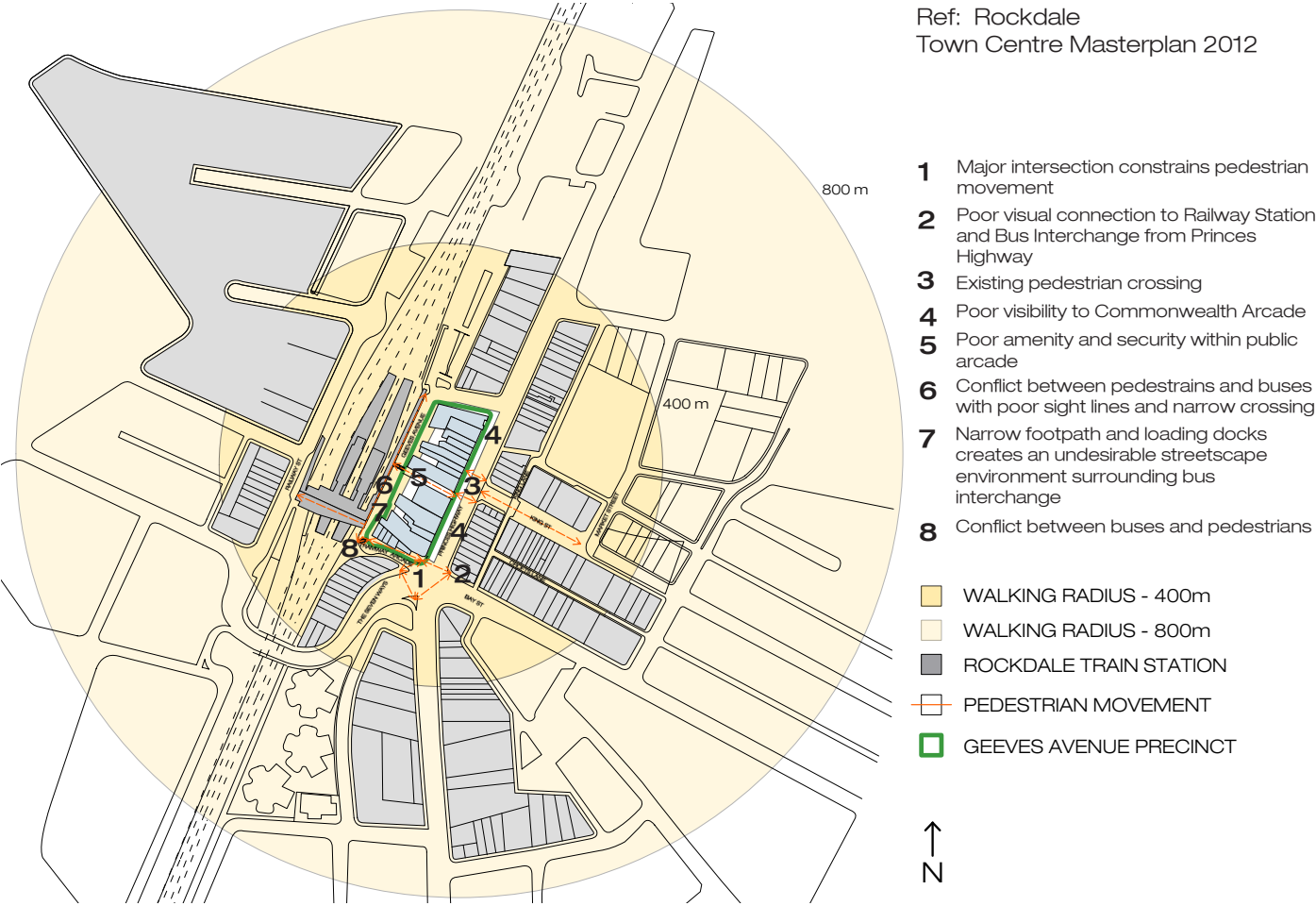
There is minimal open green space within the Town Centre and its surrounds. Open space that is publicly accessible closest to the town centre is either paved with tree planters and seats, or attached to public buildings with gravel ground covering and large tree canopies. On the town edge, the nearest green spaces are skinny, grassed areas with trees along the train corridor, and an oval. These spaces are unpleasant, stark and incorporate other activity that make them incompatible with the qualities associated with open green space.



LOCAL VEHICLE MOVEMENT

The Princes Highway - with 3 lanes of traffic in each direction - separates the Transport Interchange Precinct from the Civic Precinct and King Street Precinct. Consequently, the main commercial hub of Rockdale's Town Centre is divided.

Residential streets and roads connect to the main roads of the Princes Highway, Bay Street and the Seven Ways. The Civic Precinct and King Street Precinct have one-way lanes that are accessed mainly by service vehicles and pedestrians. The main congestion point occurs at the junction between Princes Highway, Bay Street and the Seven Ways. This intersection is the entry point for buses into Tramway Arcade.



PEDESTRIAN MOVEMENT

Pedestrian movement in the Transport Interchange Precinct is poorly realised. Conflicts between pedestrians and traffic exist on Geeves Avenue, Tramway Arcade and The Seven Ways. Vehicle use is heavy on the Princes Highway and is prioritised. Pedestrians are forced to use lengthy and inconvenient crossings to reach destinations away from the east side of the railway station. Pedestrians are confined to a narrow pathway along Geeves Avenue. Often they will walk along the road to take a 'short cut' to the pedestrian arcade or cut across Tramway Arcade to reach the major crossing at the beginning of The Seven Ways.

The pedestrian arcade is poorly utilised as it is not situated close to the train station entry and exit point, and does not align perfectly with the crossing provided on Princes Highway to King Street.

At the bus interchange on Geeves Avenue, there is inadequate surveillance and poor way finding, and an unsafe character.

The pedestrian access at the intersection between Princes Highway, The Seven Ways and Bay Street is slow and congested. The traffic lights at this intersection do not allow a period for all traffic to be stopped for pedestrians to freely cross the intersection in any direction.

NEIGHBOURING DEVELOPMENTS AND HEIGHTS

Under the Rockdale LEP 2011, the Transport Interchange Precinct has a maximum height of 22 metres with a bonus height of 12 metres for sites greater than 1500m². That provides for a height of 34 metres across the Geeves Avenue Precinct.

The Masterplan document notes that Sydney Airport Corporation Limited (SACL) has nominated AHD 51.0 as the height limit for for Obstacle Limitation Surface (OLS). AHD 51.0 nominally corresponds to a height of 35 metres at the Geeves Avenue Precinct.

This report identifies numerous issues regarding height, which are addressed by the proposal, including:

- The Masterplan notes that ‘a significant proportion of the Town Centre core area comprises small lot subdivisions...’ making the amalgamation of small sites to become a single 1500m² site unlikely without an integrated plan for the whole precinct.
- The Transport Interchange Precinct has been selected as an opportunity for a ‘landmark’ development. This can only be achieved by providing additional height bonus across an achievable site area.
- There are buildings in the immediate vicinity of the Transport Interchange Precinct which are 10 -12 stories, or nominally 35 - 38m in height, which will diminish the impact of a ‘landmark’ development unless it is granted additonal height due to its proposed ‘Iconic’ status.



EXISTING NUMBER OF STOREYS AT SITES IMMEDIATELY SURROUNDING THE GEEVES AVENUE PRECINCT

TALL DEVELOPMENTS SUMMARY

	ADDRESS	DA NUMBER	STOREYS	HEIGHT (m)/ LEVEL (RL)	STATUS (AS OF 11/4/17)
	GEEVES AVE. PRECINCT				
1	471 - 511 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- allocated residential apartments- allocated retail spaces- allocated commercial tenancies- 38.9m height	-	12	38.9 / 54.87	-
	PROPOSED RESIDENTIAL DEVELOPMENTS				
2	564 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 76 residential apartments- retail space allocated- 38.75m height	2012/293	11	38.75 / 52.75	APPROVED
3	433 - 439 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 86 residential apartments- 3 commercial tenancies- 36.4m height	2015/322	12	36.4 / 51.6	DEFERRED COMMENCEMENT
4	401 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 39 residential apartments- 2 commercial tenancies	2016/150	7	-/-	APPROVED
5	397 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 92 residential apartments- 3 commercial tenancies- 34.54m height	2016/420	11	34.54 / 49.32	APPROVED
6	376 - 384 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 36 residential apartments- 2 commercial tenancies- 27.5m height	2016/108	9	27.5 / 42.2	APPROVED
7	386 - 396 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 60 residential apartments- 1 commercial tenancies- 27.5m height	2016/117	9	27.5 / 42.4	APPROVED
8	398 - 412 PRINCES HIGHWAY <ul style="list-style-type: none">- mixed use, multi-residential development- 72 residential apartments- 4 commercial tenancies- 29.2m height	2016/343	9	29.2 / 42.98	APPROVED
9	27 - 31 BRYANT STREET <ul style="list-style-type: none">- multi-residential development- 60 residential apartments- 27.45m height	2017/54	9	27.45 / 48.05	DEFERRED COMMENCEMENT
10	75-85 RAILWAY STREET <ul style="list-style-type: none">- mixed use, multi residential development- residential space allocated- retail space allocated- 28m height	-	8	28 / -	PASSED WITH CONDITIONS
	EXISTING 6 - 12 STOREY BUILDINGS				
11	3 - 7 KEATS AVENUE <ul style="list-style-type: none">- 12 storeys	-	12	- / 53.75	BUILT
	MULTIPLE LOCATIONS <ul style="list-style-type: none">- 6-12 storeys- varies	-	6-12	VARIES	BUILT

TALL DEVELOPMENTS (BUILT AND PROPOSED)
LOCATED NEAR THE GEEVES AVENUE PRECINCT

REFER TO TABLE FOR INFORMATION ON EACH DEVELOPMENT



 Exceeds RL Height Restriction of 34m

Base Map Ref: Google Earth

Rockdale Station is the hub around which the Town Centre will be revitalised.

The Geeves Avenue Precinct is surrounded by tall developments. It requires a substantial height to match the prominence demanded by its location within the Town Centre.

The Geeves Avenue Precinct is at the centre of a cluster of tall buildings. The effect of any additional height is muted by its being at the centre of such a group of buildings.



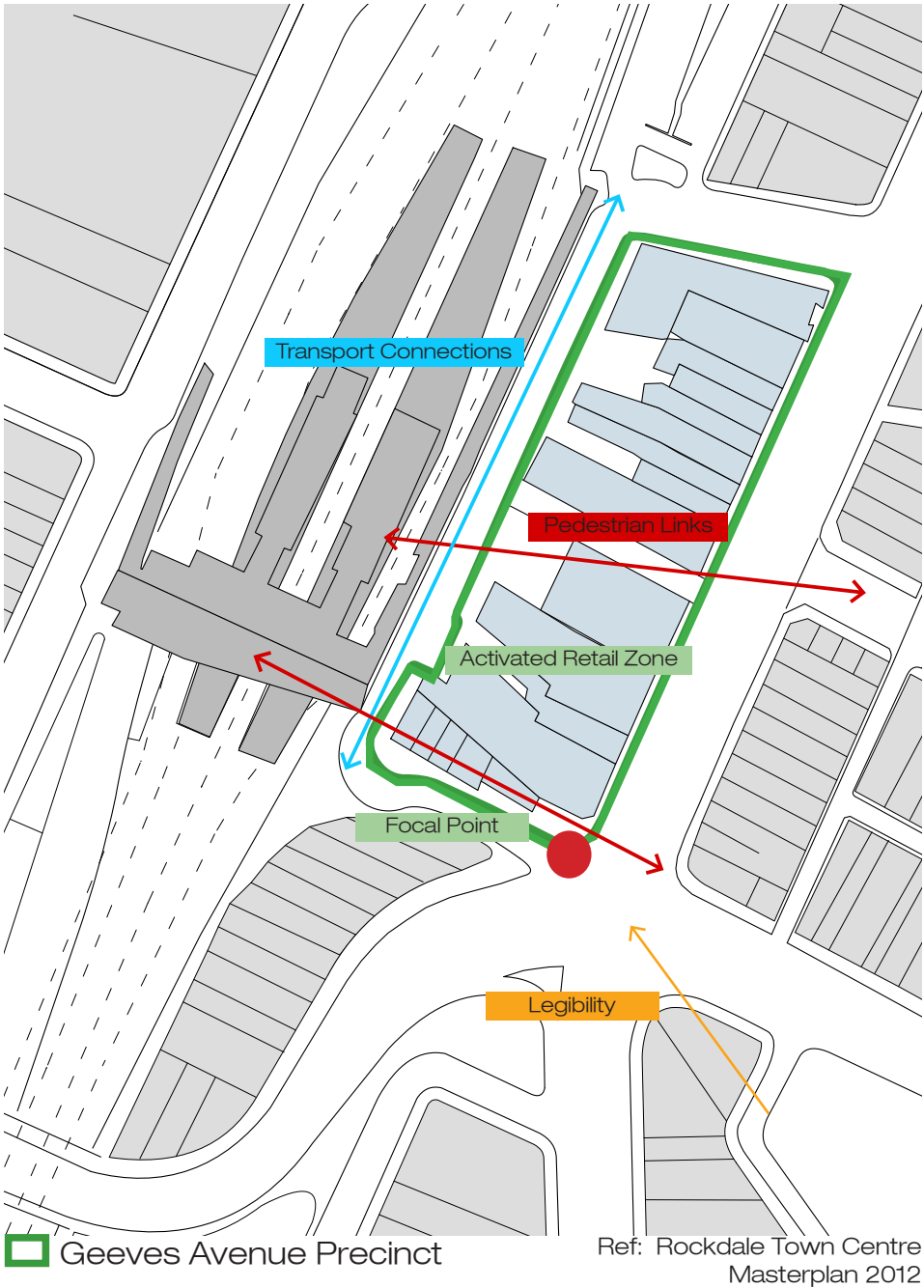
CENTRAL PARK, SYDNEY
Multi-level pedestrian connections with activated retail between railway station and street.

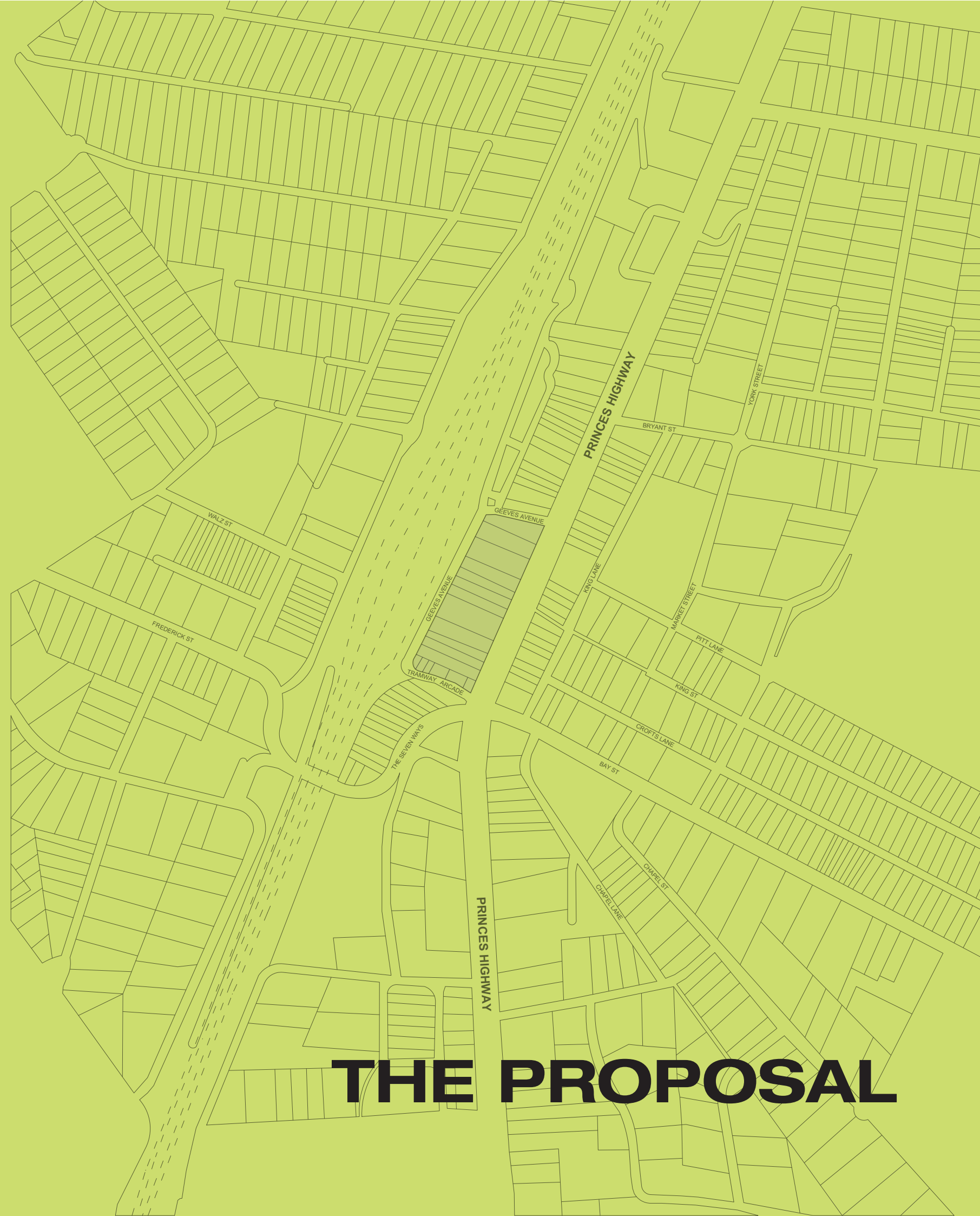
OPPORTUNITIES AND PRECEDENTS

The Geeves Avenue Precinct presents a significant opportunity to make the Rockdale Town Centre a more desirable and pedestrian-friendly urban centre where people will want to live, work and play. Easy walkability, good access to public transport and distinctive identity are ideals to pursue in the development.

The Geeves Avenue Precinct demands a focal point, with pedestrian connections streaming through the Town Centre. Legibility for local residents, commuters and visitors is required. A revitalised retail zone will provide the spur for further improvement.

ST. MARGARETS HOSPITAL, SYDNEY
Urban village scale with activated street frontages.





THE PROPOSAL

DESIGN RESPONSE



SITE PLAN

THE PROPOSAL



PRINCIPLES

The building provides a pedestrian-friendly commuter and retail link between Rockdale Station and the Rockdale Town Centre.

The ground plane is activated through coordinated pedestrian pathways past retail street frontages, linking rail and bus nodes through the Transport Interchange Precinct to the Civic and King Street Precincts.

At street level, a six-storey street wall defines the west side of the Princes Highway. Atop a three-storey frontage to Geeves Avenue, garden courtyards provide open space for residents.

A tower rises at each end of the precinct, anchoring the development and providing a focal point from both directions of the Princes Highway.

ACCESS

A 12-metre retail-activated laneway provides the major pedestrian pathway between rail and bus interchanges and the Princes Highway and Civic and King Street Precincts.

Rail commuters connect to the precinct via a pedestrian crossing directly outside the train station. A second pedestrian crossing further along Geeves Avenue provides a direct connection to the site for bus travellers.

Vehicle access to each of the three lots is via Geeves Avenue, away from the traffic of the Princes Highway.

FRONTAGES

Active street frontages are provided at the entire ground floor perimeter of the building.

A primary retail edge is at the Princes Highway, with continuous high activity frontages uninterrupted by vehicle crossings or service zones. The active frontage continues as contributory retail edge around the corner into Geeves Avenue, at the north of the block, and through the new 12-metre wide through-site pedestrian street.

Along Tramway Arcade at the south of the block, and Geeves Avenue to the west, active laneways provide a mix of retail and business uses, along with vehicle and service access to the block.

HEIGHTS

The buildings rise to 38.9 metres above the ground floor, 4.9 metres above the existing height limit.

The top of the building has an RL of 54.87 metres.

The proposed building height is commensurate with its status as a landmark development, ensuring that the building retains prominence alongside existing tall neighbouring buildings, but also responds to airspace limitations.

OBSTACLE LIMITATION SURFACE

The top of the building has an RL of 54.87 metres, which is above the Sydney Airport Corporation Limited Obstacle Limitation Surface height of RL 51.00.

The top of the building is lower in height than the Procedures for air navigation services – aircraft operations (PANS- OPS) surfaces of RL 54.9 metres.

The building height provides appropriate prominence for the development, which is demanded by its prominent location within the Rockdale Town Centre Precinct.

BUILT FORM

A six storey street wall fronts the Princes Highway, with a three-storey frontage to Geeves Avenue at the west. The new through-site link is flanked by five and six storey frontages. A tower sits at both ends of the precinct. Atop the lower buildings, garden courtyards provide open space for residents.

The lower levels of the development are built to the property boundaries, with a colonnade at the street level retail frontage along the Princes Highway providing some protection from the weather. The podium steps back 2.5 metres from Geeves Avenue in compliance with the setback for future road widening. The Tramway Arcade sites are trimmed back to provide more space for pedestrian near the railway station.

The towers are shaped and positioned to increase the solar gain to more apartments. They have ventilated corridors to provide cross ventilation to all apartments. The Princes Highway facades have been articulated to ensure there is a variety in form.

Compliance with ADG principles is achieved by the shape and orientation of the buildings and their, and their positioning relative to one another.

The orientation and positioning of the towers also provides for usable open space and courtyards at the above the lower buildings.

ORIENTATION AND SEPARATION

The distance between the towers varies due to their shape and orientation. They are as far apart as 82 metres. Separations at the through-site link are in accordance with Council's proposed sketches.

SHADOWS

The shape of the towers, the orientation of their facades and their positioning relative to one another result in reduced overshadowing of the towers.

GEEVES AVENUE PRECINCT
AERIAL VIEWS



NORTH-EAST PERSPECTIVE AT 12PM



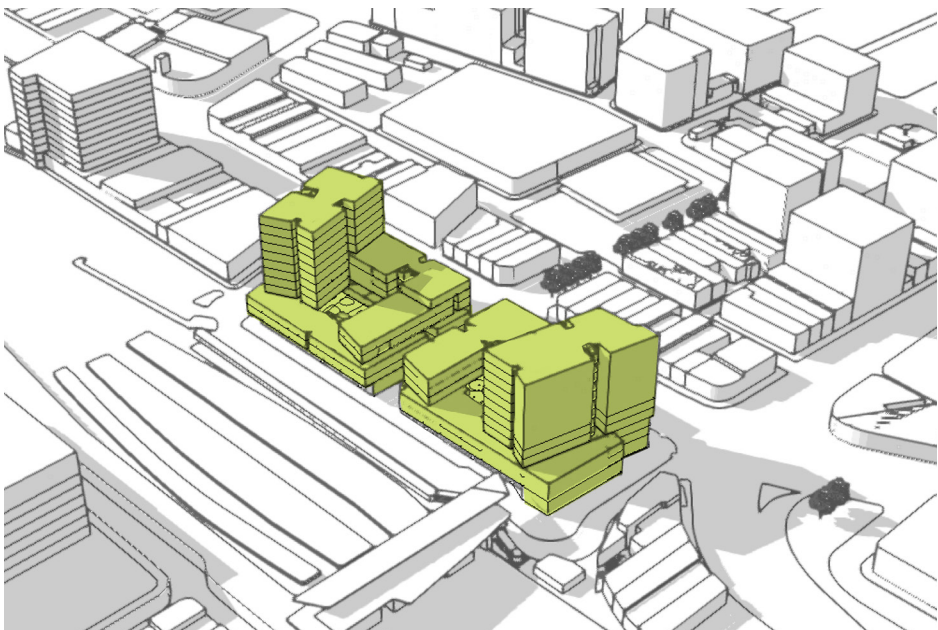
SOUTH-EAST PERSPECTIVE AT 12PM

The sites to the east of the precinct are currently 1-3 storeys in height. These sites are earmarked for a base height of 28m (8 storeys) and an additional 12m (a total 12 storeys) if the site is greater than 1500m² (subject to a design review panel reviewing the scheme).

The site to the north of the precinct is currently 1-2 storeys in height. This site is earmarked for a base height of 22m (6 storeys) and an additional 12m (a total of 9 storeys) if the site is greater than 1500m² (subject to a design review panel reviewing the scheme).



NORTH-WEST PERSPECTIVE AT 12PM



SOUTH-WEST PERSPECTIVE AT 12PM

 THE PROPOSAL

Sites 1-37 The Seven Ways are currently 1-2 storeys in height. These sites are earmarked for a base height of 22m (6 storeys) and an additional 12m (a total of 9 storeys) if the site is greater than 1500m² (subject to a design review panel reviewing the scheme).

GEEVES AVENUE PRECINCT
SOLAR ANALYSIS

The orientation of the towers and their positioning relative to one another result in reduced overshadowing of the towers, while the lower height of the smaller buildings provides for positive solar access to a majority of apartments, such that full compliance with the solar targets of both the Apartment Design Guide and Rockdale Development Control Plan can be achieved.

The shadow analysis indicates that at midday in the middle of winter, there is minimal overshadowing on lots to the south of the Geeves Avenue Precinct. Such an outcome is achieved by limiting the height of the building fronting Tramway Arcade to three storeys.

Furthermore, at midday in the middle of winter, there is no effect on the lots across the Princes Highway, nor on the footpath in front of those lots.



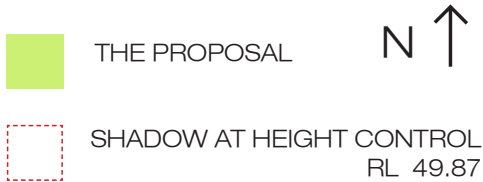
JUNE 21 9AM



JUNE 21 12PM

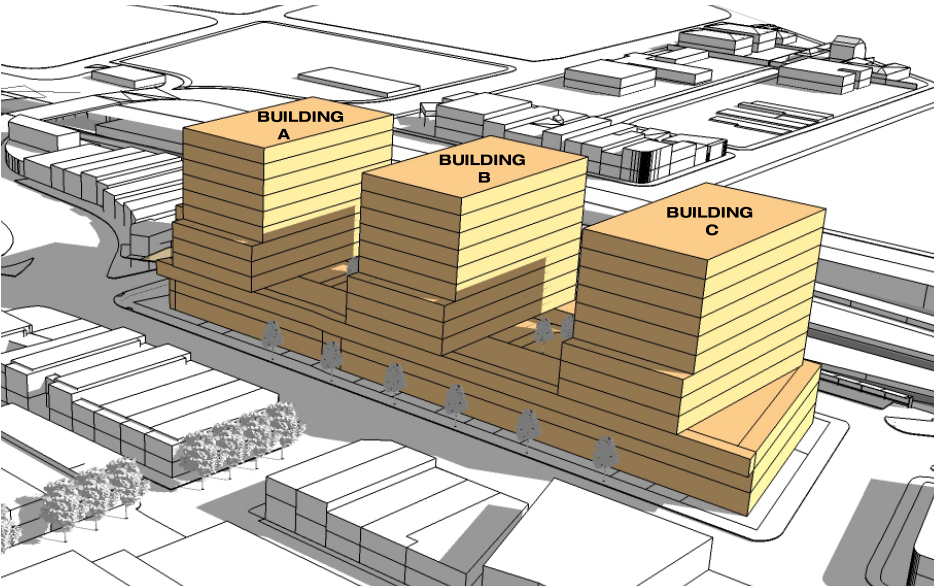


JUNE 21 3PM



THE BASE CASE - ROCKDALE DCP:
NON-COMPLIANCE WITH RESIDENTIAL CODES

The base case was assessed in terms of its ability to comply with residential building codes.

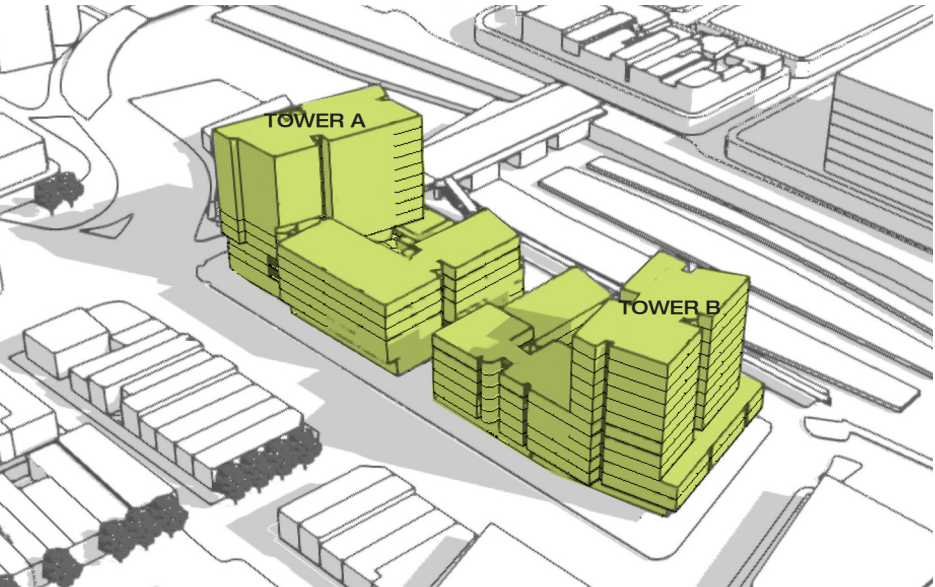


BASE CASE

The Base Case mimics the three rectangular towers put forward in the Rockdale Development Control Plan. Setback and separation constraints pre-determine a poor outcome for repetitive rectangular towers in terms of their non-compliance with the Apartment Design Guide and the Rockdale Development Control Plan. The solar access and cross ventilation to each apartment, as required by these planning controls, cannot be met.

BASE CASE																																
RETAIL		COMMERCIAL		RESIDENTIAL																												
BREAKDOWN BY USE				APARTMENT BREAKDOWN BY BUILDING						APARTMENT BREAKDOWN BY TYPE		APARTMENT DESIGN GUIDE AND ROCKDALE DCP 2011 REQUIREMENTS																				
Total No: Storeys		Total No: Storeys		Total No: Storeys		Total No: Apartments		Typology		Tower		Podium		Total		Total Percentage %		Total no: of Typologies			Total no: of Apartments		SOLAR STUDIES 21st June between 9am-3pm			CROSS VENTILATION First 9 Storeys						
Building A	1	0	11	107	Studio		27	4			36	34							Studio/ 1 Bed	112	32	345	Total no: first 9 storeys			Total no: cross ventilated						
					1 Bed		3	2			5	55											Total	55	61	25	77	24				
					2 Bed		54	5			59	55											%	51	57	23	%	31				
					3 Bed		9	3			12	11											FAILS			FAILS						
Building B	1	0	11	119	Studio		27	4			38	32							2 Bed	193	56		345	Total			Total					
					1 Bed		3	4			7	57												%	65	71	24	89	33			
					2 Bed		54	14			68	57												FAILS			FAILS					
					3 Bed		9	4			13	11												FAILS			FAILS					
Building C	1	0	11	119	Studio		27	4			38	32							3 Bed	40	12			345	Total			Total				
					1 Bed		3	4			7	55													%	84	84	22	89	33		
					2 Bed		54	12			66	55													PASSSES			PASSSES				
					3 Bed		9	6			15	13													FAILS			FAILS				
						279	66											RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES				RESULT			RESULT				
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					
																		RESULT			PASSSES			RESULT			RESULT					

THE IMPROVED CASE (PREFERRED):
COMPLIANCE WITH RESIDENTIAL CODES



THE PROPOSAL

The proposal successfully provides a pedestrian-friendly commuter and retail link between Rockdale Station and the Rockdale town centre precinct, while simultaneously providing for residential apartments that can comply with both the Apartment Design Guide and Council's preferred massing options.

Ease of access for public-transport users is intrinsic to the proposal. Pedestrian crossings at Geeves Avenue provide a direct link for rail commuters, as well as a coordinated access way to and from the busy Geeves Avenue bus interchange. Commuters, pedestrians and residents alike are provided with organised routes and functional interchange nodes, while active street frontages and enticing arcades stimulate movement and interest across the precinct.

Through a retail-activated ground plane, meeting points and restaurant and café hubs allow pedestrians to flow through the precinct, creating a sense of permeability, warmth and friendliness to the public domain. There is scope for restaurants and cafes to address the rail and bus commuter zones, bathed in afternoon sunshine.

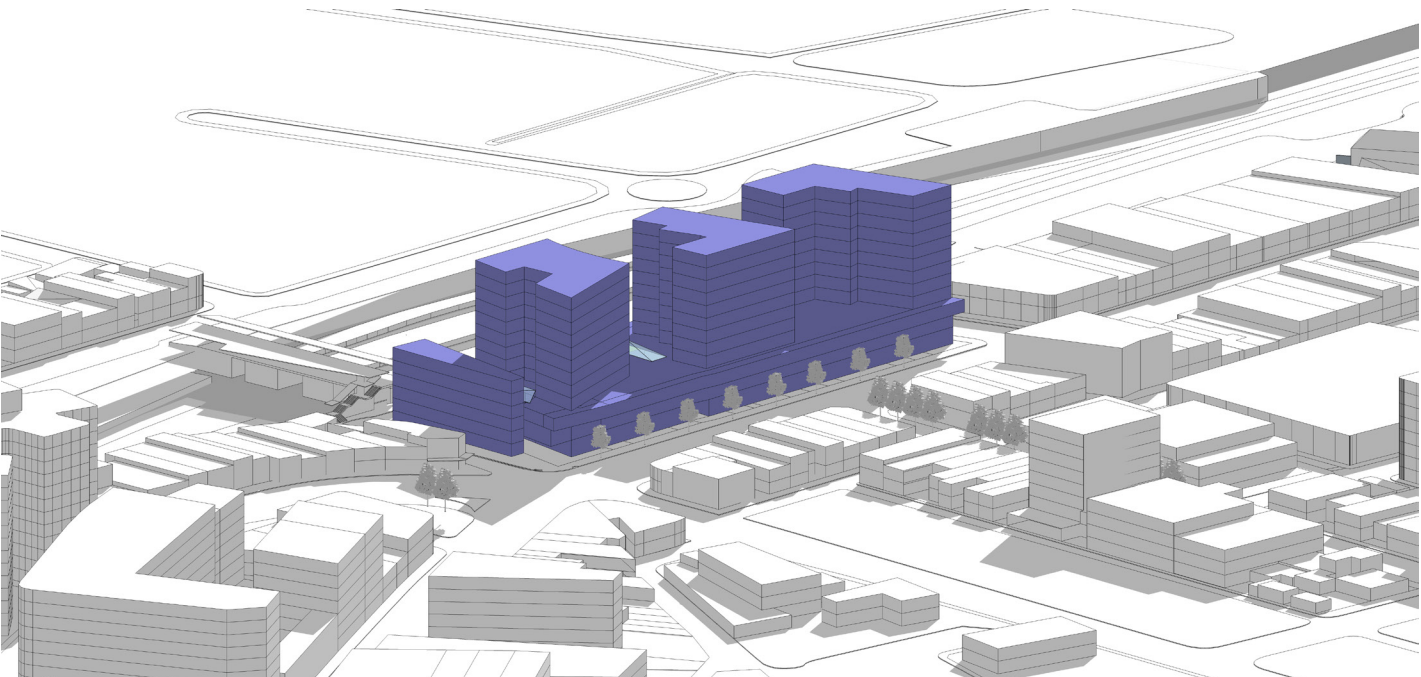
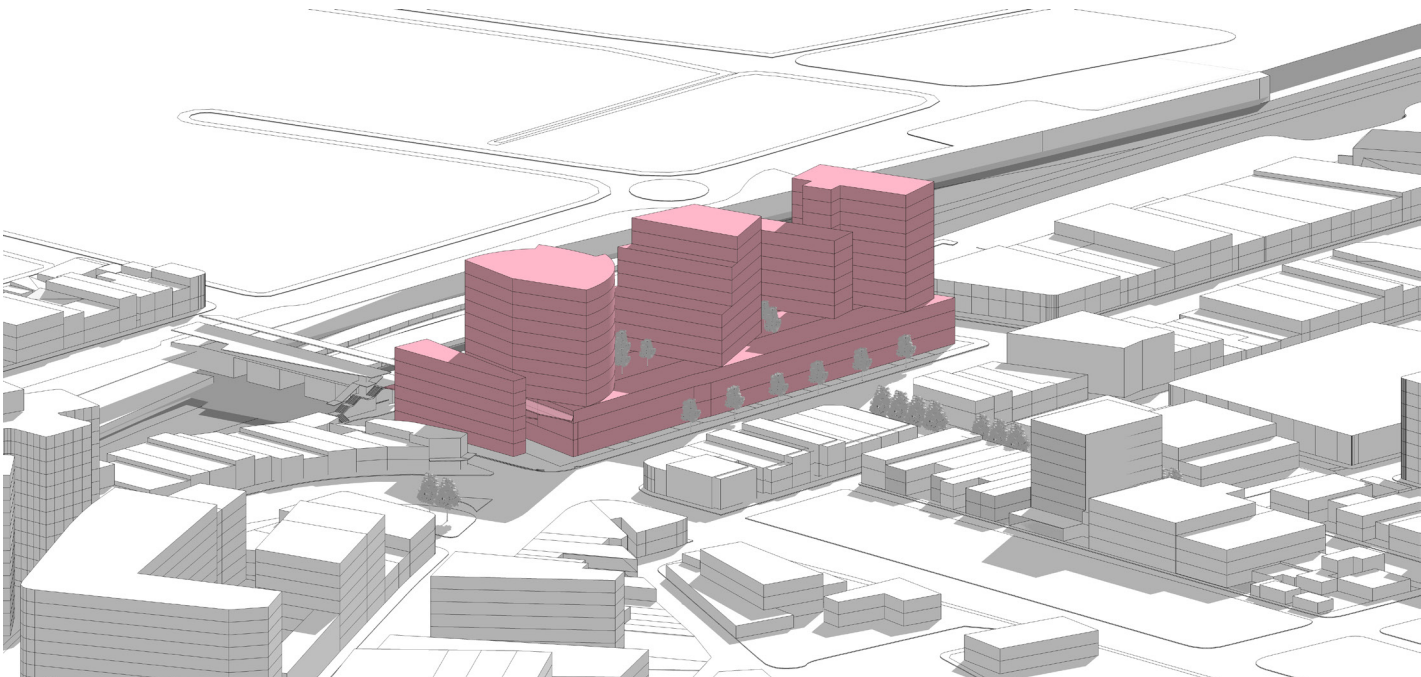
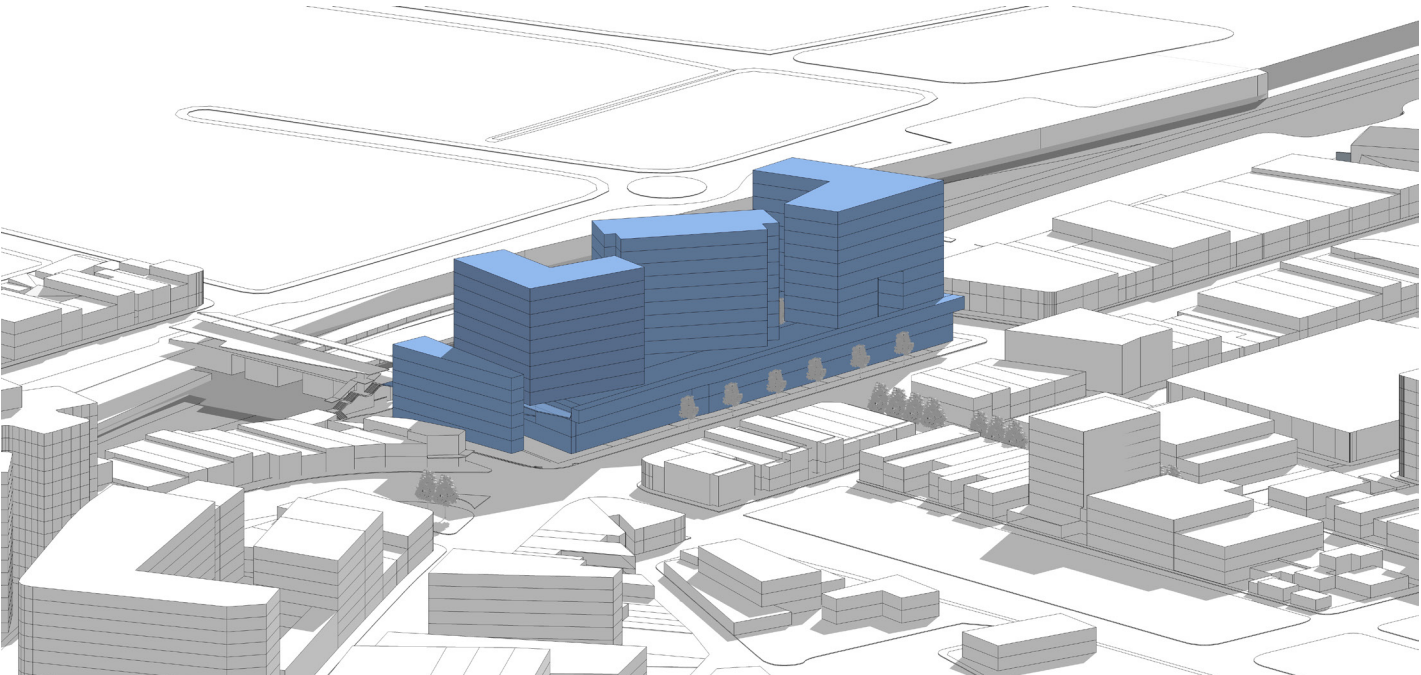
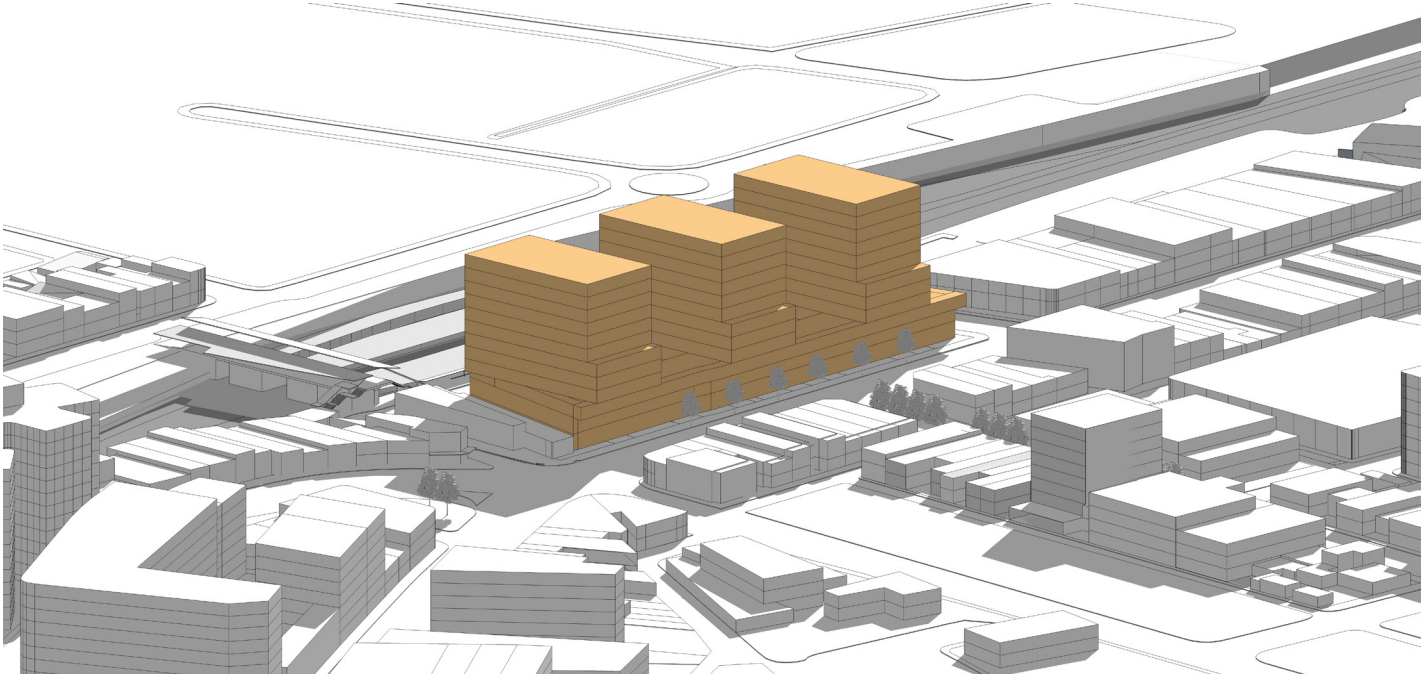
The orientation of the towers and their positioning relative to one another, and the lower height of the smaller buildings provide for positive solar access, while ventilated corridors provide cross ventilation for most apartments, such that full compliance with both the Apartment Design Guide and the Rockdale Development Control Plan is achieved in terms of these targets. Simultaneously, their form allows landscaped courtyards to sit atop the lower levels, providing outdoor recreation space for residents.

THE IMPROVED CASE (PREFERRED):
COMPLIANCE WITH RESIDENTIAL CODES

				IMPROVED CASE (PREFERRED)														
RETAIL		COMMERCIAL		RESIDENTIAL														
BREAKDOWN BY USE			APARTMENT BREAKDOWN BY BUILDING															
Total No: Storeys	Total No: Storeys	Total No: Storeys	Overall No: Apartments	Typology	1	2	3	4	5	6	7	8	9	10	11	12	Total No:	Total Percentage %
1	0	11	121	Studio	0	0	2	0	0	0	1	1	1	1	1	0	32	26.45%
Area (sqm)	1831	0		1 Bed	0	3	1	4	3	3	2	2	2	2	2	1	74	61.2%
2	2	3		2 Bed	0	12	17	8	9	9	3	3	3	3	3	4	15	12.4%
Area (sqm)	175	351		3 Bed	0	0	0	3	3	3	1	1	1	1	1	1	17	13.4%
			127	Studio	0	5	9	3	3	2	0	0	1	1	1	1	43	33.9%
1	0	11		1 Bed	0	2	2	3	4	2	0	0	1	1	1	1	67	52.8%
2	2	3		2 Bed	0	11	14	6	11	6	6	6	2	2	2	1	17	13.4%
Area (sqm)	1971	0		3 Bed	0	2	1	2	0	3	0	0	2	2	2	3		
REFERENCES																		
Rockdale Urban Design Report, pg. 28-37 Rockdale Development Control Plan 2011 Apartment Design Guide NSW																		
			APARTMENT DESIGN GUIDE AND ROCKDALE DCP 2011 REQUIREMENTS															
			SOLAR STUDIES 21st June between 9am-3pm			CROSS VENTILATION First 9 Storeys												
	3hrs Sun 9am-3pm	2hrs Sun 9am-3pm	No Sun	Total no: first 9 storeys		Total no: cross ventilated												
Total	92	105	2	73	94													
%	76	87	2	60	78													
	PASSES	PASSES	PASSES	PASSES														
Total	89	105	7	82	100													
%	70	83	6	65	79													
	PASSES	PASSES	PASSES	PASSES														
			RESULT			RESULT												
Total	181	210	9	155	194													
%	73	85	4	63	78													
	PASSES	PASSES	PASSES	PASSES														
ADG requirements	Minimum 70% of apartments get 2hrs of direct sunlight																	
DCP requirements	Maximum 15% of apartments get no direct sunlight																	
DCP requirements	Minimum 70% of apartments get 3hrs of direct sunlight																	

Stage 1 Princes Highway	1	0	11
Area (sqm)	1831	0	
Stage 1 Tramway Arcade	1	2	3
Area (sqm)	175	351	
Stage 2	1	0	11
Area (sqm)	1971	0	
Total Area (sqm)	2146	0	

The orientation of the towers and their positioning relative to one another, and the lower height of the smaller buildings provide for positive solar access, while ventilated corridors provide cross ventilation for most apartments, such that **full compliance with both the Apartment Design Guide and the Rockdale Development Control Plan is achieved in terms of these targets.**



PREVIOUS MASSING ITERATIONS 2014-18



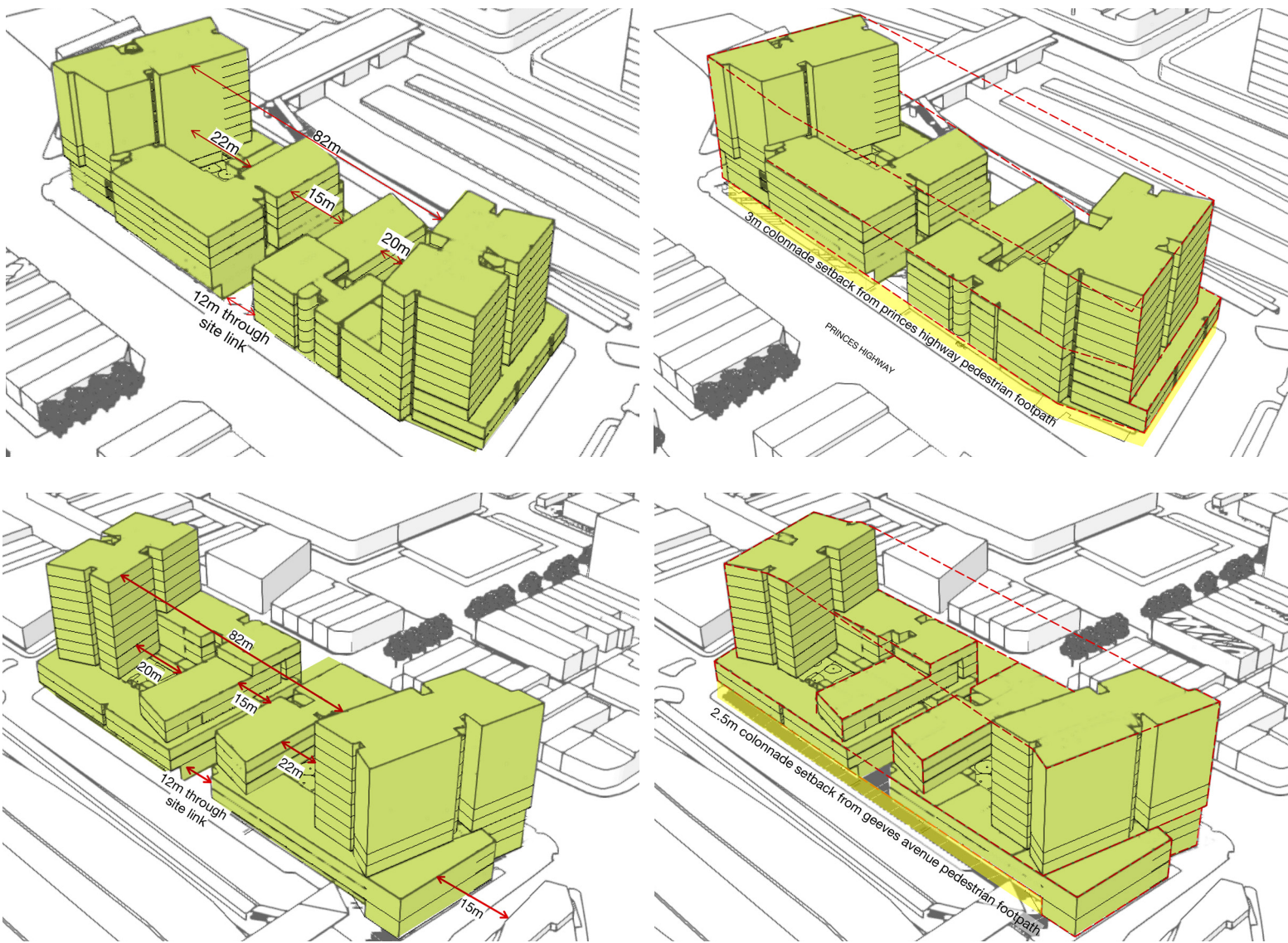
PROPOSAL

SITE MASSING ITERATIONS

The massing of this precinct has evolved as follows.

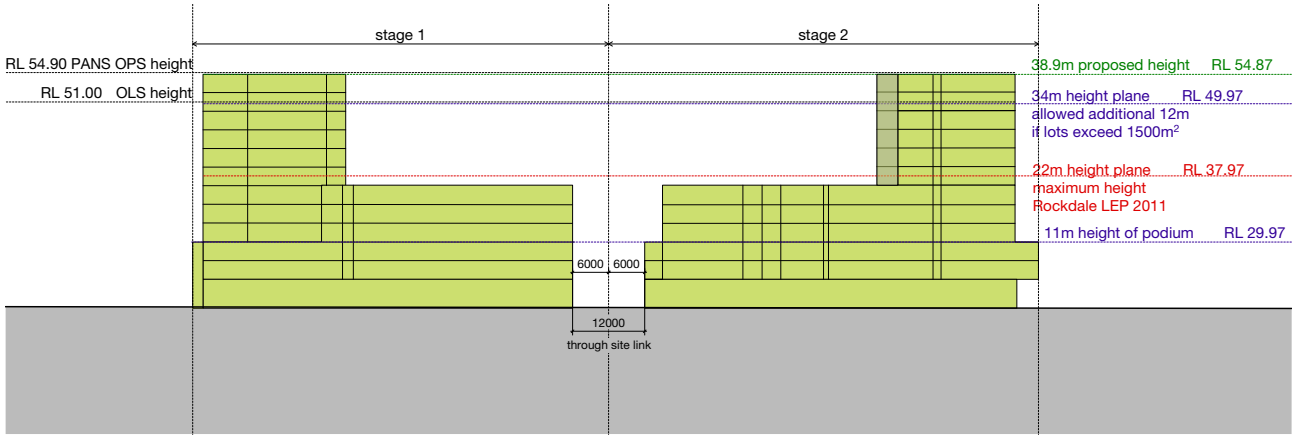
- The original proposal was for three towers over a low podium. This presented problems of privacy between towers and overshadowing. Excessive bulk resulted, which made the towers appear to occlude.
- After more detailed consideration of Council controls and adjacent precincts a two tower option was investigated. The towers were positioned at either end of a taller (6 storey) podium which resulted in increased privacy, improved solar access and better massing
- as the towers at either end of the precinct were located further apart. With the increase in floor area in the taller podium it was possible to develop a positive through site link between Geeves Avenue and the Princes Highway.

BUILDING ENVELOPE, SEPARATION AND HEIGHT



ADG compliant building separations, as viewed from the Princes Highway and Geeves Avenue

The outline of the proposed building envelope is dotted over the forms of the towers developed for this report, as viewed from the Princes Highway.

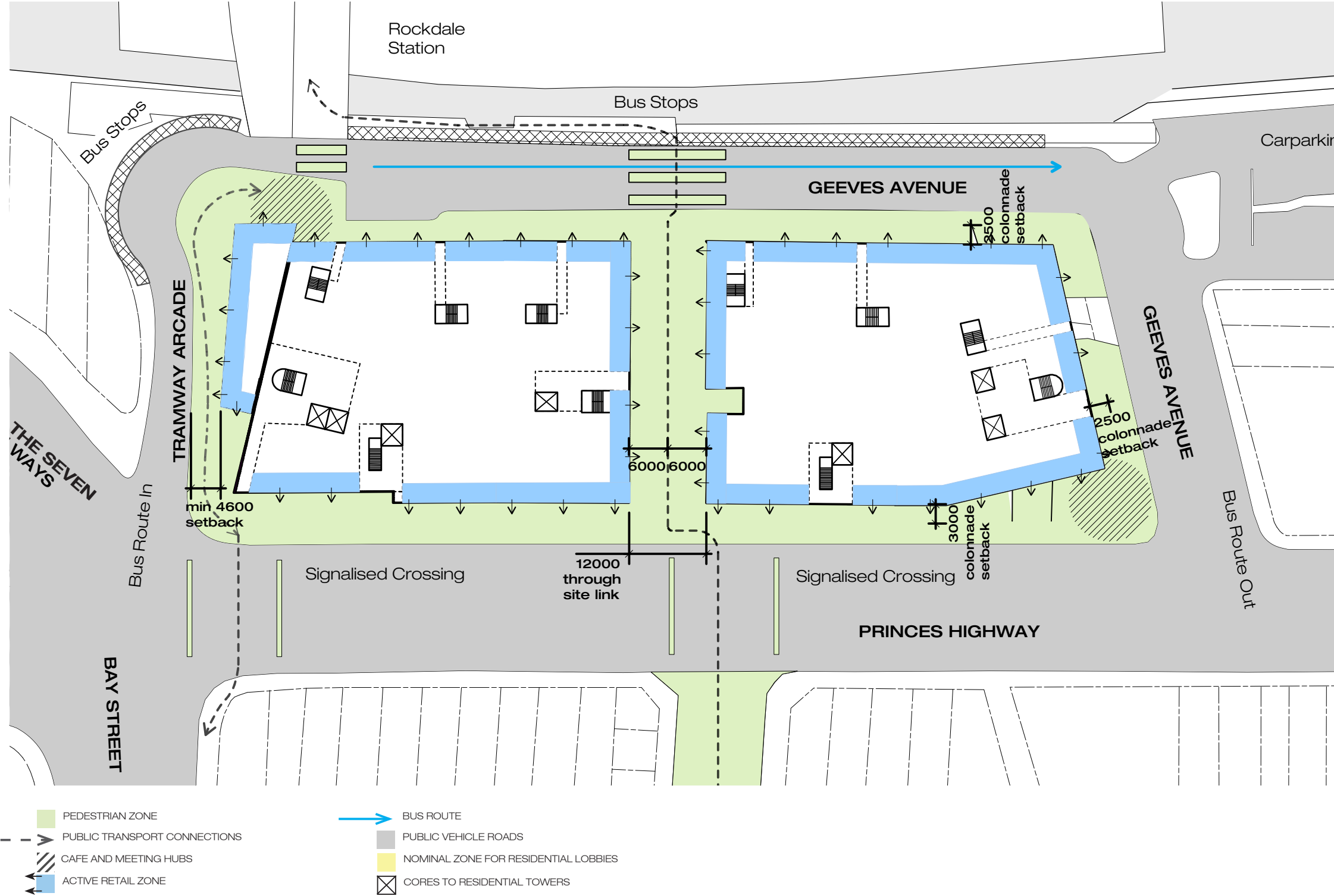


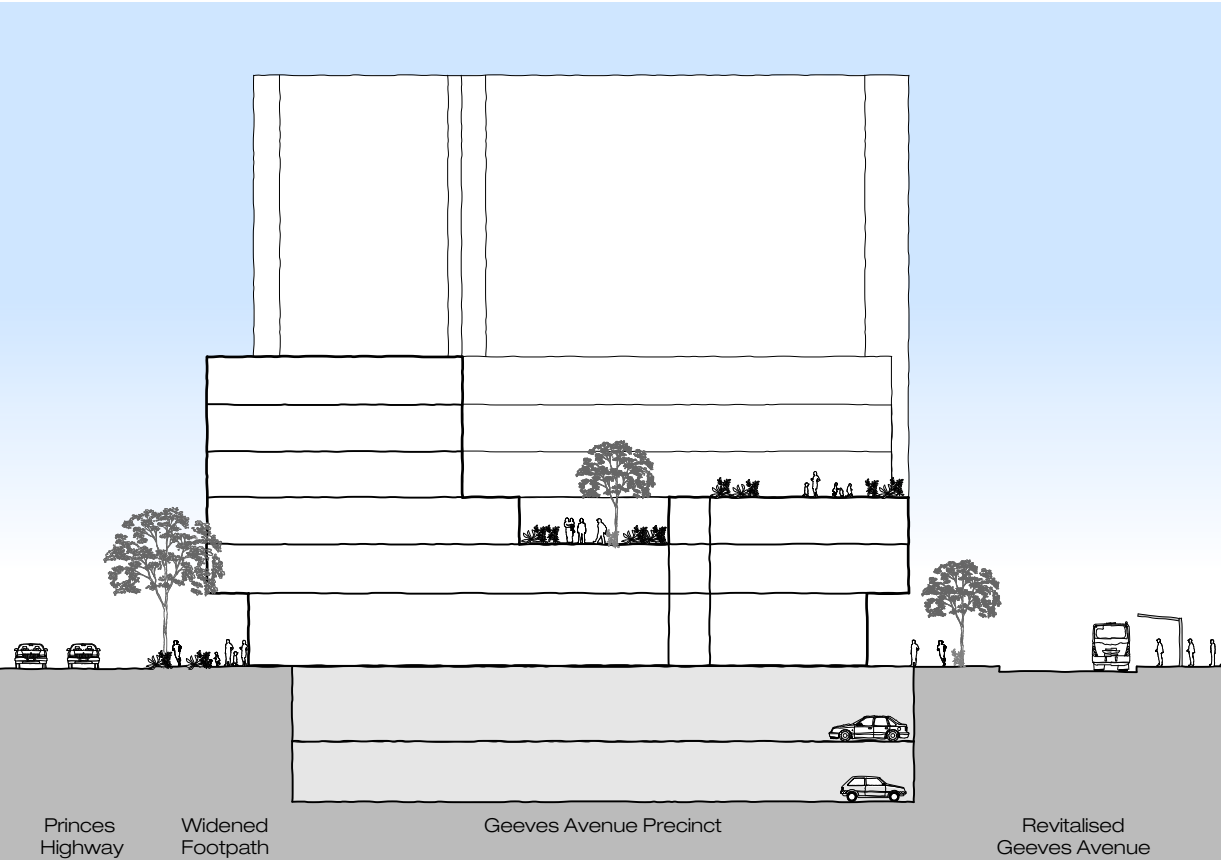
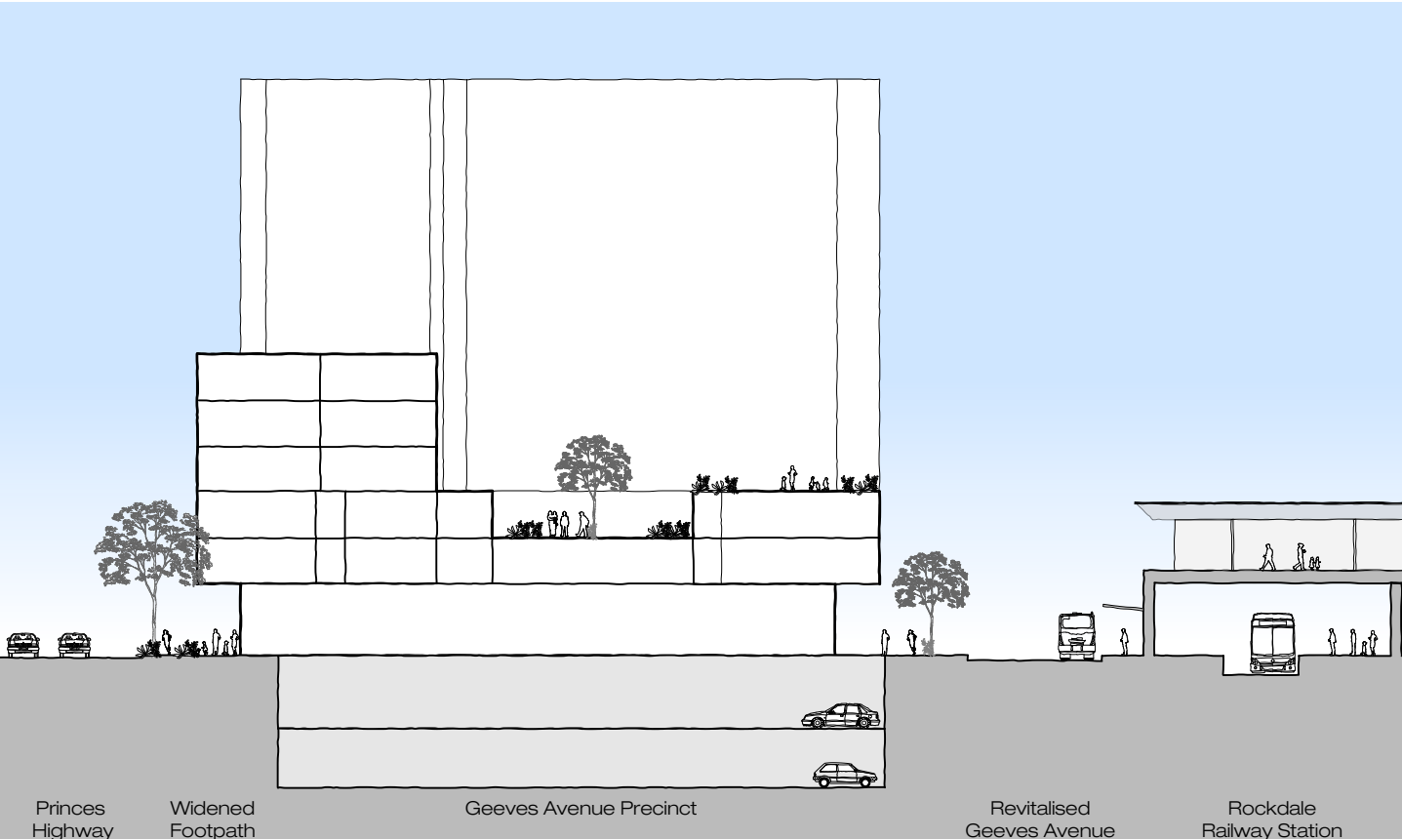
Building heights, as viewed from the east.

The Rockdale Town Centre Masterplan had envisaged a low-height retail podium at the Interchange Precinct, with a tower rising above. This approach was the basis of earlier proposals for the Geeves Avenue Precinct.

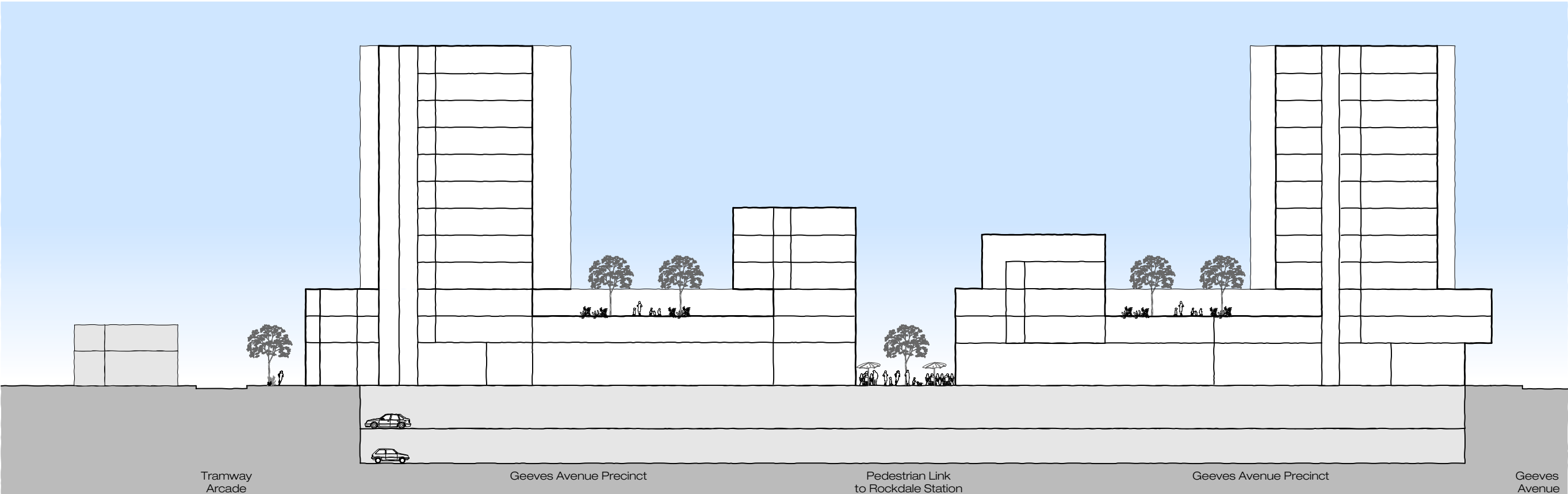
Council's ongoing review of the Masterplan produced preferred built forms for the precinct, which are more in line with the Rockdale DCP 2011. The Proposal adheres to these preferred forms, with a six storey street wall along the Princes Highway, three storeys fronting the railway, twelve storey towers at the south and north of the precinct, and six-storeys and 5-storeys along a widened through site link through the centre of the precinct.

PROPOSED PEDESTRIAN, RETAIL AND TRANSPORT INTERFACE

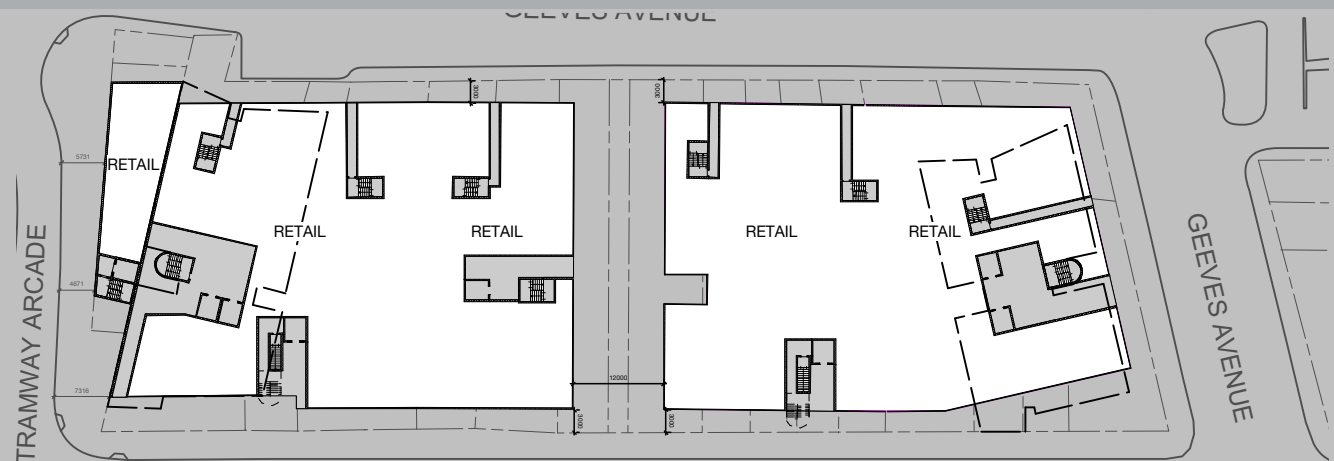




INDICATIVE CROSS SECTIONS



INDICATIVE LONG SECTION



LEVEL 1

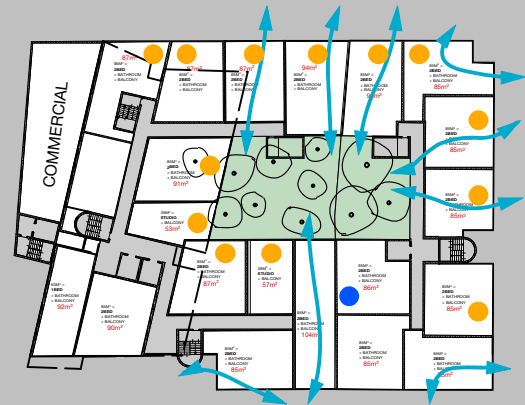


- - 15
- - 9 - 60%
- ⌘ - 3 - 20%

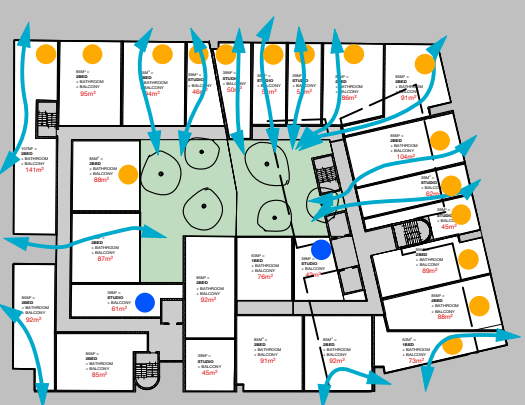


- - 20
- - 15 - 75%
- ⌘ - 5 - 25%

LEVEL 2



- - 20
- - 13 - 65%
- ⌘ - 9 - 45%



- - 26
- - 16 - 62%
- ⌘ - 14 - 54%

LEVEL 3



- - 15
- - 11 - 73%
- ⌘ - 14 - 93%



- - 14
- - 8 - 57%
- ⌘ - 9 - 64%

LEVEL 4



- - 15
- - 11 - 73%
- ⌘ - 13 - 87%



- - 18
- - 11 - 61%
- ⌘ - 16 - 89%

LEVEL 5



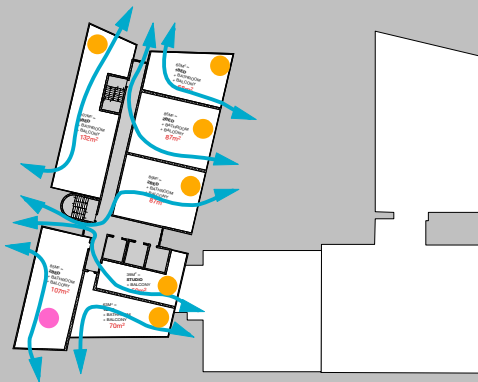
- - 15
- - 12 - 80%
- ⌘ - 13 - 87%



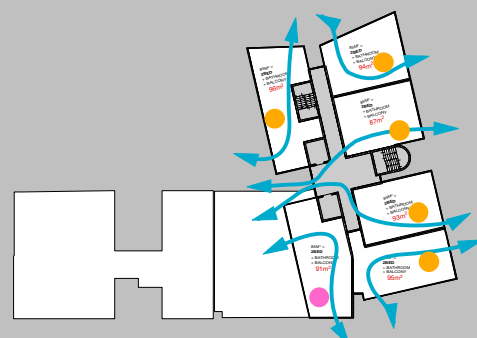
- - 13
- - 7 - 47%
- ⌘ - 11 - 85%

LEVEL 6

N → INDICATIVE PLANS LEVELS 1-6
SCALE 1:1000

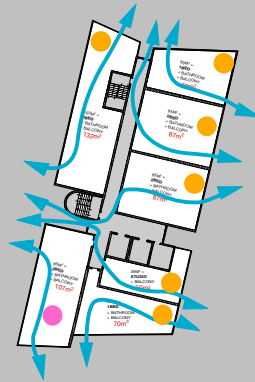


- - 7
- - 6 - 86%
- ⌘ - 7 - 100%

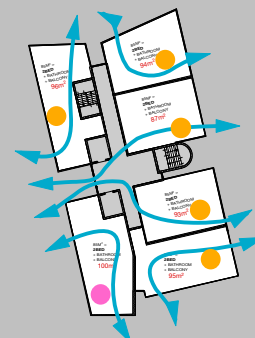


- - 6
- - 5 - 83%
- ⌘ - 7 - 100%

LEVEL 7

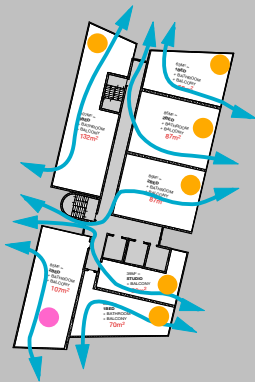


- - 7
- - 6 - 86%
- ⌘ - 7 - 100%

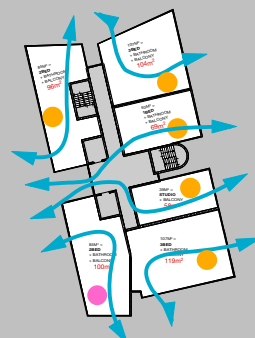


- - 6
- - 5 - 83%
- ⌘ - 6 - 100%

LEVEL 8

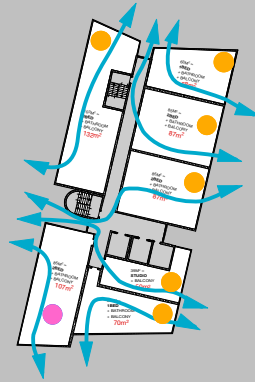


- - 7
- - 6 - 86%
- ⌘ - 7 - 100%

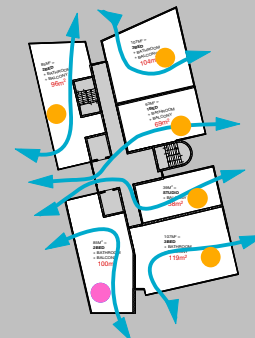


- - 6
- - 5 - 83%
- ⌘ - 6 - 100%

LEVEL 9

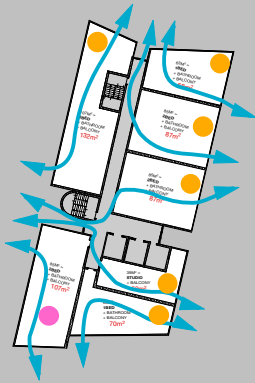


- - 7
- - 6 - 86%
- ⌘ - 7 - 100%

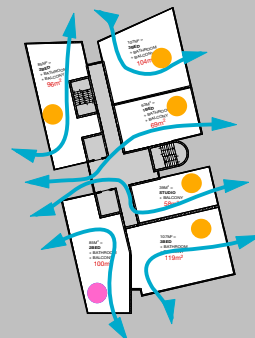


- - 6
- - 5 - 83%
- ⌘ - 6 - 100%

LEVEL 10

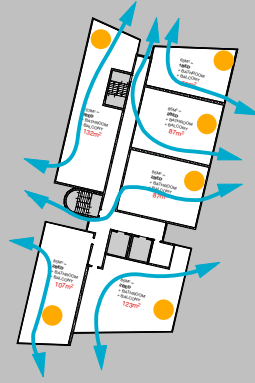


- - 7
- - 6 - 86%
- ⌘ - 7 - 100%

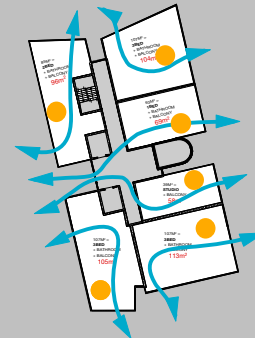


- - 6
- - 5 - 83%
- ⌘ - 6 - 100%

LEVEL 11

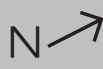


- - 6
- - 6 - 100%
- ⌘ - 6 - 100%

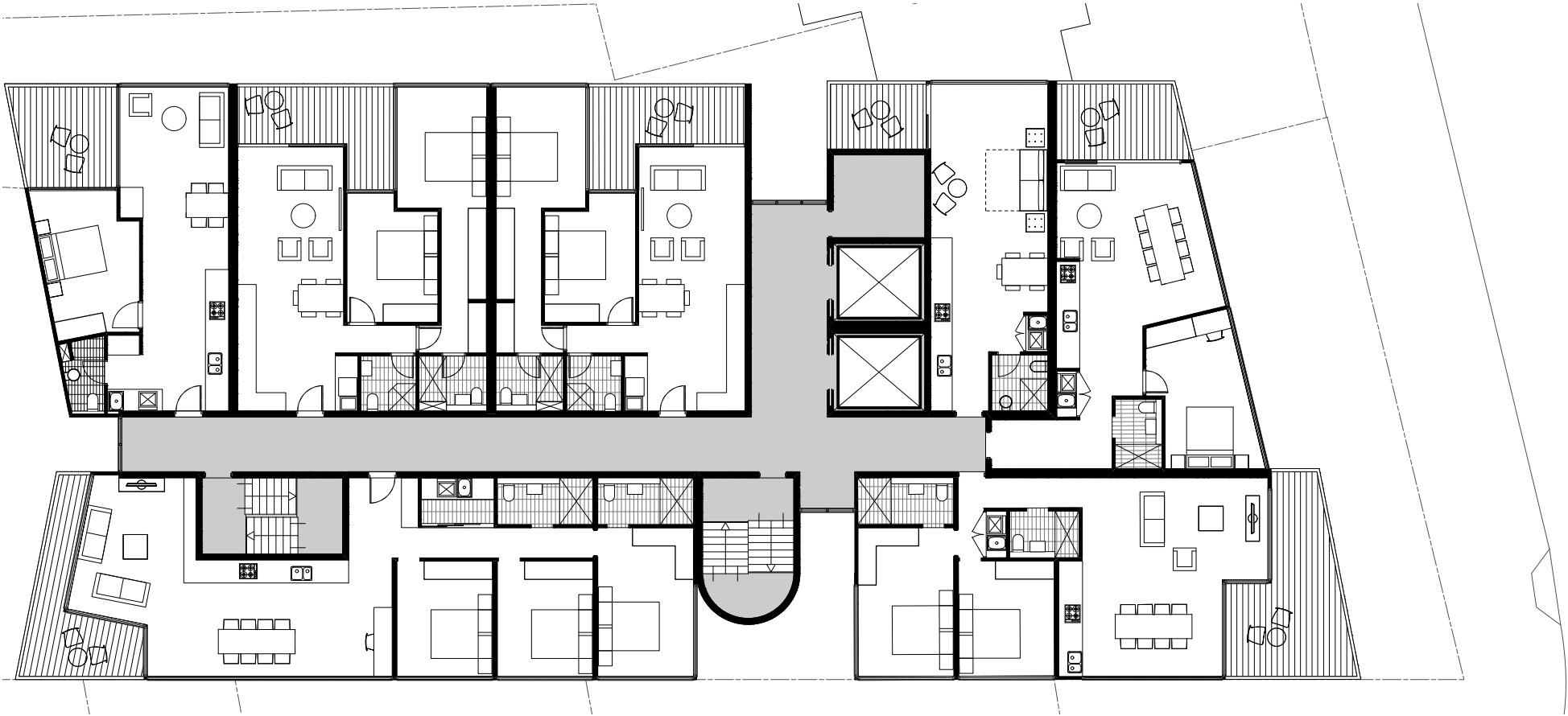


- - 6
- - 6 - 100%
- ⌘ - 6 - 100%

LEVEL 12



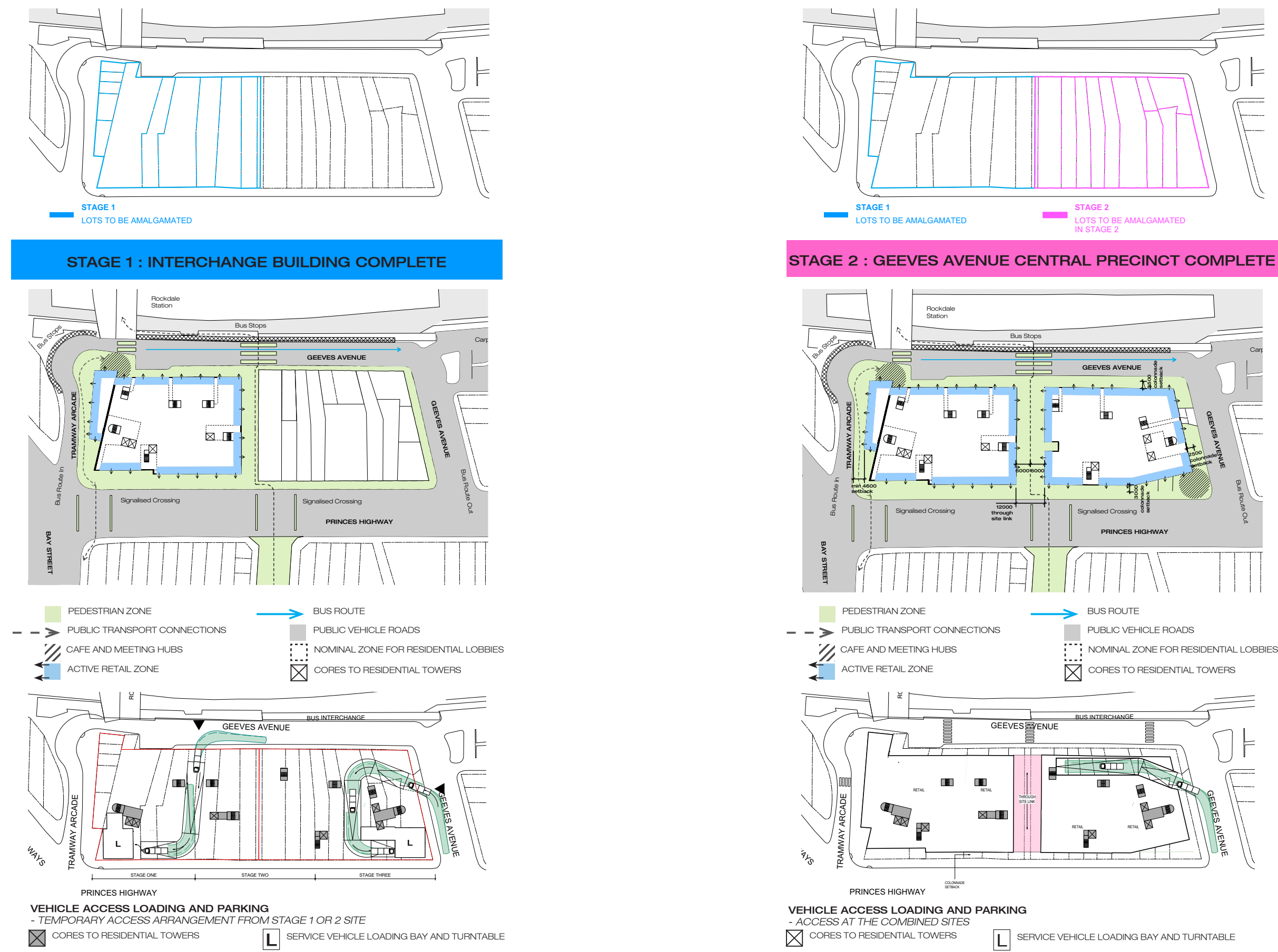
INDICATIVE PLANS LEVELS 7-12
SCALE 1:1000

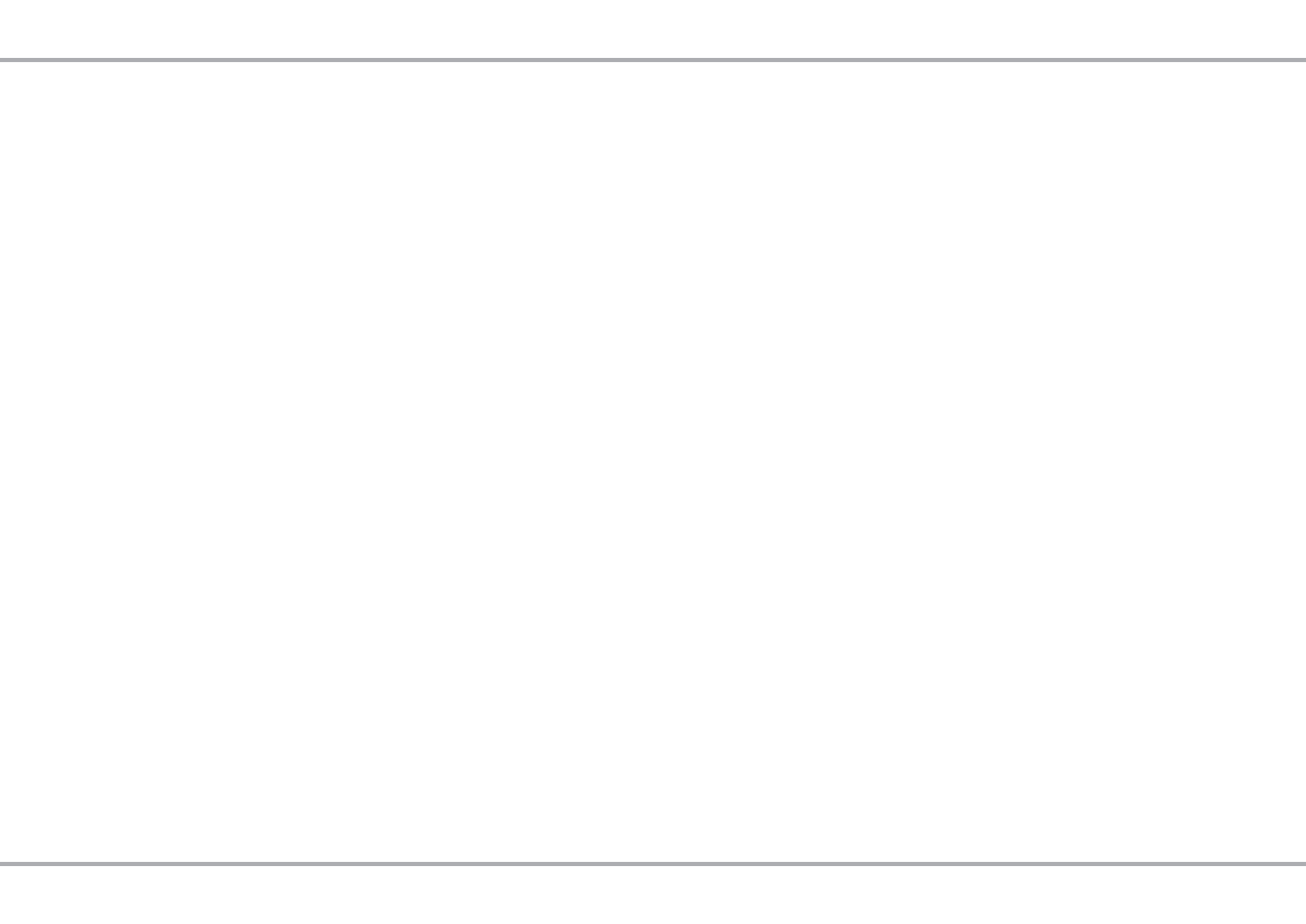


INDICATIVE APARTMENT LAYOUTS
1:200

POTENTIAL STAGING

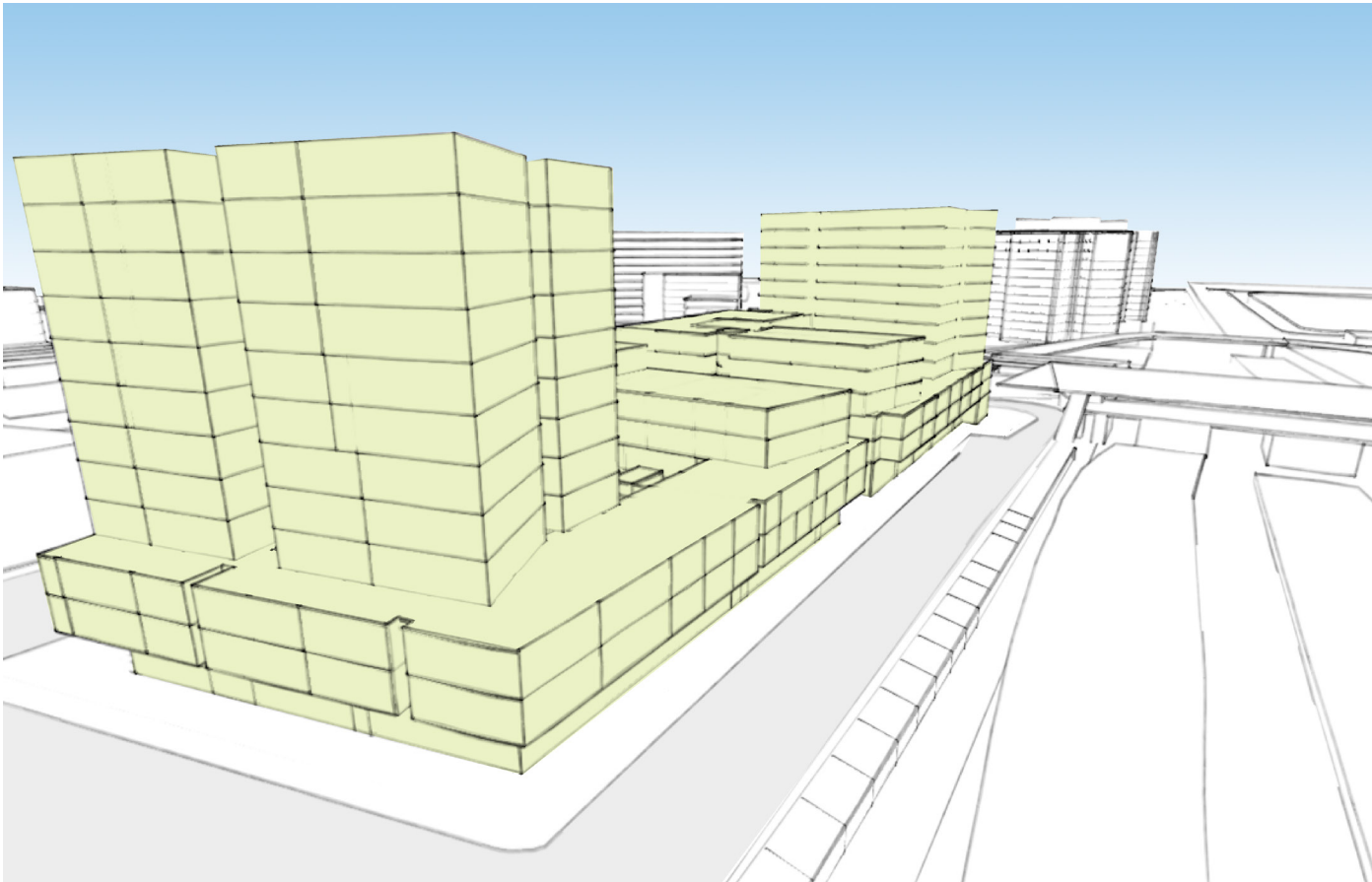
The Interchange Building and its connection to Rockdale Station would ideally be developed first, followed by the northern portion of the precinct.





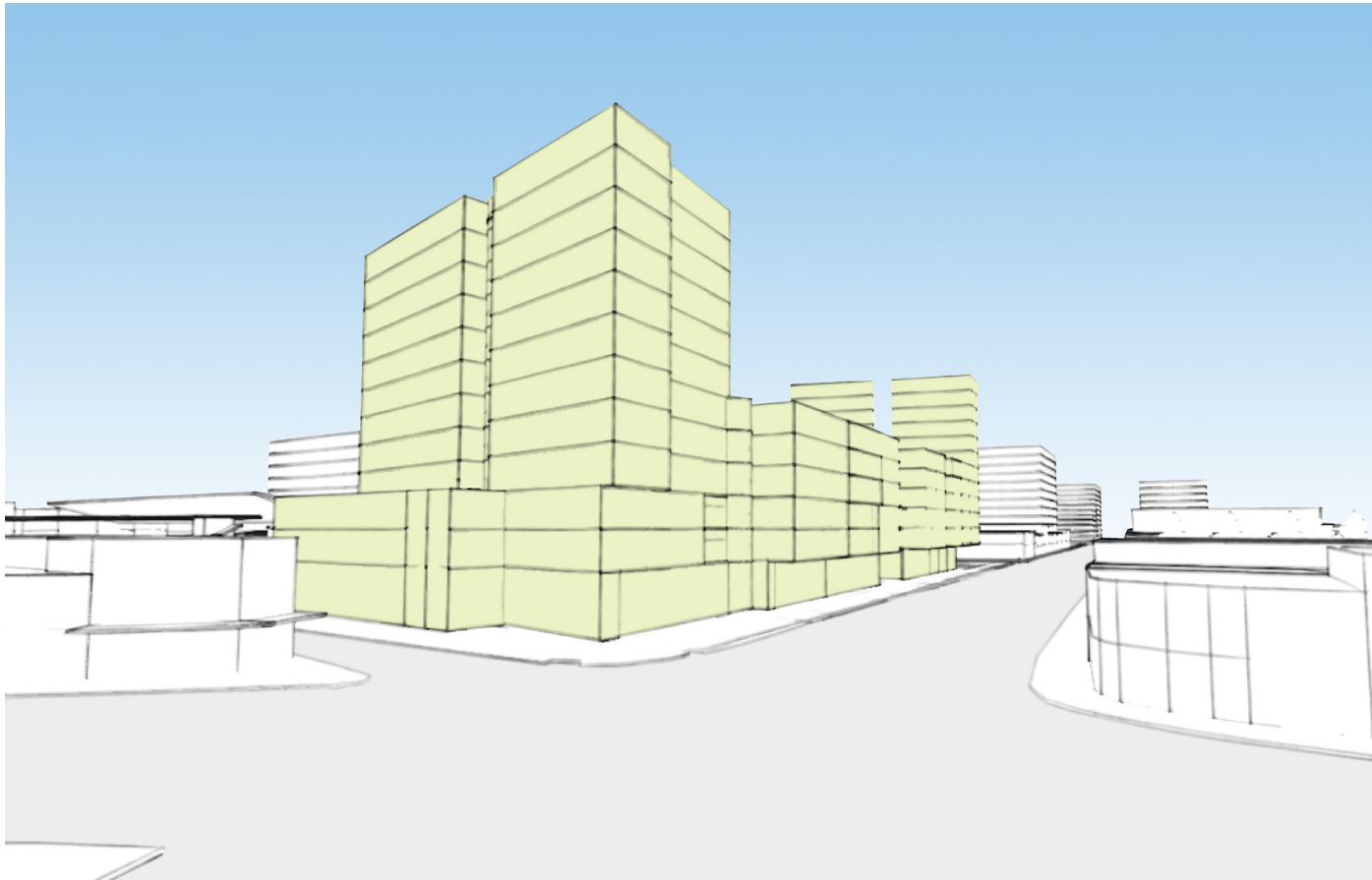
THE PROPOSAL 3D VISUALISATIONS

PEDESTRIAN ZONES AND GROUND PLANE
ACTIVATION VISUALISATIONS



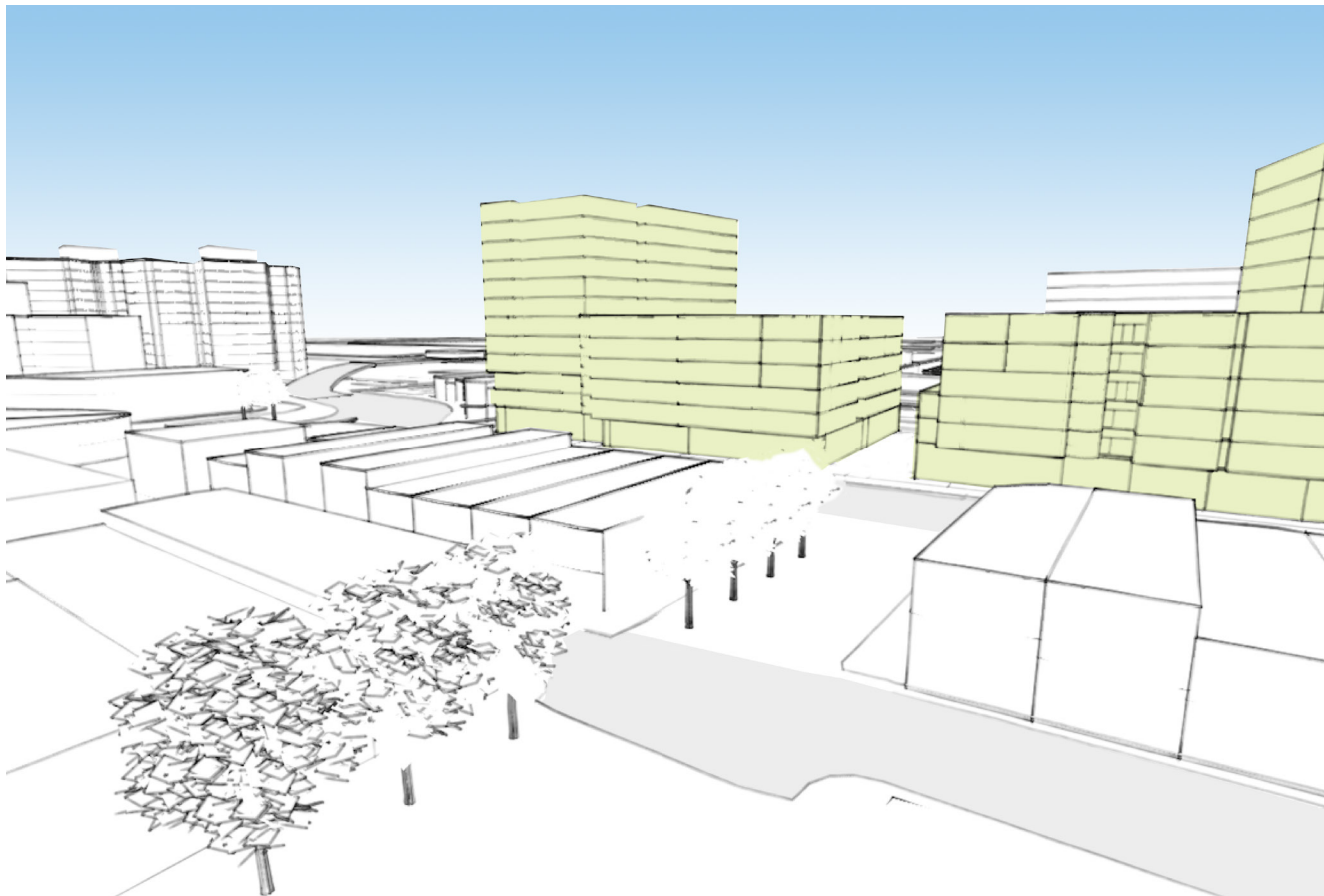
CONNECTION TO ROCKDALE STATION

The ground level setbacks, widened pedestrian routes and an inviting, retail activated through-site link make for a legible, pedestrian friendly precinct.



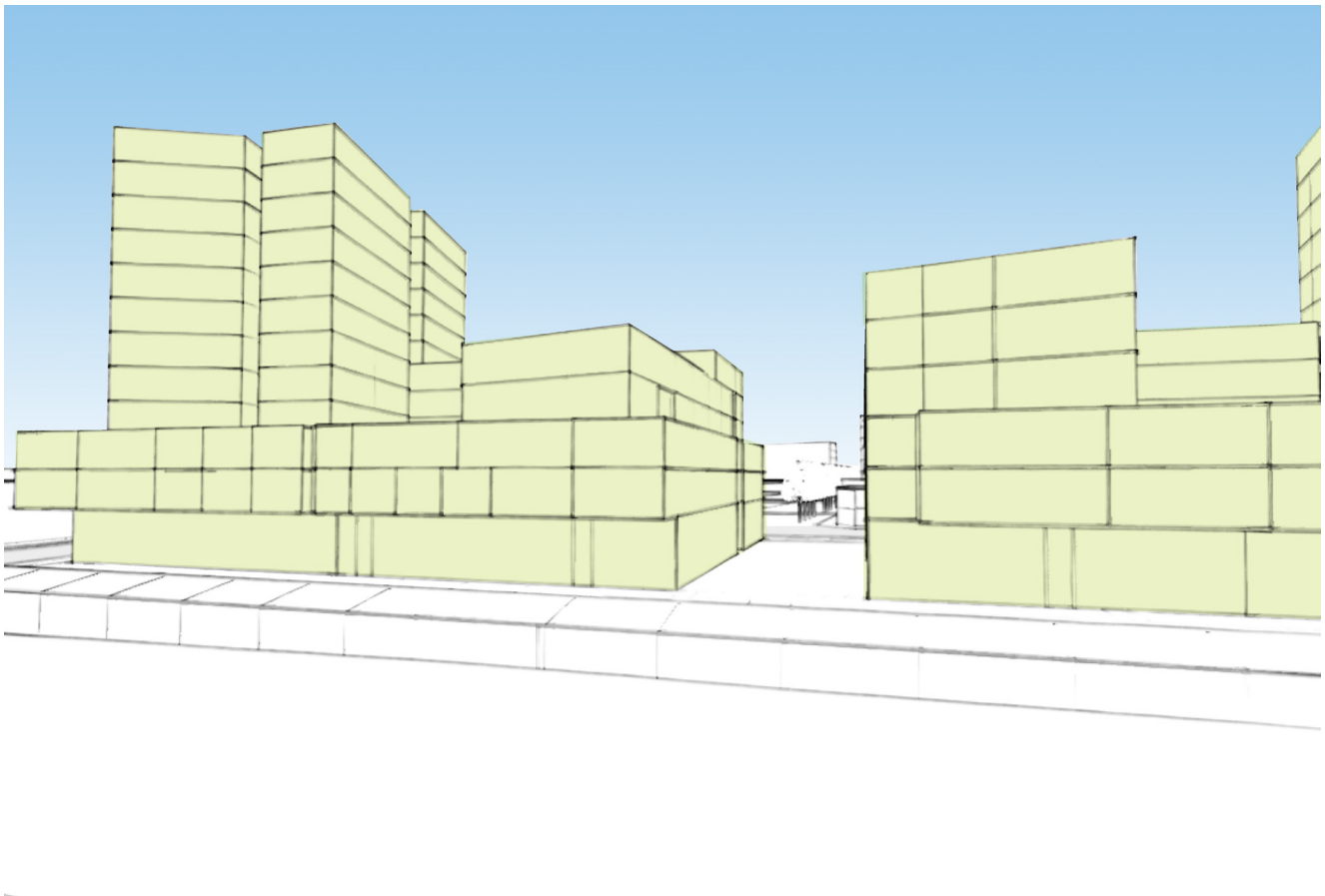
PRINCES HIGHWAY FRONTAGE

There is a prominence given to retail activities at the ground plane in the view north along the Princes Highway, with the focus being on pedestrians.



PEDESTRIAN LINKS - VIEW FROM EAST

The pedestrian spine continues through to the Geeves Avenue precinct from King Street Place. The importance of this spine is reinforced by legible routes with activated retail frontages and public gathering spaces.



PEDESTRIAN LINKS - VIEW FROM WEST

The pedestrian link from the railway station and bus interchange is prominent and legible. It is a point of orientation for pedestrians.