

**The Ordinary Meeting of
Bayside Council**
will be held in the Rockdale Town Hall, Council Chambers,
Level 1, 448 Princes Highway, Rockdale
on Wednesday, 13 November 2019 at 7:00 pm.

UNDER SEPARATE COVER ATTACHMENTS

8 REPORTS

8.2	Planning Proposal - Rockdale Town Centre: Interchange Precinct (471-511 Princes Highway; 2-14 Tramway Arcade; and 6 & 14 Geeves Avenue, Rockdale)	
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MINUTES

of a meeting of the
Bayside Local Planning Panel
held in the Committee Room, Botany Town Hall
Corner of Edward Street and Botany Road, Botany
on **Thursday 15 August 2019 at 6.12 pm.**

Present

Robert Montgomery, Chairperson
Jan Murrell, Independent Expert Member
Stephen Moore, Independent Expert Member
Jesse Hanna, Community Representative

Also Present

Clare Harley, Manager Strategic Planning
Fausto Sut, Manager Governance & Risk
Michael McCabe, Director City Futures
Josh Ford, Coordinator Strategic Planning
John McNally, Urban Planner
Howard Taylor, Urban Planner
Helena Miller, Director, MG Planning
Michael File, Consultant Planner, File Planning
Anna Johnston, Consultant Planner, File Planning
Tracey Hau, Senior Urban Designer, SJB Architects
Lauren Thomas, Governance Officer
Wolfgang Gill, IT Support Officer

The Chairperson opened the meeting in the Botany Town Hall Committee Room at 6:12 pm.

1 Acknowledgement of Traditional Owners

The Chairperson affirmed that Bayside Council respects the traditional custodians of the land, elders past and present and future leaders, on which this meeting takes place, and acknowledges the Gadigal and Bidjigal Clans of the Eora Nation.

2 Apologies

There were no apologies received.

3 Disclosures of Interest

There were no disclosures of interest.

4 Minutes of Previous Meetings

Nil

5 Reports – Planning Proposals

5.1 Draft Planning Proposal - 2 and 4 Guess Avenue, Wolli Creek

An on-site inspection took place at the property earlier in the day.

The following people spoke:

- 1 Michael File, Director – File Planning, for the officer's recommendation and responded to the Panel's questions.
- 1 Anna Johnston, File Planning, for the officer's recommendation and responded to the Panel's questions.

Note: Due to Council's interest in the site (i.e. future acquisition), File Planning was engaged to prepare an independent assessment of the options for the site and to prepare the draft Planning Proposal.

Panel Commentary

It is recognised that this Planning Proposal was initiated following an earlier resolution of the Council relating to acquisition commitments for open space. Indeed, it is valid for a Council to review its future commitments based on contemporary practice in provision of open space, population change, ability to acquire public land and demand for local, district and regional open spaces.

The Panel acknowledges the correspondence from the NSW Department of Planning Industry and Environment dated 16 July 2019 in that department's capacity as the owner of Lot 102 and Council's reply dated 22 July 2019.

The Panel supports retention of the RE1 zone over part of the site. However, the Panel is concerned about the following aspects of the proposal.

- 1 Whether there is adequate justification for the deletion of some 3,700m² of future local open space, in an area which has experienced significant population growth;
- 2 Whether the local community has an expectation that the entire site would be developed as a park in the future;
- 3 Whether the amenity of the future open space will be compromised by development on Lot 101 up to 12 storeys; and
- 4 Whether the proposed 3:1 FSR and maximum building height of 42 metres are appropriate controls for Lot 101 when zoned B4.

In arriving at a recommendation, the Panel considered a number of aspects relating to the four matters listed above. These considerations are summarised as follows:

1 Justification for Reduction in Open Space

Prima facie it would seem counter-intuitive to reduce the provision of open space areas in this location, which is characterised by multi-storey apartment buildings. However, SGS Economics and Planning carried out a detailed review of open space demand based on contemporary practice. This review concluded that a local park of 4,000m² in this location is adequate to meet demand for existing and future population. Open spaces larger than 4,000m² would typically provide district type facilities such as playing fields. SGS notes that district facilities are available within the area in good proximity to the site. The SGS analysis highlighted, that beyond the site, it will be important to consider access to major district and regional reserves where access is constrained due to the absence of river crossings and barriers to crossing the Princes Highway as a pedestrian.

2 Community Expectation

Given that the entire area of lots 101 and 102 is currently zoned RE1 Public Recreation, it is likely that the local community would have an expectation that the whole site would become a public park in the future.

Should this planning proposal proceed, there will be opportunity for the community to be heard through the public consultation process required by Part 3 of the *Environmental Planning and Assessment Act, 1979* and the conditions of any future Gateway Determination.

3 Amenity of Proposed Open Space

As presented, this planning proposal would facilitate 6 storey and 12 storey residential towers, as shown in the indicative built form massing diagram within the Urban Design Report prepared by SJB Architects. The location of such large towers immediately adjoining the eastern edge of the proposed 4,000m² park is likely to have significant impacts on the amenity of the park.

The Panel considers that the amenity of the future open space would be greatly improved with height and density controls for Lot 101 being less than proposed. It is also recommended that proposed 423m² of open space to be retained on Lot 101 (shown in Figure 1 of the Officer's report) should be mirror-imaged to the south, so that a larger open space frontage to Guess Avenue is provided. See figure 1 below:

Figure 1: Bayside Local Planning Panel Recommendation.



4 Density Controls for Lot 101

The Panel considers that the density control settings for Lot 101 are crucial to ensure that the amenity of the reduced area local park is protected. It is noted that the planning proposal adopts the FSR and height controls which are significantly higher than those which apply to land adjoining to the east and south.

The Panel considers that there is insufficient justification for the proposal to adopt these higher density controls. The location of tower buildings adjacent to the reduced area of open space is undesirable and has the potential for adverse impact on the amenity of the future local park.

Recommendation to Council

That the Bayside Local Planning Panel recommends that Council proceed with the draft Planning Proposal for 2 and 4 Guess Avenue, Wolli Creek, as prepared by FPD Pty Ltd and outlined in this report subject to the following matters being further investigated and resolved by Council prior to submission to the Department of Planning Industry and Environment for a Gateway Determination:

- 1 Amend the zoning map as recommended by the Panel in Figure 1 of this report;
- 2 Carry out further investigations (as highlighted in the SGS Report) in relation to:
 - a. ways to improve pedestrian access to nearby regional open space, in particular Cahill Park on the eastern side of the Princes Highway,

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including enhanced pedestrian links and the feasibility of a pedestrian bridge over the Highway.

- b. Better pedestrian connections to other existing public open space that may be enhanced.
- 3 Investigate FSR and building height controls which will achieve a lower density and height than proposed for the future built form on the part of the site to be zoned B4. This investigation should include consideration of surrounding density controls, minimising the impact on the amenity of the future local park, activating any proposed buildings with the future park, and creating a more appropriate relationship between future buildings and open space.

Name	For	Against
Robert Montgomery	☒	☐
Jan Murrell	☒	☐
Stephen Moore	☒	☐
Jesse Hanna	☒	☐

Reasons for Panel Recommendation

- The Panel supports retention of the RE1 zone over part of the site.
- The Panel is concerned that the height and density controls proposed for the B4 zone are too high and will create unacceptable impacts on the future local park.
- As this Planning Proposal has the effect of reducing the area of future local open space in this locality, it is essential that the controls on adjoining land will facilitate exceptional amenity for the future local park. It is also important to ensure that linkages to other open space areas are enhanced.

5.2 Planning Proposal - Rockdale Town Centre: Interchange Precinct (471-511 Princes Highway; 2-14 Tramway Arcade; and 6 & 14 Geeves Avenue, Rockdale)

An on-site inspection took place at the property earlier in the day.

The following people spoke:

- Ms Anna Anglekis, interested resident, spoke against the officer's recommendation.
- Ms Kate Bartlett, Director - Mecone, spoke for the officer's recommendation and responded to the Panel's questions.

Recommendation to Council

That the Bayside Local Planning Panel recommends to Council that it and the Proponent finalise and update the Planning Proposal Report, the Draft DCP amendments, and relevant supporting documents as outlined above and prepare a heritage assessment of buildings at 471-477 Princes Highway and 6-14 Geeves Avenue, Rockdale prior to referral of the draft Planning Proposal to the Department of Planning, Industry and Environment for a Gateway Determination.

Name	For	Against
Robert Montgomery	☒	☐
Jan Murrell	☒	☐
Stephen Moore	☒	☐
Jesse Hanna	☒	☐

Reasons for Panel Recommendation

- The Panel acknowledges that the site is within a key strategic location for Rockdale and that it is desirable for development controls to be brought into line with those applying to other key sites within the area.
- The public benefit of formalising and enhancing the pedestrian link from Rockdale Station to the Princes Highway is an important aspect of the proposal.
- The Panel agrees that a heritage assessment should be carried out to further inform the proposal prior to forwarding for a Gateway Determination.

6 Reports – Development Applications

Nil.

The Chairperson closed the meeting at 6:49 pm.

Certified as true and correct.

Robert Montgomery
Chairperson

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Subject	Planning Proposal - Rockdale Town Centre: Interchange Precinct (471-511 Princes Highway; 2-14 Tramway Arcade; and 6 & 14 Geeves Avenue, Rockdale)
Report by	Helena Miller, Director – MG Planning Pty Ltd
File	F14/310

Summary

In December 2012 the former Rockdale City Council (RCC) adopted the Rockdale Town Centre Masterplan (RTCMP). The RTCMP sets out Council's aspirations for the future of the Rockdale Town Centre and is intended to act as a guiding document for Council, business owners, private developers and the community. It identifies three distinct precincts within the Rockdale Town Centre, outlines the existing role or character of each precinct and provides guidance as to how each precinct may be developed in the future. The 'Town Centre Core' forms one such precinct identified under the RTCMP, within which the 'Rockdale Town Centre Transport Interchange Precinct' (Interchange Precinct) is one of four sub-precincts.

The Interchange Precinct incorporates the Rockdale Railway Station, Bus Interchange and privately owned land bounded by the Princes Highway to the east, Geeves Avenue to the north and west and Tramway Arcade to the south (also known as 471-511 Princes Highway, 2-14 Tramway Arcade and 6 & 14 Geeves Avenue). The privately-owned land within the precinct is the subject of this Planning Proposal.

In October 2014 Rockdale Council resolved that a Planning Proposal for the Rockdale Town Centre (RTCPP) should proceed to the NSW Department of Planning and Environment (the DPE) to be finalised. Two areas were, however, deferred from the RTCPP, including the Interchange Precinct as:

- Potential traffic impact on major intersections were identified and further studies necessary;
- Transport for NSW (TfNSW) requested that a Transport Management Accessibility Plan (TMAP) be prepared by Council for the Precinct, particularly in the light of the operation of the Rockdale Train Station and bus interchange, which are located in proximity to the Interchange Precinct.

As Council did not allocate funds for the preparation of the TMAP (in the order of \$200,000) the proponent (of the subject Planning Proposal) worked directly with TfNSW and RMS between 2016 and 2017 to agree on a scope for a Transport Study for the Interchange Precinct in lieu of the requested TMAP. Accordingly a transport study has been submitted in support of the Planning Proposal.

The subject draft Planning Proposal (see **Attachment 1**) therefore applies to the privately-owned land within the Interchange Precinct and proposes:

- A 5m increase in the applicable maximum height of building (HOB) development standard in the Rockdale Local Environmental Plan 2011 (RLEP 2011) from 22m to 27m. Along with the height incentive which applies to the area which allows an additional 12m of height for sites with an area of at least 1,500sq.m (allowed under clause 4.3 (2A)), the

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proposed amendment would allow for a maximum building height of 39m (approximately RL55m).

- Removal of the existing maximum Floor Space Ratio control from the land in keeping with the strategy applied throughout the remainder of the Rockdale Town Centre area.

An amendment to the Rockdale Development Control Plan 2011 (the RDCP) is also proposed and a draft site-specific Development Control Plan (see **Attachment 2**) has been submitted in support of the draft Planning Proposal. The current draft DCP amendments seek to lock in key requirements for the development of the Precinct including:

- An open air, pedestrianised through-site link at grade in the centre of the precinct which is 12m wide and which provides a direct link between the Rockdale bus interchange and Princes Highway;
- Active retail zones along the street frontages and the through-site link;
- A 2.5m colonnade setback along Geeves Avenue measured from the pedestrian footpath alignment;
- A 3.0m colonnade setback along the Princes Highway measured from the pedestrian footpath alignment;
- A minimum footpath setback width of 4.5m along Tramway Arcade;
- A 6 storey podium height along Princes Highway and 3 storey podium height along Geeves Avenue;
- Two 12-storey landmark tower buildings, one to the northern and the other at the southern end of the precinct;
- A built form of a maximum of 3 storeys on land known as 2-18 Tramway Arcade; and
- A built form in the centre of the precinct of 5 to 6 storeys.

The Proponent has indicated that the indicative massing and built form of the draft Planning Proposal could facilitate a high-density mixed-use development of approximately 246 residential units, including 70 one-bed units, 145 two-bed units and 31 three-bed units. A future development could also provide approximately 4,015sq.m. of retail floorspace and 377sq.m. of commercial floorspace.

The proposed 4,392sq.m of retail and commercial floorspace in the indicative scheme would represent a reduction in retail/commercial floorspace from approximately 6,000sq.m. of retail/commercial floorspace that currently exists in the Precinct. This is largely due to the reduction in the overall footprint of the buildings that would be necessary to accommodate the required setbacks on the Princes Highway and Geeves Avenue frontages, and the widened through-site link required between the Princes Highway and Geeves Avenue.

Assessment of the draft Planning Proposal and proposed DCP amendments has however identified that to ensure any future redevelopment of the Precinct delivers the sought after public benefits (in particular a widened through site link and provides for landowner equity) some significant changes are required to the proposed draft DCP amendment. These should be incorporated prior to referral of the draft Planning Proposal for a Gateway determination and should require:

1. Development of the land in a maximum of 2 stages with each stage to incorporate a minimum of 50% (6m width) of the required widened (minimum 12m width) through site link connecting Princess Highway and Geeves Avenue open to the sky with active uses fronting the link on both sides. *[Note: Development of land at 2-18 Tramway Arcade is not subject to this requirement].* Revised ADG compliance information based on the 2 staged approach should also be submitted.

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2. Car parking shall be provided at a maximum rate consistent with the RMS Metropolitan Sub-Regional Centres parking rates for residential development, 1 space per 40m² for commercial and 1 space per 140m² for retail development.

Furthermore, a heritage assessment is to be undertaken for buildings known as 471-477 Princes Highway and 6-14 Geeves Avenue, Rockdale prior to the draft Planning Proposal being referred for a Gateway determination. The outcome / recommendations of the assessment should be reflected in any revised draft forwarded for a Gateway determination.

Officer's Recommendation

That Council acknowledges the recommendations of both the Independent Planning Consultant and the BLPP and supports the draft Planning Proposal subject to the proponent:

1. Updating the Planning Proposal Report to the satisfaction of the Independent Planning Consultant and Council staff prior to referral of the draft Planning Proposal to the DPIE for a Gateway Determination;
2. Amending the Draft DCP to the satisfaction of the Independent Planning Consultant and Council staff prior to referral of the draft Planning Proposal to the DPIE for a Gateway Determination; and
3. Preparing a Heritage Assessment of buildings at 471-477 Princes Highway and 6-14 Geeves Avenue, Rockdale to the satisfaction of the Independent Planning Consultant and Council staff prior to referral of the draft Planning Proposal to the DPIE for a Gateway Determination.

Background

Applicant:

Mecone on behalf of Fivex.

Owner:

Fivex are the owners of 507 and 511 Princes Highway with a site area of approximately 1,399m². The remainder of the lots included within the area covered by the Planning Proposal are owned by multiple landowners who are not proponents of the draft Planning Proposal.

Site Description:

The draft Planning Proposal relates to the lots shown in **Table 1**, **Map 1** and **Photo 1** below:

Map Reference	Lot	DP	Address	Approximate Site Area (sq.m.)
1.	2	112857	471 Princes Highway	290
2.	1	133058	475-477 Princes Highway	403
	2	133058		

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Map Reference	Lot	DP	Address	Approximate Site Area (sq.m.)
3.	1	576382	481 Princes Highway	526
4.	1	924452	483 Princes Highway	268
5.	A	101117	485 Princes Highway	268
6.	B	101117	487 Princes Highway	263
7.	1	920674	489 Princes Highway	276
8.	12	2291	491 Princes Highway	456
	1	120810		
9.	2	530089	493 Princes Highway	134
10.		SP 3423	495 Princes Highway	249
	1	SP 3423	1/495 Princes Highway	
	2	SP 3423	2/495 Princes Highway	
	3	SP 3423	3/495 Princes Highway	
	4	SP 3423	4/495 Princes Highway	
	5	SP 3423	5/495 Princes Highway	
	6	SP 3423	6/495 Princes Highway	
	7	SP 3423	7/495 Princes Highway	
	8	SP 3423	8/495 Princes Highway	
	9	SP 3423	9/495 Princes Highway	
	10	SP 3423	10/495 Princes Highway	
	11	SP 3423	11/495 Princes Highway	
	12	SP 3423	12/495 Princes Highway	
	13	SP 3423	13/495 Princes Highway	
	14	SP 3423	14/495 Princes Highway	
11.	1	108807	501 Princes Highway	860
	7	109535		
12.	10	1189023	507 Princes Highway	618
13.	D	964518	509 Princes Highway	331
14.	11	1188474	511 Princes Highway	781
15.	11	576411	2 Tramway Arcade	40
16.	12	576411	4 Tramway Arcade	36

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Map Reference	Lot	DP	Address	Approximate Site Area (sq.m.)
17.	2	534155	6 Tramway Arcade	34
18.	B	387939	8-12 Tramway Arcade	81
19.	C	387939	14 Tramway Arcade	56
20.	1	112857	6 Geeves Avenue	194
21.	PT 1	343365	14 Geeves Avenue	75

Table 1: Lots subject of the draft Planning Proposal**Map 1:** Location of lots subject of the draft Planning Proposal

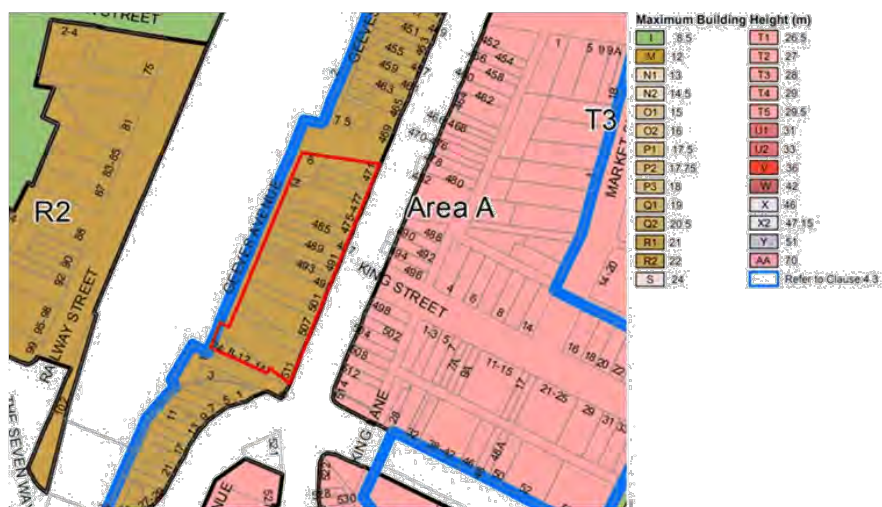
The land is currently zoned B2 Local Centre under Rockdale Local Environmental Plan 2011, and has an area of approximately 6,240sq.m. It is bounded by Geeves Avenue to the north and west, Tramway Arcade to the south and the Princes Highway to the east. The land extends approximately 140m along the Princes Highway, 126m along the western part of Geeves Avenue, 47m along the northern part of Geeves Avenue and 52m along Tramway Arcade. The Rockdale Bus Interchange is located immediately to the west on Geeves Avenue and the Rockdale Train Station further to the west.

The land consists of a number of retail and commercial premises of varying sizes. The Princes Highway frontage provides the main focus of retail and commercial activity, with some activity also present along Tramway Arcade and some parts of Geeves Avenue. The block is bisected by an arcade which runs through the site from Geeves Avenue to Princes Highway (shown as Lot 9 on **Map 1** above), generally aligned to the main pedestrian crossing connecting to King Street to the east. This is a heavily-used thoroughfare for pedestrians from the train station and bus interchange to King Street and beyond to the eastern part of the town centre. A number of businesses are located along the arcade at ground and first floor levels.

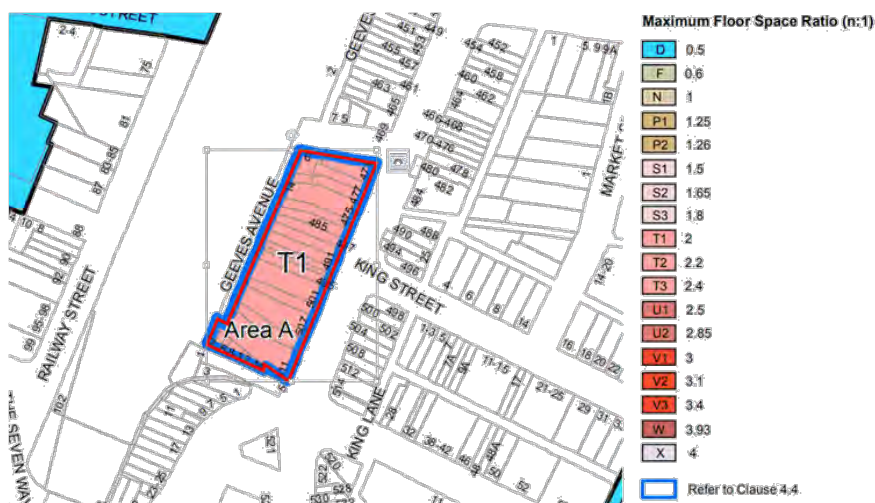
Maps 2 and 3 below illustrate the current development standards which apply to land within the site:

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Map 2: Current maximum Height of Building (R2 – 22m)



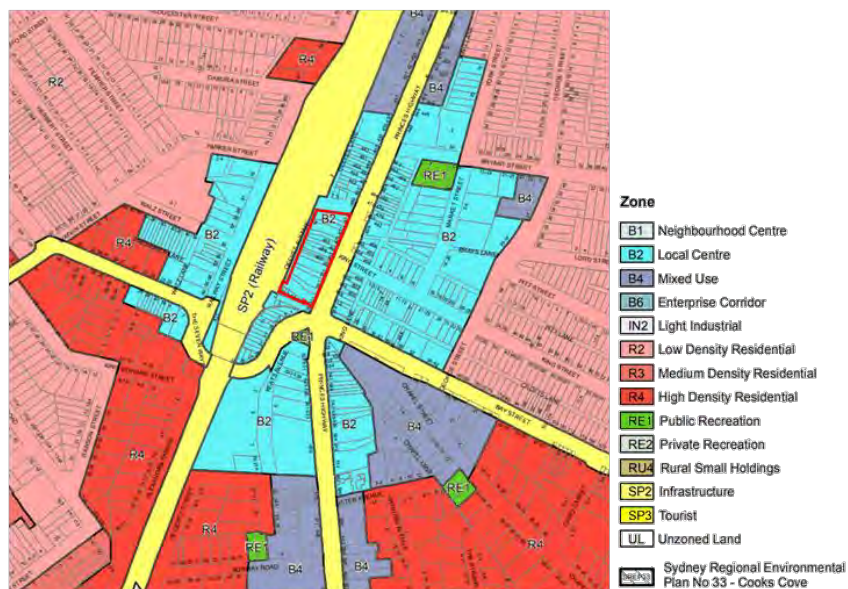
Map 3: Current maximum Floor Space Ratio (T1 – 2:1)



Photo 1: Aerial photo of the lots included in the draft Planning Proposal

Site Context

The site is within the Rockdale Town Centre, with the immediate surrounding locality similarly zoned B2 Local Centre. Land use zones surrounding the town centre comprise a mix of B4 Mixed Use, R4 High Density Residential and R2 Low Density Residential zones (refer **Map 4** below):



Map 4: Current zoning of precinct in context with wider area

Figure 1 shows views of the site and its surrounds, and the area's predominant character and appearance (Source: Proponent's Urban Design Report - refer **Attachment 3**):



Figure 1: Views of the site and the surrounding area

Relevant Planning History

The former Rockdale City Council (RCC) adopted the Rockdale Town Centre Masterplan (RTCMP) on 5 December 2012. The RTCMP sets out Council's aspirations for the future of the Rockdale Town Centre and is intended to act as a guiding document for Council, business owners, private developers and the community. It identifies three distinct precincts within the Rockdale Town Centre, outlines the existing role or character of each precinct and provides guidance as to how each precinct may be developed in the future. The 'Town Centre Core' forms one such precinct identified under the RTCMP, within which the 'Rockdale Town Centre Transport Interchange Precinct' (Interchange Precinct) is one of four sub-precincts.

The Interchange Precinct incorporates the Rockdale Railway Station, Bus Interchange and privately owned land bounded by the Princes Highway to the east, Geeves Avenue to the north and west and Tramway Arcade to the south (also known as 471-511 Princes Highway, 2-14 Tramway Arcade and 6 & 14 Geeves Avenue). The privately owned land within the precinct is the subject of this Planning Proposal.

Following on from the preparation of the RTCMP in October 2014, RCC resolved that a Planning Proposal for the Rockdale Town Centre (RTCPP) should proceed to the NSW Department of Planning and Environment (the DPE) to be finalised. Two areas were however deferred from the RTCPP including the Interchange Precinct (incorporating the subject privately owned land).

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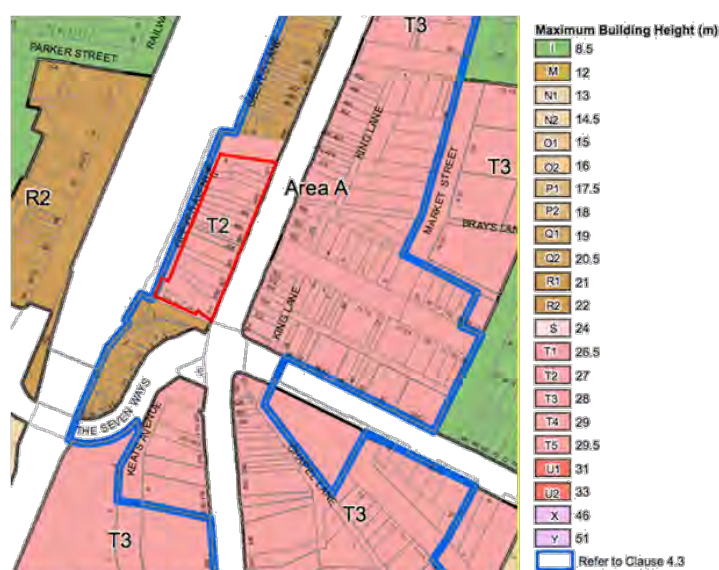
The Interchange Precinct was deferred from the broader RTCPP as during the consultation period a number of key challenges were identified affecting redevelopment of the Precinct, including concerns relating to traffic impact on major intersections. It was recommended that the Precinct be deferred from the RTCPP, so that further studies could be finalised in this respect. Transport for NSW (TfNSW) also requested that a Transport Management Accessibility Plan (TMAP) be prepared by Council for the precinct particularly in the light of the operation of the Rockdale Train Station and bus interchange which are located within the Precinct. Advice from TfNSW in 2014 suggested that the cost to Council of obtaining a TMAP could be approximately \$200,000. It is understood that Council was not able to access funds to prepare a TMAP and that consequently, the proponent of the subject Planning Proposal worked directly with TfNSW and RMS between 2016 and 2017 to agree on a scope for a Transport Study for the precinct in lieu of the requested TMAP (see **Attachment 6**). A Transport Study has been submitted in support of the draft Planning Proposal (see **Attachments 7 and 8**).

Report

Draft Planning Proposal

Maximum Height of Building (HOB)

The draft Planning Proposal proposes an increase in the maximum HOB development standard in the Rockdale Local Environmental Plan 2011 (RLEP 2011) from 22m to 27m across the entire Precinct including the Geeves Avenue roadway (see **Map 5** below):



Map 5: Proposed maximum HOB (T2 – 27m) (subject site outlined in red)

Clause 4.3 (2A)(a) of RLEP 2011 allows the maximum building height to be exceeded by an additional 12m in 'Area A' (which includes the subject land) on lots with an area of at least 1,500m². This height incentive would provide for an allowable maximum building height of

39m on the land (approximately RL55m) subject to compliance with design excellence requirements in accordance with clause 6.14.

Maximum Floor Space Ratio (FSR)

The draft Planning Proposal also proposes the removal of FSR controls across the site, in keeping with the wider strategy applied by the RTCPP throughout the Rockdale Town Centre area:



A maximum FSR of 2:1 currently applies to the site (refer **Map 3** above). Clause 4.4 (2C)(a) of the RLEP 2011 currently allows an additional FSR of 1:1 on the land where a development relates to a site with an area of at least 1,500sq.m. The current draft Planning Proposal would delete the maximum FSR standard applying to the land which is consistent with the approach that has been taken for all other land within the Rockdale Town Centre Masterplan area.

Built Form

In its Planning Proposal and Urban Design Reports, the Proponent has outlined an indicative scheme for the redevelopment of the land. This has evolved over time as a result of discussions between the Proponent and Council officers.

The initial scheme submitted by the Proponent generally responded to the Rockdale Town Centre Masterplan 2012 (RTCMP 2012). The indicative concept plans for the Precinct in the RTCMP 2012 envisaged a low-height retail podium with towers rising above. This is illustrated in **Figures 2 and 3** below:



Figure 2: Indicative concept design for the Precinct



Figure 3: Indicative concept plan for the Precinct

The RTCM 2012 also envisaged a pedestrian link at podium level which connected directly to Rockdale Train Station (see Figure 4 below):

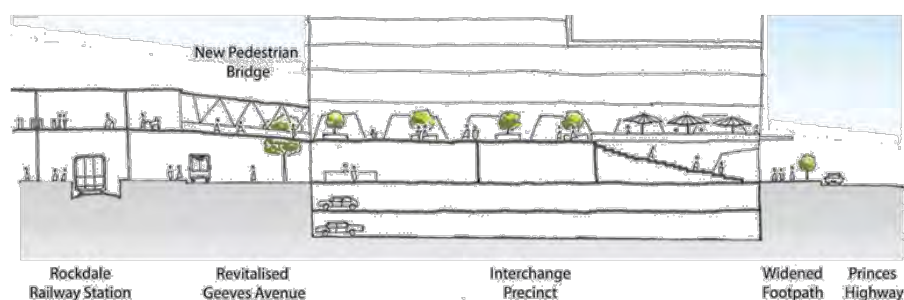


Figure 4: Section through concept scheme showing potential pedestrian link

The proponent's initial response to this concept is shown in Figures 5-7 below (Source: Proponent's Urban Design Report - refer Attachment 3):



Figure 5: Initial massing diagram showing view from the east



Figure 6: Initial massing diagram showing aerial view

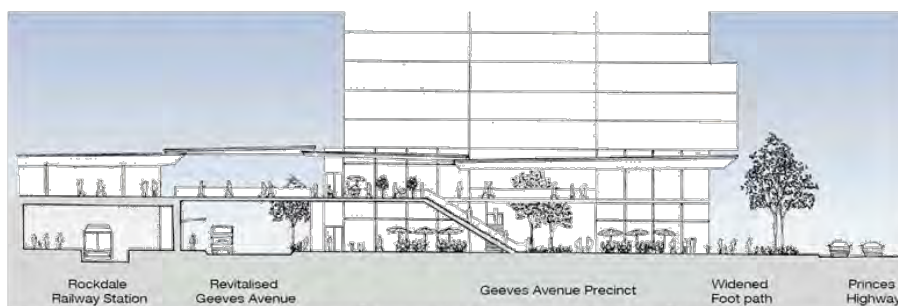


Figure 7: Indicative section showing potential connection from precinct direct to train station

It is understood that Council's officers considered these initial concept proposals and worked with the Proponent to achieve a revised scheme which is more consistent with the Rockdale Town Centre chapter of RDCP 2011 (see **Attachment 9**). Council officer's position is that the Proposal now reflects the built form and function outcomes sought in the RDCP 2011, including:

- Primary retail located along the Princes Highway frontage;
- Contributory retail along a widened arcade/pedestrian connection through the site and the northern part of Geeves Avenue;
- Active laneways along the Geeves Avenue and Tramway Arcade frontages;
- A 3m retail level setback along the Princes Highway to provide for a colonnade;
- Dedication of 2.5m strip for local road widening along Tramway Arcade and Geeves Avenue;
- A six-storey street wall height along the Princes Highway (designated as 'Arterial Core'); and
- A three-storey street wall height along the Geeves Avenue frontage (designated as 'Laneway').

The revised indicative scheme provides for two x 12-storey 'landmark' towers at the northern and southern ends of the block. The proposed indicative massing provided in the draft Planning Proposal provides for a high-density mixed-use development comprising:

- 246 residential units (70 x 1 bed units, 145 x 2 bed units and 31 x 3 bed units)
- 4,015 m² of retail floorspace, and
- 377 m² of commercial floorspace.

Notably the proposed 4,392m² of retail and commercial floorspace provided for represents a reduction in existing retail/commercial floorspace from approximately 6,000 m² (approximately 1,608m²). This is largely due to a reduction in the overall building footprint as a result of required setbacks on the Princes Highway and Geeves Avenue frontages, and the widened through-site link proposed between the Princes Highway and Geeves Avenue.

The indicative scheme is illustrated in **Figures 8-12** below (Source: Proponent's Urban Design Report - refer **Attachment 3**):



Figure 8: Building heights and mass as viewed from the east



Figure 9: Revised massing diagram showing aerial view



Figure 10: Indicative cross-sections

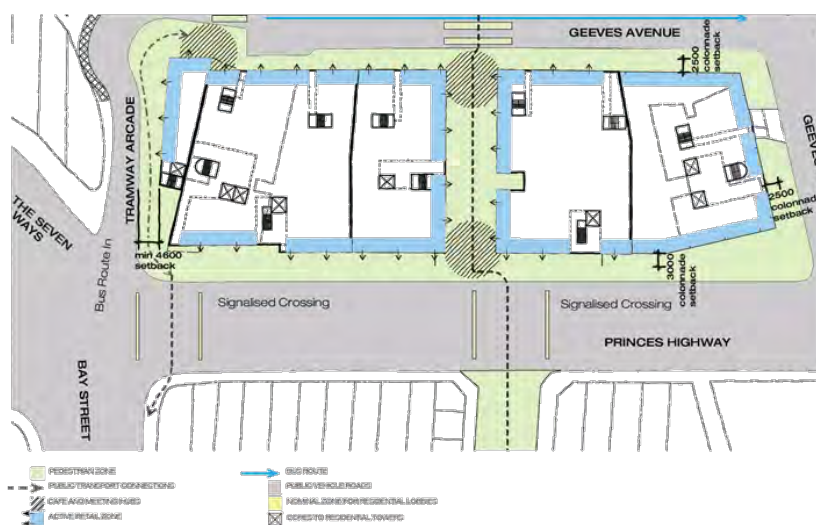


Figure 11: Proposed interfaces with adjacent land



Figure 12: 3D massing visualisation of potential Princes Highway frontage (from south)

Rockdale Development Control Plan 2011 (RDCP 2011) Amendment

An amendment to RDCP 2011 (see **Attachment 2**) is also proposed as part of the draft Planning Proposal. The Draft DCP amendment seeks to insert site specific provisions for the land referred to as Rockdale Transport Interchange Precinct (Geeves Avenue Precinct) by inserting a new section into 7.5.3 (Key Precincts) of the DCP and aims to secure the following key features of the indicative scheme (see also **Figure 10** above):

- An open air, pedestrianised through-site link is to be provided at ground floor in the centre of the precinct which is 12m wide and which links Rockdale bus interchange and Princes Highway;
- Active retail zones are to be provided along the street frontages and the through-site link;
- A 2.5m setback is to be provided along Geeves Avenue as measured from the pedestrian footpath;
- A 3.0m setback is to be provided along Princes Highway as measured from the pedestrian footpath;
- A minimum setback of 4.5m is to be provided along Tramway Arcade;
- A 6 storey podium along Princes Highway and 3 storey podium along Geeves Avenue;
- Two 12-storey landmark buildings, with one to the northern end of the precinct and the other to southern end of the precinct;
- The built form to 2-18 Tramway Arcade is to be 3 storeys; and
- The built form to the centre of the precinct is to be between 5 and 6 storeys.

The draft DCP amendment also details the proposed lots to be included in each stage of the redevelopment of the land as follows (see also **Figure 13** below):

- **Stage 1** (southern portion of the Precinct): includes the sites 507, 509 and 513-517 Princes Highway and 2-18 Tramway Arcade and incorporates one of the landmark buildings. The sites 2-18 Tramway (wedge site) are to be redeveloped separately given there are a number of separate landowners and it would be difficult to amalgamate with the remainder of the sites in Stage 1;
- **Stage 2** (central portion of Precinct): includes the sites 483, 485, 487, 489, 491, 493, 495 and 501 Princes Highway (a total of 8 sites) and will incorporate a through site link; and
- **Stage 3** (northern portion of the precinct): includes the sites 471, 475-477 and 481 Princes Highway, 6 and 14 Geeves Avenue and incorporates one of the landmark building for the precinct.

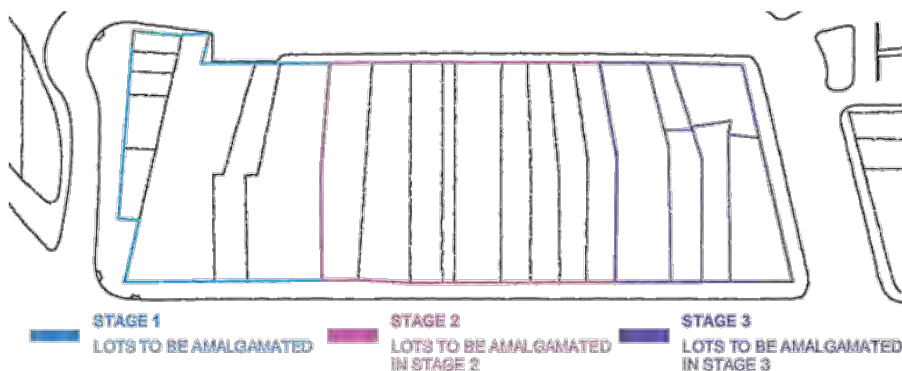


Figure 13: Image from DCP showing potential amalgamation of lots for three stages of development

Further commentary on the proposed staging of development is included below. The draft DCP amendment also identifies potential vehicular access arrangements based on the proposed staging and provides for a single access point upon completion of all stages. These arrangements are illustrated in **Figures 14-16** below (Source: Proponent's Draft DCP amendment).

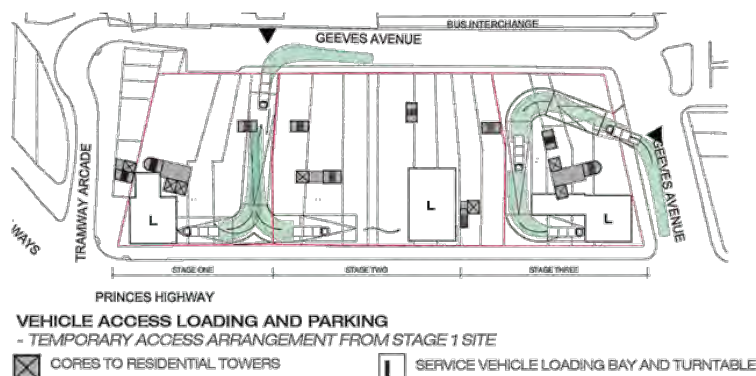


Figure 14: Example of possible temporary access, servicing and loading arrangement – Stage 1

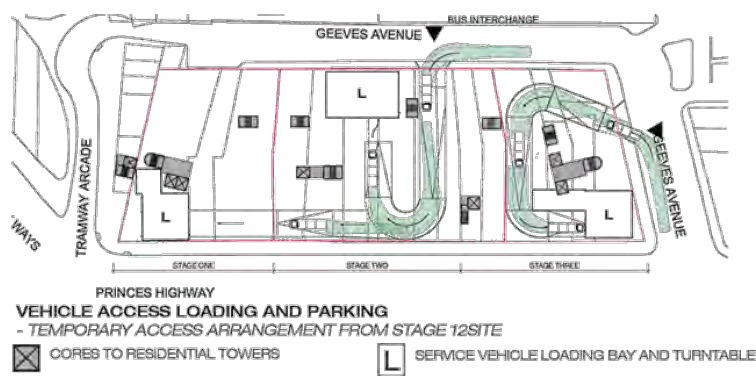


Figure 15: Example of possible temporary access, servicing and loading arrangement – Stage 2

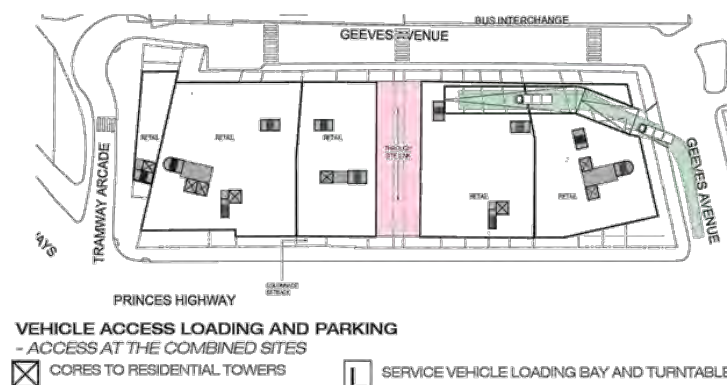


Figure 16: Example of possible final arrangement for access, servicing and loading

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Staging

In the Urban Design Report (refer **Attachment 3**), the Proponent has indicated that the redevelopment of the land is likely to occur in three stages as shown in Figure 13 above and broken down by site below. This is largely due to ownership and site amalgamation issues. It should be noted that the proponent currently owns the properties highlighted in green in Stage 1 only totalling 1,399m².

Stage 1 –	
507 Princes Highway	618sq.m.
509 Princes Highway	331sq.m.
511 (513-517) Princes Highway	781sq.m.
2 Tramway Arcade	40sq.m.
4 Tramway Arcade	36sq.m.
6 Tramway Arcade	34sq.m.
8-12 Tramway Arcade	81sq.m.
14 Tramway Arcade	56sq.m.
Total	1977sq.m.

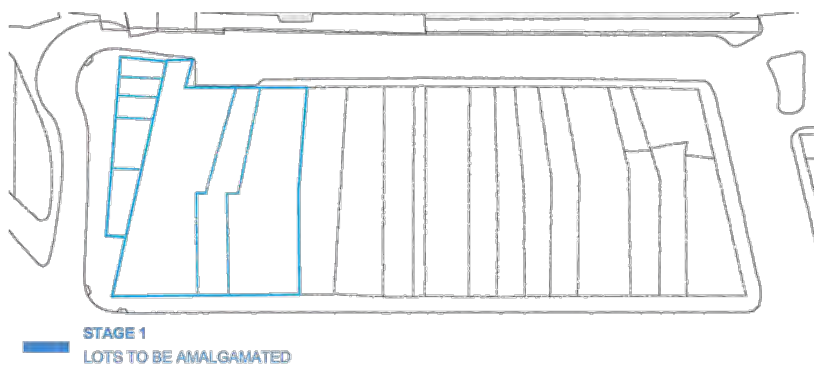
Stage 2 –	
483 Princes Highway	268sq.m.
485 Princes Highway	268sq.m.
487 Princes Highway	263sq.m.
489 Princes Highway	276sq.m.
491 Princes Highway	456sq.m.
493 Princes Highway	134sq.m.
495 Princes Highway	249sq.m.
501 Princes Highway	860sq.m.
Total	2774sq.m.

Stage 3 –	
471 Princes Highway	290sq.m.
475-477 Princes Highway	403sq.m.
481 Princes Highway	526sq.m.
6 Geeves Avenue	194sq.m.
14 Geeves Avenue	75sq.m.
Total	1488sq.m.

The draft Planning Proposal (and indicative massing proposal) however relates to the entirety of Stages 1-3 as shown in the Urban Design Report (refer **Attachment 3**) and are represented in the following indicative staging diagrams provided in the proponent's Urban Design Report:

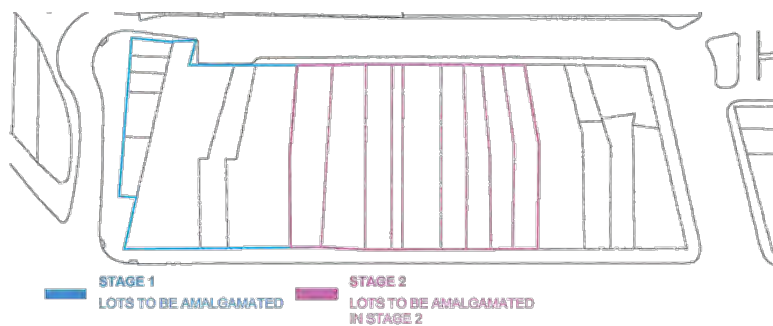
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STAGE 1 : INTERCHANGE BUILDING COMPLETE

Figure 17: Indicative Stage 1 diagram



STAGE 2 : GEEVES AVENUE CENTRAL PRECINCT COMPLETE

Figure 18: Indicative Stage 2 diagram



STAGE 2 : GEEVES AVENUE PRECINCT COMPLETE

Figure 19: Indicative Stage 3 diagram

Assessment of the Draft Planning Proposal

Environmental Planning & Assessment Act 1979 (EPAA)

The former Department of Planning and Environment's (DPE) (now the Department of Planning, Industry and Environment) 'A Guide to Preparing Planning Proposals' – issued under s3.33(3) of the *Environmental Planning and Assessment Act 1979* (the Act) – provides guidance and information on the process for preparing Planning Proposals. The subject assessment of the draft Planning Proposal has been undertaken in accordance with the latest version of this *Guide* (dated December 2018).

Ministerial Directions

Directions issued under section 9.1 and the former section 117(2) of the *Environmental Planning and Assessment Act 1979* (the Act) set out requirements to be considered by a Planning Proposal Authority (PPA) in respect of a draft Planning Proposal. An assessment of the draft Planning Proposal against the applicable Ministerial Directions is provided in **Table 2** below:

Table 2: Consistency of Draft Planning Proposal with s9.1 direction

Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
1. Employment and Resources 1.1 Business and Industrial Zones	What a PPA must do: A Planning Proposal must: a) give effect to the objectives of this direction; b) retain the areas and locations of existing business and industrial zones; c) not reduce the total potential floor space area for employment uses and related public services in business zones; d) not reduce the total potential floor space area for industrial uses in industrial zones; and e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Secretary of the Department of Planning and Environment. The objectives of this direction are to: a) encourage employment growth in suitable locations; b) protect employment land in business and industrial zones; and c) support the viability of identified centres. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 27): <i>'The site's current B2 Local Centre zoning will remain unchanged, and the total potential floor space area for employment uses will increase. The proposal will enable development of a high quality mixed use precinct in a suitable location close to existing public transport and other infrastructure and services.'</i> <i>It is estimated that the site once developed will have the following economic impacts on an annual basis:</i> • \$111.6 million in output;	Yes

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	\$58.7 million contribution to Gross Regional Product; \$35 million in incomes and salaries; and 446 full time equivalent jobs, including 196 direct jobs.' Comment: The objectives of the B2 Local Centre zone under RLEP 2011 are as follows: - 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; and - To create a lively Rockdale town centre with an amenable and pedestrian focused public domain activated by building uses that engage with the street. The draft Planning Proposal is considered to be consistent with these objectives and the requirement of the Ministerial Directions. The additional height being sought and the removal of the FSR control will allow for a comprehensive, high-density, mixed-use development of the land. The retail, commercial and civic function of the Precinct will be improved and enhanced in a location which is easily accessible by a range of public transport modes. It is noted that the indicative scheme provides for a reduction in retail and commercial floorspace from approximately 6,000sqm to approximately 4,392sqm. This is however largely due to a reduction in building footprint as a result of required setbacks on the Princes Highway and Geeves Avenue, and the requirement for a widened through-site link. Accordingly it is considered appropriate in the circumstances. In addition, the proposed LEP amendment is intended to facilitate a modern, mixed-use development that has the potential to significantly enhance the quality, amenity and image of the locality, act as a catalyst for further development in the town centre, as well as attracting new businesses and creating additional jobs. It is therefore consistent with the Direction.	
2. Environment and Heritage 2.3 Heritage Conservation	What a PPA must do: A Planning Proposal must (inter alia) contain provisions that facilitate the conservation of: a) items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area.	Yes but subject to a future heritage assessment

Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	A Planning Proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that: a) the environmental or indigenous heritage significance of the item, area, object or place is conserved by existing or draft environmental planning instruments, legislation, or regulations that apply to the land; or b) the provisions of the Planning Proposal that are inconsistent are of minor significance. The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 9): <i>'There are no heritage items on the site nor is the site within a heritage conservation area. The proposal has no adverse impacts on any surrounding heritage item (Brick buildings, signal box and overhead booking office to Rockdale train station referenced I222 in the Rockdale LEP 2011).'</i> Comment: The proposed amendments to development standards are intended to enhance the attractiveness / viability of the land for redevelopment to provide a high-density, mixed-use development. The proposal has the potential to improve the retail, commercial and civic function of the Precinct and to provide improved accessibility for the community in the form of public domain improvements including the through site link and footpath widening. The site is located in close proximity to a number of heritage items including the Rockdale Railway Station and Yard Group, Guild Theatre, St Joseph's Convent and further away the Uniting Church group in Bay Street. Council's heritage officer has provided advice that the proposal will improve Geeves Avenue and the relationship to Rockdale Railway Station and that other heritage items in the vicinity are far enough removed so as not to be impacted by the proposal. The advice further notes however that a group of buildings at 471-477 Princes Highway and 6-14 Geeves Avenue have potential heritage value. Accordingly it has been recommended that these buildings be assessed prior to any development approval. However given the subject draft Planning Proposal provides for a comprehensive redevelopment of the block it is considered appropriate that a heritage assessment should be undertaken prior to referring the matter for a Gateway approval.	

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
3. Housing, Infrastructure and Urban Development 3.1 Residential Zones	What a PPA must do: A Planning Proposal must include provisions that encourage the provision of housing that will: a) broaden the choice of building types and locations available in the housing market; b) make more efficient use of existing infrastructure and services; c) reduce the consumption of land for housing and associated urban development on the urban fringe and d) be of good design. A Planning Proposal must, in relation to land to which this direction applies: a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it); and b) not contain provisions which will reduce the permissible residential density of land. The objectives of this Direction are: a) to encourage a variety and choice of housing types to provide for existing and future housing needs; b) to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services; and c) to minimise the impact of residential development on the environment and resource lands. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 28): <i>'The proposal will incorporate a variety of studio, 1, 2 and 3 bedroom units which is consistent with the minimum unit mix provisions in the Rockdale Development Control Plan 2011. The variety of unit types will provide accommodation for singles, couples and families and a portion of the units are to be allocated as affordable housing. The mixture of housing will provide for existing and future housing needs of the locality.</i> <i>The additional housing will be opposite Rockdale Train Station and a number of bus services along Princes Highway. Furthermore, the residential accommodation will be located within the Rockdale Town Centre which is close proximity to a range of services and facilities. Therefore the proposal will make efficient use of the existing infrastructure and services.'</i> Comment: The Ministerial Direction states that the direction applies when a PPA prepares a Planning Proposal that will affect land within: a) an existing or proposed residential zone (including the alteration of any existing residential zone boundary); or b) any other zone in which significant residential development is permitted or proposed to be permitted.	Yes

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	The B2 Local Centre zone allows shop-top housing to be permitted with consent in the zone. The requirements of the Direction therefore apply to the Planning Proposal. The draft Planning Proposal seeks to provide for a 5m increase in the applicable maximum HOB standard applying to the land in conjunction with the deletion of the maximum FSR standard. It will therefore allow high-density, mixed-use development on the land with a significant residential component. It is able to provide for a range of apartment sizes in a location that will make the best possible use of existing town centre infrastructure, including access to a range of public transport facilities and travel options in the locality. It is therefore considered to be consistent with the Direction.	
3. Housing, Infrastructure and Urban Development 3.4 Integrating Land Use and Travel	What a PPA must do: A Planning Proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of: a) Improving Transport Choice – Guidelines for planning and development (DUAP 2001); and b) The Right Place for Business and Services – Planning Policy (DUAP 2001). The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives: a) improving access to housing, jobs and services by walking, cycling and public transport; b) increasing the choice of available transport and reducing dependence on cars; c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car; d) supporting the efficient and viable operation of public transport services; and e) providing for the efficient movement of freight. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 28): <i>'The proposal accords with the above objectives in that it enables increased development potential in a location in close proximity to Rockdale Station and the existing services and facilities in Rockdale Town Centre. The site is also located in close proximity to employment opportunities associated with Sydney Airport and other employment hubs including Hurstville and Sydney CBD.'</i> Comment: The draft Planning Proposal seeks to encourage site amalgamation and redevelopment by increasing viability through an uplift in height and removal of the maximum FSR	Yes – subject to further work at DA stage

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?																																																																																																			
	development standard currently applying to the site. This is considered appropriate for a site with excellent access to public transport and the existing services and facilities available within the Rockdale Town Centre. Parking Along with the range of public transport, walking and cycling options available to future occupiers of, and visitors to the site, the Proponent has also indicated a commitment to reducing car dependency through a reduction of car parking provision as part of any future development on site. The RDCP 2011 parking requirements for the indicative scheme use are shown below: <table><tr><th rowspan="2">Description</th><th rowspan="2">Use</th><th rowspan="2">DCP parking rate</th><th colspan="2">Site 1</th><th colspan="2">Site 2</th><th colspan="2">Site 3</th></tr><tr><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th></tr><tr><td rowspan="6">Residential</td><td>Studio</td><td></td><td>25</td><td>25</td><td>19</td><td>19</td><td>25</td><td>25</td></tr><tr><td>1 Bed</td><td>1 space/unit</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2 Bed</td><td></td><td>49</td><td>49</td><td>44</td><td>44</td><td>53</td><td>53</td></tr><tr><td>3 Bed</td><td>2 spaces / unit</td><td>12</td><td>24</td><td>10</td><td>20</td><td>9</td><td>18</td></tr><tr><td>Visitor</td><td>1 space / 5 units</td><td>85</td><td>17</td><td>73</td><td>15</td><td>68</td><td>18</td></tr><tr><td>Sub-Total</td><td></td><td>114</td><td></td><td>98</td><td></td><td>115</td><td></td></tr><tr><td colspan="3">Residential Total</td><td colspan="6">327</td></tr><tr><td>Retail / Commercial</td><td>1 space/40 m² GFA</td><td>1,695</td><td>43</td><td>1,746</td><td>44</td><td>951</td><td>24</td></tr><tr><td colspan="3">Individual Total</td><td colspan="2">157</td><td colspan="2">142</td><td colspan="2">139</td></tr><tr><td colspan="3">Precinct Total</td><td colspan="6">438</td></tr></table> Council's Traffic and Transport consultant has advised that rather than relying on the DCP parking rates, reduced parking rates should be applied given the site's unique location within the Rockdale Town Centre and immediately adjacent to public transport (railway station and bus interchange). A reduced parking provision is intended to reduce reliance on the private car, the number of vehicle trips and associated impacts on the local road network and key intersections (including Geeves Avenue and Princes Highway). Council's Traffic and Transport Consultant has advised that in the subject location Council should apply the RMS Metropolitan Regional (CBD) Centre high density residential parking rates as shown below:	Description	Use	DCP parking rate	Site 1		Site 2		Site 3		Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Residential	Studio		25	25	19	19	25	25	1 Bed	1 space/unit							2 Bed		49	49	44	44	53	53	3 Bed	2 spaces / unit	12	24	10	20	9	18	Visitor	1 space / 5 units	85	17	73	15	68	18	Sub-Total		114		98		115		Residential Total			327						Retail / Commercial	1 space/40 m² GFA	1,695	43	1,746	44	951	24	Individual Total			157		142		139		Precinct Total			438						
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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?																																																																																																			
	Parking. The recommended minimum number of off-street resident parking spaces is as follows: Metropolitan Regional (CBD) Centres: 0.4 spaces per 1 bedroom unit. 0.7 spaces per 2 bedroom unit. 1.20 spaces per 3 bedroom unit. 1 space per 7 units (visitor parking). Metropolitan Sub-Regional Centres: 0.6 spaces per 1 bedroom unit. 0.9 spaces per 2 bedroom unit. 1.40 spaces per 3 bedroom unit. 1 space per 5 units (visitor parking). Metropolitan Regional Centres (Central Business District) provide high levels of local employment as well as access to rail and bus services and therefore may have less parking requirements. The recommended minimum number of off-street visitor parking spaces is one space for every 5 to 7 dwellings. Councils may wish to reduce this requirement for buildings located in close proximity to public transport, or where short term unit leasing is expected. However, Council officers have advised that Council is of the view that the Metropolitan Sub-Regional Centres (parking rates shown above should be applied as Council has done elsewhere in accessible locations throughout the LGA. This would result in the following residential parking provision for the indicative scheme: <table><tr><th rowspan="2">Description</th><th rowspan="2">Use</th><th rowspan="2">Parking rate</th><th colspan="2">Site 1</th><th colspan="2">Site 2</th><th colspan="2">Site 3</th></tr><tr><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th></tr><tr><td rowspan="4">Residential</td><td>Studio</td><td>0.6 spaces/unit</td><td>25</td><td>15</td><td>19</td><td>12</td><td>26</td><td>16</td></tr><tr><td>1 bed</td><td>0.9 spaces/unit</td><td>48</td><td>44</td><td>44</td><td>40</td><td>53</td><td>48</td></tr><tr><td>2 bed</td><td>1.4 spaces/unit</td><td>12</td><td>17</td><td>10</td><td>14</td><td>9</td><td>13</td></tr><tr><td>3 bed</td><td>1 space per 5 units</td><td>85</td><td>17</td><td>73</td><td>15</td><td>88</td><td>18</td></tr><tr><td colspan="3">Residential Total</td><td colspan="2">93</td><td colspan="2">81</td><td colspan="2">95</td></tr><tr><td colspan="3">Precinct Residential Total</td><td colspan="6">269</td></tr></table> For the retail/commercial component of the indicative development, the proponent has indicated that the following parking rates could apply: <table><tr><th rowspan="2">Description</th><th rowspan="2">Use</th><th rowspan="2">Parking rate (50% reduction)</th><th colspan="2">Site 1</th><th colspan="2">Site 2</th><th colspan="2">Site 3</th></tr><tr><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th><th>Units/ GFA</th><th>Parking requirement</th></tr><tr><td>Retail / Commercial</td><td></td><td>1 space/60 m² GFA</td><td>1,695</td><td>22</td><td>1,746</td><td>22</td><td>951</td><td>12</td></tr><tr><td colspan="3">Precinct Retail/Commercial Total</td><td colspan="6">56</td></tr></table> As shown above, using the Metropolitan Sub-Regional Centres parking rates, the indicative scheme for the Precinct would require a parking provision of 325 spaces, a reduction of 113 spaces from the 438 spaces that would be required using the DCP Parking Rates. If the RMS Metropolitan Regional (CBD) parking rates were to be applied, the required parking rate would be approximately 266.	Description	Use	Parking rate	Site 1		Site 2		Site 3		Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Residential	Studio	0.6 spaces/unit	25	15	19	12	26	16	1 bed	0.9 spaces/unit	48	44	44	40	53	48	2 bed	1.4 spaces/unit	12	17	10	14	9	13	3 bed	1 space per 5 units	85	17	73	15	88	18	Residential Total			93		81		95		Precinct Residential Total			269						Description	Use	Parking rate (50% reduction)	Site 1		Site 2		Site 3		Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Retail / Commercial		1 space/60 m² GFA	1,695	22	1,746	22	951	12	Precinct Retail/Commercial Total			56						
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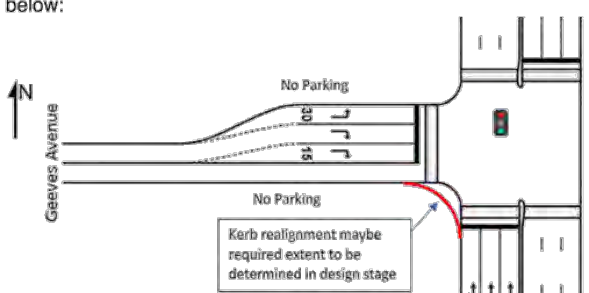
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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	However, Council's Traffic and Transport Consultant has indicated that it is appropriate for a reduction in parking provision to be applied and that rather than applying a 50% reduction in the parking rate for retail/commercial floorspace (as suggested by the Proponent) a rate of 1/40m² of GFA should be applied for commercial uses and 1/140m² of GFA for retail uses consistent with the existing provision on site. This would equate to a total provision of 307 spaces (269 residential, 29 retail and 9 commercial spaces). It is considered that this approach represents a good balance both encouraging public transport use and providing reasonable car parking to service the development. Given the site's excellent access to public transport and constrained vehicular access, it is considered that the proposed parking rates should be included in the draft DCP amendment. Final parking numbers will be determined at the future Development Application stage once a detailed architectural scheme, numbers and mix of residential units, and retail/commercial floorspace has been finalised. <u>Traffic Generation</u> Notwithstanding the proposed reduction in parking rates, the proposed development will have an impact on the local road network as a result of additional trips associated with any future development. The initial comments from Council's Traffic and Transport Consultant on traffic generation were as follows: <i>'There are no traffic or transport issues identified with the Planning Proposal traffic impact assessment that would preclude its approval. It should be noted however that, during the sites Development Application phase, the following will require further attention:</i> <i>ensuring that the site access, internal parking layout and servicing areas for Site 1 are designed in accordance with the requirements prescribed in AS2890. Particular attention should be given to ensure sufficient horizontal and vertical clearances can be achieved to allow basement access to service vehicles (e.g. refuse collection, deliveries);</i> <i>the location of the temporary and ultimate site accesses considers sight line requirements and reducing conflict with pedestrians;</i> <i>estimation of year 2031 (i.e. 10-year design horizon) design traffic volumes and modelling of scenario in SIDRA intersection; and</i> <i>a functional layout plan will need to be provided to ensure the proposed configuration of the Geeves Avenue approach and departure lanes to the Princes Highway/Geeves Avenue signalised intersection can be achieved.</i> With regard to the location of temporary site accesses, the Proponent has provided context to this issue through Figures 13-16 above which illustrate the possible staging of any future development, including swept path analysis to demonstrate the possible vehicular access for HRVs that is achievable within each stage.	

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	The final access arrangements propose a single site access on Geeves Avenue at the northern end of the site to minimise possible conflict with public transport interchange users. This will necessitate the removal of six existing on-street parking spaces and two loading zones along Geeves Avenue as shown below:  In addition, this junction configuration has been designed to allow more right-turning traffic to get through the intersection in the allocated green time, assisting in improving the capacity and performance of the intersection as traffic increases in the future. The final design of, and funding for, the improved intersection may need to be secured through a VPA or s94 contributions, although RMS would also need to be consulted during any public exhibition of the draft Planning Proposal to discuss the acceptability/feasibility of any changes to an intersection along the Princes Highway.	
3. Housing, Infrastructure and Urban Development 3.5 Development Near Regulated Airports and Defence Fields	What a PPA must do: In the preparation of a Planning Proposal that sets controls for development of land near a regulated airport, the relevant planning authority must: - consult with the lessee/operator of that airport; - take into consideration the operational airspace and any advice from the lessee/operator of that airport; - for land affected by the operational airspace, prepare appropriate development standards, such as height controls; and - not allow development types that are incompatible with the current and future operation of that airport. In the preparation of a Planning Proposal that sets controls for development of land near a core regulated airport, the relevant planning authority must: - consult with the Department of the Commonwealth responsible for airports and the lessee/operator of that airport; - for land affected by the prescribed airspace (as defined in Regulation 6(1) of the Airports (Protection of Airspace) Regulation 1996, prepare appropriate development standards, such as height controls; - not allow development types that are incompatible with the current and future operation of that airport; and	Yes – but further consultation required at Gateway stage and as part of a future DA

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	d) obtain permission from that Department of the Commonwealth, or their delegate, where a Planning Proposal seeks to allow, as permissible with consent, development that would constitute a controlled activity as defined in section 182 of the Airports Act 1996. This permission must be obtained prior to undertaking community consultation in satisfaction of section 57 of the Environmental Planning and Assessment Act 1979. Furthermore, a Planning Proposal must include a provision to ensure that development meets <i>Australian Standard 2021–2015, Acoustic- Aircraft Noise Intrusion – Building siting and construction</i> with respect to interior noise levels, if the proposal seeks to rezone land: a) for residential purposes or to increase residential densities in areas where the ANEF is between 20 and 25; b) for hotels, motels, offices or public buildings where the ANEF is between 25 and 30; or c) for commercial or industrial purposes where the ANEF is above 30. The objectives of this direction are: a) to ensure the effective and safe operation of regulated airports and defence airfields; b) to ensure that their operation is not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity; and c) to ensure development, if situated on noise sensitive land, incorporates appropriate mitigation measures so that the development is not adversely affected by aircraft noise. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 29): <i>'The proposed amendment to the building height standard for the site enables development up to an RL of 54.87 which is above the Sydney Airport Corporation Limited (SACL) OLS height of RL 51.00 but below the PANS-OPS height of RL54.9. As such, permission is required from SACL and it is anticipated that SACL will be consulted as part of statutory exhibition. It appears that development at 3-7 Keats Avenue (RL53.75) and 564 Princes Highway (RL52.75) have been able to penetrate the OLS height and is of a similar height to the proposal.</i> <i>It is noted that the PANS-OPS however we note that there will be strict controls surrounding the heights of the cranes during construction.</i> <i>The site is located between the 20 and 25 ANEF contours. Mitigation techniques can be addressed at the Development Application stage, in line with Clause 6.3 of the Rockdale LEP 2011.'</i>	

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	Comment: While there is no objection in principle to the proposed maximum HOB, Sydney Airport Corporation Limited (SACL) and the Civil Aviation Safety Authority (CASA) will need to be consulted during any public exhibition of the draft Planning Proposal in respect of whether the proposed 39m (54.87m RL) height limit, which breaches the OLS, is acceptable and would or would not pose any safety concern to aircraft. Any additional consultation regarding the use of cranes required during construction will form part of the future Development Application process. As it is proposed to increase residential density on the land, any future Development Application will also need to demonstrate that residential development on the land is able to achieve <i>Australian Standard 2021–2015, Acoustic- Aircraft Noise Intrusion – Building siting and construction</i> with respect to interior noise levels.	
4. Hazard and Risk 4.1 Acid Sulfate Soils	What a PPA must do: The relevant planning authority must consider the <i>Acid Sulfate Soils Planning Guidelines</i> adopted by the Director-General of the Department of Planning when preparing a Planning Proposal that applies to any land identified on the Acid Sulfate Soils Planning Maps as having a probability of acid sulfate soils being present. (5) When a relevant planning authority is preparing a Planning Proposal to introduce provisions to regulate works in acid sulfate soils, those provisions must be consistent with: a) the Acid Sulfate Soils Model LEP in the Acid Sulfate Soils Planning Guidelines adopted by the Director-General; or b) such other provisions provided by the Director-General of the Department of Planning that are consistent with the Acid Sulfate Soils Planning Guidelines. A relevant planning authority must not prepare a Planning Proposal that proposes an intensification of land uses on land identified as having a probability of containing acid sulfate soils on the Acid Sulfate Soils Planning Maps unless the relevant planning authority has considered an acid sulfate soils study assessing the appropriateness of the change of land use given the presence of acid sulfate soils. The relevant planning authority must provide a copy of any such study to the Director General prior to undertaking community consultation in satisfaction of section 57 of the Act. Where provisions referred to under paragraph (5) of this direction have not been introduced and the relevant planning authority is preparing a Planning Proposal that proposes an intensification of land uses on land identified as having a probability of acid sulfate soils on the Acid Sulfate Soils Planning Maps, the Planning Proposal must contain provisions consistent with paragraph (5).	Yes

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 29): <i>'The site is classified as Class 5 Acid Sulfate Soils under RLEP 2011. Clause 6.1 of Rockdale LEP 2011 specifies when an Acid Sulfate Soils Management Plan is required to be submitted for approval by Council as part of any subsequent Development Application.'</i> Comment: The subject land is currently developed for urban purposes and is classified as potentially being affected by Class 5 acid sulfate soils. Assessment of the suitability of the site for the proposed uses would be addressed in detail at the future Development Application supported by relevant information as required. No change in permissible use is proposed as part of the subject draft Planning Proposal.	
5. Regional Planning 5.10 Implementation of Regional Plans	What a PPA must do: Planning Proposals must be consistent with a Regional Plan released by the Minister for Planning. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 30): <i>'The proposal is consistent with Greater Sydney Region Plan: A Metropolis of Three Cities (previously A Plan for Growing Sydney) in that helps achieve a competitive economy, a city of housing choice, a great place to live and a sustainable and resilient city.'</i> The objective of this direction is to give legal effect to the vision, land use strategy, goals, directions and actions contained in Regional Plans. Comment: The current development standards in the RLEP 2011 already permits a high-density, mixed-use redevelopment of the subject land. The changes to the development standards proposed in the draft Planning Proposal would allow for a more-intensive mixed-use development of a town centre site close to public transport, employment and services. This is consistent with the Greater Sydney Region Plan in that it encourages the provision of more housing close to employment opportunities, services and public transport and walking and cycling options.	Yes

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
6. Local Plan Making 6.1 Approval and Referral Requirements	What a PPA must do: A Planning Proposal must: a) minimise the inclusion of provisions that require the concurrence, consultation or referral of Development Applications to a Minister or public authority; b) not contain provisions requiring concurrence, consultation or referral of a Minister or public authority unless the relevant planning authority has obtained the approval of: i. the appropriate Minister or public authority; and ii. the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General); prior to undertaking community consultation in satisfaction of section 57 of the Act; and c) not identify development as designated development unless the relevant planning authority: i. can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the class of development is likely to have a significant impact on the environment; and ii. has obtained the approval of the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) prior to undertaking community consultation in satisfaction of section 57 of the Act. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 30): <i>'The proposal has minimised the inclusion of provisions that require the concurrence, consultation or referral of Development Applications to a Minister or public authority. The site is not identified as designated development.'</i> The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development. Comment: The draft Planning Proposal does not seek to include any additional concurrence, consultation or referral requirements into RLEP 2011. Notwithstanding appropriate consultation will be undertaken with relevant Government Agencies as required by any Gateway Determination issued by the Department of Planning, Industry and Environment.	Yes
7. Metropolitan Planning 7.1 Implementation of A Plan for Growing Sydney	What a PPA must do: Planning Proposals shall be consistent with: (a) the NSW Government's <i>A Plan for Growing Sydney</i>, published in December 2014. Consistency: The proponent has stated the following in support of the draft Planning Proposal:	Yes

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Ministerial Direction	Consistency of Draft Planning Proposal with Ministerial Direction	Consistent?
	<i>'The proposal is consistent with the Greater Sydney Region Plan: A Metropolis of Three Cities (previously A Plan for Growing Sydney) in that helps achieve a competitive economy, a city of housing choice, a great place to live and a sustainable and resilient city. Refer to detailed discussion above.'</i> The objective of this direction is to give legal effect to the planning principles; directions; and priorities for subregions, strategic centres and transport gateways contained in A Plan for Growing Sydney. Comment: The current development standards in the RLEP 2011 already permit a high-density, mixed-use redevelopment of the subject land. The changes to the development standards proposed in the draft Planning Proposal would allow for a more-intensive mixed-use development of a town centre site close to public transport. This is consistent with the Greater Sydney Region Plan in that it encourages the provision of higher density housing close to employment opportunities, services, public transport, walking and cycling options and will promote a diverse, inclusive and cohesive community.	

State Environmental Planning Policies (SEPPs)

An assessment of the draft Planning Proposal against the relevant SEPPs is provided in **Table 3** below:

Table 3: Assessment of the draft Planning Proposal against the relevant SEPPs

SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?
SEPP 55 – Remediation of Land	Object of this Policy (1) The object of this Policy is to provide for a State-wide planning approach to the remediation of contaminated land. (2) In particular, this Policy aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment: (a) by specifying when consent is required, and when it is not required, for a remediation work; (b) by specifying certain considerations that are relevant in rezoning land and in determining Development Applications in general and Development Applications for consent to carry out a remediation work in particular; and (c) by requiring that a remediation work meet certain standards and notification requirements. Compliance The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal report – Pg. 25):	Yes - subject to further info at DA stage

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SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?
	<i>'The site has been used as a mixed use development for some time. It is high unlikely the land would be subject to a level of contamination that would preclude its use for residential accommodation. Further contamination investigations will be undertaken at DA stage. The Planning Proposal does not seek to hinder the application of Clause 6 of SEPP 55.'</i> Comment: The site has not been identified as contaminated land and is identified as having only Class 5 acid sulfate soils. It is considered that the redevelopment of the land will not be hindered by contamination, however a Phase 1 contamination assessment would be required as part of any future Development Application to satisfy the requirements of SEPP 55.	
SEPP 65 – Design Quality of Residential Apartment Development	Aims, objectives etc. (1) This Policy aims to improve the design quality of residential apartment development in New South Wales. (2) This Policy recognises that the design quality of residential apartment development is of significance for environmental planning for the State due to the economic, environmental, cultural and social benefits of high quality design. (3) Improving the design quality of residential apartment development aims: (a) to ensure that it contributes to the sustainable development of New South Wales: (i) by providing sustainable housing in social and environmental terms; (ii) by being a long-term asset to its neighbourhood; (iii) by achieving the urban planning policies for its regional and local contexts; (b) to achieve better built form and aesthetics of buildings and of the streetscapes and the public spaces they define; (c) to better satisfy the increasing demand, the changing social and demographic profile of the community, and the needs of the widest range of people from childhood to old age, including those with disabilities; (d) to maximise amenity, safety and security for the benefit of its occupants and the wider community; (e) to minimise the consumption of energy from non-renewable resources, to conserve the environment and to reduce greenhouse gas emissions; (f) to contribute to the provision of a variety of dwelling types to meet population growth; (g) to support housing affordability; and (h) to facilitate the timely and efficient assessment of applications for development to which this Policy applies. (4) This Policy aims to provide: (a) consistency of policy and mechanisms across the State; and (b) a framework for local and regional planning to achieve identified outcomes for specific places. Compliance The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – PG. 25):	Yes - subject to DCP amendments and further info re ADG compliance

SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?
	<i>'The proposal enables a mixed use development designed in accordance with the 9 design quality principles under SEPP 65 and capable of complying with the provisions of the Apartment Design Guide (ADG). Compliance with the ADG will be assessed at Development Application stage.'</i> Comment: Council staff have examined the indicative scheme submitted in support of the draft Planning Proposal and, following the changes described above, are satisfied that the development would be capable of complying with SEPP 65 and the ADG. However, a number of outstanding concerns have been identified: <i>1. The western edges of towers should be splayed to improve solar access to future developments located on the neighbouring sites to the south and residential units / areas of common open space within the development. This should be captured in the site specific DCP to encourage an appropriate built form response to the site;</i> <i>2. The three stage development plan creates two developments that will yield high FSR (stages 1 and 3) and one development that will yield a significantly lower FSR and a far greater contribution to the public domain (stage 2). This raises concerns that stage 2 would not eventuate in its currently proposed form. To provide a more equitable solution and provide the best opportunity of realising the design intent of this proposal it is recommended that this precinct be developed as two stages that are separated at the centre of the proposed laneway;</i> <i>3. Furthermore, a large proportion of the units with the stage 2 development will be south facing and receive no direct solar access, this stage would not comply with the minimum requirements of the ADG (maximum 15% to receive no solar access). If the units facing the lane way are incorporated into stages 1 and 2 they will equate to less than 15% of the total number of units for each stage, complying with the requirements of the ADG.</i> The Proponent's response to these issues is set out below: <i>1. <u>Western edges of the towers:</u> We are happy to support this amendment and believe it can be conditioned as part of the consent;</i> <i>2. <u>Development stages:</u> If the precinct is divided into two stages it would hinder the redevelopment of the entire precinct as this would require 11 landowners in both stages to amalgamate which is extremely onerous. Whilst stage 2 does not incorporate a tower element, it would incorporate buildings between 3, 5 and 6 storeys and result in approximately 73 units and 1,749m² retail GFA which result in a significant uplift than what the current controls allow for. To provide certainty that the precinct is to be delivered we have proposed 3 stages for the redevelopment which would only require up to a maximum of 8 sites to amalgamate. Furthermore, it is highlighted that the Australian Post site has a 30 year lease which highly restricts</i>	

SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?																																																																																																														
	<i>the amalgamation and redevelopment potential of the site. We have therefore incorporated this site in stage 2 rather than stage 1 which is more likely to be redeveloped. If 2 development stages were proposed it is unlikely that the southern end of the precinct would be redevelopment given the 30 year lease on the Australian Post site;</i> 3. <u>No. of units receiving no solar access:</u> <i>As demonstrated in the table below (which is in the Urban Design Report), 3% of units receive no solar access for stage 2 and the entire precinct complies with the ADG requirement (maximum 15% of units) with 4% receiving no solar access.</i> <table><tr><th colspan="6">APARTMENT DESIGN GUIDE AND ROCKDALE DCP 2011 REQUIREMENTS</th></tr><tr><th colspan="4">SOLAR STUDIES 21st June between 9am-3pm</th><th colspan="2">CROSS VENTILATION First 9 Storeys</th></tr><tr><th></th><th>3hrs Sun 9am-3pm</th><th>2hrs Sun 9am-3pm</th><th>No Sun</th><th>Total no. first 9 storeys</th><th>Total no. cross ventilated</th></tr><tr><td>Total</td><td>66</td><td>73</td><td>0</td><td>66</td><td>50</td></tr><tr><td>%</td><td>78</td><td>86</td><td>0</td><td></td><td>77%</td></tr><tr><td></td><td>PASSES</td><td>PASSES</td><td>PASSES</td><td colspan="2">PASSES</td></tr><tr><td>Total</td><td>51</td><td>60</td><td>2</td><td>73</td><td>59</td></tr><tr><td>%</td><td>70</td><td>82</td><td>3</td><td></td><td>79%</td></tr><tr><td></td><td>PASSES</td><td>PASSES</td><td>PASSES</td><td colspan="2">PASSES</td></tr><tr><td>Total</td><td>63</td><td>74</td><td>7</td><td>70</td><td>55</td></tr><tr><td>%</td><td>72</td><td>84</td><td>8</td><td></td><td>79%</td></tr><tr><td></td><td>PASSES</td><td>PASSES</td><td>PASSES</td><td colspan="2">PASSES</td></tr><tr><td colspan="3">RESULT</td><td colspan="3">RESULT</td></tr><tr><td>Total</td><td>150</td><td>207</td><td>9</td><td>208</td><td>158</td></tr><tr><td>%</td><td>73</td><td>84</td><td>4</td><td></td><td>76%</td></tr><tr><td></td><td>PASSES</td><td>PASSES</td><td>PASSES</td><td colspan="2">PASSES</td></tr><tr><td>ADG requirements</td><td colspan="3">Minimum 70% of apartments get 2hrs of direct sunlight</td><td rowspan="3">ADG requirements</td><td rowspan="3">60% of apartments in the first 9 storeys must be cross ventilated</td></tr><tr><td>DCP requirements</td><td colspan="3">Maximum 15% of apartments get no direct sunlight</td></tr><tr><td>DCP requirements</td><td colspan="3">Minimum 70% of apartments get 3hrs of direct sunlight</td></tr></table> Comment: It is considered that staging of the proposal is a key issue with the draft Planning Proposal and that whilst the proponent has undertaken significant work to prepare an indicative scheme staging plan, the proposed 3 staged development does not provide sufficient certainty that the key public benefit of the proposal (the widened through site link) will be delivered. Further the proposed 3 stages is inequitable with landowners within Stage 2 being required to deliver the entire through site link and with reduced development yield when compared to the northern and southern stages. This matter is addressed further below. Prior to public exhibition, amendments are required to the draft DCP submitted with the draft Planning Proposal to lock in staging of development and to prove up that any future development in accordance with the agreed staging is able to comply with the ADG. It is recommended that this work is to be undertaken prior to a request for a Gateway Determination being submitted to the DPIE.	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	66	73	0	66	50	%	78	86	0		77%		PASSES	PASSES	PASSES	PASSES		Total	51	60	2	73	59	%	70	82	3		79%		PASSES	PASSES	PASSES	PASSES		Total	63	74	7	70	55	%	72	84	8		79%		PASSES	PASSES	PASSES	PASSES		RESULT			RESULT			Total	150	207	9	208	158	%	73	84	4		76%		PASSES	PASSES	PASSES	PASSES		ADG requirements	Minimum 70% of apartments get 2hrs of direct sunlight			ADG requirements	60% of apartments in the first 9 storeys must be cross ventilated	DCP requirements	Maximum 15% of apartments get no direct sunlight			DCP requirements	Minimum 70% of apartments get 3hrs of direct sunlight			
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SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?
SEPP (Infrastructure) 2007	Aim of Policy The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by: (a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services; (b) providing greater flexibility in the location of infrastructure and service facilities; (c) allowing for the efficient development, redevelopment or disposal of surplus government owned land; (d) identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development); (e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development; (f) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing; and (g) providing opportunities for infrastructure to demonstrate good design outcomes. Compliance The proponent has stated the following in support of the draft Planning Proposal: <i>The site has frontage to Princes Highway, a classified Road as per the Schedule of Classified Roads and Unclassified Regional Roads. Future residential development will need to achieve the objectives and conditions of cl. 101 of this SEPP, which relates to development with frontage to a classified road.</i> <i>The site is located in close proximity to a railway line. Future residential development will have to demonstrate compliance with cl. 87 of this SEPP, which relates to the impact of rail noise or vibration on non-rail development.</i> Comment: Clause 101 of the SEPP states the following: 1) <i>The objectives of this clause are:</i> a) <i>to ensure that new development does not compromise the effective and ongoing operation and function of classified roads; and</i> b) <i>to prevent or reduce the potential impact of traffic noise and vehicle emission on development adjacent to classified roads.</i> 2) <i>The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that:</i> a) <i>where practicable and safe, vehicular access to the land is provided by a road other than the classified road; and</i> b) <i>the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of:</i> i. <i>the design of the vehicular access to the land; or</i> ii. <i>the emission of smoke or dust from the development, or</i>	Yes

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SEPP	Compliance of Draft Planning Proposal with SEPP	Complies?
	iii. the nature, volume or frequency of vehicles using the classified road to gain access to the land; and c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road. The majority of the requirements of this clause will need to be satisfied by the final design and assessed as part of any future Development Application. The appropriateness of the location for a residential use is not being considered as part of the subject draft Planning Proposal as residential development is already permitted in the B2 Local Centre zone. Clause 87 of the SEPP states the following: 1) <i>This clause applies to development for any of the following purposes that is on land in or adjacent to a rail corridor and that the consent authority considers is likely to be adversely affected by rail noise or vibration:</i> (a) <i>residential accommodation,</i> (b) <i>a place of public worship,</i> (c) <i>a hospital,</i> (d) <i>an educational establishment or centre-based child care facility.</i> (2) <i>Before determining a Development Application for development to which this clause applies, the consent authority must take into consideration any guidelines that are issued by the Secretary for the purposes of this clause and published in the Gazette.</i> (3) <i>If the development is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded:</i> (a) <i>in any bedroom in the residential accommodation—35 dB(A) at any time between 10.00 pm and 7.00 am,</i> (b) <i>anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.</i> Similar to the above, the requirements of this clause are to be satisfied as part of any future Development Application applying to the land. Residential development is already permitted in the B2 Local Centre zone.	

There are no other SEPPs applicable to the draft Planning Proposal.

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Sydney Regional Environmental Plans (SREPs) (Deemed SEPPs)

There are no SREPs applicable to the draft Planning Proposal.

Strategic Planning Framework

Regional, Sub-regional and District Plans and Strategies include outcomes and specific actions for a range of different matters, including housing and employment targets and identify regionally important transport networks and social infrastructure. An assessment of the draft Planning Proposal's consistency with the relevant strategic plans is provided in Table 4 below:

Table 4: Assessment of compliance of draft Planning Proposal with Strategic Planning Framework

Strategic Plan	Consistency with Strategic Plan	Consistent?
Greater Sydney Region Plan: A Metropolis of Three Cities (previously 'A Plan for Growing Sydney')	<u>Infrastructure and Collaboration</u> <i>A city supported by infrastructure</i> Objective 1: Infrastructure supports the three cities Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact Objective 3: Infrastructure adapts to meet future needs Objective 4: Infrastructure use is optimised Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 8): <i>'Objectives 1-3 are not relevant to the Planning Proposal given they relate to the provision of new infrastructure. In relation to Objective 4, the Planning Proposal will optimise public transport use given it is located directly to the east of Rockdale train station and bus interchange. The development will maximise the use of existing public transport assets and will reduce the need for additional infrastructure. Furthermore, the proposal will co-locate a mix of land uses (including residential, commercial and retail) which ensure the efficient use of the site and reduce the need for travelling.'</i> Comment: The draft Planning Proposal is considered to be consistent with the aims of the strategic plan. The changes to the development standards proposed in the draft Planning Proposal are intended to enhance the attractiveness of the land for redevelopment for a high-density, mixed-use development in a location which is highly accessible by a range of public transport modes and with excellent access to employment and services. The proposal will also optimise government investment in infrastructure and services in a location ideally suited to higher density development.	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	A Collaborative City Objective 5: Benefits of growth realised by collaboration of governments, community and business. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 8): <i>'The Planning Proposal will be prepared with the collaboration of State and local government agencies and will be notified to the community. The Planning Proposal implements Council's Rockdale Town Centre Masterplan which is a Council initiative.'</i> Comment: Should the draft Planning Proposal proceed public exhibition and consultation with relevant Government Agencies will be undertaken in accordance with any the Gateway Determination. Issues raised will be considered in finalising the Planning Proposal.	
	Liveability A city for people Objective 6: Services and infrastructure meet communities' changing needs Objective 7: Communities are healthy, resilient and socially connected Objective 8: Greater Sydney's communities are culturally rich with diverse neighbourhoods Objective 9: Greater Sydney celebrates the arts and supports creative industries and innovation Consistency: The proponent has stated the following in support of the draft Planning Proposal: <i>'Objective 6 relates to the provision of social infrastructure to reflect the needs of the community. There is an opportunity to provide affordable housing in the scheme which will be considered as part of a future Development Application and will provide housing for a wider range of community members.</i> <i>In relation to Objective 7, the proposal will provide retail along the street frontages and to the through site links which will activate these areas and provide opportunities for social interaction. The proposal will create a walkable place with the provision of retail and commercial uses conveniently located close to residential accommodation. Bicycle parking will be provided in the scheme which will be detailed in the future Development Application. The promotion of walking and cycling will improve the health of future residents and reduce traffic congestion.</i> <i>In relation to Objective 8, Rockdale is a culturally rich town centre and the future scheme will ensure that cultural diversity is</i>	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	<i>celebrated through the provision of various retail and commercial opportunities.</i> <i>In relation to Objective 9, there may be opportunities to provide public art and to promote a night time economy with various restaurants. These items will be explored during the future Development Application stage.'</i> Comment: The draft Planning Proposal seeks additional height and the removal of the maximum FSR control to encourage redevelopment of the site and to allow for a high-density, mixed-use development of the land consistent with Council's vision for the Precinct. It will provide for the retail, commercial and civic function of the Precinct to be improved and enhanced in a location which is highly accessible by a range of public transport modes and with excellent access to services. The residential component of any future development has the capacity to provide for a range of unit sizes in a location that will make best use of existing infrastructure. It is therefore consistent with these objectives.	
	Housing the city Objective 10: Greater housing supply Objective 11: Housing is more diverse and affordable Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 9): <i>'Objective 10 relates to increasing the housing supply and the Eastern City District housing targets are 46,550 between 2016-2021 and 157,500 between 2016-2036. The Planning Proposal will provide additional housing diversity and will contribute to the housing targets.</i> <i>In relation to Objective 11, the proposal will provide a range of housing for singles, young couples and families. There is also an opportunity to provide affordable housing which will further explored during the Development Application stage.'</i> Comment: The proposed changes to applicable development standards are intended to enhance the attractiveness of and encourage redevelopment of the land for a high-density, mixed-use development. The residential component of any future development will contribute to housing choice and supply within the locality and has the capacity to provide for a range of unit sizes to meet the needs of the diverse local community close to a range of community services, public transport and shopping/commercial facilities. The proposal is therefore consistent with these objectives.	Yes

Strategic Plan	Consistency with Strategic Plan	Consistent?
	A city of great places Objective 12: Great places that bring people together Objective 13: Environmental heritage is conserved and enhanced Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 9): <i>'In relation to Objective 12, the proposal will provide retail opportunities which will bring community together. The proposed restaurants and cafes will provide a meeting point for community members, linked by an improved pedestrian environment.</i> <i>In relation to Objective 13, there are no heritage items on the site nor is the site within a heritage conservation area. The proposal has no adverse impacts on any surrounding heritage item (Brick buildings, signal box and overhead booking office to Rockdale train station referenced I222 in the Rockdale LEP 2011).'</i> Comment: The proposed amendments to development standards are intended to enhance the attractiveness/viability of the land for redevelopment to provide a high-density, mixed-use development. The proposal has the potential to improve the retail, commercial and civic function of the Precinct and to provide improved accessibility for the community in the form of public domain improvements including the through site link and footpath widening. The site is located in close proximity to a number of heritage items including the Rockdale Railway Station and Yard Group, Guild Theatre, St Joseph's Convent and further away the Uniting Church group in Bay Street. Council's heritage officer has provided advice that the proposal will improve Geeves Avenue and the relationship to Rockdale Railway Station and that other heritage items in the vicinity are far enough removed so as not to be impacted by the proposal. The advice further notes, however, that a group of buildings at 471-477 Princes Highway and 6-14 Geeves Avenue have potential heritage value. Accordingly it has been recommended that these buildings be assessed prior to any development approval. However given the subject draft Planning Proposal provides for a comprehensive redevelopment of the block it is considered appropriate that a heritage assessment should be undertaken prior to referring the matter for a Gateway approval.	Yes – subject to heritage assessment prior to referral to Gateway
	Productivity A well connected city Objective 14: A metropolis of three cities – integrated land use and transport creates walkable and 30-minute cities Objective 15: The Eastern, GOPP and Western Economic Corridors are better connected and more competitive	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	Objective 16: Freight and logistics network is competitive and efficient Objective 17: Regional transport is integrated with land use Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 9): <i>'In relation to Objective 14, the proposal will be well connected with services and facilities, which will create a walkable community. The proposal will be within 30 minutes of Hurstville and Sydney CBD.</i> <i>Objectives 15-16 are not relevant to the Planning Proposal.</i> <i>In relation to Objective 17, the site is accessible to Gosford, Newcastle and Wollongong via the train network which will allow for greater job opportunities and business links.'</i> Comment: The draft Planning Proposal will improve the attractiveness and viability of the precinct for redevelopment for high-density, mixed-use development in a location which is easily accessible by, and could make the optimum use of, a range of public transport modes. It will support the creation of integrated land use and transport and contribute to the creation of a walkable and 30-minute city. It will also provide future residents with access to employment opportunities through access to the rail network.	
	Jobs and skills for the city Objective 18: Harbour CBD is stronger and more competitive Objective 19: Greater Parramatta is stronger and better connected Objective 20: Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City Objective 21: Internationally competitive health, education, research and innovation precincts Objective 22: Investment and business activity in centres Objective 23: Industrial and urban services land is planned, protected and managed Objective 24: Economic sectors are targeted for success Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 9-10): <i>'Objectives 18, 19, 20 and 23 are not relevant to the Planning Proposal.</i> <i>In relation to Objective 21, the site is located within 30 minutes of a number of Health and Education Precincts and 'Biotechnology</i>	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	<i>Clusters' and the proposal will provide further housing for workers.</i> <i>In relation to Objectives 22 and 24, the proposal will provide further employment opportunities during construction and when in operation. The Planning Proposal will support the growth of Rockdale Town Centre and will increase the number of people living closer to jobs, accessible by public transport.'</i> Comment: The RLEP 2011 objectives for B2 Local Centre zones are as follows: • 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; and • To create a lively Rockdale town centre with an amenable and pedestrian focused public domain activated by building uses that engage with the street. The draft Planning Proposal is considered to be consistent with these objectives and therefore the similar objectives of the Greater Sydney Region Plan. The additional height being sought and the removal of the maximum FSR control is intended to increase the attractiveness/viability of the land for redevelopment for high-density, mixed-use development. The retail and commercial functions of the Precinct will be improved and enhanced in a location which is highly accessible by a range of public transport modes. Furthermore, the proposal will increase the ability of workers, residents and commuters to move freely to, from and around both the locality and the wider area and to access a range of job opportunities.	
	<u>Sustainability</u> A City in Landscape Objective 25: The coast and waterways are protected and healthier Objective 26: A cool and green parkland city in the South Creek corridor Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced Objective 28: Scenic and cultural landscapes are protected Objective 29: Environmental, social and economic values in rural areas are maintained and enhanced Objective 30:	Yes – subject to further detail at the DA stage

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	Urban tree canopy cover is increased Objective 31: Public open space is accessible, protected and enhanced Objective 32: The Green Grid links parks, open spaces, bushland and walking and cycling paths Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 10): <i>'Objectives 25-29, 31 and 32 are not relevant to the Planning Proposal.</i> <i>In relation to Objective 30, the proposal will incorporate garden courtyards above the podium level which will provide open space for future residents and soften the building envelope. There is an opportunity to increase the planting along the street frontages which will be explored further at the Development Application stage.</i> <i>Furthermore, the proposal will improve the public domain and the pedestrian environment by increasing the setback of the building along the pedestrian footpath.'</i> Comment: Any future development facilitated by the LEP amendment will have the potential to present a significantly improved interface with the surrounding area and a much more inviting and attractive public domain. The final design of any future development will be subject to a Development Application which will be assessed against the appropriate LEP and DCP standards and guidelines to achieve the best possible hard and soft landscaping within and around the development. Any proposed development will also be required to exhibit Design Excellence, and should be reviewed by Council's Design Review Panel given the significance of the site as a landmark site in the town centre immediately adjacent to the railway station (refer further discussion below). In this regard it is noted that Council has recently (12 June 2019) amended its Design Excellence Guidelines to require that Design Excellence expertise is included within the design group for a Design Review Panel.	
	An efficient city Objective 33: A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change Objective 34: Energy and water flows are captured, used and re-used Objective 35: More waste is re-used and recycled to support the development of a circular economy Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 10-11):	Yes – subject to further detail at the DA stage.

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	<i>'In relation to objective 33, the proposal will create a transit orientated development which integrates employment (with retail uses), housing and public transport which reduces the need to travel by car. The proposal will also incorporate sustainable construction methods and energy efficient design measures within the building which will be explored further as part of the DA process.</i> <i>In relation to Objectives 34 and 35, the proposal will facilitate the redevelopment of the site as a mixed use development and sustainability practices will be secured at the detailed design stage and examined as part of a future Development Application. Furthermore, the proposal will create a transit orientated development with increased densities in proximity to Rockdale station and bus interchange which will reduce the need of vehicle use thereby improving the environment.'</i> Comment: The proposed draft Planning Proposal will improve the attractiveness and viability of the precinct for redevelopment for high-density, mixed-use development in a location which is easily accessible by, and could make the optimum use of, a range of public transport modes thereby creating a transit oriented development. Along with the range of public transport, walking and cycling options available to future residents and visitors, the Proponent has also indicated a commitment to reducing car dependency through a reduction of car parking provision on any future development on the land. Other sustainability measures can be addressed at the DA stage.	
Eastern City District Plan (March 2018)	<u>Infrastructure and Collaboration</u> Planning Priority E1 Planning for a city supported by infrastructure Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 14): <i>'The Planning Proposal will provide additional housing and retail floor space within close proximity to Rockdale station and bus interchange, which will optimise the existing public transport infrastructure.'</i> Comment: The draft Planning Proposal will provide for a high density mixed use development in a location that will make best use of existing infrastructure and services and that will be highly accessible to public transport. Planning Priority E2 Working through collaboration Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 14):	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	<i>'The Planning Proposal will allow for the delivery of further housing and jobs to be prepared in collaboration with the State and Local Government and the community.'</i> Comment: The draft Planning Proposal will provide for a high density transit-oriented mixed-use development in a location that will make best use of existing infrastructure and services and which will be highly accessible to public transport consistent with State and local government policy and community aspirations.	
	Liveability Planning Priority E3 Providing services and social infrastructure to meet people's changing needs Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 14): <i>'There is an opportunity to provide affordable housing in the scheme which will be considered as part of a future Development Application and will provide housing for a wider range of community members.'</i> Comment: The draft Planning Proposal will provide for a high density mixed use development in a location that will make best use of existing infrastructure and services (including social services) and that will be highly accessible to public transport. It will provide an improved public domain and through site connections to improve the amenity of the centre for the benefit of the community. Further the proponent has noted that affordable housing provision will be considered at the Development Application stage.	Yes
	Planning Priority E4 Fostering healthy, creative, culturally rich and socially connected communities Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 14): <i>'The proposal will activate the street frontages and through site links which will provide opportunities for social interaction. The proposal will create a walkable place with the provision of retail and commercial uses conveniently located close to residential accommodation. Bicycle parking will be provided in the scheme which will be detailed in the future Development Application. The promotion of walking and cycling will improve the health of future residents and reduce traffic congestion.'</i> Comment: The draft Planning Proposal will provide for a high density mixed use development in a location that will make best use of existing infrastructure and services and that will be highly accessible to public transport. Subject to compliance with relevant DCP controls	Yes – subject to further detail at the DA stage

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	at the DA stage it has the potential to contribute to the provision of healthy, creative, culturally rich and socially connected communities through improvements to the public domain and connectivity as well as inclusion of new retail facilities to meet the needs of the community and to encourage community interaction.	
	Planning Priority E5 Providing housing supply, choice and affordability, with access to jobs and services Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 14-15): <i>'The draft District Plan has a housing target for Bayside Council of an additional 10,150 dwellings between 2016-2021. The proposal enables increased housing supply and choice and will feature a range of apartment sizes and types. The proposal also helps foster a design-led approach to development that recognises the site's strategic location and provides for an agglomeration of people and activity. The Greater Sydney Commission's testing reaffirms that generally a range of 5-10% of new floor space is viable for affordable housing and are to work with the DP&E to develop mechanisms required for delivery of the proposed Affordable Rental Housing Target. The provision of affordable housing will be further discussed with Council to ensure an appropriate level of affordable housing is delivered across the broader precinct.'</i> Comment: The draft Planning Proposal is consistent with this priority and will contribute to housing supply, choice and affordability in a location which is highly accessible to jobs and services.	Yes
	Planning Priority E6 Creating and renewing great places and local centres, and respecting the District's heritage Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 15): <i>'Rockdale is identified as a 'local centre' which has an 800m walking catchment. Local centres are to be the focal point of neighbourhoods and where they are a focus of public transport they are an important part of a 30 minute city. The proposal will renew the Rockdale Transport Interchange site which will prioritise a friendly public realm and walkability with the provision of the through site link and pedestrian bridge and ground floor retail.'</i> Comment: The draft Planning Proposal is consistent with this priority and will assist to improve the attractiveness and viability of the precinct for redevelopment for a high density mixed use development whilst respecting local heritage. It will provide for public domain improvements and subject to future detail at the DA stage will provide a landmark development that will improve the quality,	Yes – subject to further detail at the DA stage

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	amenity and image of the Town Centre in accordance with Council's vision as outlined in RTCMP.	
	<u>Productivity</u> Planning Priority E10 Delivering integrated land use and transport planning and a 30-minute city Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 15): <i>'The proposal encourages the well-planned and efficient growth of Rockdale Town Centre by enabling development of a mixed use precinct adjacent to Rockdale Station, located on the Illawarra Line. This will contribute to the local retail economy and bolster the economy of the broader Central District. Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.</i> <i>The Planning Proposal will deliver integrated land use and transport planning, by locating well-designed housing in close proximity to the station and facilitating improved pedestrian linkages from the train station/bus interchange to Princes Highway, as well as safer environment for pedestrians and buses.'</i> Comment: The draft Planning Proposal is consistent with this priority and will provide for integrated land use and transport planning thereby supporting and reinforcing the concept of a 30-minute city.	Yes
	<u>Sustainability</u> Planning Priority E17 Increasing urban tree canopy cover and delivering Green Grid connections Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 15-16): <i>'Some of the actions in this Planning Priority seek to expand the urban tree canopy in the public realm and refine the detailed design and delivery of the green grid opportunities. Princes Highway is identified as an 'Other Green Grid Opportunities' connection. There is an opportunity to increase the planting along Princes Highway which will contribute to the green grid and be consistent with the planning priority. The proposed planting will be explored further at the Development Application stage.'</i> Comment: The draft Planning Proposal is generally consistent with this priority and will provide the opportunity for increased planting along the Princes Highway to contribute to the Green Grid, subject to any future DA.	Yes – subject to further detail at the DA stage

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	Planning Priority E19 Reducing carbon emissions and managing energy, water and waste efficiently Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 16): <i>'The proposal will have no adverse impacts on the natural environment, as this is already an urbanised setting. It is anticipated that future development at the site will integrate water sensitive urban design measures as needed. The proposal promotes environmental efficiency by increasing development potential in an existing centre with good infrastructure. The sustainability measures are to be further considered during the detailed design phase.'</i> Comment: The draft Planning Proposal is generally consistent with this priority and will provide the opportunity for reduced carbon emissions through reduced parking provision, making best use of existing infrastructure and the provision of a development with a high reliance on public transport subject to any future DA.	Yes – subject to further detail at the DA stage
	Planning Priority E20 Adapting to the impacts of urban and natural hazards and climate change Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 16): <i>'Objective 37 of the Planning Principle looks at ensuring exposure to natural and urban hazards is reduced. The site abuts Princes Highway and the railway line and falls with the 20 and 25 ANEF contours, thus there will be potential noise and air pollution impacts from these urban hazards. The future Development Application for the site will outline mitigation measures to reduce the noise and air pollution impacts to the future residents.'</i> Comment: The draft Planning Proposal is generally consistent with this priority and will provide further detail in relation to sustainability measures, measures to address noise and air pollution etc. at the future DA stage.	Yes – subject to further detail at the DA stage
Future Transport Strategy 2056	Performance Focus Deliver transport initiatives that improve the liveability of places Measures and Indicators Liveability of places – Increase the number of people able to access centres by walking, cycling and using public transport. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 12): <i>'The proposal will create a mixed use precinct which will improve the liveability of Rockdale town centre by providing a mixture of retail and commercial uses which will be accessible by public transport, cycling or walking.'</i>	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	Comment: The proposed draft Planning Proposal will improve the attractiveness and viability of the precinct for redevelopment for high-density, mixed-use development in a location which is easily accessible by, and could make the optimum use of, a range of public transport modes thereby creating a transit oriented development. The proposal will therefore increase the number of people able to access the Rockdale Town Centre by walking and will support public transport usage.	
NSW State Infrastructure Strategy 2018-2038	Strategic directions The Strategy sets six cross-sectoral strategic directions, each designed to achieve 'more with less' from the State's large infrastructure program and asset base: 1. Continuously improve the integration of land and infrastructure planning; 2. Plan, prioritise and deliver an infrastructure program that represents the best possible investment and use of public funds; 3. Optimise the management, performance and use of the State's assets; 4. Ensure NSW's existing and future infrastructure is resilient to natural hazards and human-related threats; 5. Improve state-wide connectivity and realise the benefits of technology; and 6. Drive high quality consumer-centric services and expand innovative service delivery models in infrastructure sectors. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 13): <i>'One of the infrastructure responses in the Strategy, seeks to improve intracity walking and cycling infrastructure. The existing pedestrian arcade is poorly utilised as it is not situated close to the train station entry/exit point and does not align with King Street (across Princes Highway). Furthermore, the footpath along Geeves Avenue is confined given it is narrow and often pedestrians cut across Tramway Arcade or Geeves Avenue to reach their destination.</i> <i>The proposal will create a through site link for pedestrians accessing Princes Highway which is generous in width, open to the air and activated by retail opportunities. Furthermore, the proposal will increase the width of the footpaths to Geeves Avenue (by 2.5m) and Princes Highway (3m). These measures will improve pedestrian access through the site and connections between the train station/bus interchange and the Rockdale Town Centre.</i> <i>Furthermore, the proposal will incorporate bicycle parking which will promote cycling within the locality. The provision of bicycle parking will be considered further in a future Development Application for the site.'</i>	Yes

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Strategic Plan	Consistency with Strategic Plan	Consistent?
	Comment: The draft Planning Proposal is considered to be consistent with the relevant strategic directions of the State Infrastructure Strategy and will provide new housing, employment and retail space within close proximity of existing infrastructure to optimise use and reduce travel demand.	

Local Strategic Planning Framework

An assessment of the draft Planning Proposal's consistency with the relevant local strategic plans is provided in Tables 5 and 6 below:

Table 5: Assessment of draft Planning Proposal against Bayside Community Strategic Plan 2018-2030

Bayside Community Strategic Plan 2018-2030		
Theme One – Bayside will be a vibrant place	How We Will Get There	Proponent's Statement of Consistency (Draft Planning Proposal Report – Pgs. 20-22)
Strategic Direction – Our places are people-focussed	Local areas are activated with cafes, restaurants and cultural events	The ground floor retail component will activate the street frontages and the through site link. There will be opportunities to incorporate cafes, restaurants and potential cultural events.
	Places have their own village atmosphere and sense of identity	The proposal enables development of a high quality mixed use precinct which will contribute to the vibrancy of Rockdale Town Centre. There may be opportunities to promote a night time economy with various restaurants.
	My community and council work in partnership to deliver better local outcomes	The proposal will create a better local outcome by providing further retail floor space which is highly accessible.
	The public spaces I use are innovative and put people first	The proposal will be pedestrian friendly and put people first by creating a through site link and widening the footpaths.
Comment: The RLEP 2011 objectives for B2 Local Centre zones are as follows: • 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; and • To create a lively Rockdale town centre with an amenable and pedestrian focused public domain activated by building uses that engage with the street. The draft Planning Proposal is considered to be consistent with these objectives and the requirement of the Ministerial Directions. The additional height being sought and the removal of the FSR control		

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will allow for a high-density, transit oriented mixed-use redevelopment of the land. The retail, commercial and civic function of the land will be improved and enhanced in a location which is highly accessible by a range of public transport modes. The proposal will also provide additional employment opportunities both during construction and at the operational phase.

Strategic Direction – Our places connect people	Walking and cycling is easy in the City and is located in open space where possible	The proposal enables development in close proximity to services and facilities in Rockdale Town Centre, which will promote walking and cycling.
	Our heritage and history is valued and respected	There are no heritage items on the site, and the proposal has no adverse impacts on any surrounding heritage item (Brick buildings, signal box and overhead booking office to Rockdale train station referenced I222 in the Rockdale LEP 2011).
Strategic Direction – Our places are acceptable to all	Open space is accessible and provides a range of active and passive recreation opportunities to match our growing community	The proposal does not incorporate open space however the site is in close proximity to a number of parks in the locality including Hogben Park and McCarthy Reserve.
	Bayside provides safe and engaging spaces, places and interactions	The proposal enables development that accords with the principles of Crime Prevention Through Environmental Design (CPTED). This will be achieved through facilitating passive surveillance by increasing residential units and retail shops that overlook the public domain and avoid enclaves where offenders can hide and entrap victims. Clear sight lines will be established to avoid areas where graffiti or vandalism could occur. CPTED measures to be implemented in the scheme will be further investigated at the DA stage.
	People who need to can access affordable housing	The proposal provides for increased housing supply and there is an opportunity to provide affordable housing which will be explored at the DA stage. The development will provide a range of apartment types suited to the needs of the community.

Comment:

The proposed 5m increase in maximum HOB, along with the removal of the maximum FSR standard on the land, will increase the attractiveness and viability of the precinct for redevelopment and will allow for a high-density, mixed-use development on the land with a significant residential component. The future development has the capacity to provide for a range of apartment sizes in a location that will make the best possible use of town centre infrastructure and services. It will also provide for

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improvements to the public domain and connectivity of the precinct and will provide for new businesses that will service the local community and provide for community interaction. The proposal will provide for a more-intensive mixed-use development of a town centre site within an area of high pedestrian activity, affording a high level of natural surveillance and safety. The provision of affordable housing will also be investigated at the DA stage. The draft Planning Proposal is therefore consistent with the above strategic directions.

Strategic Direction –
My place will be special to me

Local developments reflect innovative, good design and incorporate open space and consider vertical families

The residential accommodation will incorporate private open space and communal open space for future residents which will be consistent with the Apartment Design Guide requirements and be considered as part of the future DA.

Bayside will be a 30 minute City – residents work locally or work off-site – no-one has to travel for more than 30 minutes to work

Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.

Traffic and parking issues are a thing of the past

Traffic impacts are discussed in detail in Part 3 – Justification of the report. The site is highly accessible to public transport services and the development proposes a range of car parking spaces including between 325 and 383 spaces with a reduced retail/commercial rate. Overall, the operation of the surrounding existing intersections is unlikely to be substantially impacted, subject to minor traffic improvements.

Road, rates and rubbish are not forgotten

The proposal enables development that contributes to the cleanliness of Rockdale through improved on-site waste management.

Gateway sites are welcoming and attractive

The proposal provides for increased density and building height, which will enable the site to function as a gateway building. The future scheme will need to be reviewed by the Design Review Panel under Clause 6.14 of the Rockdale LEP 2011 (where sites are amalgamated) which will ensure the future development will be of a high architectural quality and attractive.

Comment:

The proposed 5m increase in maximum HOB, along with the removal of the maximum FSR standard on the land, is intended to increase the attractiveness and viability of the precinct for redevelopment and will allow for a high-density, mixed-use development on the land with a significant residential component. The future development has the capacity to provide for a range of apartment sizes in a location that will make the best possible use of town centre infrastructure and services. It will also provide for improvements to the public domain and connectivity of the precinct and will provide for new businesses that will service the local community and provide for community interaction. The

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Bayside Community Strategic Plan 2018-2030

proposal will provide for more-intensive mixed-use development of a town centre site within an area of high pedestrian activity, affording a high level of natural surveillance and safety. The provision of affordable housing will also be investigated at the DA stage.

The indicative scheme submitted by the Proponent in support of the draft Planning Proposal is capable of being broadly compliant with the ADG subject to additional work which will also need to be reflected in a draft DCP. The draft Planning Proposal is therefore consistent with the above strategic directions.

Theme Two – In 2030 Our People Will Be Connected in a Smart City	How We Will Get There	Proponent's Statement of Consistency (Draft Planning Proposal Report – Pgs. 22-23)
Strategic Direction – We are unified and excited about our future	We are proud of where we live	The proposal enables development of a high quality mixed use precinct which will contribute to the vibrancy of Rockdale Town Centre.
Strategic Direction – The community is valued	We are a healthy community with access to active recreation and health education	The proposal will promote cycling and walking and will improve the health and wellbeing of future residents.
	All segments of our community are catered for – children, families, young people and seniors	The development will provide a range of apartment types suited to the needs of the community.
	Opportunities for passive and active activities are available to community members, including people with pets	The proposal will incorporate private open space and communal open space and will be within close proximity to a number of parks.
	The value of pets in the community is recognised and they are welcomed across the city	Pets will be welcome within the development.
Strategic Direction – We treat each other with dignity and respect	We can participate in cultural and arts events which reflect and involve the community	There may be an opportunity to include cultural and art events within the ground floor retail component which will encourage community participation.
	Cultural diversity is reflected and celebrated in the City's activities	There may be an opportunity to include cultural and art events within the ground floor retail component which will celebrate Rockdale's multiculturalism.

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Bayside Community Strategic Plan 2018-2030**Comment:**

The proposed changes to the development standards will allow for a high quality, high-density, mixed-use development of the land. The retail, commercial and civic function of the Precinct will be improved and enhanced and a range of residential units sizes are able to be provided in a location that will make the best possible use of town centre infrastructure, including a range of public transport facilities and travel options in the locality. The draft Planning Proposal is therefore consistent with the above strategic directions.

**Theme Three – In 2030
bayside will be green,
leafy and sustainable****How We Will Get
There****Proponent's Statement of Consistency
(Draft Planning Proposal Report – Pgs. 23-24)****Strategic Direction –
Our waste is well managed**

I can reduce my waste through recycling and community education

The development will incorporate appropriate waste management including recycling in the future building for the residential and retail uses.

**Strategic Direction –
We are prepared for
climate change**

We understand climate change and are prepared for the impacts

The proposal will enable development capable of employing sustainable construction and design practices.

Our City is prepared for/able to cope with severe weather events

The building will be constructed to ensure is able to cope with severe weather events.

Our streetscapes are green and welcoming

There is an opportunity to increase the planting along the street frontages which will be explored further at the Development Application stage.

**Strategic Direction –
We increase our use of
renewable energy**

Our City promotes the use of renewable energy through community education

The redevelopment of the site will incorporate sustainability measures which will be addressed at the DA stage.

**Strategic Direction –
Waterways and green
corridors are regenerated
and preserved**

Water is recycled and re-used

The redevelopment of the site will incorporate sustainability measures where possible which will be addressed at the DA stage.

We have an enhanced green grid/tree canopy

There is an opportunity to increase the planting along the street frontages which will contribute to the green grid and be consistent with the planning priority. It is noted that the site is identified as an 'Other Green Grid Opportunities' site in the Eastern City District Plan. The proposed planting will be explored further at the Development Application stage.

Comment:

The Directions prescribed in this part of the Strategy will need to be satisfied by the final design of the development which will be assessed as part of any future DA, and through conditions attached to any future development consent.

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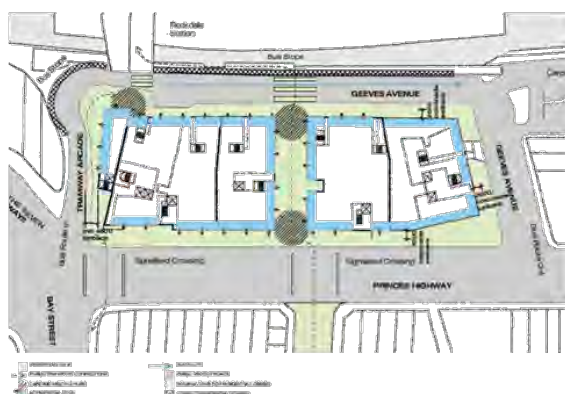
Bayside Community Strategic Plan 2018-2030		
Theme Four – In 2030 we will be a prosperous community	How We Will Get There	Proponent's Statement of Consistency (Draft Planning Proposal Report – Pgs. 24-25)
Strategic Direction – Local housing, employment and business opportunities area generated	Bayside will be a 30 minute City – residents work local or work off-site – no-one has to travel for more than 30 minutes to work	Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.
	People who need to can access affordable housing	There is an opportunity to provide affordable housing which will further explored during the Development Application stage.
Strategic Direction – The transport system works	We can easily travel around the LGA – traffic problems/gridlock are a thing of the past	The proposal will reduce the amount of car parking associated with the development which will reduce traffic gridlock and traffic will be able to easily travel around the site.
	We can easily travel to work by accessible, reliable public transport	The proposal will create a walkable environment which is in close proximity to the Rockdale bus interchange and train station.
Strategic Direction – We are prepared for a sharing economy	Innovative businesses are supported to locate in Bayside	Innovative businesses will be supported in the future retail tenancies.
Comment: The proposed changes to development standards will increase the attractiveness and viability of the precinct for redevelopment and will allow for a high-density, mixed-use development on the land with a significant residential component. The future development will provide for improvements to the public domain and the connectivity of the precinct, and will ensure future residents have excellent access to public transport. It will make the best possible use of town centre infrastructure, including a range of public transport facilities and travel options in the locality and is consistent with encouraging the use of active transport options including public transport, walking and cycling. Further a reduced parking provision is to be implemented to reduce car dependency and minimise the impact of any future development on the surrounding road network. The draft Planning Proposal is therefore consistent with the above strategic directions.		

Table 6: Assessment of draft Planning Proposal against Rockdale Town Centre Masterplan 2012

Rockdale Town Centre Masterplan 2012	The Masterplan sets out the future direction for the Rockdale Town Centre and the path to achieving it. It covers all aspects of the physical environment of the Centre as well as its cultural, civic, and economic aspects. The Masterplan is a guiding document for Council, business owners, private developers and the community. The Masterplan has identified the redevelopment and revitalisation of the Precinct as critical in order to establish a positive image for the Town Centre and provide more convenient pedestrian movement between the station. The following Structure Plan elements are set out for the Precinct: Element 5.3.1: High quality mixed use development consisting of a podium containing retail uses on the ground and first floor, which fronts the Princes Highway and the new improved pedestrian linkages, and residential towers above, designed to achieve high levels of amenity and provide modern apartment living in the heart of the Centre. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 16-18): <i>'The proposal enables redevelopment of the site to create a high quality mixed use development. The proposal will include a 3 and 6 storey podium with garden courtyards above for residential open space and above the podium levels will be various towers (with a total height of 5, 6 and 12 storeys). The ground floor will incorporate retail opportunities while residential accommodation will be provided from Level 1 and above. The proposal will not incorporate retail uses on the first floor given the pedestrian bridge has been removed from the scheme (as requested by Council).</i> <i>The shape and orientation of the towers have been considered to ensure high levels of amenity are achieved in accordance with the SEPP 65 design principles and Apartment Design Guide (ADG) design criteria. As demonstrated in the figure below the proposal will achieve sufficient separation distances in between the three towers as per the ADG.'</i> 	Yes – subject to further draft DCP amendments
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'The proposal will improve the pedestrian linkages between Rockdale station, bus interchange and Rockdale Town Centre through the inclusion of a through site link and footpath widening, as illustrated in the figure below.'



Comment:

It is considered that the indicative scheme is generally consistent with this element of RTCMP 2012 and that, subject to amendments to the draft DCP to lock in a number of key aspects of the development, will deliver a high quality mixed use development within the site. It is noted that retail development is not proposed on the first floor of the indicative scheme and this is considered acceptable given the deletion of the previously proposed overbridge connecting in to the station. Improved pedestrian linkages are provided for and the indicative scheme submitted demonstrates that a high level of amenity can be achieved.

Element 5.3.2:

The development will become a landmark at the Seven Ways intersection which presents a positive image of the centre to passing motorists and rail users.

	Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 18): <i>'The proposal provides for increased density and building height and will create two landmark buildings with one to the Seven Ways intersection. The future scheme will need to be reviewed by the Design Review Panel under Clause 6.14(5)(a)(i) of the Rockdale LEP 2011 will ensure the future development will exhibit design excellence and be of a high architectural quality.'</i> Comment: It is agreed that the draft Planning Proposal will provide for the future development of a landmark building at the Seven Ways intersection and that this provides an opportunity to deliver a positive image to the centre. However given the significance of the site it is considered that the achievement of design excellence is critical. A design excellence competition is not required under RLEP 2011 for buildings less than 40m in height however prior to October 2018 a competition would have been required for the subject proposal. In October 2018, the DPIE amended the LEP and changed the threshold for a design competition. The proposal will, however, be required to be reviewed by the Design Review Panel in accordance with clause 6.14. In this regard it is noted that Council has recently (12 June 2019) amended its Design Excellence Guidelines to require that Design Excellence expertise is included within the design group for a Design Review Panel. It is therefore considered that appropriate measures are in place to ensure that design excellence is achieved in any future DAs applying to the site.	
	Element 5.3.3: Provide an improved and enlarged through site pedestrian link which connects the bus interchange with the Princes Highway at the pedestrian traffic signals. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 18): <i>'As shown in figure 4 above, the proposal enables redevelopment of the site with an improved and enlarged pedestrian through site link connecting the bus interchange with Princes Highway/King Street at the pedestrian traffic signals. The through site link will be bounded by retail uses which will activate the link and will be open to the air.'</i> Comment: The draft Planning Proposal, supported by draft DCP amendments, provides for a future development which would incorporate an enlarged through-site link (12m wide, with active frontages and open to the air), connecting the bus interchange with the Princes Highway at the pedestrian traffic signals. However given site amalgamation issues it is considered that the proposed 3-staged development of the Precinct is sub-optimal and will put at risk the delivery of the enlarged through-site link, which is a significant benefit of the scheme. Furthermore, with reduced heights proposed in the centre of the site (Stage 2	

	proposed as a maximum of 5-6 storeys) it inequitably distributes the burden of the through site link delivery with Stages 1 and 3 having much less development yield but a higher requirement for land dedication / public benefit. Accordingly it is recommended that the proposed staging be amended to require the development of the precinct to be undertaken in two stages, with each stage providing an equal contribution to the delivery of the enlarged through-site link (50%, or width of 6m each). It will also ensure that, if only part of the site is developed, a minimum width of 6m will be delivered. This requirement is therefore recommended to be inserted into the draft DCP amendment.	
	Element 5.3.4: Facilitate the upgrade and expansion of the bus interchange, and provide a setback to Geeves Avenue to achieve the required space. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pgs. 18-19): <i>'As shown in the figure below, the proposal enables redevelopment of the site with a 2.5m setback which is to be dedicated to Council'</i> 	
	Element 5.3.5: Direct level access for pedestrians provided from the railway station concourse into the redevelopment, which connects to the Seven Ways intersection and the improved through site pedestrian link. All this will be activated by retail uses. Consistency: The proponent has stated the following in support of the draft Planning Proposal (draft Planning Proposal Report – Pg. 19): <i>'It is reiterated that correspondence from Council (dated 12 June 2018) recommended that the pedestrian bridge be deleted from the scheme and another material public benefit or VPA option be provided in the Planning Proposal. Furthermore, the proposal will widen the footpath along Tramway Arcade to improve the</i>	

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	<i>permeability from the railway station to Seven Ways intersection. It is anticipated that the building along Tramway Arcade (including 2-18 Tramway Arcade) will incorporate ground floor retail which activate this street.'</i> Comment: It is noted that Council has advised the Proponent that the pedestrian bridge previously proposed to connect the railway station concourse to the precinct over Geeves Avenue was to be deleted from the scheme. It is understood that this was decided following consideration that such a bridge would have the potential to reduce street activation. It is agreed that this would be the case and that the bridge is not an ideal solution. The indicative scheme provides for a high level of streetscape activation and this would be reinforced by proposed DCP controls. The enlarged through site link would be delivered as part of any future site redevelopment in accordance with the proposed DCP (refer comments above in relation to staging).	
	Summary: In summary, while the draft Planning Proposal only seeks to alter the development standards with which a future development proposal must accord, the indicative scheme submitted demonstrates that a comprehensive, mixed-use redevelopment of the Precinct can be achieved, largely in accordance with the RTCMP 2012 and the ADG subject to the implementation of proposed DCP controls and amendments as recommended above.	

Conclusion

The draft Planning Proposal has been the subject of a merit assessment against the strategic and statutory planning framework as established by the *Environmental Planning and Assessment Act 1979*, relevant guidelines, Planning Circulars and Practice Notes. In considering whether or not to progress the draft Planning Proposal, Council is required to consider if the proposed changes to the Rockdale Local Environmental Plan 2011 have strategic and site specific merit.

In summary, the subject assessment has identified that the draft Planning Proposal which seeks to amend the maximum height of building control from 22m to 27m and delete the maximum FSR control on the land has strategic and site specific merit. It has been a long-standing aim of Council to secure a comprehensive mixed-use redevelopment of the land and it is considered that the proposed amendments are both appropriate on the site and in the locality and will facilitate the future redevelopment of the Precinct.

It is however considered that to ensure any future redevelopment of the Precinct delivers the sought after public benefits (in particular an enlarged through site link) and provides for landowner equity, some significant changes are required to the proposed draft DCP amendment. These should be incorporated prior to referral of the draft Planning Proposal for a Gateway determination and should require:

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1. Development of the Precinct in a maximum of 2 stages with each stage to incorporate a minimum of 50% (6m width) of the required enlarged (minimum 12m width) through site link connecting Princess Highway and Geeves Avenue open to the sky with active uses fronting the link on both sides. Revised ADG compliance information based on the 2-staged approach should also be submitted.
2. Car parking provision within the precinct shall be provided for at a maximum rate consistent with the RMS Metropolitan Sub-Regional Centres parking rates for residential development, 1 space per 40m² for commercial and 1 space per 140m² for retail development.

Furthermore, a heritage assessment is required of buildings at 471-477 Princes Highway and 6-14 Geeves Avenue, Rockdale prior to the draft Planning Proposal being referred for a Gateway determination. The outcome/recommendations of the assessment should be reflected in any revised draft Planning Proposal forwarded for a Gateway determination. Subject to the above, it is considered that the draft Planning Proposal is consistent with the relevant strategic directions, policies and regional and local plans and strategies as demonstrated by the merit assessment undertaken.

For these reasons, it is recommended that Council supports the draft Planning Proposal and that, following the additional work required to the draft Planning Proposal, draft DCP and supporting documents as described above, the draft Planning Proposal be forwarded to the DPIE for a Gateway Determination.

Financial Implications

Not applicable



Community Engagement

Notification letters have been sent to the local community advising that the draft Planning Proposal is being presented to this meeting of Council, including advice on the LEP Amendment/Planning Proposal process.

Planning Proposal

Rockdale Local Environmental Plan 2011 Rockdale Transport Interchange Precinct



21 December 2018

Planning Proposal – Rockdale Transport Interchange Precinct

Contents

- Part 1 -** A statement of the objectives or intended outcomes of the proposed LEP
- Part 2 -** An explanation of the provisions that are to be included in the proposed LEP
- Part 3 -** The justification for those objectives, outcomes and provisions and the process for their implementation
- Part 4 -** Maps, where relevant, to identify the intent of the planning proposal and the area to which it applies
- Part 5 -** Details of the community consultation that is to be undertaken on the planning proposal
- Part 6 -** Project timeline

Table of revisions	
Version 1	Draft 9 June 2017
Version 2	1 November 2017
Version 3	27 August 2018
Version 4	9 October 2018
Version 5	21 December 2018

Record number (trim file)

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Introduction

This planning proposal explains the intended effect of and justification for the proposed amendment to *Rockdale Local Environmental Plan 2011 (Rockdale LEP 2011)*. It has been prepared in accordance with Section 3.33 of the *Environmental Planning and Assessment Act 1979* and the relevant Department of Planning and Environment guides, including 'A Guide to Preparing Local Environment Plans' and 'A Guide to Preparing Planning Proposals'.

Subject site

This planning proposal seeks to amend the planning controls for the Transport Interchange Precinct within the Rockdale Town Centre (refer to Figure 1).



Figure 1: Subject site

Background

This planning proposal is a result of the Rockdale Town Centre Masterplan, adopted by the former Rockdale City Council on 5 December 2012. The masterplan identifies key precincts that have redevelopment potential, are in need of revitalisation, and would have the greatest impact on improving the vibrancy of the town centre.

The masterplan identifies the Transport Interchange Precinct as a particularly important precinct. As stated in the masterplan, 'the redevelopment and revitalisation of this precinct is critical in order to establish a positive image for the centre and provide more convenient pedestrian movement between the station'.

A number of actions resulting from the masterplan have already been implemented through an amendment to the planning controls through the Rockdale Town Centre Planning Proposal. The key precincts identified in the masterplan incorporated site specific controls in Section 7.5.3 of the Rockdale DCP 2011 with the exception of the

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Transport Interchange Precinct. Due to the importance this precinct plays in realising the overall vision of the town centre, it was deferred so that further discussions with landowners and relevant State agencies could be conducted to ensure a positive outcome.

A key reason for deferring this precinct from the Rockdale Town Centre Planning Proposal was to prepare a Transport Management Accessibility Plan (TMAP) to address the concerns of Transport for NSW (TfNSW) in regard to the functioning of Rockdale train station and bus interchange.

Given the uncertainty around the timing of the preparation of the TMAP, one of the major landowners in the Transport Interchange Precinct decided to fund the preparation of the necessary transport study to address the concerns of TfNSW. TfNSW confirmed that a 'Transport Study' prepared in support of a planning proposal for the Transport Interchange Precinct would satisfy the requirements of a TMAP. TfNSW subsequently agreed the scope of works for the Transport Study, which accompanies this planning proposal.

This planning proposal provides a mechanism for facilitating redevelopment of the precinct into a high quality mixed use area with active street frontages, ground level retail and residential towers, which will contribute to the revitalisation of the town centre in accordance with the masterplan.

Rockdale Town Centre Masterplan (Masterplan)

The Rockdale Town Centre Masterplan (which was adopted by Council on 5 December 2015) identifies the site as the Transport Interchange Precinct, which has 'the potential to form a landmark for the Rockdale Town Centre'. One of the provisions in the Masterplan was to provide a pedestrian bridge over Geeves Avenue which connected Rockdale train station to the site. However, correspondence from Council (dated 12 June 2018) recommended that the pedestrian bridge be deleted from the scheme. Council considered the pedestrian bridge to have a greater private benefit than a community net benefit when considering the controls in Chapter 7.5 Rockdale Town Centre in the Rockdale Development Control Plan (DCP) 2011.

The Masterplan identifies the southern and western elevations of the site as 'active laneways' and page 7/43 of the DCP identifies the standards associated with that street role, and includes activation by retail and business premises. Council considers that a pedestrian bridge over the site would detract from the activation of the laneway, by removing pedestrians at ground level. Furthermore, Council considered there would be little public benefit in duplicating a pedestrian link given there is an existing through site link adjacent to the Commonwealth Bank.

Accordingly, the subject Planning Proposal does not incorporate a pedestrian bridge over Geeves Avenue and is consistent with the through site links identified in the Masterplan. Refer to Part 3 A1 for further discussion.

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The proposal includes a number of community benefits including:

- Providing a transit orientated development which integrates retail and housing with public transport;
- Improved permeability through and around the site with footpath widening and one through site link which connects the railway/bus interchange with Princes Highway;
- Activation of the ground floor with additional retail opportunities which will create areas for greater social interaction;
- Increase employment opportunities during construction and when the retail component is in operation; and
- Increase residential accommodation in the locality with the opportunity to provide affordable housing.

Evolution of the massing for the precinct

A significant number of massing options have been considered between 2014-2018 by Eeles Trelease which are illustrated on page 22 of the Urban Design Report. Council recently provided a 'preferred response' to the future Interchange Precinct which was part of their review of the Rockdale Town Centre Masterplan. Council's preferred response, Masterplan and Development Control Plan have all been taken into consideration when developing the massing for the precinct.

Previous schemes have incorporated three towers however this has recently been amended to two towers (with one to the north and the other to the south). The two towers will act as book ends for the precinct and improve amenity to the centre to the precinct and through site link (which is open to the sky). A pedestrian overbridge was previously proposed, however Council requested for this to be removed from the scheme. The street wall heights have been amended to be consistent with the DCP controls with 6 storeys to Princes Highway and 3 storeys to Geeves Avenue.

Part 1 - Objectives or Intended Outcomes

The objectives of the planning proposal are to:

- Provide flexibility and incentive for redevelopment of the precinct by increasing the maximum base building height control and removing the maximum FSR control for the land.
- Increase the base height control in the Rockdale LEP 2011 by 5m (from 22m to 27m) which will increase the maximum achievable height for the site to 39m (27m base height + 12m additional height subject to the Design Review Panel reviewing the proposal and the site being greater than 1,500m²).
- Remove the FSR control for the site in the Rockdale LEP 2011 to align with the approach taken in the Rockdale Town Centre. The built form is to be controlled by the height control and building envelope controls in the site specific DCP.
- Enable redevelopment of the precinct which includes:
 - A six storey podium along Princes Highway and a three storey podium along Geeves Avenue;
 - Create landmark buildings to the northern and southern ends for the precinct which will present a positive image of Rockdale Centre to

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passing motorists and rail users and facilitate high quality architectural design; and

- Improve the existing through site link by opening it up to the air and increasing its width.

- Increase housing supply and choice within walking distance of Rockdale Station, which will provide residents with easy access to major employment hubs including Sydney CBD and Hurstville, and will contribute to the State government's vision of a '30-minute city'.
- Renewal of the Transport Interchange Precinct and improvement to public domain along Princes Highway, Geeves Avenue and Tramway Avenue.
- Deliver a transit-orientated development in association with the Rockdale train station and bus interchange.

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Part 2 - Explanation of Provisions

The proposed outcomes will be achieved by amending *Rockdale LEP 2011* as follows:

A Map

It is proposed to amend the *Rockdale LEP 2011* Height of Buildings Map (Sheet HOB_004) and Floor Space Ratio Map (Sheet FSR_004) as per Table 1 below.

Table 1 – Proposed Map Amendments

Map Title No.	Amendment	Explanation
HOB_004	• Increase the maximum base HOB control from 22m to 27m for the entire site. • Retain 'Area A' designation for the entire site which allows for an additional 12m of additional height, under Clause 4.3(2A)(a), subject to the Design Review Panel reviewing the scheme under Clause 6.14(5)(a)(i).	Enables two landmark buildings that capitalises on the sites location at the 'Seven Ways' intersection and Rockdale Transport Interchange, including a through site link connecting the train station with Princes Highway. The proposal seeks to increase the base HOB control from 22m to 27m. Clause 4.3(2A)(a) will be retained, which allows an additional 12m for buildings in 'Area A' on sites greater than 1,500m² subject to the Design Review Panel reviewing the scheme as per Clause 6.14(5)(a)(i). The maximum achievable height for the site will be 39m (27m base height, plus an additional 12m as per Clause 4.3(2A)(a)). The proposal will increase the overall achievable building height by 5m, from 34m to 39m. Note: The concept scheme submitted with this proposal assumes utilisation of this additional height and proposes a height of 38.9m (or RL54.87).
FSR_004	• Remove the maximum 2:1 base FSR control for the entire site. • Remove the 'Area A' designation for the entire site which allows an additional FSR of 1:1, as per Clause 4.4(2C)(a).	Enables development with a density compatible with surrounding development and suitable to the site's landmark and highly accessible location. Aligns with the approach taken for other key precincts in Rockdale Town Centre under the already implemented Rockdale Town Centre planning proposal (PP_2013_ROCKD_001_00). Built form will instead be controlled by the HOB standard and the building envelope controls in the Rockdale DCP 2011, as well as the Department of Planning and Environment's <i>Apartment Design Guide</i>.

B Other Provisions

It is proposed to amend Clause 4.4 Floor space ratio of the *Rockdale LEP 2011* by repealing subclause 2C(a), which allows additional 1:1 FSR for development on lots within 'Area A' with an area of at least 1,500m². This subclause would no longer be necessary with the amendments to the FSR Map explained above.

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Part 3 – Justification

A Need for the planning proposal

A1 Is the planning proposal a result of any strategic study or report?

The planning proposal implements the Rockdale Town Centre Masterplan, adopted by Council on 5 December 2012. The Masterplan identifies the site as the Transport Interchange Precinct, which has 'the potential to form a landmark for the Rockdale Town Centre'. The desired future character for the precinct under the masterplan is summarised as follows:

- Mixed Use development with ground floor retail and residential above;
- Landmark built form visible to passing motorists and rail users;
- Direct level pedestrian access from the railway station concourse into the development;
- Upgraded and expanded through link between the bus interchange and Princes Highway; and
- Expanded bus interchange.

The planning proposal implements new development controls for a key 'missing' piece of the Rockdale Town Centre Masterplan, supported by a Transport Study addressing the concerns of TfNSW.

It is reiterated that correspondence from Council recommended that the pedestrian bridge from the railway station concourse identified in the Masterplan be removed from the scheme. The proposal includes a number of other community benefits and discussions are to be held with Council to identify if further public benefits are required.

A2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The Rockdale Town Centre Masterplan proposes height and density increases for land in the Transport Interchange Precinct. Given that height and density are controlled by *Rockdale LEP 2011*, a planning proposal is the best means for achieving this outcome.

B Relationship to strategic planning framework

B1 Is the planning proposal consistent with the objectives and actions contained within the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

Greater Sydney Region Plan: A Metropolis of Three Cities

The *Greater Sydney Regional Plan: A Metropolis of Three Cities* was released in March 2018 and sets out a vision, objectives, strategies and

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actions for a metropolis of three cities across Greater Sydney. The Plan replaced the previous *A Plan for Growing Sydney*. The Plan outlines 10 overarching directions which aim to provide interconnected infrastructure, productivity, liveability and sustainability benefits to all residents. The planning proposal's consistency with the 10 directions is discussed below:

Table 2 – Consistency with Greater Sydney Region Plan: A Metropolis of Three Cities

Directions	Objectives	Consistency
Infrastructure and collaboration		
1. A city supported by infrastructure	Objective 1: Infrastructure supports the three cities Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact Objective 3: Infrastructure adapts to meet future needs Objective 4: Infrastructure use is optimised	Objectives 1-3 are not relevant to the planning proposal given they relate to the provision of new infrastructure. In relation to Objective 4, the planning proposal will optimise public transport use given it is located directly to the east of Rockdale train station and bus interchange. The development will maximise the use of existing public transport assets and will reduce the need for additional infrastructure. Furthermore, the proposal will co-locate a mix of land uses (including residential, commercial and retail) which ensure the efficient use of the site and reduce the need for travelling.
2. A collaborative city	Objective 5: Benefits of growth realised by collaboration of governments, community and business	The planning proposal will be prepared with the collaboration of State and local government agencies and will be notified to the community. The planning proposal implements Council's Rockdale Town Centre Masterplan which is a Council initiative.
Liveability		
3. A city for people	Objective 6: Services and infrastructure meet communities' changing needs Objective 7: Communities are healthy, resilient and socially connected Objective 8: Greater Sydney's communities are culturally rich with diverse neighbourhoods Objective 9: Greater Sydney celebrates the arts and supports creative industries and innovation	Objective 6 relates to the provision of social infrastructure to reflect the needs of the community. There is an opportunity to provide affordable housing in the scheme which will be considered as part of a future Development Application and will provide housing for a wider range of community members. In relation to Objective 7, the proposal will provide retail along the street frontages and to the through site links which will activate these areas and provide opportunities for social interaction. The proposal will create a walkable place with the provision of retail and commercial uses conveniently located close to residential accommodation. Bicycle parking will be provided in the scheme which will be detailed in the future Development Application. The promotion of walking and cycling will improve the health of future residents and reduce traffic congestion. In relation to Objective 8, Rockdale is a culturally rich town centre and the future

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Directions	Objectives	Consistency
		scheme will ensure that cultural diversity is celebrated through the provision of various retail and commercial opportunities. In relation to Objective 9, there may be opportunities to provide public art and to promote a night time economy with various restaurants. These items will be explored during the future Development Application stage.
4. Housing the city	Objective 10: Greater housing supply Objective 11: Housing is more diverse and affordable	Objective 10 relates to increasing the housing supply and the Eastern City District housing targets are 46,550 between 2016-2021 and 157,500 between 2016-2036. The planning proposal will provide additional housing diversity and will contribute to the housing targets. In relation to Objective 11, the proposal will provide a range of housing for singles, young couples and families. There is also an opportunity to provide affordable housing which will further explored during the Development Application stage.
5. A city of great places	Objective 12: Great places that bring people together Objective 13: Environmental heritage is conserved and enhanced	In relation to Objective 12, the proposal will provide retail opportunities which will bring community together. The proposed restaurants and cafes will provide a meeting point for community members, linked by an improved pedestrian environment. In relation to Objective 13, there are no heritage items on the site nor is the site within a heritage conservation area. The proposal has no adverse impacts on any surrounding heritage item (Brick buildings, signal box and overhead booking office to Rockdale train station referenced I222 in the Rockdale LEP 2011).
Productivity		
6. A well connected city	Objective 14: A metropolis of three cities – integrated land use and transport creates walkable and 30-minute cities Objective 15: The Eastern, GOPP and Western Economic Corridors are better connected and more competitive Objective 16: Freight and logistics network is competitive and efficient Objective 17: Regional transport is integrated with land use	In relation to Objective 14, the proposal will be well connected with services and facilities, which will create a walkable community. The proposal will be within 30 minutes of Hurstville and Sydney CBD. Objectives 15-16 are not relevant to the planning proposal. In relation to Objective 17, the site is accessible to Gosford, Newcastle and Wollongong via the train network which will allow for greater job opportunities and business links.
7. Jobs and skills for the	Objective 18: Harbour CBD is stronger and	Objectives 18, 19, 20 and 23 are not relevant to the planning proposal.

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Directions	Objectives	Consistency
city	more competitive Objective 19: Greater Parramatta is stronger and better connected Objective 20: Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City Objective 21: Internationally competitive health, education, research and innovation precincts Objective 22: Investment and business activity in centres Objective 23: Industrial and urban services land is planned, protected and managed Objective 24: Economic sectors are targeted for success	In relation to Objective 21, the site is located within 30 minutes of a number of Health and Education Precincts and 'Biotechnology Clusters' and the proposal will provide further housing for workers. In relation to Objectives 22 and 24, the proposal will provide further employment opportunities during construction and when in operation. The planning proposal will support the growth of Rockdale Town Centre and will increase the number of people living closer to jobs, accessible by public transport.
Sustainability		
8. A city in landscape	Objective 25: The coast and waterways are protected and healthier Objective 26: A cool and green parkland city in the South Creek corridor Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced Objective 28: Scenic and cultural landscapes are protected Objective 29: Environmental, social and economic values in rural areas are maintained and enhanced Objective 30: Urban tree canopy cover is increased Objective 31: Public open space is accessible, protected and enhanced Objective 32: The Green Grid links parks, open spaces, bushland and walking and cycling paths	Objectives 25-29, 31 and 32 are not relevant to the planning proposal. In relation to Objective 30, the proposal will incorporate garden courtyards above the podium level which will provide open space for future residents and soften the building envelope. There is an opportunity to increase the planting along the street frontages which will be explored further at the Development Application stage. Furthermore, the proposal will improve the public domain and the pedestrian environment by increasing the setback of the building along the pedestrian footpath.
9. An efficient city	Objective 33: A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change	In relation to objective 33, the proposal will create a transit orientated development which integrates employment (with retail uses), housing and public transport which reduces

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Directions	Objectives	Consistency
	Objective 34: Energy and water flows are captured, used and re-used Objective 35: More waste is re-used and recycled to support the development of a circular economy	the need to travel by car. The proposal will also incorporate sustainable construction methods and energy efficient design measures within the building which will be explored further as part of the DA process. In relation to Objectives 34 and 35, the proposal will facilitate the redevelopment of the site as a mixed use development and sustainability practices will be secured at the detailed design stage and examined as part of a future Development Application. Furthermore, the proposal will create a transit orientated development with increased densities in proximity to Rockdale station and bus interchange which will reduce the need of vehicle use thereby improving the environment.
10. A resilient city	Objective 36: People and places adapt to climate change and future shocks and stresses Objective 37: Exposure to natural and urban hazards is reduced Objective 38: Heatwaves and extreme heat are managed	Objectives 36-38 are not relevant to the planning proposal.

Premier's Priorities

The 'Premier's Priorities' have been recently released and essentially supersedes the previous NSW 2021. The 'Premier's Priorities' set out 12 priorities which reflect a whole-of-government approach to tackling important issues for the people of NSW, from helping vulnerable children and raising the performance of school students, to improving housing affordability and building local infrastructure. The proposal is consistent with the priority 'making housing more affordable' as discussed further in the table below.

Table 3 – Consistency with the 'Premier's Priorities'

Priority	What the NSW government are doing?	Consistency
Making housing more affordable	The Premier has a commitment to deliver an average 61,000 housing completions per year, which will be achieved through two targets: 90 per cent of housing approvals determined within 40 days by 2019 - State-led rezoning for 10,000 additional dwellings on average per year in appropriate areas to	Whilst the site does not fall within a Planned Precinct, the Planning Proposal will contribute approximately 244 residential units which will contribute to the governments housing targets.

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Priority	What the NSW government are doing?	Consistency
	2021. Planned precincts will be expanded to fast track the delivery of new homes which will accelerate the rezoning of land to support new and more diverse developments.	

Future Transport Strategy 2056

The Future Transport Strategy 2056 (Strategy) is an update of the 2012 Long Term Transport Master Plan for NSW. It is a 40 year strategy, supported by plans for regional NSW and for Greater Sydney. It outlines a vision, strategic directions and customer outcomes, with infrastructure and services plans underpinning the delivery of these directions across the state.

The vision is built on six outcomes and the proposal is consistent with the outcome 'successful places' refer to table 4 below for further discussion.

Table 4 – Consistency with the NSW 2021

Future Transport Statewide Outcomes	Performance focus	Measures and indicators	Consistency
Successful Places	Deliver transport initiatives that improve the liveability of places	Liveability of places Increase the number of people able to access centres by walking, cycling and using public transport	The proposal will create a mixed use precinct will improve the liveability of Rockdale town centre by providing a mixture of retail and commercial uses which will be accessible by public transport, cycling or walking.

NSW State Infrastructure Strategy 2018-2038

The *NSW State Infrastructure Strategy 2018-2038* (SIS) sets out the government's priorities for the next 20 years and combined with the *Future Transport Strategy 2056*, the *Greater Sydney Region Plan* and the *Regional Development Framework*, brings together infrastructure investment and land-use planning for our cities and regions. *Building Momentum State Infrastructure Strategy 2018-2038* looks beyond the current projects and identifies policies and strategies needed to provide the infrastructure that meets the needs of a growing population and a growing economy.

The Strategy is set out in three parts: Strategic Directions, Geographic Infrastructure Directions, and Sectors. Under the Geographic Infrastructure Directions, Rockdale is identified within the proposed F6

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extension as illustrated in the figure below. The subject site will benefit from the F6 extension as it will improve connections to the south and transport connectivity.

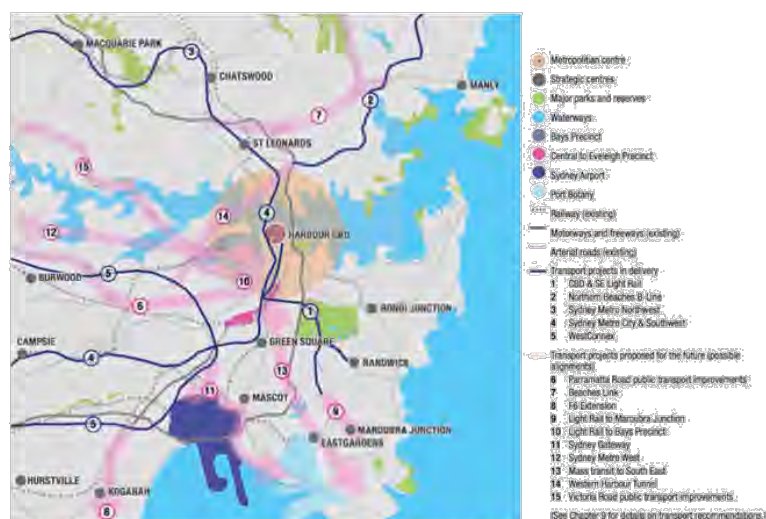


Figure 2: Eastern Harbour City (movement)

One of the infrastructure responses in the Strategy, seeks to improve intracity walking and cycling infrastructure. The existing pedestrian arcade is poorly utilised as it is not situated close to the train station entry/exit point and does not align with King Street (across Princes Highway). Furthermore, the footpath along Geeves Avenue is confined given it is narrow and often pedestrians cut across Tramway Arcade or Geeves Avenue to reach their destination.

The proposal will create a through site link for pedestrians accessing Princes Highway which is generous in width, open to the air and activated by retail opportunities. Furthermore, the proposal will increase the width of the footpaths to Geeves Avenue (by 2.5m) and Princes Highway (3m). These measures will improve pedestrian access through the site and connections between the train station/bus interchange and the Rockdale Town Centre.

Furthermore, the proposal will incorporate bicycle parking which will promote cycling within the locality. The provision of bicycle parking will be considered further in a future Development Application for the site.

Eastern City District Plan (March 2018)

The Eastern City District Plan identifies a range of planning priorities for the District, in line with the four categories identified in the *Greater Sydney Region Plan 2056*:

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- Infrastructure and collaboration;
- Liveability;
- Productivity; and
- Sustainability.

The planning proposal's consistency with the priorities in the draft District Plan are discussed in further detail below.

Infrastructure and collaboration

Planning Priority E1. Planning for a city supported by infrastructure

The planning proposal will provide additional housing and retail floor space within close proximity to Rockdale station and bus interchange, which will optimise the existing public transport infrastructure.

Planning Priority E2. Working through collaboration

The planning proposal will allow for the delivery of further housing and jobs to be prepared in collaboration with the State and Local Government and the community.

Liveability

Planning Priority E3. Providing services and social infrastructure to meet people's changing needs

There is an opportunity to provide affordable housing in the scheme which will be considered as part of a future Development Application and will provide housing for a wider range of community members.

Planning Priority E4. Fostering healthy, creative, culturally rich and socially connected communities

The proposal will activate the street frontages and through site links which will provide opportunities for social interaction. The proposal will create a walkable place with the provision of retail and commercial uses conveniently located close to residential accommodation. Bicycle parking will be provided in the scheme which will be detailed in the future Development Application. The promotion of walking and cycling will improve the health of future residents and reduce traffic congestion.

Planning Priority E5. Providing housing supply, choice and affordability, with access to jobs and services

The draft District Plan has a housing target for Bayside Council of an additional 10,150 dwellings between 2016-2021. The proposal enables increased housing supply and choice and will feature a range of apartment sizes and types. The proposal also helps foster a design-led approach to development that recognises the site's strategic location and provides for an agglomeration of people and activity. The Greater

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Sydney Commission's testing reaffirms that generally a range of 5-10% of new floor space is viable for affordable housing and are to work with the DP&E to develop mechanisms required for delivery of the proposed Affordable Rental Housing Target. The provision of affordable housing will be further discussed with Council to ensure an appropriate level of affordable housing is delivered across the broader precinct.

Planning Priority E6. Creating and renewing great places and local centres, and respecting the District's heritage

Rockdale is identified as a 'local centre' which has an 800m walking catchment. Local centres are to be the focal point of neighbourhoods and where they are a focus of public transport they are an important part of a 30 minute city. The proposal will renew the Rockdale Transport Interchange site which will prioritise a friendly public realm and walkability with the provision of the through site link and pedestrian bridge and ground floor retail.

Productivity

Planning Priority E10. Delivering integrated land use and transport planning and a 30-minute city

The proposal encourages the well-planned and efficient growth of Rockdale Town Centre by enabling development of a mixed use precinct adjacent to Rockdale Station, located on the Illawarra Line. This will contribute to the local retail economy and bolster the economy of the broader Central District. Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.

The planning proposal will deliver integrated land use and transport planning, by locating well-designed housing in close proximity to the station and facilitating improved pedestrian linkages from the train station/bus interchange to Princes Highway, as well as safer environment for pedestrians and buses.

Sustainability

Planning Priority E17 Increasing urban tree canopy cover and delivering Green Grid connections

Some of the actions in this Planning Priority seek to expand the urban tree canopy in the public realm and refine the detailed design and delivery of the green grid opportunities. Princes Highway is identified as an 'Other Green Grid Opportunities' connection. There is an opportunity to increase the planting along Princes Highway which will contribute to the green grid and be consistent with the planning priority. The

proposed planting will be explored further at the Development Application stage.

Planning Priority E19. Reducing carbon emissions and managing energy, water and waste efficiently

The proposal will have no adverse impacts on the natural environment, as this is already an urbanised setting. It is anticipated that future development at the site will integrate water sensitive urban design measures as needed. The proposal promotes environmental efficiency by increasing development potential in an existing centre with good infrastructure. The sustainability measures are to be further considered during the detailed design phase.

Planning Priority E20 Adapting to the impacts of urban and natural hazards and climate change

Objective 37 of the Planning Principle looks at ensuring exposure to natural and urban hazards is reduced. The site abuts Princes Highway and the railway line and falls with the 20 and 25 ANEF contours, thus there will be potential noise and air pollution impacts from these urban hazards. The future Development Application for the site will outline mitigation measures to reduce the noise and air pollution impacts to the future residents.

B2 Is the planning proposal consistent with the local council's Community Strategic Plan or other local strategic plan?

Rockdale Town Centre Masterplan (2012)

The Rockdale Town Centre Masterplan identifies the site as the Transport Interchange Precinct. The masterplan provides a number of structure plan elements for achieving the vision for this precinct. The proposal's consistency with these elements is outlined below.

- *Element 5.3.1: High quality mixed use development consisting of a podium containing retail uses on the ground and first floor, which fronts the Princes Highway and the new improved pedestrian linkages, and residential towers above, designed to achieve high levels of amenity and provide modern apartment living in the heart of the Centre.*

The proposal enables redevelopment of the site to create a high quality mixed use development. The proposal will include a 3 and 6 storey podium with garden courtyards above for residential open space and above the podium levels will be various towers (with a total height of 5, 6 and 12 storeys). The ground floor will incorporate retail opportunities while residential accommodation will be provided from Level 1 and above. The proposal will not incorporate retail uses on the first floor given the pedestrian bridge has been removed from the scheme (as requested by Council).

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The shape and orientation of the towers have been considered to ensure high levels of amenity are achieved in accordance with the SEPP 65 design principles and Apartment Design Guide (ADG) design criteria. As demonstrated in the figure below the proposal will achieve sufficient separation distances in between the three towers as per the ADG.

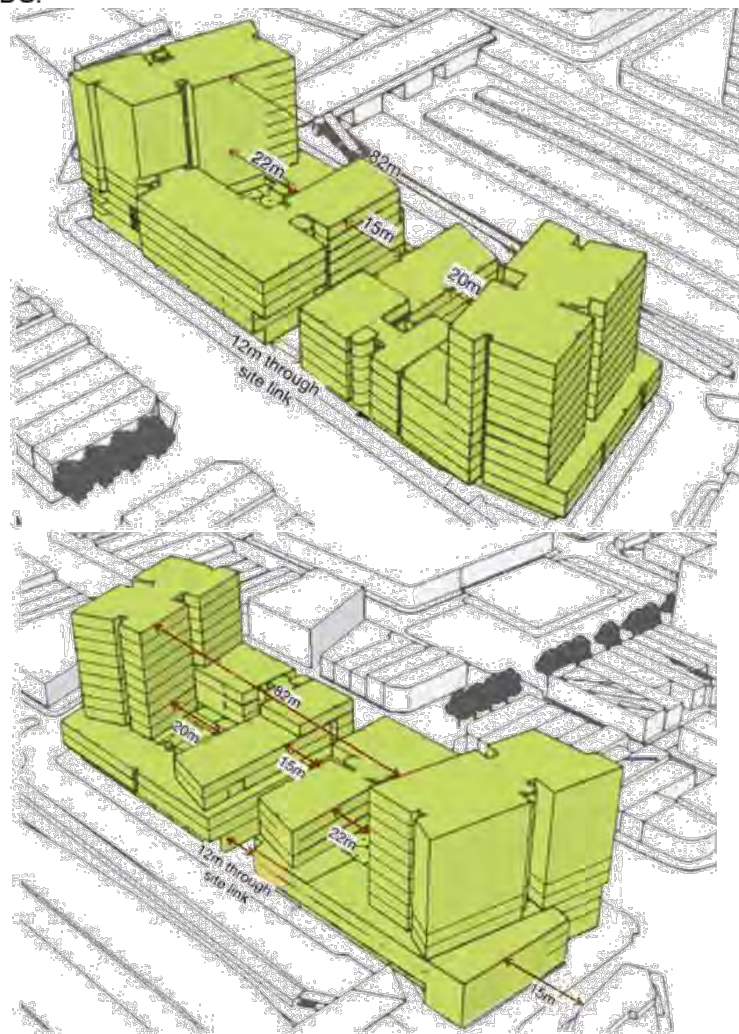


Figure 3: Building separation distances between the residential towers

The proposal will improve the pedestrian linkages between Rockdale station, bus interchange and Rockdale Town Centre through the inclusion of a through site link and footpath widening, as illustrated in the figure below.

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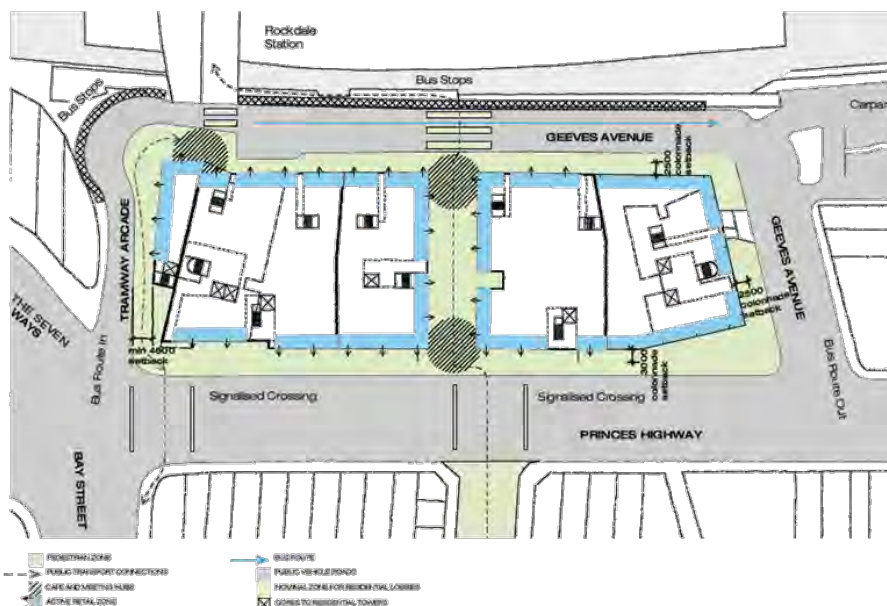


Figure 4: Proposed pedestrian linkage and footpath widening

- *Element 5.3.2: The development will become a landmark at the Seven Ways intersection which presents a positive image of the centre to passing motorists and rail users.*

The proposal provides for increased density and building height and will create two landmark buildings with one to the Seven Ways intersection. The future scheme will need to be reviewed by the Design Review Panel under Clause 6.14(5)(a)(i) of the Rockdale LEP 2011 will ensure the future development will exhibit design excellence and be of a high architectural quality.

- *Element 5.3.33: Provide an improved and enlarged through site pedestrian link which connects the bus interchange with the Princes Highway at the pedestrian traffic signals.*

As shown in figure 4 above, the proposal enables redevelopment of the site with an improved and enlarged pedestrian through site link connecting the bus interchange with Princes Highway/King Street at the pedestrian traffic signals. The through site link will be bounded by retail uses which will activate the link and will be open to the air.

- *Element 5.3.4: Facilitate the upgrade and expansion of the bus interchange, and provide a setback to Geeves Avenue to achieve the required space.*

As shown in the figure below, the proposal enables redevelopment of the site with a 2.5m setback which is to be dedicated to Council

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along Geeves Avenue to allow for future expansion of the bus interchange.

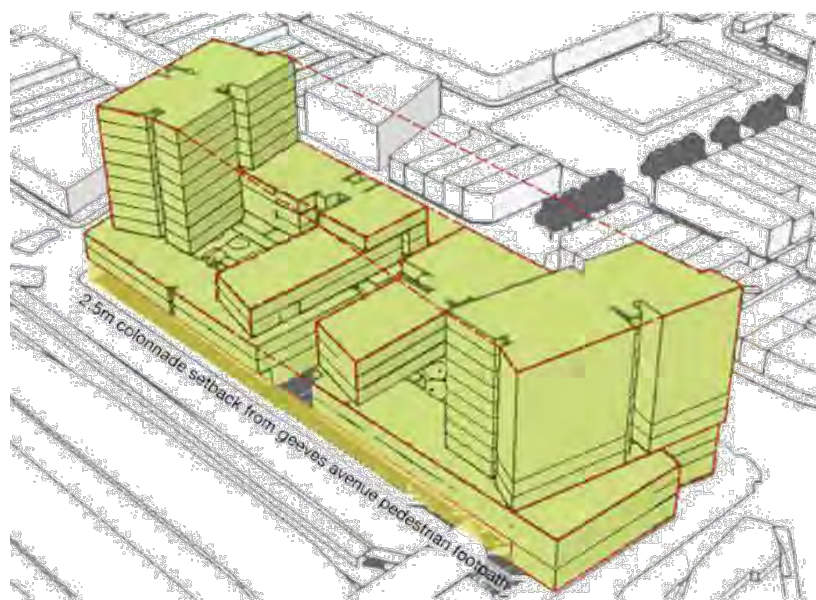


Figure 5: Proposed setback along Geeves Avenue

- *Element 5.3.5: Direct level access for pedestrians provided from the railway station concourse into the redevelopment, which connects to the Seven Ways intersection and the improved through site pedestrian link. All this will be activated by retail uses.*

It is reiterated that correspondence from Council (dated 12 June 2018) recommended that the pedestrian bridge be deleted from the scheme and another material public benefit or VPA option be provided in the Planning Proposal. Furthermore, the proposal will widen the footpath along Tramway Arcade to improve the permeability from the railway station to Seven Ways intersection. It is anticipated that the building along Tramway Arcade (including 2-18 Tramway Arcade) will incorporate ground floor retail which activate this street.

The proposed amendment to the Rockdale LEP is generally consistent with the Rockdale Masterplan.

Bayside Community Strategic Plan 2018-2030

The Bayside Community Strategic Plan 2018-2030 (which superseded the Rockdale City Community Strategic Plan) sits at the top of Council's planning framework and sets the strategic direction for Council's Delivery Program and Operational Plans. The themes and directions

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outlined in this plan will inform Council's Delivery Program which sets out the outcomes Council will work towards during the current term of office, and the annual Operational Plans that describe Council's activities towards achieving those outcomes.

Table 5 below identifies how the Planning Proposal is consistent with the themes.

Table 5 – Consistency with Bayside Community Strategic Plan 2018-2030

Theme One – Bayside will be a vibrant place	How We Will Get There	Consistency
Strategic Direction – Our places are people-focussed	Local areas are activated with cafes, restaurants and cultural events	The ground floor retail component will activate the street frontages and the through site link. There will be opportunities to incorporate cafes, restaurants and potential cultural events.
	Places have their own village atmosphere and sense of identity	The proposal enables development of a high quality mixed use precinct which will contribute to the vibrancy of Rockdale Town Centre. There may be opportunities to promote a night time economy with various restaurants.
	My community and council work in partnership to deliver better local outcomes	The proposal will create a better local outcome by providing further retail floor space which is highly accessible.
	The public spaces I use are innovative and put people first	The proposal will be pedestrian friendly and put people first by creating a through site link and widening the footpaths.
	There is an appropriate and community-owned response to threats	Not applicable.
Strategic Direction – Our places connect people	Walking and cycling is easy in the City and is located in open space where possible	The proposal enables development in close proximity to services and facilities in Rockdale Town Centre, which will promote walking and cycling.
	We are one community with shared objectives and desires	Not applicable.
	Our heritage and history is valued and respected	There are no heritage items on the site, and the proposal has no adverse impacts on any surrounding heritage item (Brick buildings, signal box and overhead booking office to Rockdale train station referenced I222 in the Rockdale LEP 2011).
Strategic Direction – Our places are acceptable to all	Open space is accessible and provides a range of active and passive recreation opportunities to match our growing community	The proposal does not incorporate open space however the site is in close proximity to a number of parks in the locality including Hogben Park and McCarthy

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		Reserve.
	SMART Cities – making life better through smart use of technologies	Not applicable.
	Assets meet community expectations	Not applicable.
	Bayside provides safe and engaging spaces, places and interactions	The proposal enables development that accords with the principles of Crime Prevention Through Environmental Design (CPTED). This will be achieved through facilitating passive surveillance by increasing residential units and retail shops that overlook the public domain and avoid enclaves where offenders can hide and entrap victims. Clear sight lines will be established to avoid areas where graffiti or vandalism could occur. CPTED measures to be implemented in the scheme will be further investigated at the DA stage.
	People who need to can access affordable housing	The proposal provides for increased housing supply and there is an opportunity to provide affordable housing which will be explored at the DA stage. The development will provide a range of apartment types suited to the needs of the community.
	We welcome visitors and tourists to our City	Not applicable.
Strategic Direction – My place will be special to me	Local developments reflect innovative, good design and incorporate open space and consider vertical families	The residential accommodation will incorporate private open space and communal open space for future residents which will be consistent with the Apartment Design Guide requirements and be considered as part of the future DA.
	Bayside will be a 30 minute City – residents work locally or work off-site – no-one has to travel for more than 30 minutes to work	Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.
	Traffic and parking issues are a thing of the past	Traffic impacts are discussed in detail in Part 3 – Justification of the report. The site is highly accessible to public transport services and the development proposes a range of car parking spaces including between 325 and 383 spaces with a reduced retail/commercial rate. Overall, the operation of the surrounding existing intersections is unlikely to be substantially impacted, subject

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		to minor traffic improvements.
	Road, rates and rubbish are not forgotten	The proposal enables development that contributes to the cleanliness of Rockdale through improved on-site waste management.
	Gateway sites are welcoming and attractive	The proposal provides for increased density and building height, which will enable the site to function as a gateway building. The future scheme will need to be reviewed by the Design Review Panel under Clause 6.14 of the Rockdale LEP 2011 (where sites are amalgamated) which will ensure the future development will be of a high architectural quality and attractive.
Theme Two – In 2030 our people will be connected in a smart City	How We Will Get There	Consistency
Strategic Direction – We benefit from technology	Council engages with us and decision making is transparent and data driven	Not applicable.
	We can access information and services online and through social media	Not applicable.
	We are a digital community	Not applicable.
	Technological change has been harnessed and we are sharing the benefits	Not applicable.
Strategic Direction – We are unified and excited about our future	Community leadership is developed and supported	Not applicable.
	We are all included and have a part to play in the City	Not applicable.
	The City is run by, with and for the people	Not applicable.
	We are proud of where we live	The proposal enables development of a high quality mixed use precinct which will contribute to the vibrancy of Rockdale Town Centre.
Strategic Direction – The community is valued	Aboriginal culture and history is recognised and celebrated	Not applicable.
	We are a healthy community with access to active recreation and health education	The proposal will promote cycling and walking and will improve the health and well being of future residents.
	All segments of our community are catered for – children, families, young people and seniors	The development will provide a range of apartment types suited to the needs of the community.
	Opportunities for passive and active activities are available to community members, including people with pets	The proposal will incorporate private open space and communal open space and will be within close proximity to a number of

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		parks.
	The value of pets in the community is recognised and they are welcomed across the city	Pets will be welcome within the development.
Strategic Direction – We treat each other with dignity and respect	We can participate in cultural and arts events which reflect and involve the community	There may be an opportunity to include cultural and art events within the ground floor retail component which will encourage community participation.
	Flexible care/support arrangements for seniors, children and people with disabilities are available across the LGA	Not applicable.
	Cultural diversity is reflected and celebrated in the City's activities	There may be an opportunity to include cultural and art events within the ground floor retail component which will celebrate Rockdale's multiculturalism.
	Our public buildings are important community hubs and are well maintained and accessible	Not applicable.
Theme Three – In 2030 bayside will be green, leafy and sustainable	How We Will Get There	Consistency
Strategic Direction – Our waste is well managed	I can reduce my waste through recycling and community education	The development will incorporate appropriate waste management including recycling in the future building for the residential and retail uses.
	Illegal dumping is a thing of the past	Appropriate management of waste will be undertaken during the construction phase and no illegal dumping will be undertaken.
Strategic Direction – We are prepared for climate change	We understand climate change and are prepared for the impacts	The proposal will enable development capable of employing sustainable construction and design practices.
	Our City is prepared for/able to cope with severe weather events	The building will be constructed to ensure is a able to cope with severe weather events.
	Our streetscapes are green and welcoming	There is an opportunity to increase the planting along the street frontages which will be explored further at the Development Application stage.
Strategic Direction – We increase our use of renewable energy	Our City promotes the use of renewable energy through community education	The redevelopment of the site will incorporate sustainability measures which will be addressed at the DA stage.
	Our City models use of renewable energy and reports gains benefits to the community	Not applicable.
Strategic Direction – Waterways and green	Water is recycled and re-used	The redevelopment of the site will incorporate sustainability

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corridors are regenerated and preserved		measures where possible which will be addressed at the DA stage.
	The community is involved in the preservation of our natural areas	Not applicable.
	We have an enhanced green grid/tree canopy	There is an opportunity to increase the planting along the street frontages which will contribute to the green grid and be consistent with the planning priority. It is noted that the site is identified as an 'Other Green Grid Opportunities' site in the Eastern City District Plan. The proposed planting will be explored further at the Development Application stage.
Theme Four – In 2030 we will be a prosperous community	How We Will Get There	Consistency
Strategic Direction – Opportunities for economic development are recognised	Major employers support/partner with local small business	Not applicable.
	We are an international hub for transport and logistics-related business	Not applicable.
	Industrial lands and employment lands are preserved – partnering with major employers to support local jobs	Not applicable.
Strategic Direction – Local housing, employment and business opportunities area generated	Bayside will be a 30 minute City – residents work local or work off-site – no-one has to travel for more than 30 minutes to work	Future residents will be located within walking distance of local businesses and within 30 minutes train travel of jobs located within the major employment hubs, including Sydney CBD and Hurstville.
	Council is a major employer, supports local apprenticeships and cadetships	Not applicable.
	People who need to can access affordable housing	There is an opportunity to provide affordable housing which will further explored during the Development Application stage.
Strategic Direction – The transport system works	We can easily travel around the LGA – traffic problems/gridlock are a thing of the past	The proposal will reduce the amount of car parking associated with the development which will reduce traffic gridlock and traffic will be able to easily travel around the site.
	We can easily travel to work by accessible, reliable public transport	The proposal will create a walkable environment which is in close proximity to the Rockdale bus interchange and train station.
Strategic Direction – We are prepared for a sharing economy	Innovative businesses are supported to locate in Bayside	Innovative businesses will be supported in the future retail tenancies.

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	Local Plans and regulations have kept pace with the sharing economy	Not applicable.
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B3 Is the planning proposal consistent with applicable State Environmental Planning Policies (SEPPs)?

Consistency with the State Environmental Planning Policies is provided in Table 6, below.

Table 6 - Consistency with State Environmental Planning Policies

No.	Title	Consistency with Planning Proposal
1	Development Standards	Repealed by <i>RLEP 2011</i>
14	Coastal Wetlands	Not applicable
15	Rural Landsharing Communities	Not applicable
19	Bushland in Urban Areas	Not applicable
21	Caravan Parks	Not applicable
22	Shops and Commercial Premises	Repealed
26	Littoral Rainforests	Not applicable
29	Western Sydney Recreation Area	Not applicable
30	Intensive Aquaculture	Not applicable
32	Urban Consolidation (Redevelopment of Urban Land)	Repealed
33	Hazardous and Offensive Development	Not applicable
36	Manufactured Home Estates	Not applicable
39	Spit Island Bird Habitat	Not applicable
44	Koala Habitat Protection	Not applicable
47	Moore Park Showground	Not applicable
50	Canal Estate Development	Not applicable
52	Farm Dams and Other Works in Land and Water Management Plan Areas	Not applicable
55	Remediation of Land	The site has been used as a mixed use development for some time. It is high unlikely the land would be subject to a level of contamination that would preclude its use for residential accommodation. Further contamination investigations will be undertaken at DA stage. The planning proposal does not seek to hinder the application of Clause 6 of SEPP 55.
59	Central Western Sydney Regional Open Space and Residential	Not applicable
60	Exempt and Complying Development	Repealed by <i>RLEP 2011</i>
62	Sustainable Aquaculture	Not applicable
64	Advertising and Signage	Not applicable
65	Design Quality of Residential Flat Development	- The proposal enables a mixed use development designed in accordance with the 9 design quality principles under SEPP 65 and capable of complying with the provisions of the Apartment Design Guide (ADG). - Compliance with the ADG will be assessed at development application stage.
70	Affordable Housing (Revised Schemes)	To be addressed at the development application stage if affordable housing is

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		proposed.
71	Coastal Protection	Not applicable
	(Affordable Rental Housing) 2009	To be addressed at the development application stage if affordable housing is proposed.
	(Building Sustainability Index: BASIX) 2004	To be addressed at the development application stage.
	(Exempt and Complying Development Codes) 2008	The proposal does not hinder the application of this SEPP.
	(Housing for Seniors or People with a Disability) 2004	The proposal does not hinder the application of this SEPP.
	(Infrastructure) 2007	- The site has frontage to Princes Highway, a classified Road as per the Schedule of Classified Roads and Unclassified Regional Roads. Future residential development will need to achieve the objectives and conditions of cl. 101 of this SEPP, which relates to development with frontage to a classified road. - The site is located in close proximity to a railway line. Future residential development will have to demonstrate compliance with cl. 87 of this SEPP, which relates to the impact of rail noise or vibration on non-rail development.
	(Kosciuszko National park Alpine Resorts) 2007	Not applicable
	(Kurnell Peninsula) 1989	Not applicable
	(State Significant Precincts) 2005	Not applicable
	(Mining, Petroleum Production and Extractive Industries) 2007	Not applicable
	(Miscellaneous Consent Provisions) 2007	Not applicable
	(Penrith Lakes Scheme) 1989	Not applicable
	(Rural Lands) 2008	Not applicable
	(SEPP 53 Transitional Provisions) 2011	Not applicable
	(State and Regional Development) 2011	Not applicable
	(Sydney Drinking Water Catchment) 2011	Not applicable
	(Sydney Region Growth Centres) 2006	Not applicable
	(Three Ports) 2013	Not applicable
	(Urban Renewal) 2010	Not applicable
	(Western Sydney Employment Area) 2009	Not applicable
	(Western Sydney Parklands) 2009	Not applicable

See Table 7 below which reviews the consistency with the formerly named State Regional Environmental Plans, now identified as deemed SEPPs.

Table 7 - Consistency with deemed State Environmental Planning Policies

No.	Title	Consistency with Planning Proposal
8	(Central Coast Plateau Areas)	Not applicable
9	Extractive Industry (No.2 – 1995)	Not applicable
16	Walsh Bay	Not applicable
18	Public Transport Corridors	Not applicable

[Insert record number (and Trim file)]

19	Rouse Hill Development Area	Not applicable
20	Hawkesbury-Nepean River (No.2 – 1997)	Not applicable
24	Homebush Bay Area	Not applicable
26	City West	Not applicable
30	St Marys	Not applicable
33	Cooks Cove	Not applicable
	(Sydney Harbour Catchment) 2005	Not applicable

B4 Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?

See Table 8 below which reviews the consistency with the Ministerial Directions for LEPs under section 9.1 of the *Environmental Planning and Assessment Act 1979*.

Table 8 - Consistency with applicable Ministerial Directions

1. Employment and Resources

No.	Title	Consistency with Planning Proposal
1.1	Business and Industrial Zones	The objectives of this direction are to: a) encourage employment growth in suitable locations, b) protect employment land in business and industrial zones, and c) support the viability of identified The site's current B2 Local Centre zoning will remain unchanged, and the total potential floor space area for employment uses will increase. The proposal will enable development of a high quality mixed use precinct in a suitable location close to existing public transport and other infrastructure and services. It is estimated that the site once developed will have the following economic impacts on an annual basis: ▪ \$111.6 million in output. ▪ \$58.7 million contribution to Gross Regional Product. ▪ \$35 million in incomes and salaries. ▪ 446 full time equivalent jobs, including 196 direct jobs.
1.2	Rural Zones	Not applicable
1.3	Mining, Petroleum Production & Extractive Industries	Not applicable
1.4	Oyster Aquaculture	Not applicable
1.5	Rural Lands	Not applicable

2. Environment and Heritage

No.	Title	Consistency with Planning Proposal
2.1	Environmental Protection Zones	Not applicable
2.2	Coastal Protection	Not applicable
2.3	Heritage Conservation	Not applicable
2.4	Recreation Vehicle Areas	Not applicable

3. Housing, Infrastructure and Urban Development

No.	Title	Consistency with Planning Proposal
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[Insert record number (and Trim file)]

3.1	Residential Zones	<i>Objectives</i> <i>(1) The objectives of this direction are:</i> <i>(a) to encourage a variety and choice of housing types to provide for existing and future housing needs,</i> <i>(b) to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and</i> <i>(c) to minimise the impact of residential development on the environment and resource lands.</i> The proposal will incorporate a variety of studio, 1, 2 and 3 bedroom units which is consistent with the minimum unit mix provisions in the Rockdale Development Control Plan 2011. The variety of unit types will provide accommodation for singles, couples and families and a portion of the units are to be allocated as affordable housing. The mixture of housing will provide for existing and future housing needs of the locality. The additional housing will be opposite Rockdale Train Station and a number of bus services along Princes Highway. Furthermore, the residential accommodation will be located within the Rockdale Town Centre which is close proximity to a range of services and facilities. Therefore the proposal will make efficient use of the existing infrastructure and services.
3.2	Caravan Parks and Manufactured Home Estates	Not applicable
3.3	Home Occupations	Not applicable
3.4	Integrating land use and Transport	<i>The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:</i> <i>a) improving access to housing, jobs and services by walking, cycling and public transport, and</i> <i>b) increasing the choice of available transport and reducing dependence on cars, and</i> <i>c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and</i> <i>d) supporting the efficient and viable operation of public transport services, and</i> <i>e) providing for the efficient movement of freight.</i> The proposal accords with the above objectives in that it enables increased development potential in a location in close proximity to Rockdale Station and the existing services and facilities in Rockdale Town Centre. The site is also located in close proximity to employment opportunities associated with Sydney Airport and other employment hubs including Hurstville and Sydney CBD.

[Insert record number (and Trim file)]

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3.5	Development near Licensed Aerodromes	The objectives of this direction are: a) to ensure the effective and safe operation of aerodromes, and b) to ensure that their operation is not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity, and c) to ensure development for residential purposes or human occupation, if situated on land within the Australian Noise Exposure Forecast (ANEF) contours of between 20 and 25, incorporates appropriate mitigation measures so that the development is not adversely affected by aircraft noise. The proposed amendment to the building height standard for the site enables development up to an RL of 54.87 which is above the Sydney Airport Corporation Limited (SACL) OLS height of RL 51.00 but below the PANS-OPS height of RL54.9. As such, permission is required from SACL and it is anticipated that SACL will be consulted as part of statutory exhibition. It appears that development at 3-7 Keats Avenue (RL53.75) and 564 Princes Highway (RL52.75) have been able to penetrate the OLS height and is of a similar height to the proposal. It is noted that the PANS-OPS however we note that there will be strict controls surrounding the heights of the cranes during construction. The site is located between the 20 and 25 ANEF contours. Mitigation techniques can be addressed at the development application stage, in line with Clause 6.3 of the Rockdale LEP 2011.
3.6	Shooting ranges	Not applicable

4. Hazard and Risk

No.	Title	Consistency with Planning Proposal
4.1	Acid Sulfate Soils	The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils. The site is classified as Class 5 Acid Sulfate Soils under RLEP 2011. Clause 6.1 of Rockdale LEP 2011 specifies when an Acid Sulfate Soils Management Plan is required to be submitted for approval by Council as part of any subsequent development application.
4.2	Mine Subsidence and Unstable Land	Not applicable
4.3	Flood Prone Land	Not applicable
4.4	Planning for Bushfire Protection	Not applicable

5. Regional Planning

No.	Title	Consistency with Planning Proposal
5.1	Implementation of Regional Strategies	Not applicable
5.2	Sydney Drinking Water Catchments	Not applicable
5.3	Farmland of State and Regional Significance	Not applicable

[Insert record number (and Trim file)]

	on the NSW Far North Coast	
5.4	Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.5	Development on the vicinity of Ellalong...	Not applicable
5.6	Sydney to Canberra Corridor	Not applicable
5.7	Central Coast	Not applicable
5.8	Second Sydney Airport: Badgerys Creek	Not applicable
5.9	North West Rail Link Corridor Strategy	Not applicable

6. Local Plan Making

No.	Title	Consistency with Planning Proposal
6.1	Approval and Referral Requirements	<i>The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development.</i> The proposal has minimised the inclusion of provisions that require the concurrence, consultation or referral of development applications to a Minister or public authority. The site is not identified as designated development.
6.2	Reserving land for Public Purposes	<i>The objectives of this direction are:</i> a) <i>to facilitate the provision of public services and facilities by reserving land for public purposes, and</i> b) <i>to facilitate the removal of reservations of land for public purposes where the land is no longer required for acquisition.</i> The proposal does not alter existing zonings for reservations of land.
6.3	Site Specific Provisions	<i>The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.</i> The proposal does not alter the permitted uses on the site or apply any development standards in addition to those already contained in RLEP 2011.

7. Metropolitan Planning

No.	Title	Consistency with Planning Proposal
7.1	Implementation of A Plan for Growing Sydney	<i>The objective of this direction is to give legal effect to the planning principles, directions, and priorities for subregions, strategic centres and transport gateways contained in A Plan for Growing Sydney.</i> The proposal is consistent with Greater Sydney Region Plan: A Metropolis of Three Cities (previously A Plan for Growing Sydney) in that helps achieve a competitive economy, a city of housing choice, a great place to live and a sustainable and resilient city. Refer to detailed discussion above.

[Insert record number (and Trim file)]

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C Environmental, social and economic impact**C1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

The proposal relates to Rockdale Town Centre, which is already significantly developed and some distance from any natural areas. The proposal will therefore not adversely affect critical habitat or threatened species, populations or ecological communities, or their habitats.

C2 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?**Built Form**

Rockdale Town Centre is experiencing significant urban renewal, with multiple large mixed use developments approved or currently under assessment in close proximity to the site, as shown in the following Figure 6. For example, 564 Princes Highway was recently approved with a maximum height of 52.75m and 433-439 Princes Highway was granted deferred commencement with a maximum height of 51.6m. The proposal is considered to be consistent with the development occurring in the Rockdale town centre and is not out of context.

The planning proposal enables a built form that accords with this changing urban context. Eeles Trelease has prepared an Urban Context Report to accompany the proposal, refer to **Appendix 1**. The report analyses the site context, offers a design response and proposes a concept scheme for the site.



[insert record number (and Trim file)]

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TALL DEVELOPMENTS SUMMARY

ADDRESS	DA NUMBER	FLOORS	HEIGHT (m) / VOLUME (m ³)	STATUS
GEEVES AVENUE PRECINCT				
1 471 - 475 PRINCES HIGHWAY - mixed use, multi residential development - 178 residential apartments - allocated retail spaces - allocated commercial tenancies - 35m height	-	12	35.9 / 54.87	-
2-4 KEATS AVENUE PRECINCT				
2 304 PRINCES HIGHWAY - mixed use, multi residential development - 178 residential apartments - retail spaces allocated - 35m height	2015/269	11	33.97 / 52.73	APPROVED
3 433 - 435 PRINCES HIGHWAY - mixed use, multi residential development - 168 residential apartments - 5 commercial tenancies - 35m height	2015/322	12	35.4 / 51.6	DEFERRED COMMITMENT
4 401 PRINCES HIGHWAY - mixed use, multi residential development - 168 residential apartments - 5 commercial tenancies	2015/150	7	-/-	APPROVED
5 397 PRINCES HIGHWAY - mixed use, multi residential development - 168 residential apartments - 5 commercial tenancies - 35m height	2015/420	11	34.54 / 49.32	APPROVED
6 375 - 384 PRINCES HIGHWAY - mixed use, multi residential development - 168 residential apartments - 5 commercial tenancies - 35m height	2015/356	9	27.8 / 42.3	APPROVED
7 350 - 358 PRINCES HIGHWAY - mixed use, multi residential development - 168 residential apartments - 1 commercial tenancy - 35m height	2015/737	9	27.8 / 42.4	APPROVED
8 305 - 412 PRINCES HIGHWAY - mixed use, multi residential development - 178 residential apartments - 4 commercial tenancies - 35m height	2015/343	9	29.2 / 42.98	APPROVED
9 37 - 41 BRYANT STREET - multi residential development - 60 residential apartments - 20m height	2017/24	9	27.45 / 48.05	DEFERRED COMMITMENT
10 75-83 RAILWAY STREET - mixed use, multi residential development - residential spaces allocated - retail spaces allocated - 25m height	-	8	22.7 -	PASSED WITH CONDITIONS
3-7 KEATS AVENUE PRECINCT				
11 3 - 7 KEATS AVENUE - 12 storeys	-	12	- / 53.75	BUILT
12 MULTIPLE LOCATIONS - 5-12 storeys - retail	-	5-12	VARIABLE	BUILT

Figure 6: Development applications and proposals within Rockdale Town Centre

The proposed building envelope is generally consistent with the building envelope identified in the Rockdale Development Control Plan 2011 (RDCP 2011) and Council's preferred response as discussed in the meeting on 15 November 2018. The proposal will incorporate a 6 storey podium along Princes Highway with a ground floor 3m colonnade and 3m upper level setback. The proposal will incorporate a 3 storey podium along Geeves Avenue, a 2.5m dedicated setback along Geeves Avenue (western boundary) and a 3m upper level setback.

The proposal will incorporate two landmark buildings (12 storeys) at the either end of the precinct and will include an open air through site link which will connect Geeves Avenue, Princes Highway and King Street Place. The site along Tramway Arcade (2-18 Tramway Arcade) is to incorporate a 3 storey development which will incorporate ground floor retail and commercial above which could be used for creative uses or we-work office spaces. The proposal seeks to widen the footpath along Tramway Arcade to improve pedestrian access between the Rockdale Station and Seven Ways. Refer to **Appendix 5** for the draft Site Specific DCP provisions.

Figures 7 and 8 illustrate the proposed site plan and building envelope. The indicative scheme prepared by Eeles Trelease will include the following:

[Insert record number (and Trim file)]

- 246 units;
- 4,015m² GFA retail; and
- 377m² GFA commercial.



Figure 7: Proposed site plan



Figure 8: Proposed building envelope

The design concept has carefully considered the interplay between the site and surrounding land use mix, developing an architectural response

[Insert record number (and Trim file)]

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that makes effective use of the built form, solar access, views, connectivity, public domain to deliver two landmark developments.



Figure 9: Visualisations along Princes Highway

The ground plane is activated through retail, the widening of the footpaths and the through site link which will connect the site with the the transport interchange, railway station and the surrounding Town Centre.

The 6 storey podium along Princes Highway will create a strong street edge whilst the two landmark buildings will create visual interest and book ends to the precinct. The built form along Geeves Avenue is reduced in scale with a 3 storey podium and various taller elements being 5, 6 and 12 storeys. Above the 3 storey podium will be landscaped areas for communal open space for future residents.

The proposed residential accommodation will comply with the key Apartment Design Guide (ADG) design criteria including solar access, cross ventilation, building separation distances and building depth. The scheme demonstrates that the site can be developed under the planning proposal with a built form featuring high residential amenity, improved public domain and minimised environmental impacts.



Figure 10: Visualisation – view from west through link

Overshadowing

The shape of the towers, the orientation of their facades and positioning relative to one another provide for positive solar access. The building height has been limited along Tramway Arcade to minimise overshadowing to surrounding properties and within the subject precinct.

Figures 11-13 below provide shadow diagrams for 9am, 12pm and 3pm at mid-winter and compares the difference in overshadowing associated with the additional 5m in height for the Planning Proposal. The red line indicates the building height without the additional 5m in height.

As seen in the diagrams, the proposed amendments will allow for a built form with no unacceptable overshadowing impacts. Specifically:

- The additional 5m in height (for the Planning Proposal) will not create significant additional overshadowing than the scheme with a maximum overall height of 34m (without the additional 5m height);
- There will be no overshadowing impacts on surrounding low density residential areas;
- The properties across Princes Highway and Tramway Arcade incorporate a mixture of retail and commercial. The proposal will create additional overshadowing to the properties across Princes Highway at 3pm mid winter and across Tramway Arcade at 9am mid winter however the tower form of the development means that the shadow moves quickly.

[Insert record number (and Trim file)]

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- The proposal will overshadow the King Street pedestrianised through site link at 3pm mid winter however the proposal will generally maintain solar access around midday and partially at 9am.
- Overshadowing is consistent with the site's location within an existing urban context and will occur largely over business-zoned land.
- Podium level communal open space areas and apartments are able to achieve solar access in accordance with ADG criteria.



Figure 11: Solar analysis June 21 9am



Figure 12: Solar analysis June 21 12pm

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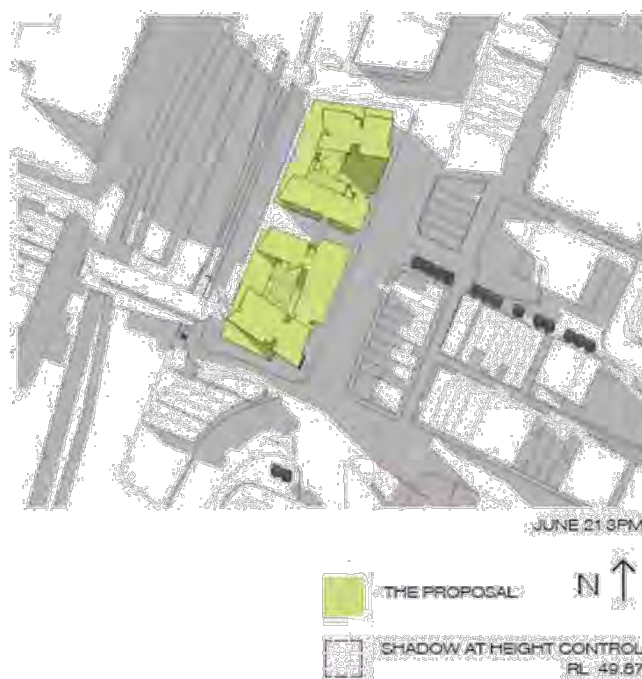


Figure 13: Solar analysis June 21 3pm

Development staging

The concept scheme envisions a single precinct development (refer to the figure below) with three distinct portions capable of being developed separately:

- **Stage 1:** includes the sites 507, 509 and 513-517 Princes Highway and 2-18 Tramway Arcade and incorporates one of the landmark buildings for the precinct. It is highlighted that the sites 2-18 Tramway are to be redeveloped separately given there are a number of separate landowners and it would be difficult to amalgamate with the remainder of the sites in Stage 1.
The sites 2-18 Tramway Arcade can be redeveloped separately as a 3 storey mixed use development with ground floor retail and commercial to the upper levels.
- **Stage 2:** includes the sites sites 483, 485, 487, 489, 491, 493, 495 and 501 Princes Highway which will be in the centre of the precinct and incorporate the through site link:
- **Stage 3:** includes the sites 471, 475-477 and 481 Princes Highway, 6 and 14 Geeves Avenue and incorporates one of the landmark building for the precinct.

[Insert record number (and Trim file)]

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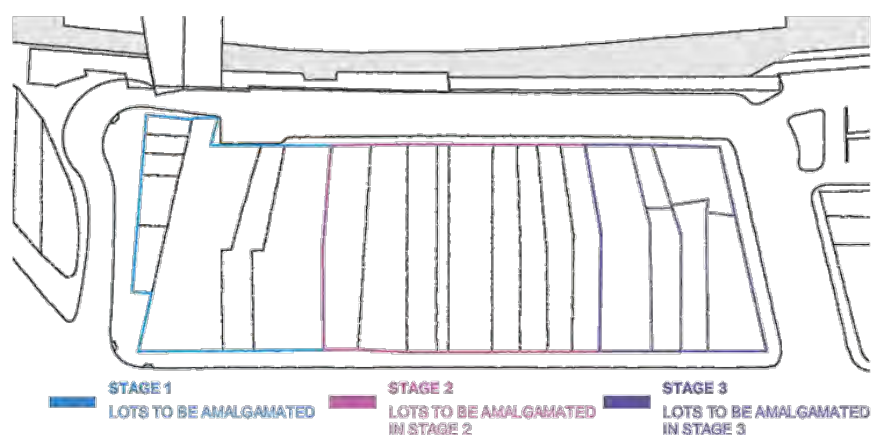


Figure 14: Amalgamation patterns

It is anticipated that each of the stages will be subject to a separate development application with the exception of Stage 1 which will be two development applications. It is likely that Stage 1 – sites 507, 509 and 513-517 Princes Highway will be the first to be redeveloped. While the development of the precinct will require a certain degree of coordination between landowners, the concept scheme allows a number of landowners to come together and develop their lots independently, yet ensures a single integrated development in accordance with the Rockdale Town Centre Masterplan.

It is noted that each site would achieve the minimum 1,500m² site area required for achieving the additional 12m height under Clause 4.3 (2A) of the LEP 2011.

Traffic and Parking

A Transport Study (31 October 2017) and two addendum letters (1 March 2018 and 17 December 2018) have been prepared by GTA to accompany the proposal (**Appendix 2**) which considers the existing traffic and parking conditions, suitability of the proposed parking, traffic generation and impact of the planning proposal on the surrounding road network.

Traffic generation

Traffic generation estimates for the land uses that form the planning proposal are based on the Roads and Maritime Guide to Traffic Generating Developments 2002 and Roads and Maritime Technical Direction 2013/04a (TDT 2013/4a). Under the planning proposal controls the site is expected to generate up to 126 vehicle movements in AM peak hour and 117 vehicle movements in PM peak hour. This

[insert record number (and Trim file)]

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increase in traffic is considered minimal and is unlikely to have a substantial impact on the operation of the existing intersections.

A 2021 base model has been analysed and shows that the intersection of Geeves Avenue/Princes Highway in the PM peak and the intersection of Princes Highway/ Bay Street/Seven Ways/Tramway Arcade in both AM and PM peaks would be operating near capacity.

GTA has also undertaken further traffic modelling and by 2031 the existing road network will be operating near over capacity without the development, adding any development will further impact the network.

Table 2 in the GTA addendum letter (1 March 2018) indicates that in the PM peak particularly the intersection of Princes Highway/Geeves Avenue adjacent to the development will be operating near or at capacity in 2031. During AM peak the intersection of Princes Highway/Bay Street/The Seven Ways/Tramway Arcade will be operating over capacity. As the road network is operating near or over capacity without the development, adding any development traffic impacts the operation.

However, the NSW Government is progressing the development of the F6 Extension Stage 1, which will provide connection from Southern Sydney to the wider Sydney network and improve travel times and ease congestion on the local road network. Stage 1 will assist in the reduction of traffic congestion particularly on the Princes Highway through Arncliffe, Rockdale, Banksia and the Grand Parade, Brighton Le Sands. Based on this it is expected that by 2031 traffic volumes on the Princes Highway will have reduced and therefore the road network surrounding the site will be improved from that projected in the modelling results.

In considering cumulative impacts for potential developments also accessing Geeves Avenue, based on the traffic report by Varga Traffic Planning Pty Ltd for 433-439 Princes Highway, there is not expected to be any net increase in traffic from the planning proposal at this site. It has therefore also been assumed that the development of the sites from 441-467 Princes Highway would not result in any net increase in traffic generation through the intersection of Geeves Avenue and the Princes Highway.

Overall, the operation of the surrounding existing intersections are unlikely to be substantially impacted, however the Transport Study suggests minor improvements to the lane configuration on the Geeves Avenue approach to the Princes Highway for efficient intersection operation. The proposal includes the removal of six (time restricted) on street car parking spaces and two loading zones along Geeves Avenue which would improve the overall performance of the Geeves Avenue and Princes Highway intersection and would improve sight lines to the ultimate access point along Geeves Avenue.

[insert record number (and Trim file)]

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Car parking

The residential parking rates have been calculated considering Council's DCP and RMS Metropolitan Sub-Regional Centre rates and the proposal would result in a range of residential parking spaces of between 269 (under the RMS rates) and 327 (under the DCP).

In relation to the retail/commercial car parking, the Transport Report and addendum letters recommend the removal or reduction of the parking requirement due to its proximity to the station and bus interchange. The existing retail/commercial within the site only provides minimal parking with around 25 parking spaces allocated to around 3,500m² which equates to a rate of around one parking space to 140m².

Due to the sites location it is anticipated that the retail component would most likely service walk by trips rather than being a destination retail area. Therefore, it is recommended that the parking provision rate for the retail/commercial component be reduced or even removed. For the proposal a 50% reduction has been applied resulting in rate of 1 space per 80m² of GFA and would result in 56 spaces across the precinct for the retail/commercial component.

Vehicle access

The recommended access point for ultimate development in the precinct consists of a single two-way driveway from Geeves Avenue at the northern end of the site (Stage 3). This access would connect through to a centralised loading dock and parking areas for the entire precinct.

If Stages 1 or 2 are to be redeveloped first only one temporary access point is to be provided along western end of Geeves Avenue for both the stages with a connection at basement level for the other stage. Once Stage 3 is redeveloped, the temporary access point will be removed and only one access point will be proposed along the northern edge of Geeves Avenue. The temporary access point for Stages 1 and 2 would be adjacent to the bus interchange but is not expected to negatively impact the operation of the interchange or pedestrian flow to the train station.

Pedestrian access

Analysis of the pedestrian surveys show that there is a high demand for pedestrian access from the Rockdale Station through Tramway Arcade to the Princes Highway. The proposal will create a better pedestrian environment by widening the through site link and ensuring it aligns with key destinations including King Street. Furthermore, the proposal will facilitate a better experience for pedestrians with the widening of the footpaths.

Aeronautical

Rockdale is located within close proximity to Sydney's Kingsford Smith Airport. To ensure the safe operation of aircrafts, limitations have been placed on the heights of buildings within designated flight paths.

The site is subject to an Obstacle Limitation Surface (OLS) - Inner Horizontal Surface of 51m Australian Height Datum (AHD) and Air Navigation Services - Aircraft Operations Surface (PANS-OPS) of 54.9m AHD.

Additionally, development with a height of 15.24m AHD or greater must be referred to Sydney Airport Corporation Limited (SACL).

The planning proposal seeks to amend the Rockdale LEP 2011, to allow for the construction of a mixed use development to a maximum height of RL54.9 (or 39m). The concept scheme as detailed in the Urban Design Report assumes utilisation of this additional height and proposes a height of 38.9m (or RL54.87).



Figure 15: OLS and PANS-OPS

While the proposed maximum height of buildings will sit above the OLS, there are a number of proposed residential developments within the Rockdale Town Centre which have penetrated the OLS. For instance, 564 Princes Highway (RL52.75) and 3-7 Keats Avenue (RL of 53.75) have been able to penetrate the OLS height and is of a similar height to the proposal.

Given the proposal will penetrate the OLS, permission is required from SACL and it is anticipated that SACL will be consulted as part of statutory exhibition.

It is noted that the PANS-OPS however we note that there will be strict controls surrounding the heights of the cranes during construction.

C3 How has the planning proposal adequately addressed any social and economic effects?**Economic Impacts**

An Economic Assessment has been prepared by AEC to accompany the proposal, refer to **Appendix 3**. The assessment has identified the following key economic impacts associated with the proposal:

- The construction phase associated with the development is expected to support the following economic activity within the Bayside LGA through direct and flow-on impacts:
 - \$121.5 million in additional output.
 - \$44.6 million in contribution to Gross Regional Product (GRP).
 - \$27.6 million in incomes and salaries.
 - 354 full time equivalent jobs, including 99 direct jobs.
- Once established and achieving steady state operations, the precinct is expected to continue to make a significant contribution to the local economy. Ongoing operations are estimated to support the following (direct and flow-on) economic activity on an ongoing annual basis:
 - \$111.6 million in output.
 - \$58.7 million contribution to Gross Regional Product.
 - \$35 million in incomes and salaries.
 - 446 full time equivalent jobs, including 196 direct jobs.

By retaining the B2 Local Centre zone the retail component at the Rockdale Transport Interchange, the proposal will increase the operational jobs from 196 to 446 and will create 354 jobs during construction (note this is based on 4,425 sqm of retail floorspace and 968 sqm of commercial floorspace).

Social Impacts

The proposal will have positive social impacts in that it will:

- Support the integration of land use and transport planning resulting in positive public benefit;
- Enable improvements of the public domain with a high quality mixed use precinct with extensive ground level activation, a pedestrian through link and widening of the footpaths;
- Improve the quality of built form along Geeves Avenue and Princes Highway by encouraging construction of new mixed use development with active frontages and with residential amenity consistent with SEPP 65;
- Increase pedestrian activity in Rockdale Town Centre and improve the vitality and vibrancy of the Centre while creating

opportunities for new development utilising the principles of Crime Prevention Through Environmental Design;

- Increase employment opportunities with the creation of additional retail and commercial floor space;
- Increase housing choice for the area with the potential to provide affordable housing; and
- Set a suitable building envelope, which will allow further consideration of overshadowing and amenity impacts as part of the future detailed design and development of the site to ensure the development does not unreasonably overshadow neighbours.

D1 Is there adequate public infrastructure for the planning proposal?

The site is located in an existing urban area with good access to public transport and other infrastructure. The site is strategic in nature and a holistic approach to site planning and development is required to ensure proper integration of land use and transport.

It is proposed that the ongoing dialogue is maintained with Transport for NSW and Roads and Maritime Services throughout the course of the plan making process to ensure suitable outcome is achieved within the 'transport interchange precinct'.

In general, the planning proposal will result in the provision of new public infrastructure including a through site link and public domain upgrades. It is anticipated that other improvements to infrastructure can be dealt with as part of future development application process through developer contributions.

D2 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?

The views of Transport for NSW and Roads and Maritime Services have been obtained throughout the course of this process, to seek advice, feedback and review to ensure traffic and transport issues have been adequately addressed (refer to **Appendix 4**).

At this stage, the views of other State and Commonwealth public authorities have not been obtained. Following a Gateway determination further consultation will be undertaken with relevant State or Commonwealth authorities.

Part 4 – Mapping

Refer to Table 7 for an outline of the changes to the LEP maps and Figures 15 and 16 which illustrate the proposed amendments. Specifically, the Height of Buildings Map and Floor Space Ratio Map are proposed to be modified by this planning proposal, refer to **Appendix 6** for complete maps.

Table 9 – Proposed Map Amendments

Map Tile No.	Existing	Proposed
HOB_004	Base HOB of 22m and designated in 'Area A'	Increase the base HOB to 27m and retain 'Area A' designation.
FSR_004	Base FSR of 2:1 and designated in 'Area A'	Remove the base FSR and 'Area A' designation.

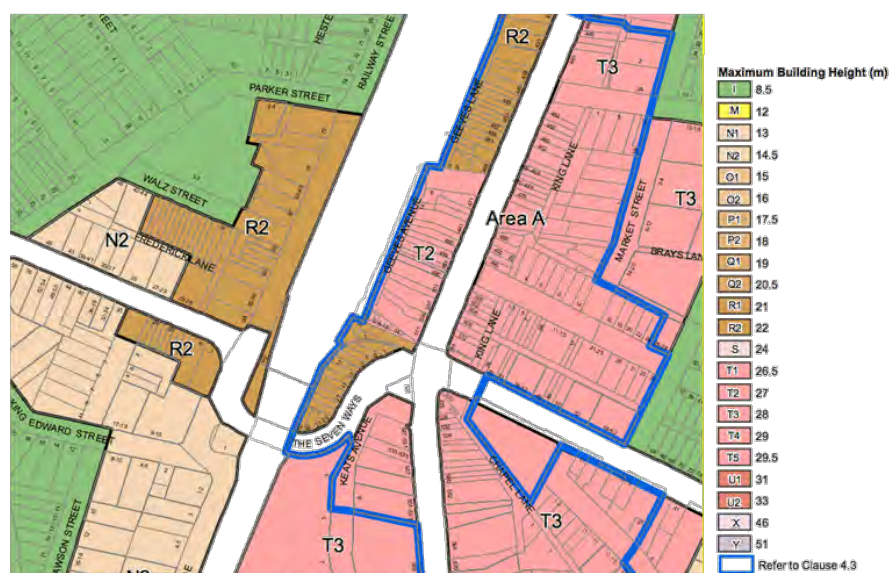


Figure 16: Proposed Height of Buildings Map

[Insert record number (and Trim file)]

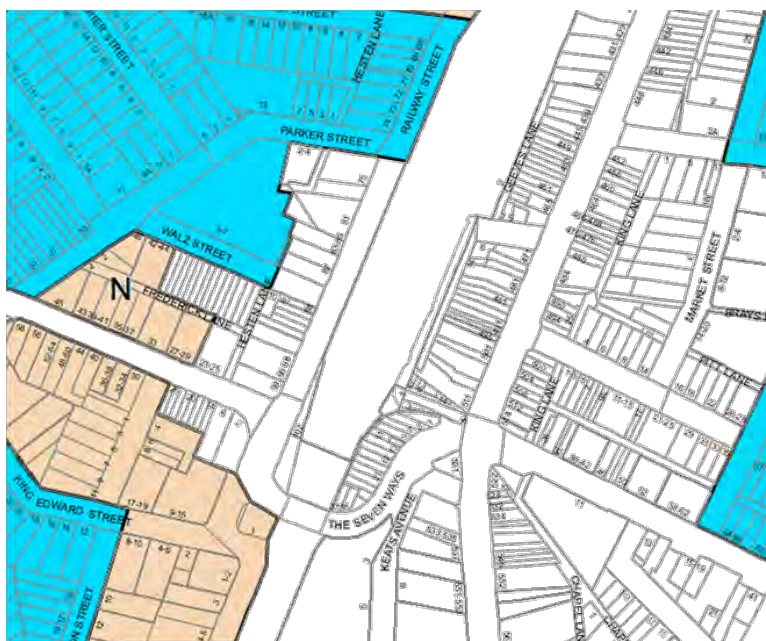


Figure 17: Proposed Floor Space Ratio Map

[Insert record number (and Trim file)]

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Part 5 - Community Consultation

The Planning Proposal will be placed on public exhibition in accordance with the Gateway Determination, should the Department of Planning and Environment support the proposal.

A comprehensive engagement strategy will be prepared by Council which would include the following mechanisms:

- Advertisement in a local newspaper – St George and Sutherland Leader.
- Notification letters to relevant State Agencies and other authorities nominated by the Department.
- Notification (via letter) to land holders of properties within and adjoining the Planning Proposal area.
- Advertise and exhibit the Planning Proposal on Council's website.
- Exhibit the Planning Proposal at Bayside Council's Customer Services Centre, Rockdale Customer Service Centre, 444 - 446 Princes Highway, Rockdale.
- Undertake any other consultation methods appropriate for the proposal.

Part 6 – Project Timeline

Table 8 below provides a proposed timeframe for the project.

Table 10 – Approximate Project Timeline

Task	Timing
Date of Gateway determination	December 2018 (4-6 weeks after submission to DP&E)
Anticipated timeframe for the completion of required technical information	N/A
Timeframe for government agency consultation (pre and post exhibition as required by Gateway determination)	8 weeks (estimated)
Commencement and completion dates for public exhibition period	TBA (28 days)
Dates for public hearing (if required)	TBA
Timeframe for consideration of submissions	4 weeks (estimated)
Timeframe for the consideration of a PP following exhibition	4 weeks (estimated)
Consideration of PP by Council (Council Meeting)	February 2019
Date of submission to the department to finalise the LEP	March 2019
Anticipated date RPA will make the plan (if delegated) or Anticipated date RPA will forward to the department for notification	June 2019
Anticipated publication date	June 2019

[Insert record number (and Trim file)]

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7.5.3 Key Precincts

Rockdale Transport Interchange Precinct (Geeves Avenue Precinct)

The Rockdale Transport Interchange Precinct (Geeves Avenue Precinct) is defined as 471 - 513 Princes Highway, 6 and 14 Geeves Avenue and 2-16 and 5 Tramway Arcade, Rockdale and as illustrated in figure 1 below - street role diagram.

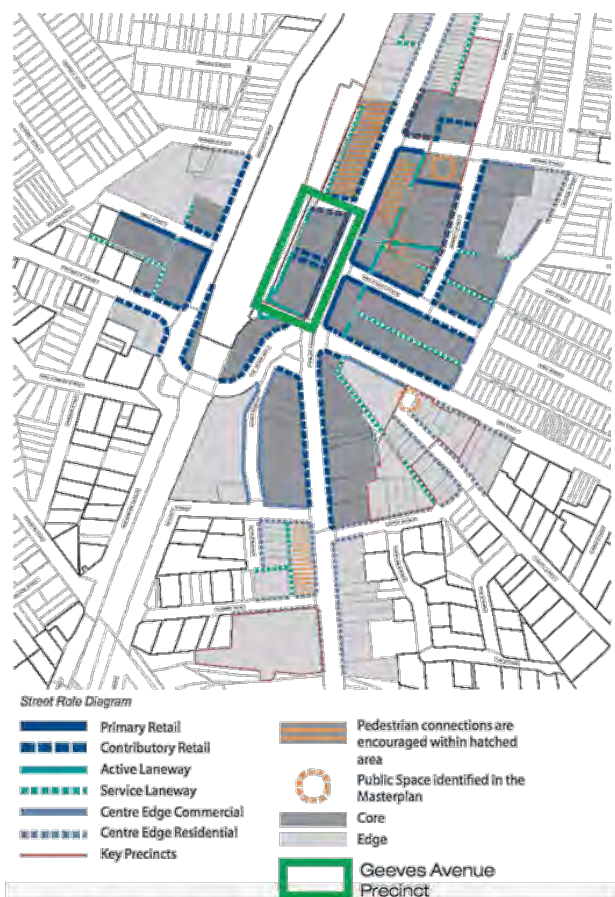


Figure 1: Street role diagram

1. An open air pedestrianised through site link is to be provided at ground floor to the centre of the precinct which is 12m wide and links Rockdale bus interchange and Princes Highway, as illustrated in figure 2 below - indicative design.
2. Active retail zones are to be provided along the street frontages and through site link, as illustrated in figure 2 - indicative design.
3. The indicative pedestrian access points are illustrated in figure 2 below – indicative design.

4. The following setbacks are to be incorporated (refer to figure 2 below for further detail):
- A 2.5m setback is to be provided along Geeves Avenue as measured from the pedestrian footpath;
 - A 3m setback is to be provided along Princes Highway as measured from the pedestrian footpath; and
 - A minimum setback of 4.5m is to be provided along Tramway Arcade.

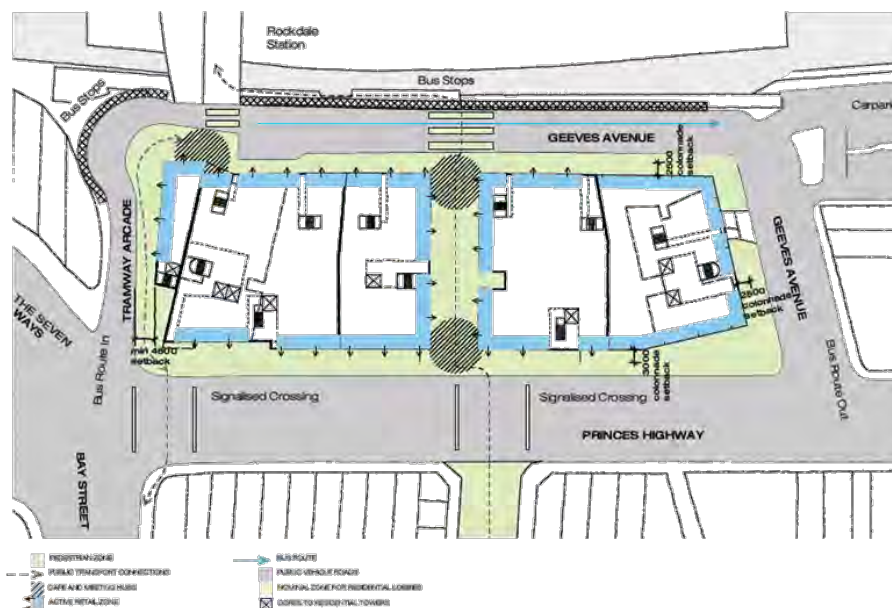


Figure 2: Indicative design for the Rockdale Transport Interchange Precinct

5. The recommended amalgamation patterns for the precinct are outlined below and illustrated in figure 3 below:
- Stage 1** (southern portion of the precinct): includes the sites 507, 509 and 513-517 Princes Highway and 2-18 Tramway Arcade and incorporates one of the landmark buildings. The sites 2-18 Tramway (wedge site) are to be redeveloped separately given there are a number of separate landowners and it would be difficult to amalgamate with the remainder of the sites in Stage 1;
 - Stage 2** (central portion of precinct): includes the sites 483, 485, 487, 489, 491, 493, 495 and 501 Princes Highway (a total of 8 sites) will incorporate a through site link; and
 - Stage 3** (northern portion of the precinct): includes the sites 471, 475-477 and 481 Princes Highway, 6 and 14 Geeves Avenue and incorporates one of the landmark building for the precinct.

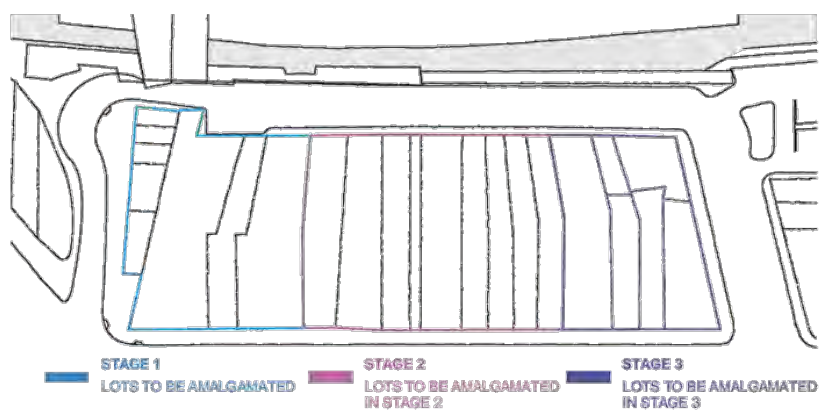


Figure 3: Recommended stages for redevelopment

6. The massing for the precinct is to be consistent with figures 4-7 below and incorporates the following:
- A 6 storey podium along Princes Highway and 3 storey podium along Geeves Avenue;
 - Two 12-storey landmark buildings, with one to the northern end of the precinct and the other to southern end of the precinct;
 - The built form to 2-18 Tramway Arcade is to be 3 storeys; and
 - The built form to the centre of the precinct is to be between 5 and 6 storeys.



Figure 4: Indicative massing for the precinct

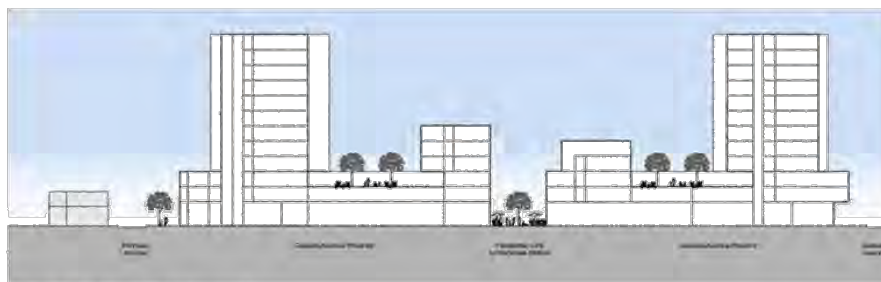


Figure 5: Indicative long section

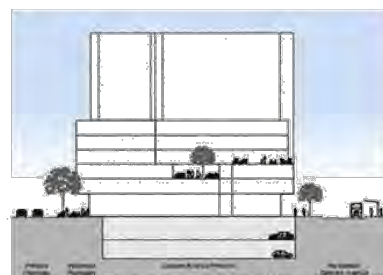
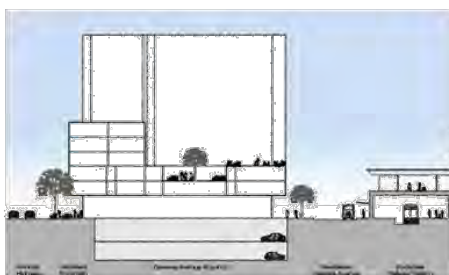


Figure 6: Indicative cross sections



Figure 7: Indicative 3D massings

7. The indicative temporary and final vehicle access points are detailed in figures 8-10 below. There is to be only one temporary access point along the western edge of Geeves Avenue for Stages 1 and 2 whilst a basement connection will connect the stages (refer to figures 8 and 9). Once the entire precinct is redeveloped, there is to be only one vehicle access point along the northern edge of Geeves Avenue (refer to figure 10).

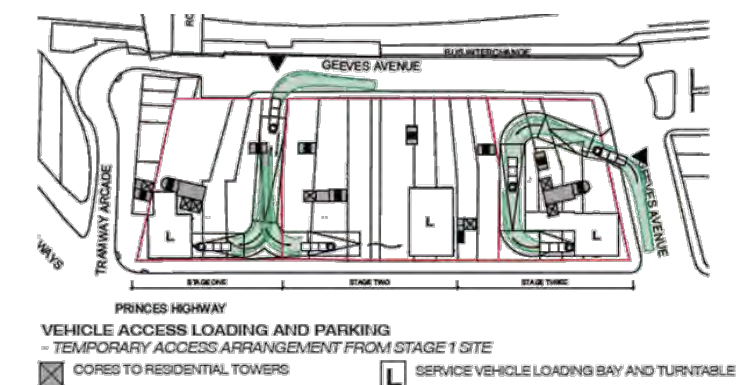


Figure 8: Temporary access solution for Stages 1 and 2

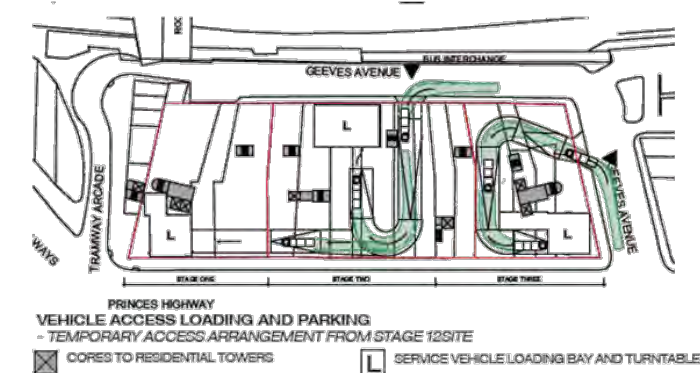


Figure 9: Temporary access solution for Stages 1 and 2

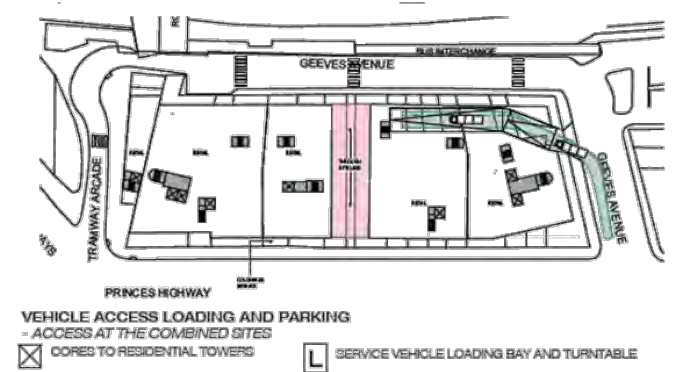


Figure 10: Final access solution once entire precinct is redeveloped

Urban Design Report for Geeves Avenue Precinct

No. 471–511 Princes Highway, Rockdale

02 December 2016

Revised: 03 March 2017

Revised: 29 March 2017

Issued for pre-lodgement review: 05 May 2017

Re-Issued for pre-lodgement review: 26 May 2017

Re-Issued for pre-lodgement review: 08 June 2017

Issued for Planner's Review: 14 September 2017

Issued for Planner's Review: 26 September 2017

Issued for Planner's Review: 11 October 2017

Issue to Council: 07 November 2017

Issue to Planner: 21 March 2018

Issue for Planner's Review: 25 July 2018

Issue for Planner's Review: 06 August 2018

Issue for Planner's Review: 24 August 2018

Issue to Council: 28 August 2018

Issue to Council: 12 October 2018

Issue for Planner's Review: 18 December 2018

Issue to Council: 21 December 2018

Eeles Trelease pty ltd architects

Document Size: A3

No. 471 - 511 Princes Highway, Rockdale

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No. 471 - 511 Princes Highway, Rockdale

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

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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.

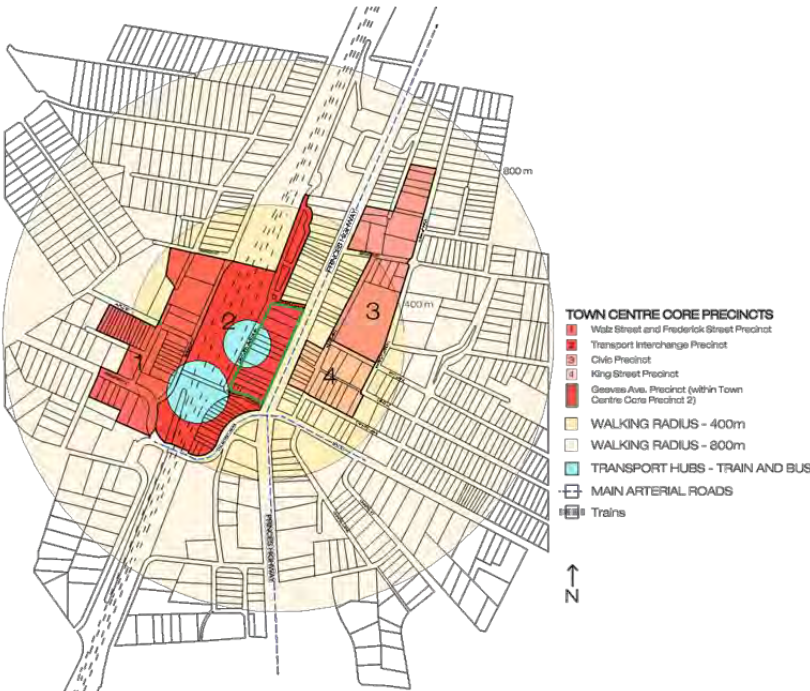
There are four distinct precincts within the core that make up the centre: Walz and Frederick Streets Precinct; Transport Interchange Precinct; Civic Precinct and King Street Precinct.

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

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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.



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EXISTING PLANNING CONTROLS ROCKDALE LEP 2011

INTRODUCTION

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

ZONING

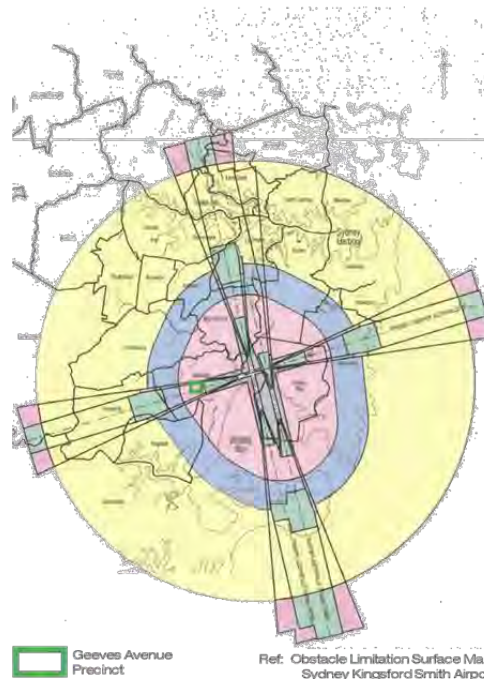
The Rockdale LEP 2011 applies a **B2 Local Centre** zone across the precinct, consistent with all land within the Rockdale Town Centre.

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 4.9(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 complement 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	Deviation
Primary Retail	High activity with continuous ground floor retailing	- Minimum 80% of the ground floor frontage to be activated by retail and business premises - Residential lodges can occupy no more than 20% of the total ground floor frontage - No ground floor residential permitted - No vehicle access permitted - No service access permitted
Contributory Retail	High activity with continuous active frontages	- Ground floor frontage to be activated by retail and business premises - Residential lodges permitted off street frontage - No ground floor residential permitted (except for properties under Schedule 1 to the RLEP 2011) - No vehicle access permitted unless the development has no other street frontage - No 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	- Ground floor frontage to be activated by retail and business premises - Residential lodges should be assessed off active laneway - No ground floor residential permitted - Vehicle access permitted - Service access permitted

Ref: Rockdale DCP 2011, 7.5 p43

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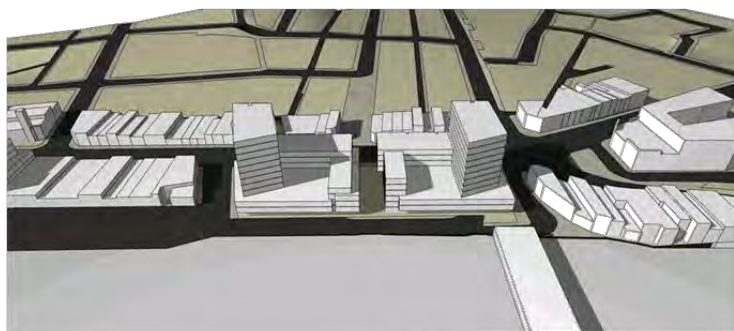
COUNCIL MASSING STUDIES

INTERCHANGE PRECINCT
BUILT FORM + HEIGHTS DIAGRAMINTERCHANGE PRECINCT
GROUND LEVEL SETOUT DIAGRAM

No. 471 - 511 Princes Highway, Rockdale



VIEW FROM PRINCES HIGHWAY (SOUTH)



VIEW FROM ROCKDALE STATION (WEST)

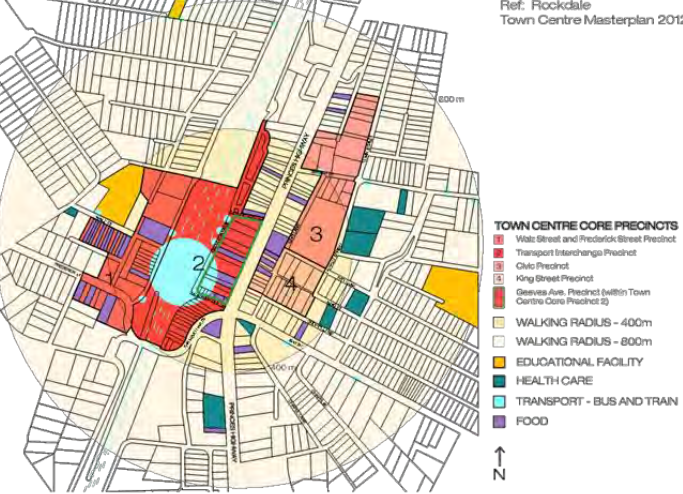
Council's ongoing review of the Rockdale Town Centre Masterplan has produced revisions to the built form outcomes for the interchange precinct.

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.

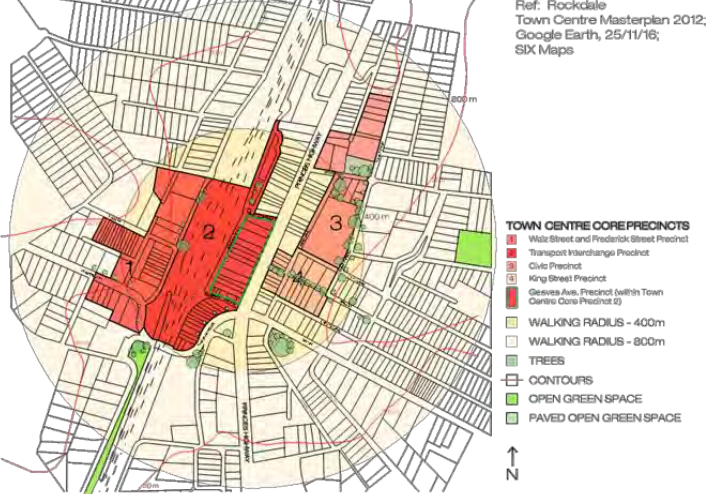
No. 471 - 511 Princes Highway, Rockdale

2. EXISTING TOWN CENTRE



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.



TOPOGRAPHY

The Town Centre Core Precinct is mainly flat.

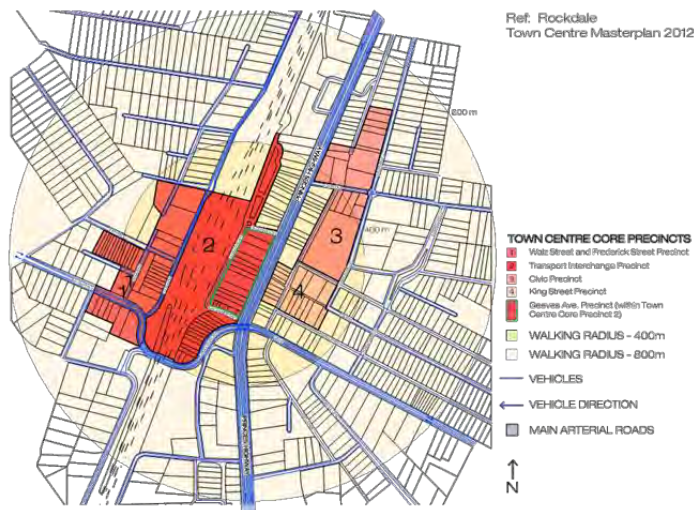
On the west side of the railway track, there is a more intimate village atmosphere in contrast with the large, traffic-dominated precincts of the town centre to the east. The main arterial road, Princes Highway, cuts through the Town Centre, parallel to the railway line. Buildings that front this road 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.

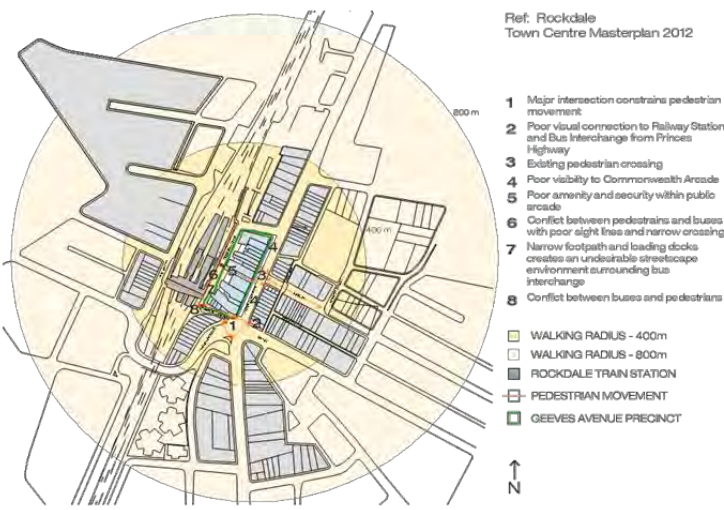
No. 471 - 511 Princes Highway, Rockdale



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 Gieves 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 Gieves 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 Gieves 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.

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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 additional 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	-	12	38.9 / 54.87	-
EXISTING RESIDENTIAL DEVELOPMENTS				
2 564 PRINCES HIGHWAY	2012/293	11	36.75 / 52.75	APPROVED
3 433 - 439 PRINCES HIGHWAY	2015/322	12	36.4 / 51.6	DEFERRED COMMENCEMENT
4 401 PRINCES HIGHWAY	2018/150	7	-/-	APPROVED
5 397 PRINCES HIGHWAY	2016/420	11	34.54 / 49.32	APPROVED
6 376 - 384 PRINCES HIGHWAY	2018/108	9	27.5 / 42.2	APPROVED
7 386 - 388 PRINCES HIGHWAY	2018/117	9	27.5 / 42.4	APPROVED
8 398 - 412 PRINCES HIGHWAY	2019/343	9	29.2 / 42.98	APPROVED
9 27 - 31 BRYANT STREET	2017/54	9	27.45 / 48.05	DEFERRED COMMENCEMENT
10 75-85 RAILWAY STREET	-	8	28 / -	PASSED WITH CONDITIONS
EXISTING 6 - 12 STOREY BUILDINGS				
11 3 - 7 KEATS AVENUE	-	12	- / 53.75	BUILT
MULTIPLE LOCATIONS				
-	-	6-12	VARIES	BUILT

No. 471 - 511 Princes Highway, Rockdale

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.

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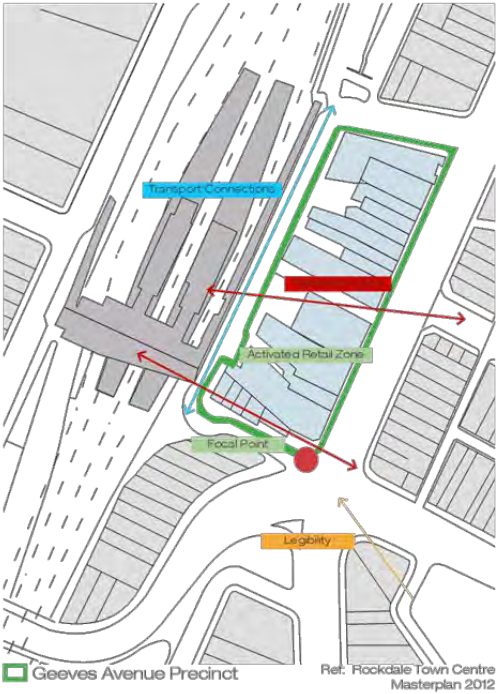
CENTRAL PARK, SYDNEY
Multi-level pedestrian connections with activated retail between railway station and street.

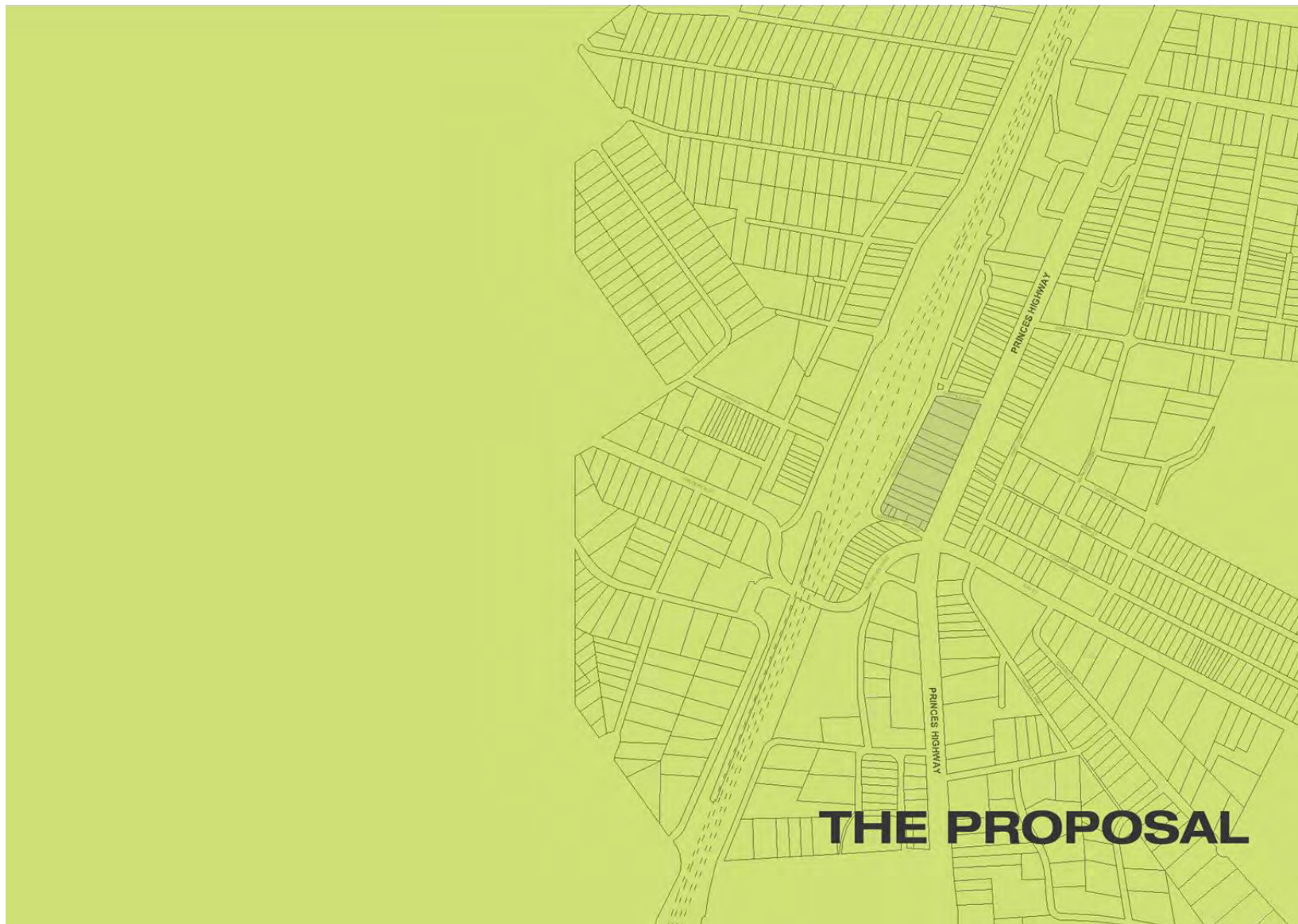
OPPORTUNITIES AND PRECEDENTS

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.





No. 471 - 511 Princes Highway, Rockdale

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.

No. 471 - 511 Princes Highway, Rockdale

GEEVES AVENUE PRECINCT
AERIAL VIEWS



NORTH-EAST PERSPECTIVE AT 12PM



NORTH-WEST PERSPECTIVE AT 12PM



SOUTH-EAST PERSPECTIVE AT 12PM



SOUTH-WEST PERSPECTIVE AT 12PM

THE PROPOSAL

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).

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).

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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.



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THE IMPROVED CASE (PREFERRED):
COMPLIANCE WITH RESIDENTIAL CODES

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.



THE PROPOSAL

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.

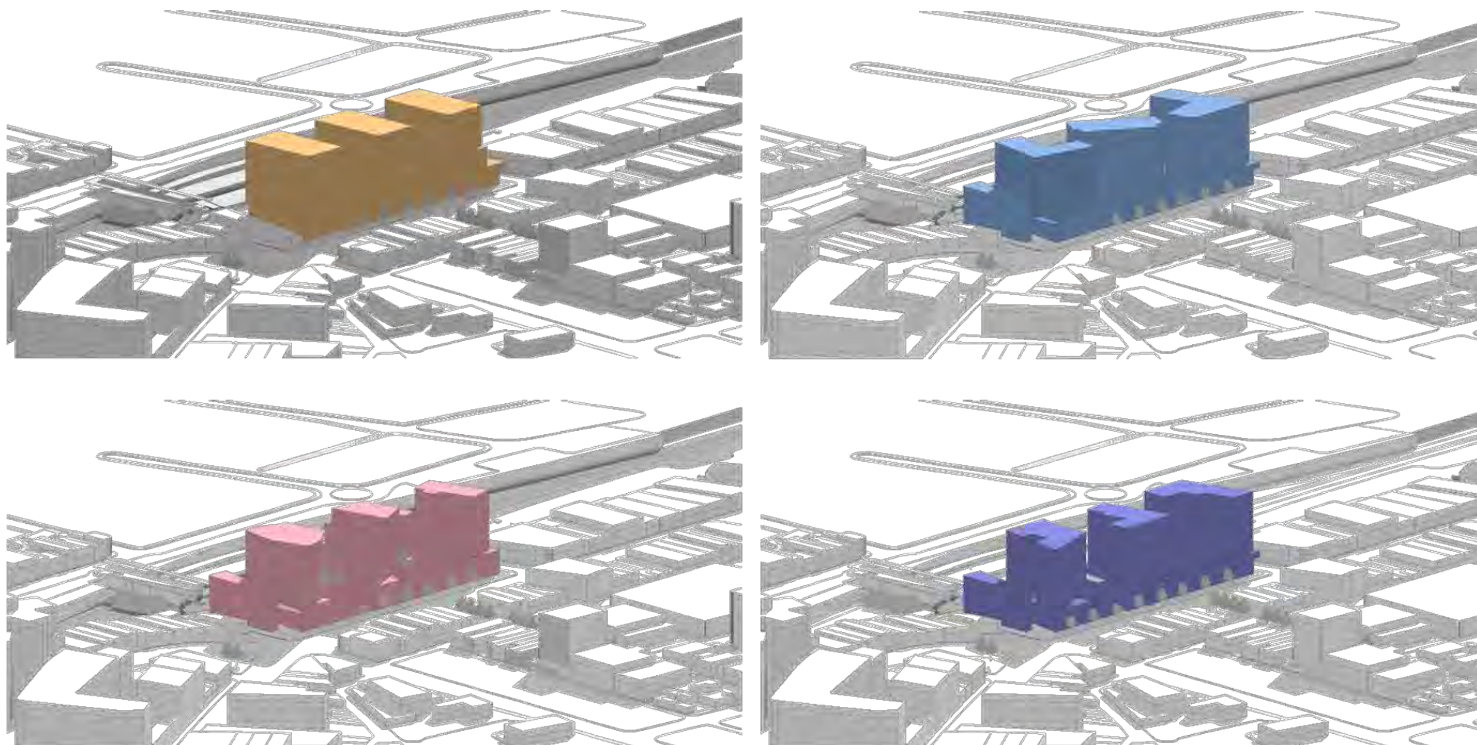
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THE IMPROVED CASE (PREFERRED): COMPLIANCE WITH RESIDENTIAL CODES

IMPROVED CASE (PREFERRED)																																		
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		Overall No: Apartments		Typeology	1	2	3	4	5	6	7	8	9	10	11	12	Total No:	Total Percentage %	Total no: of Typeologies	Total no: of Apartments	SOLAR STUDIES 2 nd June between 8am-3pm				CROSS VENTILATION First 9 Storeys					
																						%		%	No Sun	Total no: first 9 storeys	Total no: cross ventilated							
Stage 1	1	0	11	65	Studio	0	0	2	0	0	0	1	1	1	1	1	1	0		25	29.41%	70	33	Total	00	70	0	00	00	PASSSES	PASSSES	PASSSES	PASSSES	
					1 Bed	0	3	1	1	1	1	2	2	2	2	1		-6	39.0%	%	70				80	0	77%							
					2 Bed	0	5	9	5	5	5	3	3	3	3	4		-12	14.1%															
					3 Bed	0	0	0	2	2	1	1	1	1	1	1		-12	14.1%															
Stage 2	1	0	5	70	Studio	0	4	3	3	1	0	0	0	0	0	0	0	0		19	28.0%	140	36	Total	01	00	0	70	00	PASSSES	PASSSES	PASSSES	PASSSES	
					1 Bed	0	1	0	5	1	0	0	0	0	0	0		-44	60.3%	%	70				80	0	79%							
					2 Bed	0	9	15	10	5	5	0	0	0	0	0		-10	13.7%															
					3 Bed	0	2	1	2	4	1	0	0	0	0	0		-20	29.0%															
Stage 3	1	0	11	80	Studio	0	3	4	0	1	1	0	0	1	1	1	1		20	25.0%	31	12	Total	03	74	7	70	00	PASSSES	PASSSES	PASSSES	PASSSES		
					1 Bed	0	1	3	1	2	2	0	0	1	1	1		-53	60.2%	%				72	84	8	78%							
					2 Bed	0	8	7	5	5	5	6	6	2	2	2		0	10.2%															
					3 Bed	0	0	0	1	0	0	0	0	2	2	2		0	10.2%															
REFERENCES																																		
Rockdale Urban Design Report, pg. 28-37 Rockdale Development Control Plan 2011 Apartment Design Guide NSW																																		
RESULT PASSSES																																		
DCP Apartment Requirements																																		
2+bed: 100% 100%-100%																																		
2 Bed: 50%-75%																																		
3 Bed: 10%-25%																																		
ADD requirements DCP requirements																																		
Minimum 10% of apartments get 2hrs of direct sunlight																																		
Minimum 10% of apartments get no direct daylight																																		
Minimum 10% of apartments get 3hrs of direct outlook																																		
ADD requirements																																		
10% of apartments in the first 9 storeys must have cross ventilated																																		

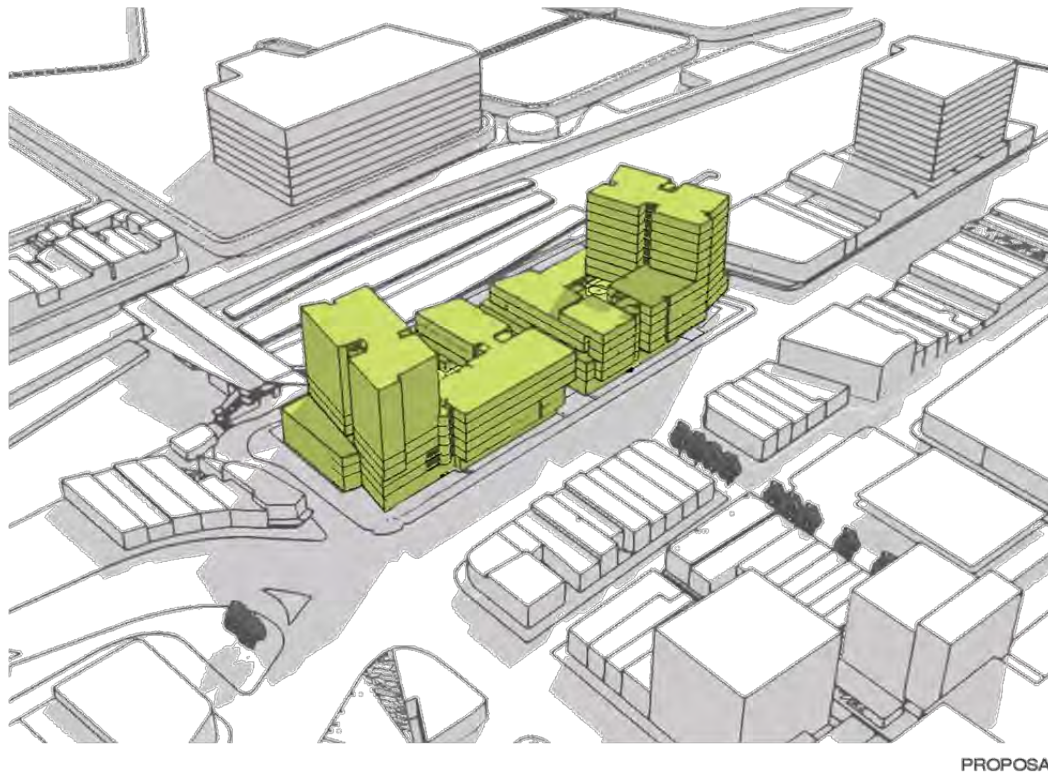
The orientation of the towers and their positioning relative to one another, and the lower height of the smaller buildings provide for positive solar access, while ventilated corridors provide cross ventilation for most apartments, such that full compliance with both the Apartment Design Guide and the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

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PREVIOUS MASSING ITERATIONS 2014-18

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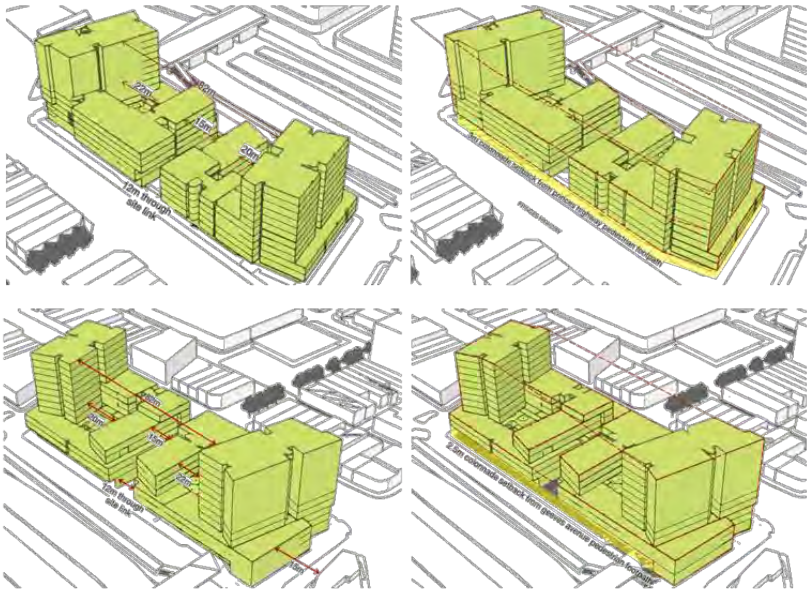
SITE MASSING ITERATIONS

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.

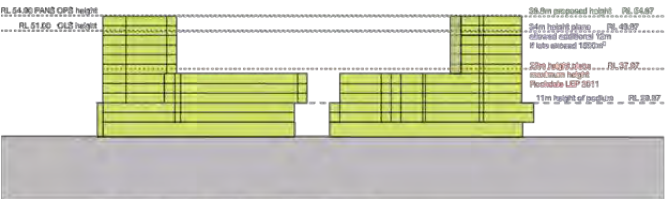
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BUILDING ENVELOPE, SEPARATION AND HEIGHT



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

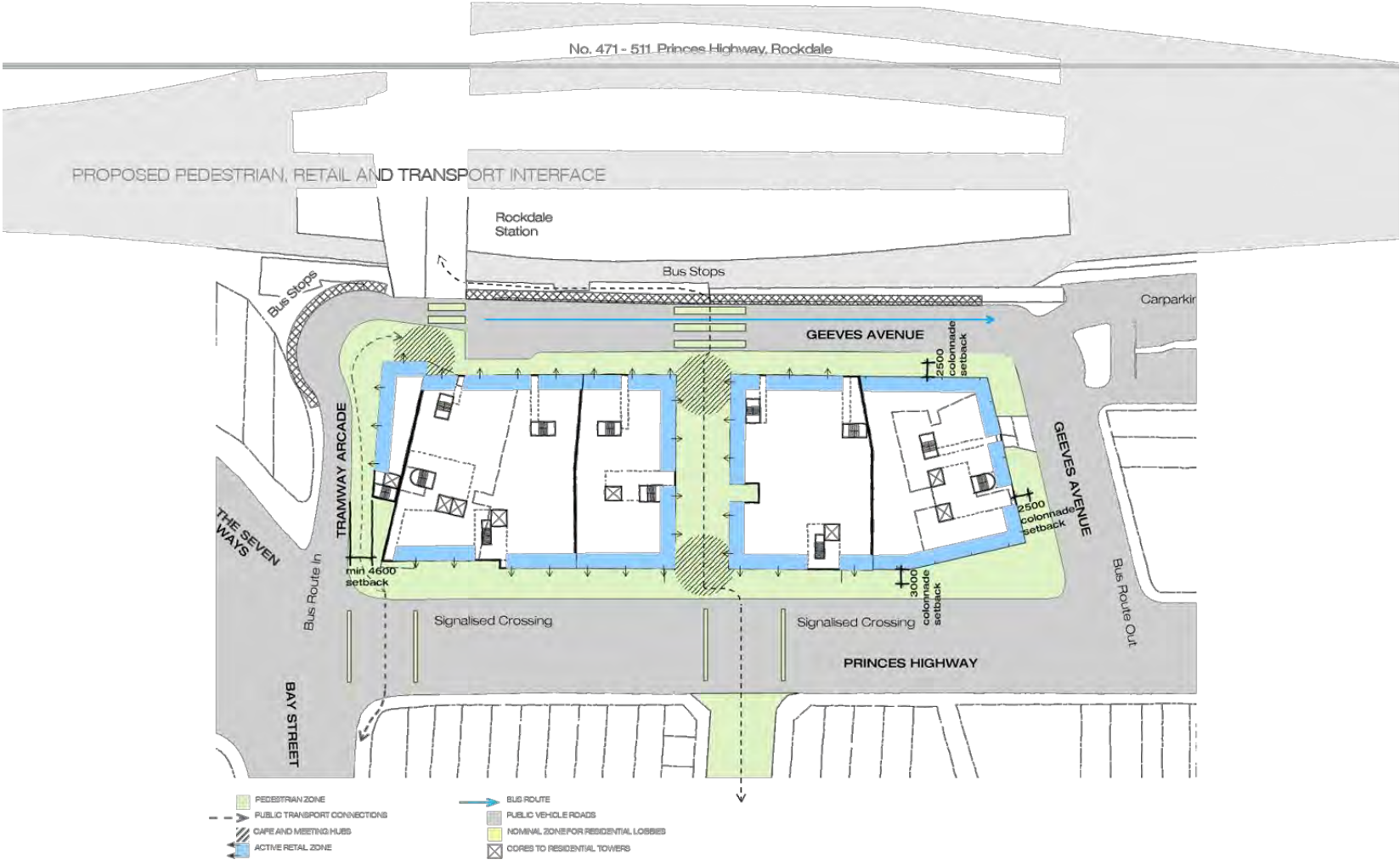
The outline of the proposed building envelope is dotted over the forms of the towers developed for this report, as viewed from the Princes Highway.



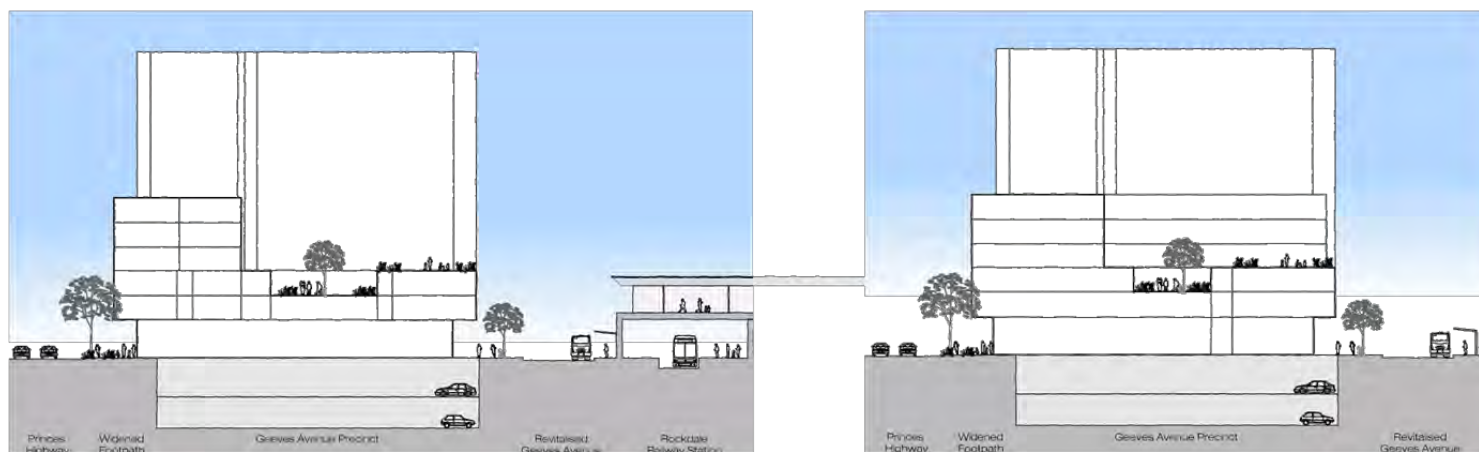
Building heights, as viewed from the east.

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 five-storeys along a widened through site link through the centre of the precinct.

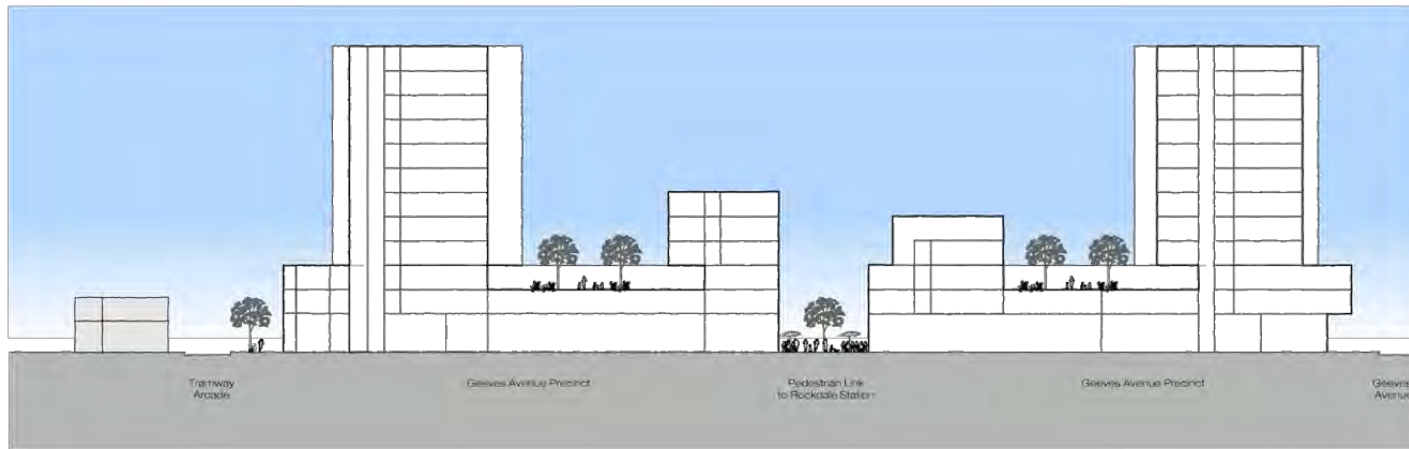


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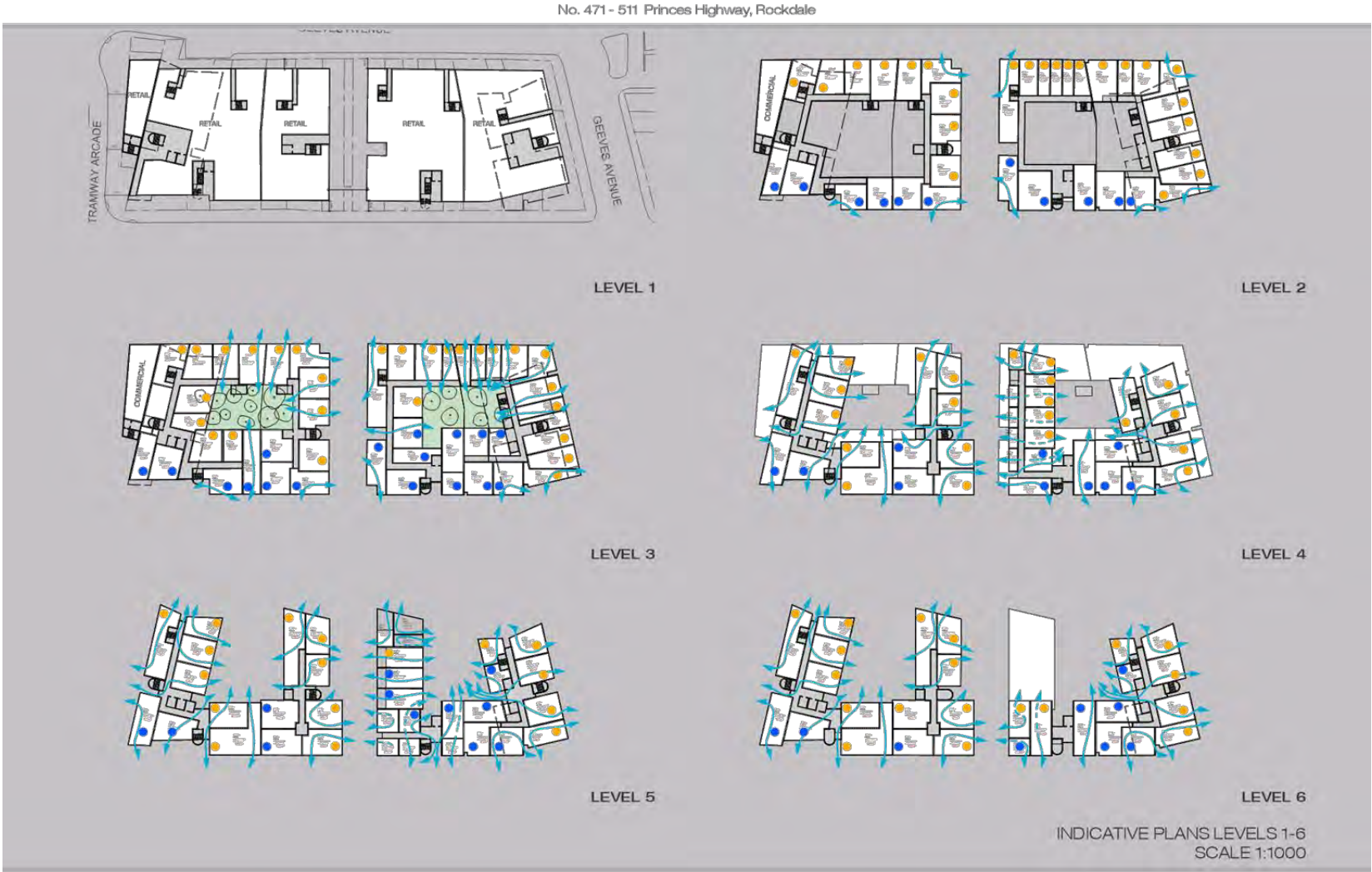


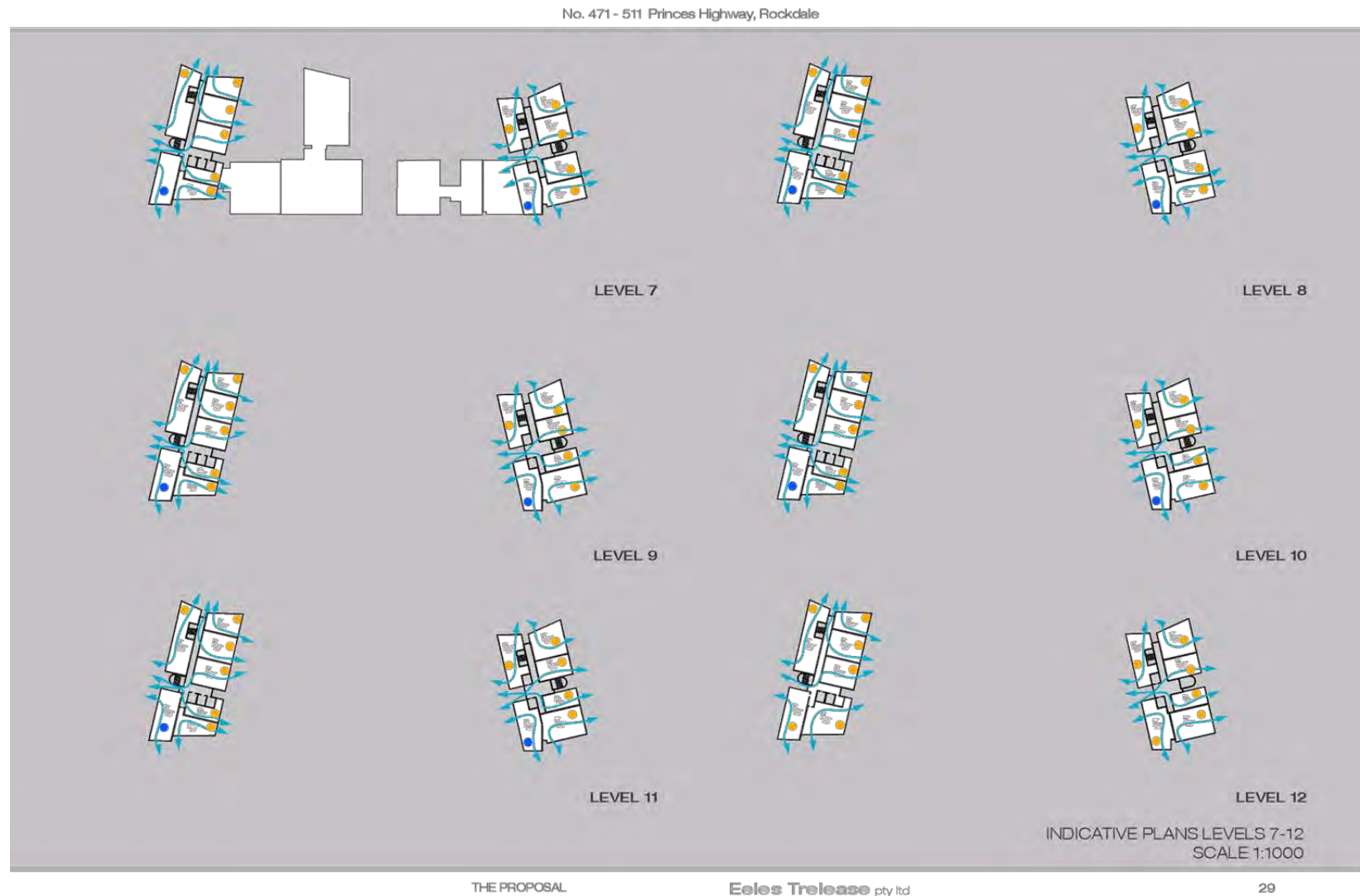
INDICATIVE CROSS SECTIONS

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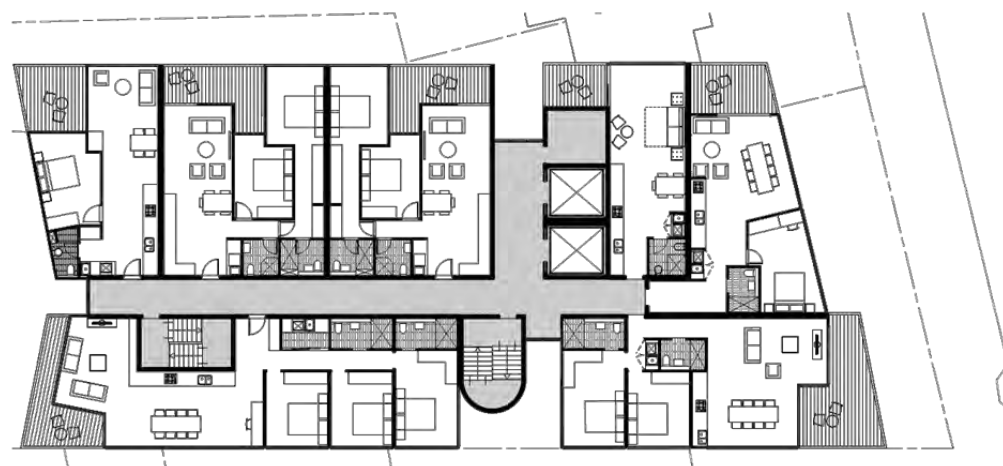


INDICATIVE LONG SECTION

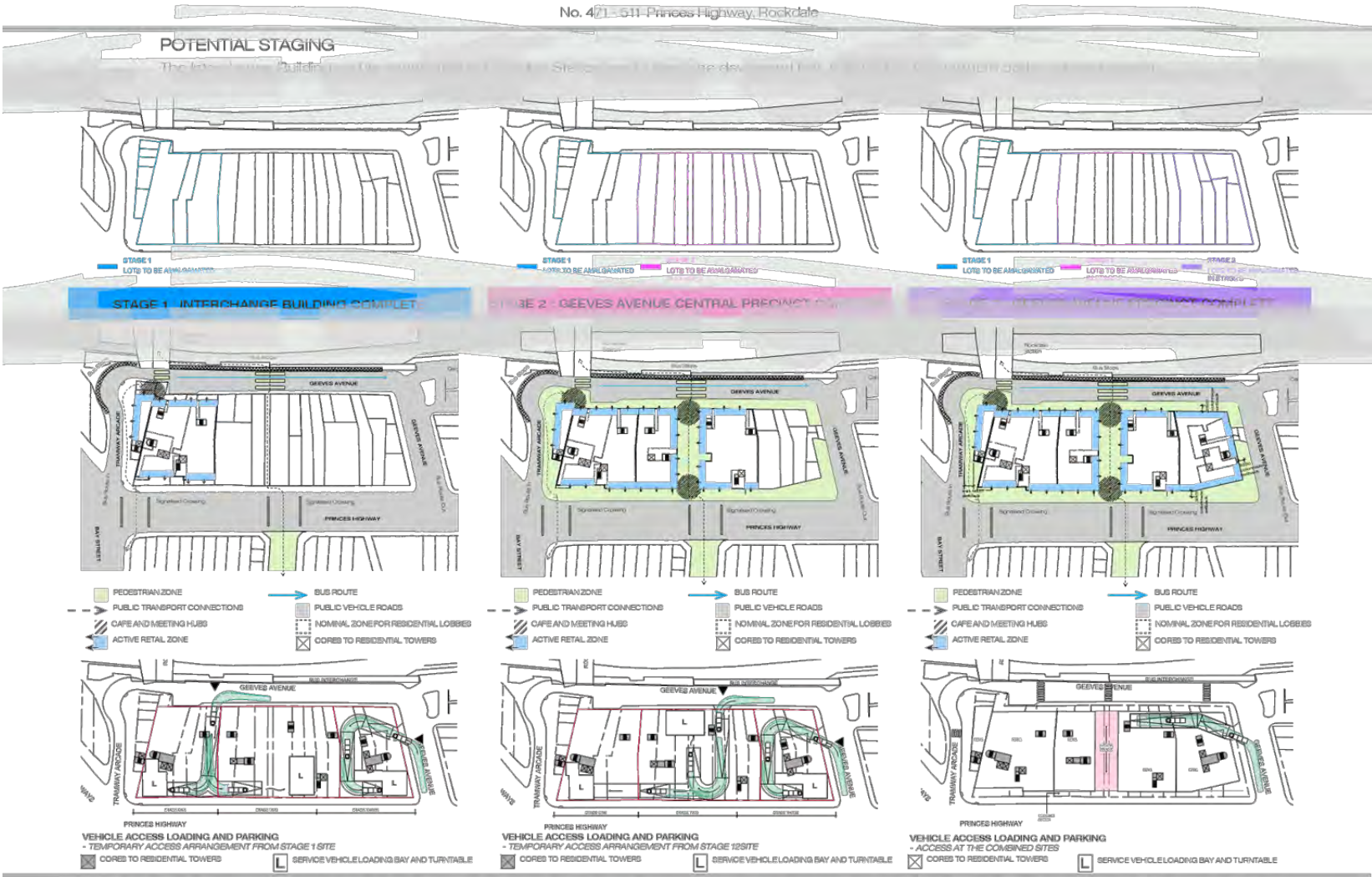




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INDICATIVE APARTMENT LAYOUTS
1:200



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**THE PROPOSAL
3D VISUALISATIONS**

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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

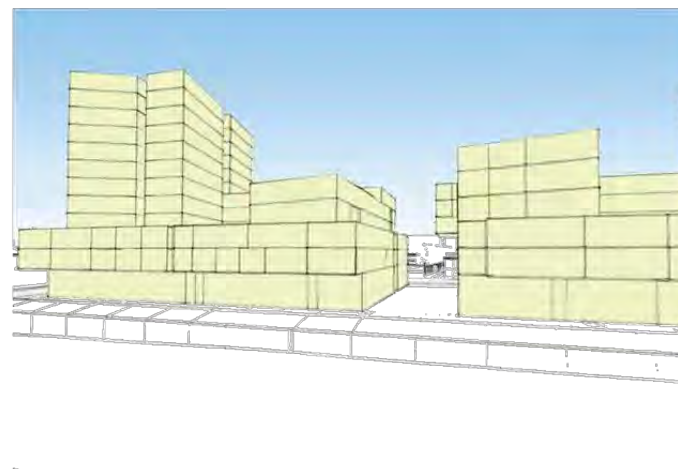
There is a prominence given to retail activities at the ground plane in the view north along the Princes Highway, with the focus being on pedestrians.

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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.

Rockdale Town Centre Masterplan 2012



*"Vibrant
and
livable
inner city
town"*







Produced by:

Rockdale City Council Urban Strategy Team

Consultant team:

- Economic: SGS Economics and Planning
- Landscape Architects: JMD Design
- Urban design: Tony Taussig
- Architectural Illustrations: Haycraft Duloy

Council would like to acknowledge the contributions of the Rockdale Town Centre Masterplan Community Reference Group (CRG). The group's inputs were pivotal to the development of this Masterplan. The CRG constitutes the following members:

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- Christene Casali
- Mikail Chong
- Mark Donnelly
- Phil Favero
- Rifaat Hanna
- Zahwat Hoballah
- Ibrahim Ibrahim
- Stephen Kamper
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Final Plan for adoption 2012

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Introduction

Rockdale Town Centre, situated 10kms from the Sydney CBD on a major railway line and arterial road, shares many characteristics of successful and prosperous town centres. The Town Centre has the potential to develop into a unique and vibrant centre.

Rockdale Town Centre is the largest commercial centre in the City of Rockdale. Historically the Centre has played an integral role in the economy and development of the St George region. It has traditionally been the cultural and civic heart of the City of Rockdale with a close connection to the historic 'pleasure grounds' on Botany Bay at Brighton Le Sands.

Over the past thirty years this role has diminished as the centre has experienced competition from nearby Major Centres at Kogarah and Hurstville. It has also diminished on account of Rockdale Plaza which generally restricts its users solely to this shopping centre precluding visitation into the Town Centre. A new direction for the Town Centre needs to be determined that reflects Council's and the community's aspirations.

The process of developing a masterplan was undertaken to document the community's desires and aspirations for the future of the Centre and determine its future character, role and function. There are a wide range of Town Centre stakeholders, including all levels of Government, local residents, local businesses, community groups and those who utilise the services within the Centre. This Masterplan process has enabled the various stakeholders to work towards an enduring future for the Centre.

As Rockdale Town Centre grows and changes there is a need to ensure this is positive for the future of the Centre and Rockdale City and that it will create an environment that the community desires and is proud of.

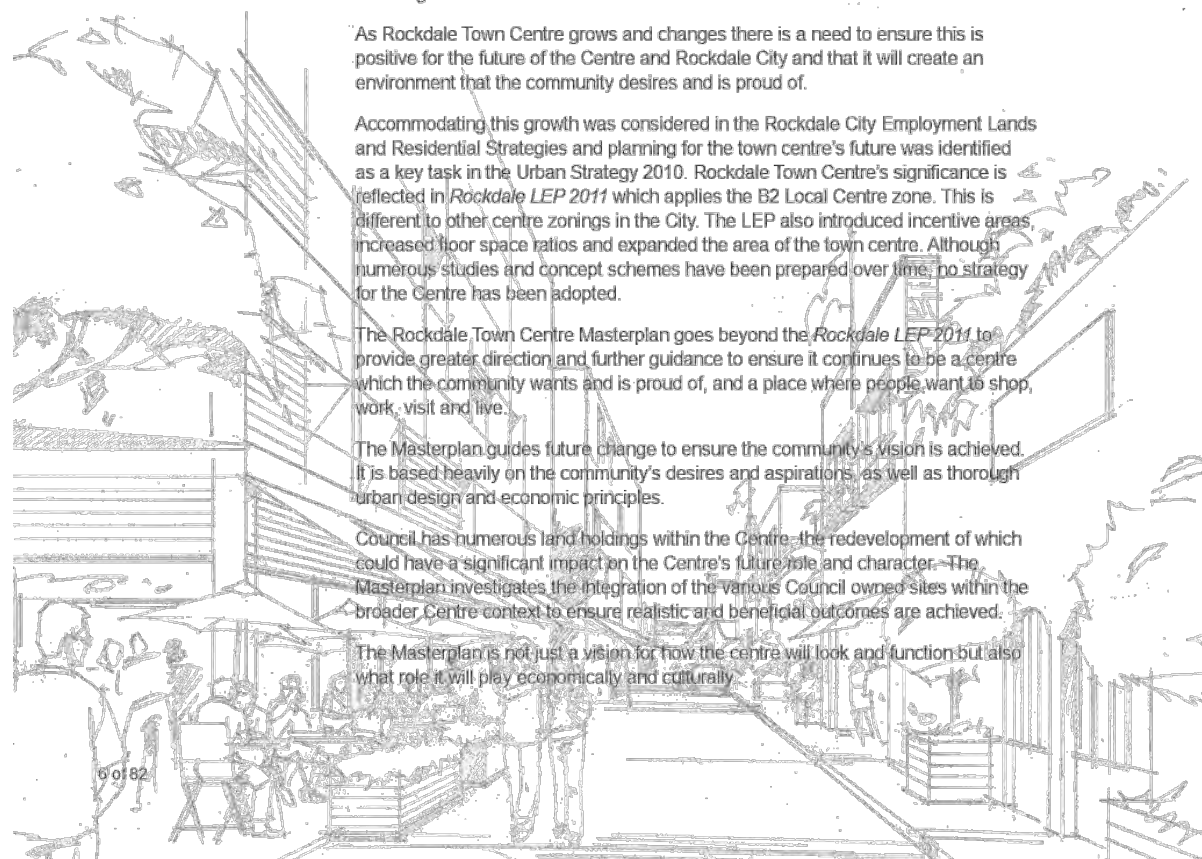
Accommodating this growth was considered in the Rockdale City Employment Lands and Residential Strategies and planning for the town centre's future was identified as a key task in the Urban Strategy 2010. Rockdale Town Centre's significance is reflected in *Rockdale LEP 2011* which applies the B2 Local Centre zone. This is different to other centre zonings in the City. The LEP also introduced incentive areas, increased floor space ratios and expanded the area of the town centre. Although numerous studies and concept schemes have been prepared over time, no strategy for the Centre has been adopted.

The Rockdale Town Centre Masterplan goes beyond the *Rockdale LEP 2011* to provide greater direction and further guidance to ensure it continues to be a centre which the community wants and is proud of, and a place where people want to shop, work, visit and live.

The Masterplan guides future change to ensure the community's vision is achieved. It is based heavily on the community's desires and aspirations, as well as thorough urban design and economic principles.

Council has numerous land holdings within the Centre, the redevelopment of which could have a significant impact on the Centre's future role and character. The Masterplan investigates the integration of the various Council owned sites within the broader Centre context to ensure realistic and beneficial outcomes are achieved.

The Masterplan is not just a vision for how the centre will look and function but also what role it will play economically and culturally.



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Metropolitan Context

South Subregion Draft Subregional Strategy

The Rockdale Town Centre is Rockdale City's highest order centre. This is espoused in the Department of Planning and Infrastructure's (DP&I's) South Subregion Draft Subregional Strategy (SSDSS).

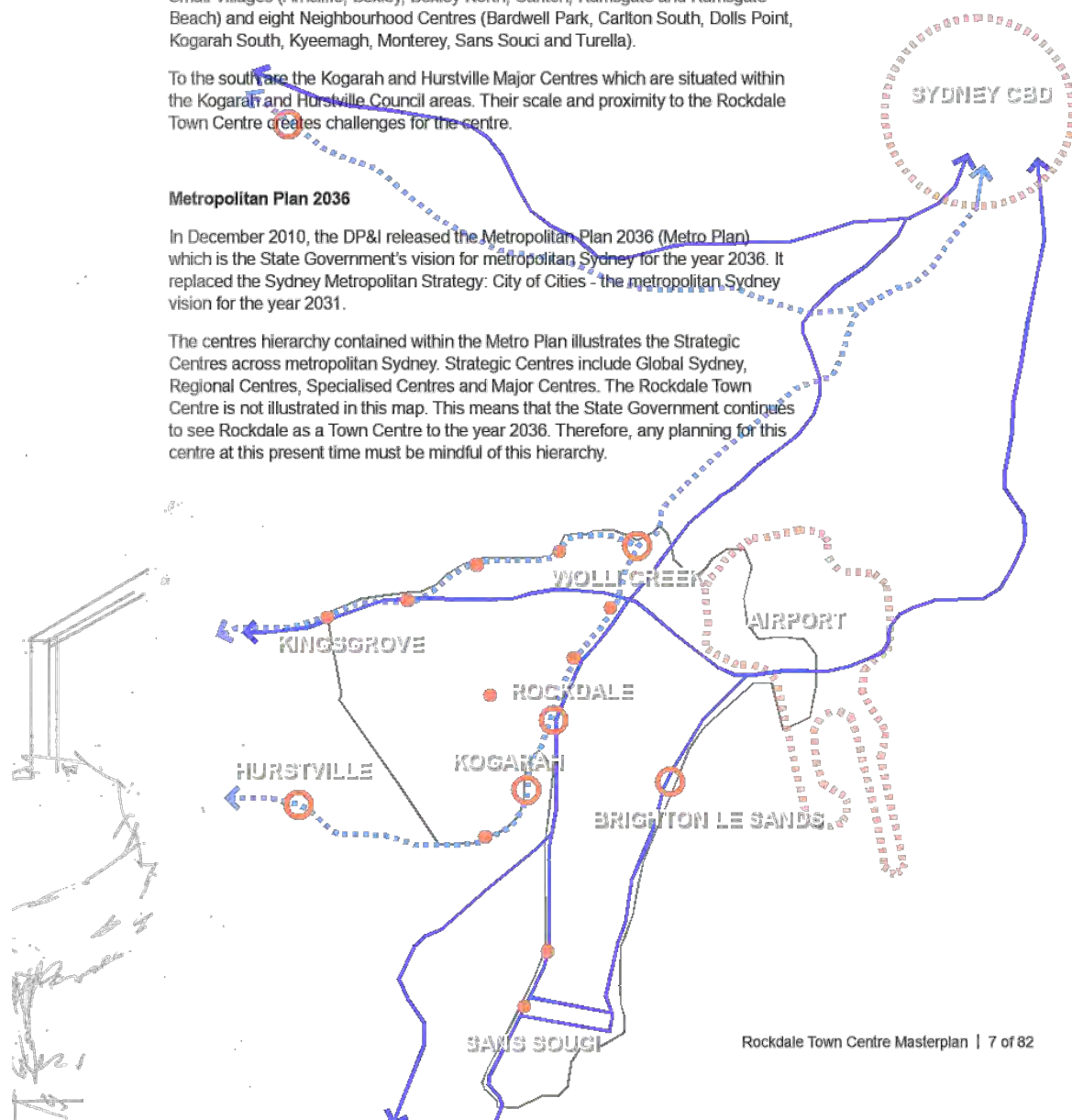
The SSDSS is the vision for the south subregion for the year 2031. It establishes a centres hierarchy for all Councils within the subregion. The Rockdale Town Centre sits above three Villages (Brighton Le Sands, Kingsgrove and Wolli Creek), six Small Villages (Arncliffe, Bexley, Bexley North, Carlton, Ramsgate and Ramsgate Beach) and eight Neighbourhood Centres (Bardwell Park, Carlton South, Dolls Point, Kogarah South, Kyeemagh, Monterey, Sans Souci and Turella).

To the south are the Kogarah and Hurstville Major Centres which are situated within the Kogarah and Hurstville Council areas. Their scale and proximity to the Rockdale Town Centre creates challenges for the centre.

Metropolitan Plan 2036

In December 2010, the DP&I released the Metropolitan Plan 2036 (Metro Plan) which is the State Government's vision for metropolitan Sydney for the year 2036. It replaced the Sydney Metropolitan Strategy: City of Cities - the metropolitan Sydney vision for the year 2031.

The centres hierarchy contained within the Metro Plan illustrates the Strategic Centres across metropolitan Sydney. Strategic Centres include Global Sydney, Regional Centres, Specialised Centres and Major Centres. The Rockdale Town Centre is not illustrated in this map. This means that the State Government continues to see Rockdale as a Town Centre to the year 2036. Therefore, any planning for this centre at this present time must be mindful of this hierarchy.



Community Reference Group (CRG) Journey

The community reference group (CRG) was established in early 2011 to ensure that the Rockdale Town Centre Masterplan responded to the community's aspirations through regular discussions between the project team and community representatives. The CRG comprised local business, community representatives and landowners who met regularly over the duration of the project.

The CRG identified what the community saw as both the potential and the challenges of the centre, provided input into the initial design concepts and evolution of these ideas, and gave feedback on elements of the draft Masterplan as it developed. The CRG will continue to be involved in the implementation of the Masterplan and as advocates for the delivery of the Masterplan into the future.

1 Outline and Key findings

31 March 2011

2. Initial ideas and concepts

5 May 2011

3. Community vision and design strategies

14 June 2011

4. Proposed structure and parking plan

21 July 2011

5. Public domain review and plan

8 September 2011

6. Draft Masterplan and public exhibition process

10 November 2011

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Document overview

This Masterplan sets out the future direction for the Rockdale Town Centre and the path to achieving it. It covers all aspects of the physical environment of the Centre as well as its cultural, civic, and economic aspects.

The Masterplan is a guiding document for Council, business owners, private developers and the community. It will be implemented by more detailed tools which provide technical guidance on the design and delivery of the strategies contained in this Masterplan.

This document is divided into two parts

Masterplan

- Outlines the community's vision for the Centre
- Outlines the design strategies which set out the desired future character, role and function of the Centre
- Identifies plans to achieve the design strategies and realise the vision. These include:
 - Precinct Plan
 - Structure Plan
 - Parking Plan

Masterplan implementation program

- Identifies the suite of tools which will be used to implement the Masterplan, including the urban planning direction, actions for the community, and capital works priorities for Council.

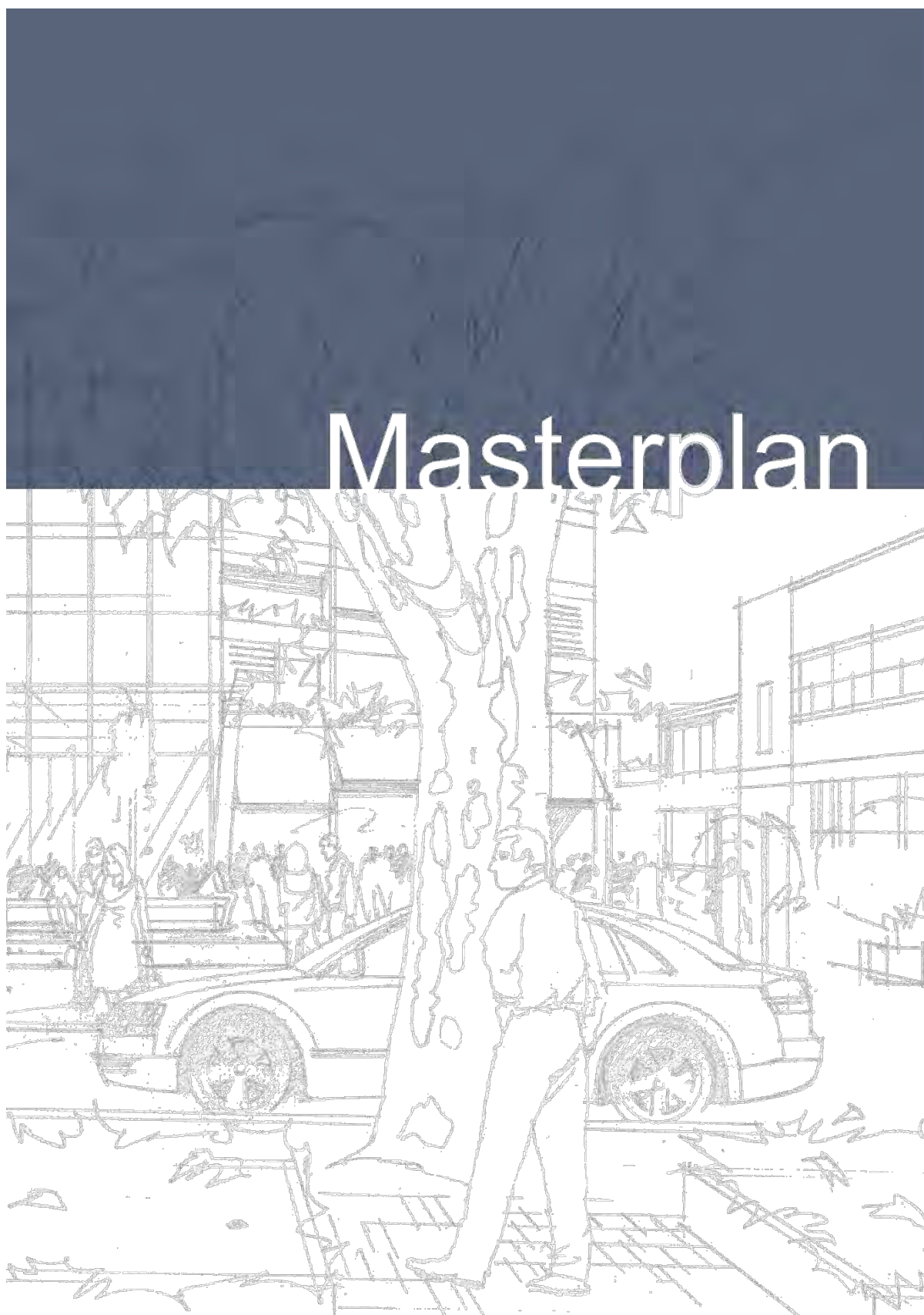
Public Domain Plan

The Public Domain Plan is a separate document which accompanies the Masterplan and sets out specific strategies for the public domain which complement the Structure Plan Elements and Parking Plan.

It also contains the Technical Manual which will be part of the suite of tools which will be used to implement the Masterplan (see Masterplan Implementation).







1. Potential and Challenges

The Masterplan process commenced with an extensive review of planning studies and policies that pertain to the Centre. This established an understanding of the urban and economic environment of Rockdale Town Centre and the characteristics that have shaped the Centre's development over time. It also identified the challenges that the Centre continues to face as well as its future potential.

Potential



A centre with historical and topographical identity

Rockdale Town Centre is situated on the relatively flat area between two hills. The name "Rockdale" is derived from its topography as a "dale between two Rocky Outcrops". The Rockdale area started as a rural settlement with the original land grant in 1831. Access to the area was improved by the construction of Rocky Point Road and the dam across the Cooks River in 1839. The first retail shop in Rockdale was built in 1862. The area was officially named Rockdale in 1878.



A highly accessible centre

The Town Centre has excellent transport connections to the Sydney CBD and surrounding suburbs, by rail, bus and car. Princes Highway offers the Town Centre convenient access and high exposure. There are a significant number of public parking spaces within the Centre for visitors arriving by car. The convenient access makes the Town Centre a viable place to live, work and visit.



A public open space network

Although there are limited public open space areas within the Town Centre, some existing open spaces have more potential. The well maintained Council forecourt garden, the emerging outdoor dining/cafe atmosphere in King Street Place and the existing laneway network can be further enhanced and integrated into pedestrian linkages to make the Town Centre more accessible attractive.



A strong civic focus

Rockdale Town Centre has a range of local public buildings, similar to other successful town centres (e.g. Rockdale Library and Town Hall, Council Administration Building). These buildings give the Town Centre a strong civic and community focus and add to the vibrancy and character of the Centre.



A diverse and growing community

The Town Centre has a culturally diverse and growing community. A demographic trend of the suburb of Rockdale shows a relatively high proportion of residents aged 20 to 34 years. According to local real estate agents, the area is attracting many young professional couples and students seeking an affordable area with good public transport connections.

Challenges

Competition from neighbouring centres

Rockdale is adjacent to the Hurstville and Kogarah Major Centres which are higher up the State Government's centre's hierarchy for metropolitan Sydney. Compared with these two centres where significant office and retail markets have been established, Rockdale Town Centre has not attracted commercial development in recent years.



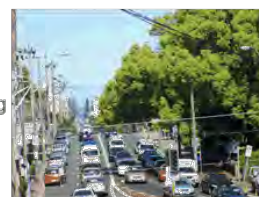
Traffic

Significant volumes of traffic along the Princes Highway reduces the amenity for pedestrians and residential development with respect to noise and air pollution. This highway corridor, along with the Seven Ways intersection also hinders pedestrian movement across the Centre, particularly at the Town Centre's edge where there are fewer signalised crossings and large development blocks.



Passing rather than visiting

In spite of convenient parking and good transport access, many people only pass by or commute via the Town Centre rather than visit it. This may be due to the lack of major attractions (retail anchors or large employment generators) and excessive long stay parking (public parking spaces with no time limits) within the retail core.



Small site

A significant proportion of the Town Centre core area comprises small lot subdivision which lends itself to a fragmented ownership pattern. Without site consolidations, any future development of these sites will be difficult to achieve.



Aircraft movement impacts

The Town Centre has proximity (2km) to the Sydney Airport. The northern part of the Town Centre lies directly beneath the flight path. This has a significant impact on new developments due to noise affectation and building height limitations, as development must not breach the Obstacle Limitation Surface (OLS) which is 51m AHD for majority of the Centre.



2. Community's Vision

“...a great place to shop, work, visit and live”

There is a strong and diverse Rockdale Town Centre community which includes residents, business owners, and land owners who are passionate about their Centre and its future.

Integral to the Masterplan process is understanding what the community likes about the Centre and how they wish to see it change and grow.

To gather input and feedback from the community, a Community Reference Group (CRG) was established at the outset of the project. Consisting of 9 members representing a cross section of the community, the CRG has met regularly to review and discuss the work and ideas of the project team throughout the development of the Masterplan.

To engage with the wider community a Community workshop was held in May 2011 and was attended by over 50 community members. The workshop included round table discussions on key issues.

These discussions identified common themes that could inform the direction of the Town Centre. The themes were documented in a community consultation report which was presented to the CRG and circulated to the workshop attendees for feedback. They now inform the community's vision for Rockdale Town Centre.



The community's aspirations for the Town Centre which have been derived from the key themes of the community workshop discussion, are to:

- Establish a unique identity for Rockdale to make it more attractive for residents and visitors
- Increase and improve the Centre's entertainment and nightlife activities and facilities
- Maintain the culturally diverse fresh food retailing as a key part of the Centre's character
- Encourage redevelopment of the Centre edges to make these areas more attractive
- Improve and provide more open space for a range of users including families and children
- Improve the laneways to better connect parts of the Centre and make them special in their own right
- Maintain and enhance the Centre's important civic role, which needs to relate better to the rest of the centre
- Simplify and improve carparking opportunities for visitors to the Centre

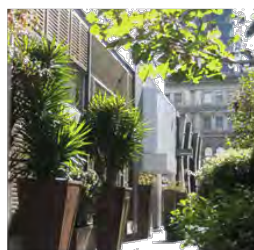


*“....a vibrant and livable
inner city town”*

3. Design Strategies

Based on the community's vision for the Town Centre, a series of design strategies were established and determine the direction of the Masterplan process and a way forward for the Rockdale Town Centre. They articulate the constraints and opportunities and set out the desired role, function, and character of the Centre upon which the more detailed land use, built form, and public domain guidelines are based.

The six design strategies are explained over the remaining pages of this section. Part 5.1 of the Masterplan references the specific strategies which each Structure Plan initiative aligns to.



1. Establish a unique **identity** for Rockdale



2. Grow the town **heart** and civic role



3. Increase the **vitality** and lifestyle



4. Improve the **pedestrian** experience



5. Strengthen the Centre's **economic** hubs



6. Provide convenient and legible **access** for visitors

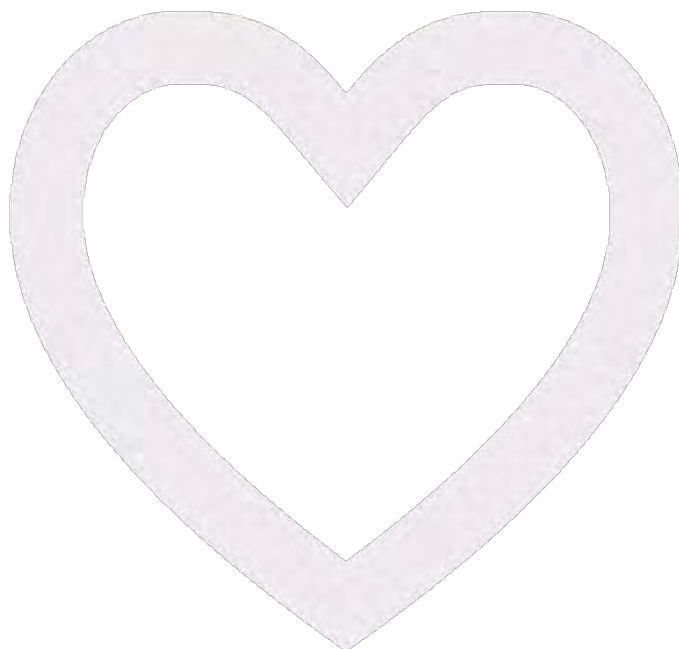




Design Strategy 1: Establish a unique **identity** for Rockdale

- Rockdale Town Centre will be made unique and attractive to visitors by building upon its existing strengths
- It will grow as an inner city centre with a strong public life by utilising its existing elements characteristic of a traditional town centre
- The experience of being in Rockdale will be improved through an upgrading of people's 'mental map' of Rockdale
- The identity of the Town Centre will be promoted through the creation of a sense of arrival to the centre





Design Strategy 2:
Grow the town heart and civic role

- The heart of the Centre will be focused on its traditional town centre elements
- A strong public domain network will link the civic hub and retail core
- The Centre's civic functions and public life will be enhanced by providing a town square in the civic hub adjoining the Town Hall and Council administration building
- The town heart will have strong pedestrian connections to the rest of the Centre and surrounds

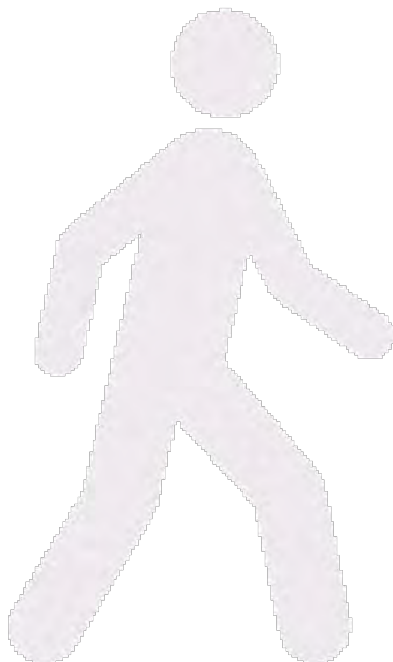




Design Strategy 3: Increase the **vitality** and lifestyle

- Rockdale Town Centre will be a livable centre with an attractive lifestyle and nightlife
- The lifestyle of the Centre will be improved by encouraging elements in the Town Centre with a social or public focus: open spaces, dining, entertainment, markets, community services
- Vibrancy and activity in the Centre will be generated through increased residential densities
- Usable and safe open space will be provided that suits the needs of Rockdale's culturally diverse community





Design Strategy 4: Improve the **pedestrian** experience

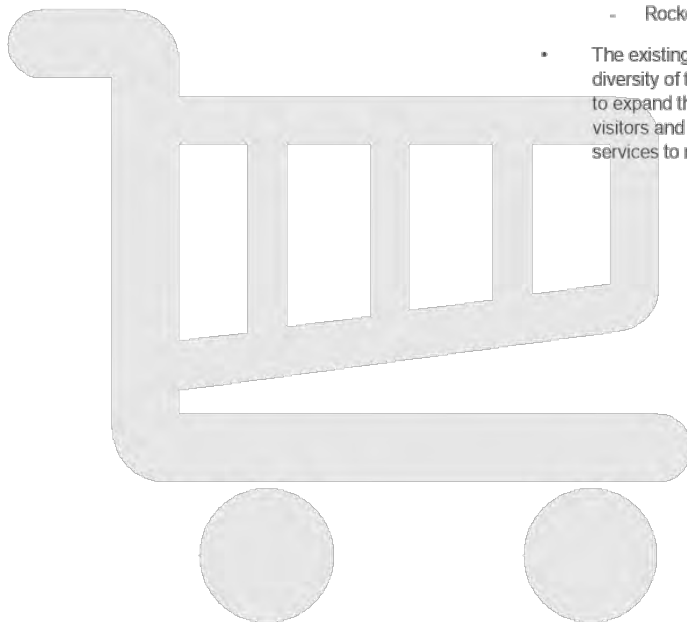
- The different precincts of the centre will be connected by laneways and a pedestrian network making the Centre easy to explore for visitors and enjoyable for residents
- Laneways will be improved and pedestrian movement prioritised by calming the traffic on streets in the Centre core
- Open spaces and laneways will be activated by the adjoining building uses

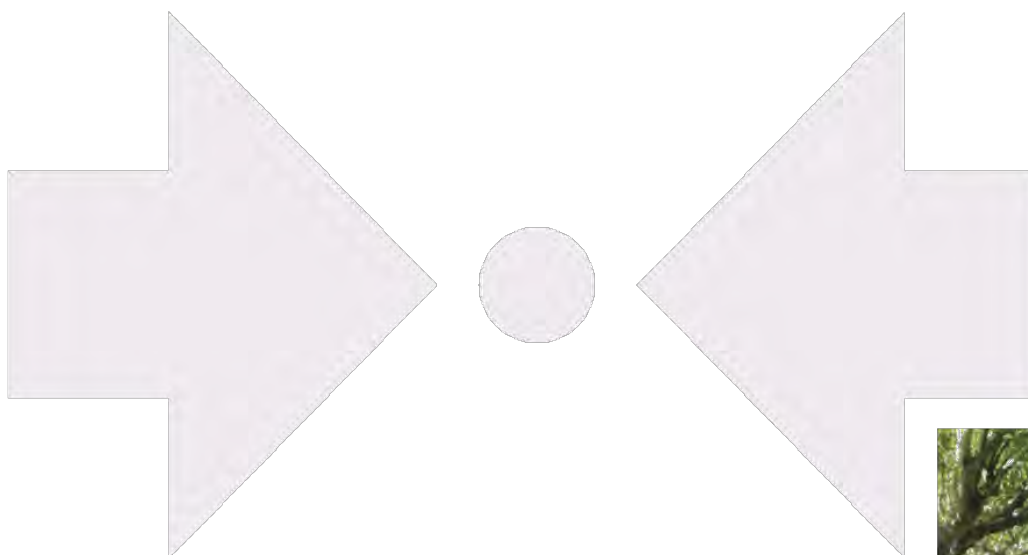




Design Strategy 5: Strengthen the Centre's **economic hubs**

- The Centre consists of a series of economic hubs with different roles that will be strengthened and connected to make a complete retail experience and improve the centre's economy. The economic hubs are:
 - King Street Place
 - Walz Street
 - Town Centre core including a possible market
 - Princes Highway Strip
 - Centre edge showrooms and bulky goods
 - Rockdale Plaza
- The existing fresh food culture and ethnic diversity of the centre will be built upon to expand the centre's retailing to attract visitors and provide a better range of services to residents





Design Strategy 6:
Provide convenient and legible access for visitors

- A hierarchy of access to the Centre will be developed: pedestrian, bicycles, public transport, then private vehicles
- The connection from the Railway station and transport interchange to the centre will be improved
- Convenient vehicle access to the Centre will be provided by carparking located at the edges of centre
- Vehicle movement and access will be improved by reducing long stay carparking in the Centre core
- Rockdale Town Centre will be differentiated from other centres and businesses along the highway to visitors travelling by motor vehicle



4. Precincts Plan

Rockdale Town Centre has an elongated form which is bisected by the Princes Highway and flanks both sides of the Illawarra rail line. Within the Centre, a number of distinct and definable precincts have emerged. The role and attributes of each precinct give Rockdale Town Centre its character and diversity.

Maintaining and enhancing each precinct as the Centre grows is important as is creating a better connection and relationship between them.

This section constitutes the Precinct Plan. It outlines the existing role and character of each precinct and how they are envisaged in the future. It also includes how their relationship to other precincts will be improved to better contribute to the success of the Town Centre.



The precincts which make up the Rockdale Town Centre are:

4.1 Town Centre Core

- 4.1.1 Walz and Frederick Streets Precinct
- 4.1.2 Transport Interchange Precinct
- 4.1.3 Civic Precinct
- 4.1.4 King Street Precinct

4.2 Princes Highway Strip

- 4.2.1 Princes Highway Central Precinct
- 4.2.2 Princes Highway South Precinct
- 4.2.3 Princes Highway North Precinct
- 4.2.4 Princes Highway Green Gateway Precinct

4.3 Town Centre Edge

- 4.3.1 Market Street Precinct
- 4.3.2 Rocky Hills Precinct
- 4.3.3 Chapel Street Precinct
- 4.3.4 Residential Ring Precinct
- 4.3.5 Rockdale Plaza Precinct

The following pages outline the defining features and roles of each precinct and how they are envisaged in the future.



4.1 Town Centre Core

The Town Centre Core is located around the Rockdale Railway Station. It comprises of retail, commercial, light industry, civic centre (including town hall, library council chambers) and high density residential. The area is dominated by regional traffic. However, it is also a high pedestrian zone with cross connections through the central transport interchange. There are four precincts within this area.

4.1.1 Walz and Frederick Streets Precinct

This precinct comprises land zoned B2 Local Centre at the section of Railway Street at Frederick Street and extending north through Walz Street to Parker Street. The subdivision pattern combines small shop lots with larger sized lots. Whilst the predominant building height in the precinct is two storeys, the maximum building height is 20.5 metres in *Rockdale LEP 2011*.

Current

The Walz Street Precinct is a vibrant retail hub with a predominance of ethnic food outlets and fresh food supplies. It has a village feel despite its fringe location at the western edge of the Centre.

Whilst the precinct trades well, there are a number of traffic and parking issues. This is due to limited parking and this is compounded by a high number of bus movements which service the bus stops on Railway Street. The steep topography of Walz Street, particularly at the street and footpath interface, can also constrain the pedestrian experience.

Future

The vitality and character of the precinct will be enhanced by improving the public domain. This is detailed in part 5.2 'Pedestrian spine and retail hubs' of the Structure Plan. The enhancements focus on the public domain and the provision of more convenient parking (i.e. angled parking) which is detailed in the Parking Plan (part 6.2). Refer also to section 4.4 of the Public Domain Plan

4.1.2 Transport Interchange Precinct

The Transport Interchange Precinct contains the Rockdale Train Station and bus interchange and the adjacent commercial properties between Geeves Avenue and the Princes Highway. This precinct is zoned B2 Local Centre and has a maximum building height of 22 metres with an option for an additional 12 metres provided lots are consolidated and no less than 1,500 square metres as per exception clause 4.3(2A) (a) in *Rockdale LEP 2011*. The existing subdivision pattern comprises small narrow lots reflecting traditional retail strip shop pattern.

Current

This precinct is an extremely active and critical part of the function of the Town Centre. It experiences a high volume of pedestrian traffic and is also a point of arrival for many visitors to the centre. Despite this, the precinct is in need of revitalisation. The bus interchange is cramped; pedestrian paths to the station entrance are not convenient nor pleasant; the Bus Interchange is fronted by the rear of businesses; and the main link to King Street Place is via a small pedestrian arcade. The Princes Highway frontage, which contains a range of retail uses including banks and the post office, affords the precinct high visibility.

Future

The redevelopment and revitalisation of this precinct is critical in order to establish a positive image for the Centre and provide more convenient pedestrian movement between the station. A scenario is presented in the Structure Plan (see part 5.3). Refer also to section 4.1 of the Public Domain Plan.





4.1.3 Civic Precinct

The Civic Precinct is a linear area stretching from Pitt Lane extending north to encompass the Rockdale Town Hall, Administration building and Council car park on York Street. A small section of this precinct fronts Princes Highway, north of Bryant Street.

This land is zoned B2 Local Centre. The subdivision pattern contains larger lots which average over 1,000 square metres in area. Existing building heights range from single, two and three storey development. However, the maximum building height is 28 metres with the possibility of an additional 12 metres provided lots are consolidated and are no less than 1,500 square metres, as per exception clause 4.3(2A)(a) in *Rockdale LEP 2011*.

Current

The Civic Precinct provides the civic services for the Centre and subregion. The precinct has a pleasant character which is created by the existing town hall and administration building forecourt.

Containing the civic uses within the centre core will maintain its vitality and strong sense of community as well as its traditional civic nature. This is despite the fact that the forecourt is currently undersized for a civic open space and some of the buildings are in need of an upgrade.

Future

The redevelopment of this precinct in conjunction with Council's Target building and public carpark site to enhance the centre's civic role and establish a strong town heart is a key initiative of the Structure Plan (see part 5.1). Refer also to section 4.2 of the Public Domain Plan.

4.1.4 King Street Precinct

The King Street Precinct comprises those properties that have immediate frontage King Street Place between the Princes Highway and Market Street. This land is zoned B2 Local Centre as per *Rockdale LEP 2011*.

The subdivision pattern comprises shop sized lots fronting the southern side of King Street Place whilst larger retail lots front the northern side. Existing development is predominantly two storeys. However, the maximum building height is 28 metres with the possibility of an additional 12 metres provided lots are consolidated and are no less than 1,500 square metres, as per exception clause 4.3(2A)(a) in *Rockdale LEP 2011*.

Current

This precinct is a vibrant and lively retail hub and cafe strip with a strong alfresco dining culture. It contains a supermarket and series of grocers, and contains access to arcades containing further retailing and shops. It is the retail heart of the Centre core and a well used civic open space.

It is an asset for the Centre which can be capitalised on by other precincts through better pedestrian connections, a public domain network and a range of retailing opportunities which complements its character and role.

Future

King Street Place will continue to function as a key retail hub, complemented by new redevelopments, with an improved night and weekend life as detailed in the pedestrian spine and retail hubs Structure Plan initiative (see part 5.2).



4.2 Princes Highway Strip

Bisecting the city centre is the Princes Highway. This main arterial road is one of the main regional connectors for south Sydney. The Princes Highway Strip is currently marked with bollard Ficus street tree planting that ties together the civic and retail commercial buildings that front the highway. The outer edge of the Princes Highway Strip is dominated by retail, commercial and residential uses. This area lacks clear delineation and sense of place. Parts of the Princes Highway Strip also fall within the Town Centre Core shown in section 3 of the Public Domain Plan.

4.2.1 Princes Highway Central Precinct

The Princes Highway Retail Core Precinct comprises the properties which have frontages to both Princes Highway and to Geeves Lane. This precinct is zoned B2 Local Centre and comprises predominantly single and two storey traditional shop top development. The maximum building height is 22 metres as per *Rockdale LEP 2011*.

Current

This precinct contains a variety of stores and services in a highly visible location. It is characterised by heavy pedestrian traffic but has poor pedestrian amenity and older building stock.

The impacts of vehicular traffic reduces the pedestrian amenity of the precinct but its visual prominence to passing motorists offers potential to present a positive image of the Centre.

Future

The look and feel of the Princes Highway strip will be improved by public domain upgrades and improvement to shop fronts. This will be complemented by the potential of redevelopment with site amalgamation, encouraged by the Centre's revitalisation. Smaller scale redevelopment of sites in the shorter term will also be encouraged. Refer to sections 3.3 and 3.4 of the Public Domain Plan.

4.2.2 Princes Highway South Precinct

The Princes Highway South Precinct comprises the area of the Princes Highway from Bay Street in the north to Regent Street/Lister Avenue to the south. Land within this precinct is zoned both B2 Local Centre and R4 High Density Residential.

The subdivision pattern comprises long narrow retail lots with larger lot and super lot sizes to the south. The existing development scale varies between traditional two storey strip retail buildings and more recent mixed use buildings up to 8 storeys. The maximum building height controls vary from 15.5, 22 and 28 metres (Note: some of the land which has a 28 metre height limit can also enjoy an additional 12 metres provided lots are consolidated and are no less than 1,500 square metres, as per exception clause 4.3(2A) (a) in *Rockdale LEP 2011*).

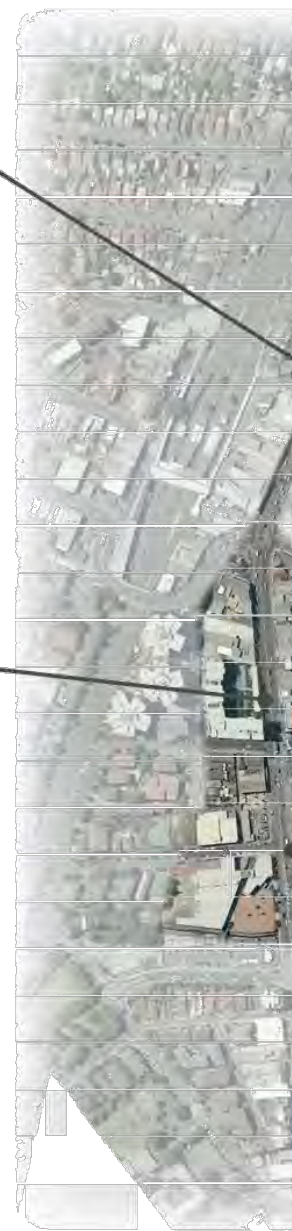
Current

The section of Princes Highway immediately south of Bay Street has experienced a lot of recent mixed use developments of varying degrees of quality with some small retail floor plates which has reduced the retail role of the precinct.

This strip of the Princes Highway is physically disconnected from the retail core by the Bay Street and Seven Ways intersection. It is also affected by the poor amenity of Princes Highway. This affects the continuity of extending the retail strip south along the highway.

Future

This precinct will continue with its current trend of mixed use development close to the centre core, with a reduced retail focus. Public domain upgrades are also proposed. Refer to sections 3.3 and 3.4 of the Public Domain Plan.





4.2.3 Princes Highway North Precinct

The Princes Highway Green Gateway Precinct includes land fronting both sides of Princes Highway from Bryant Street (excluding the Civic Precinct component – see part 4.1.3) to an unnamed lane to the north east. Land within this precinct is zoned B2 Local Centre.

The subdivision pattern constitutes small shop front subdivision to the east and larger lots on the western side. The maximum building height controls are 22 metres on the western side and 28 metres on the eastern side, as per *Rockdale LEP 2011*.

Current

This precinct contains a mix of light industrial and highway corridor retail uses in older building stock. Due to the poor amenity from traffic noise and lack of environmental protection from awnings and street tree planting, it is well known as a unfriendly pedestrian environment.

This precinct contains a number of underdeveloped large lots that have a lot of redevelopment potential. The type of development which can occur is limited by the impacts of the busy road, railway, and the aircraft flight path. Whilst the precinct is located in close proximity to the Centre it is a fair distance from the retail core of the Centre.

Future

This precinct is envisaged as redeveloping with uses which complement the Centre but do not need to be situated in the core such as hotels or entertainment uses like function centres and pubs. Public domain upgrades are also proposed. Refer to sections 3.3 and 3.4 of the Public Domain Plan.

4.2.4 Princes Highway Green Gateway Precinct

The Princes Highway Green Gateway Precinct comprises the area of the Princes Highway south of Lister Avenue and Hegerty Street to Rockdale Plaza Drive. It has been included in the Rockdale Town Centre area under *Rockdale LEP 2011*, with a B2 Local Centre zone. It has a 22 metres height limit which is lower than in the Centre core as this appropriately responds to its location at the edge of the Centre.

Current

This precinct contains a mix of light industrial and highway corridor retail uses and older building stock. It has a pedestrian unfriendly environment due to the traffic noise and lack of environmental protection by way of awnings or street tree plantings.

This precinct contains a number of large underdeveloped sites, many of the owners of which have expressed a desire to redevelop. This area is at the edge of the Centre, well outside of the retail core but still walking distance to the Centre and station.

Future

This precinct has an opportunity to provide increased residential densities in close proximity to the centre as well as creating a gateway and entrance to the Town Centre. This redevelopment is a key initiative of the Structure Plan (see parts 5.4 and 5.5.3). Public domain upgrades are also proposed. Refer also to sections 3.3 and 3.4 of the Public Domain Plan.

4.3 Town Centre Edge

The Town Centre Edge defines the differing quality between the city centre and the outer low density residential suburbs. The Town centre edge has established streetscapes with mature avenues of trees which are mostly oriented toward the city centre. Within the suburban streets the character is quaint with modest size houses and generous sets backs from the road. Within this character area the topography dominates with many rock outcrops creating a sense of height and prospect.

4.3.1 Market Street Precinct

The Market Street Precinct comprises the block situated east of Market Street and bounded by Bryant Street to the north, King Street to the South and George Street to the east. It contains a number of recent large scale mixed use developments. Its B2 zoning as per *Rockdale LEP 2011* and height controls are consistent with these developments

Current

This Precinct adjoins the retail hub at King Street Place and has mostly been redeveloped with mixed use developments. Although it has a landscaped streetscape there exists a poor interface between the footpath and the buildings. This is a missed opportunity to create a lively retail strip.

As Market Street is fronted by the Target site and connected to King Street Place there is an opportunity to capitalise on its relationship to the Centre core.

Future

The Town Heart redevelopment of the site that currently contains the Target store and public carpark will revive the retail role of Market Street on the western side, whilst maintaining its landscape character. With a reduction of off-street parking in the centre core reduced traffic flow will also increase the pedestrian amenity of Market Street.

4.3.2 Rocky Hills Precinct

This precinct is bounded by George Street (western boundary), Pitt Street (northern boundary), Cameron Street (eastern boundary) and Bay Street (southern boundary). This area is zoned R2 Low Density Residential with a 2 storey (8.5 metre) height limit as per *Rockdale LEP 2011*.

Current

The precinct contains low density residential housing with a strong landscaped streetscape with some heritage character elements. It has been dubbed Rocky Hills because of its similarities with some of Sydney's inner city suburbs

This area is close to King Street Place and the railway station which some may argue makes it suitable for increased residential densities. However, it is over the ridge which physically defines the edge of the centre.

Future

This precinct will contribute to providing a range of housing choice is a key initiative of the Structure Plan (see part 5.5.2). Refer also to sections 3.3 and 3.4 of the Public Domain Plan.





4.3.3 Chapel Street Precinct

Chapel Street Precinct is situated south of Bay Street on the eastern side of the Princes Highway. This area is zoned B2 Local Centre and contains larger lots which reflect more recent residential subdivision of the precinct. Its current height limit is 28metres however, some parcels enjoy an additional 12 metres provided lots are consolidated and are not less than 1,500 square metres, as per exception clause 4.3(2A)(a) in *Rockdale LEP 2011*.

Current

This precinct contains off street public parking which is under-utilised. It contains a well maintained heritage listed chapel and large fig trees which are major features of this precinct.

The precinct has large Council land ownership in close proximity to the retail core and station, though it is somewhat disconnected from the retail core for shoppers due to the lack of pedestrian crossing opportunities on Bay Street.

Future

The redevelopment of the Chapel Street Precinct to provide residential revitalisation in a prime location is a key initiative of the Structure Plan (see part 5.5.1). Refer also to sections 3.3 and 3.4 of the Public Domain Plan.

4.3.4 Residential Ring Precinct

Current

The Residential Ring Precinct includes the area of land around the edge of the Town Centre comprising predominantly low and medium density residential buildings with a small portion of high density residential buildings. This precinct has a high level of landscaping and street tree planting.

The high density residential buildings are mostly strata title and are unlikely to change. The proximity of this residential population to the centre helps contribute to the Centre's vitality.

The precinct is zoned R2 Low Density Residential and contains an 8.5 metre (2 storey) height limit as per *Rockdale LEP 2011*.

Future

The precinct is not envisaged to change. Residential intensification will be occurring in specific locations that are suited to increased densities as outlined in the Structure Plan (see Part 5.5).

This includes York Street north of the civic hub which is low density residential housing at the northern edge of the centre. Although this area is in close proximity to the Centre core it is directly under the Aircraft flight path which limits growth potential.





4.3.5 Rockdale Plaza Precinct

The Rockdale Plaza Precinct is flanked by Rockdale Plaza Road to the north, Princes Highway to the west and Chandler Street to the south. The precinct is mostly zoned B2 Local Centre with small areas to the south zoned B4 Mixed Use and R4 High Density and R3 Medium Density.

The precinct comprises some sites that are of massive scale whilst lots along Chandler street are smaller averaging 1500 square metres (zoned R4) and 350 square metres (zoned R3 and R2). The maximum building height control is 31 metres reflecting the height of the existing development with lower heights of 22 metres, 14.5 metres and 8.5 metres depending on the zoning as per *Rockdale LEP 2011*.

Current

The Rockdale Plaza Precinct comprises the Rockdale Plaza stand alone shopping centre and large scale high density residential development on top. This major development does not contribute to the built environment of the Town Centre because the design of its access is based on private vehicle access. This means users drive to and from this shopping centre without seeing any other aspect of the Rockdale Town Centre.

The retail in Rockdale Plaza competes economically with Rockdale Town Centre. However, it does not offer the same experience that the Town Centre offers.

Future

The Plaza will remain as it is. The Green Gateway element of the Structure plan for the Princes Highway South may improve the pedestrian connection to the centre from the Plaza for its residents. The area surrounding Rockdale Plaza will also remain as it is. This area is too far and too disconnected from the Town Centre. The internalised nature of Rockdale Plaza means that the area surrounding it does not benefit from proximity to the Plaza.

5. Structure Plan

To ensure the success of the Town Centre, a Structure Plan has been developed which contains five broad initiatives. These target certain aspects of the Town Centre and work in conjunction with the Public Domain Plan. They also achieve the design strategies and the community's key directions.

Structure Plan Initiatives



Town heart and civic precinct



Pedestrian spine and retail hubs



Interchange precinct redevelopment



Green gateways



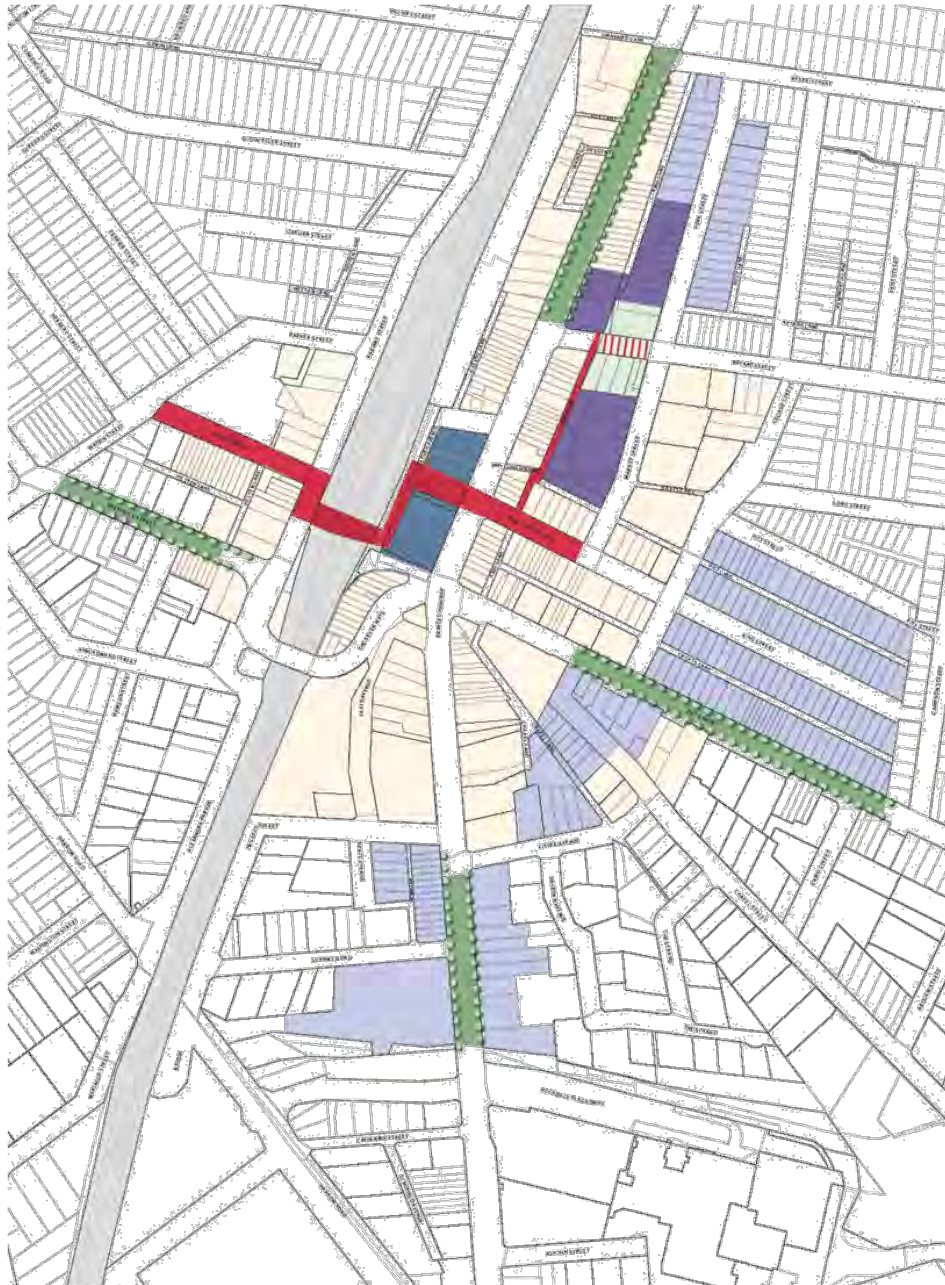
Residential revitalisation

This section presents these initiatives in plan form followed by a detailed description of each initiative. A concept plan or artist's impression which demonstrates one way of delivering the initiative is included in some instances. Key elements also underpin each initiative. The key elements are referenced in the Masterplan Implementation section of this document, along with the accompanying Public Domain Plan, which sets out how these Structure Plan initiatives will be implemented.

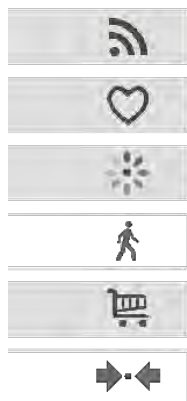
The initiatives were developed based on key sites and areas which:

- Have a high redevelopment potential, particularly where they are in Council ownership
- Are most in need of revitalisation
- Would have the greatest impact to improving the Town Centre

The rationale for each initiative is discussed in the following sections (see preamble and context) before the Structure Plan elements are detailed. In some cases, the Structure Plan elements inform potential redevelopment scenarios.



5.1 Town heart and civic precinct



Preamble

Vibrant and prosperous town centres contain a range of civic and community uses which are as important to the function and life of a town centre as are the shops and businesses. These uses foster a strong sense of community, make centres an inviting place to visit and an attractive place to live.

The traditional town centre form locates these civic uses (i.e. town hall, market and town square) at the heart of the town centre with a strong connection to its retail core or strip.

Context

Rockdale Town Centre has these traditional elements and there is the potential to build on this in order to establish a strong heart for the Centre.

The Council administration building, forecourt and Town Hall give the Centre a strong civic precinct. The Council forecourt is a rare open space facility within the Centre, which is well used but undersized for the scale of the Centre.

The retail core of the Town Centre at King Street Place currently has no relationship to the Civic Precinct. The two locations are separated by a large site which consists of a Target store and public carpark. This Council owned site and King Lane which flanks the western side, are in poor condition. However, if redeveloped the site would connect the retail and civic functions of the Centre. This would strengthen the Town Heart, forming a more coherent Civic Precinct.

The Target store and public carpark site, and adjoining properties, will be redeveloped to provide a new town square on Bryant Street and a food providore market. It will also form the necessary link between the civic precinct and King Street precinct. A food providore market would be situated on the ground level of a mixed use development which will also provide increased residential densities in the Centre.

This development would provide an active and attractive frontage to King Lane, Market Street and a new town square with adjoining ground floor development that is permeable to pedestrians, which would link with the existing arcade network. The new town square would cater to the whole community and be used for public events and functions. It would have a strong relation to the existing Council forecourt, through traffic calming measures on Bryant Street including the ability to close Bryant Street for special events to create a single large public space. The existing civic precinct could also be enhanced by the provision of a new public library and upgrades to the Town Hall.

The Structure Plan Elements below articulate how this vision will be achieved. Refer to indicative Concept Plan overleaf for a proposed redevelopment scenario.





STRUCTURE PLAN ELEMENTS

Redevelopment of the Target store and public carpark site and adjoining lots for a high quality mixed use development which addresses Market Street, King Lane and the new town square, that:

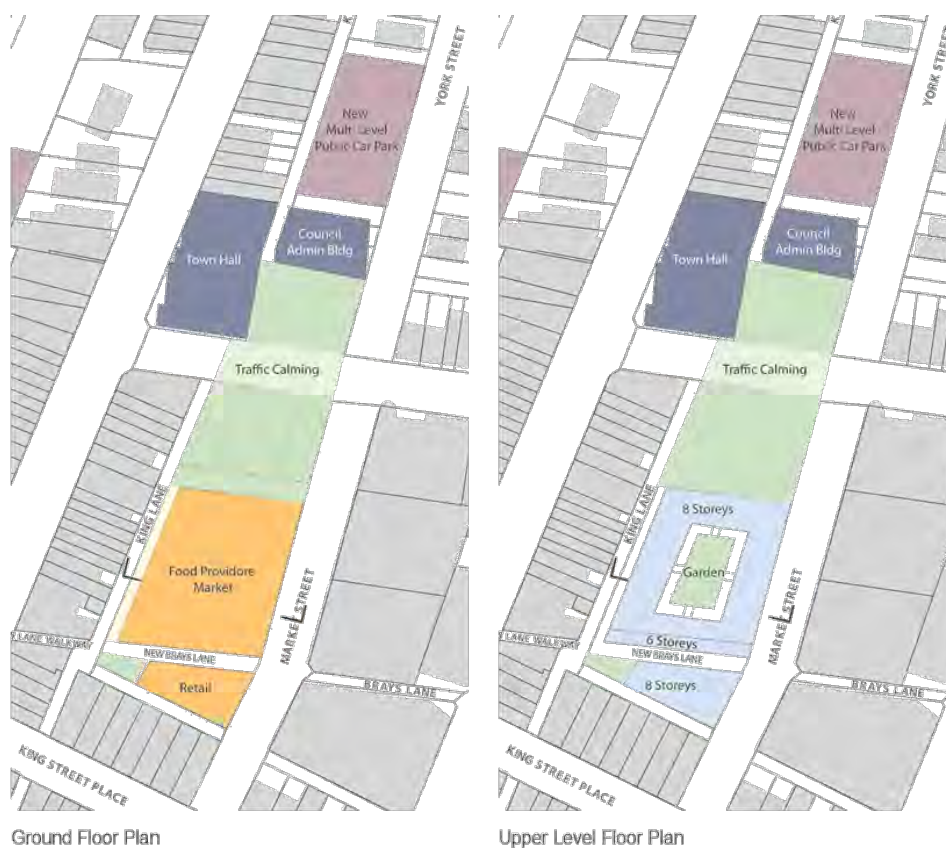
- 5.1.1 Creates a new town square fronting Bryant Street, King Lane and Market Street that is suitable for cultural and civic events as well as the day to day open space needs of the Centre.
- 5.1.2 Comprises mixed use redevelopment including a new market, and potential for cultural, creative or community space.
- 5.1.3 Includes traffic calming devices on Bryant Street to create a relationship between the forecourt and the town square with the opportunity for temporary road closure for major events.
- 5.1.4 Provides a food providore market on the ground floor (see inset box overleaf 'Food Providore Market' for details) with a focus on fresh and ethnically diverse food. This would be permeable to pedestrians and it would activate all frontages including King Lane.
- 5.1.5 Is setback from King Lane to allow for public domain upgrades to improve the pedestrian environment.
- 5.1.6 Construct a new parking structure on York Street to accommodate public carparking consistent with the parking plan (also see part 6.1).
- 5.1.7 Allows for the provision of a new library and community facilities in the existing civic precinct which does not prevent the delivery of the town square or new York Street parking structure.

Refer also to sections 3.3, 3.4 and 4.2 of the Public Domain Plan.

Indicative Concept Plan - Town Heart and Civic Precinct

The concept plans below show indicative site layouts and building envelopes to illustrate a potential redevelopment scenario for the Town Heart and civic precinct.

NB: These plans should not be interpreted as proposed built form controls. The plans shown are indicative only and will be used as a guide to determine any revised built form controls.



Refer also to section 4.2 'Civic Plaza' of the Public Domain Plan which looks at the spatial components and the design parameters of this concept.



Indicative King Lane Street Section

The above concept section illustrates a way that King Lane could be realised with one redevelopment scenario in achieving the intentions of the Structure Plan.

NB: This plan should not be interpreted as built form controls. The building envelopes shown are indicative only, and will be used as a guide to determine (if appropriate) revised built form controls.

Food Providore Market

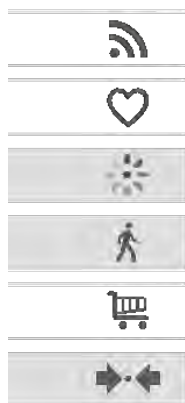
The food providore market will operate most days of the week and will contain a mix of permanent stores, regular market stalls and temporary market stalls.

These will operate under lease agreements for varying periods of time. Stall holders would need to apply for a lease. Applications would be assessed against a retailing strategy for the Market to ensure a complementary mix of stalls which do not compete with the Centre's existing retail core.

The market space would remain in Council ownership, hence the market would be run by a board in accordance with a Market Management Plan prepared by Council. The plan will include a retail strategy which provides direction and control on the mix of stalls.

This model would be based on existing markets which operate in a similar fashion. These include: Queen Victoria Markets; Adelaide Central Markets, Prahran Markets, and South Melbourne Markets.

5.2 Pedestrian spine and retail hubs



Preamble

Town centres are not just a collection of shops and businesses which people rely on. They are a place where people can spend time, that are pleasant to explore and experience - places where people want to be. A successful town centre invites people to visit, linger, and use for multiple purposes.

Successful Centres achieve this by providing an attractive pedestrian friendly public domain. This makes it easy and safe to explore and move around a centre and provides spaces and opportunities for people to sit, relax, gather, talk, or meet. The success of the public domain also depends on the shops and businesses which front it to make the lanes and streets active. It is the combination of a centre's shops and businesses positively addressing a convenient pedestrian friendly public domain network that creates a vibrant, lively and prosperous town centre.

Context

Rockdale Town Centre consists of a number of retail hubs, each with different roles and characters which complement each other. However, these retail hubs are somewhat divided and disconnected for pedestrians by the Princes Highway and the Railway line. Improving the quality and convenience of the pedestrian connections between these hubs is an important component of improving the function of the Centre.

Rockdale Town Centre has an extensive hierarchy of lanes and pedestrian arcades which provides a foundation for creating a lively, attractive and accessible public domain network. However, some of these lanes are of poor quality, are lined by the rear of shops and businesses, and/or have a vehicle focus with little pedestrian amenity.

A primary pedestrian spine which connects the Town Centre's retail hubs will be formalised and enhanced. The primary pedestrian spine runs south from the Civic Precinct down to the proposed new town square and market to King Street Place. It then extends east-west; east through the Interchange Precinct, across the railway station concourse to Walz Street (see red notation in Structure Plan).

A positive experience will be created along this spine because pedestrian movement will be prioritised. This in conjunction with upgrading the public domain will create a more attractive environment. It will also entice existing retailers and new development to address the lanes and improve the presentation of shop fronts to create a more attractive and active environment.

This pedestrian spine will connect the Walz and Frederick Streets Precinct to the King Street Precinct. The improved pedestrian amenity and safety of the public domain, namely through its pedestrian spine connecting the retail hubs to the transport interchange and carparking structures, will facilitate a centre which would operate successfully of an evening and on weekends.

The Structure Plan Elements below articulate how this vision will be achieved.



STRUCTURE PLAN ELEMENTS

- 5.2.1 Upgrade and improve King Lane to increase pedestrian priority and safety, day and night, and create a more attractive and pleasant environment, ensuring that it integrates with the proposed redevelopment of the Target store site.
- 5.2.2 Encourage existing retailers and new developments to front the lane network, particularly along the pedestrian spine.
- 5.2.3 Any existing pedestrian paths and arcades are to be maintained in redevelopments.
- 5.2.4 Improve public domain in the Walz Street and Frederick Street Precinct to enhance the shopping experience of this retail hub and integrate with the pedestrian spine.
- 5.2.5 To create a consistent and coherent public domain network which is easy to navigate all public domain upgrades and improvements will follow the Public Domain Plan which accompanies the Masterplan.
- 5.2.6 Encourage the improvement of shopfronts to create a more attractive and active centre particularly in the retail hubs and along the pedestrian spine.
- 5.2.7 Develop the night time and weekend economy of the centre, focused on the retail hubs, facilitated by improvements to pedestrian safety and amenity.

Refer also to sections 3.3, 3.4 and 4.4.1 of the Public Domain Plan.

5.3 Interchange Precinct Redevelopment



Preamble

Rockdale Town Centre benefits from being situated on a major rail line which has a very busy rail/bus interchange as well as a major arterial road. Both of these attributes provide opportunities to attract visitors to the Centre and create a positive image of the Centre.

The Transport Interchange Precinct is on the Princes Highway adjoining the Railway Station and is bounded by the Tramway Arcade and Geeves Avenue. It is in a highly visible location and experiences high levels of pedestrian traffic. Because it is situated at the Seven Ways any development in this location has the potential to form a landmark for the Rockdale Town Centre. The redevelopment scenario also incorporates a direct pedestrian link between either side of the railway station to King Street Place.

Context

This precinct will be redeveloped into a high quality mixed use precinct with extensive ground and first floor retail forming a podium upon which will sit a number of residential towers. This will capitalise on the highly visible location creating a landmark which identifies Rockdale Town Centre to passing motorists and train users, and helps strengthen its identity.

The redevelopment will improve the pedestrian experience for visitors and users of the Centre by providing a more direct link to the railway station concourse through to a larger and more active arcade. It will significantly improve the function of the transport interchange. The improved pedestrian arcade and railway station concourse connection will also create a more viable and lively retail environment, provide the opportunity for extensive retail floor space over two levels with visual prominence to the railway line and the Princes Highway.

The Structure Plan Elements below articulate how this will be achieved. Refer to indicative concept plans overleaf for a proposed redevelopment scenario

STRUCTURE PLAN ELEMENTS

- 5.3.1 High quality mixed use development consisting of a podium containing retail uses on the ground and first floor, which fronts the Princes Highway and the new improved pedestrian linkages, and residential towers above, designed to achieve high levels of amenity and provide modern apartment living in the heart of the Centre.
- 5.3.2 The development will become a landmark at the Seven Ways intersection which presents a positive image of the centre to passing motorists and rail users.
- 5.3.3 Provide an improved and enlarged through site pedestrian link which connects the bus interchange with the Princes Highway at the pedestrian traffic signals.
- 5.3.4 Facilitate the upgrade and expansion of the bus interchange, and provide a setback to Geeves Avenue to achieve the required space.
- 5.3.5 Direct level access for pedestrians provided from the railway station concourse into the redevelopment, which connects to the Seven Ways intersection and the improved through site pedestrian link. All this will be activated by retail uses.

Refer also to sections 3.3, 3.4 and 4.1 of the Public Domain Plan.





Indicative Concept Plans

The concept plans below show indicative site layouts and building envelopes to illustrate one potential redevelopment scenario for the Interchange Precinct.

NB: These plans should not be interpreted as built form controls. The plans shown are indicative only and will only be used as a guide to determine any revised built form controls.

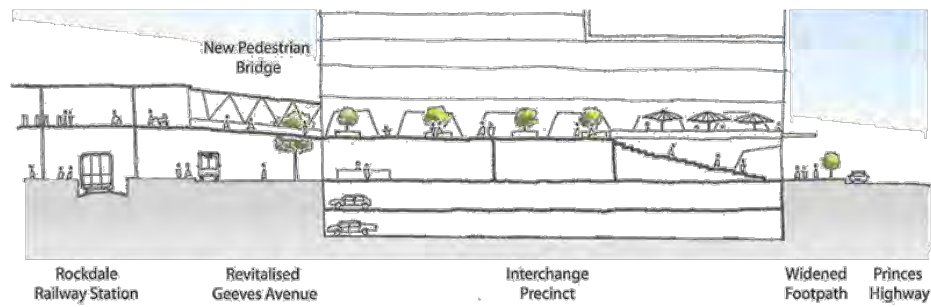
Refer also to section 4.1 of the Public Domain Plan.



Ground Floor Plan



First Floor Plan

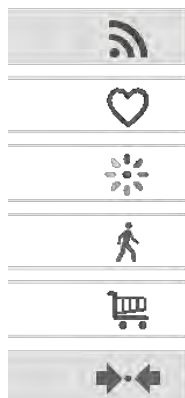


Cross Section



Upper Level Plan

5.4 Green Gateways



Preamble

Rockdale Town Centre is situated on a number of intersecting routes, namely the Princes Highway running north-south, Bay Street and Frederick Street running east-west, and the Seven Ways. These routes provide the centre with easy access for motorists.

The Princes Highway passes through a number of local government areas. Therefore, it contains a number of centres and commercial and industrial precincts. To passing motorists these areas can be hard to distinguish from each other and can also be harsh and unattractive; a product of the built environment historically responding negatively to the busy highway rather than capitalising on its potential.

Context

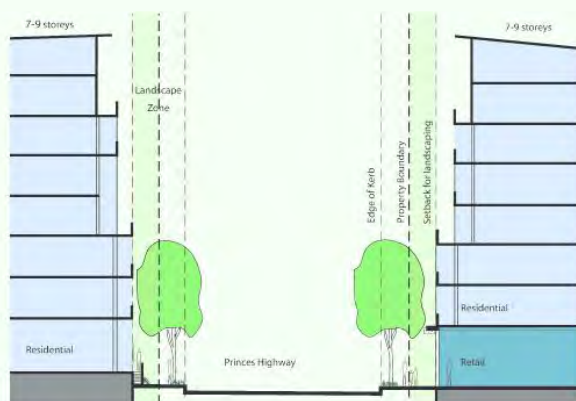
Rockdale Town Centre has entry points on the Princes Highway to the north and south of the centre. The centre also has entry points at the east and west of the Centre, at Bay Street and Frederick Street respectively. These are underdeveloped and there is an opportunity to change how these entry points present themselves to passing motorists.

It is critical that the Rockdale Town Centre is distinguished from the rest of the Princes Highway and other nearby centres. It can be presented as an attractive town centre, rather than just a commercial strip along the highway. To achieve this, 'Green Gateways' at the four entry points to the centre will be created. The Green Gateways will comprise of significant street tree planting. In the case of the Princes Highway, landscaped front setbacks to new developments would be promoted through planning controls. Both the public domain works (street trees) and planning controls would create boulevards which lead into and out of the Centre. This would signify to motorists that the Town Centre is a point of difference. It would also alert motorists to the increased pedestrian activity and potentially reduce vehicle speeds and improve pedestrian safety. These would also prompt motorists to take in and view the surrounds and act as an advertisement for the Town Centre.

The Structure Plan Elements below articulate how this will be achieved. Refer overleaf for an indicative Street Section.

STRUCTURE PLAN ELEMENTS

- 5.4.1 Public domain upgrades with a focus on street tree planting along the Princes Highway, Bay Street, and Frederick Street at the entry points to the Town Centre (see Structure Plan)
 - 5.4.2 Landscaped front setbacks to new redevelopment along the Princes Highway South Precinct, including deep soil landscaping to allow for large mature trees complemented by landscape design which provides pedestrian access and a visual connection between new buildings and the street
 - 5.4.3 Public domain upgrades to be coordinated with improvements to the rest of the Town Centre as envisaged in the Public Domain Plan.
- Refer also to figure 8 of section 3.3, and section 3.4.1 of the Public Domain Plan.



Princes Highway South Street Section

Indicative Street Section

The concept section illustrates a way that the Green Gateway could be realised for the Princes Highway South precinct in achieving the intentions of the Structure Plan.

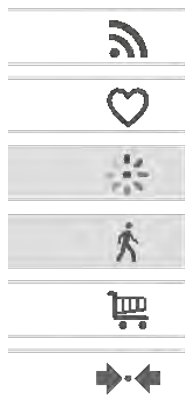
NB: This plan should not be interpreted as built form controls. The building envelopes shown are indicative only, and will be used as a guide to determine (if appropriate) revised built form controls.

Artist's impression
Green Gateway on
Princes Highway South



Rockdale Town Centre Masterplan | 47 of 82

5.5 Residential Revitalisation



Preamble

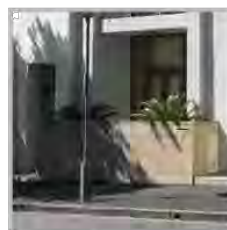
For a town centre to be vibrant and lively, particularly during evenings and weekends, it must have a supporting residential population within convenient walking distance. It is the immediate population that can patronise the centre on the way home from work or within a short walking trip from their front door. It is this local activity which will attract visitors from surrounding suburbs, further increasing the prosperity of the Centre.

Context

Rockdale Town Centre has seen a number of recent redevelopments at the edge of the commercial core. This development has increased the centre's residential population but has primarily focused on small 2 bedroom apartments. There are a number of residential areas at the edge of the Centre which are under developed that offer the opportunity to provide not only additional dwellings, but also a greater range of dwellings. Each of these precincts has its own character which needs to be respected and sensitively responded to.

Key precincts at the Centre edges will allow increased residential densities to offer a range of housing choice. Creating an active and attractive public domain in these precincts will be critical to ensuring they become high quality residential areas that contribute positively to the Centre.

The following sub-sections detail these residential precincts.





5.5.1 Chapel Street Precinct

Preamble

The area known as the Chapel Street Precinct currently contains a number of under-utilised public car parks. The area is close to the Centre core and railway station, but is disconnected by poor pedestrian connections across Bay Street. The area adjoins an existing high density residential precinct which generates a large volume of pedestrian traffic through the area.

Context

The precinct will contain high quality upmarket high density residential apartments within a accessible public domain network which responds to existing pedestrian desire lines and provides new open spaces to interface with the heritage listed chapel. Redevelopment of the precinct would provide new apartments close to the Centre with high amenity and potential Botany Bay views. New development would have retail uses on the ground floor fronting Bay Street and the new plaza. Some public car parking will be retained at street level to serve the retail use in the vicinity, whilst the remainder of the current public parking will be relocated to other locations in the Centre.

The Structure Plan Elements below articulate how this will be achieved.

Artist's impression

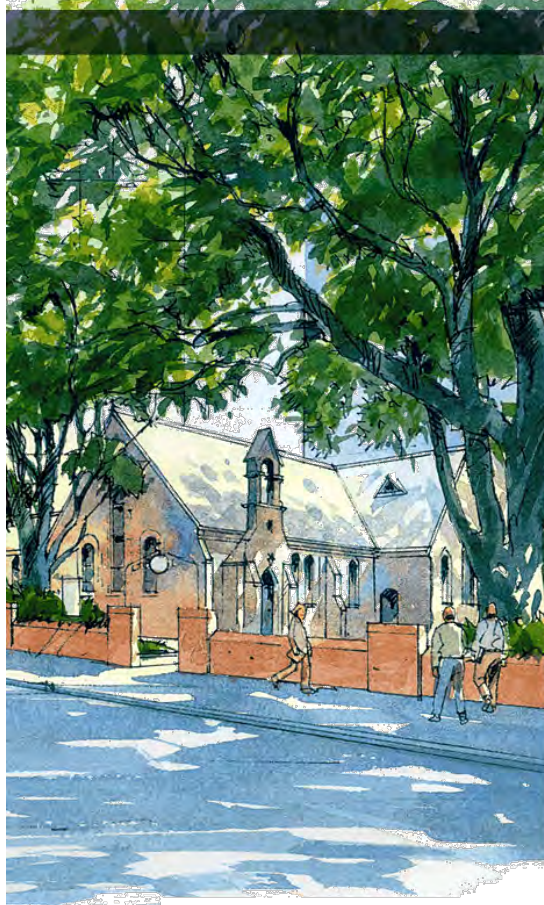
Potential redevelopment scenario of the Chapel Street Precinct viewed looking east along Bay Street



STRUCTURE PLAN ELEMENTS

- 5.5.1.1 High quality residential flat buildings
- 5.5.1.2 Ground floor retail fronting Bay Street and the new plaza
- 5.5.1.3 New public plaza on Bay Street which connects to a public pedestrian linkage to Chapel Street
- 5.5.1.4 Street level public parking off Chapel Lane provided off street or as 90 degree kerb side parking
- 5.5.1.5 Extension of Chapel Lane to create a direct link to Lister Avenue
- 5.5.1.6 Ground floor residential units with direct access from the street, lane, and pedestrian linkage network to create an active and permeable public domain through the site

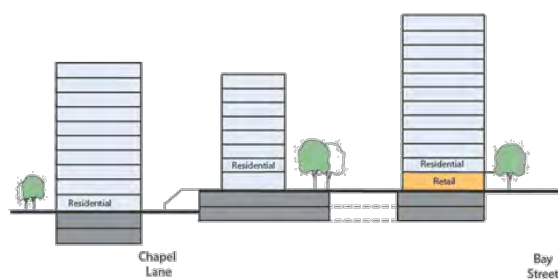
Refer also to sections 3.3 and 3.4 of the Public Domain Plan



Indicative Concept Plan and Section

The following concept section and site layouts illustrate one way that the Chapel Street Precinct could be in achieving the intentions of the Structure Plan.

NB: This section and plans should not be read as built form controls. The building envelopes shown are indicative only and will be used as a guide to determine (if appropriate) revised built form controls.



Ground Floor Plan



Upper Level Floor Plan

5.5.2 Rocky Hills (King Street)

Preamble

King Street, east of the Centre, currently contains an eclectic mix of low density residential dwellings in a landscaped street setting. Many of these existing dwellings have strong heritage characteristics. The area also contains a number of rocky sandstone outcrops and historic retaining walls which reflect the unique topography of Rockdale and its historical development. These characteristics make the Rocky Hills area a feature of the Centre, contributing to the quality of the built environment.

This area is located very close to the retail heart of the Centre and railway station giving it a strong relationship to the Centre core. However, the area is over the rise which physically defines the eastern boundary of the Town Centre core.

Context

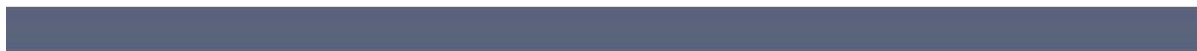
The area is envisaged as retaining its landscaped low rise character offering an alternative housing choice to that provided by higher density apartments in other precincts.

Any redevelopment in the precinct would need to respond to the heritage characteristics of the area. Suitable redevelopment could include terrace style houses such as found in inner city suburbs. This new housing could be developed on the subdivision of existing lots and could occur over time, integrating with and not disturbing the existing street character. Vehicle access to these properties would be from the existing rear lanes which allow for narrower lot widths without compromising the streetscape.

The Structure Plan Elements below articulate how this will be achieved.

STRUCTURE PLAN ELEMENTS

- 5.5.2.1 Retention of the precinct's heritage characteristics including topographical features.
- 5.5.2.2 Continuation of the precinct's role as a low density residential precinct providing alternative housing choice to other precincts in the Centre.
- 5.5.2.3 New dwellings to be sympathetic to the existing streetscape character and low density setting.
- 5.5.2.4 New dwellings to occur within existing lot subdivision through attached dwellings (terrace housing).
- 5.5.2.5 Vehicle access to be provided from the rear lanes.
- 5.5.2.6 The heritage value of the area, including the street planting and topographical features, will be investigated to ensure it is not compromised or diminished by any redevelopment.



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5.5.3 Princes Highway South

Preamble

As the Centre grows it is natural that it expands along the Princes Highway into the stretch south of the Centre which currently contains more traditional highway business uses.

This section of the Princes Highway is disconnected from the retail core of the Centre for pedestrians due to the poor amenity of Princes Highway, the Seven Ways intersection and the fall of the land away from centre. This reduces its viability for retail and commercial uses. However, this area is still close to the Centre core and Railway Station and is flanked by high and medium density residential developments which have a strong landscape setting. This stretch of the Princes Highway could contain residential uses which allow for the expansion of the landscaped setting.

Context

The Princes Highway south of the Centre will contain high quality residential flat buildings with a landscaped setback to the Princes Highway. This setback will help form a Green Gateway into the Centre and mitigate some of the negative amenity impacts from the highway. Any redevelopment will contain significant deep soil landscaping to allow for the continuation of the green canopy of the surrounding areas. New developments could also contain retail uses such as showrooms suitable to the highway locations, which would also be required to be setback from the street frontage.

The Structure Plan Elements below articulate how this will be achieved.

STRUCTURE PLAN ELEMENTS

- 5.5.3.1 Landscaped front setback on Princes Highway, which will be predominately deep soil to allow for mature tree planting, complemented by landscape design that provides pedestrian access and a visual connection between new buildings and the street
 - 5.5.3.2 Redevelopment achieved through site consolidation to minimise the number of vehicle access points from the Princes Highway.
 - 5.5.3.3 Flexibility for a variety of building uses, predominantly residential accommodation in buildings which define a strong street edge and create a boulevard feel to the highway
 - 5.5.3.4 Development of a height and density which is a transition from the mixed use development to the north and the surrounding high and medium density residential development, to the east and west.
 - 5.5.3.5 Any retail and commercial uses in the precinct are to be suitable to the out of centre highway location
 - 5.5.3.6 Respond to the proximity to the Muddy Creek drainage channel by taking appropriate measures consistent with the Flood Risk Management Plan.
- Refer also to sections 3.3 and 3.4 of the Public Domain Plan.



Artist's impression

Potential residential redevelopment scenario
in Princes Highway South Precinct



6. Parking Plan

Introduction

This Parking Plan is an integral part of the Masterplan. The aim of the Parking Plan is to ensure Rockdale Town Centre's continued economic growth by providing visitors with convenient and appropriate parking facilities. Despite its title, the Parking Plan is also designed to facilitate a sustainable transport approach that creates a platform for a strong pedestrian culture and environment.

The following principles underpin the development of the Parking Plan:

- A satisfactory parking supply meets the Centre's current and future demand
- Visitors have convenient and legible car parking access
- Public car parks are strategically located and benefit both the vehicular and pedestrian modes within the Town Centre
- Parking rates reflect contemporary parking demands and enable redevelopment of key sites and small sites in the Town Centre
- Utilisation of sustainable transport is encouraged

Based on these principles and the assessment of the existing car parking profile, the Parking Plan makes recommendations on public car parks as well as the parking requirements for private developments within the Town Centre.

6.1 Off-street public parking

The Centre has a number of off-street public parking sites at a variety of locations across the centre. These are the Council owned York Street car park, the multi level public car park above the Target store (Target car park) and the Chapel Street car park as well as the commuter car park at Geeves Avenue which is owned by Railcorp (refer to 'existing off-street public car parking' figure overleaf).

A parking study conducted in 2008 found that the usage capacity of the Centre's existing parking supply was yet to be reached (industry best practice says 85% usage of the total parking supply is a practical capacity). This means that the current car parking supply meets the current and the likely future parking demand based on the development trend in the Town Centre.

The parking study also revealed that the parking demand within the Town Centre varies at different times of the day and week. Rail commuters, local employees and retail customers result in a high level parking utilisation during the middle of the day on weekdays. Due to the characteristics of different car parks, the Town Centre does not offer the most efficient parking access to visitors.

Chapel Street car park

The Council owned Chapel Street at-grade car park which falls across three adjacent sites has approximately 120 short stay and 27 long stay parking spaces. Separated from the Centre core by Bay Street means this car park is more likely to serve adjacent and nearby businesses around the Chapel Street Precinct vicinity. This means there is an oversupply of parking for that area.

Target car park

The Council owned Target car park is located in middle of the Town Centre offering great convenience to its users. This three storey multi level car park contains some 200 long stay parking spaces which are likely to be utilised by commuters and employers rather than visitors to the centre, and 175 short stay spaces. However, despite the significance of this facility, it is imperative that this key strategic site is utilised to its best potential for the benefit of the Town Centre.

York Street car park

The Council owned carpark at York Street contains 66 short stay and 21 long stay at-grade carparking spaces, which are well used.

The Parking Plan proposes the redevelopment of this car park to a multi level parking facility that will accommodate most of the future public parking supply for the Town Centre. It will replace the existing short stay parking spaces within the Chapel Street and Target car parks, which will unlock the redevelopment potential of these two sites.

The York Street car park site, is considered to be the most suitable and feasible for providing a large number of public parking spaces, because:

- It is in close proximity to community/Council facilities and the retail core
- It will allow people to arrive by car and park at the edge of the Town Centre and walk to the retail core through future revitalised laneways
- It will reduce vehicular traffic and increase pedestrian movement in the Town Centre and improve the pedestrian flow
- With future improved directional signage (e.g. dynamic parking signs), this facility will enable Council to monitor and manage parking efficiently and effectively
- Council will ensure the proposed structure provides flexibility in its design to incorporate future community facilities when the Civic precinct requires expansion
- It could offer opportunities in future for private development to transfer commercial parking to Council public parking. This is in line with the best practice in providing efficient public parking and, at the same time, offers incentives for redevelopment

Geeves Avenue commuter car park

The at-grade facility at Geeves Avenue is owned by Railcorp and has 140 long stay carparking spaces.

The Parking Plan proposes another multi level parking facility on this site. It is anticipated that the proposed car park concept could triple the current supply of commuter parking spaces on the site and replace long stay parking spaces at the Target car park. Given that the land is owned by Railcorp, Council would negotiate/develop a partnership with the State government to redevelop the site.

In order to provide efficient, convenient and legible parking for visitors and to facilitate redevelopment of the Town Centre as envisaged by the Masterplan, the Parking Plan proposes a reconfiguration of off-street car parks.

Off-street public parking

- 6.1.1 Maintain a sufficient supply of short stay parking spaces which are essential for the commercial vitality of the Town Centre
- 6.1.2 Construct a multi level parking facility at York Street to consolidate the public parking within the Town Centre
- 6.1.3 Relocate long stay parking spaces to areas close to the Rockdale rail/bus interchange
- 6.1.4 Provide directional signage to enhance the efficiency and experience of off street public parking

Refer to the figures below which illustrate existing and proposed public parking facilities for the Town Centre

Existing off street public parking



Existing:

Total short stay parking spaces - 362
Total long stay parking spaces - 390

Short Stay parking spaces with a time limit

Long Stay parking spaces with no time limit

Proposed off street public parking



Proposed:

Total short stay parking spaces - 400
Total long stay parking spaces - 440

6.2 On-street public parking

In most areas of Rockdale Town Centre, the on-street parking functions at an acceptable level. The utilisation of on street parking should be continually monitored in future. In areas where high parking demands are experienced, measures such as parking layout rearrangements, time and cost management issues should be considered.

Walz Street

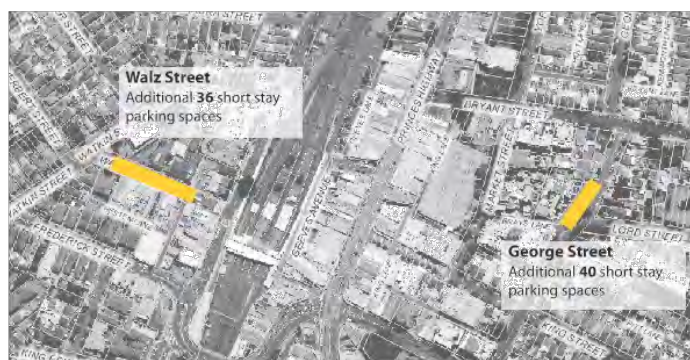
Walz Street contains parallel on-street parking spaces. During the afternoon peak period, the street experiences high parking demand and problems such as double parking.

Additional parking spaces could be introduced to the area by converting the existing parallel parking to angle parking. However, the design and its impact on traffic flow and bus movement needs further investigation.

George Street

George Street contains a road reservation which was originally required to facilitate realignment of the existing staggered T-intersection at Bryant Street. However, additional angled parking could be achieved within the road reservation resulting in an estimated additional 40 short stay parking spaces.

Proposed on street angle parking



On-street public parking

- 6.2.1 Introduce additional on-street parking spaces in Walz Street precinct by converting the existing parallel parking to angle parking
- 6.2.2 Introduce additional on-street angle parking within the road reservation on George Street
- 6.2.3 Continue to monitor the utilisation of on-street parking within the Town Centre and address future parking demands through time and cost management

6.3 Parking for private development

Parking rates

The aim of the Parking Plan adopts a sustainable approach for parking in private development. It recognises changes to parking generation rates over the past 20 years and better reflects actual parking demands associated with developments in the Town Centre.

The ABS Census data revealed that an increasing number of young people aged between 25-34 are living in Rockdale (suburb). Many of them are couples with no children and rent rather than own their property. The affordability and accessibility of public transport in this suburb are the two likely factors which attract this group to the area.

It is proposed that the Rockdale Town Centre investigates adopting parking rates which are lower than the city wide parking rates to better reflect the demographic pattern and public transport use in the Centre.

Consolidated Parking Concession

In order to better integrate public parking within the context of the broader Town Centre objectives, a Consolidated Parking Concession policy (CPC) is proposed for the Centre. The policy will encourage private developments to contribute to parking which is off-site and operated by Council.

A CPC policy says that Instead of requiring parking spaces (non residential) to be constructed as part of the development, developers will be offered incentives to pay contributions to Council (via a discount 'cash in lieu' scheme) for providing spaces at a public parking facility. The discount contribution acknowledges that public parking is more efficient if located in a public facility compared to within a private development.

It has a number of benefits, including:

- Providing developers with greater investment flexibility
- Providing efficient, convenient and legible parking access to visitors
- Providing a shared parking amenity, where businesses with different peak periods can utilise the spaces at alternate times
- Allowing Council to effectively manage parking in a consolidated facility

Parking for private development	
6.3.1	Investigate appropriate parking rates for developments within the Town Centre core in Rockdale Development Control Plan 2011. The following rates could be considered: - 0.5 space per studio/1 bedroom dwelling - 1 space per 2 bedroom dwelling - 1.5 spaces per 3 bedroom dwelling - 1 visitor space per 10 dwellings
6.3.2	Investigate introducing a Consolidated Parking Concession policy to encourage developments to transfer parking spaces to public parking facilities

6.4 Sustainable transport initiatives

Use of sustainable transport modes and practices should be encouraged in the Town Centre by investigating the introduction of formal "car share" services and promoting informal car pooling opportunities. Locations for bike parking facilities in the Town Centre and opportunities for bike sharing will also be investigated.

6.4.1 Introduce "car share" services in the Town Centre

6.4.2 Promote other sustainable transport modes e.g. bicycle

6.5 Implementation of the Parking Plan

Summary of actions

Following is a summary of the actions to be undertaken to implement the key elements of the Parking Plan. Refer to Masterplan Implementation, page 64, for details.

- Investigate the feasibility and design of the York Street multi level parking facility
- Implement improved directional signage (e.g. dynamic signage) to enhance the efficiency and experience of off-street public parking
- Liaise with the NSW State Government to provide a multi level car park for long stay parking near the Rockdale bus/rail interchange
- Undertake feasibility assessment of rearranging on-street parking at Walz Street and George Street
- Monitor the utilisation of the on-street parking within the Town Centre and investigate on street paid parking at areas where there is high demand
- Investigate incorporating new parking rates for Rockdale Town Centre in Rockdale Development Control Plan 2011
- Investigate introducing a Consolidated Parking Concession policy to encourage developments to contribute to parking which is off-site and operated by Council



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Implementation of the Masterplan

The Masterplan is a long term plan for the future of the Rockdale Town Centre. Whilst it contains elements which can be implemented in the short term, much of the Plan requires further work to be undertaken to be able to implement it.

This section outlines the tools to implement the Masterplan and how each of the Structure Plan Elements and Parking Plan initiatives will be implemented. Many issues can be addressed through the town planning framework but there are also actions that will need to be captured in other Council plans and policies, or which require further studies or consultation either internally with Council, or with State agencies.

This Implementation Plan is presented in a table which lists each Structure Plan Element and Parking Plan initiative and lists what tools and actions are required to implement them. It includes the major dependencies which affect the delivery of the Masterplan for its implementation over time, and assignment of responsibility, be it government, the development industry, or the business community.

The implementation of the Masterplan will put in place the guidelines, framework and program to be able to deliver the Masterplan. This is to ensure future development, works, and events in the Rockdale Town Centre will be working towards realising the Masterplan.

The realisation of the community's vision and design strategies for the Masterplan relies on the involvement of landowners, private developers, business owners as well as Council.

Summary of Implementation tools

Within the town planning framework

- Rockdale LEP 2011
Potential LEP amendments to enact land use, height, floor space ratio (FSR) changes as well as documenting any proposed property acquisitions after rigorous analysis.
- Rockdale DCP 2011
Potential DCP amendment to include a new 'special precinct' for the Rockdale Town Centre. This will summarise the structure and precinct plans, and document each of the key aspects as objectives. It will also contain any specific built form controls such as setbacks that are required to achieve the Masterplan.
- Rockdale Town Centre Public Domain Plan and Technical Manual
The Rockdale Town Centre Public Domain Plan accompanies this Masterplan and sets out specific strategies for the public domain. Technical Manual forms a final component of the final Public Domain Plan. This component sets out more specific objectives and guidelines for the delivery of public domain improvements. This component will be for use by Council's technical staff as well as designers and engineers of private developers.

Outside of town planning framework

- Masterplan Implementation Plan
The Masterplan Implementation Plan will be a new document which expands upon the Masterplan Implementation Program section of the Masterplan and also complements the Public Domain Plan and Technical Manual. It will provide additional detail on individual projects necessary to implement the Plans. This will include setting priorities for work - short, medium and long term - and investigating indicative costings as well as exploring potential funding mechanisms.
- S94 Developer Contributions Plan
- Capital works program
- Town centre management programs
- Further studies or plans
 - Market Management Plan
 - Traffic studies
 - Lighting Strategy
 - Signage Strategy
- Further consultation with stakeholders (such as the NSW State Government e.g. Railcorp, State Transit and Roads and Maritime Services)
- Integrated Planning Framework (i.e. Delivery program, Operational Plan, etc)

		Within town planning framework				
		Planning controls required				Summary of planning controls required
		LEP	DCP	PDP		
5. STRUCTURE PLAN						
5.1 Town heart and civic precinct						
Redevelopment of the Target store and public carpark site and adjoining lots for a high quality mixed use development which addresses Market Street, King Lane, and the new town square and.		✓	✓	✓	DCP objectives and built form envelope and design controls	
5.1.1. Creates a new town square fronting Bryant Street, King Lane and Market Street that is suitable for cultural and civic events as well as the day to day open space needs of the Centre.		✓	✓	✓	LEP open space zoning and land dedication	
5.1.2. Comprises mixed use redevelopment including a new market, and potential for cultural, creative or community space			✓		DCP objectives and design guidelines	
5.1.3. Includes traffic calming on Bryant Street to create a relationship between the forecourt and the town square with the opportunity for temporary road closure for major events.			✓	✓	-	
5.1.4. Provide a food providore market on the ground floor. This would be permeable to pedestrians and it would activate all frontages including King Lane.		✓	✓		DCP detailed specifications for Market space LEP active frontages map and potential dedication of market space	
5.1.5. Is setback from King Lane to allow for public domain upgrades to improve the pedestrian environment.		✓	✓	✓	DCP setbacks LEP land dedication of setback	
5.1.6. Construct a new parking structure on York Street to accommodate public carparking consistent with the parking plan.		✓	✓		LEP permissibility	
5.1.7. Allow for the provision of a new library in the existing civic precinct which does not prevent the delivery of the town square or new York Street parking structure.			✓		-	
5.2. Pedestrian spine and retail hubs						
5.2.1. Upgrade and improve King Lane to increase pedestrian priority and safety, day and night, and create a more attractive and pleasant environment, ensuring that it integrates with the proposed redevelopment of the Target store site.			✓	✓	DCP objectives and design guidelines	
5.2.2. Encourage existing retailers and new developments to front the lane network, particularly along the pedestrian spine		✓	✓	✓	LEP active frontages map DCP objectives and design guidelines	



Outside of town planning framework		
	Further actions (enacting plan, policy, strategy)	Dependency for delivery
		Redevelopment of precinct Council
	Masterplan Implementation Plan - including alternate option for delivery of town square independent of 'Target site' redevelopment S94 Developer Contributions Plan	Acquisition of land Council
	Traffic studies for impact of temporary road closures	Traffic study and traffic committee approval
	Develop management plan for operation of market	Redevelopment of precinct Council
	S94 Developer Contributions Plan Capital Works Program	Redevelopment of precinct Council
	S94 Developer Contributions Plan Capital Works Program	Redevelopment of precinct Council
	Library and Civic Precinct Masterplan project to be consistent with Rockdale Town Centre Masterplan	Council
	Masterplan Implementation Plan S94 Developer Contributions Plan	Redevelopment of town heart and interchange precinct Council
	Town centre management strategy Council liaison with owners and applicants at DA stage	Participation of retailers and business owners

	Within town planning framework			
	Planning controls required		Summary of planning controls required	
	LEP	DCP		
5.2.3. Any existing pedestrian paths and arcades are to be maintained in redevelopments		✓		DCP controls for through site links
5.2.4. Improve public domain in the Walz Street and Frederick Street Precinct to enhance the shopping experience of this retail hub and integrate with the pedestrian spine		✓	✓	DCP objectives and design guidelines
5.2.5. To create a consistent and coherent public domain network which is easy to navigate, all public domain upgrades and improvements will follow the Public Domain Plan which accompanies the Masterplan.			✓	
5.2.6. Encourage the improvement of shopfronts to create a more attractive and active centre particularly in the retail hubs and along the pedestrian spine		✓		DCP objectives and design guidelines
5.2.7. Develop the night time and weekend economy of the centre, focused on the retail hubs, facilitated by improvements to pedestrian safety and amenity.				
5.3. Interchange precinct redevelopment				
5.3.1. High quality mixed use development consisting of a podium containing retail uses on the ground and first floor, which fronts the Princes Highway and the new improved pedestrian linkages, and residential towers above, designed to achieve high levels of amenity and provide modern apartment living in the heart of the centre.	✓	✓		DCP objectives, design guidelines, building envelop and setback controls
5.3.2. The development will become a landmark at Seven Ways intersection which presents a positive image of the centre to passing motorists and rail users.		✓		DCP objectives, design guidelines, building envelop and setback controls
5.3.3. Provide an improved and enlarged through site pedestrian link which connects the bus interchange with the Princes Highway at the pedestrian traffic lights.		✓	✓	DCP design controls for pedestrian linkage
5.3.4. Facilitate the upgrade and expansion of the bus interchange, and provide a setback to Geeves Avenue to achieve the required space.	✓	✓	✓	LEP land dedication DCP setback controls
5.3.5. Direct level access for pedestrians provided from the railway station concourse into the redevelopment, which connects to the Seven Ways intersection and the improved through site pedestrian link. All this will be activated by retail uses.		✓		DCP objectives, design guidelines, building envelop and setback controls



Outside of town planning framework		
	Further actions (existing plan, policy, strategy)	Dependency for delivery
	Council liaison with owners and applicants at DA stage	Applicant and Council
	Traffic studies required for any changes in traffic movement or parking operation Masterplan Implementation Plan	Negotiations with State Transit regarding bus movements
	Develop signage strategy for the town centre	Council
	Town centre management strategy Council liaison with owners and applicants at DA stage	Participation of retailers and business owners Council
	Town centre management strategy	Participation of retailers and business owners Council
	Consultation with key stakeholders	Amalgamation of sites and private development Liaison with State Government and site owners
	Consultation with key stakeholders	Amalgamation of sites and private development
	Masterplan Implementation Plan - include interim strategy for improvement to arcade independent of redevelopment of the precinct	Amalgamation of sites and private development
	Liaise with State Transit and Railcorp - upgrade to bus interchange	State Transit and Railcorp in consultation with Council
	Liaise with State Transit and Railcorp - feasibility of connection to railway station concourse over Geeves Avenue	State Transit and Railcorp in consultation with Council Amalgamation of sites and private development

		Within town planning framework				
		Planning controls required				Summary of planning controls required
		LEP	DCP	PDP		
5.4.	Green Gateways					
5.4.1.	Public domain upgrades with a focus on street tree planting along the Princes Highway, Bay Street, and Frederick Street at the entry points to the town centre (see Structure Plan).		✓	✓	DCP objectives requiring compliance with the PDP	
5.4.2.	Landscaped front setbacks to new redevelopment along the Princes Highway South Precincts, including deep soil landscaping to allow for large mature trees complemented by landscape design which provides pedestrian access and a visual connection between new buildings and the street.		✓	✓	DCP objectives and setback and landscape controls	
5.4.3.	Public domain upgrades to be coordinated with improvements to the rest of the town centre as envisaged in the Public Domain Plan.			✓	N/A	
5.5.	Residential intensification					
5.5.1.	Chapel Street Precinct	✓	✓	✓	-	
5.5.1.1.	High quality residential flat buildings		✓		DCP objectives and design guidelines and building envelop controls	
5.5.1.2.	Ground floor retail fronting Bay Street and the new plaza	✓	✓		LEP active street frontages map DCP objectives and design guidelines	
5.5.1.3.	New public plaza on Bay Street which connects to a public pedestrian linkage to Chapel Street.	✓	✓	✓	LEP open space zone and land dedication DCP objectives and design guidelines	
5.5.1.4.	Street level public parking off Chapel Lane provided off street or as 90 degree kerb side parking		✓		DCP objectives and parking requirements	
5.5.1.5.	Extension of Chapel Lane to create a direct link to Lister Avenue.	✓	✓		LEP land dedication DCP objectives and design guidelines	
5.5.1.6.	Ground floor residential units with direct access from the street, lane, and pedestrian linkage network to create an active and permeable public domain through the site	✓	✓		LEP active street frontages DCP objectives and design guidelines	



Outside of town planning framework		
	Further actions (enacting plan, policy, strategy)	Dependency for delivery
	Masterplan Implementation Plan	Council
	-	Private redevelopment
	Masterplan Implementation Plan, Capital Works Program, Delivery Program, Operational Plan	Council
	-	Acquisition and private redevelopment
	-	Council (via policy) and owners and developers (via DA process)
	-	Council
	Masterplan Implementation Plan, Capital Works Program, Delivery Program, Operational Plan	Council
	S94 Developer Contributions Plan Capital Works Program	Provision of public carparking in York Street to off set reduction
	S94 Developer Contributions Plan Capital Works Program	Council
	-	Council

		Within town planning framework				
		Planning controls required		Summary of planning controls required		
		LEP	DCP			PDP
5.5.2. Rocky Hills		✓	✓		N/A	
5.5.2.1.	Retention of the precinct's heritage characteristics, including topographical features.		✓		DCP design and building envelop controls	
5.5.2.2.	Continuation of the precinct's role as a low density residential precinct providing alternative housing choice to other precincts in the Centre.		✓		LEP zoning DCP design and building envelop controls	
5.5.2.3.	New dwellings to be sympathetic to the existing streetscape character and low density setting.		✓		LEP zoning DCP design and building envelop controls	
5.5.2.4.	New dwellings to occur within existing lot subdivision through attached dwellings (terrace housing)		✓		DCP objectives and design guidelines	
5.5.2.5.	Vehicle access to be provided from the rear lane.		✓		DCP vehicle access and streetscape controls	
5.5.2.6.	The heritage value of the area, including the street planting and topographical features, will be investigated to ensure it is not compromised or diminished by any redevelopment.		✓		DCP objectives and design guidelines	
5.5.3. Princes Highway South		✓	✓		-	
5.5.3.1.	Landscaped front setback on Princes Highway, which will be predominately deep soil to allow for mature tree planting, complemented by landscape design that provides pedestrian access and a visual connection between new buildings and the street.		✓		DCP setback and landscape controls	
5.5.3.2.	Redevelopment achieved through site consolidation to minimise the number of vehicle access points from the Princes Highway.	✓	✓			
5.5.3.3.	Flexibility for a variety of building uses, predominantly residential accommodation in buildings which define a strong street edge and create a boulevard feel to the highway.		✓		DCP objectives and built form controls	



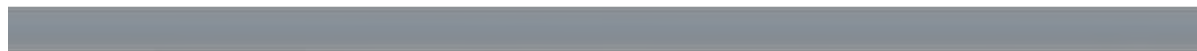
	Outside of town planning framework	
	Further actions (enacting plan, policy, strategy)	Dependency for delivery
	-	Private development
	-	Land owners (private development)
	-	Land owners (private development)
	-	Land owners (private development)
	Investigation of the precinct's heritage value	Council
	-	Private development
	-	-
	-	-

		Within town planning framework			
		Planning controls required			Summary of planning controls required
		LEP	DCP	PDP	
5.5.3.4.	Development of a height and density which is a transition from the mixed use development to the north and the surrounding high and medium density residential.	✓	✓		LEP development standards
5.5.3.5.	Any retail and commercial uses in the precinct are to be suitable to the out of centre highway location.	✓	✓		LEP permissibility DCP design guidelines
5.5.3.6.	Respond to the proximity to the Muddy Creek drainage channel by taking appropriate measures consistent with the Flood Risk Management Plan		✓		DCP design guidelines
6 PARKING PLAN					
6.1 Off-street Parking					
6.1.1	Maintain a sufficient supply of short stay parking spaces which are essential for the commercial vitality of the Town Centre				N/A
6.1.2	Construct a multi level parking facility at York Street to consolidate the public parking within the Town Centre				N/A
6.1.3	Relocate long stay parking spaces to areas close to the Rockdale rail/bus interchange.				N/A
6.1.4	Provide directional signage to enhance the efficiency and experience of off street public parking				N/A
6.2 On-street Parking					
6.2.1	Introduce additional on-street parking spaces in Walz Street precinct by converting the existing parallel parking to angle parking			✓	Part of public domain strategy for Walz Street Precinct
6.2.2	Introduce additional on street angle parking within the road reservation on George Street			✓	N/A
6.2.3	Continue to monitor the utilisation of on-street parking within the Town Centre and address future parking demands through time and cost management				N/A
6.3 Parking for Private Development					



Outside of town planning framework		
	Further actions (enacting plan, policy, strategy)	Dependency for delivery
	-	-
	-	-
	Further investigation of flood risk	Council
	Coordinate feasibility studies for new car parking to ensure parking yields are maintained and appropriate transitional measures will be put in place	Council
	Investigate the feasibility and design of the York Street multi level parking facility S94 Developer Contributions Plan	
	Liaise with State Transit and Railcorp	State Transit and Railcorp
	Prepare directional signage strategy for public parking in the Centre in the context of new parking arrangement	Redevelopment of York Street car park
	Undertake feasibility assessment of rearranging and undertake community consultation and liaise with State Transit S94 Developer Contribution Plan	State Transit
	Undertake feasibility assessment of rearranging and undertake community consultation and liaise with State Transit S94 Developer Contribution Plan	State Transit
	Continually monitor the utilisation of the on street parking within the Town Centre and investigate on street paid parking at areas where there is high demand	Council

		Within town planning framework				
		Planning controls required				Summary of planning controls required
		LEP	DCP	PDP		
6.3.1	Investigate appropriate parking rates for developments within the Town Centre core in Rockdale Development Control Plan 2011		✓		Parking rates for the Town Centre	
6.3.2	Investigate introducing a Consolidated Parking Concession policy to encourage developments to transfer parking spaces to public parking facilities		✓		Consolidated Parking concession policy for the Town Centre	
6.4 Sustainable Transport Initiatives						
6.4.1	Introduce "car share" services in the Town Centre				N/A	
6.4.2	Promote other sustainable transport modes i.e. bicycle				N/A	



	Outside of town planning framework	
	Further actions (enacting plan, policy, strategy)	Dependency for delivery
	-	Council
	S94 Developer Contributions Plan	Council
	Investigate the introduction of formal "car share" services in the Town Centre and promote informal car pooling opportunities	Council
	Investigate locations for bike parking facilities in the Town Centre and opportunities for bike sharing	Council

Important

This document contains important information about Rockdale City Council. If you do not understand, please visit Council's Customer Service Centre at 2 Bryant Street Rockdale, Monday – Friday from 8.30am – 4.30pm, Saturday from 9am – 1pm. Council Staff will be happy to arrange interpreter services for you.

You may also contact Telephone Interpreter Services on 131 450 and ask them to ring Rockdale City Council on 9562 1666 on your behalf.

Arabic

هام:

تحتوي هذه الوثيقة على معلومات هامة عن بلدية روكدايل. إذا لم تكن قادراً على فهمها، يرجى زيارة مركز خدمة زبائن البلدية على العنوان التالي: 2 Bryant Street في روكدايل من الإثنين إلى الجمعة بين الساعة ٨,٣٠ صباحاً و ٤,٣٠ مساءً، والسبت بين الساعة ٩,٠٠ صباحاً و ١,٠٠ بعد الظهر حيث سيقوم موظفو البلدية بتأمين مترجم لك بكل سرور.

كما يمكنك الاتصال بخدمة الترجمة الهاتفية على الرقم 131 450 والطلب منهم الاتصال ببلدية روكدايل على الرقم 9562 1666 نيابةً عنك.

Chinese

重要消息

本文件載有關於 Rockdale 市政府的重要資訊，如果您有不明白之處，請於星期一至星期五，上午 8 時 30 分至下午 4 時 30 分，及星期六上午 9 時至下午 1 時，前來位於 2 Bryant Street, Rockdale，市政府的顧客服務中心。市政府的職員會很樂意為您安排傳譯員的服務。

您也可以聯絡電話傳譯服務處，電話 131 450，並請他們代您致電 9562 1666 給 Rockdale 市政府。

Greek

Σημαντικό:

Αυτό το έγγραφο περιέχει σημαντικές πληροφορίες για τη Δημαρχία Rockdale City Council. Αν δεν τις καταλαβαίνετε, παρακαλείσθε να επισκεφτείτε το Κέντρο Εξυπηρέτησης Πελατών (Customer Service Centre) του Δήμου στο 2 Bryant Street, Rockdale, Δευτέρα - Παρασκευή από 8.30πμ - 4.30μμ και Σάββατο από 9.00πμ - 1.00μμ. Το Προσωπικό του Δήμου θα χαρεί να κανονίσει υπηρεσίες διερμηνέων για σας.

Μπορείτε επίσης να επικοινωνήσετε με τις Τηλεφωνικές Υπηρεσίες Διερμηνέων [Telephone Interpreter Services] στο 131 450 και να τους ζητήσετε να τηλεφωνήσουν στο Rockdale City Council στο 9562 1666 για λογαριασμό σας.

Italian

Importante:

Questo documento contiene importanti informazioni sul Comune di Rockdale City. Se avete difficoltà a comprenderne il contenuto, recatevi presso il Customer Service Centre del Comune a 2 Bryant Street, Rockdale dal lunedì al venerdì dalle ore 8.30 alle 16.30 e al sabato dalle 9.00 alle 13.00. Il personale del Comune sarà ben lieto di procurarvi un servizio interpreti.

Potete anche chiamare il Servizio telefonico interpreti (TIS) al numero 131 450 chiedendo che telefonino per vostro conto al Comune di Rockdale City al numero 9562 1666.

Macedonian

Важно:

Овој документ содржи важни информации за Rockdale City Council (Градската општина на Rockdale). Ако не го разбирате, ве молиме, посетете го општинскиот Customer Service Centre (Центар за услуги на клиенти), кој се наоѓа на 2 Bryant Street, Rockdale, од понеделник до петок, од 8.30 наутро до 4.30 попладне и во сабота од 9.00 наутро до 1.00 попладне. Вработените во општината со задоволство ќе ви организираат да користите преведувач.

Исто така, можете да телефонираате во Telephone Interpreter Services (Служба за преведување по телефон) на 131 450, и да ги замолиме во ваше име да се јават во Градската општина на Rockdale на 9562 1666.

Spanish

Importante:

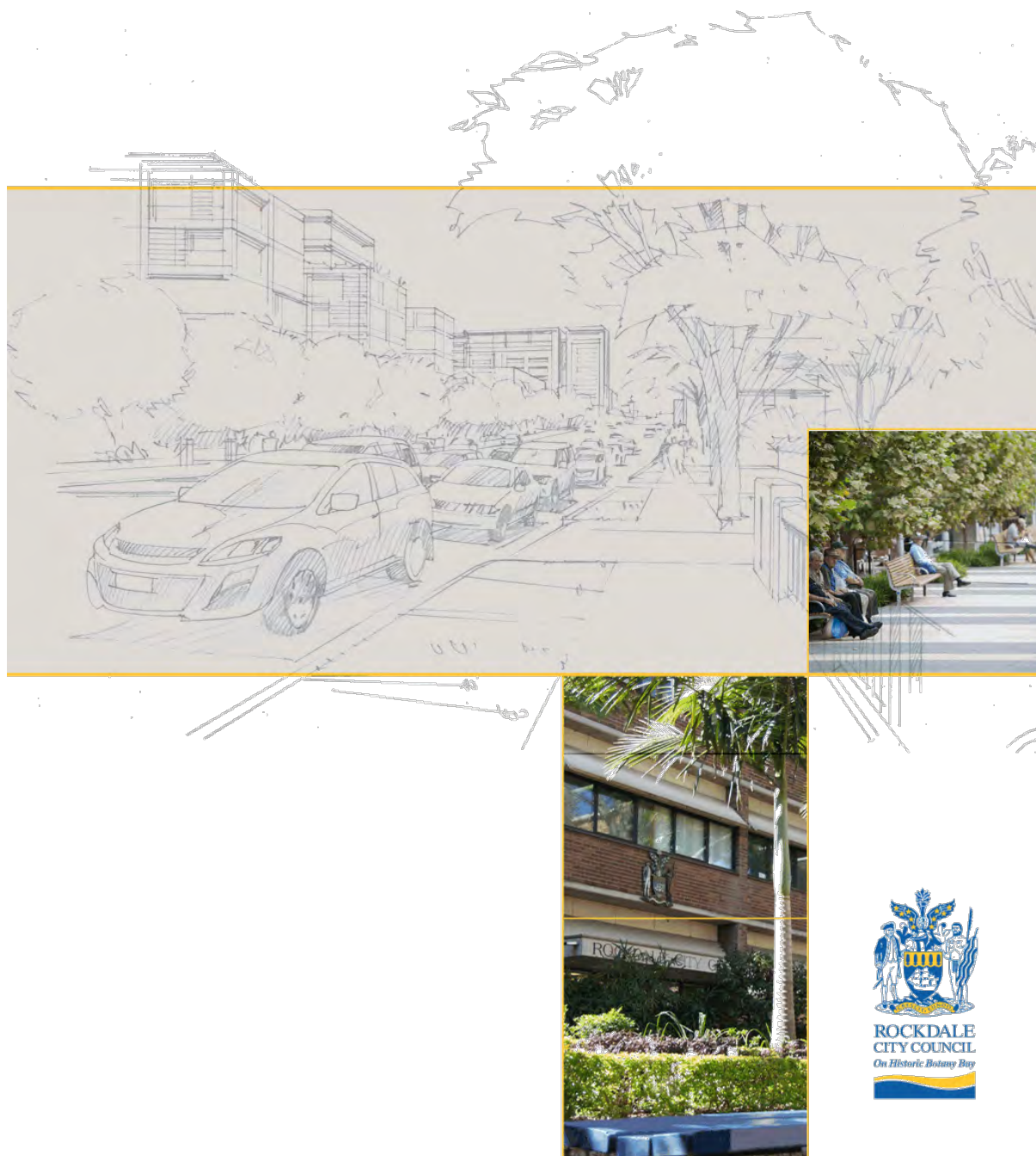
Este documento contiene información importante sobre el Rockdale City Council (Municipio de Rockdale). Si no la entiende, le rogamos concurrir al Centro de Servicio al Cliente del Municipio, ubicado en 2 Bryant Street, Rockdale, atención de lunes a viernes, de 8:30 am a 4:30 pm y el sábado de 9:00 am a 1:00 pm. El personal del municipio se complacerá en obtener los servicios de un intérprete para usted.

Puede asimismo llamar al Servicio Telefónico de Intérpretes al 131 450 y pedirles que llamen de su parte al Rockdale City Council, teléfono 9562 1666.

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Council Meeting

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General Report - Meeting Date: 15/10/2014

Public -

Item Number: ORD12

Subject: PLANNING PROPOSAL & DEVELOPMENT CONTROL PLAN - ROCKDALE TOWN CENTRE

File Number: F12/479

Report by: Coordinator Urban Strategy (Jacky Wilkes)

Community Engagement: Yes

Financial Implications: No

Precis

The purpose of this Council report is to report back on the exhibition of the Planning Proposal and draft Development Control Plan (DCP) for the Rockdale Town Centre.

The Rockdale Town Centre draft Planning Proposal and draft Development Control Plan (DCP) were publicly exhibited from 19 May 2014 to 16 June 2014. 22 written submissions were received on the Planning Proposal. Eight of 22 submissions offered general support for the Planning Proposal and draft DCP. The remaining submissions raised concerns about specific Planning Proposal or draft DCP controls or requests that additional amendments be made.

A separate matter related to a recent court ruling on the definition of "shop top housing" and its implications on the B2 Local Centre within Rockdale Town Centre is also dealt with in this report. The issues have been taken into account in the preparation of a revised Planning Proposal and draft DCP.

A supplementary matter has been incorporated into this report. It deals with incentives for the creation of pedestrian links and proposes that some variations to development standards may be justified as compensation for the creation of these linkages.

This report recommends that Council adopts the revised Planning Proposal and draft DCP for their finalisation. Revisions to the exhibited versions can be identified by a different colour for additional words and marked deletions (see **Attachments 1 and 2**).

Council Resolution

NOTE:

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Mayor O'Brien had previously declared a Significant Non-Pecuniary Interest in this item on the basis that he has just become aware that a friend of his owns property affected by the Planning Proposal and DCP for the Rockdale Town Centre, and left the Chamber for discussion and voting. The Deputy Mayor, Councillor Barlow, assumed the Chair.

Councillor Saravinovski had previously declared a Significant Non-Pecuniary Interest in this item on the basis that his family owns business, and that no members of his family made any submissions in the Rockdale Town Centre, and left the Chamber for discussion and voting.

Councillor Mickovski had previously declared a Significant Non-Pecuniary Interest in this item on the basis that due to recent changes of his employment with Transport for NSW, and his dealings with relevant Transport Agencies within its cluster, and left the Chamber for discussion and voting.

Councillor Bezic had previously declared a Significant Non-Pecuniary Interest in this item on the basis that a relative owns a property affected by the Planning Proposal and DCP for the Rockdale Town Centre, and left the Chamber for discussion and voting.

Councillor L. Sedrak was absent for the voting on this item.

Reverend Martin Goodwin, supporting the Officer Recommendation, addressed the Council.

MOTION moved by Councillors Awada and Tsounis

1 That the report on the Planning Proposal - Rockdale Local Environmental Plan (RLEP) 2011 Rockdale Town Centre and Rockdale Development Control Plan (RDCP) 2011 Amendment No.3 - Rockdale Town Centre Amendment, be received and noted.

2 That Council defers 591-597 Princes Highway and the Interchange Site (which include properties, 2, 4, 6, 8-14 Tramway Arcade; 6,14 Geeves Ave; 471, 475 477, 481, 483, 485, 487, 489, 491, 493, 495, 501, 507, 509 and 511 Princes Highway), under Section 58(3) of the EP&A Act, from the final plan.

3 That Council adopts the revised Planning Proposal - RLEP 2011 Rockdale Town Centre (see Attachment 1) and with the following amendment (shown in quotation marks) to Part 4 – Exceptions to Development Standards (clause 4.6)...(8)(ca) clause 4.3 (2A), 4.4(2A), (2B), (2C) or (2D), "unless it is for a demonstrable public benefit, such as the provision of pedestrian links".

4 That Council adopts the revised RDCP 2011 Amendment No.3 - Rockdale Town Centre, which will come into effect on the day the RLEP Amendment is notified (see Attachment 2) and with the following amendment under the heading Pedestrian Connection, "2. Applicants are encouraged to liaise with Council to deliver a pedestrian link; in return Council may consider flexibility in the application of development standards or development controls."

DIVISION

DIVISION on the MOTION called for by Councillors Awada and Tsounis

FOR THE MOTION

Councillors Macdonald, P Sedrak, Awada, Barlow, Kalligas, Nagi, Ibrahim, Hanna, Tsounis and Poulos

AGAINST THE MOTION

Nil

The MOTION was ADOPTED 10 votes to 0.

NOTE:

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The Deputy Mayor, Councillor Barlow, vacated the Chair at the conclusion of this item and the Mayor, Councillor O'Brien, resumed the Chair.

RECOMMENDATIONS

Officer Recommendation

That voting on this matter be by way of a Division.

1. That the report on the Planning Proposal - Rockdale Local Environmental Plan (RLEP) 2011 Rockdale Town Centre and Rockdale Development Control Plan (RDCP) 2011 Amendment No.3 - Rockdale Town Centre Amendment, be received and noted.
2. That Council defers 591-597 Princes Highway and the Interchange Site (which include properties, 2, 4, 6, 8-14 Tramway Arcade; 6, 14 Geeves Ave; 471, 475 477, 481, 483, 485, 487, 489, 491, 493, 495, 501, 507, 509 and 511 Princes Highway), under Section 58(3) of the EP&A Act, from the final plan.
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Background

OVERVIEW

Since December 2012, the major milestones for the Rockdale Town Centre Masterplan process have been as follows:

- Council adopted the Rockdale Town Centre Masterplan on 5 December 2012. The Masterplan sets out the vision and strategies for the growth and revitalisation of the Centre.
- On 19 June 2013, Council adopted the Rockdale Town Centre Masterplan Implementation Plan and 18 June 2014, Council adopted its first year review. The Implementation plan details Councils approach for working with the community and other stakeholders to implement the Masterplan. Council also endorsed the Planning Proposal for its submission to the Department of Planning and Environment, and endorsed the draft DCP for public exhibition with the Planning Proposal.
- Council received its revised Gateway Determination from the Department of Planning and Environment on the 6 May 2014 which approved the exhibition of the Planning Proposal and draft DCP.
- The Planning Proposal and draft DCP were publicly exhibited from 19 May 2014 to 16 June 2014. Council received 22 submissions from the public and government agencies regarding the draft planning documents. Further information about the content of the submissions received is detailed later in this report.
- The Planning Proposal and draft DCP were assessed by the St George Design Review Panel on 31 July 2014. The comments from the Design Review Panel have been incorporated into

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the review of the draft planning documents.

Overview of the planning documents

The Planning Proposal and the draft Development Control Plan translate the Masterplan into appropriate planning controls to facilitate its implementation. The controls aim to encourage redevelopment and deliver higher quality built form outcomes to ensure that Rockdale excels as the local government area's highest order Centre as per the Centre's hierarchy. Combined with the Implementation Plan, the controls will put in place a robust framework for the built form outcomes of the Masterplan. Following is an overview of the proposed amendments along with how they will facilitate positive change and encourage quality redevelopment.

Planning Proposal

The Planning Proposal seeks to provide flexibility and incentive for redevelopment within desirable building envelopes by:

- amending the maximum building height controls for certain land within the centre;
- removing the maximum FSR control for land in the Centre; and
- introducing design excellence and competition clauses to certain sites.

The Planning Proposal also seeks to:

- encourage and facilitate efficient and logical redevelopment which is capable of delivering public benefit by permitting additional building height for large development sites;
- create a transition in land use and density from the Centre core to the surrounding residential areas by rezoning land and increasing permissible building heights at the edge of the Centre; and
- facilitate the provision of new public open space through the rezoning and identification of land for acquisition where identified by the Masterplan.

Draft Development Control Plan

The draft DCP provides detailed building design and built form controls to complement the Planning Proposal.

Gateway Determination Process

The Planning Proposal has complied with the Gateway Determination which include the following conditions:

- Made minor changes to some technical content in the Planning Proposal document prior to Public Consultation;
- Conducted Community consultation under section 56(2)(c) and 57 of the EP&A Act;
- Consult with relevant public authorities under section 56(2)(d) of the EP&A Act and /or to comply with the requirements of relevant S117 Directions;
- Noted a public hearing was not required to be held into the matter; and
- Noted the time frame for completing the LEP is 12 months from the date of the Gateway determination (that is, 6 May 2014).

SUBMISSIONS SUMMARY

Eight (of 22) of the submissions offered general support for the Planning Proposal and draft DCP.

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Examples of general support for the Planning Proposal and draft DCP:

"In general our client supports the directions under the Rockdale Town Centre Master Plan to guide and encourage redevelopment within the centre, and its implementation through the proposed amendments to the LEP and DCP controls" – Landowner

"I was impressed with the fact that Council was proactive and serious about stimulating the revitalisation of the Rockdale Town Centre district. – Landowner

"...wholeheartedly supports the proposed changes, which aim to encourage redevelopment to take place and stimulate developers into facilitating the urban revitalisation and rejuvenation of the Rockdale Town Centre." – Bexley Chamber of Commerce

The remaining submissions raised concerns about specific controls or requested that certain amendments be made.

The following table provides further information about the nature of the submissions received:

Position	Number of Submissions
Site-specific requests to increase building height or reduce minimum site area to receive height incentive	9
Concerns that the proposed controls will have negative impacts such as excessive bulkiness, overshadowing and traffic and car parking impact	7
Other comment and questions	4
Requests to include sites not currently included in the planning proposal	2
Total	22

SUMMARY OF KEY ISSUES

Site-specific requests to increase building height

The majority of submissions were requests for site-specific amendments to building height from the respective land owners. The rationale for these requests were:

- to take advantages of the site's "corner/landmark" location.
- to encourage redevelopment on smaller lot by reducing the minimum lot size requirements

The Planning Proposal (as exhibited) provides a good range of amalgamation incentives with height bonuses. The purpose of the incentive is to encourage appropriate lot site amalgamation to allow better architectural and urban design outcomes and mitigate against the concerns expressed in some submissions that new development will be too bulky and create poor urban amenity. The proposed heights has been underpinned by detailed urban design analysis. Therefore, it is recommended that the height remain as proposed. A detailed review of the submissions and responses is included in **Appendix 3**.

Request to increase building height and defer 591-597 Princes Highway Rockdale

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During the exhibition period, the owners of 591-597 Princes Highway Rockdale drafted a submission seeking significant changes, including height. The site is particularly large and in exchange for additional height and yield the owners are proposing the creation of a substantial urban park that would provide amenity for residents in the entire southern part of the Rockdale Town Centre. At this stage the concept is still being developed with the owners design team and when it is it will require adoption by Council before further public consultation. More detail is included in **Appendix 3**.

Other concerns**Removal of Floor Space Ratio Controls will lead to excessive bulk and scale**

A few concerns were raised in public submissions and by the Design Review Panel about the impact of the removal of floor space ratio controls will have a negative impact by resulting in bulky buildings. These concerns have been addressed by applying the Design Excellence control to more areas including sites that propose to take advantage of available height incentives; a subsequent design brief will be prepared to all competitors eligible for Design Competition. The brief will clearly identify all the constraints which must be observed and expected outcomes. In addition, the issue has also been dealt with by provide additional built form controls in the draft DCP. Detailed responses are provided in **Attachment 3**.

The interchange site

During the consultation period of the Planning Proposal, a number of key challenges have raised to the site that require further studies. This included concerns that relate to traffic impact on major intersections and the Obstacle Limitation Surface (OLS) restrictions for building height. It is recommended to defer the interchange site from the Planning Proposal until further studies have been finalised.

Overshadowing impacts on public open space and adjoining neighbouring properties

A few submissions raised concerns about the potential overshadowing impact of King Street Place, the Chapel Street Church and south of Lister Ave. The concern have been addressed by providing an additional clause to the draft Development Control Plan to protect solar access to public spaces. The issue will also be dealt with through expanding the Design Excellence clause to sites that are eligible for height incentives.

Loss of carparking

Two submissions raised concerns regarding the loss of car parking in the Chapel Street Precinct. Under the adopted Rockdale Town Centre Masterplan, 40 carparking spaces will be retained on the Chapel Street Precinct in addition to publicly available parking associated with the future development of the site. In addition, planning has commenced for a new multi-deck carpark in York Street and additional on-street parking on George Street.

Relationship to heritage buildings

Some concerns were raised about the interface between the heritage buildings and future development. This can be addressed through the design brief as part of the design competition process. The brief will clearly identify that any development adjoining or close to an identified heritage item must be designed to ensure a sympathetic relationship to that item

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in relation to building form and character. It is also noted that Chapel Street is proposed to be retained and formed as a public road adjacent to the historic buildings providing a greater separation to new development and enhancing their presence.

Request for inclusion of specific sites in the planning proposal

Two submissions requested that additional sites to be included in the Planning Proposal. These sites will not be considered in this report because they are outside of the Masterplan study area and not included in the land affected by the planning proposal. This will trigger a substantial delay to the Planning Proposal as further studies are required to be conducted. The owners can, however, pursue separate planning proposals if they wish.

A detailed review of submissions and responses is included in **Attachment 3**.

Issues that were raised only occasionally or those which had no direct relationship to the planning controls identified in the Planning Proposal and draft DCP have not been discussed further in this report, but were considered, where relevant, in the review of revising the draft documents.

OTHER TECHNICAL MATTERS

Deletion of Active Frontage Clause along Bay Street

The exhibited Planning Proposal applied an active frontage along Bay Street which could realise a supermarket on the site. The notation could undermine the Masterplan vision of a Market Precinct of the current "Target" site. It is recommended to remove the active street frontage requirement in the Planning Proposal to ground floor apartments. Small retail shops fronting the future new open space have also been enabled.

Rezone the green gateway north to B4 Mixed Use

A technical error was identified in the exhibited Planning Proposal in relation to the proposed zoning map. The northern section of Princes Highway (397 - 431A and 376 - 442 Princes Highway) was intended to be rezoned to B4 Mixed Use. However, it was exhibited with the B2 Local Centre Zone, which is not consistent with the Master Plan vision for the green gateways. This adjustment will provide flexibility at the edges of the Centre where traditional strip retail type is not as viable and ensure consistency of the green gateways.

Land and Environment Court (LEC) ruling on "shop top housing"

LEC ruling *"Hrsto v Canterbury City Council (No 2) [2014] NSWLEC 121"* (Decision date: 14 August 2014). The court finding is that "Shop Top Housing" ::

- means one or more dwellings located above ground floor retail premises or business premises.
- shop top housing is a type of residential accommodation.

The ruling prohibits any form of residential accommodation on the ground floor in the case of the RLEP 2011. An analysis was undertaken to determine the impact of the ruling in the Rockdale Town Centre planning controls. The objectives of the B2 Local Centre were also considered which largely protect employment uses. An urban design analysis identified that there are two sites which could be considered appropriately for ground floor residential accommodation. These areas have two common attributes:

- They both have deep building depths which allows residential accommodation to be built in the centre of the site with commercial/retail development at street frontages.

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- They are located in discontinued laneways meaning that they have poor commercial viability and low traffic volumes allowing for residential amenity. Residential accommodation in these areas would also lead to better outcomes in terms of provide passive surveillance.

Residential accommodation should not be allowed on the ground floor in the B2 Local Area zone with the exception of sites identified above that have unique site attributes. The preferred planning mechanism to facilitate this is in Schedule 1 - Additional Permitted Uses.

Response:

A clause in Schedule 1 - Additional Permitted Uses has been drafted to apply to 564 -570 Princes Highway and 75 - 81 Railway Street, Rockdale to enable residential development at the ground floor.

CHANGES TO PLANNING DOCUMENTS

A number of changes have been made to the Planning Proposal and draft Development Control Plan (DCP) based on submissions received and a response to the recent court ruling matter. Additions to the exhibited Planning Proposal and draft DCP are marked with a different colour in the respective documents (Attachments 1 and 2). Deletions are identified with a strike through of the specific words/sections.

Changes to the Planning Proposal

- Defer two sites in the Planning Proposal. That is, "The Interchange Site" identified as 2, 4, 6, 8-14 Tramway Arcade, 6, 14 Geeves Ave, 471, 475 477, 481, 483, 485, 487, 489, 491, 493, 495, 501, 507, 509, 511 Princes Highway and 591-597 Princes Highway be deferred from the final plan prior to the plan being made.
- Expand the Design Excellence Clause to sites that are eligible for height bonuses.
- Allow ground floor residential accommodation to two sites on the ground floor by amending Schedule 1 in the LEP.
- Delete Active Frontage Clause along Bay Street.
- Other changes were minor wording changes or fixing technical errors in the current Planning Proposal. These changes do not alter the overall objectives in the Planning Proposal.

Changes to the draft Development Control Plan

- Provide an additional control to maintain sufficient solar access to King Street Place.
- Provide additional building envelope controls.
- Reduce carparking rate as an incentive to retain existing arcades and create new connections.
- Allow residential apartment on certain B2 land with building depth restrictions.
- Other changes were minor wording and graphic changes. These changes do not alter the overall objectives in the draft Development Control Plan.

SUPPLEMENTARY INFORMATION – INCENTIVES FOR PEDESTRIAN LINKS

The revised Development Control Plan notes the importance of pedestrian movement within the centre and identifies a need to retain or provide additional pedestrian

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connections between Princes Highway or King Street Place and laneways.

To encourage the provision of pedestrian links some variations in development standards (i.e. height) may be justified by way of compensation.

Two technical changes in the Planning Proposal and revised Development Control Plan are recommended so that the consent authority has the ability to consider variations where they are justified:

- Amend the Planning Proposal with the following:

Part 4 – Exceptions to Development Standards (clause 4.6)...(8)(ca) clause 4.3 (2A), 4.4(2A), (2B), (2C) or (2D), unless it is for a demonstrable public benefit, such as the provision of pedestrian links.

- Amend the revised Development Control Plan (page 7.5_44) under heading "Pedestrian connection", item 2, to replace with the following:

2. Applicants are encouraged to liaise with Council to deliver a pedestrian link; in return Council may consider flexibility in the application of development standards or development controls.

CONCLUSION

This report attaches a revised Planning Proposal and Development Control Plan for adoption so both can proceed to finalisation. This report also explains the rationale for deferring two sites from the Planning Proposal so as to allow time for further analysis.

Financial Implications

There are no financial implications applicable to this report.

Community Engagement

The preparation of the Planning Proposal and draft DCP has been underpinned by a sound community engagement plan that was developed in conjunction with Council's Community Planning and Engagement team and is in line with Council's Engagement Process/Protocol (see **Attachment 4**).

External consultation

The Planning Proposal and the draft DCP were on public exhibition between from 19 May 2014 to 16 June 2014 (28 days). Key Strategies include:

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- 4,500 notification letters were sent to properties within/adjoining the study Public Notice in the St George Leader.
- Council website – Have your say.
- Information Brochure explaining the Planning Proposal and draft DCP.
- Hard copies were available at Rockdale City Library and Council's customer service centre.

Two Public Feedback sessions were held:

- 5 June 2014, 6:30 - 8:30pm, 30 people attended
- 12 June 2014, 4:30 - 6:30pm, 14 people attended

Government Agencies

Input was sought from the following public authorities:

- Department of Infrastructure & Regional Development
- Sydney Water
- Transport for NSW
- Sydney Airport Corporation Limited

Internal consultation

- Email to "RCC All Users" seeking feedback
- Notification to Councillors via portal
- A workshop with Development Assessment Planners was held on 8 July 2014 to discuss current design issues and provide comments to the Planning Proposal and draft DCP
- A presentation to Council's Leadership Team was held on 19 August 2014.

Design Review Panel

The Planning Proposal and draft DCP were presented to the St George Design Review Panel on 31 July 2014. Further information about the content of the submissions received is detailed earlier in this report.

Rockdale City Plan

Outcome:	Outcome 3 - Rockdale is a City with a thriving economy that provides jobs for local people and opportunities for lifelong learning.
Objective:	Objective 3.3 - Our City has vibrant town centres that provide a range of services and experiences for our residents, workers and visitors
Strategy:	3.3.1 - Ensure Town Centres are improved on a rolling program

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Delivery Program: 3.3.1.A - Plan and implement the Town Centre Improvement Program (DCPD)

Operational Plan: 3.3.1.A.1 - Implement the Rockdale Town Centre Masterplan (MUES)

Additional Comments:



[Attachment 1 - Planning Proposal .pdf](#)



[Attachment 2 - Development Control Plan Amendment No 3 - Rockdale Town Centre.pdf](#)



[Attachment 3 - Review of Submissions - Rockdale Town Centre PP and DCP.pdf](#)



[Attachment 4 - Community Engagement Strategy - Rockdale Town Centre PP and DCP.pdf](#)

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Friday, June 9, 2017 at 4:52:14 PM Australian Eastern Standard Time

Subject: RE: 507-511 Princes Highway Rockdale - Draft Transport Assessment CRM:0012263
Date: Tuesday, 28 February 2017 at 3:34:36 PM Australian Eastern Daylight Time
From: Pegg, Brendan
To: Brett Maynard
CC: Ozinga, Mark, HALL James C, FLYNN Greg, Lee McCourt, Lesli Berger (lberger@fivex.com.au), Karen McNatty, Nicole Vukic - GTA Consultants, council@bayside.nsw.gov.au, Grosskopf, Tom
Attachments: image001.gif, image005.jpg, image006.jpg, 161221rep-16S1109000 507-511 Princes Highway Rockdale Transport Study DR....pdf

Hi Brett,

In regards to the draft Transport Study for '507-511 Princes Highway, Rockdale', please see our comments/recommendations on behalf of Transport for NSW (TfNSW) and Roads and Maritime Services (RMS):

Pedestrian Overhead Walkway

TfNSW and RMS notes that Rockdale Masterplan (2013) envisages a pedestrian overhead walkway from Rockdale Station to the at-grade pedestrian crossing on the Highway at King Street intersection via the subject site. Whilst TfNSW and RMS supports the provision of the overhead pedestrian walkway to promote an integrated transport network, the cost of this infrastructure shall be at no cost to the NSW Government.

TfNSW and RMS recommend that Council (as the relevant Planning Authority) should consider having a discussion with the proponent regarding funding arrangements (i.e. through Planning Agreement and/or Section 94) for the provision of the pedestrian bridge.

Vehicle Access

Conflict between motorists entering/exiting the subject site on Geeves Avenue and pedestrian/bus movements along the Rockdale Interchange (Geeves Avenue) should be minimised as much as possible.

TfNSW and RMS recommend that Council (as the relevant Planning Authority) request the applicant to consolidate vehicular access to a single combined entry and exit driveway to service the three sites. This can be achieved either via a right of way between the basement car parks and/or site consolidation planning controls (i.e. minimum frontage requirements to force site consolidation)

TfNSW and RMS also recommend that a Pedestrian Impact Assessment (PIA) and Swept Path Analysis is conducted to demonstrate that vehicle access can safely occur in Geeves Avenue without being detrimental to pedestrians/bus operations.

Loading Dock

Similarly, conflict between heavy vehicles manoeuvring in/out of the subject site and pedestrian/bus movements along Rockdale Interchange (Geeves Avenue) should be minimised as much as possible. It is unacceptable on safety grounds for heavy vehicles to reverse in/out of the subject site directly adjacent a major Transport Interchange with significant pedestrian activity (including elderly, disabled and children) and constant bus movements/operations.

Council (as the relevant Planning Authority) should give consideration to requesting the proponent to consolidate commercial drop/pick up to one single consolidated loading dock with a turntable that enables a 12.5 metre long medium rigid vehicle to enter and exit the loading dock in a forward direction.

Page 1 of 4

Retail Uses

TfNSW and RMS notes that planning proposal has been assessed on the basis that the retail space (3,890 GFA) will comprise of speciality retail stores and exclude major department stores and/or supermarkets. However, under the proposed zoning a supermarket (i.e. including a large Woolworths/Coles etc) is a permitted use and would generate approximately 14.7 and 15.5 vehicle trips per hour (two-way) per 100m² Leasable Floor Area in the Saturday and Thursday afternoon peaks respectively.

As a supermarket is a permitted use, the traffic generating impacts of a supermarket should be assessed on the basis that this would be the worst case scenario as supermarkets are traffic generating developments.

Car Parking

It is noted that for Site 1 no parking is proposed, leading to a shortfall of 143 spaces (against Council's statutory parking requirements) on the basis that "Site 1 will be unique in its ability to provide access to the public transport network, encouraging high public transport usage through the proposed overhead walkway".

TfNSW and RMS supports the reduction of parking space allocation with sites adjacent to Transport Interchanges. However, to ensure that this parking space reduction is implemented, it is recommended that Council (as the relevant Planning Authority) give consideration to requesting the applicant of the planning proposal to prepare and submit a site specific Development Control Plan for Site 1, which restricts parking for Site 1 and promotes sustainable transport (i.e. car sharing).

Bicycle Parking

The site would need to provide Bicycle Parking Facilities in accordance with *Australian Standards Bicycle Facilities AS2890.3*. This should be documented in Section 7.3 'Bicycle Parking' (page 32) of the Transport Study.

Princes Highway/Geeves Avenue

It is noted that analysis of the intersection of Geeves Avenue and Princes Highway has identified that right turn movements are impacting the overall performance of the intersection and is likely to improve through the removal of existing on-street parking on Geeves Avenue (approach and departure) between the Highway and Geeves Lane.

As the planning proposal is likely to result in exacerbating the delays at this intersection, Council (as the relevant Planning Authority) may wish to give consideration to the proponent being required to remove the parking prior to the release of any Occupation Certificate for any development post gazettal of the planning proposal.

Construction Traffic

Construction vehicle access to/from the subject site has the potential to be problematic due the site having frontage to both the Highway and bus operations on Geeves Avenue/Tramway Arcade.

TfNSW and RMS recommend that the proponent should be conditioned to submit a strategic Construction Pedestrian and Traffic Management Plan (CPTMP) as part of any future Part 4 DA. The CPTMP needs to specify, but not limited to, the following

- Location of the proposed work zone;
- Haulage routes;
- Construction vehicle access arrangements;
- Proposed construction hours;

- o Estimated number of construction vehicle movements;
- o Construction program;
- o Consultation strategy for liaison with surrounding stakeholders;
- o Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works;
- o Cumulative construction impacts of other projects in the vicinity. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network; and
- o Should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist should be clearly identified and included in the CPTMP.

If you have any questions, regarding the above information, please let me know.

Kind regards,

Brendan Pegg
Analyst, Integrated Planning
Service Planning & Development
Infrastructure and Services
Transport for NSW

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Level 2, 18 Lee St Chippendale NSW 2008



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From: Brett Maynard [<mailto:brett.maynard@gta.com.au>]
Sent: Friday, 23 December 2016 7:35 AM
To: Sangar, Para; Ozinga, Mark; Pegg, Brendan; POPOFF Andrew M
Cc: Lee McCourt; Lesli Berger (lberger@fivex.com.au); Karen McNatty; Nicole Vukic - GTA Consultants
Subject: 507-511 Princes Highway Rockdale - Draft Transport Assessment CRM:0012263

Hi all

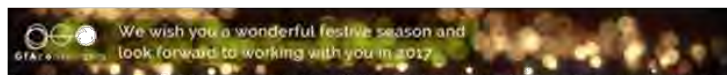
Following previous meetings to discuss the scope and potential impacts of the above development adjacent to Rockdale Station, please see the attached draft transport assessment for your review and comment prior to formal lodgement with the Planning Proposal.

Mark and Para – Edmond was previously involved with this one. Can you please advise who will take over?

Have a great Christmas break and we look forward to discussing this further in the New Year.

Regards

Brett Maynard
Director
GTA Consultants
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0414 240 412
Level 6, 15 Help Street, Chatswood, NSW 2067
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Interchange Precinct Geeves Avenue, Rockdale Transport Study

Client // Fivex
Office // NSW
Reference // 16S1109000
Date // 31/10/17

Interchange Precinct
Geeves Avenue, Rockdale
Transport Study

Issue: D 31/10/17

Client: Fivex
Reference: 16S1109000
GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	12/05/17	Final	Andrian Juric	Nicole Vukic / Karen McNatty	Brett Maynard	Brett Maynard
B	30/05/17	Final	Andrian Juric / Oasika Faiz	Karen McNatty	Brett Maynard	Brett Maynard
C	16/10/17	Final – Response to Council Comments added	Andrian Juric / Oasika Faiz	Karen McNatty	Brett Maynard	Brett Maynard
D	31/10/17	Final	Andrian Juric / Oasika Faiz	Karen McNatty	Brett Maynard	<i>Brett Maynard</i>

16S1109000-NSW (460024 v1.10)

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1. Introduction



1.1 Background

A planning proposal is to be lodged with Rockdale City Council (Council) on behalf of the owner of 507-511 Princes Highway, Rockdale for a mixed-use development on land identified by Council as the 'Transport Interchange Precinct' located on Geeves Avenue, Rockdale.

It is anticipated that the planning proposal will include three separate mixed use sites, which combined would incorporate:

- o 257 residential units, including:
 - o 59 studio units
 - o 38 one bedroom units
 - o 133 two bedroom units
 - o 27 three bedroom units
- o 3,890 square metres retail space.

Fivex commissioned GTA Consultants (GTA) to undertake a transport study to support the planning proposal.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the planning proposal, including consideration of the following:

- i Existing traffic and parking conditions surrounding the site
- ii Suitability of the proposed parking in terms of supply and layout
- iii Service vehicle requirements
- iv Pedestrian and bicycle requirements
- v The traffic generating characteristics of the Planning Proposal
- vi The transport impact of the development proposal on the surrounding road network.

1.3 Consultation

Department of Planning and Environment, Transport for NSW (TfNSW), Roads and Maritime Services (Roads and Maritime) and Bayside Council (formerly Rockdale City Council) were consulted at the start of this assessment to gain agreement on the study methodology and ensure elements required by TfNSW and Roads and Maritime in particular were assessed. Various meetings held to confirm the final scope and a draft version of this study was provided to TfNSW, Roads and Maritime and Council for comment. Comments received on the draft report have been incorporated into this final assessment.

1.4 References

In preparing this report, reference has been made to the following:

- o An inspection of the site and its surroundings on Thursday 11 August 2016
- o Rockdale City Council Development Control Plan (DCP) 2011

- ⦿ Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- ⦿ Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- ⦿ Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- ⦿ Traffic and car parking surveys undertaken by Matrix Traffic and Transport Data as referenced in the context of this report
- ⦿ Proposed precinct schedule prepared by Eeles Trelease dated 17 August 2016
- ⦿ Other documents and data as referenced in this report.

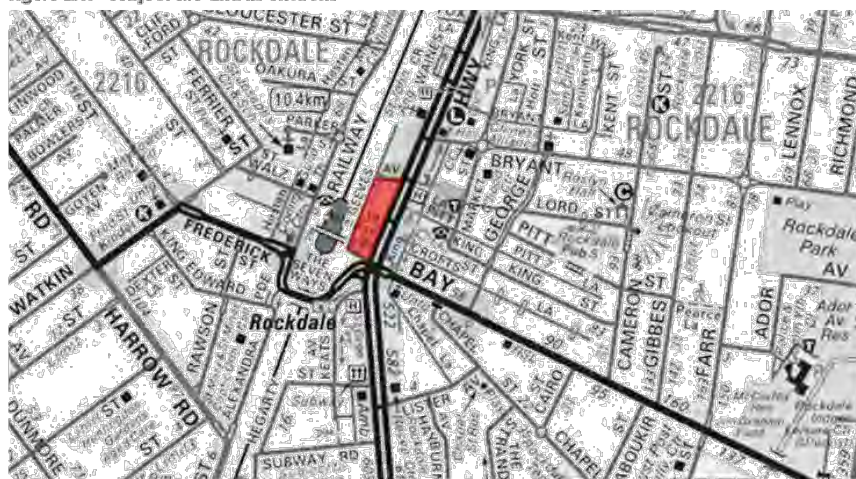
2. Existing Conditions

2

The subject site is bounded by the Princes Highway, Geeves Avenue and Tramway Arcade, Rockdale and is known as the Interchange Precinct, in the Rockdale Town Centre Masterplan. The site of around 6,000 square metres has a frontage of 140 metres to Princes Highway in the east, 50 metres to Geeves Avenue in north, 130 metres to Geeves Avenue in the west and 55 metres to Tramway Arcade in the south. The site currently has a land use classification as B2 – Local Centre and is occupied by retail and commercial land uses. The surrounding properties predominantly include commercial and retail uses.

The location of the subject site and its surrounding environs is shown in Figure 2.1.

Figure 2.1: Subject site and its environs



Source: Sydwys

2.1 Road Network

2.1.1 Adjoining Roads

Princes Highway

The Princes Highway is a classified State road (Roads and Maritime Services [Roads and Maritime] Road Number 1) and is a major north-south aligned route linking Sydney CBD with Sydney's south-western suburbs and Wollongong. It is a two-way road configured with a six-lane divided road with an 18-metre wide carriageway, set within an approximately 22-metre wide road reserve. It has a posted speed limit of 60 km/h.

Kerbside parking is permitted, subject to half-hour time restrictions and peak period clearway restrictions.

The Princes Highway is shown in Figure 2.2 and Figure 2.3 and carries around 38,000 vehicles per day¹.

Geeves Avenue

Geeves Avenue is a local road and near the site is aligned in a north-south direction. It is a two-way road configured with a two-lane, 11-metre wide carriageway, set within an 11.5-metre wide road reserve. It has a posted speed limit of 10 km/h along the western frontage of the site and 50 km/h along the northern frontage of the site.

Adjacent to the western site frontage, Geeves Avenue includes a bus zone, which is part of the Rockdale Transport Interchange. There is kerbside parking on Geeves Avenue adjacent to the northern site frontage including a loading zone, five-minute and one-hour time restricted parking on both sides of the road.

Geeves Avenue is shown in Figure 2.4 and Figure 2.5 and carries around 400 vehicles per day².

Figure 2.2: Princes Highway (facing south)

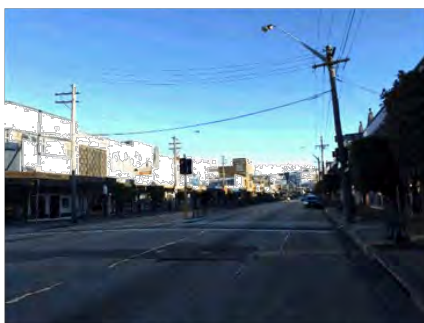


Figure 2.3: Princes Highway (facing north)



Figure 2.4: Geeves Avenue (facing south)



Figure 2.5: Geeves Avenue (facing north)



¹ Based on the peak hour traffic counts undertaken by GTA in July 2016 and assuming a peak-to-daily ratio of eight per cent for arterial roads.

² Based on the peak hour traffic counts undertaken by GTA in July 2016 and assuming a peak-to-daily ratio of eight per cent for arterial roads and 10 per cent for local roads.

2.1.2 Surrounding Intersections

The following intersections currently exist near the site:

- Princes Highway/ Bryant Street (signalised)
- Princes Highway/ Geeves Avenue (signalised)
- Princes Highway/ Bay Street/ The Seven Ways/ Tramway Arcade (signalised)
- Geeves Avenue / Geeves Lane (priority controlled).

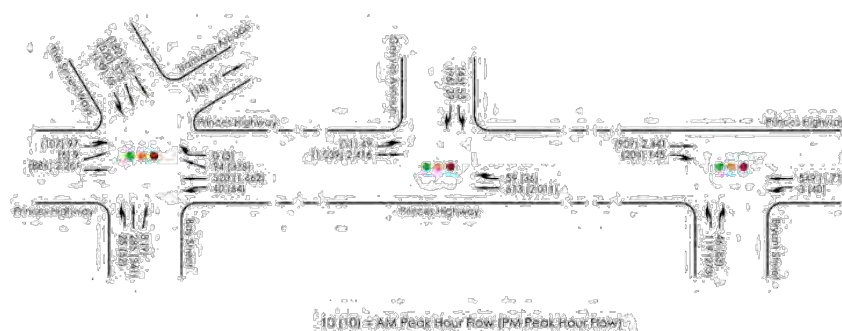
2.2 Traffic Volumes

GTA commissioned traffic movement counts on key roads near the site on 4 August 2016 during the following peak periods:

- 6:30am and 9:30am
- 3:30pm and 6:30pm.

The AM and PM peak hour traffic volumes are summarised in Figure 2.6, with full results contained in Appendix A of this report.

Figure 2.6: Existing AM / PM peak hour traffic volumes



Traffic volumes accessing Geeves Avenue is largely associated with pick-up/ drop-off activities for the Rockdale Transport Interchange and the 159-car space Geeves Avenue/Lane commuter car park.

2.3 Intersection Operation

The operation of the key intersections within the study area have been assessed using the network analysis function of SIDRA Intersection³, a computer based modelling package, which calculates intersection performance.

The commonly used measure of intersection performance, as defined by the Roads and Maritime, is vehicle delay. SIDRA Intersection determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 2.1 shows the criteria that SIDRA Intersection adopts in assessing the level of service.

³ Program used under license from Akcelik & Associates Pty Ltd 0.12

Table 2.1: SIDRA Intersection level of service criteria

LOS	Average delay per vehicle (secs./veh)	Traffic signals, roundabout	Give way and stop sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Table 2.2 presents a summary of the existing operation of the key intersections, with full results presented in Appendix B.

Table 2.2: Existing operating conditions (2016)

Intersection	Control	Peak	Degree of saturation (DOS)	Average delay (sec)	75th percentile queue (m)	LOS
Princes Highway/ Bryant Street	Signalised	AM	0.64	12	126	A
		PM	0.58	18	178	B
Princes Highway/ Geeves Avenue	Signalised	AM	0.85	4	37	A
		PM	1.02	31	122	C
Princes Highway/ Bay Street/ The Seven Ways/ Tramway Arcade	Signalised	AM	1.18	49	446	D
		PM	0.89	38	205	C

Based on the above assessment, all the intersections analysed currently operate at an acceptable level of service, with the Princes Highway/ Bryant Street and Princes Highway/ Geeves Avenue intersections indicating there is some spare capacity in the AM peak. During both the AM and PM peaks the intersection of the Princes Highway/ Bay Street is operating at an acceptable level but is approaching capacity.

2.4 Car Parking

A review of publicly available car parking near the site indicates that parking demand is high.

Parking along the Princes Highway is generally at capacity outside of restricted parking times. Within the dedicated off-street parking areas, employee parking was full and in some instances tandem parking was observed.

Near the site there also exists the following public car parks:

- Geeves Avenue/Lane commuter car park – located adjacent to the proposal this car park is at-grade with 151 long term parking spaces, including five accessible spaces, in addition there are eight ¼ P restricted spaces

- Chapel Street car park – an at-grade car park with 120 short stay and 27 long stay parking spaces
- Target car park – located in the middle of the Rockdale town centre, the site contains approximately 200 long stay and 175 short stay parking spaces
- York Street car park – located close to Rockdale Town Hall it contains 66 short stay and 21 long stay at-grade car parking spaces
- Railway Street car parks – there are two at grade car parks provided on the opposite side of the station with around 22 spaces provided in the car park closest to the station and 28 spaces provided in the car park further north.

Figure 2.7: On-street parking – Princes Highway



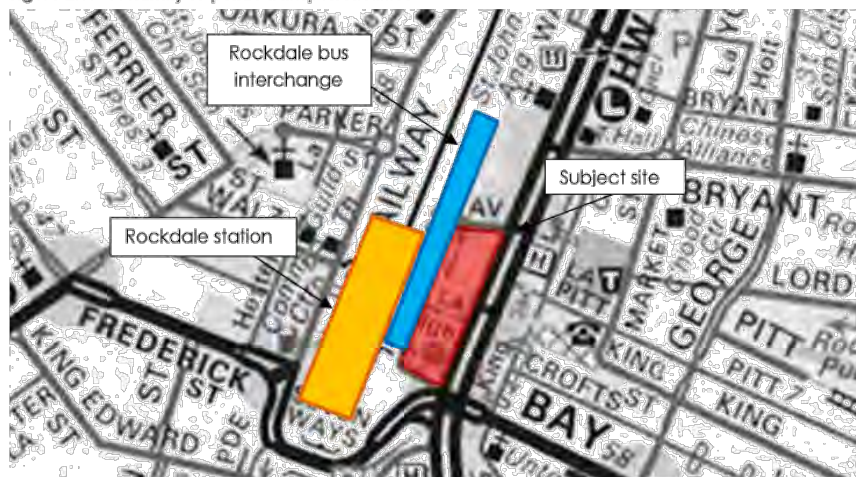
Figure 2.8: Off-street employee parking – Geeves Avenue



2.5 Public Transport

The site is well serviced by public transport. Adjacent to the site is a high frequency bus interchange and access to the rail network through Rockdale station. The site's proximity to the Rockdale bus interchange and Rockdale station is shown in Figure 2.9.

Figure 2.9: Proximity to public transport facilities



Source: Base map from Sydways

The bus interchange provides regular services to the surrounding area with buses travelling to:

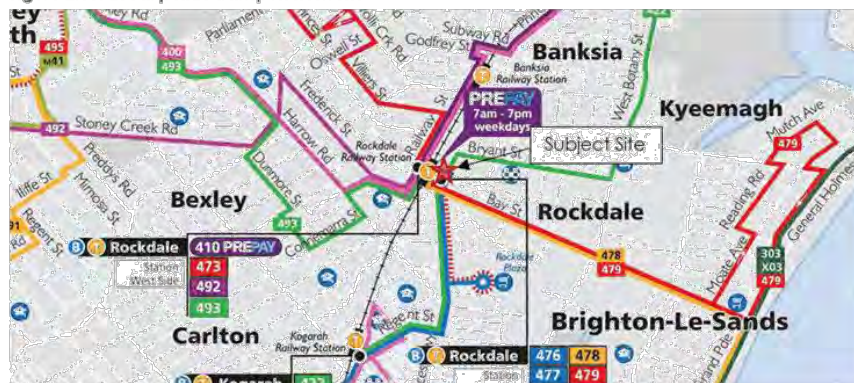
- Sydney CBD
- Hurstville
- Brighton-Le-Sands
- Bondi Junction
- Burwood
- Campsie.

Rockdale station is located on the T4 – Eastern Suburbs and Illawarra Line and provides commuters access to the rail network. The station provides direct services to the CBD and southern centres including Cronulla and Wollongong.

Services to the CBD and to the southern centres arrive at Rockdale station every 10 minutes throughout the day.

The local public transport network summarised in Figure 2.10.

Figure 2.10: Local public transport network



Source: Transport Buses (Sydney Buses)

2.6 Pedestrian and Cycling Infrastructure

The site and its surroundings are well connected by pedestrian infrastructure.

Pedestrian paths are located as follows:

- Princes Highway (both sides)
- Geeves Avenue, northern frontage (both sides)
- Tramway Arcade (both sides).

Pedestrian footpaths are shown in Figure 2.11 and Figure 2.12.

Figure 2.11: Footpath – Geeves Avenue



Figure 2.12: Footpath – Princes Highway



Crossing facilities in vicinity of the site include the following:

- Geeves Avenue adjacent to the site's internal walkway
- All legs of the Princes Highway/ Bay Street/ The Seven Ways/ Tramway Arcade intersection
- All legs of the Princes Highway/ Geeves Avenue intersection
- Princes Highway signalised pedestrian crossing (mid-block).

The crossings maintain pedestrian permeability in the area and provide direct access from the King Street shared zone to Rockdale station. The Geeves Avenue crossing and the Princes Highway crossing are shown in Figure 2.13 and Figure 2.14.

Figure 2.13: Geeves Avenue marked pedestrian crossing



Figure 2.14: Princes Highway signalised pedestrian crossing



In addition, the site contains an internal pedestrian walkway. This walkway is connected to a larger east-west pedestrian link that runs through Rockdale. The walkway is shown in Figure 2.15 and Figure 2.16.

Figure 2.15: Internal walkway (facing east)

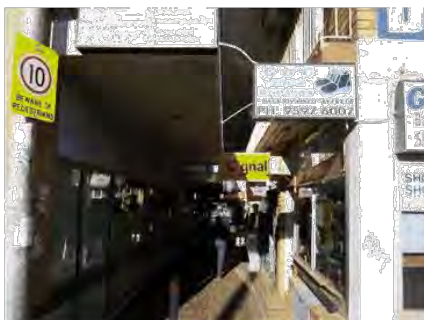
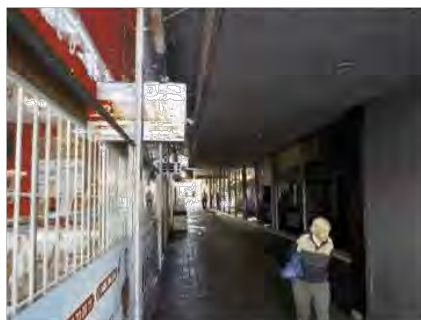


Figure 2.16: Internal walkway (facing west)



The King Street shared zone is about 17 metres wide and 100 metres long. It provides pedestrian access to the eastern retail precinct and is connected to the site via the Princes Highway signalised pedestrian crossing. The shared zone is shown in Figure 2.17.

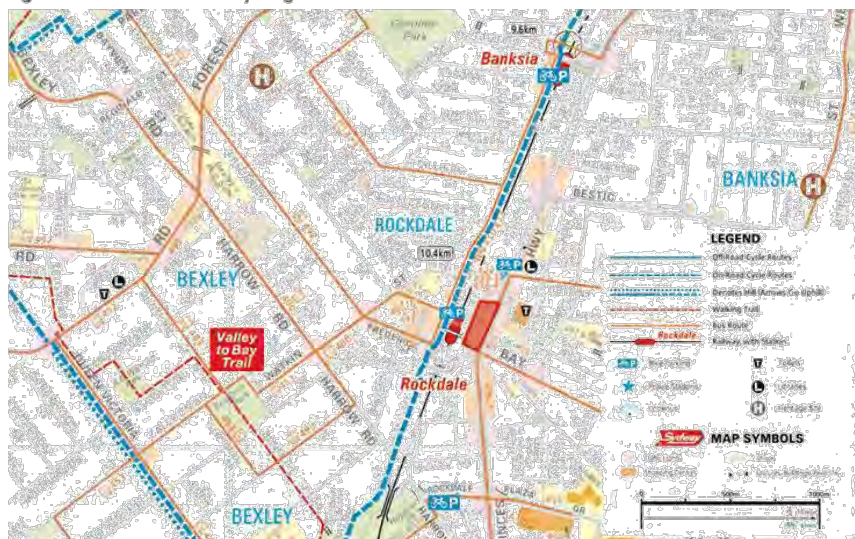
Figure 2.17: King Street shared zone



The site is located within proximity of an on-road cycling route. The route is located on Railway Street, 100 metres west of the subject site and has a north-south orientation. The route generally runs parallel with the railway line and connects the Rockdale Local Government Area (LGA) with the Cooks River cycleway and the greater Sydney cycle network.

The subject site and the surrounding cycling network is shown in Figure 2.18.

Figure 2.18: Rockdale LGA cycling infrastructure



Source: Rockdale City Council

A summary of the all existing pedestrian and cycling infrastructure is shown in Figure 2.19.

Figure 2.19: Pedestrian and cycling infrastructure summary



Source: NSW Department of Finance, Services and Innovation (DFSII)

2.6.1 Pedestrian Activity

GTA completed pedestrian surveys in November 2016 during the weekday AM (7am to 9am) and PM (4:30pm to 6:30pm) peak periods. The peak hourly pedestrian movements near the site are summarised in Table 2.3 and Table 2.4 and shown in Figure 2.20.

Table 2.3: Pedestrian movements to/from Rockdale station

Location	To Rockdale station		From Rockdale station	
	AM peak (7:45-8:45am)	PM peak (4:45pm-5:45pm)	AM peak (7:45-8:45am)	PM peak (4:45pm-5:45pm)
Tramway Arcade	842	215	106	392
Internal walkway	273	130	104	220
Car park	43	27	12	46

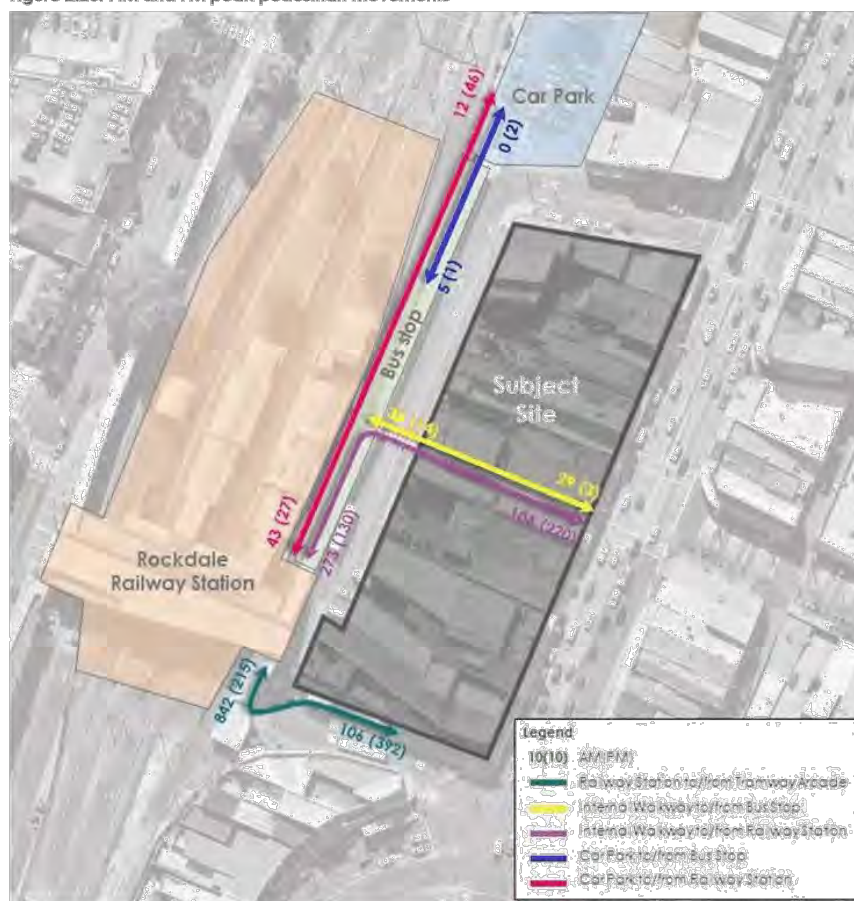
Table 2.4: Pedestrian movements to/from bus stop

Location	To bus stop		From bus stop	
	AM peak (7:45-8:45am)	PM peak (4:45pm-5:45pm)	AM peak (7:45-8:45am)	PM peak (4:45pm-5:45pm)
Internal walkway	32	14	29	3
Car park	5	1	0	2

The following observations were made with respect to the pedestrian arrival and departure profiles during the peak periods:

- Tramway Arcade carries the highest proportion of pedestrians near the site, with up to 950 and 607 pedestrians (two-way) observed to use this link during the AM and PM peak hours, respectively
- The internal walkway carries around 410 and 370 pedestrians during the AM and PM peak hours, respectively
- The footpath linking the station and bus stop to the commuter car park carries around, 60 and 80 pedestrians (two-way) during the AM and PM peak hours, respectively.

Figure 2.20: AM and PM peak pedestrian movements



Basemap source: Nearmap

Analysis of the pedestrian surveys show that there is a high demand for pedestrian access from Rockdale station through Tramway Arcade to the Princes Highway and through the existing internal walkway between Geeves Avenue and the Princes Highway.

2.7 Existing Travel Behaviour

The 2011 Census data provided by the Australian Bureau of Statistic (ABS) was reviewed to understand the travel demand characteristic for the travel zone containing and surrounding the subject site (TZ 2606). The travel zone is shown in Figure 2.21.

Figure 2.21: Travel zone (TZ 2764, 2766 and 2768)

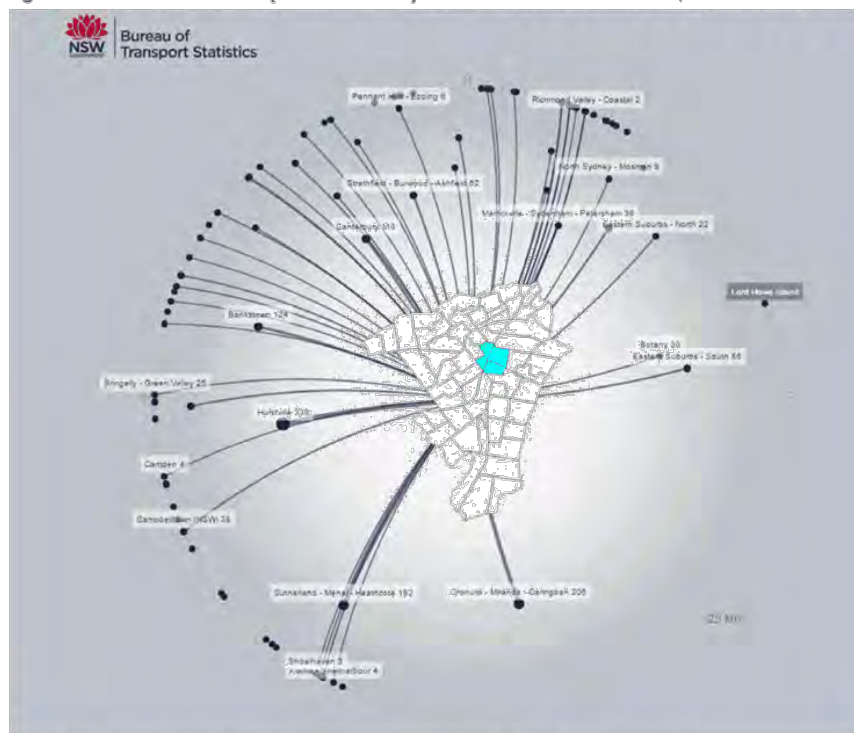


Source: NSW Bureau of Transport Statistics accessed February 2016 (<http://visual.bts.nsw.gov.au/jwbasic/>)

Place of Work

The 2011 Census data indicates that a total of 4,027 employed residents live in the relevant travel zones. Of these, 32 per cent worked in Sydney CBD, 19 per cent worked in the eastern suburbs and Botany and 15 per cent worked within the Rockdale/ Kogarah statistical area. Figure 2.22 shows where the 4,027 employed residents in the travel zone go to work.

Figure 2.23: Place of residence (statistical area 3) for workers in travel zones 2764, 2766 and 2768



Source: NSW Bureau of Transport Statistics accessed February 2016 (<http://visual.bts.nsw.gov.au/jtwdynamic/>)

Mode Choice

2011 Census indicates that for trips to locations where access to public transport is well established, commuter trips would generally be made using public transport. For employed residents of Rockdale, mode choice for each location in descending order of commuter volumes is as follows:

- Sydney Inner City (1,296): 81 per cent public transport, 19 per cent private vehicle
- Kogarah/ Rockdale (604): 29 per cent walked only, 20 per cent public transport, 46 per cent private vehicle
- Botany (453): 35 per cent public transport, 63 per cent private vehicle
- Eastern Suburbs – South (148): 30 per cent public transport, 67 per cent private vehicle
- North Sydney – Mosman (144): 75 per cent public transport, 25 per cent private vehicle
- Eastern Suburbs – North (125): 66 per cent public transport, 33 per cent private vehicle
- The key mode of travel used by people employed in the Travel Zone included vehicle as a driver or passenger (59 per cent), train (14 per cent), walked only (nine per cent) and bus (five per cent).

3. Sustainable Transport Infrastructure

3

3.1 Rockdale Masterplan (2013)

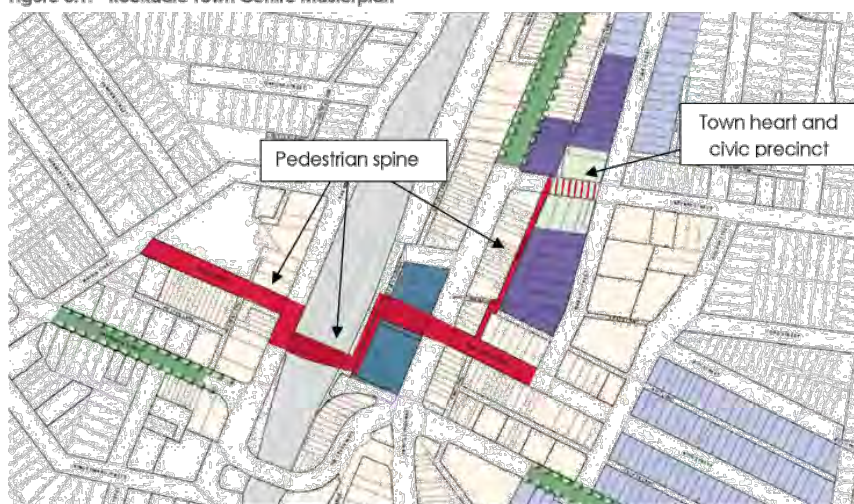
The Rockdale Masterplan is a document developed by Council and addresses the growing needs within the Rockdale town centre. The overall aim of the document is to set out how the area can achieve the following:

- Establish a unique identity for Rockdale
- Grow the town heart and civic role
- Increase the vitality and lifestyle
- Improve the pedestrian experience
- Strengthen the centre's economic hubs
- Provide convenience and legible access for visitors.

In pursuit of the above, Council has recognised the area occupied by the subject site as playing a crucial role in the overall development of Rockdale's sustainable transport infrastructure.

The subject site will make up the centre point of the proposed pedestrian spine expected to be developed in the future. This pedestrian spine is shown in Figure 3.1.

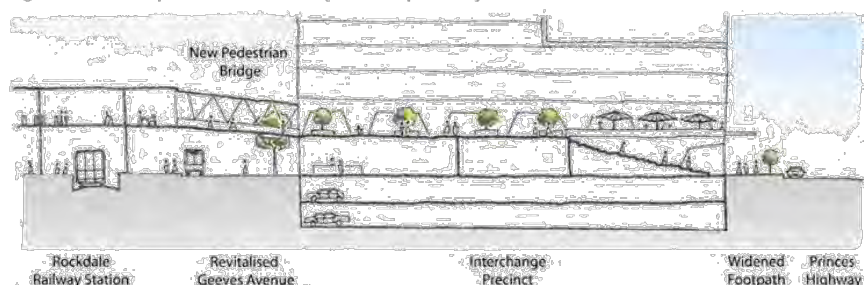
Figure 3.1: Rockdale Town Centre Masterplan



Source: Rockdale City Council Masterplan (2013)

Council plans to have a pedestrian walkway that connects the King Street shared zone with Watkin Street in the west. The pedestrian spine will run through the site and connect to the overhead pedestrian walkway at Rockdale station via a pedestrian bridge. This walkway will then connect to the at grade pedestrian foot path. An artist's impression of this connection is shown in Figure 3.2.

Figure 3.2: Anticipated cross section (artist's impression)



Council also anticipates that any future development at the subject site will incorporate high density, mixed use land. Figure 3.3 is an extract from the masterplan and shows that Council expects high rise developments to occur. The figure shows indicative floor plans and anticipated building heights.

Figure 3.3: Anticipated floor plan (indicative)



The extract from Council's masterplan shows that Council anticipates major development to occur on site.

3.2 Existing Development

The existing development consists of an assortment of commercial and retail outlets with a total area of around 6,000 square metres. Existing developments are generally limited to a single ground level with access points along Tramway Arcade, the Princes Highway and Geeves Avenue. Traffic generated by the combined commercial and retail outlets are generally limited to pedestrian traffic. Any vehicular traffic generated by the site is assumed to be diverted to one of the surrounding public car parks.

4. Development Proposal

4

4.1 Proposal

The proposal includes the development of three separated areas with residential, commercial and retail uses. These sites are known in this report by the following names:

- Site 1: 507 – 511 Princes Highway
- Site 2: mid site
- Site 3: end site.

The anticipated land use to form the planning proposal includes:

- 59 studio units
- 38 one bedroom units
- 133 two bedroom units
- 27 three bedroom units
- 3,890 square metres retail space.

The proposed development should provide parking that satisfies Council's DCP and AS 2890.1 requirements. Site 1 proposes to provide direct pedestrian access to Rockdale station. It is proposed that an overhead pedestrian walkway over Geeves Avenue would connect the station to the site and through to the Princes Highway at the intersection of Bays Street/ Princes Highway/ Tramway Arcade/ The Seven Ways. When complete, Site 1 will be unique in its ability to provide access to the public transport network, encouraging high public transport use to key employment destinations and active transport use to key amenities within the Rockdale town centre. Based on the high public transport usage expected for the interchange precinct, the provision of the pedestrian link is proposed in exchange for reduced parking provision. However, it is proposed that car parking and loading facilities would be combined across the three sites.

A common car park and combined loading dock is proposed across the basement of all three sites. This would also comply with motorcycle parking and relevant bicycle end of trip facilities requirements.

Loading and service areas on site will be designed such as to be compliant with Council's DCP and AS 2890.1.

The development schedule for each site is summarised in Table 4.1, Table 4.2 and Table 4.3 with a summary of the entire site shown in Table 4.4.

Table 4.1: Site 1 – 507-511 Princes Highway development schedule

Use	Type	Yield
Residential	Studio	15
	1 Bedroom	18
	2 Bedroom	42
	3 Bedroom	9
	Sub-total	84 units
Retail	Ground Floor	1,297 m ²
Site Area		1,723 m²

Table 4.2: Site 2 – Mid site development schedule

Use	Type	Yield
Residential	Studio	24
	1 Bedroom	9
	2 Bedroom	50
	3 Bedroom	9
	Sub-total	92 units
Retail	Ground Floor	1,297 m ²
Site Area		2,166 m²

Table 4.3: Site 3 – End site development schedule

Use	Type	Yield
Residential	Studio	20
	1 Bedroom	11
	2 Bedroom	41
	3 Bedroom	9
	Sub-total	81 units
Retail	Ground Floor	1,297 m ²
Site Area		2,064 m²

Table 4.4: Summary development schedule

Use	Type	Yield
Residential	Studio	69
	1 Bedroom	38
	2 Bedroom	133
	3 Bedroom	27
	Sub-total	257 units
Retail		3,890 m ²
Site Area		6,953 m²

5. Car Parking

5

5.1 Car Parking Requirements

The car parking provision requirements for different development types are set out in Council's DCP 2011. A review of the car parking rates and the gross floor area (GFA) schedule results in a parking requirement for the planning proposal is summarised in Table 5.1.

Table 5.1: DCP car parking requirements

Description	Use	DCP parking rate	507 – 511 Princes Highway		Mid site		End site	
			Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Units/ GFA	Parking requirement
Residential	Studio	1 space/ unit	15	15	24	24	20	20
	1 Bed		18	18	9	9	11	11
	2 Bed		42	42	50	42	41	41
	3 Bed	2 spaces/ unit	9	18	9	18	9	18
	Visitor	1 space/ 5 dwellings	84	17	92	19	81	17
	Sub-Total		110		112		107	
Retail		1 space/ 40 m² GFA	1,297	33	1,297	33	1,297	33
Individual Total			143		145		140	
Precinct Total			428					

As outlined in Table 5.1 to comply with the DCP requirements the precinct would need to provide a total of 428 parking spaces.

5.2 Empirical Assessment of Car Parking Demand

5.2.1 Residential

The NSW Department of Planning and Environment have released the Apartment Design Guide⁴ (ADG) that provides commentary on acceptable levels of car parking provision.

The ADG states that for developments either:

- within 800 metres of a railway station or light rail stop in Sydney Metropolitan Area; or
- on land zoned, or within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre,

the lesser resident and/ or visitor car parking rate of either the 'Guide to Traffic Generating Developments' (October 2002) or the relevant Council's requirements can be used.

The site is uniquely positioned within 20 metres of the Rockdale station and bus interchange, and on land proposed to be zoned B4 Mixed Use. As such, the lesser resident and visitor car parking rates provided in the Roads and Maritime Guide are applicable.

⁴ NSW Department of Planning and Environment, Apartment Design Guide, July 2015.

An assessment of the car parking requirements adopting the high density residential rates in the Roads and Maritime Guide is presented in Table 4.2.

Table 4.2: Roads and Maritime - residential parking requirements

Description	Use	Parking rate	507 – 511 Princes Highway (Site 1)		Mid site (site 2)		End site (site 3)	
			Units/ GFA	Parking requirement	Units/ GFA	Parking requirement	Units/ GFA	Parking requirement
Residential	Studio	0.4 spaces / unit	15	6	24	10	20	8
	1 Bed		18	8	9	4	11	5
	2 Bed	0.7 spaces / units	42	30	50	35	41	29
	3 Bed	1.2 spaces / units	9	11	9	11	9	11
	Visitor	1 space / 5 units	84	17	92	19	81	17
Individual Residential Total			72		79		70	
Precinct Residential Total			221					

Table 4.2 indicates that the application of the Roads and Maritime based residential parking rates would equate to a residential parking demand of 221 car spaces across the precinct. This is less than the DCP residential car parking requirement of 329 spaces. Therefore, in accordance with the ADG, the Roads and Maritime parking provision would be applicable to the proposed development sites.

5.2.2 Retail

The DCP parking rates for the retail land uses result in a requirement of 99 spaces for the retail components of the planning proposal.

5.3 Car Sharing Opportunities

There are currently no GoGet car sharing pods located in Rockdale. To encourage and promote sustainable transport there could be an opportunity to provide parking GoGet cars within the precinct. Providing GoGet vehicles promotes car sharing and provides vehicles to residents and tenants if required.

5.4 Adequacy of Parking Supply

The proposal provides a combined basement car park across the precinct. The proximity of the entire site to the local train and bus network provides unparalleled access to public transportation. The site located at the southern end (507-511 Princes Highway) proposes to construct a direct pedestrian walkway (overbridge) from the station through the site and to the Princes Highway. This unique opportunity will promote the use of public transport and reduce car occupancy for the site. It is therefore proposed that in exchange for the development providing an innovative direct link to the train station, that the retail component of parking from Site 1 be removed, therefore reducing the retail parking spaces by one-third across the precinct.

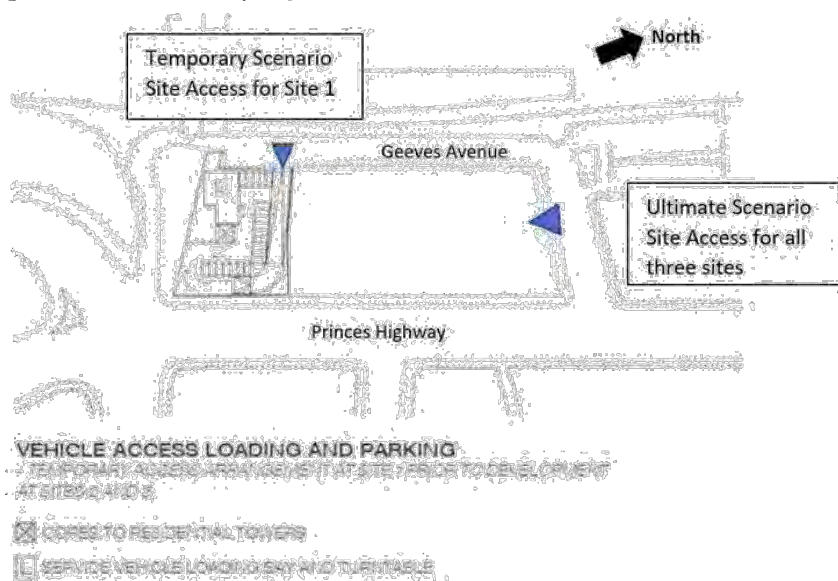
The development proposes to provide a maximum total of 395 car parking spaces across the precinct, which would result in a shortfall of 33 spaces, when compared to the DCP requirement. Due to the unique ability of direct access to the public transport network, it is considered that 395 parking spaces should be the maximum number provided across the precinct, with possible consideration being given to reduce the retail component of parking further to tenant (staff) parking only. This arrangement will meet the Roads and Maritime parking requirements in accordance with the ADG discussed in Section 5.2.1, with further opportunity to also reduce resident parking in accordance with the ADG.

5.5 Access Arrangements

The access arrangements for the complete development of the site (Sites 1, 2 and 3) are proposed to be from a single (two-way) access provided from Geeves Avenue at the northern end of the site as shown in Figure 5.1. This access would connect through to a centralised loading dock and parking areas for all three sites.

However, it is likely that Site 1 will be developed first and therefore a temporary access for Site 1 is proposed as shown in Figure 5.1. This access would be removed under the ultimate scenario (or restricted to service vehicles only) when Sites 2 and 3 are developed.

Figure 5.1: Site Access – Temporary and Ultimate Scenarios



Source: Draft UCR Report for Geeves Avenue Precinct dated 5 May 2017.

The proposed ramps into the site would have adequate width to provide two-way movement.

It is noted that the temporary access ramp to Site 1 will be located adjacent to the Rockdale bus interchange. Vehicles accessing this site will enter and exit in a forward direction. The temporary access is not expected to negatively affect the operation of the bus interchange. In the ultimate scenario the access ramp is proposed to be located on the northern section of Geeves Avenue

away from the bus interchange and therefore would not adversely impact the operation of the bus interchange.

6. Traffic Impact Assessment

6

6.1 Overview

The traffic impact assessment for the planning proposal has been undertaken in the following manner:

- Identification of the traffic generation characteristics of the land uses that form the planning proposal
- Off-setting the existing traffic volumes being generated by the subject site.

6.2 Traffic Generation

6.2.1 Development Generated Traffic

Traffic generation estimates for the land uses that form the planning proposal are based the Roads and Maritime Guide to Traffic Generating Developments 2002 and Roads and Maritime Technical Direction 2013/04a (TDT 2013/4a).

Residential Uses

TDT 2013/04 provides updated rates for high density residential flat dwellings (2012 surveys) that are close to public transport services, greater than six storeys and almost exclusively residential in nature.

TDT 2013/04 conducted surveys of 10 separate sites, eight of which were in the Sydney metropolitan area and two located in regional NSW. Two of the surveys were conducted in Chatswood and Parramatta. Traffic generation rates for the planning proposal were based on the rates derived from these surveys.

TDT 2013/04 indicates that for Parramatta and Chatswood, an average AM peak hour trip generation of 0.15 trips per hour per apartment, with PM peak hour rates slightly lower at 0.08 trips per hour. These rates have been adopted for the residential component of this assessment.

Retail Uses

The proposal includes ground level and level one retail space and is expected to comprise of specialty retail stores, thus excluding major department stores and/or supermarkets. As such, the Thursday evening rate applicable to speciality stores of 46 vehicle movements per 1,000 square metres gross leasable floor area (GLFA) as detailed in the Roads and Maritime Guide (2002) has been adopted for the retail space. It has also been assumed that retail activity would be lower during the AM peak hour than the PM peak hour. Therefore, the traffic generated by the retail component for the AM has been assessed based on a rate 50 per cent that of the PM peak hour.

It is also considered that the retail uses will largely operate as complementary to not only the proposed residential uses, but all surrounding existing land uses given the site's proximity to the Rockdale town centre and Rockdale station. Retail analysis suggests that around 40 per cent of retail activity within mixed use developments is generated by the residential component of the same site. That said, no reduction has been applied to reflect this characteristic.

Existing Uses

As previously discussed the existing site consists of an assortment of small commercial/ retail outlets. On-site inspections revealed that most individual outlets were restricted to a single storey and no public parking spaces are provided on site. It was observed that most of the traffic generated by the existing land uses is pedestrian. It is also noted that any vehicular traffic generated by the site would likely use the surrounding public car parks or on-street parking, and therefore it was not possible to accurately survey existing traffic generation.

The entire existing site is around 6,000 square metres, with an estimated 4,600 square metres GLFA. Most visitors to the current site would be from those passing by either by vehicle or walking. It is not expected that this site would be considered a destination. It has been assumed that the GLFA of the site would therefore be around 3,500 square metres. The expected traffic generation of the existing site has been reduced to 50 per cent as a conservative approach to calculate based on no on-site parking and passing by traffic. The total anticipated existing traffic generation is shown Table 6.1 and will be offset from the expected traffic generation of the site.

Table 6.1: Existing retail traffic generation

Land use	Total size	Weekday AM		Weekday PM	
		Trip rate	Vehicle trips per hour (vtp/h)	Trip rate	vtp/h
Existing retail	3,500 m ² GLFA [1]	23 per 1,000 m ²	81	23 per 1,000 m ² [2]	81

[1] GFA to GLFA conversion: 0.75 GFA = GLFA

[2] 23 trips per 1,000 m² = 46 trips per 1,000 m² x 0.5 (for trip containment)

Summary

Estimates of peak hour traffic volumes resulting from the proposal are set out in Table 6.2.

Table 6.2: Traffic generation estimates

Land use	Total size	Size (excl. Site 1 Retail)	Weekday AM		Weekday PM	
			Trip rate	vtp/h	Trip rate	vtp/h
Residential	257 apartments	-	0.19 per apartment	49	0.15 per apartment	39
Retail	3,890 m ² GLFA [1]	1,297 m ² GLFA [1]	23 per 1,000 m ²	60	46 per 1,000 m ² [2]	60
Existing retail	3,500 m ² GLFA	-	23 per 1,000 m ²	- 81	23 per 1,000 m ²	-81
Total				28		18

[1] GFA to GLFA conversion: 0.75 GFA = GLFA

[2] 23 trips per 1,000 m² = 46 trips per 1,000 m² x 0.5 (for trip containment)

Table 6.2 indicates that the land uses that make up the planning proposal could be expected to generate an additional 28 and 18 vehicle movements during a weekday AM and PM peak hours, respectively, above the existing site traffic generation.

6.3 Distribution and Assignment

The directional distribution and assignment of traffic generated by the planning proposal will be influenced by many factors, including the:

- i Configuration of the arterial road network in the immediate vicinity of the site
- ii Existing operation of intersections providing access between the local and arterial road network
- iii Distribution of households near the site
- iv For residential uses surrounding employment centres, retail centres and schools in relation to the site
- v For office uses likely distribution of employees' residences in relation to the site
- vi Configuration of access points to the site.

Having consideration to the above, for the purposes of estimating vehicle movements, the following directional distributions have been assumed:

- ⊙ North/ east: 25 per cent
- ⊙ West: 15 per cent
- ⊙ South: 60 per cent.

The distribution has been based on information gathered from both the on-site surveys as well as the existing 2011 Census data as outlined in Section 2.6.1. It is understood that the largest generator of trips is the Sydney CBD, which accounts for around 50 per cent of all trips from the site. It was found for trips taken to the Sydney CBD, the majority (80 per cent) of all commutes were undertaken by public transport. Conversely, trips taken to areas with less established public transport infrastructure had higher proportions of commuters using private vehicles.

Because of this, a greater emphasis was given to trips to the south and west. In modifying the existing trip distributions, the true number of trips taken by private vehicles can be more accurately predicted. This will give a more accurate understanding of the true traffic impact of the proposed development.

In addition, the directional split of traffic during the AM and PM period has also been calculated. Each land use on site will generate trips in different directions depending on the time of day. Residential land uses will generally have more 'out' trips in the morning and 'in' trips in the afternoon. Conversely retail land use will reflect the influx of staff in the morning and the equal distribution of customers travelling both to and from the site.

The directional split of traffic is shown in Table 6.3.

Table 6.3: Directional split of traffic

Land use	Weekday AM				Weekday PM			
	In		Out		In		Out	
Residential	20%	10	80%	39	60%	23	40%	16
Retail	70%	42	30%	18	50%	30	50%	30
Total	52		57		53		46	

Based on the above, Figure 6.1 and Figure 6.2 have been prepared to show the estimated marginal increase in turning movements near the subject property following full site development.

Figure 6.1: AM peak hour site generated traffic volumes

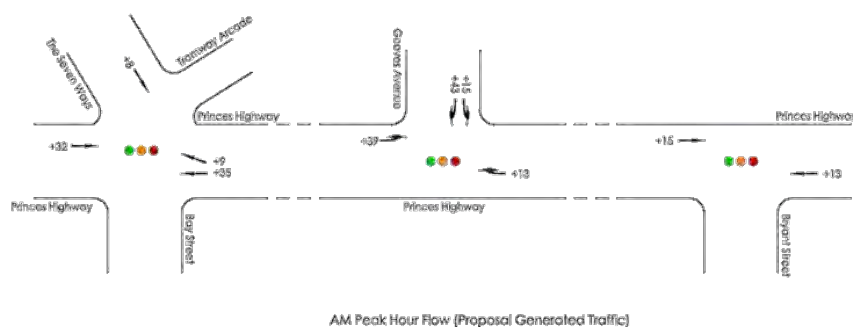


Figure 6.2: PM peak hour site generated traffic volumes

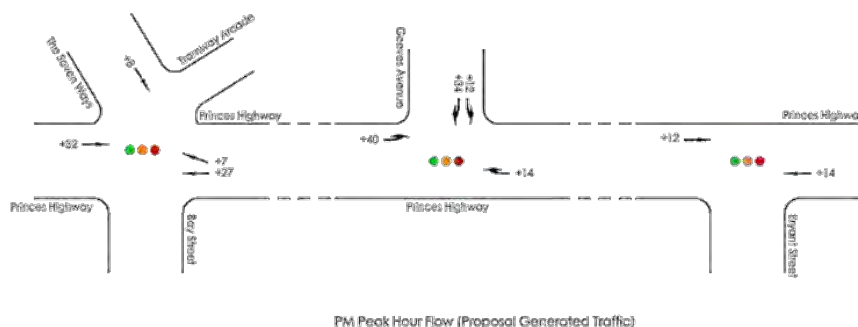


Figure 6.1 and Figure 6.2 provide an understanding of the traffic distribution associated with the proposed development, not accounting for the existing traffic generation of the site, which will be removed (therefore presenting a conservatively high analysis).

6.4 Cumulative Impacts

6.4.1 Approved Developments

To provide an understanding of future traffic conditions this report will take into consideration proposed and approved future developments. The approved development directly impacting Geeves Avenue is 433-439 Princes Highway. This site, along with the planning proposal, will be accessed via the Geeves Avenue/ Princes Highway intersection. Because of this, it is important to develop an understanding of the cumulative impact.

The location of the sites that will be accessed via the Geeves Avenue/ Princes Highway Intersection is shown in Figure 6.3.

A 2021 base model scenario has been modelled to assess the traffic impact of the planning proposal, comprising existing traffic conditions with background growth rate applied to 2021.

Once the existing site traffic generation has been removed, the expected net traffic generation increase for the site is expected to be around 28 vehicles in the peak hour. Modelling for this increase has been outlined in Section 6.6 for the potential year of opening.

6.5.1 Background Traffic Growth

Background traffic growth has been obtained from the Sydney Strategic Travel Model (STM) for the years 2016 and 2036 for the three analysed intersections to determine the expected background traffic growth in both the AM and PM peak hour periods. The average compound annual growth rate is about 0.4 per cent.

6.6 Traffic Impact

The scenario outlined in Section 6.5. has been modelled within SIDRA Intersection, using a network model. The operational impact is discussed and tabulated in the following sub sections.

2021 Base Model

The 2021 base model considers the operation of each of the three intersections studied in Table 2.2. This model applies the same traffic volumes to each intersection whilst also factoring an average 0.4 per cent annual growth rate. The operation of each intersection is shown in Table 6.4.

Table 6.4: 2021 base model

Intersection	Control	Peak	Degree of saturation	Average delay (sec)	95th percentile queue (m)	LOS
Princes Highway/ Bryant Street	Signalised	AM	0.66	13	130	A
		PM	0.70	20	228	B
Princes Highway/ Geeves Avenue	Signalised	AM	0.91	5	39	A
		PM	0.97	46	122	D
Princes Highway/ Bay Street/ The Seven Ways/ Tramway Arcade	Signalised	AM	1.25	53	465	D
		PM	0.91	44	274	D

As shown in Table 6.4 the intersection of Geeves Avenue/ Princes Highway in the PM peak and the intersection of Princes Highway/ Bay Street/ Seven Ways/ Tramway Arcade in both AM and PM peaks would be operating near capacity in 2021 based on background traffic, without any development traffic.

Analysis of the intersection of Geeves Avenue and Princes Highway shows that the right turning movements are delaying the overall operation of this intersection.

2021 Base Model + Development

This analysis considers the operation of each of the three intersections in 2021 when including the expected development traffic. The operation of each intersection is shown in Table 6.4.

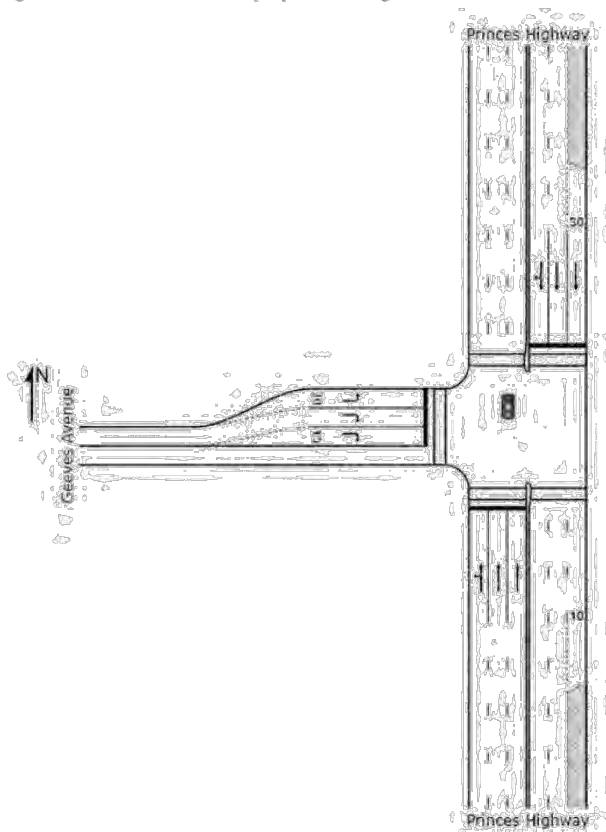
Table 6.5: 2021 base model + development

Intersection	Control	Peak	Degree of saturation	Average delay (sec)	75th percentile queue (m)	LOS
Princes Highway/ Bryant Street	Signalised	AM	0.66	13	130	A
		PM	0.82	26	329	B
Princes Highway/ Geeves Avenue	Signalised	AM	0.94	6	42	A
		PM	1.14	61	162	E
Princes Highway/ Bay Street/ The Seven Ways/ Tramway Arcade	Signalised	AM	1.30	54	449	D
		PM	0.90	40	260	C

As shown in Table 6.4 the intersection of Geeves Avenue/ Princes Highway in the PM peak would operate at capacity in 2021 based on background and development traffic. The right turning movement from Geeves Avenue into Princes Highway would experience significant delays.

Modifications to the Geeves Avenue approach and departure lanes through removing the parking in this section as shown in Figure 6.4 would assist to increase the capacity of the right turning vehicles and therefore improve the overall intersection performance as background traffic increases in the future. This modification would assist in improving the future operation of the Geeves Avenue intersection.

Figure 6.4: Geeves Avenue – proposed configuration



2021 Base + Development Model (Geeves Avenue upgrade)

The Intersection of Geeves Avenue and Princes Highway has been modelled based on the proposed upgrade. The expected operation is shown in Table 6.6.

Table 6.6: 2021 base model + development (Geeves Avenue intersection improvements)

Intersection	Control	Peak	Degree of saturation	Average delay (sec)	95th percentile queue (m)	LOS
Princes Highway/ Geeves Avenue	Signalised	AM	0.94	6	40	A
		PM	0.98	52	122	D

As shown in Table 6.6 the intersection of Geeves Avenue/ Princes Highway in the PM peak would improve from an overall intersection operation of Level of Service E to a Level of Service D. The delays to right turning movements from Geeves Avenue would significantly improve.

6.6.1 Overall Traffic Impact

The planning proposal could be expected to generate an additional 28 vehicle movements during the peak hour from what the existing site is currently generating.

In considering cumulative impacts for potential developments also accessing Geeves Avenue, based on the traffic report by Varga Traffic Planning Pty Ltd for 433-439 Princes Highway, there is not expected to be any net increase in traffic from the planning proposal at this site. It has therefore also been assumed that the development of the sites from 441-467 Princes Highway would not result in any net increase in traffic generation through the intersection of Geeves Avenue and the Princes Highway.

A 2021 base model has been analysed to assess intersection operation whilst factoring in an average 0.4 per cent annual growth rate to Princes Highway through movements, as obtained from the STM model. This determined that the intersection of Geeves Avenue/ Princes Highway in the PM peak and the intersection of Princes Highway/ Bay Street/ Seven Ways/ Tramway Arcade in both AM and PM peaks would be operating near capacity in 2021 based on background traffic, without any development traffic.

In summary, the operation of the surrounding existing intersections is unlikely to be substantially impacted, however minor improvements to the lane configuration on the Geeves Avenue approach to the Princes Highway, as shown in Figure 6.4, are recommended for efficient intersection operation and to address transport needs for the proposed development site, with consideration of its location of the planning proposal it is a prime location for development with a focus on increasing public transport use.

7. Other Considerations



Visitor spaces should be easily accessible from public domain and areas that we well-lit with adequate levels of natural surveillance. For staff and residents, spaces should be secured. Communal shower, changing facilities and lockers should be provided for commercial and retail staff.

7.1 Loading and Waste Collection Requirements.

Council's DCP requires that car parking and service/ delivery areas are to be located so that they do not visually dominate either the development or the public domain.

Based on the above proposed loading and service areas will be located underground within the sites.

7.2 Car Wash Facilities

Council's DCP requires that for buildings with five dwellings or more, at least one visitor parking space is to be equipped with car wash facilities. This facility is to be equipped with cold water tap and connected to the sewage system.

Based on the above the planning proposal will provide car wash facilities to a single visitor space in each of the sites where basement car parking is provided.

7.3 Bicycle Parking

Council's DCP provides the following minimum bicycle storage rack requirements:

- Office/ retail – One bicycle space for every 200 square metres with 15 per cent accessible to visitors
- Residential – One bicycle space for every 10 units.

Based on the above, the planning proposal requires the following bicycle provisions to meet the DCP requirements:

- Office/ retail – 62 spaces (including nine spaces accessible to visitors)
- Residential – 25 spaces.

The planning proposal is required to provide at least 87 bicycle parking spaces including a balance for staff/ residents and visitors.

Visitor spaces should be easily accessible from public domain and areas that we well-lit with adequate levels of natural surveillance. For staff and residents, spaces should be secure. Communal shower, changing facilities and lockers should be provided for commercial and retail staff.

7.4 Motorcycle Parking

Council's DCP provides the following minimum motorcycle parking requirements:

- Office/ retail – one motorcycle space per 20 car spaces
- Residential – one motorcycle space per 15 dwellings.

Based on the above, the planning proposal requires the following bicycle provisions to meet the DCP requirements:

- Office/ Retail – 10 spaces
- Residential – 17 spaces.

The planning proposal is required to provide at least 27 motorcycle spaces.

7.5 Travel Plans

It is recommended that various user specific travel plans are prepared for the development including:

- Workplace travel plan
- Residential traffic plan
- Visitor traffic plan.

Travel plans are designed to reduce the reliance on private car travel, car ownership, or at least single occupant vehicles to destinations by boosting and encouraging the use of active and sustainable transport modes.

Organisations use travel plans as an effective tool to meet a range of different travel-related goals. Examples include initiatives to reduce traffic congestion and/ or parking demand (both on and off-street), reduce absenteeism, improve staff retention, increase physical activity, improve air quality and to improve morale.

Each site has unique characteristics so the objectives, programs, initiatives and measures contained in the travel plan must be tailored and site specific. Successful travel plans are iterative processes supported by development management and generally delivered by a full-time staff member (or team).

The travel plans would include:

- A 'reach' transport goal/ target to reduce single occupant vehicle travel demand
- Infrastructure to support walking, cycling, motorcycling and public transport access to the site
- Programs to reduce drive-alone travel behaviour by staff, visitors and customers
- Programs to reduce residential car ownership, such as provision of car share services
- Tenant policies to reduce drive-alone travel demand at the subject site
- Staff travel coordinator responsibilities
- Monitoring tools and an evaluation program to document performance.

7.6 Construction Traffic Impact

A construction traffic management plan should be prepared prior to works commencing on-site. It is noted that construction access from the rear of the site would potentially impact bus operations and it is recommended that a suitable construction methodology is developed in consultation with the preferred contractor, Roads and Maritime and Transport for NSW.

8. Conclusion

8

Based on the analysis and discussions presented within this report, the following conclusions are made:

- i The proposed development generates a statutory parking requirement of 428 spaces, for those uses with nominated rates.
- ii The development proposes to provide a maximum total of 395 car parking spaces across the precinct. Over the precinct, this would result in a shortfall of 33 spaces when compared to DCP requirements. Due to the unique opportunity for direct access to the public transport network, it is considered that 395 parking spaces should be the maximum number provided across the precinct, with possible consideration being given to reduce the retail component of parking further. There is also an opportunity to also reduce resident parking in accordance with the ADG.
- iii Analysis of the pedestrian surveys show that there is a high demand for pedestrian access from the Rockdale station through Tramway Arcade to the Princes Highway, confirming a demand for the pedestrian overbridge and link to the Princes Highway through Site 1.
- iv The proposed parking layout is yet to be determined and would need to be consistent with the dimensional requirements as set out in the Australian/ New Zealand Standard for Off Street Car Parking (AS/NZS2890.1:2004 and AS/NZS2890.6:2009).
- v The provision for bicycle facilities motorcycle facilities would be provided in accordance with the DCP.
- vi The access arrangements for the full redevelopment of the precinct (Sites 1, 2 and 3) are proposed to be from a single (two-way) access provided from Geeves Avenue at the northern end of the site. This access would connect through to a centralised loading dock and parking areas for all three sites. However, it is likely that Site 1 will be developed first and therefore a temporary access for Site 1 is proposed. This access would be removed under the ultimate scenario (or restricted to service vehicles only) when Sites 2 and 3 are developed.
- vii The site is expected to generate up to 109 vehicle movements in any peak hour. The existing site is estimated to generate around 81 vehicle movements in any peak hour. Therefore, the net increase of this planning proposal is around 28 vehicle movements in any peak hour.
- viii Assessment of the potential year of opening has been undertaken to consider background traffic growth on the surrounding road network, analysis indicates that in the year 2021 Intersections may be operating near capacity without the proposed development.
- ix Potential intersection improvements could be undertaken at the intersection of Geeves Avenue and the Princes Highway to assist in alleviating delay to exiting Geeves Avenue traffic.
- x The sites immediate proximity to Rockdale train station and bus interchange is a prime opportunity to provide a development with a reduced traffic impact and promote public and sustainable transport use.

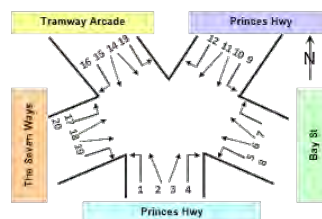
Appendix A

Appendix A



Survey Results

Job No. : N2552
 Client : GTA
 Suburb : Rockdale
 Location : 1. Princes Hwy / Bay St / Tramway Arcade / The Seven Ways
 Day/Date : Thu, 4th August 2016
 Weather : Fine
 Description : Classified Intersection Count
 : 15 mins Date :
 Class 1 :
 Class 2 :
 Lights :
 Heavy :



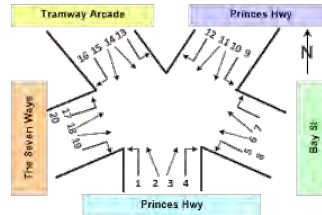
MATRIX
 Traffic and Transport Data

Approach	Princes Hwy												Bay St											
Direction	Direction 1			Direction 2			Direction 3			Direction 4			Direction 5			Direction 6			Direction 7			Direction 8		
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total
6:30 to 6:45	9	0	9	0	3	3	566	10	584	0	0	0	1	0	1	41	2	43	0	0	0	0	0	0
6:45 to 7:00	18	1	19	0	1	1	335	11	596	0	0	0	7	1	8	39	2	41	0	2	2	0	0	0
7:00 to 7:15	12	5	15	0	2	2	547	14	561	0	0	0	2	0	2	58	2	60	0	2	2	0	0	0
7:15 to 7:30	17	0	17	0	2	2	620	10	630	0	0	0	8	0	8	71	3	74	0	2	2	0	0	0
7:30 to 7:45	27	3	30	0	1	1	335	7	542	0	0	0	0	1	1	50	3	53	0	2	2	0	0	0
7:45 to 8:00	34	1	35	0	4	4	354	14	568	0	0	0	5	0	5	66	1	67	0	1	1	0	0	0
8:00 to 8:15	23	1	25	0	4	4	497	7	494	0	0	0	0	1	1	50	2	52	0	2	2	0	0	0
8:15 to 8:30	36	0	36	0	2	2	420	8	428	0	0	0	13	1	14	86	5	91	0	2	2	0	0	0
8:30 to 8:45	44	1	45	0	2	2	443	9	452	0	0	0	0	0	0	94	3	97	0	2	2	0	0	0
8:45 to 9:00	25	3	28	0	2	2	432	19	451	0	0	0	15	0	15	50	3	53	0	2	2	0	0	0
9:00 to 9:15	28	0	28	0	2	2	585	8	593	0	0	0	13	0	13	40	1	41	0	1	1	0	0	0
9:15 to 9:30	25	4	29	0	4	4	347	14	361	0	0	0	8	0	8	51	3	54	0	3	3	0	0	0
AM Totals	307	17	324	0	29	29	5,854	140	5,994	0	0	0	96	4	100	799	30	829	0	23	23	0	0	0
15:30 to 15:45	13	1	14	0	3	3	261	14	275	0	0	0	7	1	8	51	2	53	0	3	3	0	0	0
15:45 to 16:00	42	1	43	0	1	1	180	7	187	0	0	0	16	0	16	53	3	56	0	1	1	0	0	0
16:00 to 16:15	31	0	31	0	2	2	239	7	246	0	0	0	11	1	12	77	1	78	0	2	2	0	0	0
16:15 to 16:30	25	2	25	0	3	3	235	3	238	0	0	0	10	1	11	74	0	74	0	3	3	0	0	0
16:30 to 16:45	33	0	33	0	1	1	225	6	231	0	0	0	7	1	8	72	0	72	0	2	2	0	0	0
16:45 to 17:00	28	1	29	0	3	3	205	5	210	0	0	0	10	1	11	59	1	60	0	2	2	0	0	0
17:00 to 17:15	19	2	21	0	0	0	220	11	231	0	0	0	12	1	13	53	1	54	0	2	2	0	0	0
17:15 to 17:30	22	2	24	0	2	2	555	7	562	0	0	0	12	1	13	53	1	54	0	2	2	0	0	0
17:30 to 17:45	27	1	28	0	1	1	236	10	246	0	0	0	15	0	15	91	0	91	0	3	3	0	0	0
17:45 to 18:00	32	1	33	0	3	3	285	4	289	0	0	0	7	1	8	59	1	60	0	1	1	0	0	0
18:00 to 18:15	26	0	26	0	2	2	256	4	260	0	0	0	9	0	9	51	0	51	0	1	1	0	0	0
18:15 to 18:30	22	0	22	0	1	1	235	2	237	0	0	0	8	0	8	77	0	77	0	3	3	0	0	0
PM Totals	342	11	353	0	24	24	2,648	74	2,722	0	0	0	124	8	132	977	10	987	0	25	25	0	0	0

Approach	Princes Hwy									Tramway Arcade									The Seven Ways																	
Direction	Direction 9			Direction 10			Direction 11			Direction 12			Direction 13			Direction 14			Direction 15			Direction 16			Direction 17			Direction 18			Direction 19			Direction 20		
Time Period	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total			
6:30 to 6:45	10	2	12	61	8	69	13	1	14	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 to 7:00	3	1	4	79	13	94	10	3	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 to 7:15	3	2	5	36	11	47	22	2	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 to 7:30	5	1	6	122	8	131	22	3	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 to 7:45	5	4	9	127	8	146	26	1	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 to 8:00	9	3	12	138	10	146	29	2	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 to 8:15	10	0	10	119	13	128	35	1	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 to 8:30	5	3	8	147	13	160	28	1	30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 to 8:45	12	2	14	147	9	156	26	2	30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 to 9:00	14	3	17	123	15	143	32	2	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 to 9:15	13	2	15	143	22	165	40	2	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 to 9:30	16	2	18	148	12	158	22	1	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
AM Totals	118	25	143	1,487	147	1,634	296	20	316	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
13:30 to 13:45	21	3	24	129	13	142	74	2	76	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
13:45 to 14:00	23	3	26	116	5	121	15	4	19	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14:00 to 14:15	10	2	12	104	10	114	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14:15 to 14:30	12	0	12	164	8	172	55	4	59	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14:30 to 14:45	15	4	19	147	4	151	56	1	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14:45 to 15:00	12	3	15	104	8	112	13	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15:00 to 15:15	17	2	19	103	6	109	19	2	21	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15:15 to 15:30	9	2	11	105	8	113	16	0	16	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15:30 to 15:45	17	2	19	118	7	125	15	2	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15:45 to 16:00	14	2	16	124	5	129	13	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:00 to 16:15	18	2	20	114	9	123	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:15 to 16:30	13	0	13	118	10	128	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:30 to 16:45	13	0	13	118	10	128	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:45 to 17:00	13	0	13	118	10	128	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:00 to 17:15	17	2	19	103	6	109	19	2	21	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:15 to 17:30	9	2	11	105	8	113	16	0	16	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:30 to 17:45	17	2	19	118	7	125	15	2	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:45 to 18:00	14	2	16	124	5	129	13	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
18:00 to 18:15	18	2	20	114	9	123	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
18:15 to 18:30	13	0	13	118	10	128	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
PM Totals	256	25	221	4,708	94	4,592	983	19	1,002	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Job No. : N2552
 Client : GTA
 Suburb : Rockdale
 Location : 1. Princes Hwy / Bay St / Tramway Arcade / The Seven Ways

Day/Date : Thu, 4th August 2016
 Weather : Fine
 Description : Classified Intersection Count
 Hourly Summary

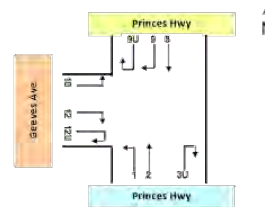


MATRIX
 Traffic and Transport Data

Approach	Princes Hwy												Bay St											
Direction	Direction 1			Direction 2			Direction 3			Direction 4			Direction 5			Direction 6			Direction 7			Direction 8		
Time Period	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total
6:00 to 7:00	97	4	85	0	0	0	2,843	31	3,971	0	0	0	10	1	20	201	6	210	0	0	0	0	0	0
7:00 to 8:00	92	7	97	0	0	0	2,338	45	2,383	0	0	0	24	1	25	276	0	276	0	0	0	0	0	0
8:00 to 9:00	106	5	111	0	0	0	2,166	30	2,204	0	0	0	30	1	32	330	0	330	0	0	0	0	0	0
9:00 to 10:00	123	5	130	0	0	0	1,868	37	2,003	0	0	0	34	3	37	325	11	336	0	0	0	0	0	0
10:00 to 11:00	142	0	142	0	0	0	1,874	39	1,913	0	0	0	33	1	37	350	11	367	0	0	0	0	0	0
11:00 to 12:00	158	3	161	0	0	0	1,792	44	1,794	0	0	0	45	1	47	350	11	368	0	0	0	0	0	0
12:00 to 13:00	159	4	160	0	0	0	1,640	45	1,688	0	0	0	50	1	51	310	11	320	0	0	0	0	0	0
13:00 to 14:00	123	3	128	0	0	0	1,570	50	1,620	0	0	0	43	0	43	272	10	288	0	0	0	0	0	0
AM Totals	807	17	824	0	0	0	5,954	240	5,994	0	0	0	96	4	100	799	30	829	0	0	0	0	0	0
15:00 to 16:00	131	4	135	0	0	0	1,826	33	1,859	0	0	0	44	3	47	313	6	321	0	0	0	0	0	0
16:00 to 17:00	120	3	123	0	0	0	1,891	25	1,916	0	0	0	40	3	47	306	4	310	0	0	0	0	0	0
17:00 to 18:00	105	3	108	0	0	0	1,811	10	1,821	0	0	0	39	4	43	311	2	313	0	0	0	0	0	0
18:00 to 19:00	104	3	109	0	0	0	1,811	21	1,832	0	0	0	41	4	45	318	3	322	0	0	0	0	0	0
19:00 to 20:00	111	6	107	0	0	0	1,861	25	1,886	0	0	0	40	3	43	320	3	321	0	0	0	0	0	0
20:00 to 21:00	104	6	110	0	0	0	1,834	24	1,858	0	0	0	46	3	49	335	3	341	0	0	0	0	0	0
21:00 to 22:00	107	4	111	0	0	0	1,840	25	1,865	0	0	0	40	1	41	340	2	342	0	0	0	0	0	0
22:00 to 23:00	107	2	109	0	0	0	1,871	30	1,901	0	0	0	38	1	40	341	1	344	0	0	0	0	0	0
PM Totals	342	11	353	0	0	0	2,648	74	2,722	0	0	0	124	8	132	977	10	997	0	0	0	0	0	0

Approach	Princes Hwy															Tramway Arcade															The Seven Ways														
Direction	Direction 9			Direction 10			Direction 11			Direction 12			Direction 13			Direction 14			Direction 15			Direction 16			Direction 17			Direction 18			Direction 19			Direction 20											
Time Period	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total	Lights	Heavydies	Total												
6:30 to 7:30	22	6	34	368	44	412	57	8	65	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
6:45 to 7:05	26	8	34	424	44	468	72	8	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
7:00 to 8:00	30	10	40	481	39	520	87	7	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
7:15 to 8:15	35	5	40	510	41	581	100	6	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
7:30 to 8:30	35	10	45	525	40	580	117	5	122	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
7:45 to 8:45	38	5	43	549	49	590	117	6	123	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
8:00 to 9:00	41	5	46	577	30	587	124	6	130	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
8:15 to 9:15	47	10	57	592	59	644	129	7	136	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
8:30 to 9:30	55	9	64	604	50	642	132	7	139	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
AM Totals	318	25	343	1,497	347	1,634	296	20	316	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
15:30 to 16:30	74	8	82	1,399	36	1,429	333	10	343	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
15:45 to 16:45	83	9	92	1,511	27	1,538	355	9	364	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
16:00 to 17:00	97	9	106	1,598	30	1,628	331	8	339	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
16:15 to 17:15	96	8	104	1,610	26	1,636	354	8	362	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
16:30 to 17:30	93	11	104	1,660	27	1,687	364	4	368	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
16:45 to 17:45	95	9	104	1,632	30	1,662	331	5	338	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
17:00 to 18:00	97	8	105	1,630	27	1,657	335	7	360	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
17:15 to 18:15	99	8	107	1,663	30	1,693	368	5	374	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
17:30 to 18:30	89	6	95	1,620	11	1,631	286	5	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
PM Totals	398	25	423	4,738	94	4,832	983	19	1,002	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												

Job No.	N2552
Client	GTA
Suburb	Rockdale
Location	2. Princes Hwy / Geeves Ave
Day/Date	Thu, 4th August 2016
Weather	Fine
Description	Classified Intersection Count
	15 mint Data
Class 1	Class 2
Lights	Heavies



MATRIX
Traffic and Transport Data

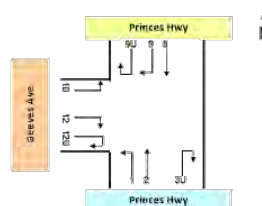
Approach	Princes Hwy								
	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
6:30 to 6:45	23	0	23	651	18	669	0	0	0
6:45 to 7:00	19	0	19	632	12	644	0	0	0
7:00 to 7:15	11	1	12	617	17	634	0	0	0
7:15 to 7:30	14	0	14	571	10	581	0	0	0
7:30 to 7:45	13	0	13	606	9	625	0	0	0
7:45 to 8:00	10	0	10	561	13	576	0	0	0
8:00 to 8:15	8	0	8	537	5	545	0	0	0
8:15 to 8:30	17	0	17	460	11	471	0	0	0
8:30 to 8:45	9	0	9	438	8	504	0	0	0
8:45 to 9:00	9	1	10	507	18	526	0	0	0
9:00 to 9:15	18	0	18	373	10	385	0	0	0
9:15 to 9:30	13	1	14	430	17	447	0	0	0
AM Totals	157	2	160	6,433	154	6,567	0	0	0
15:30 to 15:45	10	0	10	287	12	299	0	0	0
15:45 to 16:00	10	0	10	236	10	236	0	0	0
16:00 to 16:15	11	0	11	237	7	264	0	0	0
16:15 to 16:30	10	0	10	234	3	239	0	0	0
16:30 to 16:45	12	1	13	258	4	263	0	0	0
16:45 to 17:00	10	0	10	235	3	263	0	0	0
17:00 to 17:15	10	0	10	233	3	236	0	0	0
17:15 to 17:30	11	0	11	234	6	260	0	0	0
17:30 to 17:45	12	0	12	270	10	280	0	0	0
17:45 to 18:00	11	0	11	240	7	247	0	0	0
18:00 to 18:15	5	0	5	233	4	237	0	0	0
18:15 to 18:30	14	1	15	260	2	271	0	0	0
PM Totals	148	2	150	3,040	75	3,115	0	0	0

Approach	Princes Hwy												Geeves Ave											
Direction	Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 12 (Right Turn)			Direction 12U (U Turn)								
Time Period	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total	Lights	Man/ds	Total
6:30 to 6:45	98	10	106	13	0	13	0	0	0	3	1	4	6	4	10	0	0	0						
6:45 to 7:00	90	18	108	13	0	13	0	0	0	7	0	7												
7:00 to 7:15	121	13	134	0	0	0	0	0	0	11	0	11												
7:15 to 7:30	133	9	142	16	0	16	0	0	0	10	1	11												
7:30 to 7:45	166	10	176	22	0	22	0	0	0	12	0	12												
7:45 to 8:00	149	12	161	15	0	15	0	0	0	18	3	21												
8:00 to 8:15	150	10	160	17	0	17	0	0	0	10	0	10												
8:15 to 8:30	168	14	182	15	0	15	0	0	0	11	2	13												
8:30 to 8:45	180	11	191	6	1	7	0	0	0	9	1	10												
8:45 to 9:00	175	13	188	9	0	9	0	0	0	3	2	5												
9:00 to 9:15	198	21	219	3	0	3	0	0	0	11	0	11												
9:15 to 9:30	151	12	163	6	0	6	0	0	0	7	1	8												
AM Totals	1,889	151	2,040	145	1	146	0	0	0	113	15	128												
15:30 to 15:45	386	13	400	10	0	10	0	0	0	9	2	11												
15:45 to 16:00	469	11	480	13	0	13	0	0	0	20	1	21												
16:00 to 16:15	479	11	490	7	0	7	0	0	0	11	0	11												
16:15 to 16:30	481	11	492	9	0	9	0	0	0	10	2	12												
16:30 to 16:45	350	9	359	9	0	9	0	0	0	3	1	4												
16:45 to 17:00	459	11	470	7	0	7	1	0	1	4	2	6												
17:00 to 17:15	470	9	479	9	0	9	1	0	1	6	1	7												
17:15 to 17:30	354	10	364	9	0	9	0	0	0	11	1	12												
17:30 to 17:45	410	6	416	11	0	11	0	0	0	17	1	18												
17:45 to 18:00	502	7	509	10	0	10	1	0	1	9	1	10												
18:00 to 18:15	410	9	419	5	0	5	0	0	0	14	1	15												
18:15 to 18:30	476	6	482	9	0	9	1	0	1	9	2	11												
PM Totals	5,769	194	5,963	115	0	115	4	0	4	124	15	139												

Job No. : N2552
 Client : GTA
 Suburb : Rockdale
 Location : 2. Princes Hwy / Geeves Ave

Day/Date : Thu, 4th August 2016
 Weather : Fine
 Description : Classified Intersection Count

Hourly Summary

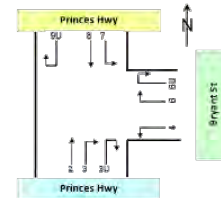


MATRIX
 Traffic and Transport Data

Approach	Princes Hwy									
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3U (U Turn)			
Time Period	Lights	Planes	Total	Lights	Planes	Total	Lights	Planes	Total	Total
6:30 to 7:30	40	1	41	2,431	57	2,488	0	0	0	
6:45 to 7:45	30	1	31	2,436	40	2,476	0	0	0	
7:00 to 8:00	40	1	41	2,365	51	2,416	0	0	0	
7:15 to 8:15	40	0	40	2,325	42	2,367	0	0	0	
7:30 to 8:30	48	0	48	2,574	48	2,622	0	0	0	
7:45 to 8:45	44	0	44	2,654	42	2,696	0	0	0	
8:00 to 9:00	43	1	44	2,000	46	2,046	0	0	0	
8:15 to 9:15	30	1	31	1,630	40	1,670	0	0	0	
8:30 to 9:30	40	1	41	1,950	54	1,991	0	0	0	
AM Totals	157	3	160	6,413	154	6,567	0	0	0	
15:30 to 16:30	50	0	50	1,024	34	1,058	0	0	0	
15:45 to 16:45	51	1	52	896	26	922	0	0	0	
16:00 to 17:00	50	1	51	1,035	21	1,056	0	0	0	
16:15 to 17:15	50	1	51	1,004	17	1,021	0	0	0	
16:30 to 17:30	51	1	52	1,004	18	1,022	0	0	0	
16:45 to 17:45	51	0	51	1,013	24	1,037	0	0	0	
17:00 to 18:00	44	0	44	997	24	1,021	0	0	0	
17:15 to 18:15	39	0	39	997	27	1,024	0	0	0	
17:30 to 18:30	39	1	40	1,011	28	1,039	0	0	0	
PM Totals	148	2	150	3,040	76	3,116	0	0	0	

Approach	Princes Hwy									Geeves Ave								
Direction	Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 12 (Right Turn)			Direction 12U (U Turn)		
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total
6:30 to 7:30	440	45	485	45	0	45	0	0	0	33	2	35	18	15	33	0	0	0
7:45 to 7:55	310	45	355	57	0	57	0	0	0	40	1	41	18	15	34	0	0	0
7:00 to 8:00	569	44	613	29	0	29	0	0	0	49	4	53	28	13	41	0	0	0
7:15 to 8:15	606	41	647	70	0	70	0	0	0	48	4	52	28	13	41	0	0	0
7:30 to 8:30	682	46	728	69	0	69	0	0	0	49	5	54	36	15	51	0	0	0
7:45 to 8:45	676	47	723	53	1	54	0	0	0	49	5	52	30	14	44	0	0	0
8:00 to 9:00	702	50	752	47	1	48	0	0	0	33	5	38	31	16	47	0	0	0
8:15 to 9:15	743	62	805	33	1	34	0	0	0	34	5	39	30	16	46	0	0	0
8:30 to 9:30	737	62	799	24	1	25	0	0	0	30	4	34	24	15	39	0	0	0
AM Totals	5,839	151	5,990	145	1	146	0	0	0	122	16	138	79	46	125	0	0	0
16:30 to 16:35	1,906	46	1,952	39	0	39	0	0	0	11	5	16	62	16	78	0	0	0
16:45 to 16:48	1,840	16	1,856	35	0	35	0	0	0	47	4	51	52	16	68	0	0	0
16:00 to 17:00	1,877	16	1,893	20	0	20	1	0	1	31	3	34	79	16	95	0	0	0
16:15 to 17:15	1,842	11	1,853	34	0	34	2	0	2	27	6	33	77	16	93	0	0	0
16:30 to 17:30	2,020	30	2,050	34	0	34	2	0	2	28	5	33	83	16	99	0	0	0
16:45 to 17:45	1,879	18	1,897	36	0	36	2	0	2	40	5	45	52	14	66	0	0	0
17:00 to 18:00	1,994	29	2,023	39	0	39	2	0	2	45	4	49	55	15	70	0	0	0
17:15 to 18:15	2,004	32	2,036	36	0	36	1	0	1	51	4	55	64	14	78	0	0	0
17:30 to 18:30	1,848	26	1,874	35	0	35	2	0	2	45	5	50	79	15	94	0	0	0
PM Totals	5,769	104	5,873	111	0	111	4	0	4	124	15	139	244	44	288	0	0	0

Job No.	N2552
Client	IGTA
Suburb	Rockdale
Location	3. Princes Hwy / Bryant St
Day/Date	Tue, 8th August 2018
Weather	Fine
Description	Classified Intersection Count
	15 mins Date
Classifications	Class 1 Class 2 Lights Heavier



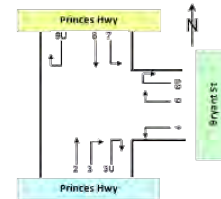
MATRIX
Traffic and Transport Data

Approach	Princes Hwy												Bryant St					
Direction	Direction 2 (Through)						Direction 3 (Right Turn)						Direction 3U (U Turn)					
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total
6:30 to 6:45	644	19	663	14	1	15	0	0	0	21	1	22	0	0	0	0	0	0
6:45 to 7:00	299	11	309	19	0	19	0	0	0	19	1	21	0	0	0	0	0	0
7:00 to 7:15	624	17	641	25	1	26	0	0	0	22	1	23	0	0	0	0	0	0
7:15 to 7:30	656	10	666	28	2	30	0	0	0	21	3	24	0	0	0	0	0	0
7:30 to 7:45	598	7	605	40	2	42	0	0	0	33	0	33	0	0	0	0	0	0
7:45 to 8:00	354	17	371	41	1	42	0	0	0	31	3	34	0	0	0	0	0	0
8:00 to 8:15	403	7	410	51	0	51	0	0	0	48	0	48	0	0	0	0	0	0
8:15 to 8:30	454	11	465	62	2	64	0	0	0	37	2	39	0	0	0	0	0	0
8:30 to 8:45	411	8	419	50	0	50	0	0	0	20	1	21	0	0	0	0	0	0
8:45 to 9:00	428	21	449	53	1	54	0	0	0	29	1	30	0	0	0	0	0	0
9:00 to 9:15	375	9	384	63	1	64	0	0	0	38	3	41	0	0	0	0	0	0
9:15 to 9:30	350	16	366	62	1	63	0	0	0	33	0	33	0	0	0	0	0	0
AM Totals	6,142	159	6,301	586	12	598	0	0	0	362	19	381	0	0	0	0	0	0
15:30 to 15:45	254	13	267	41	1	42	0	0	0	49	1	50	0	0	0	0	0	0
15:45 to 16:00	224	10	234	44	1	45	0	0	0	50	1	51	0	0	0	0	0	0
16:00 to 16:15	228	7	235	32	0	32	0	0	0	44	2	46	0	0	0	0	0	0
16:15 to 16:30	234	7	241	36	1	37	0	0	0	44	1	45	0	0	0	0	0	0
16:30 to 16:45	216	4	220	36	0	36	0	0	0	74	1	75	0	0	0	0	0	0
16:45 to 17:00	204	5	209	49	1	50	0	0	0	59	1	60	0	0	0	0	0	0
17:00 to 17:15	208	4	212	61	1	62	0	0	0	59	0	59	0	0	0	0	0	0
17:15 to 17:30	206	5	211	48	1	49	0	0	0	31	1	32	0	0	0	0	0	0
17:30 to 17:45	244	11	255	47	1	48	0	0	0	60	3	63	0	0	0	0	0	0
17:45 to 18:00	198	9	207	33	1	34	0	0	0	70	1	71	0	0	0	0	0	0
18:00 to 18:15	254	5	259	20	1	21	0	0	0	40	1	41	0	0	0	0	0	0
18:15 to 18:30	232	4	236	44	0	44	0	0	0	40	1	41	0	0	0	0	0	0
PM Totals	2,640	81	2,721	554	9	563	0	0	0	748	15	763	0	0	0	0	0	0

Approach	Princes Hwy								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9U (U Turn)		
Time Period	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total
6:30 to 6:45	2	0	2	85	0	87	0	0	0
6:45 to 7:00	3	0	3	83	11	94	0	0	0
7:00 to 7:15	1	0	1	119	12	132	0	0	0
7:15 to 7:30	0	0	0	220	8	228	0	0	0
7:30 to 7:45	0	0	0	141	8	150	0	0	0
7:45 to 8:00	2	0	2	141	10	153	0	0	0
8:00 to 8:15	0	0	0	192	10	202	0	0	0
8:15 to 8:30	3	2	5	188	12	198	0	0	0
8:30 to 8:45	2	0	2	247	10	257	0	0	0
8:45 to 9:00	3	1	4	158	13	171	0	0	0
9:00 to 9:15	8	1	9	182	20	193	0	0	0
9:15 to 9:30	10	0	10	158	13	171	0	0	0
AM Totals	36	4	40	1,609	104	1,713	0	0	0
15:30 to 15:45	13	0	13	119	10	129	0	0	0
15:45 to 16:00	16	2	18	408	12	420	0	0	0
16:00 to 16:15	3	1	4	382	10	392	0	0	0
16:15 to 16:30	14	1	15	421	8	429	0	0	0
16:30 to 16:45	8	0	8	420	3	423	0	0	0
16:45 to 17:00	12	0	12	424	7	431	0	0	0
17:00 to 17:15	9	0	9	385	5	390	0	0	0
17:15 to 17:30	12	0	12	401	10	411	0	0	0
17:30 to 17:45	7	0	7	425	4	429	0	0	0
17:45 to 18:00	13	0	13	385	3	388	0	0	0
18:00 to 18:15	9	0	9	425	9	434	0	0	0
18:15 to 18:30	13	0	13	388	3	391	0	0	0
PM Totals	135	4	139	4,866	90	4,956	0	0	0

Job No. : N2552
 Client : GTA
 Suburb : Rockdale
 Location : S. Princes Hwy / Bryant St

Day/Date : Thu, 4th August 2016
 Weather : Fine
 Description : Classified Intersection Count
 Hourly Summary

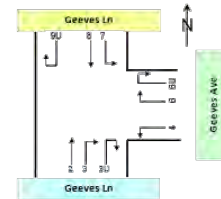


MATRIX
 Traffic and Transport Data

Approach	Princes Hwy									Bryant St								
Direction	Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total
6:00 to 7:30	2,431	37	2,569	10	4	14	0	0	0	63	7	90	48	0	48	0	0	0
7:30 to 9:00	2,434	45	2,449	116	5	121	0	0	0	100	6	106	45	5	46	0	0	0
9:00 to 10:30	2,190	51	2,441	138	6	145	0	0	0	112	7	119	45	5	46	0	0	0
10:30 to 12:00	2,265	41	2,307	169	5	174	0	0	0	118	6	124	42	5	43	0	0	0
12:00 to 13:30	2,114	42	2,156	202	5	207	0	0	0	133	5	137	34	5	37	0	0	0
13:30 to 15:00	1,930	48	1,978	242	1	243	0	0	0	143	7	150	34	2	36	0	0	0
15:00 to 16:30	1,774	47	1,821	263	3	266	0	0	0	141	6	147	43	2	43	0	0	0
16:30 to 18:00	1,672	49	1,721	286	4	290	0	0	0	131	9	140	50	3	53	0	0	0
18:00 to 19:30	1,578	54	1,630	235	1	236	0	0	0	127	7	134	51	5	52	0	0	0
AM Totals	6,542	153	6,296	580	22	592	0	0	0	362	59	381	333	4	337	0	0	0
19:30 to 21:00	920	37	957	153	1	154	0	0	0	217	5	222	82	5	81	0	0	0
21:00 to 22:30	803	25	828	185	2	187	0	0	0	242	5	247	85	5	86	0	0	0
22:30 to 24:00	802	23	825	173	2	175	0	0	0	248	8	254	55	0	55	0	0	0
24:00 to 1:00	882	33	915	162	1	163	0	0	0	267	4	271	62	0	62	0	0	0
1:00 to 2:00	884	18	902	208	1	209	0	0	0	283	4	287	77	0	77	0	0	0
2:00 to 3:00	882	25	907	200	4	204	0	0	0	287	6	293	83	0	83	0	0	0
3:00 to 4:00	874	26	900	184	4	188	0	0	0	271	5	276	92	0	89	0	0	0
4:00 to 5:00	889	27	917	151	4	155	0	0	0	242	6	244	88	0	88	0	0	0
5:00 to 6:00	896	28	924	152	1	153	0	0	0	250	6	256	77	0	77	0	0	0
PM Totals	2,660	81	2,741	516	9	524	0	0	0	748	55	763	284	5	285	0	0	0

Approach	Princes Hwy								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9U (U Turn)		
Time Period	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total
6:30 to 7:00	8	0	8	421	38	459	0	0	0
6:45 to 7:45	8	0	8	454	38	492	0	0	0
7:00 to 8:00	8	0	8	512	37	549	0	0	0
7:15 to 8:15	2	0	2	294	35	329	0	0	0
7:30 to 8:30	3	2	7	382	41	423	0	0	0
7:45 to 8:45	7	2	9	525	42	567	0	0	0
8:00 to 9:00	10	3	13	625	45	670	0	0	0
8:15 to 9:15	15	4	22	693	55	748	0	0	0
8:30 to 9:30	23	2	27	826	55	881	0	0	0
AM Totals	35	4	42	1,609	194	1,743	0	0	0
15:10 to 16:30	30	4	34	1,540	40	1,580	0	0	0
15:45 to 16:45	42	4	46	1,694	32	1,726	0	0	0
16:00 to 17:00	39	2	41	1,690	27	1,717	0	0	0
16:15 to 17:15	41	1	44	1,658	25	1,683	0	0	0
16:30 to 17:30	41	0	41	1,658	27	1,719	0	0	0
16:45 to 17:45	40	0	40	1,635	28	1,714	0	0	0
17:00 to 18:00	41	0	41	1,659	27	1,686	0	0	0
17:15 to 18:15	41	0	41	1,698	25	1,736	0	0	0
17:30 to 18:30	44	0	44	1,648	23	1,668	0	0	0
PM Totals	335	4	338	4,866	90	4,956	0	0	0

Job No.	: N2552
Client	: GTA
Suburb	: Rockdale
Location	: 4, Geeves Ave / Geeves Ln
Day/Date	: Thu, 4th August 2016
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Date
Classifications	Class 1 Class 2 Lights Heavier



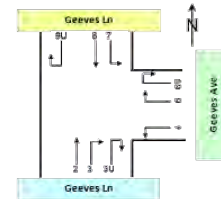
MATRIX
Traffic and Transport Data

Approach	Geeves Ln												Geeves Ave											
Direction	Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)						Direction 6 (Right Turn)			Direction 6U (U Turn)					
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total			
6:30 to 6:45	0	0	0	6	5	11	0	0	0	0	0	0	0	0	0	13	0	13	3	0	3			
6:45 to 7:00	0	0	0	5	5	10	0	0	0	0	0	0	0	0	0	21	0	21	0	0	0			
7:00 to 7:15	0	0	0	5	11	16	0	0	0	0	0	0	0	0	0	7	5	12	1	0	1			
7:15 to 7:30	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	20	0	20	2	0	2			
7:30 to 7:45	1	0	1	13	4	17	0	0	0	0	0	0	0	0	0	13	0	13	1	0	1			
7:45 to 8:00	1	0	1	11	5	16	0	0	0	0	0	0	0	0	0	10	0	10	3	0	3			
8:00 to 8:15	0	0	0	15	4	19	0	0	0	0	0	0	0	0	0	6	0	6	1	0	1			
8:15 to 8:30	0	0	0	8	6	14	0	0	0	0	0	0	0	0	0	15	0	15	3	0	3			
8:30 to 8:45	0	0	0	4	11	15	0	0	0	0	0	0	0	0	0	11	5	16	1	0	1			
8:45 to 9:00	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	8	0	8	2	1	3			
9:00 to 9:15	0	0	0	6	4	10	0	0	0	0	0	0	0	0	0	10	0	10	1	0	1			
9:15 to 9:30	0	0	0	2	5	7	0	0	0	0	0	0	0	0	0	13	1	14	2	0	2			
AM Totals	2	0	2	86	55	141	0	0	0	0	0	0	0	0	0	157	3	160	20	1	21			
15:30 to 15:45	1	0	1	2	7	9	0	0	0	0	0	0	0	0	0	15	0	15	3	0	3			
15:45 to 16:00	1	0	1	6	4	10	0	0	0	0	0	0	0	0	0	21	0	21	0	0	0			
16:00 to 16:15	0	0	0	2	11	13	0	0	0	0	0	0	0	0	0	15	0	15	1	0	1			
16:15 to 16:30	1	0	1	5	8	13	0	0	0	0	0	0	0	0	0	10	0	10	1	0	1			
16:30 to 16:45	0	0	0	5	5	10	0	0	0	0	0	0	0	0	0	16	1	17	1	0	1			
16:45 to 17:00	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	21	0	21	5	0	5			
17:00 to 17:15	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	8	0	8	6	0	6			
17:15 to 17:30	0	0	0	11	4	15	0	0	0	0	0	0	0	0	0	8	0	8	4	0	4			
17:30 to 17:45	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	10	0	10	6	0	6			
17:45 to 18:00	0	0	0	5	11	16	0	0	0	0	0	0	0	0	0	14	0	14	4	0	4			
18:00 to 18:15	0	0	0	5	5	10	0	0	0	0	0	0	0	0	0	6	0	6	2	0	2			
18:15 to 18:30	0	0	0	5	5	10	0	0	0	0	0	0	0	0	0	12	5	17	1	0	1			
PM Totals	5	0	5	62	59	121	0	0	0	0	0	0	0	0	0	160	2	162	34	0	34			

Approach	Gleaves Ln								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9U (U Turn)		
Time Period	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total	Lights	Manoeuvres	Total
6:30 to 6:45	2	0	2	0	0	0	0	0	0
6:45 to 7:00	4	0	4	0	0	0	0	0	0
7:00 to 7:15	1	0	1	0	0	0	0	0	0
7:15 to 7:30	4	0	4	0	0	0	0	0	0
7:30 to 7:45	8	1	10	0	0	0	0	0	0
7:45 to 8:00	11	0	11	0	0	0	0	0	0
8:00 to 8:15	2	0	2	0	0	0	0	0	0
8:15 to 8:30	11	0	11	0	0	0	0	0	0
8:30 to 8:45	0	1	1	0	0	0	0	0	0
8:45 to 9:00	0	0	0	0	0	0	0	0	0
9:00 to 9:15	7	0	7	0	0	0	0	0	0
9:15 to 9:30	3	0	3	0	0	0	0	0	0
AM Totals	72	2	74	0	0	0	0	0	0
15:30 to 15:45	25	0	25	0	0	0	0	0	0
15:45 to 16:00	34	0	34	0	0	0	0	0	0
16:00 to 16:15	29	0	29	0	0	0	0	0	0
16:15 to 16:30	29	0	29	0	0	0	0	0	0
16:30 to 16:45	16	0	16	0	0	0	0	0	0
16:45 to 17:00	21	0	21	0	0	0	0	0	0
17:00 to 17:15	11	0	11	2	0	2	0	0	0
17:15 to 17:30	10	0	10	0	0	0	0	0	0
17:30 to 17:45	21	0	21	1	0	1	0	0	0
17:45 to 18:00	23	0	23	0	0	0	0	0	0
18:00 to 18:15	22	0	22	0	0	0	0	0	0
18:15 to 18:30	19	0	19	0	0	0	0	0	0
PM Totals	265	0	265	3	0	3	0	0	0

Job No. : N2552
 Client : GTA
 Suburb : Rockdale
 Location : 4. Geeves Ave / Geeves Ln

Day/Date : Thu, 4th August 2016
 Weather : Fine
 Description : Classified Intersection Count
 Hourly Summary



MATRIX
 Traffic and Transport Data

Approach	Geeves Ln									Geeves Ave								
Direction	Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total	Lights	Heavy	Total
6:00 to 7:30	0	0	0	31	17	48	0	0	0	30	0	30	68	5	67	6	0	6
6:45 to 7:45	1	0	1	10	16	26	0	0	0	41	0	41	66	5	67	4	0	4
7:00 to 8:00	2	0	2	41	17	58	0	0	0	45	0	45	55	5	56	7	0	7
7:15 to 8:15	2	0	2	48	10	58	0	0	0	35	0	35	54	0	54	7	0	7
7:30 to 8:30	2	0	2	47	20	67	0	0	0	37	0	37	40	0	40	5	0	5
7:45 to 8:45	1	0	1	33	19	52	0	0	0	40	0	40	42	5	47	5	0	5
8:00 to 9:00	0	0	0	35	18	53	0	0	0	40	0	40	42	5	47	7	1	8
8:15 to 9:15	0	0	0	24	19	43	0	0	0	33	0	33	46	5	45	7	1	8
8:30 to 9:30	0	0	0	16	16	32	0	0	0	24	0	24	42	2	44	5	1	7
AM Totals	2	0	2	96	55	151	0	0	0	144	0	144	157	3	160	20	1	21
10:00 to 10:30	3	0	3	53	21	74	0	0	0	13	0	13	73	0	73	3	0	3
10:45 to 11:45	2	0	2	16	20	36	0	0	0	13	0	13	70	5	75	3	0	3
12:00 to 13:00	1	0	1	11	21	32	0	0	0	8	0	8	70	5	75	5	0	5
13:15 to 14:15	1	0	1	17	22	39	0	0	0	13	0	13	69	5	64	13	0	13
14:30 to 15:30	0	0	0	23	10	33	0	0	0	17	0	17	59	5	54	16	0	16
15:45 to 16:45	0	0	0	25	19	44	0	0	0	20	0	20	47	0	47	21	0	21
17:00 to 18:00	0	0	0	32	17	49	0	0	0	27	0	27	40	0	40	20	0	20
17:15 to 18:15	0	0	0	29	10	39	0	0	0	20	0	20	38	0	38	19	0	19
17:30 to 18:30	0	0	0	24	19	43	0	0	0	21	0	21	42	5	45	13	0	13
PM Totals	5	0	5	62	59	121	0	0	0	33	0	33	168	2	170	34	0	34

Approach	Gleaves Ln								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9U (U Turn)		
Time Period	Lights	Flows	Total	Lights	Flows	Total	Lights	Flows	Total
6:30 to 7:00	11	0	11	0	0	0	0	0	0
6:45 to 7:45	15	1	16	0	0	0	0	0	0
7:00 to 8:00	25	1	26	0	0	0	0	0	0
7:15 to 8:15	26	1	27	0	0	0	0	0	0
7:30 to 8:30	33	1	34	0	0	0	0	0	0
7:45 to 8:45	32	1	33	0	0	0	0	0	0
8:00 to 9:00	29	1	30	0	0	0	0	0	0
8:15 to 9:15	34	1	35	0	0	0	0	0	0
8:30 to 9:30	25	1	26	0	0	0	0	0	0
AM Totals	72	2	74	0	0	0	0	0	0
15:10 to 16:30	113	0	113	0	0	0	0	0	0
15:45 to 16:45	104	0	104	0	0	0	0	0	0
16:00 to 17:00	91	0	91	0	0	0	0	0	0
16:15 to 17:15	79	0	79	2	0	2	0	0	0
16:30 to 17:30	66	0	66	2	0	2	0	0	0
16:45 to 17:45	71	0	71	3	0	3	0	0	0
17:00 to 18:00	79	0	79	3	0	3	0	0	0
17:15 to 18:15	84	0	84	1	0	1	0	0	0
17:30 to 18:30	86	0	86	1	0	1	0	0	0
PM Totals	265	0	265	3	0	3	0	0	0

Appendix B

SIDRA Intersection Results

Appendix B



MOVEMENT SUMMARY
 **Site: Princes Hwy/ Geeves Ave - Ex AM**
 **Network: Ex AM**

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog S Afr v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Princes Highway													
1	L2	52	2.0	52	2.0	0.677	4.7	LOS A	2.3	16.2	0.06	0.11	48.6
2	T1	2543	2.1	2543	2.1	0.677	0.8	LOS A	4.0	28.6	0.06	0.07	49.3
Approach		2595	2.1	2595	2.1	0.677	0.9	LOS A	4.0	28.6	0.06	0.07	49.2
North: Princes Highway													
8	T1	645	7.2	645	7.2	0.371	2.4	LOS A	5.0	37.4	0.14	0.13	42.0
9	R2	62	0.0	62	0.0	0.851	56.0	LOS D	2.4	17.1	0.13	0.79	21.8
Approach		707	6.5	707	6.5	0.851	7.1	LOS A	5.0	37.4	0.14	0.19	31.0
West: Geeves Avenue													
10	L2	56	24.5	56	24.5	0.552	69.0	LOS E	3.8	31.9	0.97	0.79	17.5
12	R2	41	0.0	41	0.0	0.163	62.7	LOS E	2.5	17.5	0.92	0.73	18.7
Approach		97	14.1	97	14.1	0.552	66.3	LOS E	3.8	31.9	0.95	0.76	18.0
All Vehicles		3399	3.4	3399	3.4	0.851	4.0	LOS A	5.0	37.4	0.11	0.12	34.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	6.0	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		158	44.9	LOS E			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - Ex PM

 Network: EX PM

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog. Sfrn. w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %	Total veh/h	HV %								
South: Princes Highway													
1	L2	51	0.0	51	0.0	0.066	4.3	LOS A	0.1	1.0	0.02	0.31	47.2
2	T1	1039	2.3	1039	2.3	0.329	0.5	LOS A	1.0	6.9	0.03	0.04	52.4
Approach		1090	2.2	1090	2.2	0.329	0.7	LOS A	1.0	6.9	0.03	0.05	50.8
North: Princes Highway													
8	T1	2011	1.6	2011	1.6	0.939	38.4	LOS C	17.3	122.4	0.38	0.56	7.5
9	R2	36	0.0	36	0.0	0.939	46.8	LOS D	17.3	122.4	0.27	0.49	25.3
Approach		2047	1.6	2047	1.6	0.939	38.6	LOS C	17.3	122.4	0.38	0.55	8.1
West: Geeves Avenue													
10	L2	45	11.1	45	11.1	0.368	64.4	LOS E	2.8	21.4	0.93	0.73	18.3
12	R2	96	14.6	96	14.6	1.020	187.5	LOS F	11.7	92.4	1.00	1.47	8.3
Approach		141	13.5	141	13.5	1.020	148.2	LOS F	11.7	92.4	0.98	1.23	10.0
All Vehicles		3278	2.3	3278	2.3	1.020	30.7	LOS C	17.3	122.4	0.29	0.42	10.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	5.7	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		150	44.8	LOS E			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - 2021 Base AM

 Network: 2021 Base AM

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog. Satn. v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %	Total veh/h	HV %								
South: Princes Highway													
1	L2	52	2.0	51	2.0	0.699	4.8	LOS A	2.4	16.8	0.07	0.11	48.6
2	T1	2595	2.1	2589	2.1	0.699	0.8	LOS A	4.4	31.6	0.07	0.07	49.0
Approach		2646	2.1	2641 ^{N1}	2.1	0.699	0.9	LOS A	4.4	31.6	0.07	0.08	49.0
North: Princes Highway													
8	T1	659	7.2	659	7.2	0.379	2.4	LOS A	5.2	38.7	0.15	0.13	41.9
9	R2	62	0.0	62	0.0	0.880	67.7	LOS E	2.9	20.3	0.16	0.82	19.5
Approach		721	6.6	721	6.6	0.880	8.0	LOS A	5.2	38.7	0.15	0.19	29.2
West: Geeves Avenue													
10	L2	56	24.5	56	24.5	0.589	70.2	LOS E	3.8	32.4	0.97	0.81	17.3
12	R2	41	0.0	41	0.0	0.163	62.7	LOS E	2.5	17.5	0.92	0.73	18.7
Approach		97	14.1	97	14.1	0.589	67.0	LOS E	3.8	32.4	0.95	0.78	17.9
All Vehicles		3464	3.4	3459 ^{N1}	3.4	0.880	4.2	LOS A	5.2	38.7	0.11	0.12	34.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow: ped/h	Average Delay: sec	Level of Service	Average Back of Queue: Pedestrian ped	Distance: m	Prop. Queued	Effective Stop Rate: per ped
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	6.0	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		158	44.9	LOS E			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY
 **Site: Princes Hwy/ Geeves Ave - 2021 Base PM**
 **Network: 2021 Base PM**

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows Total veh/h	Flows HV %	Arrival Flows Total veh/h	Flows HV %	Prog. Sfrn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Princes Highway													
1	L2	51	0.0	51	0.0	0.070	4.3	LOS A	0.1	1.0	0.02	0.29	47.4
2	T1	1060	2.3	1060	2.3	0.349	0.5	LOS A	1.1	7.6	0.03	0.04	52.3
Approach		1111	2.2	1111	2.2	0.349	0.7	LOS A	1.1	7.6	0.03	0.05	50.8
North: Princes Highway													
8	T1	2052	1.6	2052	1.6	0.968	63.4	LOS E	17.3	122.4	0.73	0.99	4.8
9	R2	36	0.0	36	0.0	0.968	67.9	LOS E	17.3	122.4	0.42	0.73	20.3
Approach		2088	1.6	2088	1.6	0.968	63.5	LOS E	17.3	122.4	0.73	0.98	5.2
West: Geeves Avenue													
10	L2	45	11.1	45	11.1	0.368	64.4	LOS E	2.8	21.4	0.93	0.73	18.3
12	R2	96	14.6	96	14.6	1.020	187.5	LOS F	11.7	92.4	1.00	1.47	8.3
Approach		141	13.5	141	13.5	1.020	148.2	LOS F	11.7	92.4	0.98	1.23	10.0
All Vehicles		3340	2.3	3340	2.3	1.020	46.2	LOS D	17.3	122.4	0.51	0.69	7.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	5.7	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		150	44.8	LOS E			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - 2021 Base AM + Dev

 Network: 2021 Base AM +Dev

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog S Afr w/c	Average Delay Sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %	Total veh/h	HV %								
South: Princes Highway													
1	L2	60	2.0	60	2.0	0.700	4.8	LOS A	2.4	17.0	0.07	0.12	48.5
2	T1	2595	2.1	2588	2.1	0.700	0.8	LOS A	4.4	31.7	0.07	0.08	48.9
Approach		2655	2.1	2648 ^{N1}	2.1	0.700	0.9	LOS A	4.4	31.7	0.07	0.08	48.8
North: Princes Highway													
8	T1	659	7.2	659	7.2	0.379	2.4	LOS A	5.3	39.6	0.15	0.13	41.6
9	R2	66	0.0	66	0.0	0.943	97.5	LOS F	4.5	31.8	0.28	0.93	15.3
Approach		725	6.5	725	6.5	0.943	11.1	LOS A	5.3	39.6	0.16	0.21	24.8
West: Geeves Avenue													
10	L2	66	24.5	66	24.5	0.770	77.1	LOS F	4.9	41.4	0.99	0.93	16.3
12	R2	73	0.0	73	0.0	0.573	64.2	LOS E	4.5	31.8	0.94	0.76	18.4
Approach		139	11.7	139	11.7	0.770	70.4	LOS E	4.9	41.4	0.96	0.84	17.3
All Vehicles		3519	3.4	3512 ^{N1}	3.4	0.943	5.8	LOS A	5.3	41.4	0.12	0.13	30.5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	6.0	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		158	44.9	LOS E			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - 2021 Base PM + Dev

 Network: 2021 Base PM +Dev

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog S Afrn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %	Total veh/h	HV %								
South: Princes Highway													
1	L2	69	0.0	69	0.0	0.075	4.3	LOS A	0.2	1.1	0.02	0.37	46.8
2	T1	1060	2.3	1060	2.3	0.373	0.5	LOS A	1.2	8.4	0.03	0.04	52.1
Approach		1129	2.2	1129	2.2	0.373	0.7	LOS A	1.2	8.4	0.03	0.06	50.1
North: Princes Highway													
8	T1	2052	1.6	2052	1.6	0.981	76.7	LOS F	17.3	122.4	0.85	1.16	4.0
9	R2	42	0.0	42	0.0	0.981	81.7	LOS F	17.3	122.4	0.57	0.93	17.9
Approach		2094	1.6	2094	1.6	0.981	76.8	LOS F	17.3	122.4	0.84	1.15	4.4
West: Geeves Avenue													
10	L2	49	11.1	49	11.1	0.485	64.6	LOS E	3.1	23.4	0.94	0.73	18.3
12	R2	108	14.6	108	14.6	1.144	375.5	LOS F	20.6	162.3	1.00	1.92	4.5
Approach		157	13.5	157	13.5	1.144	278.5	LOS F	20.6	162.3	0.98	1.55	5.9
All Vehicles		3380	2.3	3380	2.3	1.144	60.7	LOS E	20.6	162.3	0.58	0.81	6.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	5.7	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		150	44.8	LOS E			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - 2021 Base AM + Dev + New Layout

 Network: 2021 Base AM +Dev + New Layout

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov. ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Arrival Flows Total veh/h	Flows HV %	Deq. Satn v/c	Average Delay /sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Princes Highway													
1	L2	60	2.0	60	2.0	0.700	4.8	LOS A	2.4	17.0	0.07	0.12	48.5
2	T1	2595	2.1	2588	2.1	0.700	0.8	LOS A	4.4	31.7	0.07	0.08	48.9
Approach		2655	2.1	2648 ^{N1}	2.1	0.700	0.9	LOS A	4.4	31.7	0.07	0.08	48.8
North: Princes Highway													
8	T1	659	7.2	659	7.2	0.379	2.4	LOS A	5.3	39.6	0.15	0.13	41.6
9	R2	66	0.0	66	0.0	0.943	97.5	LOS F	4.5	31.8	0.28	0.92	15.4
Approach		725	6.5	725	6.5	0.943	11.1	LOS A	5.3	39.6	0.16	0.21	24.8
West: Geeves Avenue													
10	L2	66	24.5	66	24.5	0.618	71.6	LOS F	4.6	39.3	0.99	0.83	17.1
12	R2	73	0.0	73	0.0	0.144	62.5	LOS E	2.2	15.4	0.92	0.73	18.7
Approach		139	11.7	139	11.7	0.618	66.8	LOS E	4.6	39.3	0.95	0.78	17.9
All Vehicles		3519	3.4	3512 ^{N1}	3.4	0.943	5.6	LOS A	5.3	39.6	0.12	0.13	30.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	6.0	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		158	44.9	LOS E			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: P:\16S1100-1199\16S1109000 507-511 Princes Highway Rockdale\Modelling\170518 Sidras\170518sid-16S1109000-2021 Base+Dev+New Layout2.sip6

MOVEMENT SUMMARY

 Site: Princes Hwy/ Geeves Ave - 2021 Base PM + Dev + New Layout

 Network: 2021 Base PM +Dev + New Layout

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue	Prop. Queued	Effective Stop Rate	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	/sec		Vehicles veh	Distance m	per veh	km/h
South: Princes Highway												
1	L2	69	0.0	69	0.0	0.079	4.3	LOS A	0.2	1.2	0.02	46.9
2	T1	1060	2.3	1060	2.3	0.394	0.5	LOS A	1.3	9.2	0.03	51.9
Approach		1129	2.2	1129	2.2	0.394	0.7	LOS A	1.3	9.2	0.03	50.0
North: Princes Highway												
8	T1	2052	1.6	2052	1.6	0.982	77.8	LOS F	17.3	122.4	0.86	4.0
9	R2	42	0.0	42	0.0	0.982	82.7	LOS F	17.3	122.4	0.58	17.8
Approach		2094	1.6	2094	1.6	0.982	77.9	LOS F	17.3	122.4	0.85	4.3
West: Geeves Avenue												
10	L2	49	11.1	49	11.1	0.221	64.6	LOS E	3.1	23.4	0.94	18.3
12	R2	108	14.6	108	14.6	0.513	69.9	LOS E	3.7	28.9	0.97	17.4
Approach		157	13.5	157	13.5	0.513	68.3	LOS E	3.7	28.9	0.96	17.6
All Vehicles		3380	2.3	3380	2.3	0.982	51.7	LOS D	17.3	122.4	0.58	7.2

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	/sec		Pedestrian ped	Distance m	per ped	
P1	South Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	5.7	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		150	44.8	LOS E			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: P:\16S\1100-1199\16S\1109000 507-511 Princes Highway Rockdale\Modelling\170518 Sidras\170518sid-16S\1109000-2021 Base+Dev+New Layout2.sip6

MOVEMENT SUMMARY

 Site: Princes Hwy/ Bryant St - 2021 Base AM + Dev

 Network: 2021 Base AM +Dev

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Drbg S Afrn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %	Total veh/h	HV %								
South: Princes Highway													
8	T1	2622	2.1	2622	2.1	0.659	2.9	LOS A	17.2	122.4	0.19	0.23	52.1
9	R2	166	4.1	166	4.1	0.659	8.4	LOS A	7.9	56.5	0.19	0.36	45.8
Approach		2788	2.2	2788	2.2	0.659	3.3	LOS A	17.2	122.4	0.19	0.23	51.4
East: Bryant Street													
10	L2	131	0.8	131	0.8	0.356	29.7	LOS C	5.8	43.4	0.56	0.68	27.8
12	R2	49	15.2	49	15.2	0.356	63.1	LOS E	5.8	43.4	0.94	0.78	23.3
Approach		180	4.8	180	4.8	0.356	38.9	LOS C	5.8	43.4	0.67	0.71	26.0
North: Princes Highway													
1	L2	4	0.0	4	0.0	0.123	48.9	LOS D	3.0	22.3	0.81	0.64	28.7
2	T1	591	6.7	591	6.7	0.617	49.0	LOS D	17.5	129.5	0.92	0.78	15.0
Approach		595	6.7	595	6.7	0.617	49.0	LOS D	17.5	129.5	0.92	0.78	15.2
All Vehicles		3563	3.1	3563	3.1	0.659	12.7	LOS A	17.5	129.5	0.34	0.35	37.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P3	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	East Full Crossing	53	44.9	LOS E	0.2	0.2	0.80	0.80
P1	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	57.8	LOS E			0.91	0.91

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: P:\16S1100-1199\16S1109000 507-511 Princes Highway Rockdale\Modelling\170518 Sidras\170518sid-16S1109000-2021 Base+Dev.sip6

MOVEMENT SUMMARY

 Site: Princes Hwy/ Bryant St - 2021 Base PM + Dev

 Network: 2021 Base PM + Dev

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	CD Mov	Demand Flows		Arrival Flows		Prog S Afrn w/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	%	Total veh/h	HV %								
South: Princes Highway													
8	T1	975	2.8	975	2.8	0.601	2.0	LOS A	7.1	51.1	0.13	0.12	54.7
9	R2	223	2.0	223	2.0	0.635	60.0	LOS E	14.4	102.4	1.00	1.03	20.9
Approach		1198	2.6	1198	2.6	0.635	12.8	LOS A	14.4	102.4	0.30	0.29	37.7
East: Bryant Street													
10	L2	300	2.5	300	2.5	0.824	65.5	LOS E	15.6	111.7	0.96	0.94	18.1
12	R2	89	0.0	89	0.0	0.824	75.7	LOS F	12.4	87.6	1.00	0.93	21.5
Approach		389	2.0	389	2.0	0.824	67.8	LOS E	15.6	111.7	0.97	0.94	19.0
North: Princes Highway													
1	L2	43	0.0	43	0.0	0.792	33.0	LOS C	26.1	185.2	0.84	0.80	34.3
2	T1	1841	1.7	1841	1.7	0.792	25.2	LOS B	46.3	329.0	0.84	0.79	23.6
Approach		1884	1.7	1884	1.7	0.792	25.4	LOS B	46.3	329.0	0.84	0.79	24.0
All Vehicles		3472	2.0	3472	2.0	0.824	25.8	LOS B	46.3	329.0	0.67	0.63	26.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P3	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	East Full Crossing	53	15.1	LOS B	0.1	0.1	0.47	0.47
P1	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	47.9	LOS E			0.79	0.79

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Bay St/ Sevenways/ Tramway Arc - 2021 Base  Network: 2021 Base AM +Dev
AM + Dev

Princes / Bay / Seven / Tramway

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows		Arrival Flows		Deg Satn	Average Delay	Level of Service	95% Back of Queue	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		veh	m		per veh	km/h
South: Princes Highway													
1b	L3	104	7.2	104	7.2	0.890	55.5	LOS D	39.4	287.6	0.93	1.02	21.6
1	L2	11	100.0	11	100.0	0.890	60.8	LOS E	39.4	287.6	0.93	1.02	11.0
				0									
2	T1	2456	2.0	2456	2.0	0.890	33.9	LOS C	63.1	448.8	0.94	0.93	18.2
Approach		2571	2.6	2571	2.6	0.890	35.0	LOS C	63.1	448.8	0.94	0.93	18.2
East: Bay Street													
4	L2	27	4.0	27	4.0	0.152	52.6	LOS D	3.4	24.5	0.84	0.73	19.0
4a	L1	306	3.2	306	3.2	0.686	57.0	LOS E	17.0	122.2	0.95	0.82	18.6
5	T1	9	100.0	9	100.0	0.187	92.6	LOS F	0.7	8.9	0.99	0.68	9.0
				0									
Approach		343	5.9	343	5.9	0.686	57.6	LOS E	17.0	122.2	0.95	0.81	17.8
North: Princes Highway													
7	L2	55	25.0	55	25.0	0.083	6.0	LOS A	0.4	2.9	0.10	0.39	38.6
8	T1	583	0.0	583	0.0	0.407	2.2	LOS A	3.7	25.7	0.11	0.11	53.2
9a	R1	107	0.0	107	0.0	0.983	99.7	LOS F	8.8	61.8	1.00	0.98	9.6
Approach		745	1.8	745	1.8	0.983	16.5	LOS B	8.8	61.8	0.24	0.26	31.3
SouthWest: The Seven Ways													
30a	L1	235	3.2	235	3.2	1.302	326.1	LOS F	38.2	274.7	1.00	1.48	2.6
32a	R1	401	3.2	401	3.2	0.852	76.3	LOS F	15.4	110.9	1.00	0.96	14.9
32b	R3	75	1.4	75	1.4	0.342	66.9	LOS E	4.7	33.5	0.95	0.77	17.8
Approach		711	3.0	711	3.0	1.302	157.9	LOS F	38.2	274.7	0.99	1.11	7.4
All Vehicles		4369	2.8	4369	2.8	1.302	53.6	LOS D	53.1	448.8	0.83	0.84	14.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue	Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	12.0	LOS B	0.1	0.1	0.42	0.42
P3	North Full Crossing	53	55.9	LOS E	0.2	0.2	0.89	0.89
P4	West Full Crossing	53	35.1	LOS D	0.1	0.1	0.84	0.84
P8	SouthWest Full Crossing	53	21.2	LOS C	0.1	0.1	0.55	0.55
All Pedestrians		263	37.7	LOS D			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: Princes Hwy/ Bay St/ Sevenways/ Tramway Arc - 2021 Base  Network: 2021 Base PM +Dev
PM + Dev

Princes / Bay / Seven / Tramway

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Cycle Time)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Arrival Flows Total veh/h	Flows HV %	Deg Sat v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Princes Highway													
1b	L3	110	60.0	110	60.0	0.205	20.6	LOS B	3.4	37.0	0.58	0.74	30.2
1	L2	7	100.0	7	100.0	0.205	25.3	LOS B	3.4	37.0	0.58	0.74	12.6
2	T1	918	2.8	918	2.8	0.868	57.1	LOS E	36.3	260.2	0.97	0.97	12.4
Approach		1035	9.6	1035	9.6	0.868	53.0	LOS D	36.3	260.2	0.93	0.95	13.9
East: Bay Street													
4	L2	52	5.8	52	5.8	0.199	55.9	LOS D	4.1	29.9	0.87	0.75	18.0
4a	L1	348	0.9	348	0.9	0.896	75.4	LOS F	25.2	177.6	0.99	1.01	15.3
5	T1	10	100.0	10	100.0	0.148	88.9	LOS F	0.7	9.0	0.98	0.69	9.1
Approach		410	3.9	410	3.9	0.896	73.3	LOS F	25.2	177.6	0.98	0.97	15.1
North: Princes Highway													
7	L2	66	13.6	66	13.6	0.852	41.1	LOS C	13.6	97.9	0.89	0.86	16.4
8	T1	1705	1.8	1705	1.8	0.852	21.4	LOS B	13.8	97.9	0.71	0.68	27.6
9a	R1	348	1.5	348	1.5	0.852	48.3	LOS D	13.7	97.9	0.97	0.90	17.0
9	R2	4	100.0	4	100.0	0.852	52.7	LOS D	13.7	97.9	0.97	0.90	9.0
Approach		2123	2.3	2123	2.3	0.852	26.5	LOS B	13.8	97.9	0.76	0.72	24.4
SouthWest: The Seven Ways													
30a	L1	190	0.5	190	0.5	0.215	19.0	LOS B	5.6	39.7	0.63	0.71	26.1
32a	R1	327	0.6	327	0.6	0.744	59.5	LOS E	14.6	102.8	0.94	0.83	17.9
32b	R3	142	2.9	142	2.9	0.297	46.9	LOS D	7.4	53.3	0.81	0.79	22.3
Approach		659	1.1	659	1.1	0.744	45.1	LOS D	14.6	102.8	0.82	0.78	20.1
All Vehicles		4227	4.0	4227	4.0	0.896	40.4	LOS C	36.3	260.2	0.83	0.81	19.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

The results of iterative calculations indicate a somewhat unstable solution. See the Diagnostics section in the Detailed Output report.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	50	58.6	LOS E	0.2	0.2	0.92	0.92
P2	East Full Crossing	50	17.0	LOS B	0.1	0.1	0.49	0.49
P3	North Full Crossing	50	46.5	LOS E	0.2	0.2	0.82	0.82
P4	West Full Crossing	50	46.5	LOS E	0.2	0.2	0.82	0.82
P8	SouthWest Full Crossing	50	49.0	LOS E	0.2	0.2	0.84	0.84
All Pedestrians		250	43.5	LOS E			0.78	0.78

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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7.5

rockdale town centre

Part 7 Special Precincts

7.5 Rockdale Town Centre

Explanation

A Masterplan for the future role and character of Rockdale Town Centre was developed with the community and adopted by Council.

This section of the DCP provides detailed building design and built form controls to complement Rockdale LEP 2011 and facilitate the implementation of the Rockdale Town Centre Masterplan vision.

These controls work in conjunction with the Rockdale LEP Height of Buildings Map and Design Excellence and Competition clause which establishes development standards for height and further building envelope controls within the Town Centre.

This section applies to the area of land zoned B2 Local Centre and B4 Mixed Use in Rockdale Town Centre, including any roads and open space within this area. It supersedes the 'Development setback' controls in Part 5.3 Mixed Use for developments within the affected area. All other sections of Part 5.3 Mixed Use and DCP still apply, however where there are any discrepancies, the standards of this Part should be applied.

In addition to provisions of this DCP, any development in the Rockdale Town Centre must also be consistent with the adopted vision of the Rockdale Town Centre Masterplan and accompanying Public Domain Plan, including the Design Code and Technical Manual.

The controls in this section of the DCP are based on the vision and strategies in the Masterplan. Thorough urban design analysis and modelling as well as economic testing has informed the development of the Masterplan and the LEP and DCP controls for the Centre.

The strategies and plans in the Masterplan take into account the Centre's high levels of public transport service, the need to accommodate population growth, the economics of redevelopment in town centres, and the constraints placed on redevelopment by parking and servicing requirements.

The Masterplan is concerned primarily with establishing the Centre as an enjoyable and pleasant place through a convenient and pedestrian friendly street network with high levels of activity, that is attractive and interesting. To this end, this section of the DCP focuses on ensuring the desired role and character of streets and precincts in the Centre is achieved by the activation and engagement with the street by the layout and uses of buildings, as well as how the form and character of buildings affects the desired feel and experience of the public domain.

Befitting such a well served transport orientated centre, the controls in the section of the DCP also allow design flexibility and make redevelopment more viable by reducing inhibitions on development. They also encourage innovative solutions to housing supply, employment opportunities, and environmental sustainability.

Part 7 Special Precincts

7.5 Rockdale Town Centre

7.5.1 Building use and function

This section is concerned with ensuring the intended role and function of streets and precincts within the Centre are achieved.

It covers how the function and layout of the building contributes to the activation and vibrancy of the Centre as well as the provision of high quality and diverse housing choice, retail and commercial opportunities, and sustainable building design.

This section complements the permissible land uses set out in Rockdale LEP 2011. It controls how these uses are arranged and located within developments to ensure buildings interact with the street to achieve their desired role.

Objectives

- A. To ensure new development increases the level of activity and vibrancy of the Centre and positively addresses and engages with the public domain.
- B. To ensure new development is sustainable by minimising its environmental impact and being able to accommodate future changes to land use demands and social demographics.
- C. To provide higher density housing within the Town Centre with high levels of amenity.
- D. To ensure efficient carparking and vehicle access which maximises the Centre's existing service lane network and public parking, and does not detract from the quality and extent of retail services or street activity.

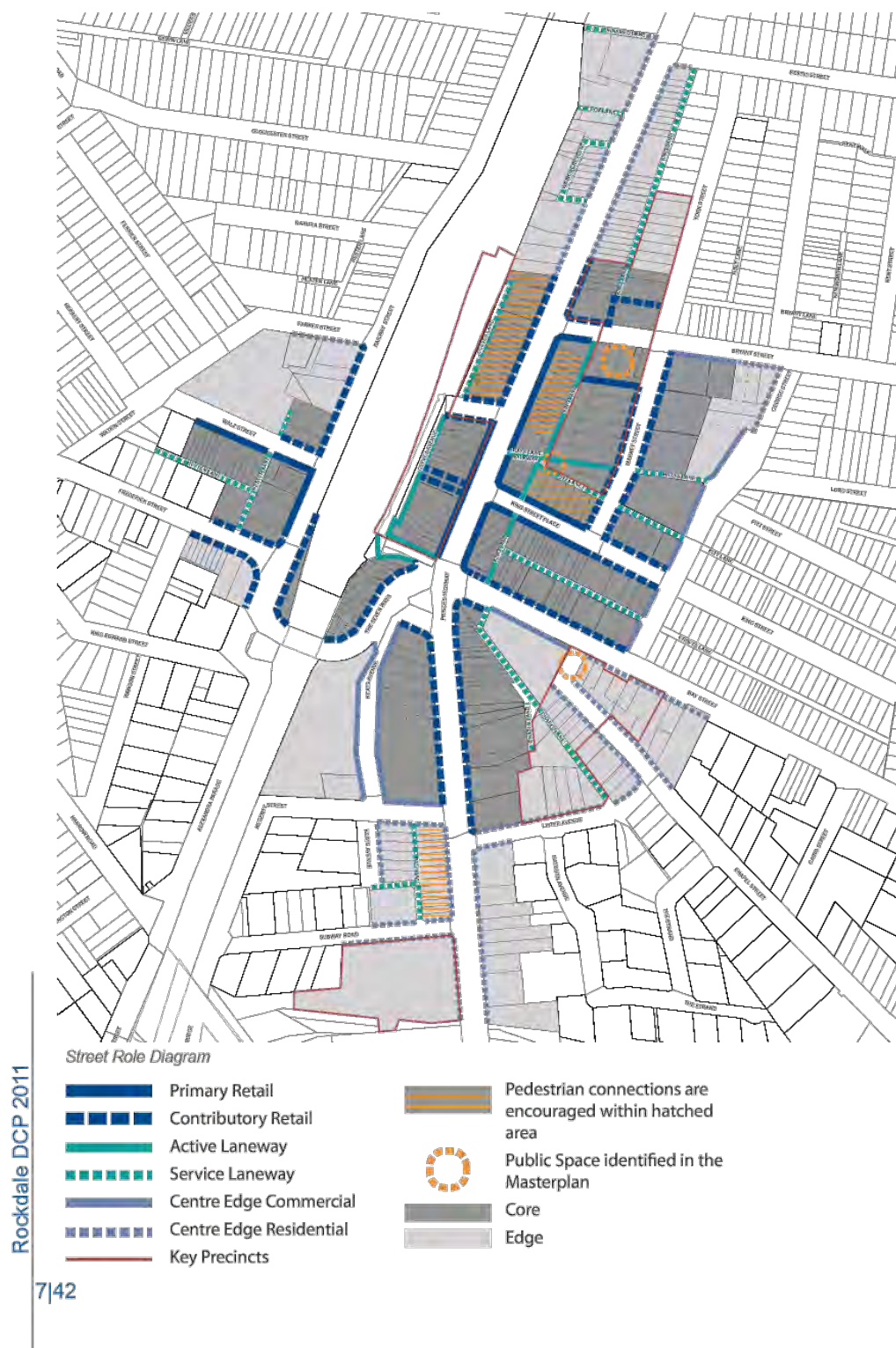
Street Role

The appropriate location and design of ground floor uses and access points for a development is a product of the intended role and function of the various streets in the Centre.

1. The following diagram illustrates the role of all streets in the Centre. Developments are to comply with the standards for ground floor building uses and access locations set out in the following table for all street frontages.

Part 7 Special Precincts

7.5 Rockdale Town Centre



Part 7 Special Precincts

7.5 Rockdale Town Centre

Street role	Description	Standard
Primary Retail	High activity with continuous ground floor retailing	- Minimum 80% of the ground floor frontage to be activated by retail and business premises - Residential lobbies can occupy no more than 20% of the total ground floor frontage - No ground floor residential permitted - No vehicle access permitted - No service access permitted
Contributory Retail	High activity with continuous active frontages	- Ground floor frontage to be activated by retail and business premises - Residential lobbies permitted off Street frontage - No 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 frontage - No 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	- Ground floor frontage to be activated by retail and business premises - Residential lobbies should be accessed off active laneways - No ground floor residential permitted - Vehicle access permitted - Service access permitted
Service Laneway	Primarily serves service function and provides vehicle access	- Active retail and business premises encouraged along the ground floor frontage - Residential lobbies may be accessed off service lane - No ground floor residential - Vehicle access should be provided from service lane - Service access should be provided from service lanes
Centre Edge Commercial	Provides additional retail and commercial opportunities at the edge of the Centre	- Ground floor frontage to be activated by retail and business premises - Access to residential lobbies permitted and encouraged - No ground floor residential (Except for properties under Schedule 1 in the RLEP 2011) - Vehicle access permitted where the development does not front a Service Laneway or Centre Edge Residential street - Service access permitted where the development does not front a Service Laneway or Centre Edge Residential street
Centre Edge Residential	High density residential at the edge of the Centre with opportunities for retail or commercial uses	- Active retail uses permitted on the ground floor frontage - Access to residential lobbies should be from this frontage - Ground floor residential with direct street access permitted - Vehicle access permitted where the development does not front a Service Laneway - Service access permitted where the development does not front a Service Laneway

Part 7 Special Precincts

7.5 Rockdale Town Centre

Pedestrian connection

Pedestrian movement within the centre is encouraged by retaining or providing additional pedestrian connections between Princes Highway or King Street Place and laneways. This will contribute to a vibrant pedestrian environment.

Therefore, provision of through site pedestrian links is encouraged within the area indicated on the Street Role Diagram.

1. Applicants are encouraged to liaise with Council to deliver a pedestrian link; in return Council may consider flexibility in the application of development standards or development controls.

New public open space

The Masterplan identifies a number of public open spaces in the Town Centre as shown in the Street Role Diagram.

2. Development fronts the public spaces identified in the Street Role Diagram must have a active retail frontage.

Residential apartment design

Given the Centre's high frequency and choice of public transport service and the available range of retailing, greater population density in the Centre is encouraged. Increased population within the Centre's walking catchment will also add to the Centre's activity and vibrancy. Rockdale Town Centre is the ideal location to provide dense inner city style apartment living for a variety of household demographics.

3. A diversity of housing choice is to be offered by mixed use developments by providing a variety of apartment types and sizes. Innovative solutions to meeting current and future housing demands and changing household structures is encouraged. This includes but is not limited to:
 - a. 3 bedroom units which can be divided into a 2 bedroom unit and studio unit, sharing a common entry,
 - b. 2 or 3 bedroom units with all bedrooms having ensuites,
 - c. Units with large home office space which is separable from private living areas,
 - d. Operable internal walls to allow multiple rooms or larger single rooms to be created as needed,

Parking and loading

Part 7 Special Precincts

7.5 Rockdale Town Centre

Rockdale Town Centre benefits from an extensive laneway network which provides opportunities for convenient servicing of developments. The Centre also has a supply of on and off street public carparking to service visitors. These attributes reduce the demand on individual developments to provide visitor and shopper parking as well as loading and service space.

4. Shared vehicular access between developments, especially along Active Laneways, is encouraged.
5. No on site loading bay is required for developments with less than 1000m² of retail space.
6. Where no loading bay is provided on site, all retail tenancies are to have access to a street or lane with a marked loading bay, either directly or via a common retail servicing space separate from the residential basement parking area.
7. Visitor carparking provided on site must be provided behind a security gate or shutter accessed via intercom.
8. Despite the requirements of the Parking and Loading Technical Specification, developments which contain residential accommodation are only required to provide on-site loading for removalists for a small rigid vehicle.

Commercial Space

Given the anticipated growth of the Centre there is likely to be an increasing demand for commercial office space over time. Commercial space, home offices and units able to be converted to commercial suites in the future should be considered in new developments.

9. Where permitted, ground level residential units which are directly accessible from the street should include spaces suitable for use as a home office.
10. Innovative solutions to provide the flexibility to meet future commercial space demand are encouraged. This includes but is not limited to:
 - a. A series of large studio apartments on the same floor which could be fitted out for commercial use.
 - b. Two storey units designed so that one floor could operate as a home office separate from the private living spaces.
 - c. Utilising space within podiums to provide commercial tenancies where the building footprint is deeper than permissible for residential units.
 - d. Wrapping any above ground carparking in commercial space rather than residential units.

Part 7 Special Precincts

7.5 Rockdale Town Centre

- a. Splitting lobbies to provide both residential and commercial use on the same floor, providing the commercial space adjoining any railway or busy road and the residential space where the outlook is more amenable.
1. For those areas in the B2 Local Area (Refer to Schedule 1 in Rockdale LEP 2011), where ground floor residential apartments are permitted, the design of commercial/retail spaces should not be compromised. They should have enough space for sufficient internal circulation movement and able to accommodate a greater range of retail/commercial uses. This includes but is not limited to:
 - a. Commercial/retail uses must have a street frontage.
 - b. Each commercial/retail unit should be at least 6m in width and 13m in depth.

Communal open space and landscape design

The density and intensity of develop envisaged in the Centre means that opportunities should be sought to utilise space within developments for communal use with soft landscaping to improve the amenity for residents and the character of the Centre.

2. A minimum of 25% of the site area is dedicated for communal open space. At least one of the communal open spaces must be large enough for recreational uses.
3. At least 50% of the communal open space should be soft landscaping.
4. Refer to Part 4.3.3 Communal Open Space for design specifications.
5. A portion of the roof top of mixed use developments should communal open space are containing soft landscaping, accessible by all residents. It is to include adequate drainage and have access to Greywater or Rainwater.
6. All soft landscaping areas in a development must have access to Greywater or Rainwater to meet their watering needs.

Part 7 Special Precincts

7.5 Rockdale Town Centre

7.5.2 Building form and character

This section is concerned with ensuring the intended character of streets and precincts within the Centre is achieved

It covers how the form and character of buildings affects the quality and feel of streets and public spaces; how the height and separation of buildings creates a sense of space as well as how the modelling and articulation of buildings improves the Centre's appearance and adds interest to the built environment.

This section complements the maximum building height controls in Rockdale LEP 2011. It sets out within this height limit the permissible envelope of development to ensure adequate separation between buildings and appropriate size and scale for streets and open space.

This section also provides basic built form guidance for sites that are affected by clause 6.14 Design Excellence and Competition in Rockdale LEP 2011.

Objectives

- A. To ensure building heights relate to street widths to create a scale to the public domain which improves the sense of space and experience for the user.
- B. To ensure there is adequate separation between buildings to maintain a sense of openness and allow sunlight to penetrate into the public domain.
- C. To create buildings which interface with the street and provide a positive contribution to the built environment.
- D. Ensure the appearance of buildings adds to the richness and experience of the Centre.

Part 7 Special Precincts

7.5 Rockdale Town Centre

Setbacks

1. All developments in the town centre are to be built to the street edge on the lower level. The street edge is the street frontage boundary or where stipulated in the following table, the identified front setback.
2. All developments are to build to the side boundary and abut adjoining developments at the street edge and front build to line.
3. Portions of buildings away from the street edge may be setback from the side boundary. Where this is the case they must be setback far enough from the side boundary for adequate building separation to be achieved or be able to be equitably achieved with future adjoining redevelopment.

Street	Setback
Green Gateway (Arterial Edge)	3 metres
King Lane	1 metre (Western side) 3 metres (Eastern side)
Centre Edge Residential streets	2 metres
Interchange Precinct (Princes Highway West between Tramway Arcade and Geeves Avenue)	3 metre retail level setback for colonnade
Interchange Precinct (Tramway Arcade and Geeves Avenue)	Dedication for local road widening as per Rockdale LEP 2011. Width of dedication is 2.5m

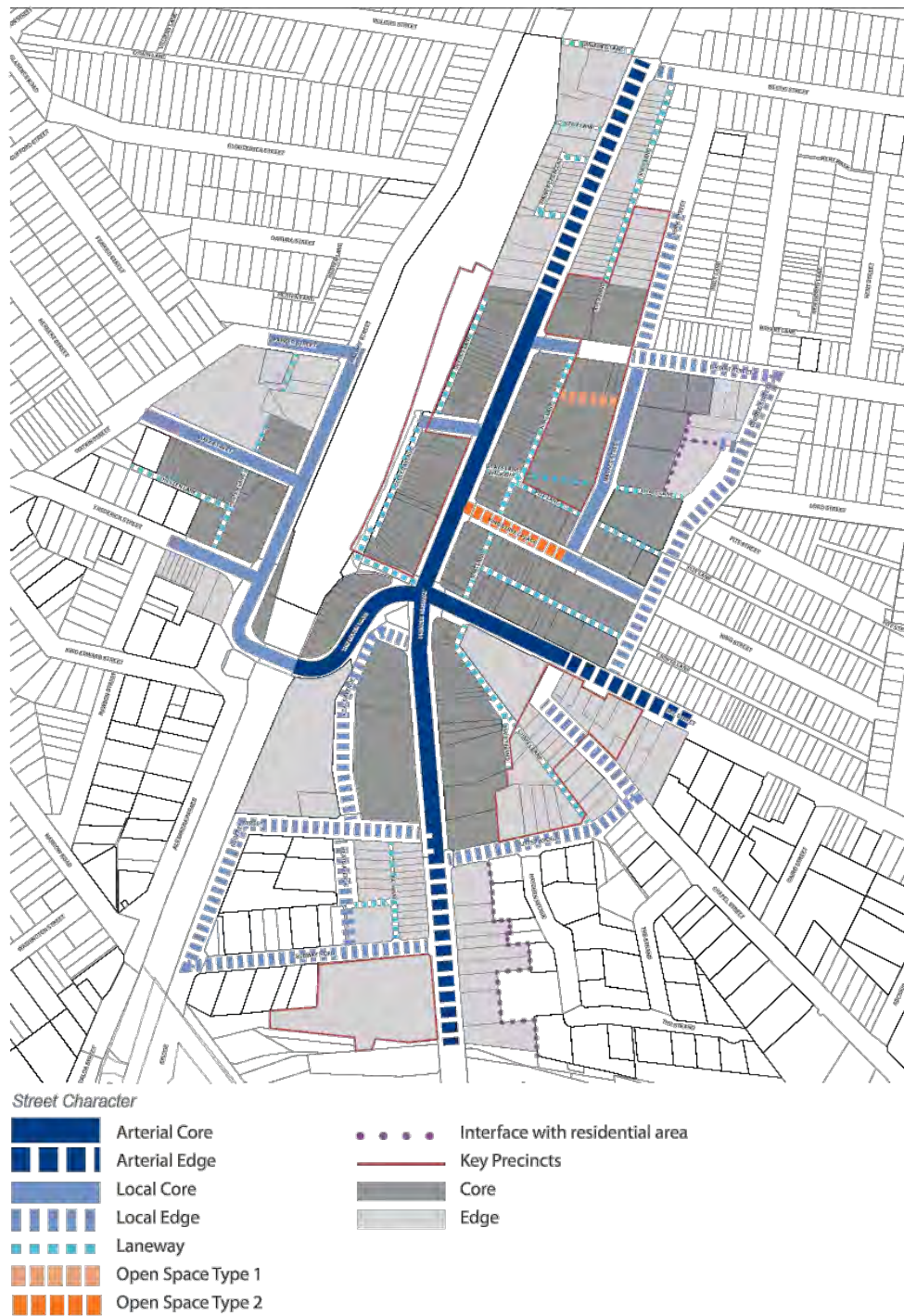
Street Character

The appropriate street setbacks, building separation, and facade modelling and articulation are products of the intended character of the various streets and spaces in the Centre.

4. The Street Character diagram designates the character type of all streets in the Centre. Developments are to comply with the building envelopes and desired future character of the corresponding street type for all street frontages as per the following street sections and standards.
5. Unless otherwise stated the setbacks illustrated in the street sections are build to line, meaning that the facade of buildings must be built to this line to create a consistent, continuous and definite street edge.

Part 7 Special Precincts

7.5 Rockdale Town Centre



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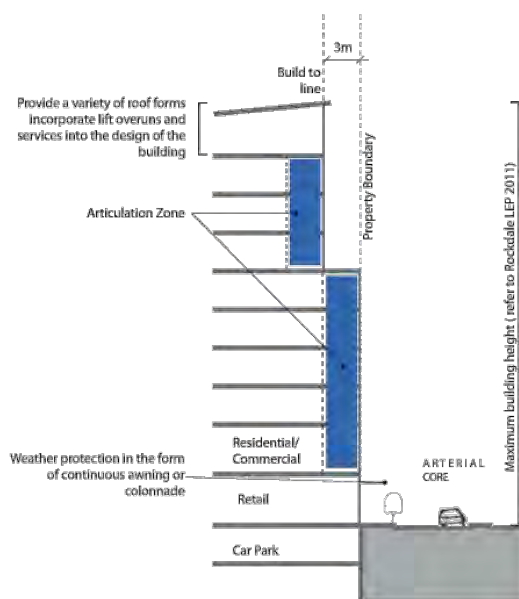
Rockdale DCP 2011

Part 7 Special Precincts

7.5 Rockdale Town Centre

Arterial Core

Strong bold buildings with facades designed with regard to the speed of observer that read a single composition, containing large scale elements and features.



1. For Arterial Road frontages of any development as designated by the Street Character diagram, the building envelope is (as per the section above):
 - a. Lower 6 storeys are to be built to the property boundary
 - b. Levels above the 6th storey are to be built to the building line setback 3m from the front property boundary
 - c. The portion of the building above the 6th floor is to have a side setback of at least 4.5m, a separation between buildings of at least 9m, and a maximum building length of 40m.
 - d. Continuous weather protection (ie awning) should be applied to all development.
 - e. The design of the street wall buildings should complement the proportion/scale of the neighbouring street wall buildings.

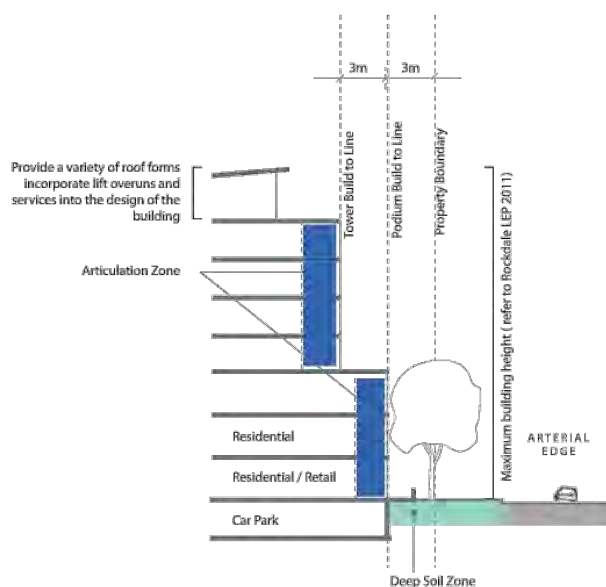
Part 7 Special Precincts

7.5 Rockdale Town Centre

Arterial Edge

Street edge defined by modulated built form transitioning from the strong urban character in the Centre core to the more spacious and open character of the surrounding residential area.

Building will have regard to the high speeds of observers and be clearly read as a strong podium upon which sits a lighter, modulated building allowing vistas between buildings to the skyline beyond.



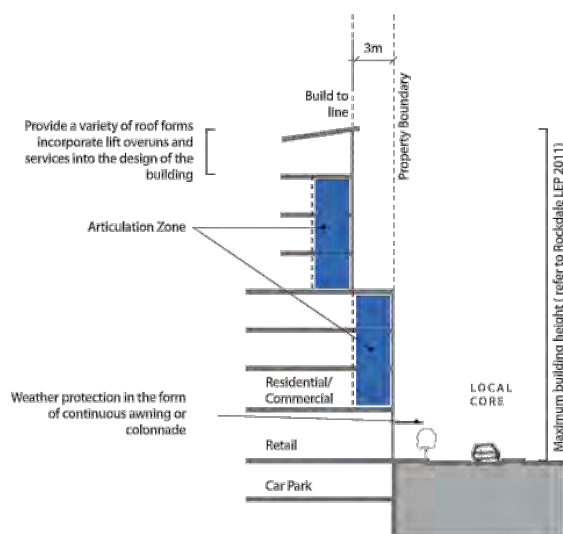
2. For Arterial Edge Road frontages of any development as designated by the Street Character diagram, the building envelope is (as per the section above):
 - a. Lower 3 storeys are to be setback 3m from the property boundary to support the landscape frontage of the Green Gateway.
 - b. Levels above the 3rd storey are to be setback at least 6m from the property boundary.
 - c. The portion of the building above the 3rd floor is to have a side setback of at least 4.5m, a separation between buildings of at least 9m, and a maximum facade length of 40m.
 - d. A minimum 9m rear setback is to be provided where development shares a boundary with a residential property.
 - e. The design of the street wall buildings should complement the proportion/scale of the neighbouring street wall buildings.
3. Comply with Arterial Edge-Green Gateway Style Sheet for the 3m frontage landscape design specifications.

Part 7 Special Precincts

7.5 Rockdale Town Centre

Local Core

Strong street edge defined by units addressing and overlooking the street. A solid urban character with robust materials and interest and variation provided by modulation or stepping of the facade achieved behind balconies or through the depth of openings to maintain a strong street wall.



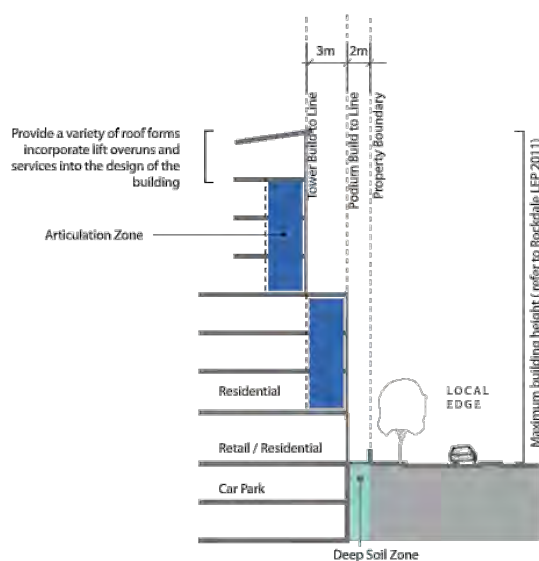
1. For Local Core frontages of any development as designated by the Street Character diagram, the building envelop is (as per the section above):
 - a. Lower 4 storeys are to be built to the property boundary.
 - b. Levels above the 4th storey are to be setback at least 3m.
 - c. A minimum 9m rear setback is to be provided where development shares a boundary with a residential property.
 - d. The design of the street wall buildings should complement the proportion/scale of the neighbouring street wall buildings.
 - e. Continuous weather protection (ie awning) should be applied to all development.

Part 7 Special Precincts

7.5 Rockdale Town Centre

Local Edge

Street edge defined by modulated built form transitioning from the strong urban character in the Centre core to the more spacious and open character of the surrounding residential area.



2. For Local Edge frontages of any development as designated by the Street Character diagram, the building envelop is to be (as per the section above):
 - a. Lower 4 storeys are to be setback 2m from the property boundary
 - b. Levels above the 4th storey are to be setback at least 3m from the lower build to line.
3. A minimum 9m rear setback is to be provided where development shares a boundary with a residential property.

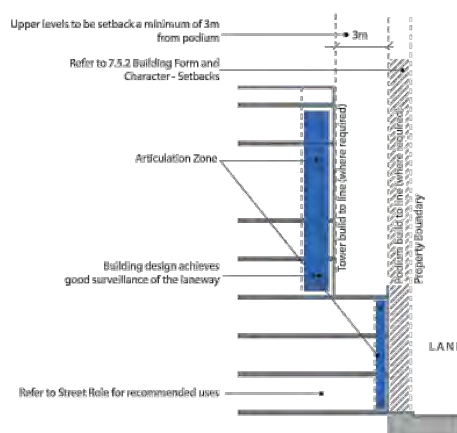
Part 7 Special Precincts

7.5 Rockdale Town Centre

Laneway

Strong street edge definition on lower levels creating a human scale to the narrow laneways with upper level units providing passive surveillance of the space. The whole podium will have a direct relationship with the lane and be composed to create interest and engage with laneway users.

Open Space Type 1

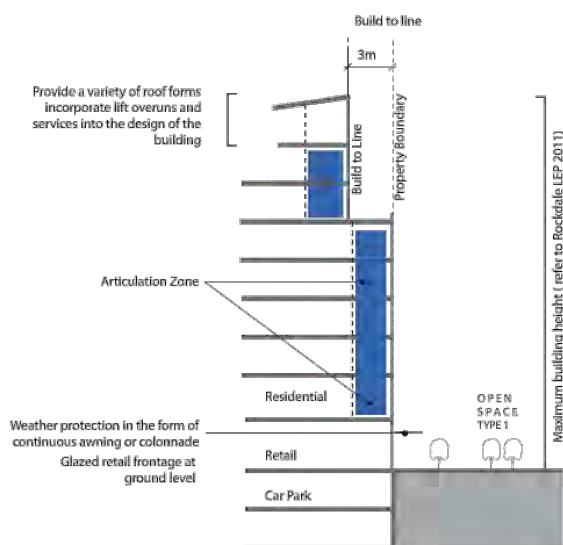


1. For Laneway frontages of any development as designated by the Street Character diagram, the building envelope is to be (as per the section above):
 - a. Lower 3 storeys are to be built to the property boundary or setback as required in by the Street Setback Table.
 - b. Levels above the 3rd storey are to be setback at least 3m

Part 7 Special Precincts

7.5 Rockdale Town Centre

A definite edge to the open space with an internal layout and facade design with encourages interaction between occupants of the building and the street. Building activity visible from the open space, adding to the sense of vibrancy and creating further visual interest



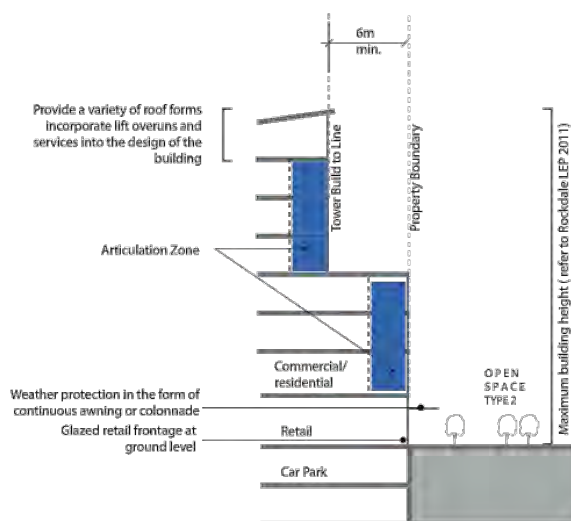
2. For Open Space Type 1 frontages of any development as designated by the Street Character diagram, the building envelope is to be (as per the section above):
 - a. Lower 6 storeys are to be built to the property boundary.
 - b. Levels above the 6th storey are to be setback at least 3m.
 - c. Continuous weather protection (ie awning) should be applied to all development.
 - d. Glazed retail frontage should be provided at ground level.

Part 7 Special Precincts

7.5 Rockdale Town Centre

Open Space Type 2

A definite edge to the open space with an internal layout and facade design with encourages interaction between occupants of the building and the street. Building activity visible from the open space, adding to the sense of vibrancy and creating further visual interest. Sufficient solar access to King Street Place is vital to the success of this public space.



1. For Open Space Type 2 frontages of any development as designated by the Street Character diagram, the building envelope is to be (as per the section above):
 - a. Lower 4 storeys are to be built to the property boundary.
 - b. Levels above the 4th storey are to be set back at least 6m to maximise solar access to King Street Place.
 - c. The portion of building above the 4th floor is to have a side setback of at least 4.5m, a separation between buildings of at least 9m, and a maximum facade length of 40m.
 - d. Future development must maintain at least 3 hours of sunlight between 9am and 3pm on 22 June (winter solstice) to King Street Place.
 - e. Continuous weather protection (ie awning) should be applied to all development.
 - f. Glazed retail frontage should be provided at ground level.

Part 7 Special Precincts

7.5 Rockdale Town Centre

7.5.3 Key Precincts

In addition to the building design and built form controls which apply across the Centre, there are also a number of Key precincts which have additional requirements. These precincts are illustrated on the Street Role and Street Character diagrams.

The following controls are required in addition to any setback, envelope and building design controls in Parts 7.5.1 and 7.5.2.

The Rockdale Town Centre Masterplan envisages significant improvement and expansion to the public domain network through the redevelopment of these precincts. Particular regard should be given to the relevant section of the Rockdale Town Centre Masterplan's Structure Plan and the Public Domain Plan for these precincts.

Town Heart and Civic Precinct

The Town Heart and Civic Precinct is defined as properties at 2, 2A Bryant Street, 19-25 York Street, 444,446, 448 Princes Highway, 1 5, 9, 9A, 18 Bryant street and 1 Market Street Rockdale.

1. A new Town Square is to be provided fronting Bryant Street as per the requirements of Parts 7.5.1 & 7.5.2, the Masterplan, and Public Domain Plan.
2. A public open space is to be provided at the corner of King Lane and Pitt Lane. Buildings fronting this public open space are to be designed with a 'Contributory Retail' role as per Part 7.5.1, and an 'Open Space' Type 1 frontage as per Part 7.5.2.
3. The ground floor of development in this precinct is to be for the purpose of a Food Providore Market. Vehicle access, servicing, and access to upper level uses is to be provided as per Part 7.5.1. The Market is to be designed in consultation with Council and:
 - a. Be accessible by pedestrians from multiple points on King Lane, Market Street, Pitt Lane, and the new Town Park.
 - b. Have its primary and secondary address and access from the new Town Park and open space at the corner of King Lane and Pitt Lane respectively.
 - c. Include a variety of spaces to cater for long term, short term, and temporary market tenants which address the surrounding street frontages as well as the internal market space.
 - d. Have a floor to finished ceiling height of at least 4.5 metres.

Part 7 Special Precincts

7.5 Rockdale Town Centre

Chapel Street Precinct

The Chapel Street Precinct is defined as properties at No.s 13, 15-19, 21 and 21A Bay Street and 1-9 and 11 Chapel Street and 1 and 3 Chapel Lane; and No.s 6, 8, 10 and 12 Lister Avenue.

1. This Precinct is subject to clause 6.14 Design Excellence and Competition Clause in Rockdale LEP 2011. The purpose of a design competition is to deliver the highest standard of architectural and urban design over the Chapel Street Precinct. Refer to Council's Design Competition Guideline - Chapel Street Precinct for further information.
2. Public roads and pedestrian links are to be included in the redevelopment of this precinct and dedicated to Council which achieve:
 - a. Vehicle access to Chapel Lane from either Lister Avenue or Chapel Street,
 - b. Pedestrian access from Chapel Street to the new public open space and Bay Street,
 - c. Pedestrian access between Bay Street and Chapel Lane
3. At least 40 public carspaces are to be provided at-grade in a single location, either on or off street. These spaces are to be dedicated to Council.
4. A new public open space is to be provided fronting Bay Street. Buildings fronting this public open space are to be designed with a 'Contributory Retail' role as per Part 7.5.1, and an 'Open Space' frontage as per Part 7.5.2. The space is to be publicly accessible by pedestrians from both Chapel Street and the new public carparking. It is to be located either:
 - a. Adjoining the side boundary of Chapel of 1 Bay Street, or
 - b. Opposite the termination of George Street.

Part 7 Special Precincts

7.5 Rockdale Town Centre

The Southern Gateway Precinct: 591-597 Prince Highway, Rockdale

This Southern Gateway Precinct is defined as 591-597 Princes Highway, Rockdale.

1. A new public domain with an area of at least 1,950m² is to be provided centrally on the site and fronting Subway Road. The public domain is to be privately owned and maintained but must be subject to an easement in favour of Council for its use by the general public;
2. Pedestrian links are to be provided through the site as generally depicted in Rockdale Town Centre Public Domain Plan 2012;
3. Ground floor uses are to address and activate the public domain as well as road frontages where possible;
4. Unless stated otherwise, building setbacks are to be in accordance with Figure 1;
5. Not limiting the requirements of Clause 7.5.2, Arterial Edge:
 - a. Setback from property boundary
 - ii. A minimum 3m setback to level 3
 - iii. A minimum 6m setback above level 3
6. The length of the façade along the Arterial Edge frontage may exceed the maximum 40m if it is demonstrated that the street wall achieved is complementary to the proportion/scale of the neighbouring street wall buildings. To facilitate this:
 - a. The levels above level 3 may project up to 3m into the required setback for a maximum of 30% of the length of the building.
 - b. The building must comply with Arterial Edge-Green Gateway Style Sheet.
7. Despite Clause 7.5.2, Local Edge the following minimum setbacks to the site are required:
 - a. Setback from property boundary
 - ii. A minimum 3m setback to level 3
 - iii. A minimum 6m setback above level 3
8. A continuous façade along the Muddy Creek frontage should be avoided where possible. Where the façade length exceeds 50m, a high degree of articulation is required to reduce the impact of the building. A combination of design solutions such as breaks in the building, varying heights, blades and alternative finishes and treatments can be used to achieve a suitable outcome.

Part 7 Special Precincts

7.5 Rockdale Town Centre

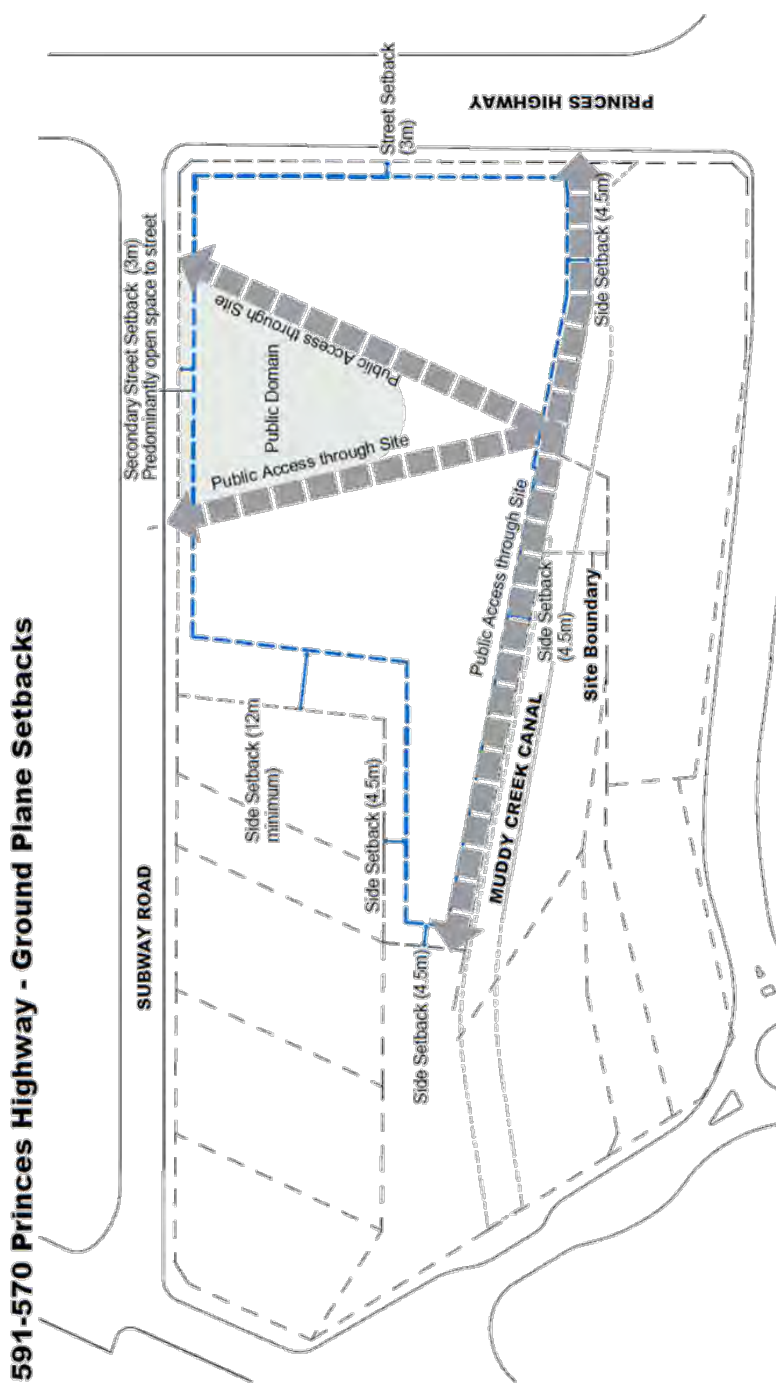


Figure 1

83 - 85 Railway Street, Rockdale

Planning Agreement

Under s 7.4 of the *Environmental Planning and Assessment Act 1979*

BAYSIDE COUNCIL

and

ELIAS ESTEPHAN DACCOUR

5 September 2019
Ss / mark / 3.16 / 4 11 2017
Doc ID 650169083/v1

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Contacts Sheet

Council:

Name: Bayside Council ABN 80 690 785 443 Branch 003
Address: 444 - 446 Princes Highway, ROCKDALE NSW 2216
Telephone: (02) 9562 1666
Facsimile: (02) 9562 1777
Email: council@bayside.nsw.gov.au
Representative: Meredith Wallace
General Manager

Developer:

Name: Elias Estephan Daccour
Address: 44A Townsend Street, Blakehurst NSW 2221
Telephone: 0424 604 301
Facsimile: Not applicable
Email: louiorg@optusnet.com.au
Representative: Not applicable

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83 - 85 Railway Street, Rockdale

This Agreement constitutes a planning agreement within the meaning of s 7.4 of the *Environmental Planning and Assessment Act 1979*, and facilitates the provision of Development Contributions for the Public Benefit.

Parties

Bayside Council

ABN 80 690 785 443 Branch 003 of 444 - 446 Princes Highway, ROCKDALE NSW 2216
(Council)

and

Elias Estephan Daccour of 44A Townsend Street, Blakehurst NSW 2221
(Developer)

Background

- A. The Developer owns the Land identified in **Schedule 2**, known as 83 - 85 Railway Street, Rockdale.
- B. The Developer is a director and secretary and controlling mind and will of Group Living Pty Ltd ACN 143 074 060.
- C. Council owns the Council Land.
- D. The Developer lodged the Development Application seeking approval for the Development, including requests for variations to the height and floor space ratio development standards pursuant to clause 4.6 of the LEP.
- E. The Developer has offered to enter into a Planning Agreement in accordance with section 7.4 of the Act, by way of letter dated 2 March 2018.
- F. The Developer has obtained development consent for the Development subject to conditions, by way of Notice of Determination dated 22 May 2018 which granted development consent for '*[r]etention of the existing facade, demolition of the remainder of the building and construction of a seven (7) storey mixed use development containing 18 residential units, one (1) commercial tenancy and basement car parking, provision of public footway access at the rear, and stratum subdivision into 2 lots*'. Deferred commencement condition B provides '*[a] voluntary planning agreement (VPA) in accordance with the offer set out in the letter from Think Planners to Bayside Council dated 2 March 2018 is to be entered into between the developer and Council*'.
- G. The Developer is prepared to make Development Contributions in connection with carrying out of the Development in accordance with this Agreement.

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Operative provisions

Part 1 - Preliminary

1. Definitions and interpretation

1.1 In this Agreement the following definitions apply:

Act means the *Environmental Planning and Assessment Act 1979* (NSW).

Agreement means this Planning Agreement under which the Developer agrees to make the Development Contributions. .

Business Day means any day in New South Wales which is not a Saturday, Sunday or any proclaimed public holiday.

Certifying Authority has the same meaning as in the Act.

Consent means development consent No. DA 2017/27 granted by way of notice of determination dated 22 May 2018, including any amendments to same.

Construction Certificate means a construction certificate within the meaning of s 6.4(a) of the Act.

Consultant has the same meaning as in the Records.

Council means Bayside Council, its successors and assigns.

Council Land means Lots 2 and 3 in Deposited Plan 3560 being the whole of the land comprised in Certificate of Title Volume 14560 Folio 36 and known as 87 Railway Street, Rockdale.

Council's Lawyer means HWL Ebsworth.

CPI means the Consumer Price Index (All Groups Sydney) or any other index which supersedes the Consumer Price Index (All Groups Sydney).

Dedicated Land means the land to be dedicated to the Council in accordance with this Agreement.

Defect means a defect with respect to any item of Work which adversely affects the ordinary use and/or enjoyment of the particular item.

Defects Liability Period, in relation to an Item of Work, is twelve (12) months commencing on the date on which the Developer Hands-Over the Item of Work to the Council under this Agreement.

Developer means Elias Estephan Dacour and his successors and permitted assigns.

Developer's Obligations means all of the Developer's obligations under this Agreement.

Development means a mixed use development on the Land, the subject of the Development Application DA-2017/26, comprising 'r]etention of the existing

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facade, demolition of the remainder of the building and construction of a seven (7) storey mixed use development containing 18 residential units, one (1) commercial tenancy and basement car parking, provision of public footway access at the rear, and stratum subdivision into 2 lots' which is the subject of the Consent.

Development Application means development application DA-2017/26 lodged with Council.

Development Consent when used generically (as distinct from 'the Consent') has the same meaning as in the Act.

Development Contributions means each of the contributions and works set out in Schedule 3 of this Agreement, to be used for, or applied towards, the provision of a Public Purpose as set out in **Schedule 3**.

GST has the same meaning as in the GST Law.

GST Law has the same meaning as in A New Tax system (Goods and Services Tax) Act 1999 (Cth) and any other Act or regulation relating to the imposition or administration of the GST.

Hand-Over means the completion of the construction of an Item of Work in accordance with the requirements of the Council and the delivery or dedication of that Item of Work to the Council in accordance with this Agreement.

Hand-Over Date, in relation to an Item of Work, means the date specified in Column 4 of **Schedule 3** opposite the Item of Work specified in Column 1 of that Schedule.

Item of Work means an item of the Works as specified in **Schedule 3**.

Just Terms Act means the Land Acquisition (Just Terms Compensation) Act 1991.

Land means the land specified and described in **Schedule 2**.

LRS means New South Wales Land Registry Services

Loss means any loss, claim, action, liability, damage, demands, cost, charge, which Council, its employees, officers, agents, contractors and workmen sustains, pays, suffers or incurs or is liable for arising in connection with the carrying out by the Developer of any Item of Work and the performance by the Developer of any obligation under this Agreement, including (but not limited to) reasonable legal and other expenses incurred in connection with investigating or defending any claim or action, whether or not resulting in any liability, and all amounts reasonably paid in settlement of any claim or action

Occupation Certificate has the same meaning as in the Act.

Party means a party to this Agreement, including their successors, agents and assigns.

Public Purpose has the same meaning as in s 7.4 of the Act.

Rectification Certificate means a compliance certificate within the meaning of section 6.4(e) of the Act to the effect that work the subject of a Rectification Notice has been completed in accordance with the Rectification Notice.

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Rectification Notice means a notice in writing that identifies a Defect in an Item of Work and requires rectification of the Defect within either the Defects Liability Period.

Rectification Security means a bond or bank guarantee for 10% of the Security Amount.

Records means the Rockdale Technical Guide-Works-As-Executed Records.

Registrable form means the document is properly executed and witnessed and bears an imprint from Revenue New South Wales to the effect that all necessary duties have been paid, and is otherwise capable of immediate registration by the LRS on the title of the relevant piece or parcel of land.

Regulation means the Environmental Planning and Assessment Regulation 2000.

Security means a bond or bank guarantee for the Security Amount.

Right of Carriageway means a proposed right of carriageway over the Council's Land in the area marked 'Driveway R.O.W.' (not coloured) on the plans contained at **Schedule 4**, being a non exclusive right of carriageway, in common with the public, benefitting the Developer's Land.

Security Amount means of \$100,000 indexed annually in accordance with annually by the increase in the CPI during the prior year computed from the date of this Agreement

Service Provider means a provider of services relating to an Item of Work which must have the relevant expertise, experience, approvals, permits and licences to lawfully carry out or implement that Item.

Sketch Plan means the sketch plan contained at **Schedule 7** setting out the works relating to reconfigured parking spaces adjacent to the Guild Theatre.

Specifications means the specifications for the Works set out in **Schedule 4**

Strata Plan means a strata plan or strata plan of subdivision within the meaning of the Strata Schemes Act.

Strata Schemes Act means the *Strata Schemes (Freehold Development) Act 1973* (NSW).

Subdivision Plan means a plan of subdivision of the Land whereby the Dedicated Land is created as a separate legal stratum lot with separate title.

Works means the works to be carried out by the Developer under this Agreement as described in Part B of **Schedule 3**.

Works-As-Executed Records means a plan setting out a record of construction completed in accordance with the Rockdale Technical Guide – Works-As-Executed Records.

1.2 In the interpretation of this Agreement, the following provisions apply unless the context otherwise requires:

1.2.1 Headings are inserted for convenience only and do not affect the interpretation of this Agreement.

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- 1.2.2 A reference to a Business Day means a day other than a Saturday, Sunday or bank or public holiday in Sydney.
- 1.2.3 If the day on which any act, matter or thing is to be done under this Agreement is not a Business Day, the act, matter or thing must be done on the next business day.
- 1.2.4 A reference to time is local time in Sydney,
- 1.2.5 A reference to dollars or \$ means Australian dollars and all amounts payable under this Agreement are payable in Australian dollars.
- 1.2.6 A reference to a \$ value relating to a Development Contribution is a reference to the value exclusive of GST.
- 1.2.7 A reference to any law, legislation or legislative provision includes any statutory modification, amendment or re-enactment, and any subordinate legislation or regulations issued under that legislation or legislative provision.
- 1.2.8 A reference to any agreement, deed or document is to that agreement, deed or document as amended, novated, supplemented or replaced.
- 1.2.9 A reference to a clause, part, schedule or attachment is a reference to a clause, part, schedule or attachment of or to this Agreement.
- 1.2.10 An expression importing a natural person includes any company, corporation, trust, partnership, joint venture, association, unincorporated association, body corporate, statutory body, statutory authority or governmental agency.
- 1.2.11 Where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.
- 1.2.12 A word which denotes the singular denotes the plural, a word which denotes the plural denotes the singular, and a reference to any gender denotes the other genders.
- 1.2.13 Reference to the word "include" or "including" are to be construed without limitation.
- 1.2.14 A reference to this Agreement includes the agreement recorded in the Agreement.
- 1.2.15 A reference to a party to this Agreement includes a reference to the personal representatives, legal representatives, agents and contractors of the party, and the party's successors and assigns substituted by novation.
- 1.2.16 Any schedules, appendices and attachments form part of this Agreement.
- 1.2.17 Notes appearing in the Agreement are operative provisions of this Agreement.

2. Application of this Agreement

- 2.1 This Agreement applies to the Land and to the Development.

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3. Status and operation of this Agreement

- 3.1 This Agreement takes effect from the date this Agreement is executed by the Parties.
- 3.2 The Parties each agree that this Agreement is a Planning Agreement within the meaning of Section 7.4 of the Act and is governed by Part 7, Division 7.1, Subdivision 2 of the Act.
- 3.3 This Agreement will remain in force until:
 - 3.3.1 It is terminated by operation of law; or
 - 3.3.2 1 month after all of the Developer's Obligations under this Agreement are performed or satisfied.

4. Further agreements relating to this Agreement

- 4.1 The Parties may, at any time and from time to time, enter into agreements relating to the subject-matter of this Agreement that are not inconsistent with this Agreement for the purpose of implementing this Agreement.

5. Application of s 7.11, s 7.12, s 7.24 of the Act to the Development

- 5.1 The parties each agree that this Agreement does not exclude the application of sections 7.11, 7.12, 7.24 of the Act in respect of the Development.
- 5.2 The Developer agrees that the Development Contributions are not to be taken into account in determining a development contribution under Section 7.11 of the Act.

Part 2 – Development Contributions

6. Provision of Development Contributions

- 6.1 **Schedule 3** has effect in relation to the Development Contributions to be made by the Developer under this Agreement.
- 6.2 The Developer must make the Development Contributions (as set out in **Schedule 3**) to Council in accordance with this Agreement.
- 6.3 The Council must apply each Development Contributions made by the Developer under this Agreement towards the Public Purpose for which it is made and otherwise in accordance with this Agreement.

7. Dedication of land

- 7.1 The Development Contributions comprising the dedication of the Dedicated Land to the Council is made for the purposes of this Agreement when an instrument in registrable form under the *Real Property Act 1900* that is effective to transfer the title to the land to Council is registered at the LRS.
- 7.2 The Developer must at no cost to the Council, carry out all steps required to dedicate the Dedicated Land to the Council free from encumbrances in accordance with this Agreement. For the avoidance of doubt this clause does not mean that the

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Developer is liable for internal staff costs incurred by Council in relation to processing the transfer.

- 7.3 The Parties acknowledge and agree that as at the date of this Agreement, the Dedicated Land is not contained in a separate lot and cannot be transferred to the Council until the Land is subdivided to create the Dedicated Land as a separate legal lot capable of transfer.
- 7.4 The Developer must at its expense:
- 7.4.1 promptly lodge the Subdivision Plan at the Council for approval (as consent authority and certifying authority) and use all reasonable endeavours to obtain such approval as soon as practicable;
- 7.4.2 following approval by the Council of the Subdivision Plan, promptly:
- (A) lodge the approved Subdivision Plan at the LRS for registration;
 - (B) notify Council's Lawyers in writing of such lodgement; and
 - (C) thereafter, use all reasonable endeavours to obtain registration of the Subdivision Plan at the LRS as soon as practicable.
- 7.5 The Developer must at its expense:
- 7.5.1 within ninety (90) days after registration of the Subdivision Plan at LRS:
- (A) notify the Council's Lawyers in writing of registration of the Subdivision Plan; and
 - (B) take all steps required of the Developer to transfer the Dedicated Land to the Council free from encumbrances.
- 7.6 The Developer and the Council agree and warrant that they will at their own expense, do all things necessary and sign all documents required to facilitate the subdivision of the Land and the subsequent transfer of the Dedicated Land to Council.
- 7.7 If the Developer does not transfer the Dedicated Land as required by this Agreement in accordance with **clauses 7.1 to 7.5**, the Developer consents to the Council compulsorily acquiring the Dedicated Land for compensation of \$1 without having to follow the pre-acquisition procedure under the Just Terms Act.
- 7.8 Clause 7.7 constitutes an agreement for the purposes of section 30 of the Just Terms Act.
- 7.9 The Developer must promptly do all things necessary, and consent to the Council doing all things necessary, to give effect to **clause 7.7** including (without limitation):
- 7.9.1 signing any documents or forms;
 - 7.9.2 producing certificates of title to the LRS under the Real Property Act 1900;
 - 7.9.3 paying the Council's reasonable costs arising under **clauses 7.7 to 7.9**.
- 7.10 For the avoidance of doubt, the costs referred to in **clause 7.9.3** do not include internal staff costs incurred by Council in relation to processing the compulsory acquisition referred to in **clauses 7.7- 7.9**.

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8. Design and Specification of an Item of Work

- 8.1 The Developer must at its expense engage a Service Provider for design and specification of each Item of Work.

9. Carrying out of an Item of Work

- 9.1 The Developer must produce a detailed design and specification for the Works in accordance with:
- 9.1.1 any reasonable lawful requirements and directions of the Council that are notified in writing to the Developer at any time before the Works are approved in accordance with this Agreement;
 - 9.1.2 the conditions of the Consent for the Development granted in relation to an Item of Work;
 - 9.1.3 the Specifications; and
 - 9.1.4 the Sketch Plan.
- 9.2 The Developer must not apply for a Construction Certificate from the Certifying Authority for an Item of Work until the Council (as the future owner of the Item of Work and not as a planning authority) has approved the detailed design and specification for the Works.
- 9.3 The Developer must not apply for a Construction Certificate from the Certifying Authority for an Item of Work until the Council as roads authority under the *Roads Act 1993* has approved the detailed design and specification for the Works located on Hesten Lane and Walz Street.
- 9.4 The Developer must, at its expense, carry out and complete each Item of Work or engage its Service Provider to carry out and complete each Item of Work, to the reasonable satisfaction of the Council, in accordance with:
- 9.4.1 the detailed design and specification approved by the Council,
 - 9.4.2 all applicable laws, including those relating to occupational health and safety,
 - 9.4.3 the conditions of any development consent granted in relation to the carrying out of that Item of Work;
 - 9.4.4 the conditions of the Consent for the Development; and
 - 9.4.5 the conditions of approval under the *Roads Act 1993*.

10. Construction of an Item of Work

- 10.1 The Developer must engage a Service Provider for implementation/construction of each Item of Work and must implement/construct such Item of Work in accordance with the Building Code of Australia and the development consent for the Development in relation to that Item of Work.
- 10.2 The Developer must ensure that the carrying out of each Item of Work is supervised in accordance with the Records. A Consultant must be appointed:

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- 10.2.1 where the Item of Work is to be constructed by a Service Provider under contract to the Developer, by the Developer, or
- 10.2.2 where the Item of Work is to be constructed by the Developer, by the Council.
- 10.3 The Developer must notify the Council in writing within 14 Business Days of the issue of a corrective action request, non-conformance report or notice of non-conformance issued by the Consultant with respect to the Item of Work in accordance with **clause 10.1** and promptly undertake all corrective action with respect to such Item of Work as required by the Council.

11. Access to the Land and the Deed of Agreement for Right of Carriageway and Works Licence

- 11.1 The Developer is to permit Council, its officers, employees, agents and contractors to enter the Land at any time, upon giving reasonable prior notice, in order to inspect, examine or test any Item of Work.
- 11.2 At the time of execution of this Agreement the parties must also execute the Deed of Agreement contained at **Schedule 6**.

12. Protection of people and property

- 12.1 The Developer is to ensure to the fullest extent reasonably practicable in relation to the carrying out of any Work that:
 - 12.1.1 all necessary measures are taken to protect people and property, and
 - 12.1.2 unnecessary interference with the passage of people and vehicles is avoided, and
 - 12.1.3 nuisances and unreasonable noise and disturbances are prevented.

13. Hand-Over of Works

- 13.1 The Developer must submit to the Council the Works-as-Executed Records and written notice for an Item of Work not less than 10 Business Days prior to the date on which it proposes to Hand-Over of the Item of Work.
- 13.2 Council acting reasonably can, within 5 Business Days of receipt of the notice under **clause 13.1**,
 - 13.2.1 request information (in addition to the Works-as-Executed Records) that is relevant to the completion of the Item of Work and delay the Hand-Over of the Item of Work until the Developer has provided the additional information requested to Council's reasonable satisfaction, or
 - 13.2.2 determine that the Item of Work has not met the detail design and specification approved by Council under **clause 9** and issue an Rectification Notice implemented in accordance with **clause 15**.
- 13.3 On Hand-Over of an Item of Work:

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- 13.3.1 the Developer must ensure that an unencumbered title to each Item of Work passes to Council and must give to Council any document of title to each Item of Work if such a document of title exists;
- 13.3.2 Council accepts ownership, possession and control of that Item of Work; and
- 13.3.3 Council returns to the Developer the Security less the Rectification Security for that Item of Work (alternatively, if the Developer provides a new bond or bank guarantee for the Rectification Security, Council must release the whole of the Security).

14. Failure to Comply with the Hand-Over Date

- 14.1 If the Developer fails to Hand-Over an Item of Work by the Hand-Over Date the Council may if it considers, acting reasonably, that the Item of Work is incomplete, call upon the Security and carry out and complete the Item of Work itself.
- 14.2 For the purposes of **clause 14.1**:
 - 14.2.1 the Developer must allow the Council, its servants, agents and contractors to enter the Land at any time for the purpose of completing the relevant Item of Work,
 - 14.2.2 any difference between the Security called upon by the Council and the costs incurred by the Council in completing the Item of Work may be recovered by the Council from the Developer as a liquidated debt due and owing in a court of competent jurisdiction; and
 - 14.2.3 any remaining Security must be returned to the Developer by the Council as soon as possible, after deduction of the Rectification Security or the provision of a replacement bond or bank guarantee for the Rectification Security.
- 14.3 If the Developer fails to Hand-Over an Item of Work by the Hand-Over Date, the Developer irrevocably appoints the Council as its attorney to execute all such documents and do all such things on the Developer's behalf as are necessary or desirable to enable an Item of Work to be Handed-Over to the Council in accordance with this Agreement.

15. Rectification of Defects

- 15.1 During the Defects Liability Period, the Council may give to the Developer a Rectification Notice.
- 15.2 The Developer must comply with a Rectification Notice at its own cost.
- 15.3 The Developer must comply with the Rectification Notice within a period of time that is reasonable having regard to the practical performance of works required to be performed by the Rectification Notice.
- 15.4 When the Developer considers that rectification is complete, the Developer must give to the Council a Rectification Certificate relating to the item of work the subject of the relevant Rectification Notice and submit to the Council the Works-as-Executed Records and written notice for an item of work on which it proposes to hand-over of the item of work.

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- 15.5 Council acting reasonably can, within 20 Business Days of receipt of the notice under **clause 15.4**:
- 15.5.1 request information (in addition to the Works-as-Executed Records) that is relevant to the completion of the item of work and delay the hand-over of the item of work until the Developer has provided the additional information requested to Council's reasonable satisfaction, or
 - 15.5.2 determine that the Item of Work has not meet the design and specification approved by Council and issue a further Rectification Notice implemented as pursuant to this Clause.
- 15.6 If the Developer does not comply with a Rectification Notice within the time provided at **clause 15.3**, the Council may, subject to **clause 15.7**, do such things as are necessary to rectify the Defect and may recover, as a debt due and owing in a court of competent jurisdiction, any reasonable cost incurred by the Council in rectifying the Defect.
- 15.7 Before the Council may rectify any Defect in accordance with **clause 15.6**, it must;
- 15.7.1 notify the Developer in writing of its intention to exercise its right pursuant to **clause 15.6**;
 - 15.7.2 provide the Developer a further 14 days to comply with the Rectification Notice or provide some other response in writing; and
 - 15.7.3 reasonably consider the content of any other written response provided by the Developer provided in that 14 day period.

16. Damage and repairs to Work

- 16.1 The Developer, at its own cost, is to repair and make good to the satisfaction of Council any Loss or damage to an Item of Work from any cause whatsoever which occurs prior to the date on which the Item of Work has been Handed-Over to Council under this Agreement.

17. Variation of Work

- 17.1 An Item of Work is not to be varied by the Developer, unless:
- 17.1.1 the Parties agree in writing to the variation, and
 - 17.1.2 any consent or approval required under the Act or any other law to the variation is first obtained, and
 - 17.1.3 the Developer bears all of Council's costs of and incidental to agreeing to and approving the variation under this Agreement.
- 17.2 For the purposes of **clause 17.1**, a variation may relate to any matter in relation to the Works that is dealt with by this Agreement.

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Part 3 – Other Provisions**18. Indemnity and insurance**

- 18.1 This clause applies until the expiration of the Defects Liability Period only.
- 18.2 The Developer indemnifies Council from and against all Loss, except to the extent that any Loss is caused or contributed to by the deliberate or negligent act or omission of Council, its employees, officers, agents, contractors and workmen.
- 18.3 The Developer is to take out and keep current to the reasonable satisfaction of Council the following insurances in relation to Work required to be carried out by the Developer under this Agreement up until the Work is taken to have been completed in accordance with this Agreement:
 - 18.3.1 contract works insurance; noting Council as an interested party, for the full replacement value of the Works (including the cost of demolition, removal of debris, and remediation, consultants' fees and authorities' fees), to cover the Developer's liability in respect of damage to or destruction of the Works,
 - 18.3.2 public liability insurance for at least \$20,000,000 for a single occurrence, which covers Council, the Developer and any subcontractor of the Developer, for liability to any third party,
 - 18.3.3 workers compensation insurance as required by law, and
 - 18.3.4 any other insurance required by law.
- 18.4 If the Developer fails to comply with **clause 18.3**, Council may effect and keep in force such insurances and pay such premiums as may be necessary for that purpose and the amount so paid shall be a liquidated debt due from the Developer to Council and payable within 30 days after providing an invoice and which may be recovered as a liquidated debt due in a court of competent jurisdiction.
- 18.5 The Developer is not to commence to carry out any Work unless it has first provided to Council satisfactory written evidence of all of the insurances specified in **clause 18.3**.

19. Provision of Security and Charge

- 19.1 The Parties agree that the obligation to carry out the Works will be secured by provision of the Security by the Developer to Council prior to the issue of any Construction Certificate.
- 19.2 The Parties agree in respect of the Items of Works identified in **Schedule 3** and the Security that, where Council is the certifying authority, it may withhold the issue of the relevant Occupation Certificate (as appropriate) until such time as the identified Item of Work is completed or the Security is provided.
- 19.3 The Developer agrees and acknowledges that where the Council is not appointed as the certifying authority, it:
 - 19.3.1 will provide a copy of this Agreement to the certifying authority at the time of appointment of the certifying authority under s 81A of the Act, with a

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copy of the correspondence to the certifying authority to be immediately provided to Council; and

- 19.3.2 will not make any application for any Construction Certificate or any Occupation Certificate in breach of its obligations under this agreement and the terms this Agreement.

19.4 The Developer irrevocably and unconditionally:

- 19.4.1 acknowledges that the Council has a caveatable interest in the Land in accordance with this Agreement;

- 19.4.2 consents to the Council lodging and maintaining a caveat against the title to the Land; and

- 19.4.3 agrees that the Council cannot be required to remove any such caveat from the title to the Land except in accordance with **clause 19.5**.

19.5 The Council must promptly withdraw any such caveat from the title to the Land when the Developer has registered this agreement on the title of the Land.

19.6 The Council, as caveator, consents to any financier's mortgage being registered on the Land.

19.7 Any mortgage registered on the Land prevails over Council's (as caveator) interest in the Land provided that, if in possession of the Land pursuant to the mortgage, such financier will remain bound by the Agreement.

20. Release & return of Security

- 20.1 Subject to **clause 19**, the Council is to release the Security to the Developer as soon as practical following Hand-Over, but may retain the Rectification Security (which can be provided by the Developer as a new bond or bank guarantee in exchange for a full release of the Security) until the end of the Defects Liability Period.

21. Recovery of cost of rectification carried out by Council

- 21.1 If Council incurs a cost in rectifying a Defect in an Item of Work, it may draw on the Rectification Security in accordance with **clause 19** or alternatively, this cost shall be a liquidated debt due and payable by the Developer to Council within 30 days after the production of an invoice and which may be recovered by Council from the Developer in a court of competent jurisdiction.

- 21.2 For the purpose of **clause 21.1**, Council's costs of rectifying a Defect in an Item of Work includes, but is not limited to:

- 21.2.1 the reasonable costs of Council's officers, personal representatives, agents and contractors reasonably incurred for that purpose,

- 21.2.2 all fees and charges necessarily or reasonably incurred by Council in order to have the Item of Work rectified, and

- 21.2.3 without limiting **clause 21.2.2**, all legal costs (assessed on an indemnity basis) and expenses reasonably incurred by Council, by reason of the Developer's failure to comply with this Agreement.

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22. Enforcement in a court of competent jurisdiction

- 22.1 Without limiting any other provision of this Agreement, the Parties may enforce this Agreement in any court of competent jurisdiction.
- 22.2 For the avoidance of doubt, nothing in this Agreement prevents:
- 22.2.1 a Party from bringing proceedings in the Land and Environment Court to enforce any aspect of this Agreement or any matter to which this Agreement relates,
- 22.2.2 Council from exercising any function under the Act or any other Act or law relating to the enforcement of any aspect of this Agreement or any matter to which this Agreement relates.

23. Dispute resolution – expert determination

- 23.1 This clause applies to a dispute under this Agreement which relates to a matter that can be determined by an appropriately qualified expert.
- 23.2 Any dispute between the parties as to whether a dispute to which this clause applies can be determined by an appropriately qualified expert is to be referred to the Chief Executive Officer of the professional body that represents persons with the relevant expertise for determination, which is to be final and binding on the Parties.
- 23.3 Such a dispute is taken to arise if one Party gives another party a notice in writing specifying particulars of the dispute.
- 23.4 If a notice is given under **clause 23.3**, the Parties are to meet within 14 days of the notice in an attempt to resolve the dispute.
- 23.5 If the dispute is not resolved within a further 28 days, the dispute must be referred to the President of the NSW Law Society to appoint an Expert for Expert Determination.
- 23.6 The Expert Determination is binding on the parties except in the case of fraud or misfeasance by the Expert.
- 23.7 Each Party must bear its own costs arising from or in connection with the appointment of the Expert and the Expert Determination.
- 23.8 This clause survives the completion or termination of this Agreement.

24. Dispute resolution – mediation

- 24.1 This clause applies to any dispute under this Agreement other than a dispute to which **clause 23.5** applies.
- 24.2 Such a dispute is taken to arise if one party gives another Party a Notice in writing specifying particulars of the dispute.
- 24.3 If a notice is given under **clause 24.2**, the Parties are to meet within 14 days of the notice in an attempt to resolve the dispute.

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- 24.4 If the dispute is not resolved within a further 28 days, the Parties must mediate the dispute in accordance with the Mediation rules of the Law Society of New South Wales published from time to time and must request the President of the law Society, or the President's nominee, to select a mediator.
- 24.5 If the dispute is not resolved by mediation within a further 28 days, or such longer period as may be necessary to allow any mediation process which has been commenced to be completed, then the Parties may exercise their legal rights in relation to the dispute, including by the commencement of legal proceedings in a court of competent jurisdiction in New South Wales.
- 24.6 This clause survives the completion or termination of this Agreement.

25. Registration of this Agreement

- 25.1 The Parties agree that this Agreement is to be registered for the purposes of section 7.6 of the Act
- 25.2 The Developer must lodge this Agreement for registration on the Register pertaining to the Land no later than 28 days after the date of this Agreement including obtaining the consent of any mortgagee or other person who has an interest in the Land;
- 25.3 The Developer must use all reasonable endeavours to obtain such registration as soon as practicable and promptly after registration, deliver to the Council a title search of the Land confirming registration of this Agreement.
- 25.4 The Parties will take all practical steps to procure:
- 25.4.1 the consent of each person who:
- A. has an estate or interest in the Land registered under the Real Property Act 1900 (NSW) or
- B. is seized or possessed of an estate or interest in the Land, and
- 25.4.2 the execution of any documents, and
- 25.4.3 the production of the relevant duplicate certificates of title,
- to enable the registration of this Agreement under the Real Property Act 1900 (NSW) in the relevant folios of the register for the Developer's Land in accordance with section 7.6 of the Act.
- 25.5 The Developer further covenants and agrees with the Council that pending registration of this Agreement the Council shall be entitled to register a caveat at LRS over the titles comprising the Land to protect its interest therein pursuant to this Agreement.
- 25.6 The Council agrees that, as soon as this Agreement is registered, the Council will immediately withdraw its caveat over the Land.

26. Release and discharge of Agreement by Council

- 26.1 The Council must use all reasonable endeavours and do all things reasonably required to cause the release and discharge of this Agreement with respect to any

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part of the Land (such that the Agreement is no longer registered by LRS under section 7.6 of the Act in relation to that part of the Land) within 14 Business Days after receiving a written request to do so by the Developer, upon the Developer having provided all of the Development Contributions in accordance with this Agreement and otherwise complying with this Agreement to the satisfaction of the Council. Council's satisfaction must not be unreasonably withheld.

27. Assignment and transfer

- 27.1 Unless the matters specified in **clause 27.2** are satisfied, the Developer is not to do any of the following:
- 27.1.1 if the Developer is the owner of the Land, to transfer the Land to any person, or
 - 27.1.2 assign, transfer dispose or novate to any person the Developer's rights or obligations under this Agreement
- 27.2 The matters required to be satisfied for the purposes of **clause 27.1** are as follows:
- 27.2.1 the Developer has, at no cost to Council, first procured the execution by the person to whom the Developer's rights or obligations under this Agreement are to be assigned or novated, of an agreement in favour of the Council on terms satisfactory to Council acting reasonable, and
 - 27.2.2 Council, by notice in writing to the Developer, has stated that evidence satisfactory to Council has been produced to show that the assignee or novatee, is reasonably capable of performing its obligations under the Agreement,
 - 27.2.3 the Developer is not in breach of this Agreement, and
 - 27.2.4 Council otherwise consents to the transfer, assignment or novation in writing.
- 27.3 Any purported dealing in breach of this **clause 27.2** is of no effect.
- 27.4 Notwithstanding **clause 27.1** the Developer may enter into a contract for sale, and may sell and transfer to a transferee part of the Land forming a strata lot in a proposed Strata Plan, without compliance with **clause 27.2**.

28. Review of this Agreement

- 28.1 The Developer is to provide to Council by not later than each anniversary of the date on which this Agreement is entered into, a written report detailing the performance of its obligations under this Agreement.
- 28.2 The report referred to in **clause 28.1** is to be in such a form and to address such matters as may be notified by Council to the Developer from time to time.
- 28.3 The Parties agree to review this Agreement every 2 years, and otherwise if either Party is of the opinion that any change of circumstance has occurred, or is imminent, that materially affects the operation of this Agreement.

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- 28.4 For the purposes of **clause 28.3**, the relevant changes include (but are not limited to) any change to a law that restricts or prohibits or enables Council or any other planning authority to restrict or prohibit any aspect of the Development.
- 28.5 For the purposes of addressing any matter arising from a review of this Agreement referred to in **clause 28.3** the Parties are to use all reasonable endeavours to agree on and implement appropriate amendments to this Agreement.
- 28.6 If this Agreement becomes illegal, unenforceable or invalid as a result of any change to a law, the parties agree to do all things necessary to ensure that an enforceable agreement of the same or similar effect to this Agreement is entered into.
- 28.7 A failure by a Party to agree to take action requested by the other party as a consequence of a review referred to in **clause 28.3** is not a dispute for the purposes of **clauses 23** and **24** and is not a breach of this Agreement.

29. Notices

- 29.1 Any notice, consent, information, application or request that must or may be given or made to a Party under this Agreement is only given or made if it is in writing and sent in one of the following ways:
 - 29.1.1 delivered or posted to that Party at its address set out in the Contacts Sheet,
 - 29.1.2 faxed to that Party at its fax number set out in the Contacts Sheet.
- 29.2 If a Party gives the other Party 3 Business Days notice of a change of its address or fax number, any notice, consent, information, application or request is only given or made by that other Party if it is delivered, posted or faxed to the latest address or fax number.
- 29.3 Any notice, consent, information, application or request is to be treated as given or made if it is;
 - 29.3.1 delivered, when it is left at the relevant address.
 - 29.3.2 sent by post, 2 Business Days after it is posted.
 - 29.3.3 sent by fax, as soon as the sender receives from the sender's fax machine a report of an error free transmission to the correct fax number.
 - 29.3.4 sent via email (unless the sender receives notification to the effect that the email has failed to send).
- 31.4 If any notice, consent, consent, information, application or request is delivered, or an error free transmission report in relation to it is received, on a day that is not a Business Day, or if on a Business Day, after 5pm on that day in the place of the Party to whom it is sent, it is to be treated as having been given or made at the beginning of the next Business Day.

30. Approvals and consent

- 30.1 Except as otherwise set out in this Agreement, and subject to any statutory obligations, a Party may give or withhold an approval or consent to be given under

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this Agreement in that Party's absolute discretion and subject to any conditions determined by the Party.

- 30.2 A Party is not obliged to give its reasons for giving or withholding consent or for giving consent subject to conditions.

31. Costs

- 31.1 The Developer is required to pay to Council the Council's reasonable legal costs (assessed on an indemnity basis but capped at \$10,000 plus GST) and out of pocket disbursements of preparing, negotiating, executing and stamping this Agreement, and any document related to this Agreement within 20 Business Days of a written demand by Council for such payment.
- 31.2 The Developer is also required to pay to Council the Council's reasonable legal costs (assessed on an indemnity basis) and out of pocket disbursements of enforcing this Agreement within 20 business days of a written demand by Council for such payment except in the case of a dispute that is the subject of court proceedings, in which case any costs will be paid in accordance with orders of the court only.

32. Entire Agreement

- 32.1 This Agreement and the Deed of Agreement at **Schedule 6** contains everything to which the Parties have agreed in relation to the matters it deals with.
- 32.2 No Party can rely on an earlier document, or anything said or done by another Party, or by a director, officer, agent or employee of that Party, before this Agreement was executed, except as permitted by law.

33. Further acts

- 33.1 Each Party must promptly execute all documents and do all things that another Party from time to time reasonably requests to effect, perfect or complete this Agreement and all transactions incidental to it.

34. Governing law and jurisdiction

- 34.1 This Agreement is governed by the law of New South Wales.
- 34.2 Each Party irrevocably and unconditionally submits to the non-exclusive jurisdiction of its courts and courts of appeal from them.
- 34.3 Each party waives any right to object to the exercise of jurisdiction by those courts on any basis.

35. Joint and individual liability and benefits

- 35.1 Except as otherwise set out in this Agreement:
- 35.1.1 any agreement, covenant, representation or warranty under this Agreement by 2 or more persons binds them jointly and each of them individually, and

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- 35.1.2 any benefit in favour of 2 or more persons is for the benefit of them jointly and each of them individually.

36. No fetter

- 36.1 Nothing in this Agreement shall be construed as requiring Council to do anything that would cause it to be in breach of any of its obligations at law, and without limitation, nothing shall be construed as limiting or fettering in any way the exercise of any statutory discretion or duty.

37. Representations and warranties

- 37.1 Each Party represent and warrant to each other Party that they have power to enter into this Agreement and comply with their obligations under the Agreement and that entry into this Agreement will not result in the breach of any law.

38. Severability

- 38.1 If a clause or part of a clause of this Agreement can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way.
- 38.2 If any clause or part of a clause is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Agreement, but the rest of this Agreement is not affected.

39. Modification

- 39.1 No modification of this Agreement will be of any force or effect unless it is in writing and signed by the Parties to this Agreement.

40. Waiver

- 40.1 The fact that a Party fails to do, or delays in doing, something the Party is entitled to do under this Agreement, does not amount to a waiver of any obligation of, or breach of obligation by, another Party.
- 40.2 A waiver by a Party is only effective if it is in writing. A written waiver by a Party is only effective in relation to the particular obligation or breach in respect of which it is given.
- 40.3 It is not to be taken as an implied waiver of any other obligation or breach or as an implied waiver of that obligation or breach in relation to any other occasion.

41. Rights cumulative

- 41.1 Except as expressly stated otherwise in this Agreement, the rights to a Party under this Agreement are cumulative and are in addition to any other rights of that Party.

42. Duty

- 42.1 The Developer as between the Parties is liable for and must pay all duty (including any fine or penalty except where it arises from default by another Party) on or

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relating to this Agreement, any document executed under it or any dutiable transaction evidenced or effected by it.

- 42.2 If a Party other than the Developer pays any duty (including any fine or penalty) on or relating to this Agreement, any document executed under it or any dutiable transaction evidenced or effected by it as a result of the Developer first failing to pay such duty, the Developer must pay that amount to the paying Party on demand.

43. Effect of Schedules

- 43.1 Each Party agree to comply with any terms contained in the Schedules to this Agreement as if those terms were included in the operative part of the Agreement.

44. Relationship of the Parties

- 44.1 This Agreement is not intended to create a partnership, joint venture or agency relationship between the Parties.

45. GST

- 45.1 In this clause:

Adjustment Note, Consideration, GST, GST Group, Margin Scheme, Money, supply and Tax Invoice have the meaning given by the GST Law.

GST Amount means in relation to a Taxable Supply the amount of GST payable in respect of the Taxable Supply.

GST Law has the meaning given by the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)*.

Input Tax Credit has the meaning given by the GST Law and a reference to an Input Tax Credit entitlement of a party includes an Input Tax Credit for an acquisition made by that party but to which another member of the same GST Group is entitled under the GST Law.

Taxable Supply has the meaning given by the GST Law excluding (except where expressly agreed otherwise) a Supply in respect of which the supplier chooses to apply the Margin Scheme in working out the amount on GST on that Supply.

- 45.2 Subject to **clause 45.4**, if GST is payable on a Taxable Supply made under, by reference to or in connection with this Agreement, the Party providing the consideration for that Taxable Supply must also pay the GST Amount as additional Consideration.
- 45.3 **Clause 45.2** does not apply to the extent that the Consideration for the Taxable Supply is expressly stated in this Agreement to be GST inclusive.
- 45.4 No additional amount shall be payable by Council under **clause 45.2** unless, and only to the extent that, Council (acting reasonably and in accordance with the GST Law) determines that it is entitled to an Input Tax Credit for its acquisition of the Taxable Supply giving rise to the liability to pay GST.
- 45.5 If there are Supplies for Consideration which is not Consideration expressed as an amount of Money under this Agreement by one Party to the other Party that are not

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subject to division 81 of the *A New Tax System (Goods and Services Tax) Act 1999*, each Party agrees:

- 45.6 to negotiate in good faith to agree the GST inclusive market value of those Supplies prior to issuing Tax Invoices in respect of those Supplies;
- 45.7 that any amounts payable by each Party in accordance with **clause 45.2** (as limited by **clause 45.4**) to each other in respect of those Supplies will be set off against each other to the extent that they are equivalent in amount.
- 45.8 No payment of any amount pursuant to this **clause 45**, and no payment of the GST Amount where the Consideration for the Taxable Supply is expressly agreed to be GST inclusive, is required until the supplier has provided a Tax Invoice or Adjustment Note as the case may be to the recipient.
- 45.9 Any reference in the calculation of Consideration or of any indemnity, reimbursement or similar amount to a cost, expense or other liability incurred by a Party, must exclude the amount of any Input Tax Credit entitlement of that party in relation to the relevant cost, expense or other liability.
- 45.10 This clause continues to apply after expiration or termination of this Agreement.

46. Explanatory Note relating to this Agreement

- 46.1 The **Appendix** contains the Explanatory Note relating to this Agreement required by clause 25E of the Regulation.
- 46.2 Pursuant to clause 25E(7) of the Regulation, each Party agrees that the Explanatory Note in **Appendix** is not to be used to assist in construing this Planning Agreement.

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Execution**Executed** as an Agreement at Rockdale

date:

2018

Executed on behalf of Bayside Council ABN 80 690 785 443 Branch 003:

General Manager (sign)

Witness (sign)

Meredith Wallace

Name of General Manager (print)

Witness – Name/Position (print)

Executed by Elias Estephan Daccour:

Elias Estephan Daccour (sign)

Witness (sign)

Elias Estephan Daccour (print)

Witness – Name/Position

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Schedule 1: (Section 7.4 Requirements)

Provision of the Act	This Agreement
Under section 7.4(1), the Developer has:	
(a) sought a change to an environmental planning instrument	No
(b) Made, or proposes to make, a Development Application.	Yes
(c) entered into an agreement with, or is otherwise associated with, a person, to whom paragraph (a) or (b) applies	No
Description of the land to which this Agreement applies –	The Land described in Schedule 2 to this agreement
The scope, timing and manner of delivery of Development Contributions required by this Agreement – (Section 7.43)(c))	See Schedule 3
Applicability of Sections 7.11, 7.12 and 7.24 of the Act –	See clause 5
Benefits under the Agreement considered for Section 7.11 purposes – (Section 7.4(3)(e)),	See clause 5
Dispute Resolution – (Section 7.4(3)(f))	See clause 23 clause 24
Enforcement of this Agreement – (Section 7.4(3)(g))	See clauses 19 - 22
Registration of the Agreement – (Section 7.6)	Yes, see clause 25

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Schedule 2: The Land

The Land

Lot 1 DP 3560 (known as 83 – 85 Railway Street, Rockdale.)

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Schedule 3: Development Contributions**Part A: Land Dedications**

Column 1	Column 2	Column 3	Column 4
Item	Public Benefit	Contribution Value ⁽¹⁾	Timing
A			
A1	Dedication of land to the Council free of cost of the Dedicated Land comprising a stratum lot in the area shown in green on the plans included in Item A1 of Schedule 4 , limited in depth to approximately 1200mm below the lowest level of the surface of the immediately adjoining Hesten Lane ¹ .	\$NA	Prior to the issue of any Occupation Certificate in relation to the Development.

Part B: Works

Column 1	Column 2	Column 3	Column 4
Item	Public Benefit	Contribution Value	Timing
B			
B1	Landscaping and public domain works on the ground level area shown in green on the plan included in Item A1 of Schedule 4 , being the ground level of the stratum lot required to be dedicated to Council in accordance with Item A1 of this Schedule 3 , with the works to comprise a suitable pedestrian footpath and landscaping on either side of the pedestrian footpath.	\$NA	Prior to the issue of any Occupation Certificate in relation to the Development.

¹ Hesten Lane is also known as Walz Lane.

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B2	Road works in the area of the Right of Carriageway and portion of the Walz Street road reserve to the south of the Right of Carriageway, as shown hatched red/pink on the plan included in Item B2 of Schedule 4, so as to: (a) facilitate access to new public parking on Hesten Lane and the Council Land as referred to in Item B3 of this Schedule 3; and (b) facilitate access to the Development via the Right of Carriageway.	\$NA	Prior to the issue of any Occupation Certificate in relation to the Development.
B3	Public domain and landscaping works on Hesten Lane, the Council Land and the area of the Walz Street road reserve to the south of Hesten Lane, the Council Land and the Right of Carriageway, in the area shown hatched blue on the plan included in Item B3 of Schedule 4, so as to: (a) provide for public parking on Hesten Lane and the Council Land and to facilitate public access to the stratum lot to be dedicated to Council in accordance with Item A1 of this Schedule 3; and (b) facilitate access to new public parking on Hesten Lane and the Council Land; and (c) facilitate access to the Development via the Right of Carriageway;	\$NA	Prior to the issue of any Occupation Certificate in relation to the Development.

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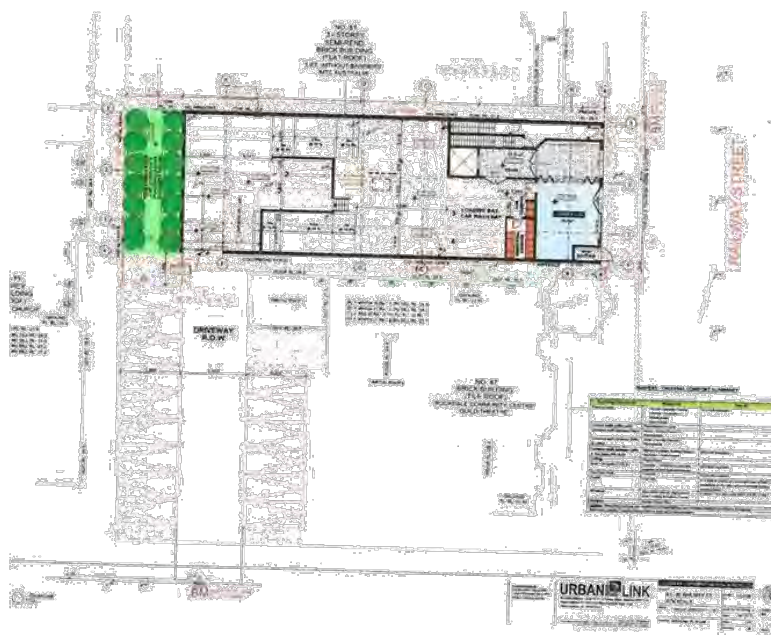
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	(d) provide for the reconfiguration of the existing parking spaces immediately to the west of the Guild Theatre to ensure adequate aisle width and space for parking of vehicles, including reduction in width of existing footpath adjacent to the Guild Theatre and reconstruction of the kerb, as generally set out in the Sketch Plan. .		
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Schedule 4: Plans**A1 Dedication of stratum lot/**

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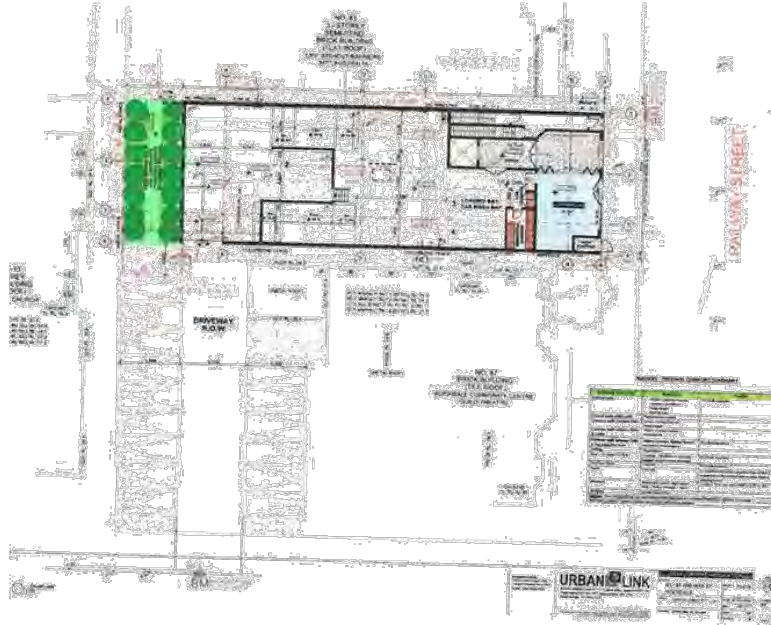
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B1 Landscaping and public domain works on ground level of stratum lot required to be dedicated

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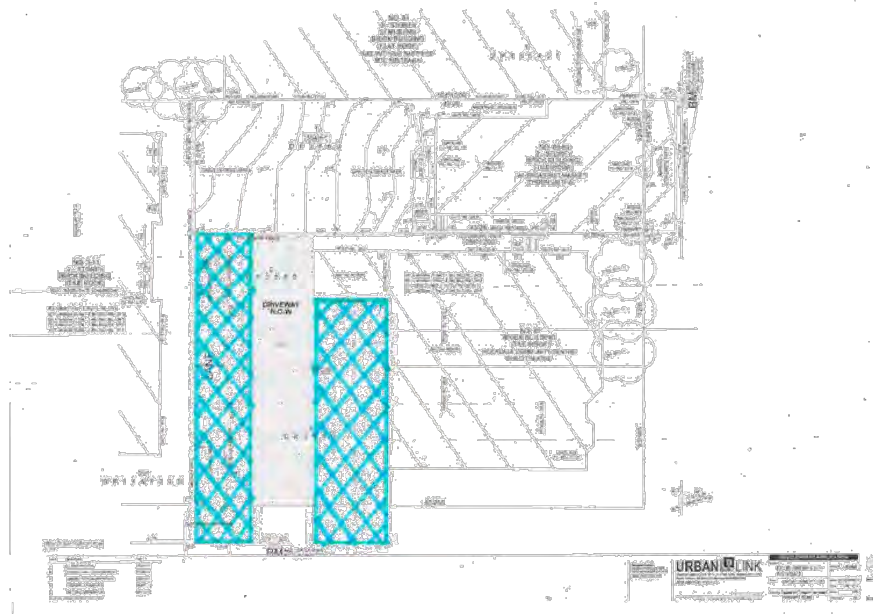
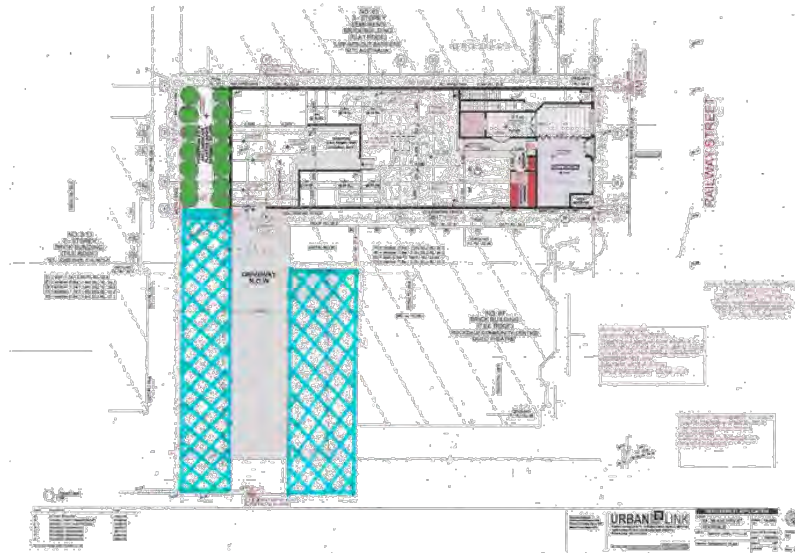
B2 Road works in the area of the Right of Carriageway and portion of the Walz Street road reserve to the south of the Right of Carriageway

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B3 Public domain and landscaping works on Hesten Lane, the Council Land and the area of the Walz Street road reserve to the south of Hesten Lane, the Council Land and the Right of Carriageway



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Schedule 5: Specifications

Schedule 5 Design Specifications

1. Specifications

The Scope in respect of an Item of Work is limited to:

- Demolition of existing surfaces and disposal off-site.
- Clearing and excavation to design levels.
- Compaction of existing sub-grade.
- Supply, spread and compaction of DGB20 base course to Council standards.
- Construction of kerb & gutter, kerb only, dish drain plus associated drainage pipes and pits to approved design.
- Construction of pathway to the rear of the Guild Theatre building to Council standards.
- Construction of asphalt pavement to form the newly created R.O.W and parking spaces.
- Supply and installation of regulatory traffic and parking signs, line marking and directional arrows.
- Supply and installation of precast concrete wheel stops to all parking spaces, plus one Removable Bollard with inbuilt locking device to be installed at a selected parking space along eastern side of new R.O.W. Council approved bollard supplied by Leda, Securapost Sentinel SP90R to be supplied and installed as per manufacturers specification. This nominated car space for exclusive use by the Guild Theatre to also have yellow pavement hatching denoting no parking.
- Reconstruct the existing vehicle entrance including layback & gutter, close off existing laybacks and replace with kerb & gutter to council standards.
- Supply and install two (2) bollards at the entry to the Pedestrian R.O.W. to Council standards.
- Supply and install 2.4m high Diplomat Fencing alongside boundary with St Joseph Church & School.
- Supply and install lighting columns at the entry and within Pedestrian R.O.W. to Council standards and approved electrical design.
- Supply and lay paved area within the Pedestrian R.O.W in accordance with Rockdale Public Domain Paving Style and Council standards.
- Associated landscape works within the Pedestrian R.O.W to Council standards and approved landscape design.

2. General Requirements

These General Requirements must be followed if any of the General Requirements are applicable to the Specifications referred to in point 1 above in respect of an Item of Work:

- Preliminary Design of Schedule 4 prepared by Urban Link Project No 16-059 dated 08/05/2018.
- Specification for design – AUS-SPEC:
 - 0021 – Site regrading
 - 0041 – Geometric road layout
 - 0043 – Subsurface drainage (design)
 - 0044 – Pathways and cycleways
 - 0061 – Bridges and other structures
 - 0074 – Stormwater drainage (design)
 - 0160 – Quality (design).
- Variation to Nominated Standards – where AUS-SPEC makes reference to the Austroads *Guide to Road Design*, the design shall comply with the NSW Roads and Traffic Authority Supplement to Austroads *Guide to Road Design*, and where AUS-SPEC makes reference to the Australian Standards AS1742 and AS1743, the design shall comply with the NSW Roads and Traffic Authority Supplement to Australian Standards AS1742 and AS1743.

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- Inconsistency – where an inconsistency exists between the nominated design standards the prevailing standard shall be determined by the Council's Manager – City Infrastructure
- Application Legislation – Commonwealth and New South Wales Legislation.
- Drawing coordinates shall conform to GDA84 (Geocentric Datum of Australia). Levels shall conform to AHD (Australian Height Datum).
- Submission formats:
 - Two (2) printed copies of the plans
 - One (1) printed copy of the specification
 - Two (2) printed copies of the Review of Environmental Factors (REF)
 - One (1) USB with electronic format of all documents as follows:
 - Design drawings in DWG file format and portable document format (PDF).
 - Specification and REF in portable document format (PDF).

2.1 Limit of Works

- The limit of works shall be all works required to comply with AUS-SPEC, and shall not be less than the minimum requirements specified by the DA Consent Conditions.

2.2 Drawing Presentation

- The detailed design plans are to be prepared in accordance with Council's *Engineering Drawing Guide: for works in conjunction with developments and subdivisions*. The drawings must show all necessary design details for construction by the Developer.

2.3 Swept Paths

- The preparation and presentation of swept path diagrams shall be in accordance with the Council's *Engineering Drawing Guide: for works in conjunction with developments and subdivisions*. Swept paths, based on the nominated design vehicle 11.0m long, must be provided, if storage and collection of waste is to be located in the basement.

2.4 Design Parameters – Road and Pavement Design

- Design vehicle for swept path diagrams: design single unit bus, 12.5m long.
- Equivalent Standard Axles for pavement design: 3×10^5
- Design life for road pavement: 25 years
- Kerb profiles, pram ramps, etc. shall be in accordance with the Model (Road) Drawings for Kerb and Gutter (R15) issued by the NSW Roads and Traffic Authority.

2.5 Drainage

- Drainage pipes shall be reinforced concrete (RCP), rubber ring jointed (RRJ) pipes only.
- Pit details shall be in accordance with the Model (Road) Drawings for Stormwater Drainage (R11) – Gully Pits issued by the NSW Roads and Traffic Authority.

2.6 Subsurface Drainage

- Design of subsurface drainage shall be in accordance with 0043 – *Subsurface drainage (design)*.
- Alternatively, the Roads and Traffic Authority's *Combined Stormwater and Subsurface Drainage* (Drawing reference MD.R33.A08.A) can be adopted.

2.7 Road Pavement

- A formal design shall be prepared by a registered N.A.T.A. laboratory based on sampling and testing of subgrade materials from the site. Details of the pavement design, results of subgrade testing (including 4 day soak CBR's) are to be submitted with the design drawings.
- Pavements should be designed using the general principles of Austroads 1992 "Pavement Design – A Guide to the Structural Design of Road Pavements".

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- Alternatively, the Roads and Traffic Authority's *Standard PTB Structure* (Drawing reference 0000.000.PT.0003) can be adopted.
- Sandstone shall not be used in pavements. Wearing surfaces shall be asphaltic concrete only (AC) only.

2.8 Road Alignment

- Footpath design consistent with AS1248, and NWDS Bicycle Guidelines. Attention is drawn to the provisions for minimum height clearance (2.2m); minimum clear width (1.8m); maximum grades (longitudinal and cross-fall); and kerb ramp details.
- All kerb returns must be designed such that no part of the vehicle crosses the centreline.
- All vehicle footpath crossing profiles are to be provided.
- The design must not result in any un-drained low-points, and as far as practicable low points within the kerb return shall be avoided to eliminate the use of pits with curved lintels.

2.9 Landscape Details

- Landscaping details are as agreed with Council in the Detailed Design Specifications.
- The landscape plan for the treatment of the road reserve must be separate to landscape treatments within the boundary of the property.

2.10 Traffic Facilities

- The following traffic facilities shall be provided in accordance with the NSW Roads and Traffic Authority Supplement to Austroads *Guide to Road Design*, and NSW Roads and Traffic Authority Supplement to Australian Standards AS1742 and AS1743.
 - Line marking and regulatory signage in R.O.W and parking spaces.
 - Parking signage for parking spaces.

2.11 On-Street Parking

- Where flush concrete edging is used as an edge treatment for pavement in lieu of standard kerb and gutter shapes adjacent to on-street parking spaces, wheel stops shall be designed in accordance with AS2890.3:1993.

2.12 Dilapidation report

- The dilapidation report required by DA Consent Conditions must include photos and details of surrounding public infrastructure and adjoining boundary fences.

2.13 Certification Requirements and Quality Assurance

Design qualification

- The design must be certified by a Professional Engineer with current registration on the National Professional Engineers Register (NPER), stating that the design meets the required standards:
 - Civil Engineering area of practice for all civil plans, including drainage design.
 - Structural Engineering area of practice for all structural load carrying elements.
- A certification report confirming to Annexure A of 0160 – *quality (design)* must accompany the design.

2.14 Utility Services

- The relocation, adjustment and or replacement of affected underground services to be carried out in accordance with the relevant utility and/or agency standards.

2.15 Street Lighting

- Lighting columns at the entry and within the Pedestrian R.O.W in accordance with lighting design as required to meet the design lighting category from AS1158 (Category P3 – Lighting for roads and public spaces).
- Design to AusGrid Network Standard – Street Lighting Design and Construction NS119.
- Column footings must be designed according to the site conditions and if standard details are being considered, the site conditions must be confirmed.

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3. Specification

- A specification is to be developed based on AUS-SPEC. The compilation of specification shall be undertaken in accordance with the Council's *Engineering Specification Guide: for works in conjunction with developments and subdivisions*.
- The specification compiler will be required to be a current subscriber to NATSPEC.

4. Preliminary Design

To be provided by the Developer at the time of the lodging the *Public Domain Instruction – Frontage Works Application* for the Development.

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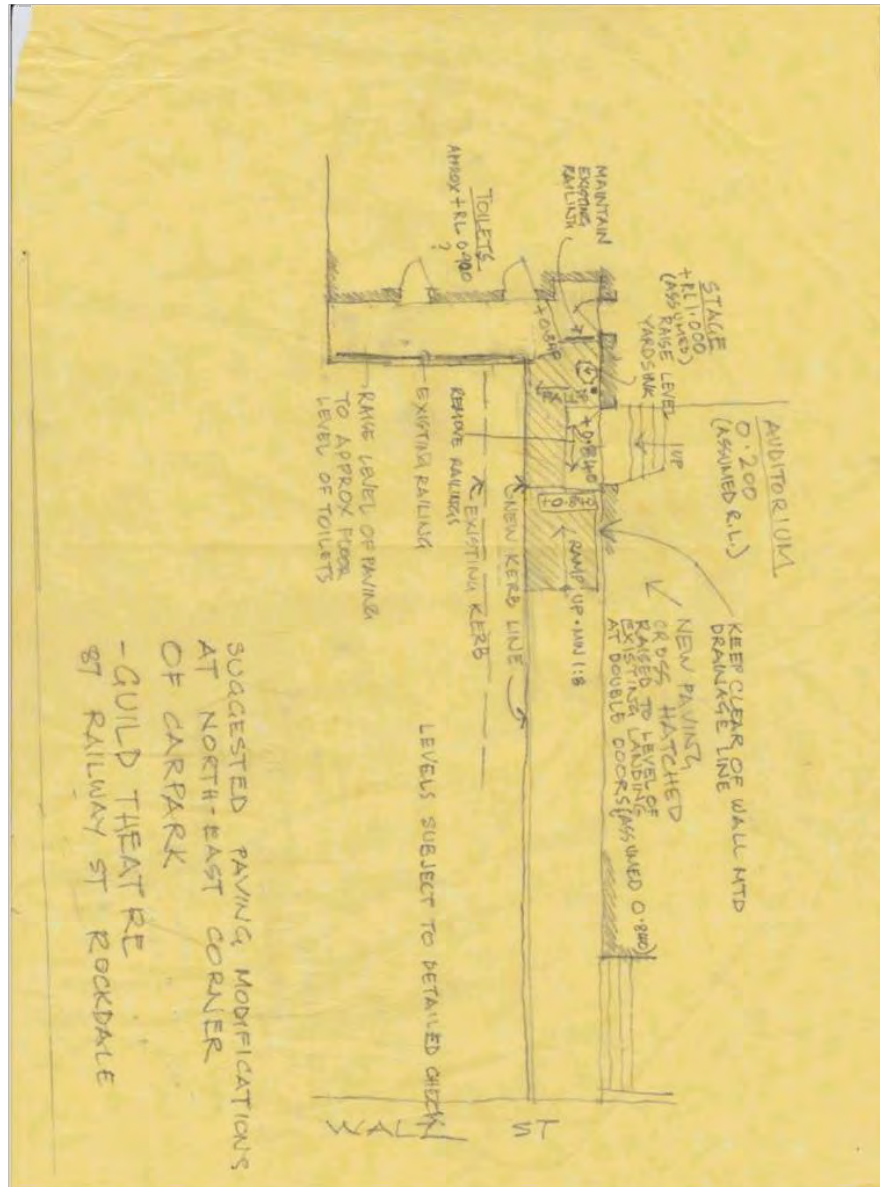
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**Schedule 6: Deed of Agreement (Works Licence and Right of
Carriageway)**

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Schedule 7 - Sketch Plan

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Appendix (Explanatory Note)

Environmental Planning and Assessment Regulation 2000

(Clause 25E)

Explanatory Note: Proposed Planning Agreement

Under s7.4 of the *Environmental Planning and Assessment Act 1979*

1. Parties

Bayside Council

ABN 80 690 785 443 Branch 003 of 444 - 446 Princes Highway, ROCKDALE NSW 2216

(Council)

and

Elias Estephan Daccour of ###

(Developer)

2. Description of the Land to which the proposed Planning Agreement applies

- (a) Lot 1 DP 3560, known as 83 - 85 Railway Street, Rockdale (Land).
- (b) This Developer is the owner of the Land.
- (c) The Council is the owner of the adjoining land to the south Lots 2 and 3 in Deposited Plan 3560 being the whole of the land comprised in Certificate of Title Volume 14560 Folio 36 and known as 87 Railway Street, Rockdale (**Council Land**).

3. Description of the Development

- (a) A mixed use development comprising '*[r]etention of the existing facade, demolition of the remainder of the building and construction of a seven (7) storey mixed use development containing 18 residential units, one (1) commercial tenancy and basement car parking, provision of public footway access at the rear, and stratum subdivision into 2 lots*' (**Development**).

4. Summary of objectives, nature and effect of the proposed Planning Agreement

4.1 Objectives of proposed Planning Agreement

- (a) The objectives of the proposed Planning agreement are to:

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- Provide Development Contributions for the benefit of the public in the form of the dedication of land free of cost and carrying of of public domain, landscaping and road works.
- Achieve the provision of these Development Contributions with greater certainty and at less risk and less cost to Council.

4.2 Nature of proposed Planning Agreement

- (a) The Planning Agreement is a planning agreement under s7.4 of the *Environmental Planning and Assessment Act 1979 (Act)*. The Planning Agreement is a voluntary agreement under which Development Contributions (as defined in clause 1.1 of the Planning Agreement) are made by the Developer for various public purposes (as defined in s7.4(2) of the Act).

4.3 Effect of proposed Planning Agreement

The Planning Agreement:

- (a) Provides for the creation of a stratum lot at the west of the Land (limited in depth to approximately 1200 mm below the lowest level of the surface of the surface of the immediately adjoining Hestern Lane). The stratum lot is to be dedicated to Council free of cost. The stratum lot will provide a north - south pedestrian link having particular regard to future redevelopment to the north of the Land.
- (b) Provides for landscaping and public domain works to the pedestrian link at the ground level of the stratum lot to be dedicated to Council free of cost.
- (c) Provides for the carrying out of works on the adjoining Hestern Lane, Walz Street and Council Land so as to create additional public car parking on part of Hestern Land and part of the Council Land.
- (d) Access to the Development is to take place via a right of carriage way over the Council Land. The Planning Agreement also makes provisions for the carrying out of works within the proposed right of carriageway to facilitate this access.
- (e) Associated with the Planning Agreement is an agreement to create the right of carriage way over the Council Land providing access to the Development and an works licence over the proposed right of carriageway land to facilitate access during construction pending creation of the right of carriageway.

5. Assessment of the merits of the proposed Planning Agreement

5.1 The Public Purposes served by the proposed Planning Agreement

- (a) The proposed Planning Agreement promotes the provision of and recoupment of the cost of providing public and amenities and public services.
- (b) The Planning Deed is a reasonable means for achieving that planning purpose, as it provides for the payment of a monetary development contribution to be expended on achieving that planning purpose.

5.2 How the proposed Planning Agreement promotes the Public Interest and the objects of the Environmental Planning and Assessment Act 1979

- (a) The Planning promotes the public interest and the objects of the Act as set out in s 1.3 the Act that is, including:

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(i) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

(ii) to promote the orderly and economic use and development of land,

(iii) to promote good design and amenity of the built environment,

5.3 How the proposed Planning Agreement promotes the Elements of the Council's Charter

The proposed Planning Agreement promotes the elements of the Council's Charter by providing appropriate services and facilities for the local community enables the Council to carry out its functions in a way that facilitates local communities that are strong, healthy and prosperous

5.4 How the proposed Planning Agreement promotes the objects (if any) of the Local Government Act 1993

The proposed Planning Agreement promotes the objects of the Local Government Act 1993 by allowing Council to provide facilities appropriate to the current and future needs of the local community and the wider public and to improve and develop the resources of the area.

5.5 Whether the proposed Planning Agreement specifies that certain requirements must be complied with before a construction certificate, occupation certificate or subdivision certificate is issued

The proposed Planning Agreement specifies that the Developer must make the Development Contributions prior to the issue of any Occupation Certificate in relation to the Development.

5.6 Whether the proposed Planning Agreement conforms with the authority's capital works program

The proposed Planning Agreement conforms to Council's capital works program and, furthermore, will enable the program to be advanced with greater timeliness and certainty while reducing the financial risks to Council in its implementation.

6. Further Information

6.1 Interpretation

Note: this explanatory note is a summary only of the proposed Planning Agreement, is not to be relied upon as a complete description of the proposed Planning Agreement, and is not to be used as an aid in construing the proposed Planning Agreement.

6.2 Further Information

Copies of the proposed Planning Agreement are available on the Bayside Council website, and at the offices of Bayside Council.

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Draft Planning Proposal Kingsford and Kensington Town Centres



Updated August 2019

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Appendix 12 - Anzac Parade Corridor Light Rail Analysis 2016
Appendix 13 - Draft Kensington and Kingsford Affordable Housing Plan
Appendix 14 – Architectural Design Competition Policy

Introduction

The purpose of the Planning Proposal for the Kingsford and Kensington town centres is to outline the intended effects of the proposed LEP amendments to Randwick LEP 2012 and justification for the proposed changes. This draft Planning Proposal has been updated since originally submitted to the (former) Department of Planning and Environment in January 2017 to address matters in the gateway determination issued by the Department of Planning, Industry and Environment. This Proposal also responds to the requirements contained in 'A Guide to preparing Planning Proposals', December 2018.

The *Planning Strategy-Kensington and Kingsford town centres* (draft Strategy; Appendix 1) underpins the recommended planning amendments and contains the vision and evidence base for the actions and directions to address the sustainable growth of the two town centres. A draft DCP for the two Centres is currently being prepared and is also based on the draft Strategy. This draft DCP will be placed on public exhibition following the making of the LEP amendments outlined in this Planning Proposal.

The proposed draft legislative provisions relating to height of buildings, floor space ratio and setbacks and the accompanying maps will amend the Randwick Local Environmental Plan 2012 (RLEP 2012) consistent with outcomes of studies and investigations summarised in the 'Kingsford and Kensington Urban Design Report' (Urban Design Report; Appendix 2) prepared by Conybeare Morrison Pty Ltd. This analysis follows a detailed review of existing planning controls, built form, local character, opportunities and constraints within the two town centres. The Urban Design Report includes a vision for each town centre and guiding principles for the built form strategy.

In addition, the proposed draft LEP provisions on affordable housing and community infrastructure have been informed by specialised strategic advice on infrastructure provision from SG Haddad Advisory (Appendix 3) and supported by updated financial feasibility assessment conducted by Hill PDA (Appendix 4). These draft provisions aim to deliver affordable housing within the town centres and the required infrastructure items and public domain works, as identified in the draft Strategy, to support growth and change.

Planning Review Process

In early 2016 Council initiated a comprehensive planning review of the Kensington and Kingsford town centres to ensure the planning framework is up to date, robust and well-aligned to meet future needs.

As a first step in the planning review, the Kensington and Kingsford Town Centre Draft Issues Paper (Appendix 5) was prepared in March 2016, which identifies a number of pertinent planning, urban design and public domain challenges affecting the town centres, together with strategic directions to be addressed.

The next stage of the review process was an International Urban Design Competition held between July and October 2016, which provided the opportunity for a creative visioning of the town centres and extensive community consultation on the future of the town centres. Further information on the Competition is contained within the draft Strategy at Appendix 1.

The draft Strategy has been informed by the ideas generated by the winning entry to the K2K International Design Competition, the six key themes which formed the basis of the competition responses (included in the Competition Brief) as well as the public engagement process which has been an integral part of this planning review. The six themes which have guided the draft Strategy are:

- Business and economy
- Public domain, streets and open space

- Housing growth and diversity
- Sense of place and identity
- Urban design excellence
- Sustainability

The draft Strategy built on the findings of the draft Issues Paper and utilised key ideas from the K2K International Urban Design Competition and the outcomes of the associated consultation. The draft Strategy contains a range of objectives, strategies and actions to guide the future sustainable growth and development of the town centres. At its meeting of 17 December 2016, Council endorsed the draft Strategy and associated planning controls to enable a gateway determination to be sought from the Department. The Council resolution is provided at Appendix 6. The final stage of the comprehensive planning review will involve public exhibition of this Planning Proposal and review of public submissions and comments by agencies prior to submission of a final Proposal to the Department seeking legislative amendments to RLEP 2012 for each town centre.

Planning Proposal Boundary

The Planning Proposal applies to land currently zoned B2 Local Centre within the Kensington and Kingsford town centres and three additional sites which form minor boundary extensions to the Kingsford town centre (see Figure 1 below).

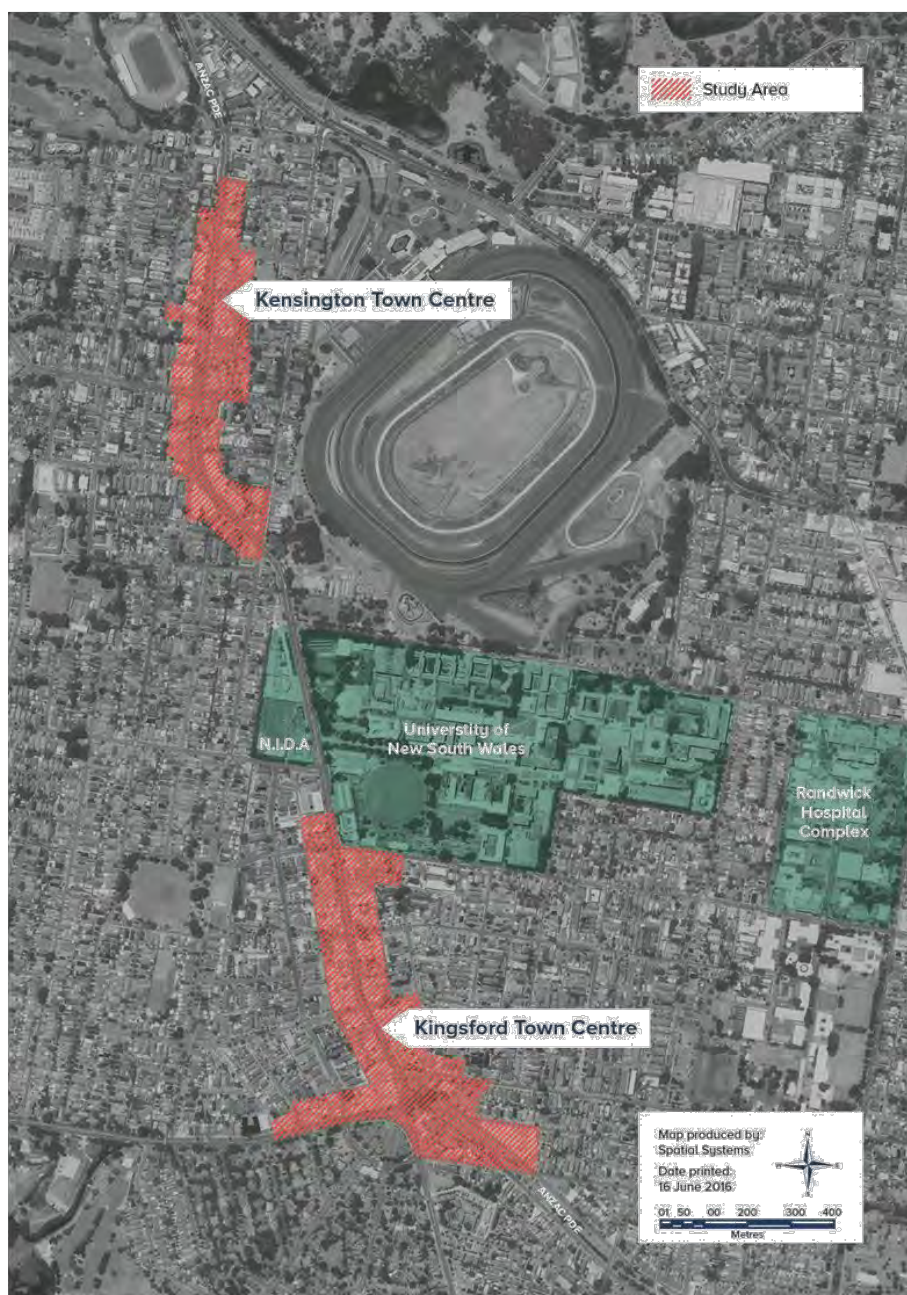


Figure 1: The extent of the land to which the planning proposal applies

Part 1 - Objective

To amend the Randwick Local Environmental Plan 2012 (RLEP 2012) to enable sustainable growth in housing and employment and public benefits for Kensington and Kingsford town centres.

Council's overarching vision for each town centre has been developed and informed by the extensive community consultations and analysis of the characteristics of these places undertaken throughout the planning review process to date. The draft vision for each town centre forms the basis for this planning proposal and the strategies and actions contained in the draft Strategy.

Vision for Kensington Town Centre

"Kensington will evolve into a vibrant and dynamic town centre situated along Anzac Parade, Sydney's finest grand green boulevard.

The town centre will be well connected and highly accessible, capitalising on its proximity to key employment hubs including the Randwick Health and Education Super Precinct and the Sydney CBD.

Kensington town centre will offer an exciting city apartment lifestyle, with buildings designed to the highest quality and offering excellent amenity to residents. A range of housing types including affordable housing will be woven into the town centre's urban fabric to offer housing diversity and choice to a wide range of people including the elderly, students and families. The integrity of existing heritage and contributory buildings will be respected and integrated with the best contemporary architecture that enhances the character and layering of the town centre experience.

Kensington town centre will be a focus for creativity and innovation. A gallery/creative space at Todman Square will create a cultural anchor for the town centre, supported by a diverse range of cafes, restaurants and shopping options that attract visitors from across Sydney. Innovative startups will translate cutting edge research into real world business success.

The town centre will have a green identity, setting the bench mark for sustainability within the Local Government Area (LGA) through Ecologically Sustainable Development (ESD) targets, Water Sensitive Urban Design (WSUD) practices, high quality green public places with linkages to nearby parks, and sustainable transport modes such as the light rail, cycling and walking".

Vision for Kingsford Town Centre

"Kingsford will develop into an exciting and dynamic town centre continuing to draw on its rich multi-cultural identity. The town centre will provide a diverse offer of restaurants, cafes and retail shopping, set within a rejuvenated public domain that supports activation and social interaction.

The town centre will be a safe and inclusive place to live, work and visit. Buildings will be designed to the highest quality incorporating a mix of apartments, laneway mews and affordable housing.

Highly connected and accessible, the town centre will foster hubs of activity focused around the terminus at Kingsford Junction and Kingsford Mid-Town, the old heart of the Kingsford.

The town centre will have a green focus and set a new performance benchmark for sustainability within the LGA through ESD targets, WSUD practices, public places with canopy trees and landscaping and support of sustainable transport modes such as the light rail, cycling and walking.

The integrity of existing heritage and contributory buildings will continue to be respected and integrated, through high quality architectural design. Innovative business start-ups will be encouraged to provide a 'bridge' between research and business".

Part 2 - Explanation of Provisions

Urban Design Principles

The proposed planning outcome will be achieved by various amendments to the RLEP 2012, as detailed below. As a basis for preparing new built form controls for the Kensington and Kingsford town centres, the following urban design principles have been established to help define the future character of the town centres and provide guidance for growth and development:

- Reinforce a boulevard character along Anzac Parade by strengthening the built form edge
- Focus on achieving a dominant typology of mid-rise mixed use buildings throughout the town centres
- Permit taller, slender landmark buildings in prominent highly accessible locations in conjunction with the delivery of substantial public benefits established through a design excellence process
- Achieve a sensitive transition in relation to recently constructed development and surrounding established lower scaled residential neighbourhoods
- Create a positive street level environment through built form that allows solar access, permeability and maintains human scale
- Ensure that new infill development respects the fine grained character of contributory buildings
- Establish building setback controls which provide for the creation of wider footpaths and street tree planting
- Achieve urban design and architectural excellence, including best practice environmental design; and
- Encourage active frontages along Anzac Parade, continuing down side streets.

The following amendments to the RLEP 2012 which will be implemented through this Planning Proposal are based on the above urban design principles. These principles will be further implemented through future amendments to the DCP 2013:

Affordable Housing Contribution

The Planning Proposal explains how the consent authority can impose a condition on a development application requiring a contribution towards affordable housing. The intended provision is introduced pursuant to section 7.32 (1) of the EP&A Act, which allows a consent authority to impose an affordable housing contribution where a SEPP identifies there is a need for affordable housing. On 28 April 2018, Randwick City local government area (LGA) was included in SEPP 70 which identifies certain local government areas in need for affordable housing. Therefore a new clause can legally be included in Randwick LEP 2012 to enable the imposition of an affordable housing contribution as a condition of development consent.

The Planning Proposal seeks to include a new map to identify the area by which the affordable housing contribution would apply. The intent of the draft provision is that development for residential

purposes identified within the 'Kensington and Kingsford town centres affordable housing contributions area' must contribute towards affordable housing based on the following rate:

Table 1: Rate of affordable housing required

Date of DA lodgement	Percentage of total floor area used for residential purposes to which the development application relates (as at 2019)
To 30 June 2021	3%
From 1 July 2021 onwards	5%

The affordable housing levy is to be introduced via a two stepped staged approach, commencing at 3% (for DAs lodged from the date of commencement of the LEP amendments) and increasing to a maximum of 5% contribution rate from 1 July 2021 onwards, to allow the market sufficient lead in time to absorb the contribution rate. The contribution rate is to apply to the total floor area intended to be used for residential purposes in all development applications within the Kensington and Kingsford town centres (unless expressly excluded by the LEP), including adaptive reuse of existing floorspace and new floorspace.

To assist in determining *total floor area* that will be subject to the levy, it is intended that a definition be included in the clause and in the affordable housing plan. An example of defining total floor area is provided below which has been taken from the Sydney Local Environmental Plan 2012 Clause 7.13:

'to mean the total of the areas of each floor of a building within the outer face of the external enclosing walls and including balconies, but excluding the following:

- (a) columns, fins, sun control devices, awnings and other elements, projections or works outside the general lines of the outer face of the external walls,*
- (b) any area of a balcony that is more than the minimum area required by the consent authority in respect of the balcony,*
- (c) the maximum ancillary car parking permitted by the consent authority and any associated internal vehicular and pedestrian access to that car parking,*
- (d) space for the loading and unloading of goods.*

Types of development to be excluded from a contribution for affordable housing are to be listed in the clause and is to include: development for the purposes of public housing, affordable housing, community facilities and development for the purposes of residential accommodation that will result in the creation of a residential total floor area of less than 100 square metres.

In relation to the contribution for affordable housing, Council's preferred approach is by way of an in-kind dedication of completed units with any remainder being paid as a monetary contribution to the Council at the following rates, for the December Quarter 2018 (as published in the latest rent and sales report No. 127):

Affordable housing %	Equivalent monetary contribution
3% (To 30 June 2021)	\$324.38/ sqm
5% (From 1 July 2021)	\$540.62/ sqm

The equivalent monetary contribution is based on the median strata dwelling price in the LGA and assumes that if a community housing provider is unable to purchase land in the LGA to develop affordable housing that a suitable dwelling could be purchased on the private housing market; and it will allow funds to be spent elsewhere in the LGA.

It is also intended that the contribution amount be indexed twice a year based on median sales price for strata dwellings in Randwick City to ensure that the amount is in line with the city's strata price movements.

A draft Affordable Housing Plan has been prepared to support the statement of intent for the affordable housing contributions scheme and is included as Appendix 13. The draft Affordable Housing Plan provides the background requirements, administration and operational detail including how to calculate a contribution, worked examples on applying the contributions levy, indexation and key terms used for the Kensington and Kingsford town centres affordable housing contributions scheme.

Community Infrastructure – Kensington and Kingsford Town Centres

A proposed community infrastructure clause is to apply to all land within the Kensington and Kingsford town centres. The clause will enable community infrastructure to be developed to support growth of the centres. The types of infrastructure to be provided has been informed by a comprehensive strategic planning exercise (as outlined in the draft Planning Strategy), the international urban design competition, specialist urban design advice and financial feasibility assessment.

The intended effect of the community infrastructure provision is to allow for additional building heights and density (from the existing requirements in Randwick LEP) within the Kensington and Kingsford town centres if the development provides for community infrastructure.

It is intended that the maximum height of buildings proposed by this Planning Proposal (outlined in table 3 below) be mapped as an alternative maximum building height which could be achieved on a site if the development provides for community infrastructure. The alternative maximum building height achievable has been derived from the specialised urban design input provided by Conybeare Morrison as outlined in the draft planning strategy for the town centres.

Community infrastructure under this clause is to include recreation areas, recreation facilities (indoor), recreation facilities (outdoor), public roads, community facilities and drainage. These items have been reviewed and updated in response to the Altered Gateway determination issued on 19 December 2018. The community infrastructure subject to this clause is listed in Attachment A, and is to be delivered on the development site within the town centres. A voluntary planning agreement is the means by which to secure the contribution for community infrastructure as part of the development.

The clause is voluntary in nature in that it provides an option for a developer to achieve the additional building height and density by making a contribution to community infrastructure. If no contribution is made then the existing maximum building heights and density provisions, as mapped in RLEP 2012, applies to these sites.

New site specific controls (applying to Kensington and Kingsford town centres) in Randwick DCP 2013 will be prepared to support the draft planning provisions on community infrastructure. The town centre DCP controls will detail the type and location of community infrastructure needed to support the Kensington and Kingsford town centres. A draft guideline *'Providing community infrastructure in Kensington and Kingsford town centres'* has been prepared, which outlines the rationale and how community infrastructure can be delivered through the development process and planning

agreements. The draft guideline will form part of the supporting information for the planning proposal for exhibition purposes.

The intended operation and application of the community infrastructure provision is modelled on similar schemes in operation such as Sydney Local Environmental Plan 2012 clause 6.14 Community Infrastructure floor space at Green Square, Burwood Local Environmental Plan 2012 clause 4.4A Exceptions to floor space ratio and Penrith Local Environmental Plan 2010 clause 8.7 Community infrastructure on certain key sites.

Design Excellence

In accordance with the urban design principles guiding this Planning Proposal, all new development will be expected to deliver a high standard of architectural design to contribute to an enriched experience of the Kensington and Kingsford town centres.

The consideration of 'design excellence' is currently a requirement under RLEP 2012 (clause 6.11) for proposals involving buildings over 15m in height, or for sites that are over 10,000m² in size or for land where a site specific development control plan is required (e.g. Kingsford Triangle site).

While the RLEP 2012 design excellence provisions will apply to most sites within the town centres, it is considered that the key sites located within the identified Precincts (identified in Figures 3 and 4) should achieve a performance benchmark in design innovation and sustainability beyond what is presently required. These sites will accommodate taller building forms that have a greater degree of visibility being located at key transit nodes as well as additional floor space that can accommodate community facilities.

As such, a new clause in the RLEP 2012 will require development applications on key sites to be informed by an 'architectural competition process' undertaken by the proponent prior to the lodgement of a formal development application (see Appendix 14). A similar approach has been adopted by the City of Sydney which has resulted in a number of successful design outcomes. Guidelines which will form part of the exhibition material have been prepared to assist owners and proponents who are conducting competitions.

For development applications that successfully demonstrate design excellence, the following design based trade-offs may result:

- additional building height of up to two additional storeys, and
- exclusion of identified social infrastructure/innovation centre floor space requirements from the total gross floor area calculation.

Full details on the proposed design excellence process are in Part C, Section 5.8 Design Excellence of the draft Strategy.

Existing Height of Building Controls

Within the Kingsford Town Centre, the maximum permissible height of buildings is 24m and in Kensington the maximum permissible height is generally 24m. In Kensington the maximum building height control is 25m however there are a small number of sites that have maximum height controls of 9.5, 12m, 21m and 31m.

The following table and maps illustrate the existing RLEP 2012 height of buildings planning controls applicable to the Kensington and Kingsford town centres.

Table 2: Existing Height of Building Controls

	Kingsford	Kensington
Existing maximum height	24m	9.5m 12m 21m 25m 31m

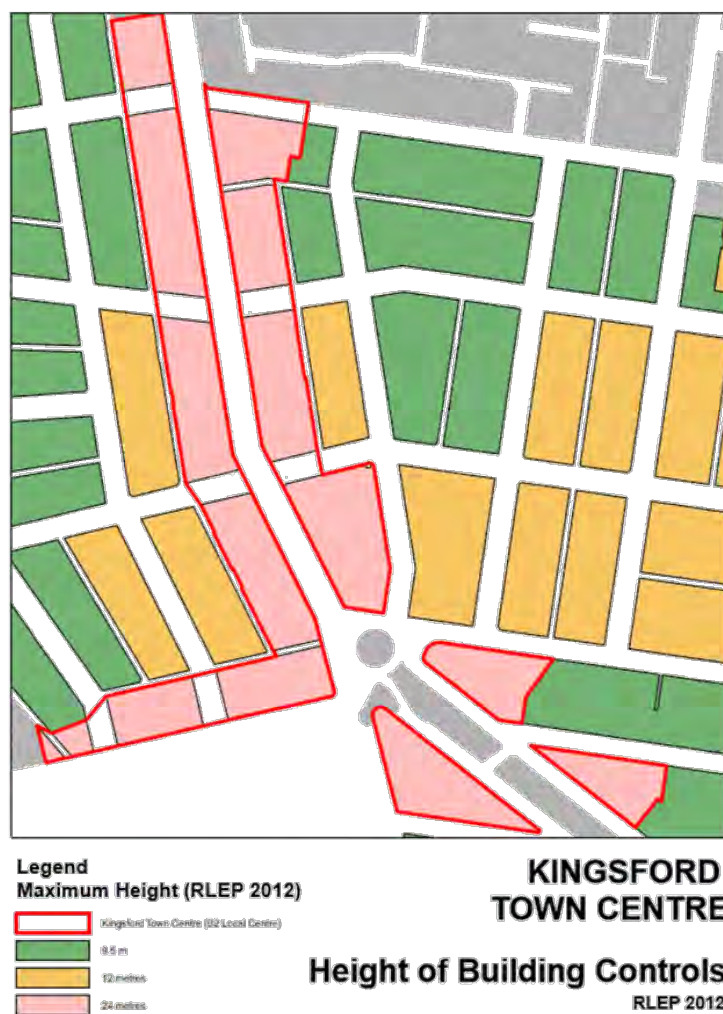


Figure 2: Existing Height of Building Controls (Kingsford)

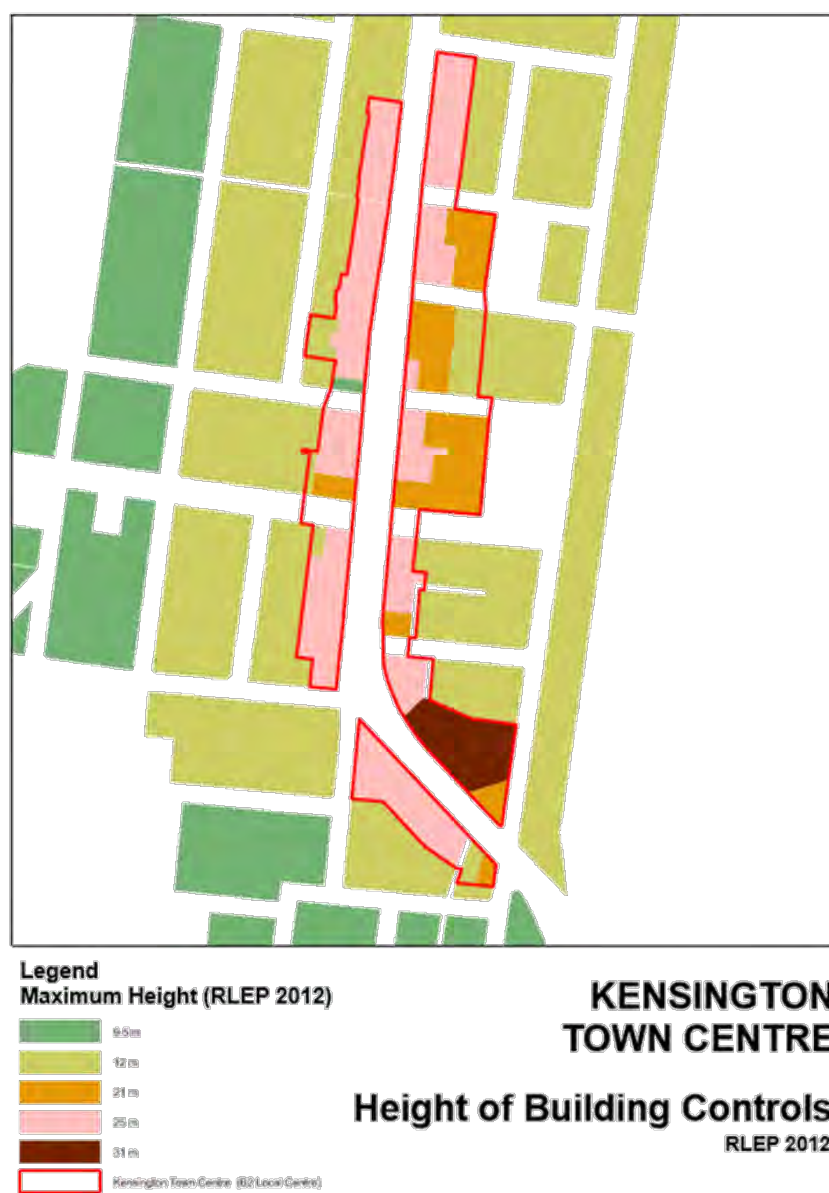


Figure 3: Existing Height of Building Controls (Kensington)

Proposed Height of Building Control

As outlined above, the maximum building heights will only apply where community infrastructure is proposed in accordance with a community infrastructure clause (CIC clause).

In accordance with the urban design principles outlined in Part 1, an overall mid-rise building height limit of 31 metres for new development throughout both town centres is proposed. In addition to FSR changes, this will enable the density to be spread mainly through mid-rise buildings, providing a more human-scaled built form that supports a comfortable pedestrian environment while also enhancing opportunities for solar access.

The proposed 31m height limit is considered to respond well to the proportions of Anzac Parade and other streets within the study area. It also provides an appropriate scale transition to recently constructed buildings (approved under existing planning controls), while respecting the character of surrounding lower scaled residential neighbourhoods. A lower form across the majority of the town centres will also protect adjoining residential development and potential overshadowing impacts from higher development.

Within both town centres there are a number of prominent sites located at strategic nodes that could accommodate taller, slender buildings (See Figures 4 and 5). A higher rise building typology in these locations would help create a distinctive urban form within the town centres, while facilitating activation around the light rail infrastructure. Higher building forms at the key nodes provide a transition from existing building heights which have a 4 storey street wall and the proposed 9 storey development form. These nodes will have higher foot traffic as a result of the location of the light rail stations and there will be increased opportunity for wider footpaths and urban plazas (which are lacking in the town centres) by requiring new development to be set back. The key precincts are identified in the town centre maps below:



Figure 4: Kensington town centre and Todman Square Precinct

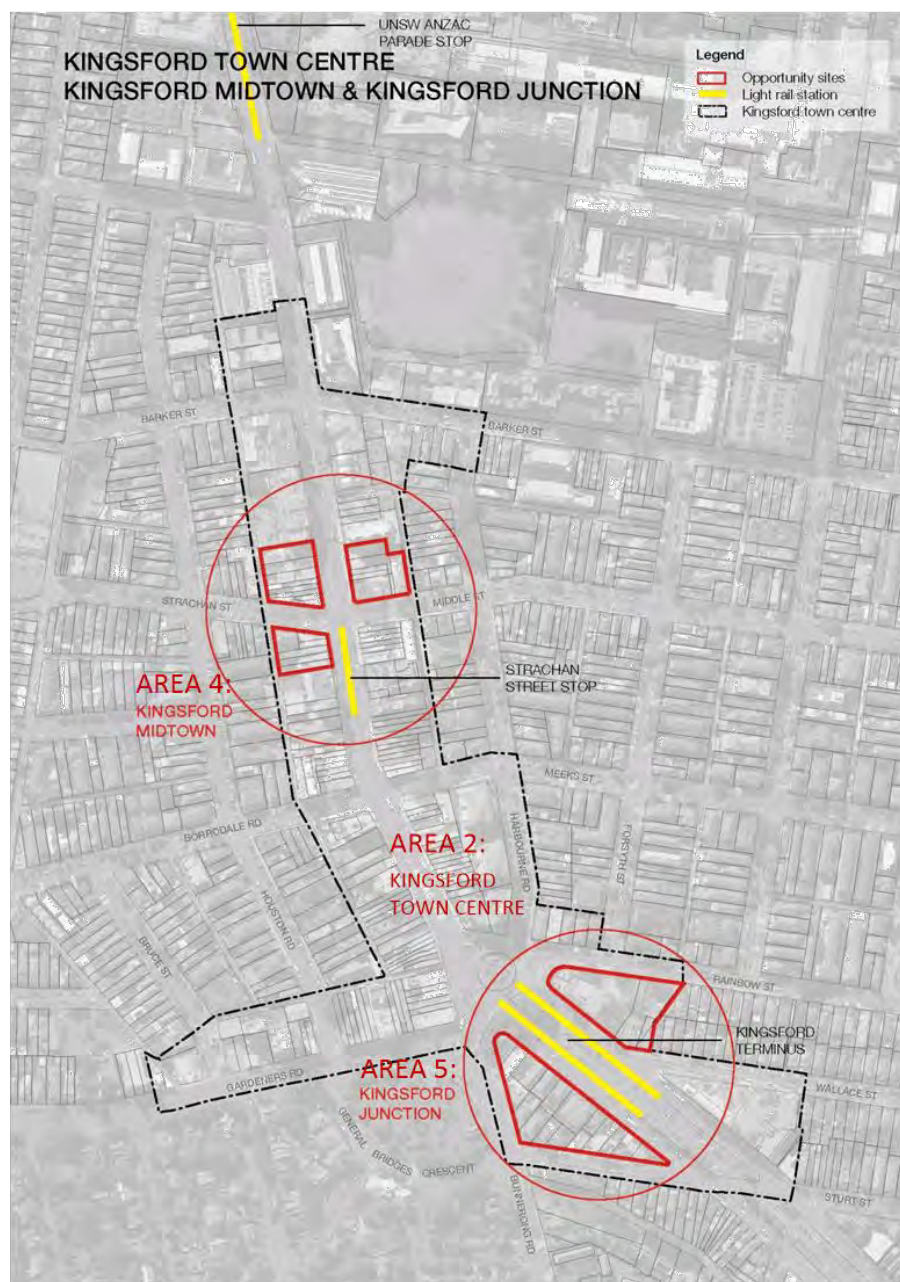


Figure 5: Kingsford town centre and Precincts

The proposed maximum heights under this draft Planning Proposal are as follows:

Table 3: Proposed alternative height of buildings subject to the provision of community infrastructure (CIC clause)

Site	Maximum Height of Building	
	RLEP 2012	With design excellence
Area 1 (Kensington town centre)	31m	N/A
Area 2 (Kingsford town centre)	31m	N/A
Area 3 (Todman Square Precinct)	54m	60m
Area 4 (Kingsford Mid-Town Precinct)	54m	60m
Area 5 (Kingsford Junction Precinct)	51m	57m

The proposed alternative height of building is detailed in the maps at Attachment B. Full details on the proposed building heights, including street wall controls and transition heights to adjoining residential areas are located in Part C, Section 5.2 Built Form Controls of the draft Strategy.

Existing Floor Space Ratio

The following table and figure illustrate the existing RLEP 2012 Floor Space Ratio controls applicable to the Kingsford town centre. Note that the Kensington town centres has no FSR controls.

Table 4: Existing Floor Space Ratio controls

	Kingsford	Kensington
Existing Maximum Floor Space Ratio	3:1	No FSR applies to land within the Kensington town centre – building envelope controls for each block are contained within RDCP 2013 (Section D1)

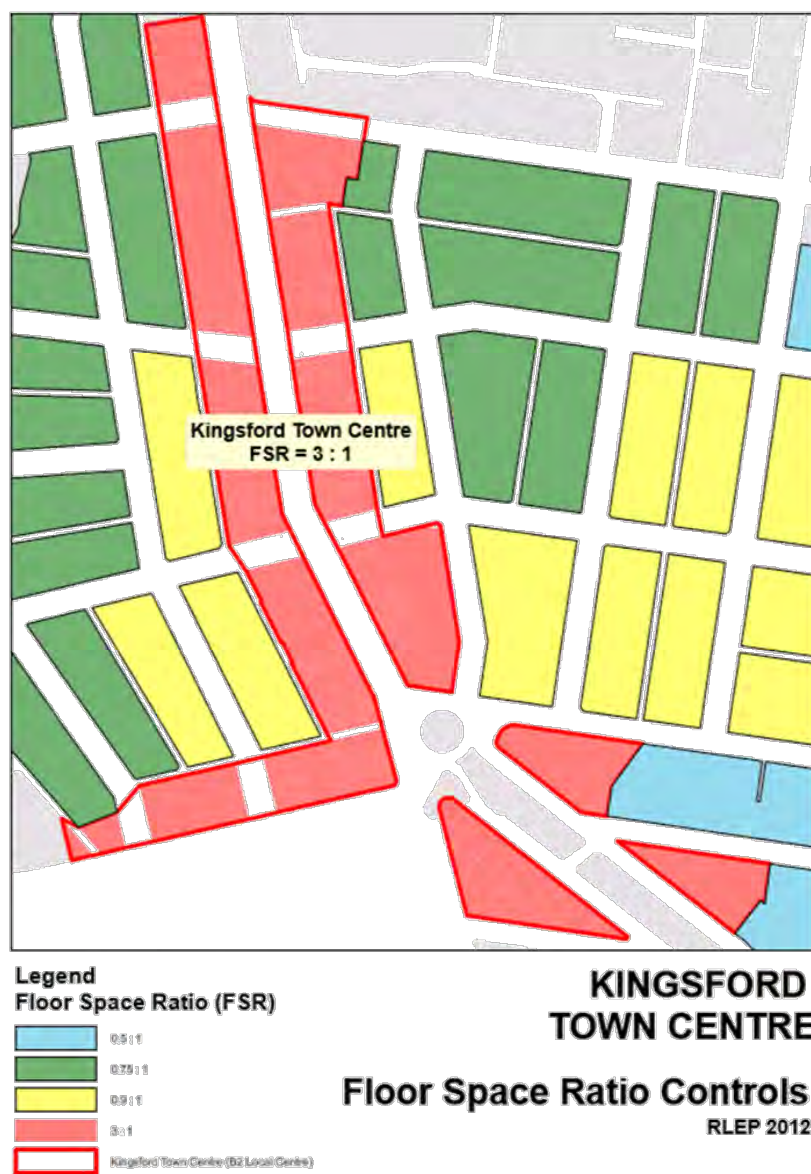


Figure 6: Existing Floor Space Ratio Controls (Kingsford)

Proposed Floor Space Ratio

The Urban Design Report investigated a range of appropriate FSR's that would work in conjunction with the proposed revised building heights and still achieve a good urban design outcome for the town centres. Based on the outcomes and testing of built form modelling, the following FSRs are proposed:

Table 5: Proposed maximum floor space ratios subject to the provision of community infrastructure

Site	RLEP 2012 FSR
Area 1 (Kensington town centre)	4:1
Area 2 (Kingsford town centre)	4:1
Area 3 (Todman Square Precinct)	5:1
Area 4 (Kingsford Mid-Town Precinct)	5:1
Area 5 (Kingsford Junction Precinct)	5:1

The proposed maximum FSRs are detailed in the maps at Attachment C and would be subject to the community infrastructure contribution so that they align with propose new building heights. Full details on the proposed FSR are located in Part C, Section 5.4 Floor Space Ratio of the draft Strategy. Maximum FSRs are intended to work with envelope provisions in a draft DCP to be prepared for each centre.

Minimum Non-Residential Floor Space Ratio

Analysis by Macroplan Dimasi predicts employment floor space demand for Kensington town centre to grow by around 6,000-6,500m² by 2036 and employment floor space demand for Kingsford town centre to grow by around 10,000-10,500m² by 2036.

A desktop analysis of approved Development Applications (DAs) was conducted to identify the quantity of commercial floor space in mixed-use buildings on Anzac Parade built since 2000. The analysis of floorplans revealed that on average, only 27% of the site, on the ground floor, is used for commercial floor space. In general, this is a significantly lower quantity of commercial floor space than was on the site prior to redevelopment. This means that over time, as new developments occur, each centre is undergoing a net loss of commercial floor space.

If current trends continue, where only around 27% of the ground floor of developments is used as commercial floor space, when each centre is fully developed, there will be a supply deficit of approximately 18,500m² in Kingsford and 24,000m² in Kensington, or 42,500m² across the two centres. This would be a significant reduction of existing commercial floor space and is inconsistent with the role of the centres, as identified in the 'Greater Sydney Region Plan A Metropolis of Three Cities'.

Support for commercial floor space is required to ensure adequate floor space is delivered within the town centres to provide local retail and commercial services for residents of the centres. A minimum non-residential FSR of 1:1 in the RLEP 2012 applying at the key nodes of Todman Square, Kingsford Midtown and Kingsford Junction Precincts will ensure floor space is available for supermarkets, retail, childcare centres, local services, shared working spaces and innovation hubs. This minimum quantity of retail or commercial floor space will ensure the light rail stops become nodes of commercial and retail activity within the centres.

The proposed non-residential FSR maps are located at Attachment D. Full details on the proposed FSR are located in Part C, Section 4.4 Commercial Floor Space and Jobs Growth of the draft Strategy.

Active Frontages

While the minimum non-residential FSR applying at the three Precincts will ensure nodes of activity are created within the town centres, to ensure future employment needs can be accommodated within the town centres, and for vibrancy and safety in the town centres, it is necessary to ensure the entire extent of the town centre has active frontages.

An LEP active frontage provision will require that sites provide ground floor commercial or retail floor space. This requirement, to be applied as per the active frontages map at Attachment E will ensure retail and commercial floor space is provided throughout the centre, and that streets and plazas have activity to provide vibrancy and passive surveillance. A DCP control will also be provided, to encourage developments to provide active frontages to mid-block links, secondary streets and laneways where active frontages are preferred.

B2 Local Centre Land Zone Boundary Extensions

Three key opportunity sites were identified in the draft Issues Paper as providing a logical extension to the Kingsford town centre given their strategic location. It is proposed that the B2 Local Centre zone be applied to these sites to reflect existing business uses, and ensure a cohesive zoning application across the entire block. The subject sites are listed in the table below and detailed further in Part C, Section 10.0 Zoning and Landuse and Appendix 3 of the draft Strategy. Maps demonstrating the proposed B2 Local Centre zone boundary are located at Attachment F.

Table 6: Proposed B2 zone boundary extensions

Site	Current Zone	Proposed Zone	Current RLEP 2012 Controls	Proposed RLEP 2012 Controls
16- 20 Barker Street, Kingsford	R3 Medium Density Residential	B2 Local Centre	Height: 9.5m FSR: 0.75:1	Height: 31m (9 storeys) FSR: 4:1
582-584 and 586-592 Anzac Parade, Kingsford	R2 Low Density Residential	B2 Local Centre z	Height: 9.5m FSR: 0.5:1	Height: 31m (9 storeys) FSR: 4:1
63 Harbourne Road and 12-18 Rainbow Street, Kingsford	R3 Medium Density Residential	B2 Local Centre	Height: 12m FSR: 0.9:1	Height: 31m (9 storeys) FSR: 4:1

Proposed Site Specific DCP Provisions

The draft DCP for the town centres will replace the existing site specific DCPs contained in the Randwick Comprehensive DCP 2013. The main components of the draft DCP will include:

- Existing and desired character
- Affordable Housing
- Community Infrastructure
- Built Form
 - Building envelopes
 - Design Excellence
 - Street wall heights
 - Building setbacks
 - Building depth and bulk
 - Building exteriors

- Contributory buildings
- Awnings
- Public Domain
 - Access network
 - Active street frontage
 - Addressing the street
 - Sun access to public spaces
- Site-specific controls (as required)

Part 3 - Justification

Section A - Need for Planning Proposal

Q1. Is the planning proposal a result of an endorsed local strategic planning statement, strategic study or report?

Council's local strategic planning statement (LSPS) is in the process of being drafted. As such the LSPS is yet to be placed on public exhibition and endorsed by Council. Council has prepared a number of background documents and undertaken research, investigations and community engagement activities that have informed the preparation of this Planning Proposal.

In early 2016 Council initiated a comprehensive planning review process for the Kensington and Kingsford town centres to ensure the planning framework is up to date, robust and well aligned to meet future needs. As a first step, Council prepared a draft Issues Paper (March 2016, Appendix 5) which identified a number of pertinent planning, urban design and public domain challenges affecting the two centres, opportunities and strategic directions to be addressed in a comprehensive planning strategy. The Issues Paper recognised that light rail will have a major effect on the centres not only by transforming people's travel behaviour but will have a direct impact on the centres' identity, functionality, access, movement patterns, amenity and the local economy. It is also likely to be a catalyst for urban renewal and growth.

Both town centres have been facing considerable redevelopment pressure, reflected by an increase in the number of planning proposals for various sites along Anzac Parade over the last few years seeking substantial changes to the current planning controls. Site investigations have shown that the town centres are in the process of transition and in need of rejuvenation to support economic prosperity and long term sustainable growth.

The Kingsford and Kensington Planning Strategy dated January 2017 provides the strategic planning framework responding to the challenges and opportunities identified in the Issues Paper. The following studies and reports have been prepared to inform the draft Strategy:

- Kensington and Kingsford Town Centres Urban Design Report 2016 (Conybeare Morrison; Appendix 2)
- Kensington and Kingsford Town Centres - Affordable Housing and Community Infrastructure to Support Growth 2016 (SG Haddad Advisory; Appendix 3)
- Kensington to Kingsford Infrastructure Contribution Financial Feasibility Assessment 2016 and update in July 2019 (HillPDA; Appendix 4)
- Liveability/walkability indicators (UNSW City Futures Centre; Appendix 7)
- Kensington, Kingsford and Randwick Junction Economic Impact of Light Rail (stage 1 and 2 reports) 2016 (Macroplan Dimasi; Appendix 8)
- Kensington and Kingsford Parking Controls Advice 2016 (ARUP; Appendix 9)

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- Kensington and Kingsford Planning Strategy Traffic Assessment 2016 Stage 1 and 2017 Stage 2 (ARUP; Appendix 10)
- Kingsford Heritage Review (Colin Brady; Appendix 11)
- Anzac Parade Corridor Light Rail Analysis 2016 (EMM Consulting; Appendix 12)

Q2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

This Planning Proposal is underpinned by a comprehensive evidence-based strategy informed by technical and specialised studies, extensive community consultation and an international design competition, as detailed in Question 1 above. The Planning Proposal explains how new height and FSR controls will be applied, mechanisms to achieve affordable housing and delivery of community infrastructure and how design excellence will be achieved in accordance with the vision for the town centres outlined in Part 1. It is considered that new planning controls along with supporting DCP provisions, an affordable housing plan and community infrastructure guidelines is the best means to achieve the stated objective.

Section B - Relationship to Strategic Planning Framework

Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

The Planning Proposal was prepared and submitted to the Department in January 2017 prior to the release of the Greater Sydney Commission's *Metropolis of Three Cities-Greater Sydney Region Plan and Eastern District Plan*. Therefore the original Proposal addressed consistency with the goals and priorities in the Sydney Metropolitan Plan - A Plan for Growing Sydney 2014 and the draft Central District Plan 2016. Further assessment has been carried out to address consistency with the current Regional and District Plan (Attachment G). The Planning Strategy is also consistent with the GSC's Collaboration Area Place Strategy, also finalised after the submission of the original Planning Proposal to the Department of Planning (see Section D of this report for further details).

a) Does the proposal have strategic merit? Will it:

- Give effect to the relevant regional plan outside of the Greater Sydney Region, the relevant district plan within the Greater Sydney Region, or corridor/precinct plans applying to the site, including any draft regional, district or corridor/precinct plans released for public comment; or
- Give effect to a relevant local strategic planning statement or strategy that has been endorsed by the Department; or required as part of a regional or district plan or local strategic planning statement; or
- Responding to a change in circumstances, such as the investment in new infrastructure or changing demographic trends that have not been recognised by existing strategic plans.

Yes, the proposal is consistent with GSC's A Metropolis of Three Cities, the Eastern City District Plan and the Randwick Collaboration Area Place Strategy (Section D below).

A local council strategy for Randwick City is yet to be endorsed by the Department of Planning, Industry and Environment. The LSPS is yet to be publicly exhibited, finalised and endorsed by Council.

The town centres are in the process of transition, stemming from the construction of the City to South East Light Rail, population growth and considerable redevelopment pressures. This Planning Proposal draws on specialised urban design input from Conybeare Morrison and proposes

appropriate increases in height and floor space ratio that have been tested to respond to the need for growth and change and capacity of the light rail (see Urban Design Report at Appendix 2).

As demonstrated above, the Proposal is responding to a change in circumstances and is consistent with the relevant strategic plans and therefore has strategic merit.

b) Does the proposal have site-specific merit, having regard to the following:

- *the natural environment (including known significant environmental values, resources or hazards) and*
- *the existing uses, approved uses, and likely future uses of land in the vicinity of the proposal and*
- *the services and infrastructure that are or will be available to meet the demands arising from the proposal and any proposed financial arrangements for infrastructure provision.*

An outline of the existing character of the town centres is contained within Part B, Section 1.1 Kensington Town Centre: A Snapshot and Section 1.2 Kingsford Town Centre: A Snapshot. Part 1 of this Planning Proposal details the vision for each town centre, which guides the draft Strategy and proposed RLEP 2012 amendments.

The B2 Local Centre land use zone supports the mixed use nature of the town centres, in line with the vision detailed in Part 1 of this planning proposal. The active frontages LEP map, new height/FSR controls and minimum non-residential floor space ratio map provides opportunities to leverage the close proximity to the UNSW and health campus to encourage start-ups, incubators and innovation floor space within in the Kensington and Kingsford town centres. Further detail is contained in Part C, Section 3.3 Innovation Districts of the draft Strategy.

In relation to infrastructure provision, increasing density in the town centres will have implications for new and improved infrastructure demand. A schedule of essential infrastructure items and public domain works identified as being needed to support growth and change within the town centres and to help realise the town centres vision is attached in Attachment A.

To help fund the required infrastructure, the draft strategy has outlined a new funding framework to help deliver the community infrastructure needed to support the growth and change. This is detailed in Part E Funding Infrastructure of the draft strategy, supported by specialised strategic advice on infrastructure provision from SG Haddad Advisory (Appendix 3) and financial feasibility assessment from Hill PDA (Appendix 4).

Both reports provide the strategic justification and evidence base which has informed the new funding framework to deliver the infrastructure and affordable housing needed to support growth and change in the town centres. See Question 10 for further discussion on the state infrastructure required to support the projected population growth in the town centres.

As demonstrated above, the proposal supports appropriate land uses and considers the existing and future infrastructure requirements and thus has site-specific merit and should proceed.

Q4. Will the planning proposal give effect to a council's endorsed local strategic planning statement, or another endorsed local strategy or strategic plan?

The local strategic planning statement is yet to be finalised and endorsed by Council. The Planning Proposal is consistent with the draft Planning Strategy for Kensington and Kingsford town centres, as outlined in the introduction to this Planning Proposal. The draft Strategy will be placed on exhibition

with the Planning Proposal and a copy of the draft Strategy is contained at Appendix 1. It is also consistent with the Randwick Collaboration Place Strategy (See section D).

Q5. Is the planning proposal consistent with applicable State Environmental Planning Policies?

Yes, the planning proposal is consistent with applicable State Environmental Planning Policies, as detailed in Attachment H.

Q6. Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

Yes, the planning proposal is consistent with applicable Ministerial Directions, as detailed in Attachment I.

Section C – Environmental, Social and Economic Impact

Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The amendments to the planning framework outlined in this Planning Proposal will not adversely impact any critical habitats or threatened species, populations or ecological communities as the centres are located within a highly modified urban environment.

The draft Strategy contains a range of environmental actions to improve water quality and increase landscaping and vegetation within the town centres. Full details are contained within Part C, Section 7.0 Sustainability and Transport and Section 8.0 Public Domain and Landscape.

Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The draft Strategy underpinning this Planning Proposal contains a range of strategies and actions relating to environmental sustainability, at both an individual building and precinct level. These include:

- a design excellence competition for Precinct sites which assesses green star compliance
- water sensitive urban design
- increased tree cover to mitigate the heat island effect
- measures to encourage public and active transport and reduce private car usage

Part C, Section 8.0 Public Domain and Landscape of the attached draft Strategy details the range of sustainability actions proposed to be implemented within the two Centres.

Q9. Has the planning proposal adequately addressed any social and economic effects?

The draft Strategy which underpins the Planning Proposal has adequately addressed a range of potential social and economic matters. The following sections of the draft Strategy outline how these matters are addressed:

- Projected population and dwelling growth, the need for housing diversity, the need for affordable housing - Part C, Section 2.0 Housing Growth and Diversity
- The provision of adequate social infrastructure, including schools and child care - Part C, Section 8.0 Social Infrastructure
- Protection of heritage items and contributory buildings - Part C, Section 6.0 Heritage Conservation

- Public transport provision; traffic and parking impacts – Part C, Section 7.0 Sustainability and Transport
- Projected employment and commercial floor space growth – Part C, Section 4.4 Commercial Floor Space and Jobs Growth
- Future retail and commercial uses, including opportunities for creative and innovation uses – Part C, Section 4.5 Innovation Districts
- Funding infrastructure – Part E Funding Infrastructure
- Airport restrictions on building height - Appendix 1 Sydney Airport's Prescribed Airspace on Building Height

Section D – State and Commonwealth Interests

Q10. Is there adequate public infrastructure for the planning proposal?

Increased density in the town centre will have implications for community infrastructure, as addressed in Part C, Section 9.0 Social Infrastructure of the draft Strategy.

Kensington and Kingsford town centres are serviced by three primary public schools, being Kensington Public School, Daceyville Public School and Rainbow Street Public School, and Randwick Boys High School and Randwick Girls High School. In relation to school capacity, discussions have taken place with the Department of Education and Communities and further consultation will take place during the public consultation phase. Formal response to the Proposal will be sought from the Department of Education.

The two centres are located in proximity to the Hospitals campus which offer emergency and tertiary medical services and facilities. It is noted that as part of the District Planning process, a new Collaboration Area Place Strategy has been prepared (December 2018) by the GSC, Randwick City Council, UNSW, Hospital and state agencies. It aims to improve physical connections, address the need for greater public transport, prioritise walking and cycling connections and bring greater vibrancy to the Collaboration Area. It also considers how affordable local housing will be addressed which is a vital element for the health and education community of key workers and students. It also encourages the creation of innovative businesses spaces for start-ups and scale-ups that can take advantage of physical connections with knowledge intensive industries. Precinct-wide energy, water and waste efficiency solutions are considered in the Place Strategy to replace inefficient infrastructure and enable new utility models and technologies.

Regarding public transport capacity, a study by EMM consulting analysed predicted population growth, the CSELR system capacity and light rail stop capacity to identify appropriate levels of future public transport commuter services for the Anzac Parade corridor. Consultation has also been undertaken with Transport for NSW and RMS (refer to Part 5 below).

For the year 2020, the CSELR alone will not be sufficient to provide for the public transport needs of the Anzac Parade corridor. The report states that approximately 26 of the existing 81 morning peak hour peak direction bus services will need to be maintained to provide an acceptable level of service. In 2031 just under half of the existing morning peak hour peak direction bus services 35 hourly bus services (compared to 81 currently) will need to be maintained to service the growth in the corridor.

If adequate bus services are not provided in conjunction with the future Light Rail services, the projected population growth cannot be provided for within the Kensington and Kingsford town centres. The future level of bus service is yet to be released and discussions will continue with TfNSW during the consultation period of the Planning Proposal. In addition, to accommodate population

growth throughout Randwick City, transit investigations as identified in the Future Transport Strategy 2056 will be required to increase the public transport access of the whole LGA.

This Planning Proposal is in line with the GSC's *A Metropolis of Three Cities*, the Eastern City District Plan and Randwick Collaboration Place Strategy, in relation to planning for public infrastructure.

Q11. What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?

Table 7 outlines the state and Commonwealth agencies consulted in accordance with the Gateway Determination issued by the Department in December 2016.

Prior to the issue of the Gateway Determination Council engaged with the following state and Commonwealth agencies in preparing the K2K Planning Strategy (attached to this document):

- Department of Planning and Environment – Sydney Region East
- Department of Education and Communities
- Australian Department of Infrastructure and Regional Development
- Sydney Airport Corporation
- AirServices
- CASA
- NSW Office of Water
- Australian Jockey Club
- Southern Sydney Regional Organisation of Councils

The outcome of this preliminary consultation is contained within the draft Strategy. Further consultation is planned during the formal public exhibition period of the Planning Proposal, as detailed in Part 5 – **Community Consultation** consistent with the Department's Gateway Determination.

Part 4 - Mapping

Maps have been prepared which demonstrate the proposed LEP provisions. These maps are attached to this Planning Proposal, as follows:

- Attachment B – Height of Buildings Map – subject to Community Infrastructure Contribution
- Attachment C – Floor Space Ratio Map – subject to Community Infrastructure Contribution
- Attachment D – Non-Residential Floor Space Ratio Map
- Attachment E – Active Street Frontages Map
- Attachment F – Town Centre Boundary Map

Part 5 - Community Consultation

As a condition of the Gateway Determination, Council has undertaken consultation with various public agencies, as demonstrated in table 7.

Table 7: Consultation undertaken with public agencies on the Planning Proposal

Agency	Consultation undertaken	Comments from agency	Council response
Sydney Airport Corporation Limited (SACL) and DIRD	Meeting with Dpt of Industry and Regional Development (DIRD) and Sydney Airport 16 November 2016	Land at Kingsford Junction is a high frequency aviation corridor and Sydney Airport will need to closely consider intrusions in this airspace. The OLS at Kingsford is about 7 storeys. All proposed heights under the draft Planning Strategy are at or under the PANS-OPS. The PANS-OPS is about 17 storeys at Kingsford Nine-Ways. Under the Airports Regulation, there is no discretion for Sydney Airport or CASA to approve a permanent penetration of the PANS-OPS. Sydney Airport advised that proponents should not assume that buildings below the PANS-OPS will be necessarily approved.	No further action needed. Sydney Airport and DIRD will make further comments during public exhibition of Planning Proposal. The Draft Planning Strategy has included a section describing the OLS and PANS_OPS to clarify height intrusions over Kingsford (as requested by Sydney Airport).
Civil Aviation Safety Authority (CASA)	Council emailed CASA on 14 February 2018 requesting advice or comments on the Planning Proposal.	CASA's letter of 1 March 2018 responded to Council's request for advice that this Planning Proposal is a land use matter not within their jurisdiction but rather within the jurisdiction of DIRD.	No further action need with CASA as advised. See advice above from DIRD
Air Services Australia (ASA)	On 23 February 2018, Council submitted the required technical information to ASA and Sydney Airport for approval.	ASA responded on 3 April 2018 that at the proposed heights, property development areas will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Sydney Airport. The property development areas will not affect the Sydney RTCC. This planning strategy/ property development areas will not adversely impact the performance of any Airservices Precision/Non-Precision Nav Aids, Anemometers, HF/VHF/UHF Comms, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links.	No further response required. ASA will be consulted during public exhibition of the draft Planning Proposal.
Transport For NSW	On 16 June 2017 Council met with TfNSW to discuss public transport services within precinct	On 16 June 2017, TfNSW advised Council that network design comprising light rail and buses will be based on patronage and demand evidenced by Opal card data as well as opportunities to provide improved connections such as cross-regional travel. The	No response required. TfNSW will be further consulted during public exhibition of the draft Planning Proposal.

		provision of bus services is flexible and adaptable. Travel demand management strategies will be implemented.	
Transport for NSW (TfNSW) and Roads and Maritime Services (RMS)	Council met with representatives from TfNSW and RMS on 14 March 2018 to discuss the planning proposal.	TfNSW and RMS provided combined comments to Council on 16 April 2018. Their comments included: 1. Questions regarding different mode share assumptions in reports prepared by EMM Consulting and ARUP regarding the planning strategy. 2. The base 2031 travel demand figure in the EMM Addendum report is incorrect. 3. The traffic model should be prepared according to RMS TTD2017/001 and submitted to RMS for review. 4. Proposed intersection improvements need to be modelled in Sidra to provide more detail around the layout and geometric requirements of the improvements and land components and concept plans need to be provided in due course. 5. The study should take into consideration and state infrastructure improvements required, such as bus priority measures. 6. The study should identify any proposed funding mechanisms for developer contributions.	Council has considered the comments made : 1. The different mode share assumptions were made by different consultants preparing reports based on different methodology, including different assumptions on bus services to be provided in addition to the light rail. The different mode share assumptions do not materially change the outcome of the Planning Proposal, particularly the proposed dwelling uplift. An explanation of the differing assumptions will be provided to TfNSW and RMS. See advice provided by TfNSW on 16 June 2017 regarding the ability of TfNSW to adjust bus services according to demand. 2. The error is a difference of approximately 400 trips in base travel demand, which is not substantial. The Addendum report will be amended before public exhibition. 3. The model utilised was the Sydney Light Rail SCATSIM Aimsun model, developed by GTA consultants. The model calibration and validation had been undertaken as part of the base model development. Arup extracted an appropriate subnetwork for the purposes of this work on the basis that the model validation had already been accepted and was fit for the purpose of this study. The traffic model will be submitted to RMS for review 4. The proposed intersection improvements are proposed through the planning strategy, and are not a matter

			for consideration at Planning Proposal stage. The required modelling will be undertaken as part of the implementation of the planning strategy. 5. Any bus Infrastructure improvements are a matter for consideration by TfNSW. Advice from TfNSW on 16 June 2017 states bus services are flexible and can be adjusted to respond to travel demand. 6. The Strategy and Planning Proposal identify a range of Infrastructure needs and methods to provide funding. The Planning Proposal is accompanied by a draft community Infrastructure contribution plan and a draft s7.12 plan. There is no State Infrastructure Contribution (SIC) proposed in the Planning Proposal.
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The following agencies are to be formally notified of the Planning Proposal:

- Commonwealth Dpt of Infrastructure and Regional Development
- Sydney Airport Corporation
- Air Services Australia
- Transport for NSW and Sydney Buses
- Office of Environment and Heritage
- Heritage Office
- Roads and Maritime Services
- Energy Australia
- Department of Education and Communities
- Sydney Water
- Family and Community Services – Housing NSW
- NSW Ministry of Health
- University of NSW
- Centennial and Moore Park Trust
- Adjoining LGAs
- Ausgrid

The next stage of the consultation will similarly involve a range of activities and actions developed through a Community Engagement Framework for the Planning Proposal and Draft Strategy. It is intended that the Planning Proposal be on exhibition for a minimum period of 6 weeks, and that the following range of communication and engagement activities, including innovative methods, will be undertaken:

- Online content on the Council website
- Dedicated "yoursay" website allowing for online consultation

- Direct mail out to local residents and businesses
- Local newspaper (Including media releases)
- Information flyer
- Telephone survey
- Social media posts on Council's Facebook, Twitter and Instagram
- Feature story in Randwick eNews
- Information provided to local precinct committees

Part 6 - Project Timeline

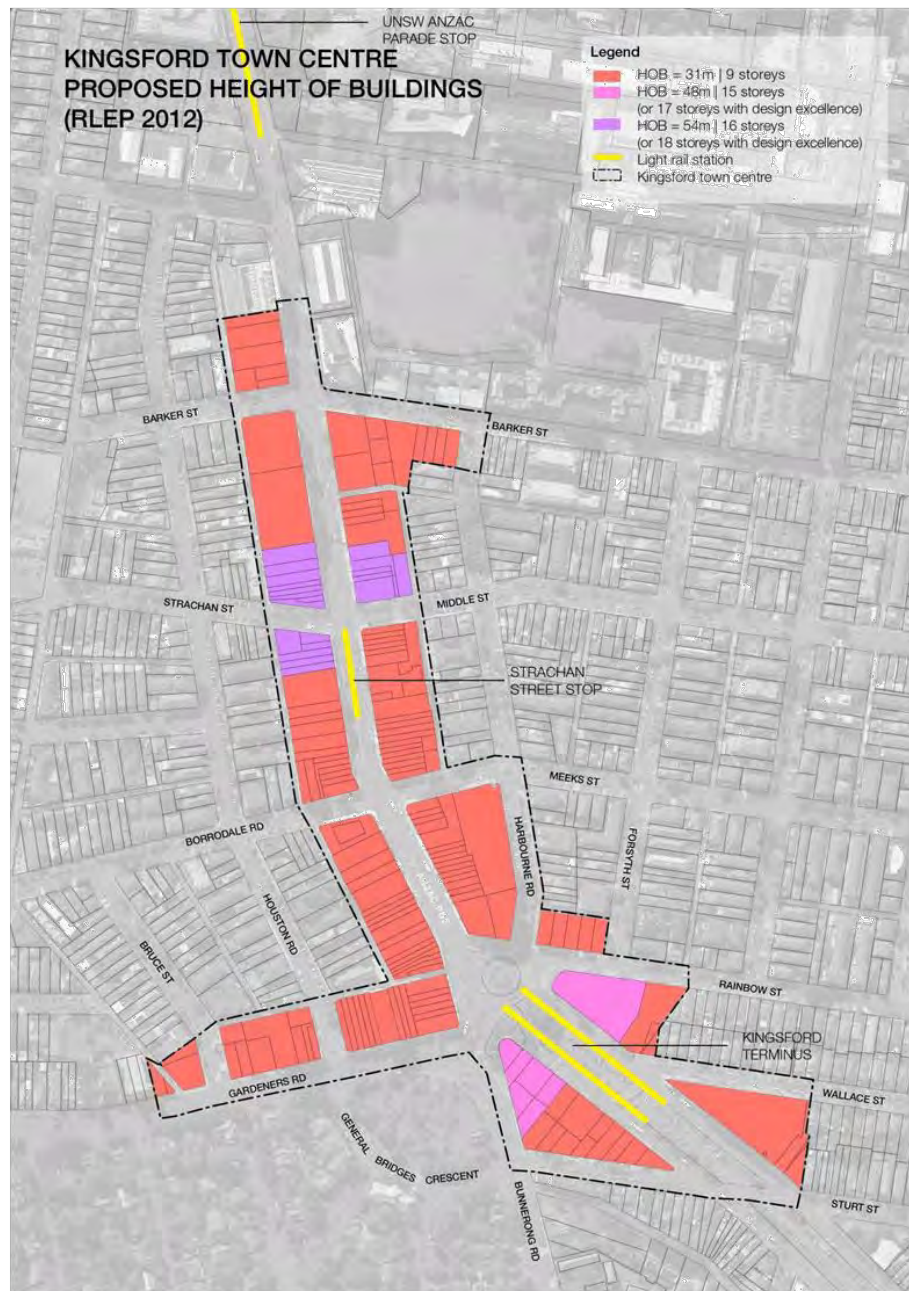
Council will undertake a minimum 6 week comprehensive consultation process and stakeholder engagement in line with the Department's Gateway Determination. Reporting back to the Department is anticipated to be in late 2019, following consideration of community and stakeholder feedback received by Council in response to the exhibited draft Planning Proposal.

Attachment A– Draft Schedule of Community Infrastructure items and works

COMMUNITY INFRASTRUCTURE – 2019	
KENSINGTON	
Duke and Bowral Streets public domain	\$600,000
Separated Bike Network and other improvements	\$4,000,000
Cycle parking facility	\$300,000
Multi-purpose community centre and exhibition space	\$1,600,000
Community Innovation Centre fit out	\$3,000,000
Landscape upgrades including Water Sensitive Urban Design	\$3,000,000
Green Grid links	\$1,500,000
Local road improvements and upgrades	\$3,000,000
TOTAL	\$17,000,000
KINGSFORD	
Separated Bike Network and other improvements	\$2,900,000
Multipurpose Community Facility	\$1,200,000
Community Innovation Centre fit out	\$1,500,000
Landscape upgrades including Water Sensitive Urban Design	\$3,000,000
Local road Improvements and upgrades	\$3,500,000
Other Laneways upgrades	\$700,000
TOTAL	\$19,640,000

Attachment B – Height of Buildings Map subject to community infrastructure





Attachment C – Floor Space Ratio Map subject to community infrastructure

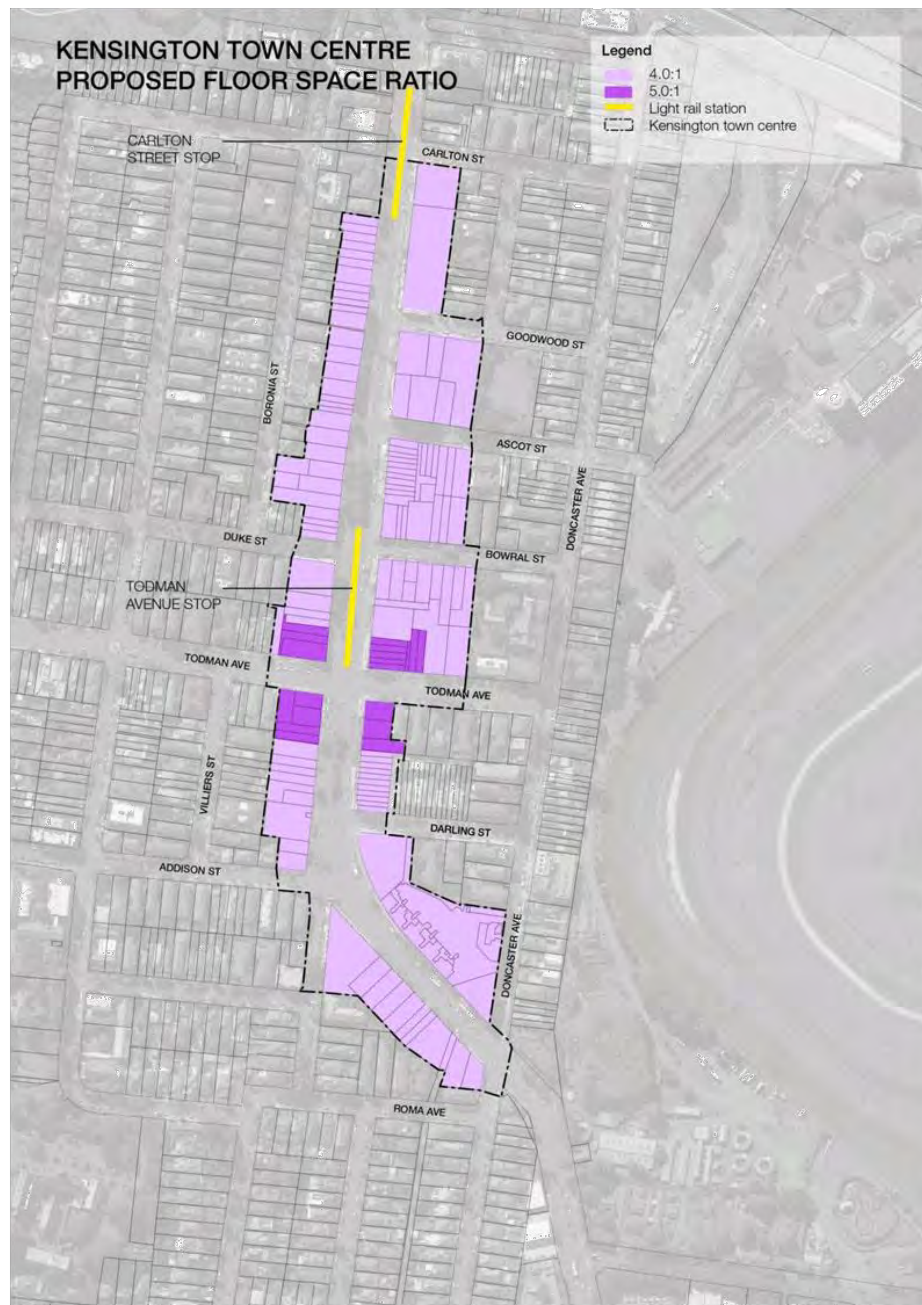


Figure 1: Kensington floor space ratio map



Attachment D – Non-residential Floor Space Ratio Map



Figure 1: Kensington non-residential floor space ratio map



Attachment E – Active Frontages Map



Figure 1: Kensington active frontages map

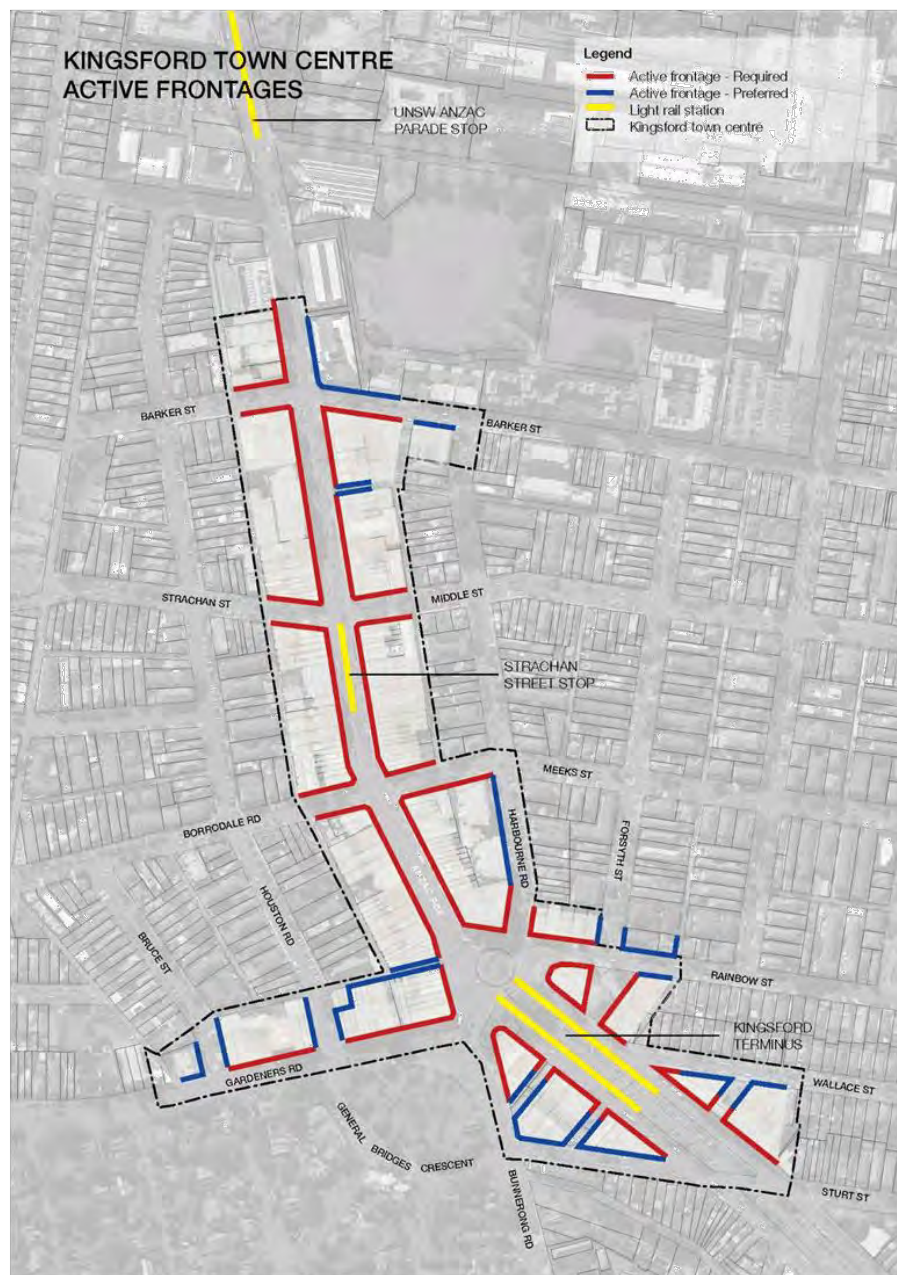


Figure 2: Kingsford active frontages map

Attachment F – Town Centre Boundary Map



Figure 1: Kensington B2 Local Centre land use zone map



Figure 2: Kingsford B2 Local Centre land use zone map

Attachment G - Consistency with Strategic Plans

Table 1: Consistency with A Metropolis of Three Cities – The Greater Sydney Region Plan and the Eastern City District Plan

Objectives/Priorities	Planning Proposal Response
Infrastructure and collaboration	
Objective 1: Infrastructure supports the three cities E1: Planning for a city supported by infrastructure	Consistent. Future infrastructure needs for Kensington and Kingsford town centres have been determined through a range of studies and needs analysis taking into account population growth, employment drivers, demographic changes, existing and desired future character of centres, and current levels of provision and deficiencies. The Planning Proposal prioritises infrastructure provision to support growth within both centres by: • Facilitating efficient land use and improving local connections to public transport by focusing density around light rail infrastructure so that residents, workers, students and visitors benefit from commuting advantages and access to services and jobs. • Implementing a dual system of infrastructure funding comprising s7.12 fixed levy development contributions and a community infrastructure scheme to fund an array of public infrastructure and public realm improvements • Allowing for efficient land use by increasing development capacity along the light rail corridor on Anzac Parade and concentrating densities on strategic node sites adjacent to light rail infrastructure to ensure that future residents and workers have access to high quality transport infrastructure and benefit from commuting advantages.
Liveability	
Objective 8: Services and infrastructure meet communities' changing needs	Consistent. The draft Strategy includes a range of strategies and actions to ensure adequate social infrastructure is provided in the Kensington and Kingsford town centres to accommodate growth and changing demographics including:

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E3: Providing services and social infrastructure to meet people's changing needs	• Encouraging above ground childcare centres on the podium and roof tops of developments via proposed new DCP controls • Allocation of floor space towards the provision of a community services hub as part of the redevelopment of the Rainbow Street site in Kingsford town centre • Providing planning incentives for the dedication of floor space towards the provision of multi-purpose gallery/creative space in the Kensington town centre. See <i>Part C – Section Social Infrastructure</i> for further information.
Objective 7: Communities are healthy, resilient and socially connected E4: Fostering healthy, creative, culturally rich and socially connected communities	Consistent. The draft Strategy will help achieve a healthier urban environment through the following initiatives: • Increasing the amount of open space and greenery within and around the town centres • Establishing an integrated open space network connecting the town centres with local parks and open space • Promoting active street life through mid-rise human scale development spread across the Anzac Parade corridor, requiring ground floor active street frontages and substantial improvements to the public domain such as wider footpaths, outdoor dining, street trees and landscaping, street furniture and public art • Prioritising walkability through improvements to pedestrian access and safety through the public domain including through site links, street network improvements, and new lighting, crossings and wayfinding • Prioritising public transport patronage through increased densities centred on strategic node sites adjacent to light rail infrastructure and Kingsford terminus and public domain improvements to improve carrying capacity of footpaths • Encouraging bicycle usage by planning for and delivering an improved cycle network and additional bicycle infrastructure
Objective 9: Greater Sydney celebrates the arts and supports creative industries and innovation.	Consistent. The draft Strategy includes various strategies and actions to support the growth of innovation and creative industries within the Kensington and Kingsford town centres, including: • The B2 zoning allows for a flexibility of uses and the co-location of creative and retail uses within close proximity to the light rail, • The minimum non-residential floor space ratio LEP Map will ensure adequate opportunities are provided for innovation and creative spaces, and

	- The Kensington and Kingsford town centres draft infrastructure contributions scheme addresses the dedication to Council of spaces in each town centre which can be used for the purposes of innovation and creative uses. Appropriate development of the night time economy will be undertaken via a range of measures including: - DCP controls for night time trading hours and active street frontages - Encouraging laneway mews style developments - Creative/feature lighting and wayfinding and pedestrian safety - Family friendly events in newly created public spaces such as Meeks Street Plaza - Pop ups and temporary activations to support the creative sectors, improve vibrancy and build new audiences
Objective 11: Housing is more diverse and affordable E5. Providing housing supply, choice and affordability, with access to jobs, services and public transport	Consistent. The draft Strategy contributes to greater housing supply by increasing the residential capacity of the town centres, unlocking the existing residential capacity in the town centres. The housing to be provided in the town centres will be within a walking catchment to the new light rail and express bus services into the CBD, providing access to jobs and services. In addition, the town centres contain a range of shops and are in close proximity to the University of New South Wales and the Hospitals Campus, providing access to jobs and services. The draft Strategy includes various strategies and actions to improve housing choice to suit different needs and lifestyles, including: - Encourage a diversity and mix of apartment sizes in the town centres having regard to changing demography, housing trends and affordability for a resident population, - Encourage adaptable and accessible housing to enable the community to age in place, - Provide for affordable housing options for key workers (through SEPP 70) to enhance opportunities to live, work and learn together and to support the economic function of the Randwick Education and Health Strategic Centre, and - Encourage the development of family friendly apartments to facilitate social diversity on the community. Affordable Housing Contribution Schemes are proposed for Kensington and Kingsford town centres as legislated by SEPP 70. The Planning Proposal proposes to introduce a staged affordable housing levy of 3% rising to 5% of residential floorspace to be dedicated as affordable rental housing. This is based on the Affordable Housing Plan and needs analysis prepared by Council. Additional information can be found in <i>Part C, Section 3 Housing Growth and Diversity</i>.

Objective 12: Great places that bring people together E6. Creating and renewing great places and local centres, and respecting the District's heritage	Consistent. Council has employed a place based collaborative approach in all stages of the planning, design and development of the draft Strategy and Planning Proposal. This strategic work has included considerable background research and analysis, an International Urban Design Competition, specialist studies in urban design, transport and economic needs and substantial community input. From the onset, the process has centred upon a place based collaborative approach where the community had input into the brief and urban design entries in the International Urban Design Competition, of which the winning design has informed the vision and ten big ideas underpinning various strategies and actions contained in the Strategy. This place based collaborative approach has resulted in an urban design outcome that: • Prioritises a human scaled built form and people friendly public realm of high amenity walkable green streets • Provides a pedestrian network that is safe, accessible and legible • Facilitates a diverse land use mix of retail, commercial and residential mixed use development with active street frontages • Integrates social infrastructure into redevelopment by requiring the dedication of floor space towards a community hub at the Rainbow Street site in Kingsford and multi-purpose gallery/creative space at the Todman Square strategic node site • Fosters a sense of place, creativity and culture through public plazas, open spaces and public art
Productivity	
Objective 14: A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities E10. Delivering integrated land use and transport planning and a 30-minute city	Consistent. This Planning Proposal takes an integrated land use approach to new infrastructure provision, economic growth of the town centres and the opportunity for dwelling growth. The Kensington and Kingsford town centres will be directly serviced by the CBD and South East Light Rail which will better connect Randwick, Kensington and Kingsford to Sydney CBD. The Anzac Parade corridor has excellent access to employment, recreational opportunities, higher education, health facilities and social infrastructure.
Objective 22: Investment and business activity in centres	Consistent. The Kensington and Kingsford town centres are located within the Economic Corridor as identified in the 'Greater Sydney Region Plan A Metropolis of Three Cities' and the 'Eastern City District Plan'. Analysis by Macroplan Dimasi has identified the projected employment growth for the Kensington and Kingsford town centres and the future role of the centres in providing daily needs of the local community and providing opportunities for innovative spaces.

	The active frontages LEP and DCP maps and the minimum non-residential floor space ratio LEP map will ensure that every site provides commercial or retail floor space and the light rail stops become nodes of commercial and retail activity within the centres, supporting the growth of commercial floor space (See <i>Part C, Section 4 Business and Economy</i>). Various infrastructure and public domain improvements are addressed within the draft Strategy to accommodate the associated growth within the town centres.
Sustainability	
Objective 30: Urban tree canopy cover is increased E17. Increasing urban tree canopy cover and delivering Green Grid connections	Consistent. It is proposed to incorporate building setbacks to provide for wider footpaths of between 4.5 to 6m and enable the establishment of a tree canopy and to accommodate awnings, landscaped buffer planting, street furniture and more generous pedestrian circulation. Various other strategies and actions have been implemented to protect, enhance and extend the urban canopy, these include; • The establishment of an integrated open space network connecting the town centres with local parks and open spaces, • The establishment of a strong green 'boulevard' landscape character along Anzac Parade, and • Maximising the 'greening' of the public domain by applying a coordinated street tree and landscaping treatment. Additional information is contained in <i>Part C, Section 8 Public Realm and Landscape</i>.
Objective 31: Public open space is accessible, protected and enhanced E18. Delivering high quality open space	Consistent. The draft Strategy includes a number of strategies and actions that create a network of interlinked, multipurpose open and green spaces. These include: • Increasing the amount of open space within and around the town centre by investigating road closures to deliver new plazas, • The establishment of an integrated open space network connecting the town centres with local parks and open spaces • The establishment of a strong green 'boulevard' landscape character along Anzac Parade • Maximising the 'greening' of the public domain by applying a coordinated street tree and landscaping treatment • Improving existing footpath surfaces by applying cohesive and high quality paving treatments, • Improving lighting to improve safe access to and from open spaces • Prioritising pedestrian access and safety throughout the public domain and street network

	• Enhancing pedestrian permeability and connectivity throughout the public domain • Negotiating with the Australian Turf Club to transform an urban forest on the Royal Randwick Racecourse land into a publicly accessible park Additional information is contained in <i>Part C, Section 8 Public Realm and Landscape</i>.
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Attachment H - Consistency with SEPPs

State Environmental Planning Policy (SEPP)	Consistent	Comment
SEPP No 1—Development Standards	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP No 19—Bushland in Urban Areas	N/A	Not applicable.
SEPP No 21—Caravan Parks	N/A	Not applicable.
SEPP No 33—Hazardous and Offensive Development	N/A	Not applicable.
SEPP No 36—Manufactured Home Estates	N/A	Not applicable.
SEPP No 44—Koala Habitat Protection	N/A	Not applicable.
SEPP No 47—Moore Park Showground	N/A	Not applicable.
SEPP No 50—Canal Estate Development	N/A	Not applicable.
SEPP No 55—Remediation of Land	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP No 64—Advertising and Signage	Yes	Consistent. This draft Planning Proposal suggests DCP provisions that address appropriate siting, size and positioning of outdoor signage.
SEPP No 65—Design Quality of Residential Flat Development	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP No 70—Affordable Housing (Revised Schemes)	Yes	Randwick City LGA has been included in SEPP 70 as an area in need for affordable housing. An Affordable Housing Plan has been provided as an addendum to this Planning Proposal. The Planning Proposal is seeking to include a new clause in RLEP 2012 in relation to the provision of 3% (rising to 5%) affordable housing contribution on redevelopment sites.
SEPP (Aboriginal Land) 2019	N/A	Not applicable.
SEPP (Affordable Rental Housing) 2009	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.

SEPP (Building Sustainability Index: BASIX) 2004	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP. Proposed LEP and DCP provisions are intended to require buildings on key sites to be designed to meet 5 Star Green Star performance as one of the criteria for satisfying design excellence of a building. The draft Strategy also ensures commercial development is built to best practice sustainability standards by requiring buildings with a floor area over 1000m ² to achieve a minimum NABERS 5 Star Energy and NABERS 4 or 5 star water rating.
SEPP (Coastal Management) 2018	N/A	Not applicable. The sites are not located within the coastal zone as identified in the SEPP (Coastal Management) 2018 and referred to in the Coastal Management Act 2016.
SEPP (Concurrences) 2018	N/A	Not applicable. This draft Planning Proposal does not affect the operation of this SEPP in relation to the Planning Secretary's authority to grant concurrence to a development.
SEPP (Educational Establishments and Child Care Facilities) 2017	Yes	This Planning Proposal does not affect the operation of this SEPP (including provisions of exempt and complying development) in relation to educational establishments, centre based child care facilities, early education and care facility, home based child care, schools and school based child care.
SEPP (Exempt and Complying Development Codes) 2008	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP (Gosford City Centre) 2018	N/A	Not Applicable
SEPP (Housing for Seniors or People with a Disability) 2004	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP (Infrastructure) 2007	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP (Kosciuszko National Park— Alpine Resorts) 2007	N/A	Not applicable.
SEPP (Kurnell Peninsula) 1989	N/A	Not applicable.
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	N/A	Not applicable.
SEPP (Miscellaneous Consent Provisions) 2007	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.

SEPP (Penrith Lakes Scheme) 1989	N/A	Not applicable.
SEPP (Primary Production and Rural Development) 2019	N/A	Not applicable.
SEPP (State and Regional Development) 2011	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP (State Significant Precincts) 2005	Yes	Consistent. This draft Planning Proposal does not contain provisions that contradict or would hinder the application of this SEPP.
SEPP (Sydney Drinking Water Catchment) 2011	N/A	Not applicable.
SEPP (Sydney Region Growth Centres) 2006	N/A	Not applicable.
SEPP (Sydney Region Growth Centres) 2006	N/A	Not applicable.
SEPP (Three Ports) 2013	N/A	Not applicable.
SEPP (Urban Renewal) 2010	N/A	Not applicable.
SEPP (Vegetation in non-rural areas) 2017	Yes	This Planning Proposal does not contain provisions that contradict or hinder the operation of this SEPP. The provisions in the Planning Proposal complement and support biodiversity by encouraging landscaping, tree planting and other green infrastructure in developments and spaces within the town centres. The Planning Proposal also outlines mechanisms to generate development contributions which will enable public spaces to be enhanced through landscaping and water sensitive urban design.
SEPP (Western Sydney Employment Area) 2009	N/A	Not applicable.
SEPP (Western Sydney Parklands) 2009	N/A	Not applicable.

Attachment I - Consistency with s9.1 Directions

No.	Direction	Comment
1. Employment and Resources		
1.1	Business and Industrial Zones	Consistent. This draft Planning Proposal does not reduce employment land in business and industrial zones and supports the economic viability of the Randwick Education and Health strategic centre by providing affordable and key worker housing.
1.2	Rural Zones	Not applicable
1.3	Mining, Petroleum Production and Extractive Industries	Not applicable
1.4	Oyster Aquaculture	Not applicable
1.5	Rural Lands	Not applicable
2. Environment and Heritage		
2.1	Environment Protection Zones	Not applicable
2.2	Coastal Management	Not applicable. The sites are not located within the coastal zone as identified in the SEPP (Coastal Management) 2018 and referred to in the Coastal Management Act 2016.
2.3	Heritage Conservation	Consistent. This draft Planning Proposal does not impact on the heritage conservation of the site.
2.4	Recreation Vehicle Areas	Not applicable
2.5	Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	Not applicable.
3. Housing Infrastructure and Urban Development		
3.1	Residential Zones	Consistent. This draft Planning Proposal provides for diverse housing including affordable and key worker housing on site.
3.2	Caravan Parks and Manufactured Home Estates	Not applicable
3.3	Home Occupations	Consistent. This draft Planning Proposal does not contradict or hinder application of the home occupation provisions in Randwick LEP 2012.
3.4	Integrating Land Use and Transport	Consistent. This draft Planning Proposal is aligned with the objectives and directions of the integrating land use and transport by improving access to affordable housing close to jobs and services.
3.5	Development Near Regulated Airports and Defence Airfields	Consistent. This draft Planning Proposal does not contradict or hinder application of airspace operations provisions in Randwick LEP 2012. Council has consulted with Sydney Airport Corporation Limited, the Civil Aviation Safety Authority and Air Services Australia. Further information regarding comments from each public

		agency and Council's response are provided in Part 5 – Community Consultation of this Planning Proposal.
3.6	Shooting Ranges	Not applicable
3.7	Reduction in non-hosted short term rental accommodation period	Not applicable.
4. Hazard and Risk		
4.1	Acid Sulfate Soils	Consistent. This draft Planning Proposal does not contradict or hinder application of acid sulfate soils provisions in Randwick LEP 2012.
4.2	Mine Subsidence and Unstable Land	Not applicable
4.3	Flood Prone Land	Consistent. This draft Planning Proposal does not contract or hinder application of flood planning provisions in Randwick LEP 2012.
4.4	Planning for Bushfire Protection	Not applicable
5. Regional Planning		
5.1	Implementation of Regional Strategies	Not applicable
5.2	Sydney Drinking Water Catchments	Not applicable
5.3	Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable
5.4	Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.9	North West Rail Link Corridor Strategy	Not applicable
5.10	Implementation of Regional Plans	Not applicable
5.11	Development of Aboriginal Land Council land	Not applicable
6. Local Plan Making		
6.1	Approval and Referral Requirements	Consistent. This draft Planning Proposal does not include any concurrence, consultation or referral provisions nor does it identify any development as designated development.
6.2	Reserving Land for Public Purposes	Consistent. This draft Planning Proposal does not create, alter or reduce existing zonings or reservations of land for public purposes.
6.3	Site Specific Provisions	Justifiably inconsistent. This draft Planning Proposal will introduce a site-specific provision for affordable housing.

7. Metropolitan Planning		
7.1	Implementation of A Plan for Growing Sydney	Consistent. This draft Planning Proposal is aligned with the goals, directions and action of A Plan for Growing Sydney; and does not contradict or hinder application of A Plan for Growing Sydney.
7.2	Implementation of Greater Macarthur Land Release Investigation	Not applicable.
7.3	Parramatta Road Corridor Urban Transformation Strategy	Not applicable.
7.4	Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable.
7.5	Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable.
7.6	Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable.
7.7	Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable.
7.8	Implementation of Western Sydney Aerotropolis Interim Land Use and Infrastructure Implementation Plan	Not applicable.
7.9	Implementation of Bayside West Precincts 2036 Plan	Not applicable.
7.10	Implementation of Planning Principles for the Cooks Cove Precinct	Not applicable.

Draft Planning Strategy Kensington and Kingsford Town Centres

Public Consultation | January 2017




Randwick City Council
a sense of community

Your place, your future

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Part A – Overview

1.0 Purpose

This draft Planning Strategy for Kensington and Kingsford has been prepared for public consultation and engagement to assist in understanding the issues facing the two town centres and allow discussion and debate to occur.

This is an ideal time to start this process and ensure Council and community goals are achieved. This draft Planning Strategy provides a firm basis to commence this community engagement.

This draft Planning Strategy sets out the vision, strategies and implementation actions to guide the sustainable growth and physical development of the Kensington and Kingsford town centres over the next 15 years.

It forms the basis for changes to land use and built form controls in the Randwick Local Environmental Plan 2012 (RLEP 2012)¹ and the Randwick Development Control Plan 2013 (DCP 2013), together with improvements to the public domain to enhance the liveability, sustainability and economic prosperity of both town centres.

The draft Planning Strategy has been informed by considerable background research and analysis, extensive community engagement, and an international K2K Urban Design Competition which identified innovative design ideas and concepts to support the betterment of these town centres.

It is consistent with the Randwick City Plan, in particular Action 4a to achieve Outcome 4 – Excellence in urban design and development.

2.0 Comprehensive Planning Review

2.1 Background

In early 2016, Council initiated a comprehensive planning review of the Kensington and Kingsford town centres to ensure the planning framework is up to date, robust and well-aligned to meet future needs.

Both town centres are presently facing considerable redevelopment pressure, reflected by an increase in the number of rezoning applications for various sites along Anzac Parade seeking substantial changes to the planning controls.

The town centres are also in the process of transition, stemming from the construction of the CBD to South East Light Rail network on Anzac Parade which forms the main spine of these centres.

The light rail will not only transform people's travel behaviour but will have a direct impact on the town centres' identity, accessibility, functionality and amenity. It is also likely to be a catalyst for urban renewal and growth as envisaged by the State Government's Metropolitan Planning objectives for key transport corridors in Sydney, and evidenced in other precincts and cities that have introduced such infrastructure.

¹The RLEP 2012 is the result of a planning review undertaken over 2010-2012 to conform to the State Government's Standard LEP Instrument. As part of this process a comprehensive review of the planning controls for both Kensington and Kingsford town centres was earmarked for a separate study.

Part A – Overview

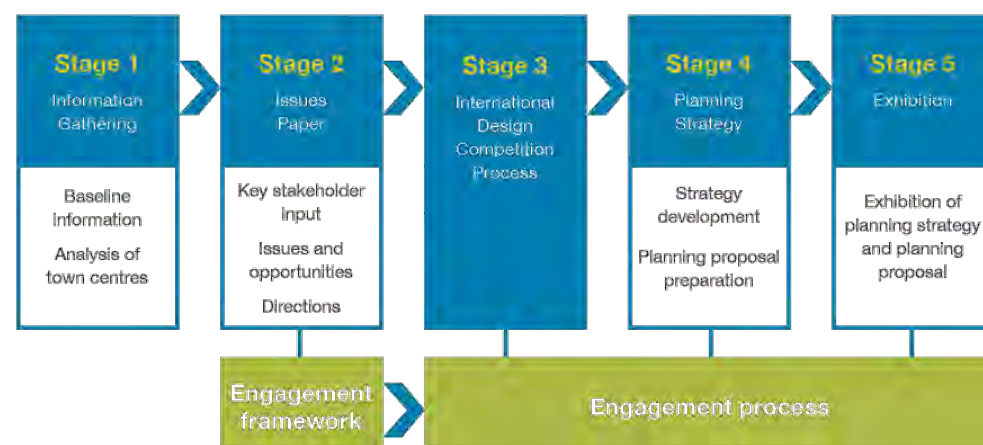
2.2 Planning Review Process

As a first step in the Planning Review, the Kensington/Kingsford Town Centre Issues Paper (draft Issues Paper) was prepared in March 2016, which should be read as the background report to this Planning Strategy. The draft Issues Paper provides a detailed overview of the study area, including the legislative context, existing conditions, and issues and opportunities. It identifies a number of pertinent planning, urban design and public domain challenges affecting the Kensington and Kingsford town centres, together with strategic directions to be addressed in the subsequent Strategy.

The next stage of the Review process was an International Urban Design Competition held between July and October 2016, which provided the opportunity for a creative visioning of the town centres as they face competing pressures and move through the current cycle of transition. Background to the Competition is discussed in further detail in Part A Section 5 – K2K Urban Design Competition. A comprehensive community consultation program was run throughout the Competition period which is further detailed in Part A Section 6 – Community Consultation.

The subject draft Planning Strategy comprises Stage 3 in the Planning Review process. It builds on the findings of the draft Issues Paper, and contains a range of objectives, strategies and actions to guide the future sustainable growth and development of the town centres.

The final stage of the Planning Review process will be the preparation of a Planning Proposal seeking amendments to the RLEP 2012 for each town centre. The Planning Proposal and draft Planning Strategy will be placed on public exhibition for an extensive community consultation and engagement process.



Part A – Overview

3.0 Key Drivers and Challenges

This draft Planning Strategy takes into account and responds to a number of drivers and challenges affecting the Kensington and Kingsford town centres which are summarised as follows.

3.1 Metropolitan Planning Directions

The NSW Government's long term Metropolitan Plan for Sydney – A Plan for Growing Sydney identifies a broad section of Anzac Parade (the main transport corridor for both Kensington and Kingsford town centres) as an area for urban renewal opportunities (see map below). Under this Plan identification of housing, services and jobs in proximity to the CBD to South East Light Rail network is earmarked as a priority.

Kensington and Kingsford town centres are located in proximity to the Randwick Education and Health Strategic Centre, comprising several major institutions and destinations, including the University of NSW, the Randwick Health Campus (with four major hospitals forming Australia's largest complex of teaching hospitals), and some of Australia's premier research institutions including Neuroscience Research Australia.

The Strategic Centre, as identified in the Plan, plays a vital economic role within Randwick City and the Sydney Metropolitan region. Collectively, the University and Health Campuses are the largest employers in Randwick City, with almost 40% of its workforce. The large workforce, students and visitors provide substantial local economic benefits to Kensington and Kinasford town centres.

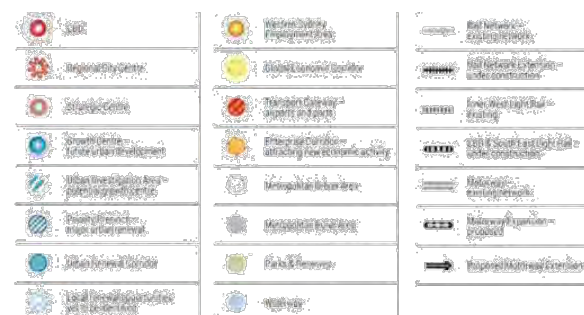
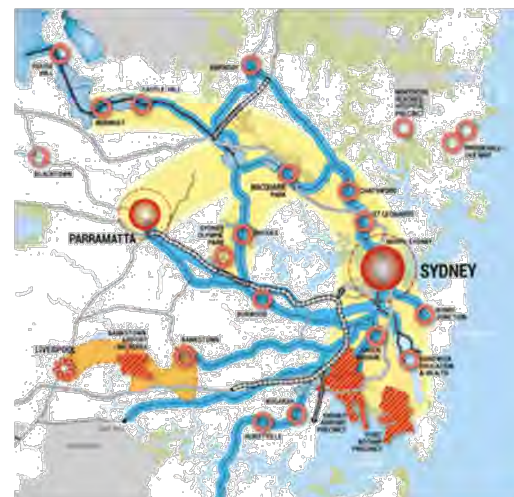


Figure 1: Metropolitan Sydney
Source: A Plan for Growing Sydney

Part A – Overview

3.2 District Planning Priorities

The draft District Plan for Greater Sydney's Central District² was released for consultation on 21 November 2016. This draft Plan sets out priorities and actions to give effect to A Plan for Growing Sydney and help realise the vision for the Central District to 2036. The draft Plan is centred on three key themes: A Productive City, A Liveable City and A Sustainable City.

The draft District Plan contains job targets for the Randwick Education and Health Strategic Centre and a five year housing target for Randwick Local Government Area (LGA). This five year housing target sets an additional 2,250 dwellings to be delivered by 2021 to meet projected population demands. The draft Plan also sets an action that councils will need to increase housing capacity across the district to ensure there is sufficient longer term capacity to deliver a minimum of 157,500 additional new dwellings across the Central District over the next 20 years. A 20 year strategic housing target is to be set in consultation with councils. All councils will need to prepare local housing strategies to demonstrate how additional capacity can be created to deliver supply and housing choice including affordable rental housing

over the next 20 years. Planning for this growth is discussed in more detail under Part C Section 3 – Housing and Diversity.

In relation to the theme for A Sustainable City, the draft District Plan sets an action for councils to support the development of initiatives for sustainable low carbon future and deliver Sydney's Green Grid Project. The Green Grid Project aims to enhance access to open space, provide routes for walking and cycling, conserve natural areas and provide opportunities for active and passive recreation. It also aims to support the management of stormwater, flood risk and water quality, while improving Sydney's landscape value and urban amenity.

The draft Central District Plan is on public exhibition until March 2017.

3.3 Revised Population Projections

The NSW State Government has recently released revised³ projections which indicate that the population of Randwick City is likely to increase by 23% resulting in an additional 33,900 people in the LGA by 2036.

While the draft District Plan sets a five year housing target, at the time of drafting the draft Issues Paper and preparing the subject draft Planning Strategy, a demand projection of 15,150⁴ additional new

dwellings by 2031 was adopted for this work to cater for the incoming population across the LGA.

A portion of these additional dwellings will be accommodated in the Kensington and Kingsford town centres given they are well serviced by public transport and are located in close proximity to employment hubs, as historically has been the case.

This is discussed in further detail in Part C Section 3 – Housing and Diversity and Part C Section 5 – Built Form.

3.4 CBD to South East Light Rail

As previously noted, the CBD and South East Light Rail project, due to be completed in 2019, will introduce a high capacity and high frequency service connecting Randwick City to Central Station and Sydney CBD, as well as the sporting facilities at Moore Park and Royal Randwick Racecourse. The light rail, however, will replace a number of current bus services.

The route will branch into two sections in Randwick City – to the Randwick Junction town centre, University of NSW and Health Campus on High Street and along Anzac Parade, through the Kensington town centre and terminating south of the nine ways intersection in Kingsford town centre.

Key pieces of new infrastructure to be introduced include a major terminus south of the nine-ways intersection in Kingsford town centre, the removal of the nine-ways round about and four new light rail stops (located adjacent to Carlton Street, Todman Avenue, UNSW in Kensington and Strachan Street in Kingsford town centre).

The light rail will also result in the creation of new urban spaces and movement patterns, increased levels of accessibility around the light rail stops, the relocation of on street parking in various locations and the undergrounding of overhead powerlines in the Kingsford town centre.

² The Central District includes the local government areas of Bayside, Burwood, Canada Bay, Inner West, Randwick, Strathfield, the City of Sydney, Waverley and Woollahra.

³ Department of Planning & Environment, 2016, NSW LGA Population and household projections

⁴ Department of Planning & Environment, 2014, NSW LGA Population and household projections

Part A – Overview

4.0 Study Area

The Planning Review Study Area is defined in the following Map. It includes the RLEP 2012 B2 Local Centre zoned land that makes up the Kensington and Kingsford town centres.

The study area also includes three residential zoned sites identified for inclusion in the Kingsford town centre (see Part C Section 10 – Zoning and Landuse for further detail on these sites).



Figure 2: Planning Review Study Area
Source: Randwick City Council



Figure 3: OBD to South East Light Rail Route
Source: Transport NSW 2016 website

Part A – Overview

5.0 K2K Urban Design Competition

As noted earlier, this draft Planning Strategy has been informed, in part, by the K2K Urban Design Competition which was held between June and October 2016. The aim of the Competition was to identify an innovative urban design vision to enhance the livability, sustainability and economic vitality of the Kensington and Kingsford town centres.

Endorsed by the Australian Institute of Architects (AIA), the Competition was run as a two stage process, open to multi-disciplinary teams with demonstrated expertise in innovative solutions to urban design, sustainability and liveability challenges.

The Competition was underpinned by the following themes which also provide the overarching scope for the objectives, strategies and implementation actions identified in this document:

- Business and economy
- Public domain, streets, and open space
- Housing growth and diversity
- Sense of place and identity
- Urban design excellence
- Sustainability.

An Independent Jury Panel of pre-eminent professionals in the fields of architecture, planning, landscape architecture and urban design were tasked with reviewing submissions and selecting the Competition winner.

The winning entry was by JMD, Hill Thalis and Bennett and Trimble. Council has only utilised key ideas from this entry as they relate to the Kensington and Kingsford town centres along the Anzac Parade corridor. Ideas beyond the town centres do not form part of this strategy.

Consistent with Council's consultation priorities, the involvement of the community was integral to the Competition process. Community feedback enhanced the Competition Brief and also assisted in developing the vision for each town centre as detailed in Part C of this Strategy. The community was also invited to comment on the short-listed entries with feedback provided to the Independent Jury Panel for their consideration.

Further detail on community consultation undertaken during the Planning Review is provided in Part A Section 6 – Community Consultation.

K2K Competition -Ten 'Big Ideas'

Following the conclusion of the Competition, the four short-listed entries were reviewed by Council which has resulted in the identification of ten 'big ideas'. These ideas are considered suitable to the context of the town centres, with a focus on sustainability and improving the environmental amenity of the public domain.

The ten 'big Ideas' are reflected in the strategies contained in Part C of this document and comprise the following:

1. Widen Anzac Parade to form a Boulevard: 'Anzac Parade For The People'
2. Integrate sustainability infrastructure into the precinct
3. Establish a "green grid" of walkable streets that link plazas and parks
4. Community spaces and a range of public benefits
5. Concentrate activity and built form at nodes
6. Nine-ways transformed into Kingsford Junction, as a new civic transport and urban hub
7. Prioritise walking, cycling and public transport
8. Increased provision of affordable housing
9. Leverage the university and health campus to foster innovation uses
10. Create new and reinvigorated plazas for people to gather.

Part A – Overview

6.0 Community Engagement

Community engagement has been an integral component of the Planning Review, informing all stages, as well as the overarching vision for the Kensington and Kingsford town centres.

A Communication Plan was prepared to engage and involve Council representatives, key stakeholders and the broader community to assist shaping the content and direction of the Planning Strategy. Entitled K2K – Your Place Your Future, this Communication Plan was underpinned by the following consultation principles:

- Multiple and meaningful opportunities for community input
- Involving all relevant stakeholders, including harder to reach sectors
- Strong customer focus and a respect for the community
- Acknowledge the community's right to be advocates for what they want or need
- An awareness and understanding by staff of how Council actions impact on the community
- Honesty and transparency in communication
- Accurate and timely information
- Clear explained decisions and actions of Council at all stages of the consultation process

- Actively listening and acknowledging other points of view
- Respecting individuals and cultural differences.

StraightTalk consultants were commissioned by Council for support in delivering a number of community engagement activities throughout the K2K Urban Design Competition. New approaches to consultation broadened the public conversation about the future of both town centres and gave the community ownership of the process to a greater extent than traditional engagement practices.

The key aims of engagement was to reach as many local residents and business owners as possible; to inform them about the Competition and to encourage participation in the process by giving feedback on what they valued and wanted in the town centres.

The community were given the opportunity to help develop the Competition Brief by outlining their aspirations for the town centres under a number of themes. This feedback was integrated into the Competition Brief provided to competitors participating in Stage 2 of the Competition. The community also provided feedback on the Competition entries, which was also reported to the jury for consideration in the judging process.

Key engagement activities undertaken during the K2K Competition are summarised in the following table:

Table 1: K2K Competition Community Engagement Activities

Activity	Detail
K2K Competition Project website www.K2K.sydney	Included information for competition entrants and tools for community feedback: online survey, interactive map and forum questions.
Fact sheets/letter to ratepayers Flyers	General information provided via mail informing local residents of the competition, timelines and how to get involved.
Table Talkers	Stand up flyers were distributed in the local area (restaurants and cafes) to encourage participation in the project; standard Chinese translation was included. It is intended that these will be active for the length of the project.
Pop up information stalls x3	Pop up stalls were conducted in three locations at Southern Cross Close in Kingsford, Anzac Parade opposite the UNSW entrance and Duke Street in Kensington. Each pop up featured; snacks, posters with information about the Competition, questions for people to answer about what they liked about the area and spare paper for people to comment about the Competition and provide general feedback.
Intercept interview sessions x3	Three roving intercept sessions were conducted where people were stopped along Anzac Parade and asked to participate in an intercept survey to get feedback on the six design themes.
Meeting with Kingsford Chamber of Commerce	A meeting was held to discuss details of the Competition and to gain an understanding of the broad attitude of the Chamber towards the cCompetition process.
Meeting with relevant Precinct Committee executive members	Meetings were held with the Kensington West Kingsford Precinct Committee and Kingsford South Precinct Committee and the UNSW Office of the Vice Chancellor to provide an overview of the Competition and to ascertain feedback on the future of the town centres.

Part A – Overview

Community feedback has identified important issues, opportunities, ideas and aspirations to help shape the future of the Kensington and Kingsford town centres.

This draft Planning Strategy has sought to respond to these issues and ideas, by providing strategies and actions on a range of considerations such as housing diversity, public domain improvements, pedestrian accessibility and sustainability.

7.0 Strategic Planning Framework

The draft Issues Paper provides a detailed overview of the state and local strategic planning framework guiding the Planning Review of the Kensington and Kingsford town centres.

The following documents, strategies and guidelines have provided background to, and helped informed the objectives, strategies and actions contained in this document:

- Sydney Metropolitan Strategy 'A Plan for Growing Sydney' 2014 (Department of Planning and Environment)
- Draft Central District Plan 2016 (Greater Sydney Commission)
- Randwick City Plan (Randwick City Council)
- Randwick Local Environmental Plan 2012
- Randwick Development Control Plan 2013
- Kingsford Town Centre Strategy 2013 (Randwick City Council)
- Kensington, Kingsford and Randwick Junction Economic Impact of Light Rail (stage 1 and 2 reports) 2016 (Macroplan Dimasi)
- Urban Design and Landscape Plan Kingsford 2016 (Transport NSW)
- Randwick Urban Design Guidelines 2014 (Randwick City Council)
- Kensington and Kingsford Town Centres Urban Design Report 2016 (Conybeare Morrison)
- A Cultural Randwick City 2009 (Randwick City Council)
- An Inclusive Randwick City 2010 (Randwick City Council)
- A Safer Randwick Plan 2003 (Randwick City Council)
- The Eastern Suburbs Low Carbon Futures Plan 2015 (Kinesis)
- High Performance Buildings Study 2016 (Kinesis)
- The Eastern Suburbs Regional Water Reduction Plan 2016 (Draft, Kinesis)
- Draft Policy for Architecture and Urban Design in NSW 2016 (Department of Planning and Environment)
- Anzac Parade Corridor Light Rail Analysis 2016 (EMM Consulting)
- Kensington and Kingsford Parking Controls Advice 2016 (ARUP)
- Kensington and Kingsford Planning Strategy Traffic Assessment 2016 (Stage 1, ARUP).



Figure 4: Community engagement activities
Source: Randwick City Council 2016

Part A – Overview

- Kensington to Kingsford Infrastructure Contribution Financial Feasibility Assessment 2016 (HillPDA)
- Randwick City Council Affordable Housing Strategy 2007 (Randwick City Council).

8.0 Planning Strategy Structure

The Planning Strategy is structured as follows:

Part A: Overview

This part provides an overview of the Planning Review process, including the methodology, key drivers, and outcomes of the K2K Urban Design Competition and community feedback.

Part B: The Town Centres

This Part provides a snapshot of the Kensington and Kingsford town centres including their regional/local context, key attributes, and scenarios for growth and change such as population/household growth projections, and key demographic and employment trends.

Part C: Vision and Themes

This Part establishes a vision for how Kensington and Kingsford town centres should grow and change over the next 15 year period, based on outcomes from community consultation.

A number of objectives, strategies and actions are set out, which are grouped under the following themes:

- Housing Growth and Diversity
- Business and Economy
- Built Form
- Heritage Conservation
- Sustainability and Transport
- Public Realm and Landscape
- Social Infrastructure
- Zoning and Land Use.

Under this Part, the objectives provide the aim or purpose for each theme, setting out what the Strategy intends to achieve. The strategies describe how the objectives are to be achieved. The actions provide more specific detail on what Council can do to implement the strategies, including statutory (e.g. through the RLEP 2012/DCP2013) or non-statutory mechanisms (e.g. capital works, advocacy).

Maps are provided where relevant to illustrate how the strategies and actions can be implemented on the ground.

Part D: Precincts and Structure Plan

This Part contains Precinct Plans for the identified precincts consolidating relevant objectives, strategies and actions identified in this Strategy.

A Structure Plan is also provided to illustrate how the town centres relate to their surrounding context and future opportunities outside the centre boundaries.

Part E: Feasibility and Funding Infrastructure

This Part outlines a contributions scheme to support infrastructure improvements for the Kensington and Kingsford town centres. It also provides an overview of independent feasibility testing undertaken of proposed new built form controls and the recommended infrastructure funding mechanism.

Part F: Implementation Plan

This Part includes a summary of the Strategy's actions, including key timeframes for implementation.

Part B – The Town Centres

This section provides a snapshot of the Kensington and Kingsford town centres including key characteristics and scenarios for growth and change. A detailed assessment of the town centres' existing conditions and opportunities and challenges is included in the draft Issues Paper.

1.0 Regional and Local Context

The Kensington and Kingsford town centres are located along the Anzac Parade corridor in the northern suburbs of Randwick City. The town centres are located approximately 9km from the Sydney CBD and 6km from Sydney International Airport. Nearby centres include Bondi Junction 6km to the north-east and Maroubra Junction 3km to the south.

Key sites and destinations in proximity to the town centres include the University of NSW, National Institute of Dramatic Art, Randwick Hospitals Campus, the Royal Randwick Racecourse, Centennial Park and the eastern beaches of Clovelly, Coogee and Maroubra.

1.1 Kensington Town Centre: A Snapshot

Kensington town centre extends along Anzac Parade, and is bounded by Carlton Street to the north and Doncaster Avenue to the south.



Figure 5: Regional Context
Source: Randwick City Council 2016

The town centre occupies a land area of around 60,200m² and has evolved as a traditional strip based centre with a distinctive retail and residential character. It has a localised catchment other than the Peter's of Kensington store which draws customers outside of Randwick Local Government Area (LGA).

A variety of development typologies occupy the town centre including:

- Recently developed multi-storey mixed use developments (up to 6/7 storeys)
- Low rise two storey developments
- Single storey dwelling houses and 3-4 storey residential walk up flats.

The town centre is distinct from other centres in Randwick City in that a large portion (approximately 34%) of ground floor uses are currently for residential purposes (e.g. houses or walk-up flats). These residential components are largely located towards the northern and southern ends of the town centre.

The most dominant business activity in Kensington town centre is food services (17%), followed by retail trade (15%) and other services (7%). Kensington has a high ground floor vacancy rate of 12%, mostly clustered towards the northern part of the Centre.

Part B – The Town Centres

In terms of urban structure and fabric, Kensington town centre has a focus on Anzac Parade and with a grid street pattern. The street edge is affected by variations to building setbacks, street walls and period of developments.

Finer urban grain with consistent setbacks is generally visible where older shop-top housing typology has been retained; newer mixed use developments, on the other hand, are usually associated with large building floorplates, resulting in a coarser urban grain.

There are two local Heritage Items located near the southern entrance of the town centre, being the Doncaster Hotel (268 Anzac Parade) and the Masonic Temple (199 Anzac Parade).

There are also a number of contributory items identified along Anzac Parade which demonstrate a range of key architectural elements, scale and proportion which help define the streetscape character.

Key open spaces/recreational facilities in proximity to the town centre include Centennial and Moore Parklands, Kokoda Park and Royal Randwick Racecourse.



Figure 6: 159-171 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 7: 76-82 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 8: 112-124 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 9: Map of Kensington town centre Source: Randwick City Council 2016

Part B – The Town Centres

1.2 Kingsford Town Centre: A Snapshot

Kingsford town centre is based around the intersection of Anzac Parade, Gardeners Road, and Bunnerong Road on the south (commonly known as 'nine-ways'). It straddles both sides of Anzac Parade, extending from Barker Street on the north to the South's Juniors Club to the south, as well as east and west along Rainbow Street and Gardeners Road respectively.

The town centre occupies a land area of 96,962m² and is a traditional strip based centre with a distinctive retail and dining character, and strong evening economy stemming from its proximity to UNSW and its large student demography.

The town centre accommodates a variety of business and retail uses ranging from restaurants, cafes and takeaway food outlets to smaller office suites, shop top housing, small scale independent supermarkets, pubs and banks. The ground floor vacancy rate is relatively low and is 9% of all properties, mainly clustered along the southern end of the town centre along Gardeners Road.

Much of the established commercial area is concentrated towards the southern end of Anzac Parade and west along Gardeners Road and comprises small fragmented allotments with 'fine grain' two to three storey 'shop top' buildings. A number of these buildings have facades listed as 'contributory' in the DCP2013 as they demonstrate a range of key architectural elements, scale and proportion which help define the streetscape character.

Towards the north and centre of the town centre lies a greater concentration of taller, contemporary mixed commercial/residential developments with retail and commercial uses at the ground level and up to nine storeys of residential above. At the corner of Barker Street and Anzac Parade lies a service station and McDonalds restaurant development, both of which occupy a prominent position.

The town centre has three sites on the south that are separated from the remainder of the main commercial area due to the nine-ways roundabout and existing street structure.

These are:

- South's Juniors Club, which includes the standalone club building of considerable bulk and scale, together with a row of retail uses that fall outside the town centre boundary. These buildings comprise retail and restaurant uses that transition to a lower 2-3 storey scale and interface with the surrounding low density residential neighbourhood.
- Rainbow Street site (1-11 Rainbow St), which comprises a vacant site accommodating parking, and also used as a temporary works depot during construction of the light rail. This site has been identified as a potential site for a new Integrated civic building and parking for Kingsford town centre.
- Kingsford Triangle site, which includes a variety of development types including low scale two storey strata titled residential flat buildings, single dwellings, a church, boarding house, childcare centre, a large drive in car wash centre and other business uses.

The town centre is located within walking distance to a number of open spaces including Palne Reserve, Kensington Park and Daceyville Gardens (City of Botany Bay LGA) on the south and west. There are a number of small public places in the centre which are underutilised (at Nine Ways roundabout, Southern Cross Laneway, Meeks Street, Borrodale Road and Strachan Street).

Part B – The Town Centres



Figure 10: 375-387 Anzac Parade, Kingsford
Source: Google Streetview 2016



Figure 11: 494 Anzac Parade, Kingsford
Source: Google Streetview 2016



Figure 12: 582 Anzac Parade, Kingsford
Source: Google Streetview 2016



Figure 13: 277-291 Anzac Parade, Kingsford
Source: Google Streetview 2016



Figure 14: Map of Kingsford town centre
Source: Randwick City Council 2016

Part B – The Town Centres

1.3 Local Planning Framework

The Randwick Local Environmental Plan 2012 (RLEP 2012) is the statutory planning instrument that currently applies to all land in Randwick City. It regulates how land is used through land use zones and sets out provisions for how land can be developed via principle development standards and key planning controls.

The RLEP 2012 is the result of a comprehensive planning review undertaken over 2010-2012 to bring the instrument in line with the State Government's Standard LEP Template. A review of the planning controls for Kensington and Kingsford town centres was flagged as a separate Study.

The following table outlines the main RLEP 2012 provisions applicable to the Kensington and Kingsford town centres.

Table 2: Key Applicable RLEP 2012 Planning Controls

	Kingsford	Kensington
Land Use Zone	B2 Local Centre	B2 Local Centre
Maximum Height	24m	9.5m 12m 21m 25m 31m
Maximum Floor Space Ratio	3:1	No FSR applies to land within the Centre – building envelope controls for each block are contained within Randwick DCP 2013 (Section D1)
Heritage	One (1) heritage item in the town centre O'Dea's Corner	Two (2) heritage items in the town centre Masonic Centre - Doncaster Hotel
Key Sites (Identified on the Key Sites Map of Randwick LEP 2012)	Kingsford Triangle Site Kingsford Market Site	No Key sites

Part B – The Town Centres

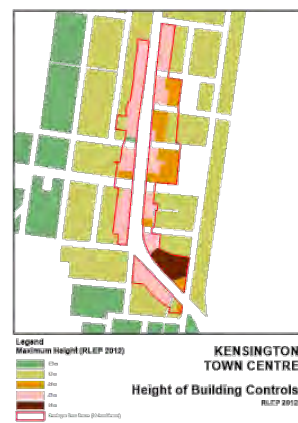
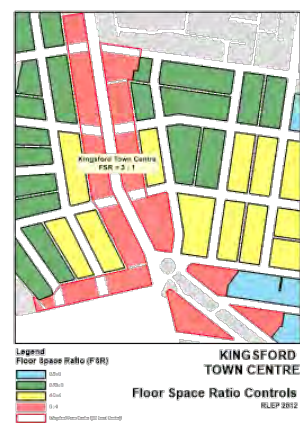
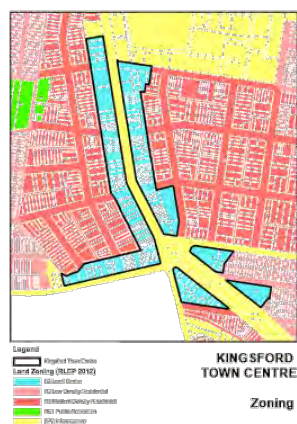


Figure 15: Existing Zoning – RLEP 2012
Source: RLEP 2012 (www.legislation.nsw.gov.au)

Figure 16: Existing Heights – RLEP 2012
Source: RLEP 2012 (www.legislation.nsw.gov.au)

Figure 17: Existing Floorspace Ratio (Kingsford town centre) – RLEP 2012
Source: RLEP 2012
(www.legislation.nsw.gov.au)



Figure 18: Existing heritage listed items and contributory buildings
Source: RLEP 2012 (www.legislation.nsw.gov.au) and RDCP 2013 (www.randwick.nsw.gov.au)

Part B – The Town Centres

1.4 Randwick Development Control Plan 2013

The Randwick Development Control Plan 2013 (DCP 2013) provides detailed planning and design guidance to supplement the provisions of the RLEP 2012. The DCP contains site specific chapters for the Kingsford town centre (section D2) and Kensington town centre (section D1) originating from the previous DCPs applying to these centres.

Kensington Town Centre

A major planning/design review for Kensington town centre was carried out in 2001/02, resulting in the introduction of building envelope controls based on the architectural character of the centre, articulation requirements and building heights. Site amalgamation is encouraged through bonuses to the building envelopes. The building envelope controls developed in 2002 have been transferred into the current DCP 2013 Section D1.

The DCP provides a broad vision statement for future development in the Centre and block by block controls for height, setbacks and building location zone. The controls aim to achieve 'innovative' design quality first envisaged for the 'Model Suburb of Kensington' in 189⁹.

⁹ Posters advertising the 1891 subdivision plan for the 'Model Suburb of Kensington'.

⁶ Department of Planning and Environment (2016) NSW State and LGA Population and Household projections

⁷ Greater Sydney Commission (November 2016) Draft Central District Plan (pg.81)

⁸ Department of Planning and Environment (2016) NSW State and LGA Population and Household projections

Kingsford Town Centre

The DCP for Kingsford town centre aims to achieve high quality building and urban design to promote economic employment opportunities. The DCP controls focus on site planning, building design, articulation, materials and finishes, through site links, and car parking.

The DCP also contains a requirement to prepare site specific controls for key sites being the Kingsford Triangle and Rainbow Street site. The site specific DCP controls are to address a range of considerations such as high quality architecture, dwelling mix, through site links, landscape and streetscape design to ensure that future development in these prominent locations are of high quality design and provide excellent amenity.

2.0 Planning for the Future of Kensington and Kingsford

The following section summarises a number of trends and indicators that provide the baseline for planning the future growth of Kensington and Kingsford town centres.

2.1 Population and Household Growth Projections

Current population growth projections indicate that the population of Randwick City will continue to grow to over 180,150 persons by 2036⁶. The distribution of

population growth by age group is forecast to be in line with projected Greater Sydney averages, towards a significantly older population profile by 2036.

For Randwick City, the greatest proportional growth is forecast in the 85+ age group, which is expected to increase by 74% from 2016-2036⁷. Conversely, there will be 33% growth in school aged children (5-19 years) in Randwick City, which is one of the largest projections for a council area within the Greater Sydney Central District.

While single person households are projected to make up 31% of the total households in Randwick City by 2036, family households will continue to be the dominant household type, at around 59%⁸ of the total households by 2036.

This demonstrates that there is a need for additional housing including diverse housing to meet increased population and changing household structure which is discussed in more detail under Part C Section 3 – Housing Growth and Diversity. The level of growth will place additional pressure on the Kensington and Kingsford town centres given their location to employment hubs, education and health services.

2.2 Demographic Trends

While the 2016 Australian Bureau of Statistics (ABS) Census Data has not yet been released, an analysis of ABS 2006 and 2011 Census Data has revealed key demographic trends for Kensington and Kingsford as summarised opposite:

Kingsford Town Centre

- Kingsford has a young population, with 31% of residents between the ages of 20 and 29 years in 2011, reflecting the area's high student population.
- In 2011, the average household size was 2.61 and increasing, probably due to increased group households, while Randwick City's average household size decreased over the same period.
- In 2011, there was a high proportion of households renting (46%), with an increasing rate of households with mortgages and a decreasing rate of households who own their homes.
- The suburb has a high and increasing rate of ethnic diversity, with 52% of persons speaking a language other than English at home and 52% of persons born overseas in 2011.
- There are increasing levels of education and growth in the number of jobs in the centre. In particular, there has been employment growth in education and training, healthcare and social assistance, professional, scientific and technical services, and arts and recreation services.

Part B – The Town Centres

Kensington Town Centre

- Like Kingsford, Kensington's population is young, with 34% of people between the ages of 20 and 29 years, reflecting the area's high student population.
- The average household size in Kensington is 2.37, which stayed steady between 2006 and 2011, while Randwick City's household size decreased over the same period. There is a lower level of lone-person households compared to Randwick City, and an increasing number of group households.
- In 2011, almost half (49%) of all households were renting, with an increasing rate of households with mortgages and a decreasing rate of households who own their homes.
- Similar to Kingsford, there is a high rate of ethnic diversity, with 41.5% of people speaking a language other than English at home and 47% of residents in 2011 born overseas.
- There are increasing levels of education and growth in the number of jobs in the centre. In particular, there has been employment growth in education and training, healthcare and social assistance and professional, scientific and technical services.

2.3 Employment Trends

As identified in the draft Issues Paper, both Kensington and Kingsford town centres perform a localised role and function with local retail/commercial services.

The Kensington town centre is projected to grow from 1,540 jobs to 1,925 jobs by 2036, reflecting an increase of 25%. It is expected that 70% of the future jobs growth will occur in the industries of retail trade; accommodation and food services; education and training; and healthcare and social assistance.

Job numbers for the Kingsford town centre are projected to grow from 2,425 to around 3,000 by 2036, reflecting an increase of 24%. It is estimated that around 47% of the future jobs growth is expected to occur in the industries of accommodation and food services and healthcare and social assistance.

To ensure the town centres achieve the projected jobs growth adequate employment floor space should be generated within the town centres. The proximity to the Randwick Education and Health Strategic Centre will support an emerging innovation district which will stimulate economic activity and jobs growth.

⁹ Refer to the draft Issues Paper for a detailed outline of the methodology and assessment criteria for identifying the key opportunity sites.

¹⁰ Our preliminary capacity analysis shows that the development capacity remaining at or near these key intersections is approximately 25,000m² GFA (see section on capacity analysis for details).

The need to provide for adequate employment floor space within the town centres is discussed in more detail under Part C Section 4 – Business and Employment.

2.4 Strategic Precincts

The draft Issues Paper provides an analysis of existing floor space capacity and redevelopment potential of the Kensington and Kingsford town centres⁹, resulting in the identification of a number of key opportunity sites.

These have been further refined in the development of this draft Strategy, and three distinct Precincts have been identified. The Precincts are based around strategic transport nodes being the Todman Avenue light rail stop in Kensington town centre, the the Strachan Street light rail stop and terminus in Kingsford town centre.

Existing development located in these Precincts are largely 1-2 storey shop-top housing or multi-business properties with moderate to significant remaining capacity¹⁰ and are likely to be redeveloped in the short-medium term following possible lot consolidation.

These Precincts have been selected on the basis that clustering appropriately scaled development around key transport nodes will support hubs of activity, contributing to business activation and vibrancy in the town centres.

A precinct based approach provides the opportunity to accommodate a greater variety of housing in a 'live/work/play' environment, while making greater use of public transport and reducing car dependence. Importantly, it will allow greater opportunities to utilise the development process to deliver a range of public benefits to the community such as new plazas, and wider footpaths as outlined in this Strategy.

The Precincts are identified in the following maps and discussed in greater detail throughout this draft Strategy.

Part B – The Town Centres



Draft Planning Strategy



Kensington and Kingsford Town Centres | 21

Part C – Vision and Strategies

This section outlines the vision for the town centres of Kensington and Kingsford which has emerged from community feedback received throughout the duration of the Planning Review. A number of themes follow with strategies and actions to guide future development within each town centre.

1.0 Vision

An overarching vision for each town centre has been developed, informed by the extensive community consultations undertaken throughout the Planning Review process.

The vision for each town centre provides the basis for the themes, objectives, strategies and actions contained in this Planning Strategy. All proposals for development within each town centre will be expected to be consistent with the respective vision.

Vision for Kensington Town Centre

Kensington will evolve into a vibrant and dynamic town centre situated along Anzac Parade, Sydney's finest grand green boulevard.

The town centre will be well connected and highly accessible, capitalising on its proximity to key employment hubs including the Randwick Health and Education Super Precinct and the Sydney CBD.

Kensington town centre will offer an exciting city apartment lifestyle, with buildings designed to the highest quality and offering excellent amenity to residents. A range of housing types, including affordable housing,

will be woven into the town centre's urban fabric to offer housing diversity and choice to a wide range of people including the elderly, students and families. The integrity of existing heritage and contributory buildings will be respected and integrated with the best contemporary architecture that enhances the character and layering of the town centre experience.

Kensington town centre will be a focus for creativity and innovation. A gallery/creative space at Todman Square will create a cultural anchor for the town centre, supported by a diverse range of cafes, restaurants and shopping options that attract visitors from across Sydney. Innovative startups will translate cutting edge research into real world business success.

The town centre will have a green identity, setting the bench mark for sustainability within the Local Government Area (LGA) through Ecologically Sustainable Development (ESD) targets, Water Sensitive Urban Design (WSUD) practices, high quality green public places with linkages to nearby parks, and sustainable transport modes such as the light rail, cycling and walking.

Vision for Kingsford Town Centre

Kingsford will develop into an exciting and dynamic town centre continuing to draw on its rich multicultural identity. The town centre will provide a diverse offer of restaurants, cafes and retail shopping, set within a rejuvenated public domain that supports activation and social interaction.

The town centre will be a safe and inclusive place to live, work and visit. Buildings will be designed to the highest quality incorporating a mix of apartments, laneway mews and affordable housing.

Highly connected and accessible, the town centre will foster hubs of activity focused around the terminus at Kingsford Junction and Kingsford Mid-Town, the old heart of the Kingsford.

The town centre will have a green focus and set a new performance benchmark for sustainability within the LGA through ESD targets, WSUD practices, public places with canopy trees and landscaping and support of sustainable transport modes such as the light rail, cycling and walking.

The integrity of existing heritage and contributory buildings will continue to be respected and integrated, through high quality architectural design. Innovative business start-ups will be encouraged to provide a 'bridge' between research and business.

2.0 Themes

The following themes have been derived from the vision for each town centre. These themes form the basis of the strategies and actions contained in this document:

- Housing Growth and Diversity
- Business and Economy
- Built Form
- Heritage Conservation
- Transport and Sustainability
- Public Realm and Landscape
- Social Infrastructure
- Zoning and Land Use.

Each theme includes a suite of 'objectives' – what we want to achieve, and 'strategies' – how we want to achieve the objectives, together with a series of specific actions.

Key points raised by the community during engagement activities are provided at the beginning of each theme.

Part C – Vision and Strategies

3.0 Housing Growth and Diversity

This section outlines a number of strategies and actions to facilitate sustainable housing growth within the Kensington and Kingsford town centres to meet future housing needs of a growing population. It identifies opportunities to increase the amount of affordable housing, recognising the critical challenge of decreasing housing affordability, while promoting housing diversity and choice for a wide demography and social mix.

The Kensington and Kingsford town centres are highly desirable areas to live given their proximity to key employment hubs including the Randwick Education and Health Strategic Centre and Sydney City CBD, and excellent access to frequent public transport services, retail and commercial facilities. As such, the town centres are expected to attract new residents and face continued pressure for growth in the years to come.

Future demand for housing in the Kensington and Kingsford town centres is likely to be driven by a number of changing socio-demographic influences, including smaller household sizes, high numbers of young people, and an ageing population. These factors combined with the locational attributes outlined above, and compounded with declining housing affordability is likely to further fuel the growth for urban living in both town centres.

In consideration of future housing provision, Randwick City's local planning policy has consistently promoted higher densities within the town centres as a sustainable approach, to make better use of existing infrastructure, facilities and services while maintaining the character of existing low density residential neighbourhoods.

Consistent with this approach, this draft Strategy provides the framework to achieving sustainable housing growth across both Kensington and Kingsford town centres recognising their strategic location, excellent access to services and capacity to accommodate change. Specific housing needs including the provision of affordable housing and fostering housing diversity and choice are key considerations in this draft Strategy.

- To accommodate sustainable housing growth and expected demographic changes
- To provide for well-located housing in proximity to transport, employment and services
- To encourage housing diversity and choice; and
- To provide for affordable housing.

The draft Issues Paper provides a comprehensive overview of demographic trends which have implications for future housing supply and specific housing needs in the Kensington and Kingsford town centres.

Key demographic trends affecting both town centres include:

- Moderate population growth
- A relatively young population reflecting the high number of students in the area
- An ageing population
- An increase in lone person households and group housing
- A higher number of apartments/shop top housing
- A higher number of people in rental accommodation
- A diverse population including high numbers of people speaking a language other than English
- Increasing levels of education attainment.

Key challenges:

- The population of Randwick City is projected to increase by 26% resulting in 36,500 additional people residing in the LGA by 2031.
- Approximately 15,150 dwellings will be required to meet future housing needs by 2031.
- Future housing growth needs to occur in areas well serviced by public transport, and in proximity to employment, education, open space, and other services/facilities to ensure a safe and liveable environment.
- Ensuring sufficient housing supply in appropriate locations to address demand, while also managing the impact on neighbourhood character and amenity as development pressure intensifies are key factors which will play a crucial role in future.
- Ensuring future housing growth provides for housing diversity including affordable housing.

Part C – Vision and Strategies

Community Feedback

Feedback received during consultations shows that people value high quality development that meets the housing needs of a diverse community. In summary, the community told us:

- Provide a range of housing types to suit different types of people and life stages
- Encourage a diverse community
- Provide more housing that is affordable; and
- Encourage more families to live in the area through high quality development with more bedrooms and bigger spaces.

3.1 Planning for Growth

Randwick City needs to plan for population and employment growth. As part of the State Government's metropolitan plan for Sydney (A Plan for Growing Sydney), the Council is required to demonstrate how population growth and dwelling demand can be met via its local planning framework.

The draft District Plan for Greater Sydney's Central District sets a five-year target of an additional 2,250 dwellings by 2021. This equates to around 450 dwellings per year which is on track with Council's historical development trends. To deliver the five-year housing target, Council will need to plan to provide sufficient capacity to support the delivery of housing to meet this target. The draft District Plan also sets the direction that Council will need to consider sufficient housing capacity over the next 20 years.

While longer term (i.e. 20 years) housing targets have not been set for each council area, the draft Plan directs councils to consider sufficient housing capacity over the next 20 years to help meet the Greater Sydney Commission's minimum housing target of an additional 157,500 new dwellings to be delivered across the Central district by 2036. As such, both the draft Issues paper and this Strategy have adopted the State Government's (2014) projected dwelling demand of 15,150 additional new dwellings by 2031 to help plan for this long term growth.

As part of the Council's approach to planning for growth, the Council is investigating opportunities to accommodate housing growth across the entire LGA to ensure an even and equitable distribution of housing delivery to meet future needs. Key considerations in determining where housing growth can be accommodated include historical development trends, estimated development capacity (which takes into consideration environmental constraints) and future planning policy implications.

Analysis of past development trends shows, our (major) town centres (of Kensington, Kingsford and Maroubra Junction) and key redevelopment sites (formerly master planned sites) have provided the majority of housing growth, followed by residential infill across the whole LGA.

However, more recently dwelling completions in the town centres have reduced (from approximately 45% to 33%). This reflects the take up of development capacity in these areas since the planning controls for these centres were introduced.

Similarly, most of Randwick's major redevelopment sites (typically on government land identified as surplus to need i.e. Prince Henry and Bundock Street for example) are either close to or have been completed. These key sites and/or areas have provided the majority of new housing growth over the last five years. However, housing growth from these redevelopment sites is not expected to remain at this level due to the limited supply

of these large sites in the LGA, unless there is State Government-led renewal of some of its Land and Housing Estates corporation assets. The State Government has also identified the Anzac Parade corridor in A Plan for Growing Sydney as local renewal opportunity.

In relation to infill development, the State Government's proposed new draft Medium Density Code has the potential to increase densities in established residential areas significantly by allowing medium density housing types (i.e. dual occupancies, town houses, terraces and manor homes) as Complying Development in both the low and medium density residential zones. The draft Code will introduce two new building types including the manor house (a two-storey building containing three or four dwellings with common wall and/or floor) and terraces (three or more dwellings with frontage to a public road) as Complying Development, only if it is permissible in the land use zone.

The permissibility of these building types in the existing low and medium density residential zones has the potential to facilitate infill redevelopment and increase densities in these areas significantly, including adjoining residential areas to town centres. As such, it is expected that housing growth will increase in these established areas much more significantly than in the past.

Part C – Vision and Strategies

Based on these considerations, the following locational split is applied as a guide to help plan for future housing growth across the LGA.

Locational split for future growth (%)

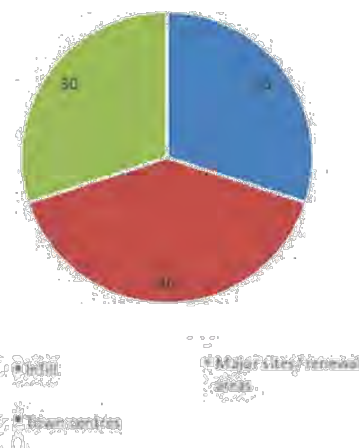


Figure 19: Locational Split of Future Housing Growth
Source: Randwick City Council 2016

This translates to approximately 60% of all future growth to be accommodated outside of our town centres; and is in keeping with Council's existing planning approach which focuses growth in and around centres with access to services, amenities and transport.

The locational split has also been applied to the State Government's (2014) projected dwelling demand of 15,150 additional new dwellings by 2031, which was adopted for the issues paper and is shown in Table 3. The table provides an indication on dwelling numbers that would need to be provided over the long term, to ensure we are meeting projected population demand.

This locational split for future growth also demonstrates a sustainable and balanced approach towards new housing growth across the LGA.

3.2 Considerations for Kensington and Kingsford Town Centres

While the draft Issues Paper noted that there is an estimated dwelling capacity across the two town centres of approximately 20-30% of the projected dwelling demand, based on the above locational split, the major town centres would need to increase their share of new (dwelling) growth in the order of 10% or an additional 1,515 dwellings (above the current capacity) to ensure they retain a share of at least 30-40% of the future dwelling growth for the LGA.

Table 3: Locational split for future growth

Dwelling demand projection 15,150 dwellings		
Town Centres (Major)	40%	6,060
Infill	30%	4,545
Major redevelopment sites and/or urban renewal areas	30%	4,545
TOTAL	100%	15,150

Table 4: Existing Dwelling Capacity and New Dwelling Capacity for Kensington and Kingsford

	Low	High
Existing dwelling capacity under existing planning controls	3,158	3,553
Additional new dwellings at 10% of the share of the projected dwelling demand	+ 1,515 new dwellings	
Therefore new dwelling capacity range*	4,700	5,100

*Note: These numbers have been rounded up for ease of application

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The Kensington and Kingsford town centres will be able to accommodate up to 5,100 in new dwellings given the:

- Investment of light rail in this corridor
- Identification of this portion of Anzac Parade in A Plan for Growing Sydney for urban renewal opportunities
- Proximity to major employment destinations (CBD, Randwick Education and Health Strategic Centre)
- Development interest and market demand
- Specialised urban design review and input; and
- International design competition to garner ideas.

The table on page 25 outlines the existing dwelling capacity, as identified in the draft Issues Paper, and a new dwelling capacity range incorporating the 10% share of the State Government's projected dwelling demand.

While this range provides a guide to ensure that a minimum dwelling yield is taken into consideration into the future planning and design of this corridor, a higher dwelling yield may be demonstrated through good design and planning strategy.

Future Capacity for Kensington and Kingsford Town Centres

The key challenge for accommodating projected housing growth in the Kensington and Kingsford town centres is to ensure it occurs in a sustainable way, in appropriate locations with sufficient infrastructure capacity, while maintaining residential amenity and the community's quality of life.

This draft Strategy outlines a number of changes to built form controls which will increase the capacity of the town centres to absorb additional growth. An analysis of floor space yields resulting from proposed changes to built form controls is provided in Part C Built Form Section 5.9 – Floorspace Capacity.

3.3 Housing Diversity and Choice

Planning for sustainable housing growth in Kensington and Kingsford town centres will need to ensure a suitable mix of housing stock in a range of sizes and designs to address declining housing affordability, and support the current and future needs of the community, which includes people of different age groups, cultures, lifestyles, incomes and life stages.

In particular there is a need to consider:

- The need for greater affordable housing options to meet the needs of the large student population, and to retain people with a mix of skills and occupations in the locality such as key workers and those in creative and service based industries
- Changing household composition recognising the growing trend of single person and group households
- Slow but growing demand from young families choosing to live in apartment buildings for affordability and lifestyle reasons; and
- Needs of the ageing population taking into account changing mobility needs and the desire to age in place.

Housing diversity is well recognised to help create sustainable and diverse communities. Providing housing choice will attract a diverse range of people to the town centres, contributing to social vibrancy.

A range of housing sizes also provides the opportunity for the existing community to remain in the area at different life stages. For instance, as people age, there is often preference to stay in the existing neighbourhoods that they know, where social networks have already been established. By providing safe, adaptable and accessible smaller housing in proximity to amenities for daily living and public transport nodes, the ageing population can down-size after children have moved out of home and still remain in the area. Well-located and smaller compact housing forms may also meet the housing needs of the increasing proportion of households comprising single persons, couples without children and single parent families.

The majority of units being developed in the Kensington and Kingsford town centres are predominantly one and two bedroom units. While these units may meet the needs for single persons, couples without children, they do not readily accommodate a family household. Family households are expected to make up at least 60% of all households¹¹ in Randwick by 2031.

¹¹ Based on the State Government's (2014) population and household projections

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3.4 Affordable Housing

The loss of affordable housing through the gentrification process and the limited ability for the private rental market to accommodate the needs of low to moderate income households at affordable levels now presents one of the most critical housing challenges facing Randwick City.

The issue of housing affordability is particularly pertinent for the Kensington and Kingsford town centres given their rising land values and desirable location compounded with the high number of students, key workers such as nurses and police and an ageing population – key groups that require more affordable housing options.

The Centre for Affordable Housing defines affordable housing as 'housing that is appropriate for the needs of a range of very low, low and moderate income households and priced so that these households are also able to meet other basic living costs such as food, clothing, transport, medical care and education'.

Affordable housing offers a number of economic, social and environmental benefits to the community. At the local level affordable housing is important because it:

- Promotes social integration and social diversity
- Meets the needs of the growing number of smaller households living in high cost areas
- Allows key workers (such as nurses, police etc.) and students to remain in the area close to work and educational establishments
- Provides direct economic benefits to local economies, including an increased demand for a range of goods and services which in turn can create employment opportunities; and
- Allows people to stay in the community that they know as they move through different life stages.

It is generally accepted that if housing costs exceed 30% of a low income household's (lowest 40% of households) gross income, the household is experiencing housing stress (30/40 rule). That is, housing is significantly unaffordable and housing costs consume disproportionately high amount of household income. When talking about affordable housing there is a focus on facilitating affordable rental housing, given that the private rental market is the most vulnerable to those very low to moderate income households on stock levels and rental price increases.

The Need for Affordable Housing

The impact of pressures on house prices (rent and purchase) over the past decade are widely illustrated with Sydney now classified as being one of the least affordable housing markets internationally. Randwick City is one of the most expensive areas in Sydney to rent and purchase a home.

As at June 2016, Randwick City had a median house valuation of \$1,857,345 which is \$908,194 higher than the median house valuation for Greater Sydney. And to rent, a median house rental of \$950, \$430 higher than the median house rental for Greater Sydney. In 2011, Kingsford had the highest proportion of people experiencing rental stress in Randwick City (36.9%) followed by Kensington (26%).

Moreover, Randwick City has continued to lose affordable housing stock. The proportion of affordable rental stock for low income households in Randwick has declined by more than 40% from June 2011 to December 2015. This is mainly

due to increasing land and property values, increasing rents and the resultant loss of rental stock at the lower end of the market.

This has particular implications on the local businesses in the area ability to hire the essential key workers needed to support these businesses. Randwick's Hospitals Campus has noted the difficulty in filling job vacancies for specialist nurses (such as paediatric and neonatology nurses) who are highly desirable in terms of international competition for their skills and being priced out of living in the area.

The Randwick Education and Health Strategic Centre is Randwick's largest employment destination. The draft Central District Plan sets a job target range for the Strategic Centre of an additional 9,200 to 12,700 new jobs by 2036 as shown in the table below. This represents approximately a 40-55% increase in additional jobs required by 2036.

Table 5: Randwick Health and Education Strategic Centre Jobs Target

Centre	2016 Estimate	2036 Baseline Target	2036 Higher Target
Randwick Health & Education	22,800	32,000	35,500

Source: Greater Sydney Commission (November 2016) draft Central District Plan

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A projection in employment for this centre will not only generate demand for these specialist nurses, it will generate demand for services typically staffed by lower income earners, such as childcare workers and shop assistants.

The resulting loss of population diversity including lower income key workers, street life vibrancy and social authenticity will present a significant risk to Randwick City's economic productivity and success as a major contributor to Greater Sydney as a global city. Without provision of more affordable forms of housing, the market can be expected to continue to produce more expensive housing in the area, so that housing will only be affordable to households on relatively high incomes.

Existing Mechanisms to Encourage Affordable Housing

There are two key state planning policies aimed to facilitate and encourage affordable housing through the planning framework including the State Environmental Planning Policy (Affordable Rental Housing) 2009 (AHSEPP) and the State Environmental Planning Policy No70 (SEPP 70) Affordable Housing (Revised Schemes) (SEPP 70 Affordable Housing).

The AHSEPP is the main mechanism intended to increase the supply and diversity of affordable housing and social housing in NSW, and to protect existing stock. The AHSEPP covers housing types including infill affordable rental housing (villas, townhouses and apartments) that contain an affordable rental housing component, along with secondary dwellings (granny flats), new generation boarding houses, group homes, social housing and supportive accommodation.

The most common development types being built in Randwick City under this policy are new generation boarding houses and secondary dwellings. In relation to new generation boarding houses, the majority of boarding house rooms approved and developed (under the SEPP) are mostly to the north of Randwick City, around

the UNSW. Anecdotal evidence suggests that the new generation boarding houses are meeting a demand for student accommodation being located close to the University and are being rented at levels not considered affordable to both students and key workers. While these development types are providing a form of diverse housing, they are in reality not delivering 'affordable housing' to those households in need.

The SEPP 70 enables councils listed by the SEPP to implement mandatory requirements for developers to contribute towards affordable housing either monetary or as complete dwellings. This policy is based on an inclusionary zoning based approach. Only two councils, the City of Sydney and Willoughby, are able to require contributions towards affordable housing under existing contribution schemes for Green Square, Ultimo/Pymont and Willoughby. Since the SEPP was introduced in 2009, no other council areas have been listed in the SEPP, despite worsening housing affordability.

At the local level, Randwick City Council is one of the state's more active councils on affordable housing. Council's Affordable Rental Housing Program and Strategy/ Action Plan 2008-2018 sets policies to retain existing stocks of affordable

housing and facilitate development of new affordable housing stock for low to moderate income or key worker households in the community. To date, the Council has acquired 20 affordable housing units mainly via a negotiated planning agreement approach on large redevelopment sites required to demonstrate diverse housing including affordable housing on these sites. The Council's measures, while progressive for local Government, are having little influence on meeting the demand for affordable housing across the City, mainly due to the limited nature of the voluntary planning agreement approach and the limited number of large redevelopment sites in the LGA.

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Inclusionary Zoning for Affordable Housing

Academic research and best practice outline that the only reliable way for local councils to secure affordable housing supply is through mandatory provisions embedded within a legislative framework, via an inclusionary zoning mechanism. An inclusionary zoning based approach is also more equitable than the negotiated planning agreement approach and provides more certainty to the developer by making clear the requirements to contribute towards affordable housing upfront.

A mandatory approach based on inclusionary zoning provides greater certainty for the delivery of affordable housing within the Kensington and Kingsford town centres. This approach will help contribute towards the provision of affordable rental housing in high value areas such as Kensington and Kingsford town centres. This inclusionary zoning pathway has been chosen by Council and has received support from the Department of Planning and Environment for an amendment to SEPP 70 to include Randwick City.

The strategic location of these town centres to key employment centres such as the Randwick Education and Health Specialised Centre and the Sydney CBD makes the need to provide for affordable housing an essential consideration in the future planning of these areas.

To ensure that low to moderate income households can live in Kensington and Kingsford town centres, this Strategy proposes that future new development be required to provide a proportion of affordable housing. A staged approach is proposed which seeks an equivalent proportion of 3% increasing to 5% of the total residential floor area be dedicated as affordable housing in all new developments. This will provide more than 200 essential affordable housing dwellings for key workers in this area and is discussed in more detail in Part E – Funding Infrastructure.

The following strategies aim to address the prevailing housing issues affecting Kensington and Kingsford town centres, including providing for sustainable growth, housing diversity and choice including affordable housing in these centres.

Strategies	Actions
1. Direct housing growth into locations and sites that have the capacity to accommodate change	a) Amend the RLEP 2012 building height and floor space ratio controls for Kensington and Kingsford town centres, to provide for forecast dwelling growth (see Part C Section 5 – Built Form) b) Concentrate higher density housing growth within key Precincts and sites in walkable proximity to light rail stops/terminus (see Part C Section 5 – Built Form)
2. Encourage a diversity and mix of apartment sizes in the town centres having regard to changing demography, housing trends and affordability for a resident population	a) Consider new DCP controls requiring a mix of dwelling types, sizes and forms in all new major residential/mixed use development based on demographic trends and social mix
3. Encourage adaptable and accessible housing to enable the community to age in place	a) Continue to implement the universal accessible housing principles and controls contained in Part C1 of DCP 2013 for new developments
4. Provide for affordable housing options for students and key workers to enhance opportunities to live, work and learn together and to support the economic functions of the Randwick Education and Health Strategic Centre	a) Incorporate inclusionary zoning provisions within the RLEP 2012, based on a staged approach as described above b) Update Council's existing Affordable Housing Strategy, Policy, Programs and Procedures to address the Kensington and Kingsford town centres Affordable Housing Scheme (once adopted) c) Prepare a new Affordable Housing Plan for the town centres which will outline the operational and management details of the Affordable Housing Contributions Scheme
5. Encourage the development of family friendly apartments to facilitate social diversity in the community	a) Consider new DCP controls to encourage family friendly apartments including specific design requirements that address adequate storage and access to outdoor space where possible

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4.0 Business and Economy

This section considers the location and intensity of business-related land uses that make up the town centres of Kensington and Kingsford. It outlines a number of strategies to support the economic prosperity of both centres, capitalising on their existing character and future opportunities. This section also outlines a number of strategies to promote and support the emerging innovation centre at the UNSW and Randwick Hospitals Campus.

The future economic prosperity of the Kensington and Kingsford town centres will rely on their ability to attract and retain local businesses, support productivity and innovation, maintain a quality of life for residents and workers and ensure a high level of urban amenity.

Each town centre will benefit from preserving its mixed use character, protecting commercial floor space and leveraging opportunities to stimulate economic growth, such as localised activation around light rail stops along Anzac Parade which will help consolidate sprawl and provide a critical mass of economic activity. Emerging opportunities may include supermarkets, outdoor eateries and bars, local business services, medical facilities and banks.

Ensuring developments activate their street frontages throughout the town centre, and requiring a minimum quantity of commercial floor space around light rail stops will create

a long spine with nodes of more intensified activity. These requirements will ensure adequate floor space is provided for future local services for the community.

The town centres should capitalise on their location adjoining the Randwick Education and Health Strategic Centre, and in particular, play a key role in supporting an emerging innovation district centred on the anchor institutions of the University of NSW and Randwick Hospitals Campus.

This emerging innovation district will stimulate economic activity and the creation of jobs through the further clustering of start-ups, business incubators and accelerators in a physically compact, accessible, amenity-rich, mixed use urban environment.

Objectives

- To promote the economic prosperity of each town centre and the wellbeing of the community
- To ensure that future development enhances the existing character and establishes a distinctive image for each town centre
- To promote convenient access to shops and services for residents and visitors
- To leverage the proximity to the UNSW and Randwick Health Campus and support the emerging innovation centre; and
- To grow the number of local jobs available to an increasing population.

Community Feedback

Feedback received during consultations for the K2K Urban Design Competition shows that people value a vibrant town centre containing local services to provide for the local community. In summary, the community told us:

- Create more jobs in the centre where they are close to transport
- Develop a viable town centre which promotes all types of local businesses and attracts people to visit
- Create vibrant town centres where people live, work and shop with open spaces to gather, sit down and relax or observe the world
- Create a sense of community by increasing the mix of businesses, cultural events and workers
- Activate Anzac Parade with more activities, businesses and late night shops so that the whole street is lively and safe
- Consider how parking will be accommodated in the town centre; and
- Have office spaces which attract a diverse range of workers to who spend and interact with the town centres and which provide employment space close to transport.

'Kensington needs more basic shops, banks and a supermarket that are accessible.'

'Strong local businesses make places for people to connect.'

'Build-up businesses so students have access to internships and work experience.'

'Create a heart and soul for Kensington: build a place for their community with a supermarket, marketplace, shops, bank and/or other necessary services.'

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4.1 A Vibrant Centre

A Centre with a Range of Uses

Successful cities are active and alive during the day, as well as in the evening and night. They contain a blend of activities which overlap and encourage people to mingle and attractive places where form and function are in balance. Anzac Parade will have more activities, facilities, businesses and late night shops so that the whole street is lively, safe and provides for the needs of the community.

Increased residential development within each town centre will help to drive localised activity within the precinct. This will help support both day and night-time activation for local businesses. A healthy ageing population also offers opportunities for businesses to provide additional activities for the population of the wider area.

The most dominant business activities in Kensington town centre are food services, retail trade and other services. Kensington's services tend towards health and fitness, with two gyms, a sports medicine clinic and two doctors' offices within the town centre.¹²

Kingsford town centre accommodates a variety of business and retail uses ranging from restaurants, cafes and takeaway food outlets to smaller office suites, shop top housing, small scale independent supermarkets, pubs and banks. The ground floor vacancy rate is relatively low (at approximately 9% of all properties¹³), mainly clustered along the southern end of the town centre along Gardeners Road. The vibrancy of both centres can be improved by improving their accessibility to UNSW, increasing the local resident population and creating a more pleasant public environment.



Figure 20: Existing retail in Kensington
Source: Randwick City Council 2016



Figure 21: Existing retail in Kingsford
Source: Randwick City Council 2016

¹² Randwick City Council Survey 2015

¹³ Randwick City Council Survey 2015

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Role of the Kensington Town Centre

Designated as a village centre in the Randwick Economic Development Strategy, Kensington performs a predominantly localised role with local retail and commercial services, with some destination/unique attractors such as Peter's of Kensington. As detailed in Council's draft Issues Paper released in March 2016, accommodation and food services (17%) and retail trade (15%) categories account for around 32% of ground floor space in the centre. Almost all of the accommodation and food services category consists of food and beverages premises, with limited accommodation floor space in the centre¹⁹. There was an estimated 12% ground floor vacancy rate at the time of the Council's survey in 2016, showing there are opportunities to strengthen the existing economy.

Increased residential development will help drive localised activity within the precinct to help support local businesses and drive night-time activation. Other growing uses could include childcare, medical services and small commercial or innovation spaces. Larger sites should be investigated for the potential to enable a supermarket or other

anchor as part of a mixed use development. Todman Avenue and Carlton Street will be key point of origin stations and ground level retail activation will be encouraged around these nodes to support local resident and business needs.

Improved east-west connections will help to strengthen and expand the role of the centre, such as increased tree planting and landscaping and footpath extensions on side streets and improved cycling infrastructure. There are opportunities to improve access between the Royal Randwick Racecourse and Kensington, which would bring increased people to the centre on race days.



Figure 22: Local services
Sources: (www.centralwest.com; www.sbs.com.au)

¹⁹Kingsford and Kensington Town Centre Review Draft Issues Paper 2016

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Role of the Kingsford Town Centre

Like Kensington, Kingsford is also designated as a village centre and performs a localised role with local retail and commercial services. The centre is very popular with students from UNSW given the close proximity to the campus. As detailed in the draft Issues Paper released in March 2016, accommodation and food services (35%) and retail trade (28%) account for around 63% of ground floor space in the centre, which is twice that of Kensington, reinforcing the higher level of patronage in Kingsford¹⁵. Almost all of the accommodation and food services category consists of food and beverages premises, with limited accommodation floor space. There was an estimated 9% ground floor vacancy rate at the time of the Council's survey in 2016¹⁶.

Increased residential development will help drive localised activity within the precinct to help support local businesses and drive night-time activation. The town centre should be investigated to identify opportunities for student housing, co-working and innovation space, and larger sites suitable for a supermarket.

¹⁵ibid
¹⁶ibid

4.2 Future Commercial Uses

Supermarkets

Neither the Kensington nor Kingsford town centres contain a full line supermarket to fulfil the roles of the centres in providing for the regular needs of residents. In Kensington, the Foodworks is very small (200m²) and performs as a convenience shop. Kingsford contains only a small IGA supermarket (approximately 400m²) and several small Asian supermarkets. Both town centres would benefit from the development of a neighbourhood supermarket shopping centre, fulfilling local day-to-day shopping needs with the provision of groceries, fresh food and other convenience items.

The nearest centres with supermarkets are Randwick Junction, Maroubra Junction and East Village. Randwick Junction hosts a Woolworths of 1,400m² and a Coles supermarket of 3,080m², along a range of specialty shops. Maroubra Junction, a very strong town centre, has a full-line Coles supermarket of 3,600m² an Aldi supermarket of around 1,400m², and a range of specialty shops including a green grocer.



Figure 23: East Village shopping centre at Victoria Square
Source: www.payce.com.au



Figure 24: East Village shopping centre at Victoria Square
Source: www.ayce.com.au



Figure 25: Pacific Square Maroubra
Source: www.excelbm.com.au

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The current planning framework provides for the establishment of a supermarket within each centre. In particular, the Randwick DCP identifies locations where a supermarket would be suitable within the Kensington town centre. There is currently no development containing a supermarket, and this may be due to land constraints, the cost of parking provision and trends in online shopping.

With the increased population within the town centres, and the improved connectivity arising from the light rail and active transport improvements outlined in Part C Section 7 – Sustainability and Transport, there will be increased demand for a supermarket to provide for the everyday needs of residents. Subject to suitable site amalgamation, sites in each town centre have the potential for redevelopment as a neighbourhood supermarket shopping centre. A supermarket would act as an anchor to a new development, supporting ancillary retail and commercial tenancies.

The light rail stops will be key nodes of activity, providing an opportunity for increased levels of commercial and retail tenancies. In Kensington, the Todman Avenue light rail stop in particular will be a key node providing an opportunity to provide a supermarket, convenience retail, dining and take-away food facilities. In Kingsford, the Kingsford Terminus or Strachan Street stop will each provide opportunities for a supermarket, along with other convenience retail, dining and take-away food facilities.

If land size provides an obstacle, there is opportunity for a half-size or an express size supermarket. Across Sydney, both Woolworths and Coles are establishing local convenience supermarkets close to public transport, and Kensington and Kingsford both have suitable locations for such a development¹⁷.



Figure 26: Chatswood Interchange shops and mall
Source: www.coxarchitecture.com.au

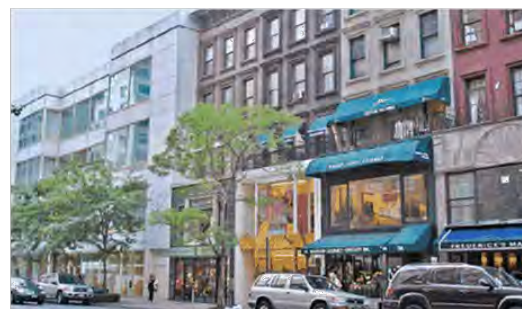


Figure 27: Madison Avenue mixed use district, NYC
Source: www1.nyc.gov

¹⁷C&I Convenience and Impulse Retailing (2015) (<http://c-store.com.au>)

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Night Time Economy

Providing more diverse attractions and more “routine” activities (i.e. visiting a supermarket, chemist, hairdresser or gym) into the evening and night attract a broader population onto the streets. Having people on the streets, in shops or in restaurants can establish passive surveillance, increasing the feeling of perceived safety.

The type of business mix determines the people attracted to town centre, and currently neither Kensington nor Kingsford have a strong night-time economy. Providing more diverse attractions and routine activities, such as visiting a supermarket, gym or outdoor plaza in the evening attracts a broader population into the area which promotes social cohesion, vibrancy and deters crime¹⁸. Retail and local services in the town centres are generally only open during business hours. During the evening, food and beverage premises stimulate activity, in Kingsford more than Kensington, but the town centres have little-to-none night time trade once the dinner service ends.

With Australians working longer days, there is likely to be demand for longer trading hours. The diversity of employment opportunities in the town centres and the education and health precinct may lead to a greater mix of businesses open into the evening. Improved and creative lighting, as detailed in Section 8 – Public Realm and Landscape can encourage a sense of safety and security for those moving around the centre at night.



Figure 28: Gym, a potential night-time use
Source: www.visitmaha.com



Figure 29: Active laneway in Melbourne
Source: www.traveller.com

¹⁸ Hadfield, P. (2011) Night-Time Economy Management: International research and Practice. A Review for the City of Sydney.

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Strategy	Action
1. Support and strengthen the existing retail and services within the town centres to provide for the regular needs of residents	a) Support local precinct shopping programs such as "shop local" by developing an app for Kensington and Kingsford that connects people to what's on and what's open near them b) Continue work to lift the aesthetic standards of Anzac Parade by investigating grant opportunities for shopfront improvements c) Improve activation by providing more spaces suitable to outdoor dining in appropriate places d) Amend the DCP 2013 to encourage fine grain retail and laneways activation to create opportunities for diverse and interesting shopfronts and premises e) Continue to investigate opportunities for regular evening events such as the night food markets in Meek Street Plaza and other locations within the centres
2. Support the establishment of a night time economy in Kensington and Kingsford	a) Ensure that new development create opportunities for appropriate retail uses at street level that trade into the evening b) Identify opportunities for decorative/feature lighting in outdoor dining areas to support the night time economy

4.3 Innovation Districts

What are Innovation Districts?

Innovation districts are dense enclaves that merge the innovation and employment potential of research-oriented anchor institutions, high-growth firms, and tech and creative start-ups in well-designed, amenity-rich residential and commercial environments¹⁹. Economic benefits of innovation districts are described in the Brookings Paper, as facilitating the creation and commercialisation of new ideas and supporting metropolitan economies by growing jobs in ways that leverage their distinct economic attributes. These districts build on and revalue the intrinsic qualities of cities: proximity, density, authenticity, and vibrant places²⁰.

While their form and function varies, all innovation districts contain economic, physical, and networking assets. When these three assets combine with a supportive, risk-taking culture they create an innovation ecosystem—a synergistic relationship between people, firms and place (the physical geography of the district) that facilitates idea generation and accelerates commercialisation²¹.

Sydney's tech startup ecosystem is in the early stages of development and the needs of tech startups are very different to those of small businesses²². Entrepreneurs and tech startup companies need a local environment that provides support networks, business and entrepreneurship education, infrastructure and financing opportunities²³.

The Changing Innovation Landscape

Innovation is firmly on the Federal Government agenda, with The National Innovation and Science Agenda a \$1.1 billion program over four years aiming to drive smart ideas that create business growth, local jobs and global success. The National Innovation and Science Agenda will focus on four key pillars:

- Culture and Capital
- Collaboration
- Talent and Skills
- Government as an exemplar.

In particular, the Federal Government will support incubators which play a crucial role in the innovation ecosystem to ensure startups have access to the resources, knowledge and networks necessary to transform their ideas into globally scalable new businesses.

¹⁹ Brookings (2014) The Rise of Innovation Districts: A New Geography of Innovation

²⁰ Ibid

²¹ Ibid

²² City of Sydney (2013) OPEN Sydney: Strategy and Action Plan 2013-2030

²³ Ibid

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In October 2015, UNSW published its strategy for the next decade. The 2025 Strategy commits UNSW to work with government, industry and the community to translate research advances into social progress and economic prosperity. UNSW aspires to be increasingly known for its focus on innovation, the scale and extent of interactions involving staff, students and alumni with industry, business, government and with community partners. UNSW will build upon an existing track record as one of Australia's leading knowledge exchange universities to achieve a step change in the translation of research into economic and social outcomes.

In 2016, UNSW opened the Michael Crouch Innovation Centre, which provides students, alumni, staff and industry partners with resources to nurture student and academic innovation. In addition, UNSW has partnered with China's 'Torch' innovation system to develop a science and technology precinct in close proximity to the UNSW campus. In phase one of the venture, the Chinese companies will establish outposts in "incubators" already being set up on UNSW's main Kensington campus. In phase two, they will shift to the Torch precinct planned for a site in Randwick. This provides Council with a unique opportunity to capitalise on UNSW's growing innovation culture and establish Kensington and Kingsford as a niche innovation precinct.

Fostering an Innovation District

In order to utilise the potential for innovation districts to growth within the Kensington and Kingsford town centres, the components of an innovation ecosystem must be understood and fostered. Innovation districts uniquely contain three categories of assets: economic assets, physical assets, and networking assets, known together as an innovation ecosystem:

1. Economic assets are the firms, institutions and organisations that drive, cultivate or support an innovation-rich environment
2. Physical assets are the public and privately-owned spaces – buildings, open spaces, streets and other infrastructure – designed and organised to stimulate new and higher levels of connectivity, collaboration, and innovation
3. Networking assets are the relationships between actors – such as between individuals, firms, and institutions – that have the potential to generate, sharpen, and/or accelerate the advancement of ideas²⁴.

The Kensington and Kingsford town centres have a significant number of characteristics making them attractive to innovation spaces and start-ups. Both UNSW and the Randwick Hospitals Campus act as anchors, attracting and generating research and innovation uses. The light rail both provides a frequent and reliable public transport link into the CBD and will act as a catalyst for establishing Kensington and Kingsford town centres as vibrant and diverse mixed use centres. The combined actions outlined in this draft Strategy will increase the walkability, vitality and liveability of the centres, increasing the attractiveness of the centres to start-ups and innovators.

²⁴ Brookings (2014) The Rise of Innovation Districts: A New Geography of Innovation

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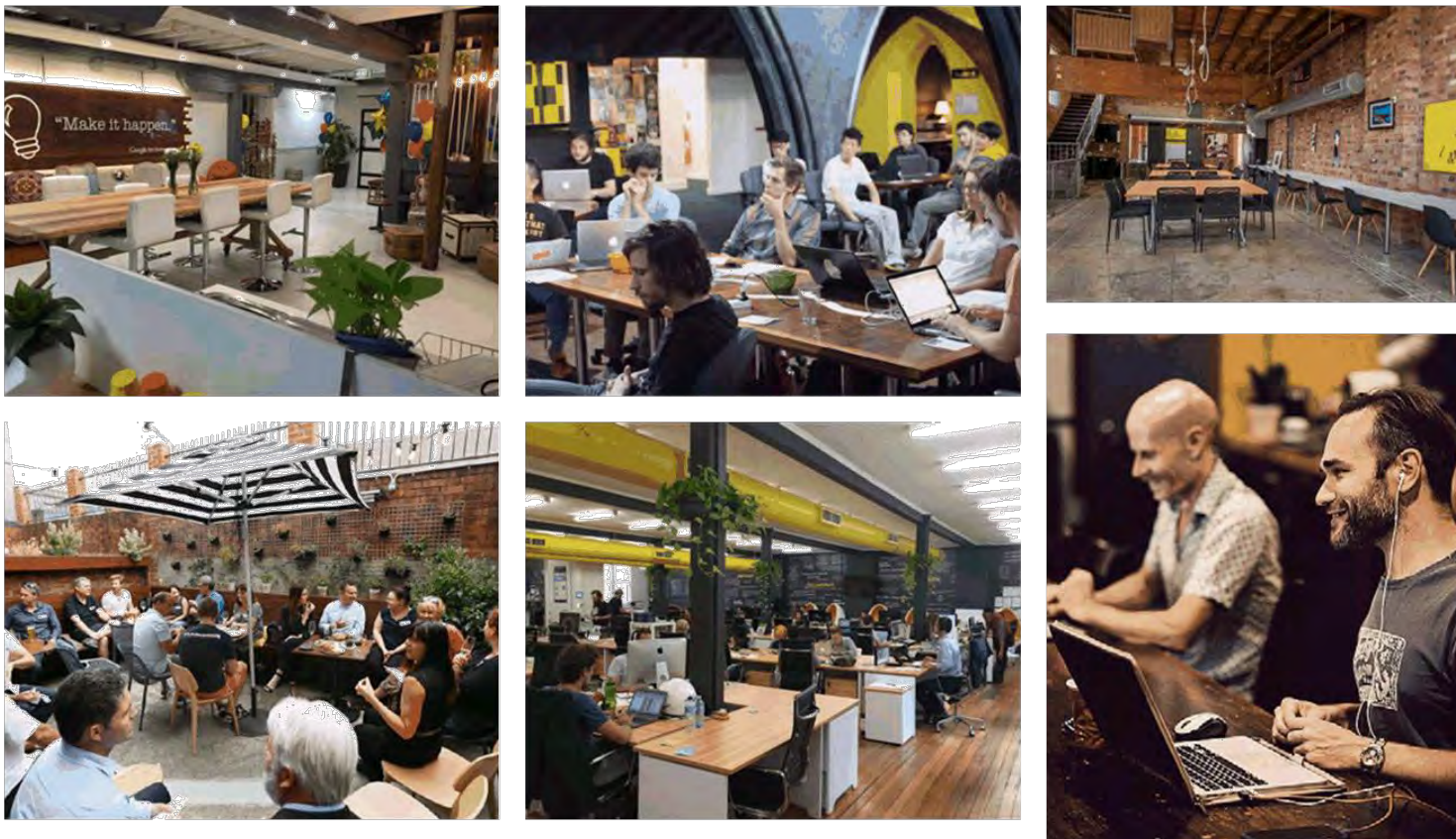


Figure 30: A range of innovation spaces and events
Source: www.fishburners.org; www.fishburners.org; www.littletokyotwo.com;
www.littletokyotwo.com; www.startupdaily.net; www.iaccelebrate.com.au

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Strategy	Action
1. Nurture opportunities to establish small, start-up or creative enterprises both in new developments and in vacant premises	a) Use a community infrastructure contributions scheme to obtain Council-owned innovation spaces (such as co-working facilities and affordable office spaces) b) Provide an online guide to applying for planning consent for establishing a co-working space, incubator, accelerator or creative workshop
2. Use planning regulation to encourage the provision of commercial office space which can be used by co-working operators, incubators and accelerators	a) Amend the RLEP 2012 to implement a minimum non-residential FSR at key sites to ensure first floor commercial space is provided in new developments b) Work with Innovation organisations to identify the technology infrastructure required to support innovation uses
3. Use public domain improvements to make the centres attractive to Innovation Industries	a) Establish free public Wi-Fi b) See Part C Section 8 – Public Realm and Landscape
4. Leverage the close proximity to the UNSW and health campuses to encourage startups and Innovation spaces to locate in the Kensington and Kingsford town centres	a) Continue partnering with UNSW to provide support for their Innovation program b) Utilise partnerships with UNSW and the Hospitals Campus establish UNSW incubators within the centres c) Use branding and advertising to promote Kensington and Kingsford as a place for innovation and creative uses to locate

4.4 Commercial Floor Space and Jobs Growth

The Draft Central District Plan

The Draft Central District Plan²⁹ identifies opportunities which should be leveraged to drive economic activity and diversity. Kensington and Kingsford town centres can take advantage of several of these opportunities, including:

- The Randwick health and education super precinct in close proximity
- The CBD and South East Light Rail which will improve connectivity
- Sydney's growing, young and well-educated population.

Notwithstanding these opportunities, the Draft Central District Plan also recognises challenges facing strategic centres, such as pressure on commercial floor space in strategy centres. Pressure on commercial floor space can be seen in the Kensington and Kingsford town centres, as developers prioritise residential floor space over commercial.

²⁹ Draft Central District Plan, November 2016

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Projected Employment Change

The Kensington, Kingsford and Randwick centres have an important economic role, with around 62% of jobs in The Randwick LGA located in these centres and their surrounding catchments (including UNSW)²⁶. The importance of these centres is expected to grow, with almost 70% of future jobs growth to 2036 accommodated within this economic triangle. The projected increase in jobs for Kensington and Kingsford is outlined in Table 6, with Kensington expected to accommodate a slightly higher proportion than Kingsford. Kingsford will continue to provide a greater share of jobs overall.

Table 6: Projected increase in employment in Kensington and Kingsford town centres²⁷

Future Employment Growth				
Town Centres	2016	2036	Change	
			No.	%
Kensington	1,540	1,925	385	25
Kingsford	2,425	3,000	575	24

Kensington Town Centre

Projected jobs growth

As identified in Table 6, the Kensington village centre is estimated to grow from 1,540 jobs to around 1,925 jobs by 2036, an increase of 25%. Table 7 presents a detailed projection of jobs growth, by industry, for the Kensington village centre. As shown, 70% of the future jobs growth is expected to occur in the industries of retail, education and healthcare.



Figure 31: Union Square mixed use precinct, NYC
Source: (www1.nyc.gov)



Figure 32: Sharedway at Kiaora Place, Double Bay
Source: www.rooksaling.com



Figure 33: Mixed use development in Surry Hills Source: www.sjb.com.au

²⁶ Macropian Dimasi (2016) Kensington, Kingsford & Randwick Junction Economic Impact of Light Rail Stage 2 Report.

²⁷ Ibid

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Table 7: Projected increase in employment and floorspace demand for Kensington town centre

Industry/land use	Jobs 2016	Jobs 2036	16-36	Share in centre (%)	Ratio (sq.m/ job)	Est. floorspace demand 2016	2036	16-36
<i>Based on NSW BTS projections:</i>								
Office/commercial	195	253	58	80%	30	5,255	5,296	41
Accommodation	50	61	11	95%	100	4,757	5,762	1,004
Retail F&B	470	354	-86	95%	24	11,189	13,260	2,070
Education	270	303	33	100%	30	810	1,088	278
Health/medical	150	207	57	21%	30	1,123	1,551	428
Manufacturing/blue collar	163	202	41	10%	75	1,205	1,515	310
Arts/other services	202	215	12	80%	50	9,113	9,072	-41
Other	42	51	9	n/a	n/a	n/a	n/a	n/a
Total	1,540	1,890	348			33,432	36,143	2,712
<i>Potential uplift from light rail</i>								
Uplift factor	10%	on growth		Uplift factor	10%	on growth		
Total jobs	1,540	1,890	348	Total floorspace	33,432	36,143	2,712	
Difference	0	35	35	Difference	0	571	571	
Notes: 1. Office/commercial includes industries J, K, L, M, N, O 2. Accommodation includes approx. 75% of Accommodation and food services 3. Retail F&B includes 75% of Accommodation and food services and 100% Retail trade 4. Education includes Education and Training 5. Health/medical includes health care and social assistance 6. Manufacturing/blue collar includes industries A, B, C, D, E, F, I 7. Arts/other services includes Arts and recreation and Other services 8. Other is not stated/inadequate data Source: NSW Bureau of Transport Statistics (2014); Macroplan Dimasi								

Source: Macroplan Dimasi 2016

Projected Floor Space Growth

Including vacant floor space, there is currently an estimated 36,000-37,000m² of employment generating floor space within the Kensington town centre. Taking into account projected employment growth and the potential increase in demand arising from the light rail, employment floor space demand 'in-centre' is estimated to grow by around 6,000-6,500m² by 2036. Of the projected demand for floorspace, 2,100m² is projected to be retail or food services, 1,050m² is projected to be office or commercial, and 1,000m² is projected to be accommodation.

Analysis by Macroplan Dimasi recommended that around 6,000-6,500m² additional floor space be allowed for within the Kensington centre, to sufficiently accommodate jobs targets and enable the development of additional convenience-based retail facilities, including a supermarket. This floor space growth will be enabled through implementing an active frontages clause throughout the town centres and a minimum non-residential FSR at the nodes, as will be detailed later in this chapter.

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Kingsford Town Centre

Projected jobs growth

As identified in Table 5, Kingsford town centre is estimated to grow from 2,425 jobs to 3,001 jobs by 2036, an increase of around 24%. Table 8 presents a detailed projection of jobs growth, by industry, for the Kingsford town centre based on NSW BTS data. As shown, 55% of the future jobs growth is expected to occur in the industries of retail, food services and healthcare.

Projected Floor Space Growth

Including vacant floor space, there is currently an estimated 54,000m² employment generating floor space within the Kingsford town centre. Taking into account projected employment growth and the potential increase in demand arising from the light rail, employment floor space demand 'in-centre' is estimated to grow by around 10,000-10,500m² by 2036. Of the projected demand for floor space, 2,000m² is projected to be office/commercial, 3,000m² is projected to be retail or food services, and 1,100m² is projected to be health services.



Figure 34: Kilaora Place retail precinct with public library
Source: rooksaling.com



Figure 35: East Village mixed use development
Source: payce.com.au

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Table 8: Projected increase in employment and floorspace demand for Kingsford town centre

Industry/land use	2016	2036	16-36	Share in centre (%)	Ratio (sq.m/ job)	Est. floorspace demand	2016	2036	16-36
Based on NSW RTS projections:									
Office/commercial	467	547	80	85%	30	11,000	13,045	2,035	
Accommodation/pub	114	130	16	85%	75	7,799	8,924	1,124	
Retail F&B	709	648	139	85%	25	15,072	18,030	2,958	
Education	104	140	36	10%	30	313	420	107	
Health/medical	326	450	124	30%	50	2,934	4,053	1,119	
Manufacturing/blue collar	403	485	83	10%	75	3,019	3,638	619	
Arts/other services	225	247	22	95%	50	9,544	10,394	851	
Other	77	90	13	n/a	n/a	n/a	n/a	n/a	
Total	2,425	2,945	524			50,078	59,407	9,328	
Potential uplift from light rail									
Uplift factor	10%	on growth		Uplift factor	10%	on growth			
Total jobs	2,425	3,001	576	Total floorspace	50,078	60,339	10,261		
Difference	0	52	52	Difference	0	933	933		

Notes

1. Office/commercial includes industries J, K, L, M, N, Q
2. Accommodation includes approx. 75% of Accommodation and food services
3. Retail F&B includes 75% of Accommodation and food services and 100% Retail trade
4. Education includes Education and Training
5. Health/medical includes Health care and social assistance
6. Manufacturing/blue collar includes industries A, B, C, D, E, F, I
7. Arts/other services includes Arts and recreation and Other services
8. Other is not stated/inadequate data

Source: NSW Bureau of Transport Statistics (2014); Macroplan Dimasi

Source: Macroplan Dimasi 2016

The report recommended that around 10,000-10,500m² additional floor space be allowed for within the Kingsford centre, to sufficiently accommodate jobs targets and enable the development of additional convenience-based retail facilities, including a supermarket. This floor space growth will be enabled through implementing an active frontages clause throughout the town centres and a minimum non-residential Floor Space Ratio (FSR) at the nodes, as will be detailed later in this chapter.

Commercial Floor Space Trends

A desktop analysis of approved Development Applications (DAs) was conducted to identify the quantity of commercial floor space in mixed-use buildings on Anzac Parade built since 2000.

In recent mixed use developments on Anzac Parade, the ground floor commonly provides for pedestrian access and a lobby for the residential units, vehicular ramps to access the car parking, a loading dock, waste storage and utilities. The proportion of the ground floor used for commercial or retail tenancies varies, with larger sites having the opportunity to provide a greater proportion of the ground floor for commercial premises.

The analysis of floorplans revealed that on average, only 27% of the site, on the ground floor, is used for commercial floor space. In general, this is a significantly lower quantity of commercial floor space than was on the site prior to redevelopment. This means that over time, as new developments occur, each centre is undergoing a net loss of commercial floor space.

Supply-Demand Gap

If current trends continue, where only around 27% of the ground floor of developments is used as commercial floor space, when each centre is fully developed, there will be a supply deficit of approximately 18,500m² in Kingsford and 24,000m² in Kensington, or 42,500m² across the two centres. This would be a significant reduction of existing commercial floor space and is inconsistent with the role of the centres, as identified in A Plan for Growing Sydney.

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Given the significant sale price differential between residential floor space and commercial floor space, residential floor space is significantly more profitable to developers than commercial. This means that the trend outlined above, of a cumulative net loss of commercial floor space, is unlikely to change. Therefore, action, as proposed as part of this Strategy, is required to ensure the continued and growing role of Kensington and Kingsford as local centres.

Supporting Commercial Floor Space Growth

An active frontages clause within the RLEP 2012 applying to the town centre will ensure that every site provides commercial or retail floor space, as identified in figures 38 and 39. This LEP provision, and the associated map, will ensure retail and commercial floor space is provided throughout the centre, and that streets and plazas have activity to provide vibrancy and passive surveillance. A DCP control will also be provided, to encourage developments to provide active frontages to mid-block links, secondary streets and laneways.

Market intervention is required to ensure adequate floor space is delivered within the town centres to provide local retail and commercial services for residents of the centres. A minimum non-residential FSR in the RLEP 2012 applying at the key nodes of Todman Square, Kingsford Midtown and Kingsford Junction Precincts, as identified in figures 40 and 41, are a market intervention to counteract current trends favouring residential floor space.

The minimum requirement for non-residential floor space will ensure floor space is available for supermarkets, retail, childcare centres, local services, shared working spaces and innovation hubs. This minimum quantity of retail or commercial floor space will ensure the light rail stops become nodes of commercial and retail activity within the centres.



Figure 36: Active street frontages
Source: www.diaaust.com



Figure 37: Active street frontages
Source: www.mustdobrisbane.com

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Figure 38: Active street frontages map – Kensington town centre
Source: Conybeare Morrison 2016

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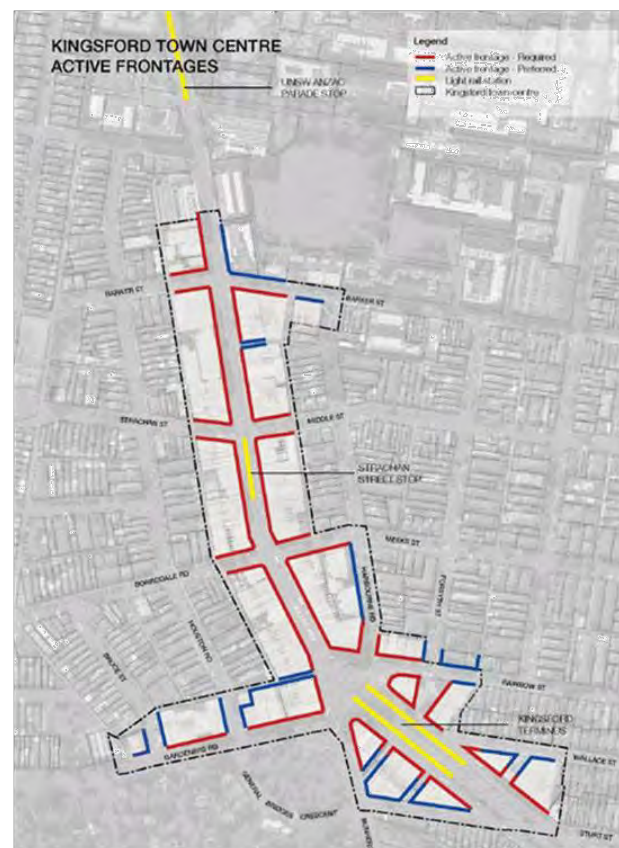


Figure 39: Active street frontages map – Kingsford town centre
Source: Conybeare Morrison 2016

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Figure 40: Minimum non-residential floorspace map – Kensington town centre
Source: Conybeare Morrison 2016



Figure 41: Minimum Non-Residential Floor Space Map – Kingsford town centre
Source: Conybeare Morrison 2016

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Strategy	Action
1. Ensure new developments provide for businesses fronting streets to ensure streets are vibrant and safe	a) Amend the RLEP 2012 to implement an active frontage provision to require active building frontages at street level throughout the centre, as identified on the active frontages map (Figure 38 and 39) b) Amend the DCP 2013 to encourage retail and commercial uses to address laneways and secondary streets, as identified on the active frontages map (Figure 38 and 39)
2. Provide adequate retail and commercial space to ensure future employment needs can be accommodated and the town centres can provide retail and other services to residents and visitors	a) Amend the RLEP 2012 to implement a minimum non-residential FSR applying to sites at key nodes, as identified in Figures 40 and 41, to ensure adequate space is available for the provision of local retail and services and for the provision of innovation spaces

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5.0 Built Form

This section looks at the ‘three dimensional’ form of the Kensington and Kingsford town centres. Strategies focus on achieving an appropriate scale for new development, a positive relationship between built form and the public realm, and a high standard of urban design and amenity within the town centres.

The character of a town centre is strongly influenced by the design of its urban environment: the street layout and pedestrian linkages, the aesthetic quality, scale, and functionality of individual buildings, the relationship between built form and the public realm, and the condition and extent of public spaces.

Planning and built form controls, including land use zoning, height, floor space ratio and setbacks, play an important role in defining the character of a town centre, controlling the intensity of development and helping to establish a desirable built form.

In the context of Kensington and Kingsford town centres, the interplay between geographical and physical attributes including their inner city location, excellent access to employment hubs, services and recreational opportunities, and new light rail infrastructure lend support to urban consolidation and revitalisation. New built form controls are required to guide the design of future development and to ensure that a reasonable amount of floor space can be accommodated to meet future needs.

For Kensington and Kingsford town centres to evolve as highly attractive, liveable and sustainable places, it is integral that all future development delivers a good urban design outcome with a high level of amenity, while balancing growth and appropriate density.

All new development will be expected to make a positive contribution to the architectural quality of the town centres, be appropriate to their locational context, fit sensitively into the streetscape and help create a sense of place. New areas of increased height should also provide clues to the structure of the town centres highlighting nodes of activity and accessibility.

Objectives

- To foster an attractive urban environment with a strong sense of place and identity
- To ensure that development is of an appropriate scale and responsive to the surrounding context
- To ensure that buildings are characterised by design excellence and achieve a high level of amenity
- To encourage landmark buildings that define strategic locations, support activation and contribute to an interesting and harmonious skyline
- To support the integration of transport and land use; and
- To conserve and protect heritage items and building façades that reflect the historical development of the town centres.

Community Feedback

Community feedback received acknowledges the town centres as valued places, while highlighting the need to improve urban design and the quality of buildings to establish a sense of place.

In summary the community said:

- Create vibrant town centres where people want to live, work and visit
- Provide a mix of building heights to create an interesting urban form, rather than focusing on high rise development
- Encourage stand out buildings to mark a sense of arrival in the town centres
- Ensure the town centres are creative, green and aesthetically pleasing
- Create a sense of place through building design, making residents proud to live in the town centres
- Line Anzac Parade with trees to create a continuous boulevard into the City
- Set back development to allow trees to grow undisturbed into maturity
- Make the town centres more than just rows of businesses along a busy road
- Unify street level design; have awning levels and colours that complement each other; consider glass structures and futuristic design
- Ensure the light rail does not infringe on available public spaces
- Consider that high rise developments cast shadows on parks and public areas and create a feeling of disconnection
- Modernise the look and feeling of buildings at street level; and
- Create spaces between buildings to facilitate a laneway culture or courtyards.

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5.1 Built Form Study

Conybeare Morrison urban design consultants were engaged to assist Council in reviewing the built form controls for Kensington and Kingsford town centres. The aim of the study was to determine how projected growth in residential and employment floor space could be accommodated, while ensuring a good design outcome and high level of amenity in the town centres.

The study included the following components:

- A comprehensive analysis of existing built form and condition assessment of the public domain
- Identification of redevelopment opportunities and constraints within the town centres
- Preparation and testing of options to identify the appropriateness of potential built form scenarios in terms of urban design and amenity; and

- Development of detailed built form controls having regard to:
 - An appropriate bulk, scale and massing
 - Relationship and response to surrounding development and public domain including solar access considerations
 - Environmental constraints including overshadowing and aircraft noise limitations (see Appendix 1 for further detail)
 - Capacity to accommodate additional floor space to meet future demand.
 - Requirements of State Environmental Planning Policy – 65 and Apartment Design Guide
 - Economic feasibility including development yield and viability.

This section of the Strategy focuses on the preferred development option for the Kensington and Kingsford town centres as identified in the K2K Urban Design Competition Report 2016.

The suggested changes to built form controls, if adopted, will result in amendments to the RLEP 2012 and DCP 2013.

Urban Design Principles for the Town Centres

As a basis for preparing new built form controls for the Kensington and Kingsford town centres, the following urban design principles have been established to help define the future character of the town centres and provide guidance for growth and development:

- Reinforce a boulevard character along Anzac Parade by strengthening the built form edge
- Focus on achieving a dominant typology of mid-rise mixed use buildings throughout the town centres
- Permit taller landmark buildings in prominent highly accessible locations in conjunction with the delivery of substantial public benefits established through a design excellence process
- Achieve a sensitive transition in relation to recently constructed development and surrounding established lower scaled residential neighbourhoods
- Create a positive street level environment through built form that allows solar access, permeability and maintains human scale
- Ensure that new infill development respects the fine grained character of contributory buildings
- Establish building setback controls which provide for the creation of wider footpaths and street tree planting
- Achieve urban design and architectural excellence, including best practice environmental design; and
- Encourage active frontages along Anzac Parade, continuing down side streets.

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5.2 Built Form Controls

The following suggested built form controls have been developed following detailed consideration of future planning and growth parameters, Individual sites' context, environmental constraints, the relationship with surrounding development and opportunities to enhance the public realm.

Building Heights

As noted earlier, Kensington and Kingsford town centres are expected to accommodate additional housing and employment floor space to meet future needs, requiring a change to the built form controls for development. Building height is a key determinant of building form.

The town centres have an established maximum height limit of 24m (Kensington) and 25m (Kingsford) delivering buildings of 6 to 7/8 storeys under the RLEP 2012.

Building height is measured from the natural ground level to the top of the roof under the RLEP 2012.

For both town centres there is scope to accommodate moderate increases in permissible building height to meet projected demands in housing/employment floor space.

Built form modelling of each town centre demonstrates that additional housing/employment floor space can be achieved within a mid-scale urban environment with some taller buildings clustered at strategic nodes to facilitate activation and the delivery of improved public domain (such as wider footpaths and plazas).

Notably, a mid-rise built form for the town centres (and surrounding areas) is a key design concept of the K2K Urban Design Competition winning entry.

"Studies of great urban streets, from around the world, tend to exhibit a number of common characteristics:

- Mixed-use buildings, with tall, transparent, ground-floor commercial spaces
- A common setback or build-to line (with occasional interruptions)
- An average height of buildings that is approximately as high as the street is wide
- Generous tree-lined footpaths
- Good public transportation
- Buildings that frame the street, without overpowering the space or depriving it of access to natural light.

Mid-Rise Symposium (2005) – A Great City of Avenues

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This Strategy recommends an overall mid-rise height limit of 31 metres (equating to nine storeys) for new development throughout both town centres.

From an urban design perspective, the spreading of density mainly through mid-rise buildings provides a more human scaled built form that supports a comfortable pedestrian environment while also enhancing opportunities for solar access.

The suggested 31m (nine storey) height limit is considered to respond well to the proportions of Anzac Parade and other streets within the study area. It also provides an appropriate scale transition to recently constructed buildings (approved under existing planning controls), while respecting the character of surrounding lower scaled residential neighbourhoods.

Taller Building Forms

While the future built form character will be primarily mid-rise, development will not remain homogenous throughout the town centres.

Within both town centres there are a number of prominent sites located at strategic nodes (Precincts) that could accommodate taller, slender buildings. A higher rise building typology in these locations would help create a distinctive urban form within the town centres, while facilitating activation around the light rail infrastructure.

It is important to note that additional uplift afforded to these strategic sites will only be achieved in conjunction with the delivery of public benefits identified in this Strategy, such as larger setbacks to facilitate footpath widening, public plazas, through-site links and/or social infrastructure, together with demonstrated design excellence.

These 'trade-offs' are to be built into planning controls where predetermined public benefits are identified, as discussed throughout this Strategy.

Case Study: Toronto Canada

The City of Toronto has identified mid-rise buildings (5-11 storeys) as a means to addressing the future growth of the city.

The mid-rise building typology has been promoted as the desirable form for intensification along the identified routes in the city.

Toronto's Urbanising Avenues Policy identifies almost 300km of street frontages that are currently underutilised and which could accommodate mid-height buildings.

The policy notes that if half of the sites along the identified street frontages are developed into mid-rise mixed use developments, around 250,000 new residents could be accommodated while maintaining a high level of liveability in these areas.

Avenues and Mid Rise Building Study 2010

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Figure 42: Mid-rise Parisian boulevard, France
Source: www.architectureanddesign.com.au



Figure 44: Example of a nine storey building, 8 Parramatta Road, Strathfield Source: Google Streetview 2016



Figure 43: Mid-rise streetscape, Toronto, Canada
Source: www.streetcar.ca



Figure 45: 'Cloud 9', Barcelona 'World Building of the Year 2011', World Architecture Festival Awards Source: www.bustler.net



Figure 46: Example of a nine storey apartment building, Box Hill, Melbourne Source: www.centralgardensboxhill.com.au

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Todman Square Precinct

A height limit of 54m (equivalent to 16 storeys, or a maximum 18 storeys with demonstrated design excellence) is proposed for the four corner sites adjacent to the Todman Avenue light rail stop in Kensington town centre.

Taller building forms would help define the prominent corners at this strategic location, facilitating a hub of intensive activity around the light rail stop, and creating a much needed heart for Kensington town centre. The provision of a new plaza and a gallery/creative space have been identified as priorities for this location. See Part D-Precinct Plan for further detail.

Kingsford Mid-Town Precinct

A height limit of 54m (equivalent to 16 storeys, or a maximum of 18 storeys with demonstrated design excellence) is proposed for three corner sites adjacent to the Strachan Street light rail stop. Additional uplift is not proposed for O'Deas Corner (424-436 Anzac Parade) as the site is heritage listed under the RLEP 2012.

The allowance of higher building forms will express the prominence of these corner sites in the old heart of Kingsford town centre.

See Part D Section 1 – Precinct Plan for further detail.

Kingsford Junction Precinct

Key opportunity sites adjacent to the new light rail terminus in Kingsford town centre include the Rainbow Street site (earmarked as a potential local government civic centre) and the Kingsford Triangle. These sites have the capacity to accommodate taller landmark buildings to define the gateway to the town centre, together with generous public spaces to create a sense of place.

A height limit of 51m (equivalent to 15 storeys, or a maximum of 17 storeys with demonstrated design excellence) is considered appropriate for these sites, stepping down to a transitional height where they adjoin residential areas (see discussion below). The clustering of landmark buildings in this location will create a defining character precinct and intensive hub of activity around this important transit node.

See Part D Section 1 – Precinct Plan for further detail.



Figure 47: Nine storey apartment building, Melbourne
Source: www.one9apartments.com.au



Figure 49: Example of a taller building form, Bondi Junction
Source: www.vuebondi.com.au



Figure 48: Nine storey apartment building, Berlin
Source: www.sustainablecitiescollective.com



Figure 50: 'Eliza' 17 storey building, Elizabeth Street, Sydney
Source: www.theurbandeveloper.com

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Built Form Transition

Both Kensington and Kingsford town centres adjoin lower scaled residential neighbourhoods, requiring a built form transition to minimise amenity impacts on adjacent residential properties (e.g. adverse overshadowing or excessive building bulk). A transition will also achieve a defined edge to these town centres.

Two built form transition approaches have been identified, taking into account the different urban structure of each town centre, particularly allotment size/ configuration and layout.

For Kingsford town centre, where allotments are generally deeper, there is scope to apply a lower building height limit of 19m (five storeys) to the rear of sites adjoining residential areas (NB: a higher height limit would still apply to the front of the site). This could encourage a 'mews' style development typology, taking advantage of the laneway network running parallel to Anzac Parade which could facilitate shared access in the future. This secondary height limit proposed would be applied as a DCP control, whereas building heights discussed in sections 5.4.1 and 5.4.2 above will apply as an LEP control.

For Kensington town centre, where allotments are generally shallow, a transition could be achieved through the establishment of laneway/shared zones as part of the redevelopment of relevant sites. This would serve the dual purpose of establishing separation between the taller built form of town centre development and the lower scale of adjoining residential areas, while providing opportunities for rear lane access. In those circumstances where allotments are deeper, there is opportunity to encourage mews style developments in conjunction with a laneway/shared zone.

The proposed DCP building height transition strategy for Kensington and Kingsford town centres is illustrated on the following maps (Figures 58 and 59).

"Mews are narrow, intimate streets that balance the access and service functions of a lane with active building frontages, accessory uses, and a street space shared by cars and pedestrians".

East Village Redevelopment Plan for Calgary, Alberta, Canada (2010)



Figure 51: 18 storey concept for hotel, Glasgow
Source: www.eveningtimes.co.uk



Figure 52: Axis Tower Manchester
Source: www.e-architect.co.uk



Figure 53: BIDV Da Nang Tower 18 storey (plus 2 level basement) building in Da Nang, Vietnam
Source: www.ardorarch.com

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Figure 54: Example of 'mews' development Kensington Street, Chippendale
Source: www.domain.com.au



Figure 55: Example of 'mews' development Kiaora lane
Source: www.domain.com.au

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Figure 56: Proposed RLEP 2012 building height limits for Kensington town centre
Source: Conybeare Morrison 2016

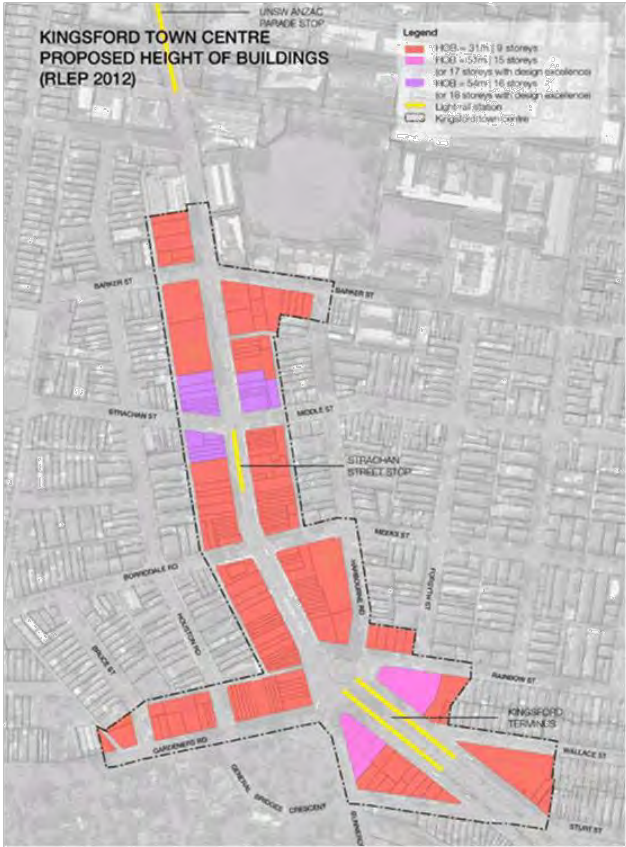


Figure 57: Proposed RLEP 2012 building height limits for Kingsford town centre
Source: Conybeare Morrison 2016

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Figure 58: Proposed DCP 2013 built form transition for Kensington town centre
Source: Conybeare Morrison 2016

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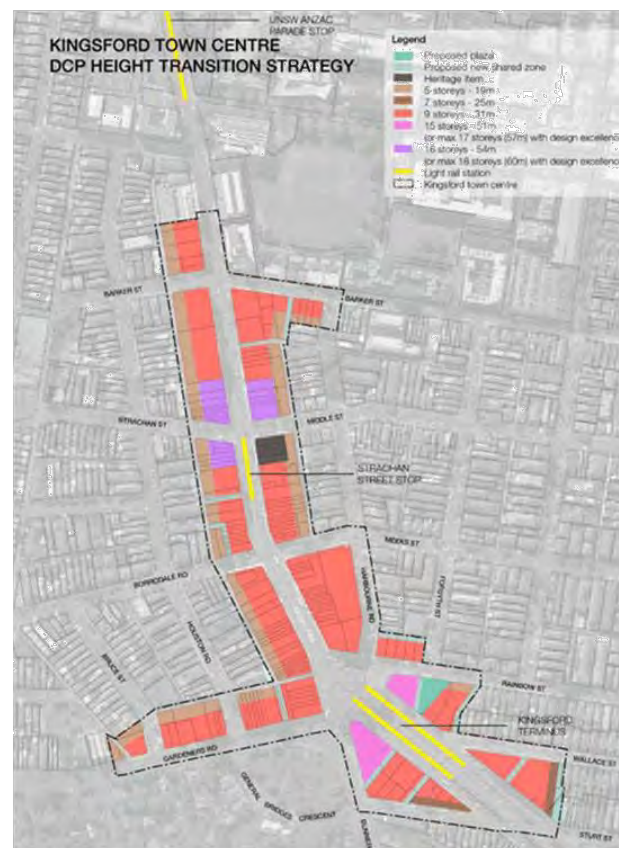


Figure 59: Proposed DCP 2013 built form transition for Kingsford town centre
Source: Conybeare Morrison 2016

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5.3 Street Walls

The 'street wall' refers to the front façade of the building that is built at or close to the street boundary. It is an important urban design element, providing an interface to the street, helping to create a sense of enclosure and defining the public realm.

This draft Strategy proposes a four storey continuous street wall to achieve a cohesive streetscape, reinforce a pedestrian scale and reduce the visual impact of building bulk within both town centres.

A four storey street wall will be achieved by stepping back four metres at the fourth storey of a building and would be applied as a DCP control.



Figure 60: Example of four storey street wall development
Source: Avenues & Mid-Rise Buildings Study. Credit: BMI (Brook McIlroy Planning & Urban Design)



Figure 61: Four storey street wall, Double Bay Sydney
Source: Google Streetview 2016



Figure 62: Section showing nine storey building typology with four storey street wall and mews development at the rear.
Source: Conybeare Morrison 2016



Figure 63: Section of Kingsford Junction showing 17 storey building typology with four storey street wall and mews development at the rear.
Source: Conybeare Morrison 2016



Figure 64: Section of Todman Square showing 18 storey building typology with four storey street wall and mews development at the rear.
Source: Conybeare Morrison 2016

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5.4 Floor Space Ratio

Floor space ratio (FSR) is the ratio of the gross floor area (GFA) of a development in relation its site area.

It is commonly used in the calculation of development yield and rentable area and is useful in determining how much floor space is required to meet future needs in an area.

FSR controls work with other controls such as heights, building setbacks, articulation and landscaped area to determine the bulk and scale of a development.

Kingsford town centre currently has an applicable FSR of 3:1 included in the RLEP 2012. Kensington town centre does not have an applicable FSR, with the overall building envelope of development determined by maximum height controls in the RLEP 2012 in conjunction with DCP 2013 controls (e.g. no of storeys, setbacks etc.).

The K2K Urban Design Review Investigated an appropriate FSR that would work in conjunction with the proposed revised building heights and still achieve a good urban design outcome for the town centres.

The RLEP 2012 defines gross floor area as being: "the sum of the floor area of each floor of a building measured from the internal face of external walls and includes:

- the area of a mezzanine
- habitable rooms in a basement or an attic
- any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
 - any area for common vertical circulation, such as lifts and stairs
 - any basement, storage area or voids
 - vehicular access, loading areas, garbage and services
 - car parking to meet any requirements of the consent authority (including access)
 - terraces and balconies with outer walls less than 1.4 metres high.

Based on the outcomes of built form modelling, the following FSRs are proposed (See Table 9 and Figures 65 and 66). It should be noted that these FSRs are maximums and the application of other controls (such as building setbacks and design criteria in the SEPP 65 – Apartment Design Guide) will further refine the building envelope.

A non-residential FSR component is proposed for key sites in the town centres (see Part C Section 4 – Business and Economy for further detail).

Table 9: Proposed Floor Space Ratio

Site	Proposed FSR
Sites accommodating 9 storey buildings	4:1
Precinct sites	5:1

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Figure 65: Proposed Floor Space Ratios – Kensington town centre
Source: Conybeare Morrison 2016



Figure 66: Proposed Floor Space Ratios – Kingsford town centre
Source: Conybeare Morrison 2016

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5.5 Setbacks

Setbacks define the outer extremities of a building in relation to the street and adjoining properties. It is a critical control in defining the building envelope, impacting on bulk and scale of development, as well as overshadowing and amenity of the public domain.

Typically buildings in town centres have little or no setback from the street alignment to establish a well-defined street edge and continuous built form. Accordingly the DCP 2013 setback controls for Kensington and Kingsford town centres generally require a zero ground floor level setback, stepping back after the fourth level (for buildings in Kensington town centre) to create a four storey street wall.

The introduction of light rail along Anzac Parade has required a review of the carrying capacity of the footpaths in the Kensington and Kingsford town centres to ensure adequate footpath space is available to accommodate light rail infrastructure (e.g. smart poles), as well as pedestrian circulation, awnings, street trees and urban furniture. In addition, the removal of kerbside parking has also increased the need for more generous footpaths.

It is considered that the introduction of setbacks to development will considerably improve pedestrian safety and amenity of the public domain by distancing pedestrians from traffic, encouraging the growth of street trees, providing opportunities for outdoor dining (where appropriate), while reducing the perceived bulk and scale of buildings.

This Strategy recommends that a setback of 1.5m be introduced for new nine storey development.

In Precincts where there is likely to be more intensive activity, such as around the Todman Avenue and Strahan Street light rail stops and the Kingsford terminus, a setback of 2.5m for adjoining sites will help improve the carrying capacity of footpaths and provide opportunities for new plazas and public spaces.

For heritage listed properties and contributory buildings, a nil setback should be retained recognising the ground floor of these sites are unlikely to be redeveloped given their historic significance. An additional setback of 6.5m would still apply where additional levels are proposed to contributory buildings to reduce the visual bulk and scale of development.

Setbacks of 2m are proposed on the eastern and western edges of the Kingsford town centre to align with existing DCP controls and provide adequate landscaping area to support mews type developments.

The new setbacks proposed will provide for footpath widths of 4.5m to 6m across both town centres.

The proposed setbacks for the town centres will be applied as a DCP control and are illustrated in the following diagrams and maps (Figures 67-71).

Note: A development feasibility analysis undertaken has found that any loss in GFA resulting from proposed setbacks is offset by additional development capacity gained from increased building heights. See Part E – Funding Infrastructure for further details.

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Figure 67: Section showing proposed 1.5m setback adjacent to nine storey building
Source: Conybeare Morrison 2016



Figure 68: Section showing proposed nil setback for heritage/contributory buildings.
Source: Conybeare Morrison 2016

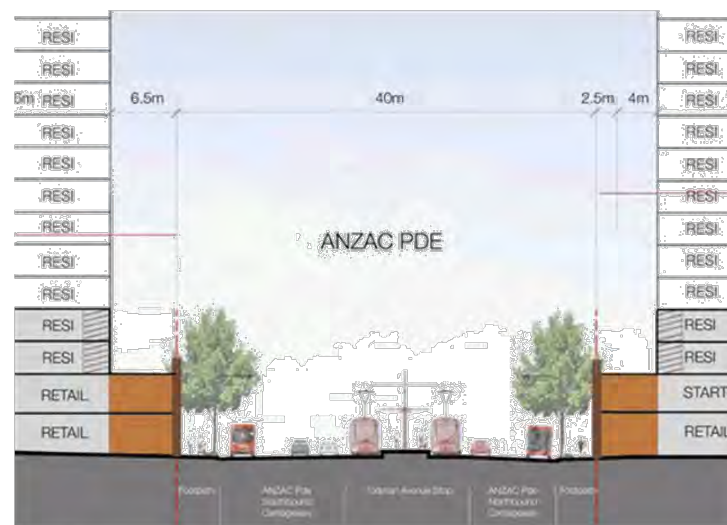


Figure 69: Section showing proposed 2.5m setback at Kingsford Junction
Source: Conybeare Morrison 2016

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Figure 70: Proposed setbacks – Kensington town centre
Source: Conybeare Morrison 2016



Figure 71: Proposed setbacks – Kingsford town centre
Source: Conybeare Morrison 2016

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5.6 Solar Access

Solar access is an important consideration in determining an appropriate level of density in town centres. New buildings should be sited, orientated and configured to receive adequate solar access and natural light, while also ensuring that overshadowing impacts onto neighbouring properties and the public realm is minimised.

A shadow analysis of neighbouring properties, streets and public places was undertaken as part of the K2K Built Form Study to help shape the desired outcome of future potential building envelopes in both centres.

The modelling demonstrates that due to the north-south orientation of the town centres, development will achieve a minimum of two hours of solar access to 70% of dwellings during mid-winter, consistent with the NSW Apartment Design Guide design criteria for development in dense urban areas. All future development will need to demonstrate that adequate solar access can be achieved as part of the development process.

In relation to public spaces, a key outcome of this draft Strategy (as discussed in Part C Section 8 - Public Realm and Landscape) is the creation of new plazas and an overall net increase in public domain. These public spaces are likely to be more intensively used as the population grows, and are key to the liveability of the town centres.

To ensure that new development does not result in adverse overshadowing of the public realm, new DCP controls are recommended to require that new buildings do not contribute to a significant net loss in solar access to these spaces.

At the mid-winter solstice, significant public places are to be protected by a two tier standard, reflecting the relevant significance of the space and based on a practical assessment of what is a reasonable level of sunshine that should be protected in locations that are sometimes in a built up urban context:

- Major Public Places – Development cannot contribute to any more than a 10% net loss of solar access to these spaces at Winter Solstice, between 12 noon and 2:00pm e.g. Dacey Gardens, School Playground areas.
- Key Public Places – New development should retain solar access to a minimum of 50% of any given public place for a minimum of three hours at Winter Solstice (22 June).

Further detail on the location of key public places to which this proposed DCP sun plane clause would apply are identified in Part C Section 8 – Public Realm and Landscape (Figures 132 and 133).

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5.7 Mid-Block Links

Large sites or the consolidation of smaller sites may have the effect of reducing the permeability within the block structure. The latter issue is particularly pertinent to the Kensington town centre which already has reduced levels of permeability resulting from the lack of laneways and mid-block links.

Mid-block links provide key access routes for pedestrians and should be established in larger key sites and in those parts of the town centres where site consolidation is likely.

This could be addressed via new DCP controls requiring that mid-block links be established on identified sites (e.g. key sites located within the Precincts). Mid-block links should preferably be dedicated as public land so that they can be managed for the benefit of the community.

Indicative locations for mid-block links are shown in the following map (Figures 72 and 73).

Pedestrian accessibility, including the provision of mid-block links is also addressed in Part C Section 8.5 – Pedestrian Network.



Figure 72: Example of mid-block link
Source: Essentials of Urban Design (2015)
Mark Sheppard



Figure 73: Covered mid-block retail lane
Source: Essentials of Urban Design (2015)
Mark Sheppard

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Figure 74: Proposed mid-block links – Kensington town centre
Source: Conybeare Morrison 2016



Figure 75: Proposed mid-block links – Kingsford town centre
Source: Conybeare Morrison 2016

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5.8 Design Excellence

All new development will be expected to deliver a high standard of architectural design to contribute to an enriched experience of the Kensington and Kingsford town centres. Accordingly, 'design excellence' has been established as a driving urban design principle for future development in these centres.

The consideration of 'design excellence' is currently a requirement under RLEP 2012 (clause 6.11) for proposals involving buildings over 15m in height, or for sites that are over 10,000m² in size or for land where a site specific development control plan is required (e.g. Kingsford Triangle site). Development consent cannot be granted under the RLEP design excellence provisions, unless the consent authority is satisfied that the proposal exhibits design excellence.

Key matters for consideration include a high standard of architectural design, response to site context and surrounding development, sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency, and any potential impacts on view corridors and landmarks.

While the RLEP 2012 design excellence provisions will apply to most sites within the town centres, it is considered that the key sites located within the identified Precincts should achieve a performance benchmark in design innovation and sustainability beyond what is presently required. These sites will accommodate taller building forms that have a greater degree of visibility being located at key transit nodes as well as additional floor space. Future development on these key sites should therefore be required to demonstrate a high level of design excellence.

It is proposed that future proposals on these sites be informed by an "architectural design alternatives competition" undertaken by the proponent prior to the lodgement of a formal development application. A similar approach has been adopted by the City of Sydney which has resulted in a number of successful design outcomes.

As part of this process, architectural firms with demonstrated experience in the design of high quality buildings would be invited by the proponent to submit design solutions that:

- Demonstrate a high level of design excellence in accordance with criteria established in the RLEP 2012
- Achieve a minimum green star certification rating of 5
- Deliver public benefits consistent with site specific DCP requirements (e.g. public plazas, through-site links, social infrastructure and/or innovation centre floor space requirements)
- Provide high quality materials and finishes; and
- Ensure development feasibility.

The proponent will determine the final outcome of the selection process by selecting the proposal that best meet the considerations above as well as a Council endorsed Design Excellence Strategy. At least one independent expert will be appointed by Council to act as an observer to ensure that the procedural requirements have been adhered to appropriately.

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For proposals that successfully demonstrate design excellence, the following design based trade-offs may result:

An additional building height to a maximum of two storeys (to achieve maximum height in controls); and

Exclusion of identified social infrastructure/ innovation centre floor space requirements from the total gross floor area calculation.

The benefits of a design excellence competition approach is that it will help optimise design outcomes for identified key sites, stimulating creativity, driving innovation and improving design quality.

Importantly such an approach will ensure that any uplift afforded under the planning controls will only be granted where design excellence is clearly demonstrated, in conjunction with the delivery of substantial public benefits to the community.

Strategies

- 1) Ensure the form and scale of development is appropriate to its location and contributes to a positive urban design outcome in the town centres

Actions

- a) Amend RLEP 2012 to establish building heights appropriate to each part of the town centres as shown in the building heights map (Figures 56 and 57):
 - Establish a mid-scale 31m (9 storey) maximum height limit
 - Allow higher scale in Key Precincts as follows:
 - Todman Square – 54m (16 storeys, or 18 storeys with demonstrated design excellence)
 - Kingsford Mid-Town – 54m (16 storeys, or 18 storeys with demonstrated design excellence)
 - Kingsford Junction (Rainbow Street and Kingsford Triangle sites) – 51m (15 storeys, or 17 storeys with demonstrated design excellence)
22NB: increased height will be in conjunction with the provision of increased setbacks, through site links and/or plazas identified in this Strategy.

- b) Amend the DCP 2013 to introduce a secondary height limit to facilitate mews style developments for the sites indicated on the DCP Height Transition Map (Figures 58 and 59)

- c) Amend the DCP 2013 introduce a shared zone/laneway in locations identified on the DCP DCP Height Transition Map (Figures 58 and 59)

- d) Amend the RLEP 2012 to establish maximum FSRs appropriate to each part of the town centres as shown on the FSR map (Figures 65 and 66):
 - Sites accommodating 9 storeys: FSR 4:1
 - Precinct sites: FSR 5:1

- e) Amend the DCP 2013 to establish building setbacks in each part of the town centres as shown on the Building Setback Map (Figures 70 and 71):
 - Require a 1.5m setback of the street wall for 9 storey buildings
 - Require a 2m setback of the street wall at the rear of identified sites in Kingsford town centre.
 - Require a 2.5m setback of the street wall for identified sites at Todman Square, Kingsford Midtown and

Heritage and Contributory Buildings

- Require a zero setback of the street wall for heritage items and contributory buildings and a 6.5m upper level setback where additional levels are proposed to these buildings

- f) Amend the DCP 2013 requiring that development establish a 4 storey street wall by stepping back at the fourth storey to a minimum depth of 4m to achieve a visual separation between the lower and upper levels of a building

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Strategies
2) Ensure that reasonable solar access is maintained to neighbouring properties and streets and public space
Actions
a) See Part C Section 8 – Public Realm and Landscape, Action 7(e)
Strategies
3) Achieve a high level of accessibility and permeability within the town centres
Actions
a) Amend the DCP 2013 to require that development on identified sites provide mid-block links to facilitate permeability in the block structure (Figures 74 and 75)
Strategies
4) Encourage a high standard of architectural design to make a positive contribution to the aesthetic quality, functionality and amenity of the urban environment
Actions
a) Continue to require that all new development involving the construction of a new building or external alterations to an existing building meet the requirements of RLEP 2012 (clause 6.11) relating to design excellence
b) Amend RLEP 2012 to require that all new development involving the construction of a new building in the following Precincts be subject to an architectural design alternatives competition process:
– Todman Square Precinct
– Kingsford Midtown Precinct
– Kingsford Junction Precinct
Strategies
5) Recognise building roofs as a strong visual landmark element in built form design and the town centres' skyline
Actions
a) Amend RLEP 2012 to include the Standard LEP Instrument model provision on 'architectural roof features'
*this model LEP clause allows flexibility in building height to accommodate architectural roof features. The architectural roof feature must not comprise an advertising structure or include floor space or be capable of modification to include floor space.

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Figure 76: Aerial view looking north-east over Kensington town centre.
Source: Conybeare Morrison 2016



Figure 78: Artist's impression looking south from Anzac Parade near Ascot Street,
Kensington town centre. Source: Conybeare Morrison 2016



Figure 77: Artist's impression looking south from Anzac Parade towards Todman
Avenue, Kensington town centre. Source: Conybeare Morrison 2016

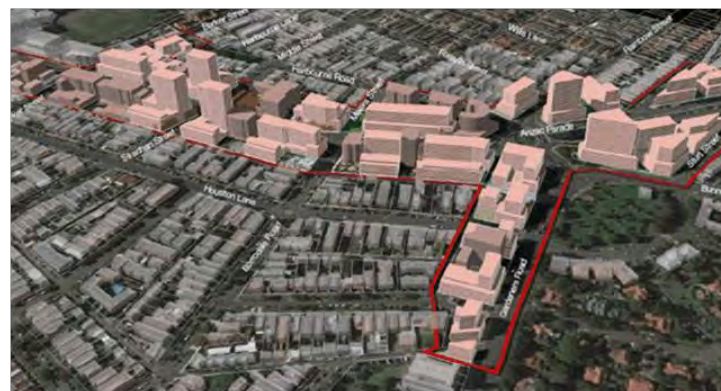


Figure 79: Aerial view looking north-east over Kingsford town centre.
Source: Conybeare Morrison 2016

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Figure 80: Artist's impression looking north along Anzac Parade, near Meeks Street Plaza in Kingsford town centre
Source: Gonybeare Morrison 2016



Figure 81: Artist's impression Looking south on Anzac Parade, towards nine-ways (Kingsford Junction), Kingsford town centre
Source: Gonybeare Morrison 2016

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5.9 Floorspace Capacity

The K2K Urban Design Report investigated floor space yields that could be delivered as a result of proposed changes to built form controls and in response to the need to deliver floor space capacity to support future employment and population growth. The strategic justification on planning for growth is discussed in Part C Section 3 – Housing Growth and Diversity.

The indicative development yield and break down of dwelling typologies for both centres is provided in the following table. It shows that under the revised built form controls a net residential dwelling yield of between 1,150 to 1,480²⁸ additional new dwellings could be achieved. But most importantly, the revised built form controls unlocks the existing development capacity to support the delivery of approximately between 4,100 to 5,280 new dwellings and 54,486m² of commercial floor space across both town centres.

Independent land economic advice sought as part of this Strategy, suggested that to encourage redevelopment along the Corridor, there is a need to increase FSRs and building heights within the study area.

The floor space yields demonstrates that both Kensington and Kingsford town centres are capable of accommodating sufficient dwelling and employment floor space required to meet projected needs, while also providing for a liveable and vibrant environment.

Table 10: Floorspace Capacity for Kensington and Kingsford town centres

	Current @ 3.0:1	@4.0:1 & 5.0:1	Uplift
Total K+K	296,139m ² 251,718m ²	424,658m ² 374,723m ²	
Commercial Space @ 30%	29,614m ²		
Commercial Space @ 30% site and 1:1 @ nodes		54,486m ²	24,872m ²
Residential GFA			103,675m ²
Residential (average dwelling GFA 70m ²)	3,808 dwellings	5,288 dwellings	1,481 dwellings
Residential (average dwelling GFA 80m ²)	3,332 dwellings	4,627 dwellings	1,296 dwellings
Residential (average dwelling GFA 90m ²)	2,961 dwellings	4,113 dwellings	1,152 dwellings

²⁸ Note these figures provides a range based on the lowest (70sqm) and highest (90sqm) GFA and have been rounded for ease of application

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6.0 Heritage Conservation

The Kensington and Kingsford town centres have evolved since the early 20th Century as traditional retail/commercial centres, with their linear urban form highly influenced by the extension of the original tram line along Anzac Parade. Early development comprised fine grain retail/commercial shopfronts generally focused on Anzac Parade with some housing attached at the rear and upper levels.

The town centres have seen considerable change to their historic fabric over time, such as demolition of older shopfronts and irreversible alterations to building facades. Nevertheless, the historical development of the town centres is still evidenced through a small number of buildings listed as Heritage Items in the RLEP 2012.

A number contributory buildings are also retained, which, through their largely intact architectural style, scale, form and detailing attest to the early history of the town centres. While these buildings do not demonstrate a level of heritage significance that would warrant heritage listing under the RLEP 2012, the DCP 2013 requires that they be retained to ensure a sense of historical continuity and to enhance streetscape character so the town centres remain recognisable over time.



Figure 82: Development on the eastern side of Anzac Parade 1946
Source: www.trove.nla.gov.au



Figure 83: Buildings to the western side of Anzac Parade erected during the Inter War years 1946
Source: www.trove.nla.gov.au

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Heritage Items



Doncaster Hotel, Kensington
268-270 Anzac Parade, Kensington



Masonic Temple, Kensington
199-201 Anzac Parade Kensington



O'Deas Corner, Kingsford
424-436 Anzac Parade Kingsford

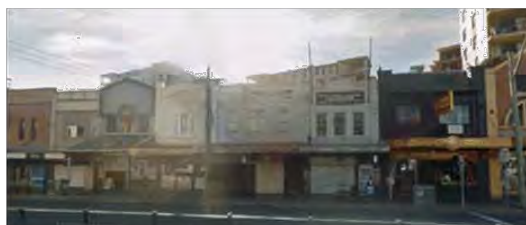
Examples of Contributory Buildings



126-146 Anzac Parade, Kensington



172-180 Anzac Parade, Kensington



522-532 Anzac Parade, Kingsford

Figure 84: Heritage Items in the Study Area
Source: Google Streetview 2016

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6.1 Infill Development and Contributory Buildings

The draft Issues Paper identifies that in Kensington town centre, new infill development has largely been sympathetic to the streetscape values of existing contributory buildings.

In the context of Kingsford town centre, however, there are frequent examples of later buildings that are unsympathetic to the historic fabric of surrounding contributory buildings. These include multi-storey buildings without a base element relating to the predominant two to three storey fine grain scale of the town centre, or where podiums are provided that are lower than the traditional facades and do not effectively define the Anzac Parade street walls.

In respect to Kensington and Kingsford town centres, the different outcomes pertaining to infill development (and its relationship to existing contributory buildings) can be attributed in part to the DCP controls which differ for each centre. Unlike heritage listing in the RLEP 2012 (which provides strong statutory protection against demolition), contributory façade listing is not based on defined heritage significance criteria and established conservation standards such as the Burra Charter. Consequently, the retention of contributory buildings and their historic fabric depends entirely on the strength of the DCP controls.

The existing DCP 2013 controls for Kensington town centre are more stringent than Kingsford town centre, requiring the conservation, retention and sensitive adaptation of contributory buildings (for example through mews style development) and the avoidance of 'façadism' (the retention of only the outer skin of a building). The DCP controls specifically require the involvement of a heritage/conservation specialist and the submission of a Heritage Impact Statement addressing impacts on heritage significance/fabric as part of the development process.

In contrast, the DCP controls for Kingsford town centre require that contributory facades be retained as much as practicable, or reinterpreted as guiding examples in the design of new development. There is therefore somewhat of an inconsistency between the controls for contributory buildings and infill development in the town centres.

6.2 Heritage Review of Kingsford Town Centre

Colin Brady Heritage Consultant was engaged in early 2016 to undertake a heritage review of the Kingsford town centre to evaluate the status and condition of the existing Heritage Item (O'Deas Corner at 424-436 Anzac Parade, Kingsford), contributory façades (and any other buildings not previously identified) and to make recommendations relating to DCP 2013 controls.

This is the first heritage review of Kingsford town centre undertaken since the original Randwick Heritage Study was carried out over 25 years ago. A peer review of the Kensington town centre heritage controls was undertaken in 2002, hence a further study was not warranted as part of this process.

Review findings confirm that Kingsford town centre is culturally significant as a setting of early 20th Century retail and commercial street front buildings, with many constructed as shop/residences in the years immediate to the First World War and retaining detailing, form and groupings representative of later Federation and Inter-War architecture.

A condition assessment of the heritage listed building group at O'Deas Corner (424-436 Anzac Parade, Kingsford) reaffirms its heritage significance as a well detailed

example of Federation shop/residence development and for its associations with Frank O'Dea – bookmaker, real estate developer and promoter of cultural activities in the foundation years of South Kensington, later renamed Kingsford.

The Review identifies opportunities to strengthen DCP controls for infill development to minimise adverse impacts on the historic built fabric and curtilage of existing contributory buildings.

The review also identifies four buildings that may have contributory value based on their form and detailing: 279-197, 357, 394 and 528 Anzac Parade, Kingsford. These have been carefully considered in terms of future economic objectives, urban design and public domain outcomes for the Kingsford town centre (particularly in terms of increased setbacks needed to facilitate wider footpaths). Accordingly, 279-278 Anzac Parade, Kingsford is proposed to be included on the schedule of contributory buildings in the DCP 2013 (NB: 528 Anzac Parade is already listed in the Schedule).

The following strategies reflect review findings and aim to strengthen DCP 2013 controls to ensure that new infill development is sympathetic to existing contributory buildings and respects the historical development of the town centres.

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Strategies	Actions
1. Protect the heritage character and fabric of buildings that reflect the historical development of the town centres	a) Continue to protect the heritage significance of heritage items and contributory buildings through the consistent and rigorous application of relevant RLEP 2012 heritage provisions and DCP 2013 guidelines for heritage conservation b) Update the heritage inventory sheet for O'Deas Corner (424-436 Anzac Parade) with key findings from the heritage condition assessment c) Amend the DCP 2013 to add the following to the list of contributory buildings to be conserved and retained in Kingsford town centre: • 279-287 Anzac Parade, Kingsford d) Amend the DCP 2013 to introduce a 6.5m upper level setback for contributory buildings e) Amend the DCP 2013 for Kingsford town centre to incorporate additional controls for contributory buildings (currently applicable to Kensington town centre) including the requirement for the submission of a Heritage Impact Statement
2. Integrate heritage and contributory buildings into redevelopment	a) Require the retention and adaptive reuse of historic shopfronts b) Strengthen DCP 2013 controls for contributory buildings in Kingsford town centre by requiring that new works: • Avoid 'facadism' and retain the form and articulation of historic street frontages (such as the first structural bay/or first room to preserve inset verandas) • Involve the commensurate reinstatement/restoration of historic fabric to balance the impact of larger works set back from the original fabric • Retain original fabric/features including original lighting and historic signage • Incorporate sympathetic colour schemes
3. Ensure that new infill development respects the height, scale, siting, character and proportions of contributory buildings	a) Amend the DCP 2013 for Kingsford town centre to require that new infill development/works: • Have regard to the scale, character and proportions of heritage and contributory buildings • Reflect segmented frontages of historic building groups through facades that are broken into smaller vertical sections and articulation • Provide consistent heights and alignment of street awnings with existing contributory forms • Retain the profile and massing of exposed side elevations • Provide podiums that reference the principle influence line of historic streetscapes and are cohesive with the established street frontage

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7.0 Sustainability and Transport

This section considers the environmental sustainability of the town centres, including at both a buildings and precinct level. It contains strategies and actions to reduce water consumption, energy use and greenhouse gas emissions, improve stormwater quality, reduce traffic congestion and improve walking and cycling access.

A vibrant and visitor-friendly town centre is also a sustainable town centre. A centre that is easy to walk or cycle around, that provides for a strong mix of retail, residential and commercial experiences, connects to its surrounding green spaces and public transport, and manages excessive car use and parking. All of this contributes to a high quality and long lasting urban fabric, a centre that can thrive and continue into the future. Both the research and practice confirms the sustainability of a town centre provides for the physical, mental and social well-being of its inhabitants.

Sustainability is highlighted as one of the Draft NSW Architecture and Urban Design Policy's seven key principles²⁸ at both a building and precinct level. It features as a key component of ensuring Kensington and Kingsford become resilient, best-practice environmentally sustainable town centres. Sustainability is no longer an optional extra, but a fundamental aspect of functional, liveable design.

²⁸ Draft Architecture and Design Policy 2016

²⁹ The Randwick City Plan: A 20 Year Plan 2006

This draft Strategy outlines a sustainability framework for Kensington and Kingsford to inform the design of individual buildings, and the integration of precinct-wide innovative systems. Council is committed to strive for best practice architectural and environmentally sensitive design, with a focus on energy efficiency, water conservation, waste and resource minimisation. These principles and their related actions are outlined in Council's 20 Year Randwick City Plan, including encouraging design excellence and sustainability across all development²⁹. This draft Strategy also commits to the principles of travel demand management, reducing reliance on private vehicles and providing for enhanced public transport, pedestrian and cycle networks to facilitate user-friendly access to the town centres and surrounding destinations.

Objectives

To establish Kensington and Kingsford as a best-practice environmentally sustainable district that provides for the physical, mental and social wellbeing of its residents and visitors

To provide a safe, integrated and accessible network of pedestrian and cycling access

To enhance amenity by reducing pollution and congestion arising from private vehicle use and encourage active transport and public transport

To adopt sustainable design techniques in the lighting, stormwater collection, and landscaping of the public realm

To improve the quality of stormwater prior to its release into iconic waterways such as Botany wetlands and Botany Bay; and

To provide innovative waste solutions capable of reducing litter and increasing re-use, recycling and recovery of waste.

7.1 Sustainability and Buildings

The international and national commitment to reducing carbon emissions

In December 2015, 195 countries, including Australia, agreed on the United Nations Paris Agreement on climate change. The key objectives of the Paris Agreement include:

- A goal to limit the increase in global temperatures to well below 2 degrees and pursue efforts to limit the rise to 1.5 degrees
- A commitment to achieve net-zero emissions, globally, by the second half of the century
- A five year review and ratchet process which is likely to lead to more ambitious commitments from countries in the future.

The Commonwealth Government has now signed and ratified the Paris Agreement.

The current interim targets are:

- Carbon emissions to be five% below 2000 levels by 2020
- Carbon emissions to be 26 to 28% below 2005 levels by 2030.

The 2030 target is equivalent to a 50% reduction in per capita emissions and a 65% reduction in the emissions intensity of the economy (NSW Climate Change Policy framework). The agreement's review and ratchet mechanism means that Australia's interim emissions reduction targets are likely to become more ambitious over time, with the first review due in 2017.

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Climate Change and Buildings

The built environment is a major contributor to greenhouse gas emissions and energy consumption in Australia, accounting for approximately 22% of the nation's total greenhouse emissions⁸¹. Much of this is attributed to the resources and materials used in building construction, as well as pollution and waste resulting from development activity. The actual operation of a building can also contribute significantly to energy and water consumption.

New buildings have a crucial role to play in reducing cities carbon emissions and ensuring a sustainable future⁸². Business-as-usual design results in emissions-intensive buildings, whereas smart and efficient design can deliver net zero emissions buildings⁸³.

Current Development Standards – Residential Buildings

Since 2004, all new residential dwellings in NSW must be designed in line with the Building Sustainability Index (BASIX), a NSW Government environmental planning instrument. BASIX mandates sustainability standards in residential developments by assessing the consumption of mains-supplied water, energy and thermal performance⁸⁴.

⁸¹ COAG (2009) National Strategy on Energy Efficiency

⁸² UN-Habitat (2011) Hot Cities: battle-ground for climate change Report

⁸³ Climate Change Authority (2012) Australia's emission outlook

⁸⁴ NSW Building Sustainability Index 2016 (www.basix.nsw.gov.au)

⁸⁵ City of Sydney Residential Apartments Sustainability Plan (2015)

⁸⁶ Kinesis (2016) Eastern Suburbs Low Carbon Future Plan – High Performance Building Study

Draft NSW Architecture and Urban Design Policy 2016

Design Principle 2 – Sustainable, efficient and durable:

Design excellence must incorporate environmental sustainability and responsiveness in its construction and usage, meeting the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, liveable design.

BASIX currently requires detached and semi-detached houses to emit 40% less greenhouse gases than the NSW per capita benchmark, whereas high-rise apartment buildings are only required to emit 20% less greenhouse gases⁸⁵.

BASIX, which establishes energy and water requirements for new residential dwellings, is recognised as in need of updating to achieve best practice design outcomes. Furthermore, under the NSW Government legislation, Council's local plans cannot require energy or water efficiency, greenhouse gas emissions or thermal comfort different or beyond the BASIX standard.

Non-Residential Buildings

There are state government standards, such as BASIX, applying to non-residential development. The Randwick DCP 2013 requires that new commercial premises and hotel and motel accommodation with a floor area of 1,000m² or more must achieve a minimum 4 star National Australian Built Environment Rating System (NABERS) rating and undertake a Commitment Agreement. Development Applications must include an Ecological Sustainable Development Statement prepared by an accredited professional demonstrating that the required NABERS rating can be achieved.

In addition to the Randwick DCP, The National Construction Code (NCC) is a standard for all non-residential development in NSW which requires buildings meet minimum energy efficiency requirements under its Section J Energy Efficiency provisions⁸⁶. The requirements of Section J of the NCC is equivalent to approximately NABERS Energy 4-star and NABERS Water 3-star. Current requirements address the following:

- Building Fabric (thermal design) and glazing
- Air-conditioning and Ventilation Systems
- Lighting
- Heated Water Supply
- Energy Monitoring
- Additional energy demands, such as plug-in appliance loads are not addressed.

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Environmental Performance of Existing Buildings

A review of NSW Department of Planning and Environment BASIX data for the Eastern Suburbs region highlights the following:

In 2013/14, approximately 25% of apartments and nearly 40% of single dwellings exceeded BASIX Energy compliance by 4 or more points³⁷.

This indicates that there are opportunities for improvements to apartment design as a new high rise apartment block built only to the required BASIX Energy target of 20 performs worse than the average existing housing stock.

Benchmarks for Sustainable Buildings

In the Randwick DCP 2013, a sustainable building is one that is "environmentally responsible and resource efficient throughout its life cycle, while reducing the overall impact on the environment and human health"³⁸. Buildings that are sustainable use environmentally friendly construction materials and fittings, are energy and water smart, have healthy and comfortable indoor environments, and yield considerable cost savings to property owners and tenants. The Green Star – Multi Unit Residential Business Case Report showed green buildings, built for high energy and water

efficiency, consume 26% less energy than the average building.

New major developments could include capacity to generate a minimum 15% of their total energy onsite using renewable energy sources. This would offset common area electricity use and subsequently result in a reduction of building strata fees.

The Green Star Rating System

The Green Star rating system, managed by the Green Building Council of Australia, is a voluntary environmental rating system that evaluates the environmental design and construction of buildings. Figure 85 outlines the rating system, where a 4-star rating signifies 'Best Practice' in environmentally sustainable design and/or construction, a 5-star rating indicates Australian excellence and 6-star demonstrates World Leadership³⁹.

The Green Building Council of Australia administers the rating system to evaluate the environmental impact of the design, construction and operation of buildings and building-related communities. There are a number of rating tools developed for particular building types, including office buildings, shopping centres and multi-unit residential buildings. The rating tool covers nine performance categories, as identified in Figure 86.



Figure 85: Green Star rating system
Source: www.gbca.org.au

³⁷ Ibid

³⁸ Randwick City Council Development Control Plan 2013 Part B

³⁹ Green Building Council of Australia (www.gbca.org.au)

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A study of the environmental benefits and cost-savings of building to Green Star estimated that the annual savings on energy and water bills for a 12-storey building are as follows:

- For a 4 star building, an annual saving of \$9,078
- For a 5 or 6 star building, an annual saving of \$14,691.

This is equivalent to a \$95-155 saving per person per year⁴⁰.

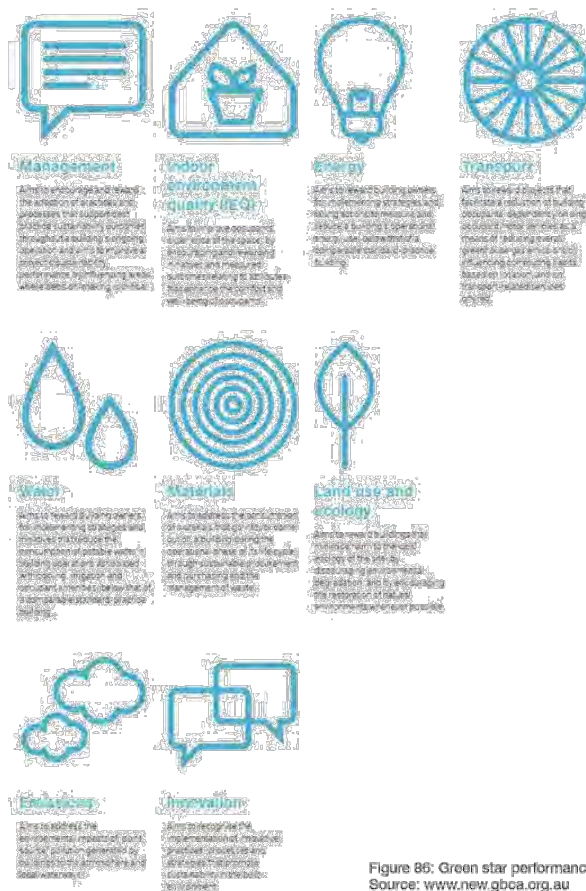


Figure 86: Green star performance categories
Source: www.new.gbca.org.au

⁴⁰ ARUP (2016) Waverley Council Sustainable Building Incentives Business Case

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Green Star for Apartments

Green Star 4 star Rating

10% improvement on BASIX energy requirements through:

- Upgraded façade to high performing single glazed or double glazed units
- Improved energy efficiency rating for air-conditioning units
- Environmentally considerate management practices, including commissioning, metering and monitoring requirements
- Improved ventilation and increased acoustic performance between tenancies
- Facilities that promote sustainable transport options, including cyclist parking/amenities and reduced car parking
- Efficient water fixtures and fittings, reuse of fire test water and systems that minimise potable demand for irrigation purposes
- Considered material selection for products such as concrete, steel and timber.

Green Star 5 star Rating

20% improvement on BASIX energy requirements through:

- Installation of renewables such as solar thermal for domestic hot water heating and photovoltaics to offset electrical demand
- Installation of high energy star rated appliances such as fridges, clothes washers and dryers
- Implementing a Climate Adaptation Plan
- Maximising daylight within units and upgrading lighting systems to improve surface illumination in rooms
- Specifying products with high sustainability credentials, including Environmental Product Declarations, Third-party certified and with Stewardship programs in place
- Site layouts that include high areas of landscaping or green roofs.

Green Star 6 star

- Highest reduction targets for stormwater pollution
- Onsite innovations during construction including a High Performance Site Office and Contractor Education.

National Australian Built Environment Rating System (NABERS)

For commercial development, NABERS can be used to measure the environmental performance of the construction and ongoing operation. The Eastern Suburbs Low Carbon Futures Plan, prepared for Randwick City Council in partnership with Waverley and Woollahra Councils, outlines best practice performance for commercial buildings and shopping centres is approximately equivalent to NABERS 5-star Energy and NABERS 4-star Water (where recycled water is not available) or 5-star with a recycled water system⁴¹.

Based on analysis completed to date, best practice performance for commercial buildings and shopping centres, as outlined above, could be met at a marginal capital cost of approximately \$15 to \$35 per square metre. This would result in a 15-20% reduction in greenhouse gas emissions compared to the current controls. In addition, NABERS 4-star construction can lead to a 10-20% reduction in water consumption, and if there is a local recycled water system, water consumption can be reduced by up to 60%. A local water recycling scheme will be investigated, as detailed later in this strategy.

Implementation costs

The July 2016 Green Star Financial Transparency Paper prepared by the Green Building Council of Australia reported that building costs for the average multi-unit residential development were an extra \$150 per m² or an extra 4% of overall project cost⁴². This includes cost of materials and installation required to meet the green star credits and the associated costs for documenting the materials used and certification, which is on average 0.7% of overall project cost.

A separate study commissioned by Waverley Council found that for a 12-storey (ground floor retail and multi-floor residential) building it is estimated that there would be approximately a 4-6% cost premium on standard building practices to a Green Star rated building⁴³.

Green Star tends to become more affordable with a greater scale of development as the Green Star costs represent a smaller percentage of the overall building project contract value compared to low rise and single dwellings⁴⁴.

⁴¹Kinesis (2016) Eastern Suburbs Low Carbon Future Plan - High Performance Building Study

⁴²Green Building Council of Australia (2016) Green Star Financial Transparency Research Paper

⁴³ARUP (2016) Waverley Council Sustainable Building Incentives Business Case

⁴⁴Ibid

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Ensuring Sustainable Buildings

While Council cannot require through its planning controls environmental performance above that required by BASIX, Council can encourage and/or offer incentives for the voluntary adoption of sustainability measures. All developments are encouraged to use the Green Star tools to improve the environmental attributes of their proposed building. This would result in an increase in 'green' buildings through better application of sustainable building techniques, materials and technologies which reduce the ongoing environmental impact of buildings.

On key sites within the Kensington and Kingsford town centres where they receive the highest planning uplift, 5-star green star performance will be established within the LEP as criteria for achieving design excellence. These key sites will become iconic buildings, not just for their design, but also for demonstrating best practice in sustainable construction and operation.

In addition to new buildings, Randwick City Council has partnered with Woollahra and Waverley Councils on various sustainability research and initiatives. For sustainability of existing apartments, the three-Council project is designing a program for apartments which will address electricity and water consumption issues. Initiatives may include funding for audits of common areas to identify opportunities for energy reduction through changes to lighting. Existing developments within the Kensington and Kingsford town centres will be encouraged to participate in any future program identifying opportunities for energy and water efficiencies.

Strategies	Actions
1. Encourage higher performance ratings for residential development through Green Star accreditation	a) Include 5-star green star performance in the RLEP 2012 as a criteria for achieving design excellence on key sites b) Amend the DCP 2013 to encourage all other sites within Kensington and Kingsford town centres to achieve green star accreditation
2. Ensure commercial development is built to best-practice sustainability standards	a) Amend the DCP 2013 to require that new commercial premises and hotel and motel accommodation with a floor area of 1,000m ² or more must achieve a minimum NABERS 5-star Energy and NABERS 4-star or 5-star Water rating
3. Encourage existing buildings to improve their energy and water consumption performance	a) Continue participating with Woollahra and Waverley Councils in the 3-Council project to improve the environmental performance of existing residential flat buildings and shop top housing

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7.2 Water Management

The Botany Sands Aquifer

The Botany Sands Aquifer is a large volume of underground water present in the sandy ground surrounding Botany Bay and covering an area of approximately 141km² including the majority of the Randwick LGA.

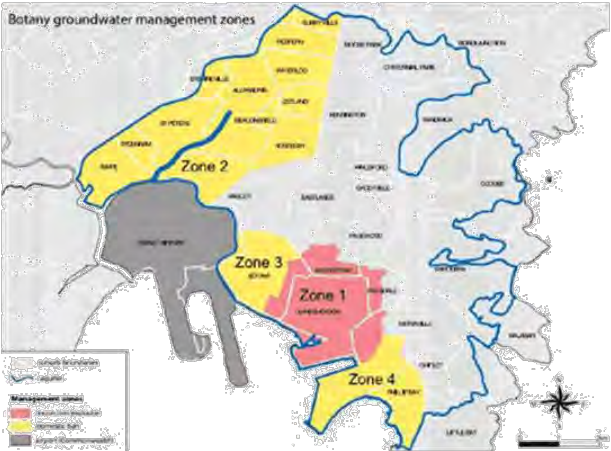


Figure 87: Extent and management zones for the Botany Sands Aquifer
Source: www.water.nsw.gov.au

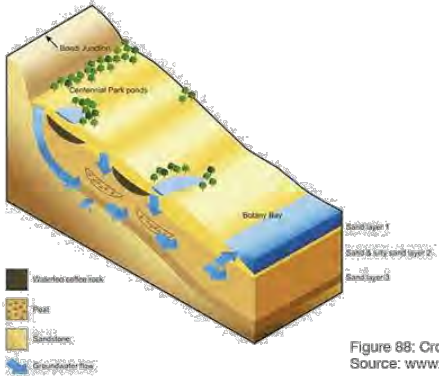


Figure 88: Cross section of the Botany Sands Aquifer
Source: www.centennialparklands.com.au

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The aquifer is recharged by rainwater percolating through sand and sandstone strata which act as natural filters to remove solid litter, silt and harmful nutrients. The water-holding capacity of the sand aquifer is enormous and has been estimated to contain up to 300 litres of water per cubic metre of sand⁴⁵. The Australian National Water Commission estimates that the aquifer can sustainably supply 22,500ML/yr. of groundwater. Currently only approximately 6,000ML/yr. is allocated for use⁴⁶.

The level of the aquifer can vary with seasonal conditions, and in some areas is quite close to the surface. As a consequence developments in locations within the Botany Sands Aquifer area need to consider groundwater flows during the design and construction process.

Development and Groundwater Procedures

Groundwater is the water contained within rocks and sediments below the ground's surface in the saturated zone⁴⁷. In NSW, groundwater is managed under the Water Management Act 2000.

When proposed developments are likely to experience seepage water issues or extend into the ground water table, Council places stringent conditions in the development consent to ensure impacts are appropriately managed. All development applications received by Council that are likely to interfere with the aquifer either through dewatering activities or through the construction of a basement carpark are referred to Water NSW as Integrated Development, as required under Part 4 of the Environmental Planning and Assessment Act 1979.

The long term cumulative impacts of basements are assessed by the Water NSW when referred to them as Integrated Development. Side setbacks for basements and deep soil planting areas, as required under Council's DCP, in addition to roads and footpaths provide breaks between basements built on private land.

Water NSW manages over 3000 monitoring bores and uses computer-based groundwater modelling to better understand groundwater flow systems

and make decisions on development applications. Water NSW reviews each development application against the latest aquifer information and issues development-specific general terms of approval that must be applied to the development as conditions of consent. In addition to these requirements, Council also has standard development conditions that can be applied to the development consent to minimise impacts on the aquifer movement and directional flows.

Comprehensive and robust conditions are applied to development to ensure developments are not adversely impacted by groundwater flows and that groundwater flows are not adversely impacted by development. Specifically, conditions are applied to ensure:

- The quantity and method of groundwater extraction during the construction process is appropriate and executed with authorisation from Water NSW
- The basement is designed and constructed to be waterproof
- Sufficient permanent drainage is provided beneath and around the outside of the watertight structure to ensure that natural groundwater flow is not impeded.

In addition, conditions are applied to ensure documentation and reports are provided from the applicant of a development with information including measurements of groundwater levels, a map of the site including the water table, details of the present and potential groundwater flow paths and hydraulic gradients in and around the site. Monitoring and data is required by Water NSW at several stages throughout the construction process both to monitor potential adverse impacts and to inform their understanding of the groundwater flows.

History of the Millstream

Centennial Parklands ponds in the north of Randwick form the upper catchment of the Botany Wetlands, an interconnected chain of ponds and dams which lie approximately six kilometres downstream, where they eventually empty into Botany Bay.

The Millstream was once Sydney's main water source after the Tank Stream and The Tunnel (Busby's Bore)⁴⁸. Between 1856 and 1886, a steam-powered Botany Water Pumping Station was used to pump water

⁴⁵ Australian Government National Water Commission Botany Sands Aquifer Case Study (www.wetocks.com.au)

⁴⁶ Ibid

⁴⁷ NSW Department of Primary Industries Water (<http://www.water.nsw.gov.au/water-management/groundwater>)

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from the Botany/Lachlan Swamps up to the Paddington Reservoir and Crown Street Reservoir, which is still in use today.

As the Millstream once ran through Kensington and Kingsford, following the contours of the land, parts of Kensington and Kingsford are now flood-affected to varying degrees.

As part of the Kensington Centennial Park Floodplain Risk Management Study and Plan, Council is investigating potential improvements throughout Kensington and Kingsford to alleviate flooding impacts. There are also additional opportunities through using water sensitive urban design throughout the town centres and surrounding areas.

Water Sensitive Urban Design

Randwick's water infrastructure has coped well with population and development growth since the time they were laid. Most drainage infrastructure has a capacity ranging between the 1 year and 10 year storm event but a significant number of pipes exceed capacity in events as small as the 1 year storm⁴⁹.

Water sensitive urban design offers an alternative to the traditional conveyance approach to stormwater management by

acting to capture water at the source, and thereby reducing the required size of the structural stormwater system. It seeks to minimise impervious surfaces and thus enable infiltration, reuse water on site, incorporate retention basins to reduce peak flows, and incorporate treatment systems to remove pollutants.

The social and environmental benefits of water sensitive urban design systems are widely recognised and include:

- improved water quality of stormwater
- greener open spaces and enhanced urban landscapes
- reduced localised flooding
- increased infiltration to refill the aquifer
- improved amenity in our local communities
- alternative water supply option⁵⁰.

There are opportunities to implement raingardens, swales, tree pits and other water sensitive urban design measures within the Kensington and Kingsford town centres to achieve a range of benefits, particularly improving water quality, localised flooding improvements and greening of the town centres.



Figure 89: Water sensitive urban design at Victoria Park
Source: www.landcom.com.au

⁴⁹NSW Office of Environment and Heritage – Heritage Places and Items, Botany Water Reserves (www.environment.nsw.gov.au)

⁴⁹Randwick City Council (2016) Kensington Centennial Floodplain Risk Management Study and Plan

⁵⁰Water sensitive urban design life cycle costing, Melbourne Water 2013.

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Case Study – Bio Swale at Prince Henry

The Prince Henry development at Little Bay is a residential development in the eastern suburbs of Sydney. The total site area is approximately 84 hectares of which 34 hectares is being redeveloped into a mix of residential and community use.

The WSUD objectives for the site developed during the master planning process in 2003 are:

- Promotion of stormwater reuse to reduce the demand on potable water supply
- Ensure that no existing stormwater reuse is disadvantaged because of the development
- Restoration of the riparian zones and creek lines of two waterways on site, identified as the Central and Southern Watercourses.
- Use less water for landscaping through careful design and selection of plants and irrigation methods suitable to the soil type and location.



Figure 90: Bio swales integrated into public open space at Prince Henry
Source: www.landoom.com.au

Levels of Water Consumption

Randwick City Council, with Waverley and Woollahra Councils have initiated the Eastern Suburbs Regional Water Reduction Plan to complement Council's Low Carbon Future Plan and develop strategies that respond to water consumption issues in light of the specific climate, geomorphology and built form of the region.

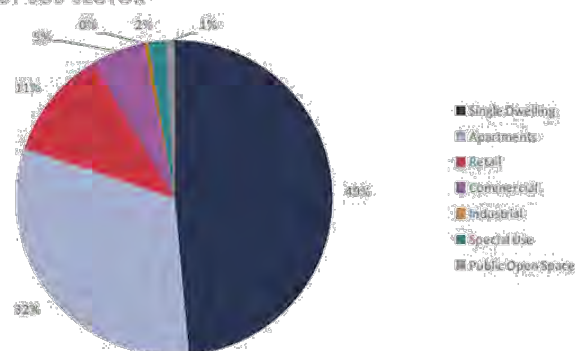
In December 2015, Stage 1 of the Eastern Suburbs Regional Water Reduction Plan, prepared by Kinesis outlined water consumption and urban form for the region. The analysis identified residential use was the highest consumer of water in the region as irrigation of open space and industrial water use utilise a variety of groundwater and treated stormwater sources (see Figure 91).

Not all water consumption requires potable (drinkable) water as toilet flushing and irrigation can use a lower grade of water than that required for drinking. A breakdown of water consumption by water grade estimates that that 44% of residential water use can be provided by non-potable water standard⁸¹ (see Figure 91). This means there is an opportunity for a residential recycled water scheme and alternate forms of water re-use in the Kensington and Kingsford town centres.

⁸¹ Kinesis 2016, The Eastern Suburbs Regional Water Reduction Plan

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WATER USE BY SUB-SECTOR



WATER CONSUMPTION BY REQUIRED WATER GRADE (ESTIMATED)

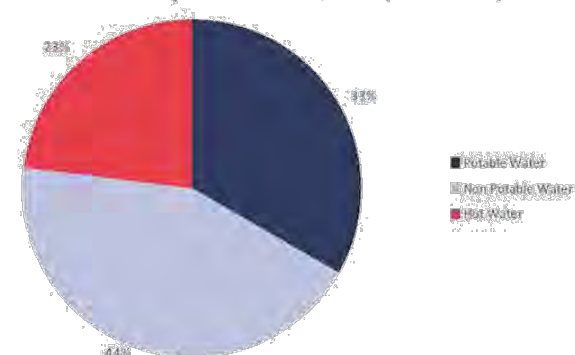


Figure 91: Water consumption in the Eastern Suburbs
Source: Eastern Suburbs Regional Water Reduction Plan Stage 1 Report

Draft Planning Strategy

Recycled Water Networks in Urban renewal Developments

Recycled water and water reuse, including greywater, blackwater, stormwater and rainwater reuse, provides an alternative to traditional infrastructure. A building connected to recycled water for both internal and external uses can reduce its potable water by up to 50% and reduces demands on sewer outfall into our oceans by treating and reusing sewage.

The Eastern Suburbs Regional Water Reduction Plan notes that recycled trunk water infrastructure is delivered as part of any major corridor renewal and proposes that the South East Light Rail provides the three Councils with the single biggest opportunity to facilitate recycled water in the region.

There are a range of opportunities to implement water recycling within the Kensington and Kingsford town centres. For example, water sensitive urban design interventions can be combined with a harvest stormwater for re-use in the public domain.

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Case Study: Green Square recycled water network

Green Square Water harvests stormwater passing through the Green Square precinct. Green Square Water has a network of decentralised water pipes which capture the water and take it back to the local recycled water centre in the heart of Green Square. Once there, water undergoes five purification processes to remove impurities and clean the water.

This water recycling system is owned and run by Green Square Water, a private local sustainable water utility. The system harvests and purifies 900kL of stormwater every day at full capacity – the equivalent of 150 Olympic swimming pools of stormwater every year⁸⁸.

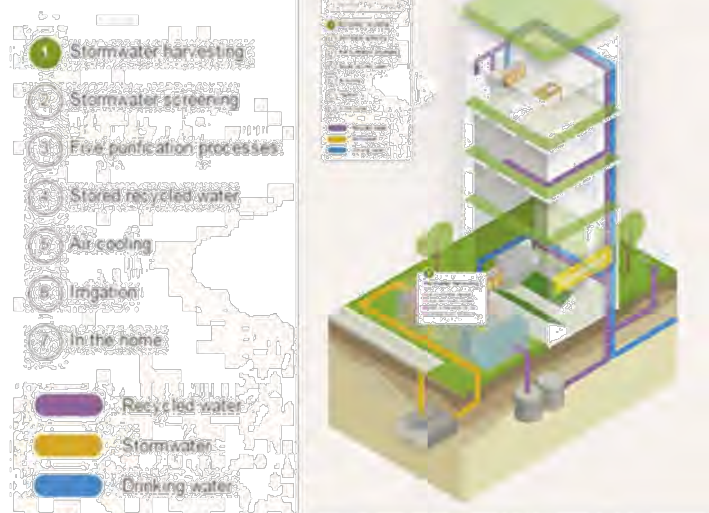


Figure 92: Diagram demonstrating the water recycling system at Green Square
Source: Green Square Water

⁸⁸ Flow Systems (2016) www.flowsystems.com.au/communities/green-square-water

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7.3 Waste Collection

Benefits of An Automated Waste Collection System

There are major opportunities to better improve the waste collection process and increase the rate of recycling, particularly in commercial and public spaces⁸³. The Environmental Panel Position Paper, which informed the Draft Central District Plan, identified a need for best practice infrastructure and programs at individual building and regional planning levels to cater for the reduction, re-using, recycling or proper safe disposal of waste.

The 2016 Southern Sydney Regional Organisation of Councils report, Our Places Recreation and Retail, A Litter Prevention Plan for the southern Sydney Region, identified town centres and sports and recreation areas as regional litter hotspots. The lack of appropriate infrastructure was identified as a significant contributor to litter hotspots in public areas.

Automated waste collection systems provide an opportunity for a more sustainable, efficient, convenient and hygienic method of collecting and removing waste in mixed land use areas such as the Kensington and Kingsford town centres. Such a system, as demonstrated in Figure 11, connects buildings and public street bins to a collection point via underground suction pipes, removing the need for trucks to collect waste from individual buildings. Automated waste collection systems are in use across Europe and Asia and in Australia a system is being implemented by Sunshine Coast Council for a section of Maroochydore's central business district, SunCentral, at a cost of \$21 million⁸⁴.

The benefits of such a system include:

- Improved aesthetics by removing the need for bins to line streets awaiting collection
- Reduced truck movements, resulting in reduced greenhouse gas emissions and improved air quality and traffic congestion
- Reduced collection operational costs
- Better hygiene – no odour and no pests
- No waste storage rooms needed within developments – more efficient use of space.

An automated waste collection system offers many opportunities, and it is suggested that Council further investigate the feasibility and suitability of such a system for the Kensington and Kingsford town centres. Funding has been allocated within the Infrastructure Schedule for a concept design, feasibility study and implementation of such a system.

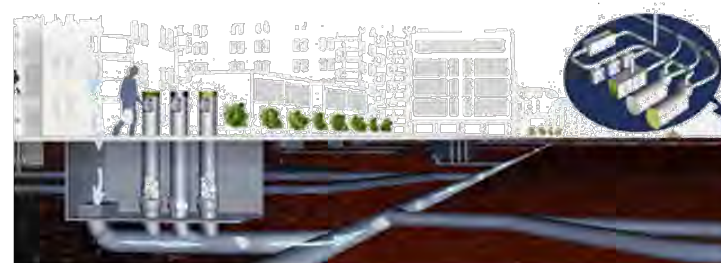


Figure 93: Diagram of an automated waste collection system
Source: www.envacgroup.com

⁸³ Environmental Panel Advisory Paper for the Greater Sydney Commission 2016

⁸⁴ Sunshine Coast Council 2016 (www.sunshinecoast.qld.gov.au/Council/News-Centre/Maroochydore-City-Centre-leads-waste-revolution-210916)

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Figure 94: An automated waste collection point in a public open space
Source: www.envacgroup.com



Figure 96: Visual clutter of garbage bins on streets in Randwick LGA
Source: Randwick City Council 2016



Figure 95: An underground waste storage system installed in Darlinghurst, Sydney
Source: www.smartbin.com



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7.4 Renewable energy sources

Decentralised Energy Sources

Renewable and decentralised energy is a rapidly evolving technology sector which can offer a multitude of benefits for the Kensington and Kingsford town centres. The benefits include:

- Efficiency and cost savings: Local or decentralised renewable electricity generation avoids the high costs of transporting electricity from the country to the city. These transport costs currently make up more than half of the average electricity bill⁸⁵
- Reducing greenhouse gas emissions: Renewable energy can play a large role in reducing the need to burn coal and increasing our energy independence in addition to health benefits from reduced air pollutants within urban communities⁸⁶
- Resilient cities: Centralised systems can be disrupted by natural disasters and other extreme events, while because of their geographic dispersal, decentralised systems are less likely to be affected⁸⁷.

As detailed The City of Sydney Decentralised Energy Master Plan estimated that costs for decentralised energy solutions such as integrated and precinct-scale renewable electricity technologies are cheaper than most renewable electricity technologies through utility companies. This is primarily due to the rising costs of transmission and distribution network charges which can be reduced or avoided where renewable electricity is generated within the city⁸⁸.

Art and Renewable Energy Opportunities

As detailed earlier in this chapter, buildings required to achieve five star Green Star will integrate renewable energy sources into the design of the building. Recent advances in renewable energy production within urban areas demonstrate opportunities to enhance public spaces whilst incorporating best practice green and environmental sustainability technologies.

For example, the "wind trees" installed in Paris and the wind turbines installed above a residential flat building in New York, as outlined in the case studies below, both demonstrate pilot programs which combine aesthetics and practicality to harness wind

power. The cycleway outlined in the case study below demonstrates an opportunity to sustainably light cycle ways or other public spaces within the Kensington and Kingsford town centres without the need for external lighting and the associated energy consumption. The small-scale aesthetically pleasing sustainability initiatives can be designed to fulfil artistic requirements as well as providing a renewable energy source within the Kensington and Kingsford town centres.

⁸⁵ City of Sydney (2013) Decentralised Energy Master Plan

⁸⁶ Ibid

⁸⁷ Ibid

⁸⁸ Ibid

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Case Study: Wind Trees

In December 2015, two "wind trees" were installed in a plaza in Paris, where they operate silently to capture wind and generate up to 2,400 kilowatts of energy annually. Developed by a French company, New Wind, the "trees" have plastic green "leaves" that soundlessly harness the wind⁹⁸.

New Wind estimates this would meet half of the average French household's annual energy needs, run a small, low-consumption office for 12 months, or charge an electric car for 10,000 miles each year.



Figure 97: Wind turbines which have taken inspiration from nature
Source: www.qz.com

Case Study: Urban Wind Turbines

In 2014, three wind turbines were installed above a new apartment building in Queens, New York by UGE. The turbines capture 3,500 kilowatts of energy annually, which offsets the common areas in the building, including the lobby, hallways, gym, and roof lounge.

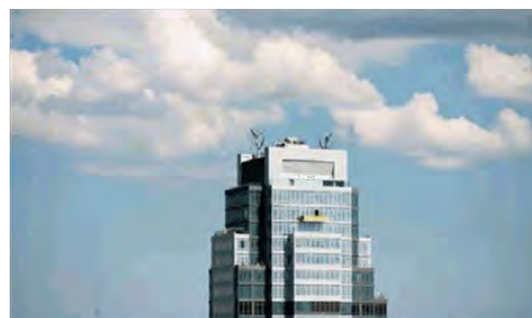


Figure 98: Urban Wind Turbines
Source: www.ugei.com

⁹⁸ Quartz 2016
www.qz.com/763715/wind-trees-mini-turbines-that-can-power-homes

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Case Study: Luminescent bicycle lane

Created by designer Daan Roosegaarde and Heijmans Infrastructure, the Van Gogh-Roosegaarde bicycle path is made of thousands small stones inspired by 'Starry Night'. The path combines innovation with cultural heritage in the town of Nuenen Netherlands, the place where Van Gogh lived in 1883. The stones, called 'luminophores' charge at day-time, and glow at night for eight hours, sustainably lighting the bicycle path.

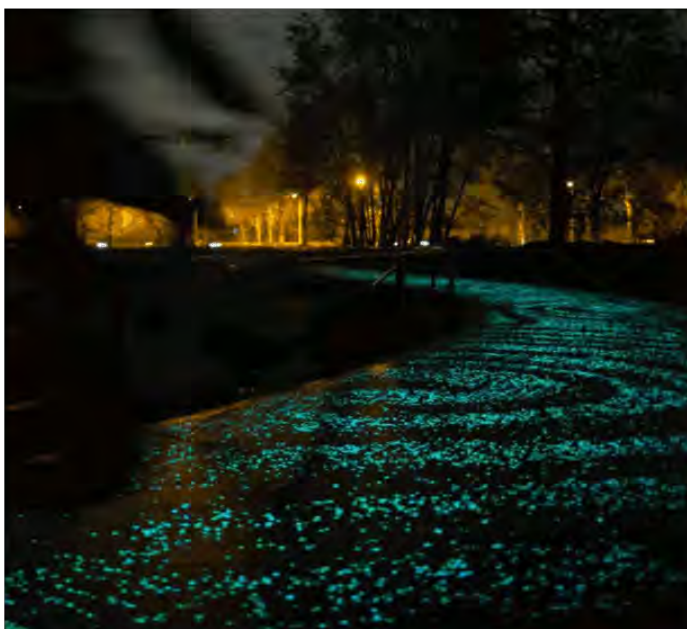


Figure 99: Luminescent bicycle lane
Source: www.studio Roosegaarde.net

Strategies	Actions
1. Integrate more vegetation into the town centres to slow down and filter pollutants from stormwater, improve localised flooding impacts and protect the waterways by implementing water sensitive urban design	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible b) Where possible, in the landscape concept plan, choose low water species for landscaping
2. Reduce mains water demand by recycled or alternative non-potable water generated from local water resources within the public domain of Kensington and Kingsford town centres	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible b) Where possible, in the landscape concept plan, choose low water species for landscaping
3. Incorporate renewable energy and energy-efficient technologies in the public realm to further cultivate the image of the town centres as best practice environmentally sustainable precincts	a) Implement energy-efficient LED lighting on Anzac Parade and throughout the town centres b) Investigate commissioning public art which can also demonstrate environmental sustainability innovation
4. Investigate and if feasible, implement an automated underground waste collection system to reduce the visual clutter caused by garbage bins on streets and reduce litter within the town centres	a) Undertake a concept design and feasibility study for an automated underground waste collection system within the town centres b) Amend the DCP 2013 to require developments within the town centres to be capable of connecting to an automated underground waste collection system c) Allocate funding for the relevant studies and implementation of an automated underground waste collection system

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7.5 Transport

The location, layout and density of development in cities should maximise accessibility and support sustainable transport modes including walking, cycling and access to public transport⁶⁰. There are many opportunities to reduce congestion and carbon emissions in Kensington and Kingsford by promoting active transport.

Reducing private car usage will be an important measure in containing congestion in Kensington and Kingsford as the population grows. Research has indicated that neighbourhoods with higher population densities, good land use mix, high connectivity and good provision of walking and cycling facilities are more likely to encourage walking and cycling for transportation⁶¹.

Residents within Kensington and Kingsford are higher users of public transport and adopt walking and cycling activities⁶². Given the proximity to a range of business, recreation and employment destinations, there are opportunities to leverage the accessibility and limit the undesirable economic, social and environmental costs of motor vehicle use.



Figure 100: Travel trends of Sydney residents and workers
Source: Transport for NSW

Trends in Car Usage

Recent data on travel behaviour indicates that Sydney residents are relying less on private motor vehicles to commute to work than in the past. In 2012/13, over four and a half million Sydney residents each spent an average of 81 minutes travelling every weekday⁶³ (Figure 100). Over the decade to 2012/13, population growth increased by 13% while weekday trips grew by only 7% and weekend trips grew by only 10%, showing total trips grew at a slower rate than population⁶⁴.

Over the same decade to 2012/13, total Vehicle Kilometres Travelled (VKT), which is the total distance travelled by all vehicles, grew by 10.2% while per capita VKT decreased 2.1% in the same period⁶⁵. The reduction in per-capita vehicle kilometres travelled can be linked to the growth in public transport usage, which increased 21% (350,000 trips) in the same time period⁶⁶. Such trends are positive for the long term sustainable growth of Sydney and have implications for transport planning.

⁶⁰Draft NSW Architecture and Urban Design Policy (2016)
⁶¹Healthy Places and Spaces, A National guide to designing places for healthy living (2009)
⁶²Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney
⁶³ibid
⁶⁴ibid
⁶⁵ibid
⁶⁶ibid

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Kensington and Kingsford Car Trends

As shown in Figures 101 and 102, Kensington and Kingsford have lower car ownership levels than both the Randwick LGA area and Greater Sydney. In Kingsford there is on average 0.97 cars per household, with 26% of households having no car in 2011⁶⁷. Kensington has on average 1.04 cars per household and 19% of households have no car⁶⁸. Based on 2011 census data, on average 38% of high density unit dwellers don't own a car in Kingsford, compared to 31% in Kensington and 25.7% overall for the Randwick LGA⁶⁹.

The low levels of car ownership in Kensington and particularly Kingsford, is likely linked to the high proportion of students and young people. Statistics show that in NSW, along with many other cities in Australia and around the world, people in their 20s and early 30s are less likely to have a drivers licence than people in their mid-30s to late-60s⁷⁰. In addition, younger age groups (below 40 years) are increasingly walking and using public transport, while the over 60 age groups are relying more on car use⁷¹.

Both Kensington and Kingsford have a decreasing proportion of residents driving to work, which is particularly noteworthy given the greater Sydney trend of an increasing proportion of people driving to work (Figure 103). The trend in Kensington and Kingsford is accompanied by an increasing percentage of residents using buses, walking or cycling to work which has increased for both these town centres between 2006 and 2011 by 2.9% and 4.8% respectively. This correlates with the low vehicle ownership rates in Kensington and Kingsford.

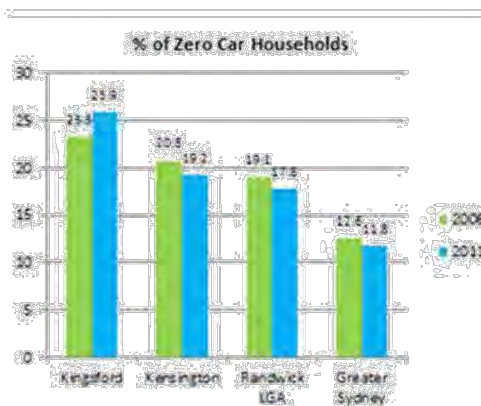


Figure 101: Percentage of households which don't own a car, 2006 and 2011 compared
Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

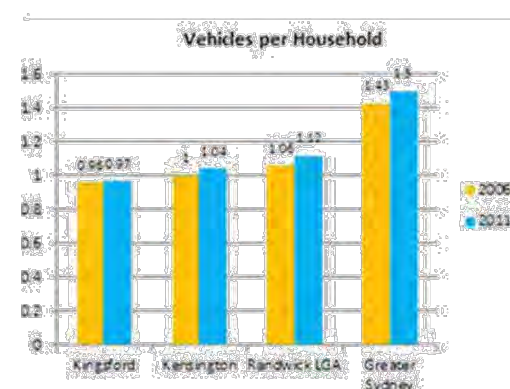


Figure 102: Number of vehicles per household, 2006 and 2011 compared
Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

⁶⁷Australian Bureau of Statistics, 2006 Census and 2011 Census
⁶⁸Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney
⁶⁹ibid

⁷⁰Charting Transport (2015) Trends in driver's license ownership in Australia

⁷¹Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney

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Figure 103: Mode of commute to work, comparison between Kingsford, Kensington, the Randwick LGA and the wider Sydney average
Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

Transport Technologies and Innovations

Electric Vehicles

While currently a small portion of the Australian car sales market, electric vehicles hold significant potential to reduce greenhouse gas emissions. The transport sector accounted for 17% of Australia's emissions in 2013-14, with Passenger and Light Commercial vehicles contributing 62% of the sector's total emissions⁷². When linked to a cleaner supply of electricity, electric vehicles can provide emission reductions and a broader range of economic and air quality benefits⁷³.

Electric vehicle sales in Australia in 2014 totalled 94822 representing less than 0.09% of the Australian market⁷⁴. To identify obstacles to electric vehicle ownership, Randwick, Woollahra and Waverley Councils conducted an online survey of 406 residents and commuters of Sydney's east in early 2016.

As evidenced in Figure 104, this survey revealed that a majority of survey participants would consider buying an electric vehicle.

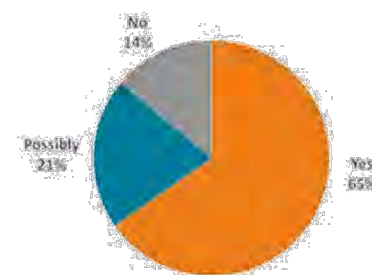


Figure 104: Survey response to Would you consider buying an electric vehicle?
Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

⁷²Climate Works Australia (2016) The Path Forward for Electric Vehicles in Australia

⁷³ibid

⁷⁴ibid

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Electric Vehicle Charging Infrastructure

In response to the survey, the three Councils are now investigating appropriate sites within Council carparks and public spaces to install public charging stations. Given close proximity of the Kensington to Kingsford precinct to the light rail stations, locations within the town centres and on the UNSW campus will be investigated for public charging stations for Electric Vehicles.

In the Council survey, lack of charging station availability was raised as the highest barrier in the survey to electric vehicle uptake as shown in Figures 105 and 106. Electric Vehicle charging infrastructure includes basic electrical provisioning, commuter charging facilities in workplaces, and publicly-accessible charging facilities of varying charging speeds and capacities. Given the relatively higher cost of retrofitting electric vehicle charging infrastructure, it is more economical to incorporate electric vehicle charging through the design and construction stage, and this will be included in the DCP.



Figure 105: Public carpark electric vehicle charging station, Washington
Source: www.greenlight-solar.com



Figure 106: Footpath electric vehicle charging station in Paris
Source: www.france24.com

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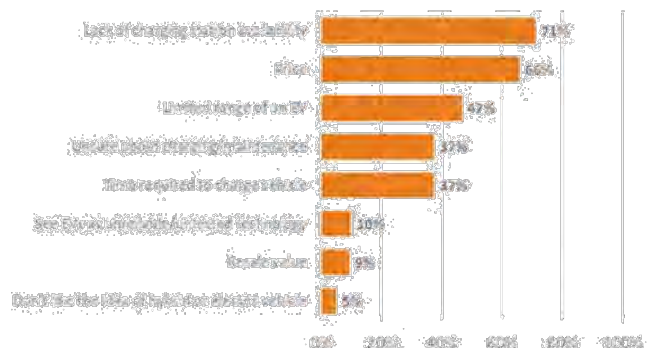


Figure 107: Barriers to EV uptake
Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

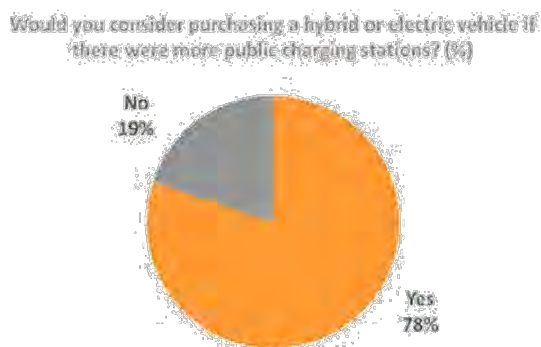


Figure 108: Survey question: Would charging infrastructure make a difference?
Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

Ride sourcing

Ride sourcing, where an app is used to connect a driver with a paying customer, such as Uber, is a rapidly growing service⁷⁵. It has been suggested that these on-demand services will act as a further disincentive to private car ownership for younger generations. Recent market research found that 22% of people who have used Uber in the last six months say Uber's availability meant they delayed their purchase of a new car⁷⁶.

Shared ride sourcing services is an emerging development within the United States, which gives an indication of a future opportunity for Sydney. UberPool and Lyftline have both been running in San Francisco since 2014⁷⁷ where users of each service can indicate they are willing to share their ride. This offers a more economical option which may also reduce greenhouse gas emissions by servicing multiple trips at one time.

While there are unanswered questions regarding the impact of ride-sourcing services on taxi and public transport use, the prevalence of these services is an important tool to limit reliance on private vehicles.

⁷⁵Institute for Sensible Transport (2016) Emerging transport technologies: Assessing the impact and implications for the City of Melbourne

⁷⁶ibid

⁷⁷ibid

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7.6 CBD and South East Light Rail Light Rail Capacity

The CBD and South East Light Rail (CSELR) through the Kensington and Kingsford town centres will provide a reliable and fast public transport infrastructure aimed to change people's travel behaviour. As identified in Figure 109, there will be two stops in each town centre, including a terminus and bus interchange south of the nine ways intersection.

At opening, the Kensington/Kingsford branch will have a capacity of approximately 3,500 passengers per hour in the AM peak, based on a proposed service frequency of every eight minutes, and vehicle capacity of 466 passengers. The CSELR is designed to have a maximum frequency of every 6.5 minutes on the Kensington/Kingsford branch, which provides for a maximum capacity of 4,300 passengers per hour in each direction.

Future Light Rail Capacity

A study by EMM consulting analysed the CSELR system capacity, light rail stop capacity and predicted population growth to identify appropriate levels of future public transport commuter services for the Anzac Parade corridor.

Analysis for the year 2020, which is the proposed first full year of operation of the Light rail system in the corridor, assumes the future Light rail system is operating at its proposed initial frequency for the corridor which is one tram every eight minutes in each direction. This provides an interim peak hour directional capacity for the light rail system of 3,495 passengers per hour based on the stated design capacity of 466 persons per tram.

The longer term analysis for the year 2031, which takes into consideration population in the corridor, assumes the future light rail system is operating at its proposed maximum frequency for the Anzac Parade corridor which is one tram every six and a half minutes in each direction. This provides a future maximum peak hour directional capacity for the light rail system of 4,300 passengers per hour based on the stated design capacity of 466 persons per tram.

The combined future transport capacity for the Anzac parade corridor public transport system linking to the CBD will be the combination of the CSELR capacity and the proportion of the existing bus services (primarily express buses) which are to be retained.



Figure 109: CBD and South East Light Rail route
Source: Transport for NSW

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Current level of Public Transport Service

Currently, in the one hour morning peak period, Anzac Parade between Kensington and Kingsford carries a total of 81 city-bound buses per hour, of which thirty were denoted as X (express) or L (limited stop) services. According to the EMM model calculations, in 2011, which is the latest available data, the corridor bus services had a morning peak hour crowding level of less than 71.4%.

The Randwick LGA has historically had a relatively high proportion of public transport journey to work travel, for an area without direct access to the heavy rail network. The Anzac Parade corridor has as high if not higher public transport proportional usage (between 30% and 40%) than many areas of Sydney which do have direct access to heavy rail services.

Maintaining reasonable levels of public transport crowding at peak is essential to ensure public transport is maintained as an attractive choice of mode for commuters and reducing the traffic congestion impacts of private car ownership. It is recommended that the average one hour morning peak passenger crowding level should be maintained at an upper limit of 80%, to ensure existing levels of passenger comfort are maintained.

Future Public Transport Corridor Capacity Requirements

The table below outlines the future morning peak hour travel demand to the Sydney CBD.

In 2020, with the future Randwick LGA dwelling growth expectation over the four year period from 2016 to 2020, approximately 26 of the existing 80 morning peak hour peak direction bus services will need to be maintained to provide an acceptable level of service.

Table 11: Future bus system capacity requirements

Year of future system operations analysis	Future one hour peak average crowding level	424,658m ² 374,723m ²	Required corridor hourly capacity	Light Rail system capacity	Residual bus system capacity Number of buses per hour
2020	80%	5,056	3,495	1,561	26
2031	80%	6,426	4,300	2,126	35

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In 2031, with the future Randwick LGA dwelling growth expectation of 15,150 dwellings to be accommodated over a fifteen year period to 2031, just under half of the existing morning peak hour peak direction bus services (35 hourly bus services compared to 81 currently) will need to be maintained.

If adequate bus services are not provided with the future light rail services, the future peak hour passenger crowding levels on the public transport system will significantly worsen in comparison to the current levels. This will potentially cause a decline in the future use of public transport by new residents moving to the area, which would be contrary to the objectives of the Improved public transport system and the objectives of this Strategy. Inadequate provision of public transport will also limit the capacity of the area to accommodate population and employment growth.

The analysis concluded the currently proposed dwelling targets for the LGA and the Kensington to Kingsford corridor are achievable subject to the provision that significant proportions of the existing corridor bus based public transport system are retained for the existing corridor average morning peak hour passenger crowding levels to be generally maintained.

Light Rail Stop Access and Crowding

For the Kingsford Terminus, Todman Avenue and Carlton Street, the predicted passenger crowding levels for the proposed platform areas at the two stations and the signalised pedestrian crossing areas are assessed. The assessment was done according to the level of service capacity standards for 'movement' and 'waiting' areas.

For the Randwick Anzac Parade corridor light rail system, the maximum recommended level of crowding for the design of the station platforms and pedestrian crossing areas is Level of Service C. The analysis in the EMM report concluded the future proposed light rail station design and passenger capacity for pedestrian crossings at stations will be adequate to meet the proposed demand.

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7.7 Future Mass Transit

The intention of the CSELR was to reduce the number of buses entering the Sydney CBD and thus congestion during peak hour. As detailed above, by 2031, up to 40 buses travelling northbound during the morning peak hour will be required to supplement the CSELR capacity. That is almost half the existing 80 buses currently travelling along the Anzac Parade corridor during the morning peak hour.

Analysis by EMM states predicted increased bus congestion on Elizabeth Street in the City will make it desirable to limit the future number of peak hour bus services from Randwick LGA. Ultimately, mass transit is recommended to increase the public transport access capacity for the Randwick LGA.

The Draft Central District Plan 2016 included an action to investigate into a mass transit corridor between the Sydney CMD and Randwick LGA. Mass transit, such as a metro line, could stop at Kingsford, and then continue further south towards Maroubra, Little Bay, and all the way to La Perouse. This would alleviate localised congestion and congestion in the CBD arising from a significant number of buses operating in conjunction with the CSELR.

There is potential for access to a mass transit stop at the proposed Town Square plaza in Kingsford, which would further activate the Kingsford Junction Precinct and provide convenient interchange between the metro line, the light rail, and local buses.

7.8 Congestion and Parking Impacts

A high-level parking and traffic assessment was conducted for Council by ARUP to analyse the impact of the proposed changes to planning controls, road closures and footpath widenings within the Kensington and Kingsford town centres on traffic movements and capacity. The assessment was based on the projected quantity of residents and employees, including their predicted distribution across the town centres.

The traffic assessment determined the anticipated level of traffic should be able to be accommodated both from traffic capacity and environmental capacity viewpoints⁷⁶. This analysis is based on the modest increase in dwelling capacity and predicted increase in employment within the Kensington and Kingsford town centres and the typical traffic generation rates outlined by the RMS Guide to Traffic Generating Development. The existing mode of travel was adjusted for development in the Kensington and

Kingsford corridor, recognising the transit oriented development with transfer of mode from both car and bus expected to light rail. The expectation is that residents moving into this highly accessible corridor and employees working in the mixed use developments will reduce their car mode to around 35%. This rate is consistent with RMS traffic generation rates.

Additional transport modelling will be undertaken as a stage 2 to assess the impacts of all proposed public domain upgrades, including footpath extensions and plazas. The traffic modelling and on-street parking impacts will be taken into consideration in assessing whether all proposed public domain improvements are to proceed.

⁷⁶ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment

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7.9 Encouraging Active Transport

The design of a place can influence a person's motivation and opportunity to use active transport such as walking or cycling. Places designed around private car use can limit a person's opportunities and desire to be physically active⁷⁹. Our sedentary, car-dependent lifestyles are significant contributing factors to the prevalence of preventable health issues and Building habitual active transport into daily routines has been identified as a means to increase physical activity⁸⁰.

Improved Walking Connectivity

Improved walking connectivity and people-friendly spaces, which improve access to public transport and provide increased walking and cycling opportunities can help to promote health. Section 8 – Public Realm and Landscape has outlined proposed improvements to pedestrian connectivity and the public domain which will make Kensington and Kingsford safer and easier places to walk to and around.

7.10 Bicycle Infrastructure

Cycle Way Works

As determined by Randwick City Council's Works Committee in February 2015, the priority bicycle infrastructure for the LGA are cycle paths connecting to the light rail stops.

As shown in Figure 110, the following cycleway works are proposed for the Kensington and Kingsford areas over the next twelve months:

- Todman Ave and Lenthall Street
- Doncaster Ave, Day Ave and Houston Road
- Sturt Street.

Bicycle Storage Facility

As part of the construction of the light rail, there will be a bicycle storage rack at each light rail stop. At the Kingsford Terminus, there will be approximately secure storage cages with capacity for approximately 30 bicycles.

Investigation will be undertaken to assess demand for bicycle storage, to determine whether additional bicycle storage is required. If additional bicycle storage is required at the Kingsford terminus, an underground bicycle storage system, such as the one pictured at Figure 111, will be investigated. An underground bicycle storage system is advantageous due to its capacity for a large number of bicycles, while having a small above-ground footprint for the bicycle access booth. Funding will be allocated for investigations and construction of an additional bicycle storage facility, if required.

⁷⁹Healthy Places and Spaces, A National guide to designing places for healthy living 2009

⁸⁰Giles-Corti, B et. al. 2012 Increasing density in Australia: maximising the health benefits and minimising harm

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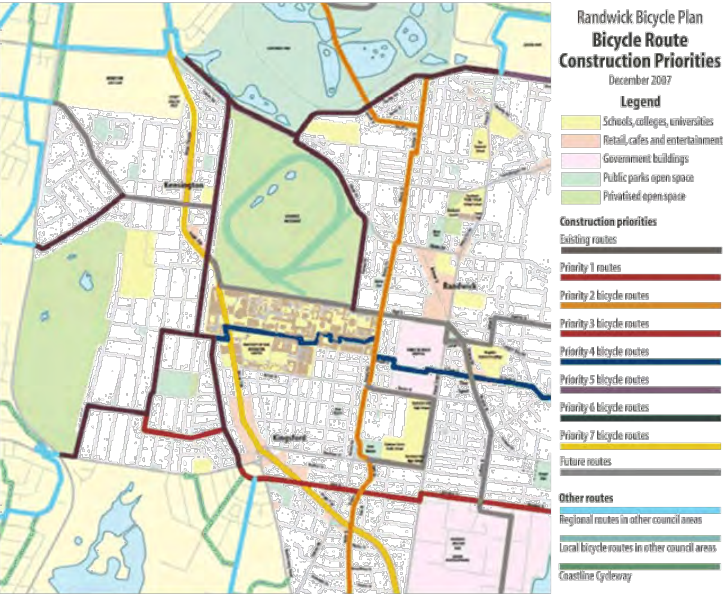


Figure 110: Proposed cycle way network
Source: Randwick City Council 2007



Figure 111: Underground bicycle storage system
Source: www.giken.com

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Bike Share Scheme

City of Sydney, Inner West Council and Randwick City Council are currently working on a feasibility study for a bike share scheme in Sydney. This feasibility study is to consider and make recommendations on a range of operational issues. With the assumption that these recommendations will be largely fulfilled, the study will estimate potential usage for the system.

The study area includes City of Sydney, Leichhardt, Marrickville, Waverley and Randwick LGAs, including land not controlled by the councils such as University of NSW, University of Sydney, University of Technology Sydney, Royal Prince Alfred Hospital, and the Bays Precinct. This feasibility study is expected to be completed by the end of 2016.

Funding will be allocated for bike share hubs within the Kensington and Kingsford town centres, to provide for the potential bike share scheme.



Figure 112: Bike share scheme in Melbourne
Source: www.melbournebikeshare.com.au



Figure 113: Bike share users in Philadelphia, USA
Source: www.betterbikeshare.org

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7.11 Encouraging Reduced Private Car Ownership

The transport sector is one of the fastest growing sources of emissions within Australia, increasing by 47.5% since 1990, and it also represents an emission reduction opportunity across the Australian economy. The transport sector accounts for 17% or 92 MtCO₂e of Australia's emissions in 2013-14, with Passenger and Light Commercial vehicles contributing 62% of the sector's total emissions⁶¹.

Car Share

Many cities have recognised the opportunity to integrate car sharing with public transport, public bicycle schemes, walkable neighbourhoods and other transport sustainability programs. As stated in the NSW Apartment Design Guide, car sharing is a key element which complements sustainable travel modes, and allows residents to reduce their reliance on private vehicles. There are several car share companies operating in Sydney, including GoGet which operates within the Randwick LGA, as outlined in the case study on page 107.

In order to support reduced private car ownership, car share will be supported within the town centres by the provision of on-street parking spaces and by requiring new developments to provide parking for car share. The DCP will be amended so all developments with 60 or more units will be required to provide a car space for every 60 units, and enter into an agreement with a car share company. Council will investigate the provision of additional on-street car share parking spaces within and adjoining the town centres.

Parking Requirements

Parking requirements should be determined in relation to the availability, frequency and convenience of public transport or proximity to a centre in regional areas⁶². The NSW Apartment Design Guide outlines that reduced parking requirements promote a reduction in car dependency and encourage walking, cycling and use of public transport. The requirement to provide an appropriate number of parking spaces to accommodate users (and ensure there are no adverse on-street parking impacts) must be considered in the context of reducing traffic generation resulting from a higher quantum of on-site car parking⁶³.

Provision of parking for alternative forms of transport such as car share vehicles, motorcycles and bicycles should also be provided for, as part of a strategy to reduce reliance of private car ownership⁶⁴.

⁶¹Australia Climate Works (2016) The Path Forward for Electric Vehicles in Australia

⁶²NSW Planning and Environment (2015) Apartment Design Guide

⁶³ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment

⁶⁴NSW Planning and Environment (2015) Apartment Design Guide

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Case Study: GoGet Car Share in Randwick LGA

The GoGet car share scheme has been operating in the Randwick LGA since 2007 and now has 3920 members (as of March 2016). Within the Randwick LGA there are 80 pods, of which three are located off-street and 82 vehicles. Figure 4 identifies the existing GoGet pod locations within the Kensington and Kingsford area. With increased population levels within the town centres, there will be opportunity for additional car share parking spaces in the area.

Based on current membership levels, there are 1,641 fewer vehicles owned by Randwick residents and 787 fewer vehicles parked on Randwick streets. A member survey in August 2014 showed 68% of member Randwick LGA residents did not own a vehicle and 52% would purchase a vehicle if they could not use GoGet.

Drivers using GoGet car share or hybrid vehicles can also access specially designated parking bays at five locations across the City. Painted green, the parking spots are clearly visible at Council managed parking facilities at Coogee, Clovelly and Maroubra beaches, Maroubra Junction and Belmore Road, Randwick.

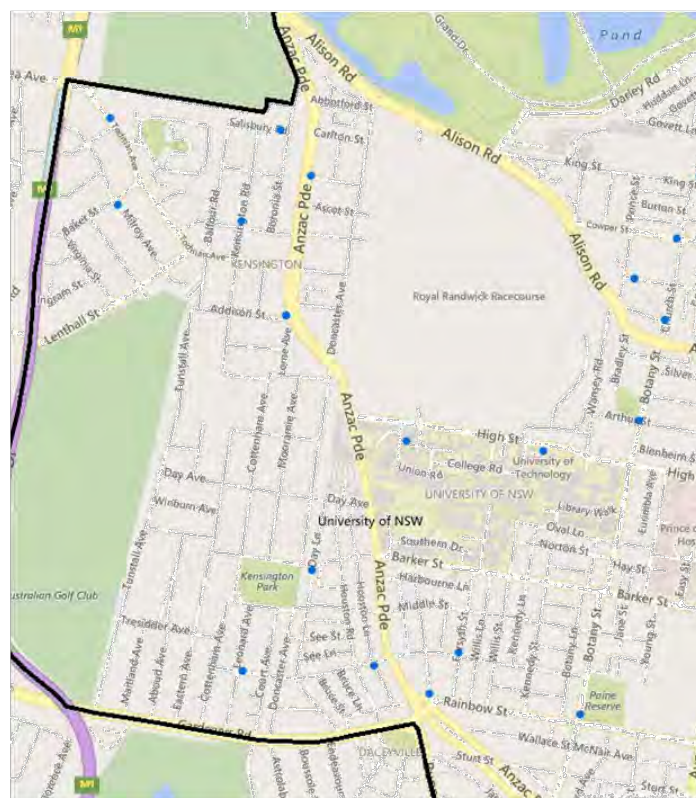


Figure 114: GoGet car locations around Kensington and Kingsford
Source: Randwick City Council 2016

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Existing Controls

Currently, for developments within the Kensington and Kingsford town centres, the DCP 2013 has a parking rate for the required number of parking, bicycle and motorcycle spaces to be provided for both residential and commercial development. For the residential component of developments, as per the NSW Apartment Design Guide, the car parking rates of the RMS Guide to Traffic Generating Development apply, overriding Council's car parking rate.

Proposed Controls

As detailed above, ARUP has conducted a traffic and transport analysis of Kensington and Kingsford town centres, and prepared recommendations for the provision of car, bicycle and motorcycle parking rates. ARUP's analysis considered public transport provision, availability and cost of parking nearby parking, mixed use and complementary nature of various land use components and peak traffic generation hours⁸⁵.

A minimum and maximum rate applying to the Kensington and Kingsford town centres was deemed appropriate, where each development can respond with appropriate rates for its location, its size and its context with surrounding development⁸⁶. Increased bicycle and motorcycle or scooter parking rates were also recommended, to encourage their use and recognise their utility as a viable, energy efficient transport option.

The bicycle and motorcycle/scooter rates are outlined in Tables 12 and 13.

The reduced car parking requirements, increased parking for bicycles and motorcycles, combined with increased car share vehicles, improved connectivity and improved public transport will reduce reliance on private car ownership and help to mitigate congestion within the Kensington and Kingsford town centres.

Table 12: Parking Requirements – Vehicles

Kensington and Kingsford Town Centres – Car Parking Requirements		
Shop-top housing/residential flat buildings		
	Minimum	Maximum
Studio	0.0 max	0 min
1-bed	0.4 max	0.6 min
2-bed	0.8 max	0.9 min
3-bed+	1.1 max	1.4 min
Visitor	0 min	0.2
Car Share	0 < 60 units 1 per 60 units thereafter	0 min
Service and Delivery	0 < 50 units 1 > 50 units	1 is recommended
Commercial		
Required rate		
Business Premises	1 per 125m ²	
Restaurants and Cafes	1 per 100m ²	
Take Away Food and Drink	1 per 100m ²	
Medical Centre	1 per 25m ²	
Car Share	Encouraged, but none required	
Service and Delivery	1 per 4,000m ² (commercial) 1 per 400m ² (retail)	

⁸⁵ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment
⁸⁶ibid

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Table 13: Parking Requirements – Bicycle and Motorcycles

Kensington and Kingsford Town Centres – Car Parking Requirements		
Rates required	Bicycle	Motorcycle
Shop top housing/residential flat buildings		
Residents	1 per unit	1 per 12 car parking spaces
Visitor	0.1 per unit	1 per 12 car parking spaces
Commercial		
Business Premises	1 per 100m ²	1 per 12 car parking spaces
Restaurants and Cafes	1 per 100m ²	1 per 12 car parking spaces
Take Away Food and Drink	1 per 100m ²	1 per 12 car parking spaces
Medical Centre	1 per 100m ²	1 per 12 car parking spaces

Strategies	Actions
1. Advocate for mass transit to increase the public transport corridor capacity and provide for population growth	a) Advocate to the State Government for additional mass transit to Kingsford town centre and the more southern parts of the LGA b) In the absence of additional mass transit, advocate the State Government for adequate bus services to maintain a maximum morning peak hour level of crowding of 80%
2. Encourage bicycle usage by planning for and delivering an improved cycle network and additional bicycle infrastructure	a) Continue to progress Council's cycle ways plan b) Investigate a new off-road cycleway through the Randwick Racecourse (as per competition winner) c) Allocate funding to provide for bicycle share hubs within the town centres d) Allocate funding to construct an underground bicycle parking station at Kingsford Junction
3. Reduce barriers to electronic vehicle ownership	a) Investigate opportunities for electric vehicle charging spaces within public car parks b) Amend the DCP 2013 to encourage the installation of appropriate power supplies and electric vehicle charging points within new residential and commercial developments
4. Encourage use of car share by residents in an around the town centre	a) Investigate opportunities for additional on-street car share parking spaces b) Amend the DCP 2013 to require the provision of a car share parking spaces for developments with more than 60 dwellings
5. Reduce the car parking requirements and encourage alternative forms of transport to reduce local traffic congestion	a) Amend the DCP 2013 to reduce the car parking requirements to reflect the area's close proximity to the light rail which provides fast and reliable public transport b) Allow a minimum and maximum car parking requirement to allow developments to respond to market demand and proximity to the light rail c) Increase requirements for bicycle and motorcycle parking to provide for alternatives to private car ownership

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8.0 Public Realm and Landscape

This section focuses on the public spaces, urban elements, and landscape qualities that define the public realm of the Kensington and Kingsford town centres. Strategies and actions are centred on physical interventions to improve the visual amenity, safety and comfort of the urban environment.

A high quality and attractive public realm is an integral component of an economically prosperous and socially vibrant town centre. The 'public realm' includes streets and laneways, footpaths, street verges, car parks and other urban spaces. It also includes urban elements such as street trees and landscaping, paving, lighting, street furniture and public art.

Council is committed to improving the public realm of the Kensington and Kingsford town centres to address existing deficiencies and to meet the needs of a changing environment and the growing population.

A high quality public realm will contribute to the economic value of the town centres by drawing in customers to local businesses and making them more attractive to visit. Well-designed streets and public spaces will also enhance the liveability of the town centres by humanising the urban environment and promoting life outside buildings, fostering social interaction and a sense of place.

The quality of the public realm will become even more paramount as the town centres evolve towards more urbanised living. Safe, green and pedestrian-friendly streets and lanes and an integrated network of public spaces will contribute to a high level of amenity and quality of life for residents, workers and visitors.

Objectives

- To stimulate the economic and social vibrancy of the town centres through a high quality public realm
- To create attractive and welcoming streets and public spaces
- To facilitate the 'greening' of the town centres to improve visual and environmental amenity
- To improve pedestrian connectivity and safety within the public realm; and
- To support greater social use of public spaces and street life through high quality urban elements, public art and cultural activities.

CBD to South East Light Rail

A high quality public realm is of particular importance to the Kensington and Kingsford town centres with the roll out of the CBD to South East Light Rail network along Anzac Parade. The light rail infrastructure will be a catalyst for increased pedestrian movements within the town centres, focusing activity around the light rail stops and the new terminus at Kingsford town centre.

Key light rail infrastructure elements and changes to be introduced in the town centres include:

- Light rail stops on Anzac Parade, adjacent to Carlton Street and Todman Avenue in Kensington town centre, and Strachan Street in Kingsford town centre
- A major light rail/bus terminus south of the nine-ways intersection in Kingsford town centre, which includes an above ground substation and bicycle parking to the south
- New poles and wires along Anzac Parade
- Kerb realignments along Anzac Parade
- Removal of a number street trees*
- Replacement of the nine ways intersection by a signalised intersection with a design to create new urban spaces and movement patterns; and

*to be offset with additional planting identified in the Transport for NSW Vegetation Offset Guide

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- Removal of most of the on-street parking on Anzac Parade, offset by parking reconfiguration in surrounding streets.

The new light rail infrastructure will have a major physical and visual impact on the existing urban fabric of the town centres, including the streets, public spaces, landscape and commercial areas. It also provides a unique opportunity to rethink the public environment of both town centres, to improve its attractiveness and functionality and to ensure a seamless integration with the new infrastructure.

The Randwick Light Rail Urban Design Guidelines (Randwick City Council 2014) and the Urban Design and Landscape Plan Kingsford (Transport NSW 2016) provide a number of principles, strategies and design concepts to integrate light rail infrastructure with the surrounding public domain, while providing for improved amenity and safety of pedestrians and transport users.

This draft Strategy builds upon the design approaches outlined in these documents, addressing the challenges and issues identified in the draft Issues Paper and identifying additional locations within both town centres that would benefit from public realm improvements.

Community Feedback

Community feedback shows that people value a well-designed public realm with inviting public spaces, trees and landscape treatments considered a high priority. Specifically the community told us:

- Provide more street trees along Anzac Parade to create a boulevard identity
- Provide more landscaping and greenery throughout the public domain
- Create more public/civic spaces for people to gather, meet and interact
- Have more outdoor public seating, lighting and public art
- Rejuvenate side streets with greenery and activities
- Create safe places for children and young people to play and interact
- Improve access to public places for people with disabilities
- Have outdoor spaces available for festivals and markets
- Consider drawcard events focusing on art, music and other creative activities to foster vibrancy
- Unify street-level design; have awning levels and colours that complement each other and reduce visual clutter from business signage; and
- Modernise the appearance of shopfronts.

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Existing Challenges

The draft Issues Paper provides a comprehensive analysis of the issues and challenges affecting the streetscape and public spaces within the Kensington and Kingsford town centres.

Key issues include:

- Need for meaningful gathering spaces to facilitate social interaction
- Limited street tree canopy and landscape treatments in public spaces
- Narrow, congested footpaths, particularly in Kingsford town centre which inconsistent paving materials and differences in cross fall levels
- High levels of visual clutter from excessive number of poles and a proliferation of signage (e.g. towards the southern end of Kingsford Town Centre along Anzac Parade)
- Limited pedestrian connectivity and permeability
- Rundown shopfronts with poor active street frontages (e.g. Gardeners Road in Kingsford town centre and along Anzac Parade in Kensington)
- Lack of continuous awnings
- Limited outdoor dining opportunities on Anzac Parade (largely due to narrow footpaths in Kingsford town centre which makes meeting the 2.5m RMS clearance limit difficult to achieve); and
- Excessive signage in a number of locations.



Figure 115: Urban Design and Public Domain Issues Affecting the Town Centres
Source: Conybeare Morrison 2016

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8.1 Open Space Network

Open space provision is integral to the liveability of town centres, to support increased physical activity, facilitate social interaction and provide a sense of place in an urbanised environment.

Access to open space will be in greater demand as the population grows and urban living intensifies. The challenge is to ensure maximum benefits are derived from existing open space assets and to identify new public open space opportunities to compensate for reduced private open space and to support more intensive use resulting from densification.

A public open space audit undertaken as part of the district planning process⁸⁷, identifies that Randwick City has a high proportion of regional open space such as Centennial Parklands, beaches and foreshore areas, which cater for a wider population catchment beyond the LGA's boundaries.

Conversely, there is a deficiency in smaller open spaces, such as local parks, particularly in the northern suburbs such as Kensington (based on a 400m walking catchment). The intensity of use of regional open space assets means that incidental open spaces catering to a smaller local catchment becomes more important.

⁸⁷Central District Audit (2016) NSW Government Architects Office



Figure 116. Existing open space provision near Kensington and Kingsford town centres
Source: Conybeare Morrison 2016

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In the context of built up and urbanised inner city locations such as Kensington and Kingsford town centres, opportunities to increase the quantum of public open space is constrained by existing private ownership patterns, and the high costs and lengthy timeframes associated with land acquisition.

Notwithstanding these challenges, the open space needs of the community can be addressed by increasing the diversity, quality and accessibility of what already exists.

For instance, there are opportunities to incrementally increase the amount of open space within the town centre boundaries by converting existing redundant road reserves into informal open spaces, and by creating plazas with landscaping and feature trees in strategic locations.

There is also opportunity to improve the quality, capacity and usability of existing open space assets which will support increased and diversified use by a broader demography. To this end, a number of upgrade/embellishment works have been identified in the Plan of Management for Kensington Park (2016) which will support increased intensity of use by town centre residents/workers in the future.

There is also scope to look beyond the town centres and improve access to existing local parks via the establishment of high quality green linear links along connector streets. Open space assets to where green connections could be established to include Kokoda and Kensington Parks.

A potential open space asset that is presently underutilised is a portion of land on the south-western corner of Royal Randwick Racecourse which features a grassed area and large established canopy trees (of which a number are listed on Council's Significant Tree Register). The site is classified as crown land and zoned RE1 Public Recreation under the RLEP 2012, however is presently fenced off and inaccessible to the public.

Given its strategic location between the two town centres, adjacent to the University of NSW and in proximity to the light rail, the site has the potential to provide a significant open space resource to the community through improved access and innovative landscape design. It is worth noting that this portion of land has been identified as a potential 'urban forest' in the K2K Urban Design Competition winning entry. Any such investigations may consider the provision of additional built form on the corner of High Street and Anzac Parade.

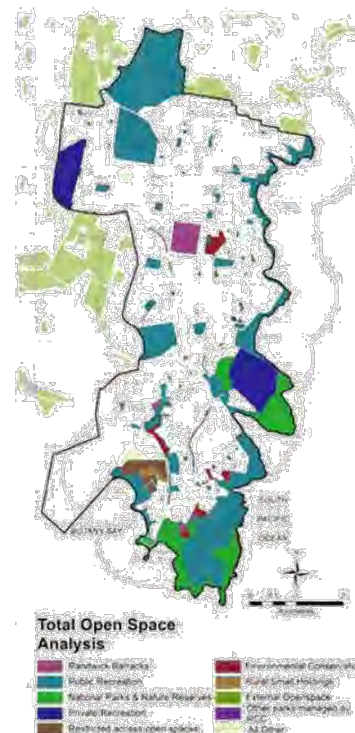


Figure 117: Existing open space provision across Randwick City
Source: Randwick City Council 2016

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Future Investigations could also consider the potential to expand Kokoda Memorial Park in Kensington to increase its footprint and capacity. Similarly to the Royal Randwick Racecourse site, this would significantly add to the amount of public open space in the vicinity of the town centre.

The investigation of public open space opportunities at the Royal Randwick Racecourse and Kokoda Park have been incorporated into the K2K Structure Plan which identifies future opportunities outside the town centre boundaries to achieve the economic, social and environmental objectives for the study area (see Part D – Structure Plan for the Town Centres).

The following strategies aim to increase the quantity of open space within and around the town centres, and establish a green open space network by linking the town centres to public open space assets in surrounding residential areas. Strategies addressing the provision of urban spaces and plazas are addressed subsequently in this section.

Strategies	Actions
1. Increase the amount of open space within and around the town centres	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible b) Where possible, in the landscape concept plan, choose low water species for landscaping c) Identify opportunities to convert redundant road space and other underutilised spaces to informal open space (e.g. large road reserve near the corner of Rainbow Street and Anzac Parade near the nine ways Intersection, Kingsford town centre)
2) Establish an integrated open space network connecting the town centres with local parks and open spaces	a) Establish a green grid through avenue tree planting and landscaping to create connections to the following existing public open spaces: • Barker Street and Strachan Street to Kensington Park • Barker Street and High Street to University of NSW and Randwick Racecourse • Goodwood Street and Ascot Street to Kokoda Park

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Figure 118: Greening connector Streets.
Source: K2K Competition Entry – Aspect 2016



Figure 119: Proposed urban forest, Royal Randwick Racecourse
Source: Randwick City Council 2016



Figure 120: Avenue planting, Baptist Street Redfern
Source: City of Sydney Urban Forest Strategy 2013

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8.2 Landscape Character

Kensington and Kingsford town centres will greatly benefit from a cohesive street tree and landscape network to help create a visually appealing public domain and foster a sense of place and identity.

The greening of the town centres through additional trees and landscaping will contribute to the urban canopy, making the streets more pleasant for pedestrians. It will also enhance environmental performance in terms of thermal comfort, microclimate and storm water infiltration.

The light rail will result in additional street trees being planted along Anzac Parade as identified in the Light Rail Vegetation Offset Guide. Furthermore, the Urban Design Landscape Plan Kingsford identifies a number of locations across both town centres for new infill trees and planting. Key locations for new planting include along both sides of Anzac Parade, on road verges and medians, as well as islands adjacent to light rail stops and the light rail terminus in Kingsford town centre.

Building up on these initiatives, this Strategy identifies additional opportunities for new infill street trees and landscaping to further enhance the town centres' environmental quality. Strategies focus on transforming Anzac Parade into a grand green boulevard and softening the 'hard edge' of the town centres to provide for a pleasant pedestrian experience.

Tree selection and species will reinforce the proposed street hierarchy and desired street character of the town centres. The Randwick Urban Design Guidelines 2014 outlines recommended species for the light rail corridor and should be read in conjunction with this document.

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Strategies	Actions
1. Establish a strong green 'boulevard' landscape character along Anzac Parade	a) Undertake a street tree planting program in accordance with the Light Rail Vegetation Offset Guide and Urban Design and Landscape Plan Kingsford, focusing on a hierarchy of scale along Anzac Parade. Tree selection will establish Anzac Parade as a grand, green boulevard linking the Kensington and Kingsford town centres and creating a sense of place and identity b) Review the Randwick Street Tree Masterplan to ensure suitable species to cater for light rail infrastructure
2. Maximise the 'greening' of the public domain by applying a coordinated street tree and landscaping treatment	a) Apply the recommended suite of landscape treatments in accordance with the Light Rail and Urban Design Plan b) Provide supplementary infill trees and landscaping throughout each town centre incorporating species that are appropriate to the site and location: ▪ Introduce canopy trees and/or landscaping on redundant road spaces, including large road reserve located at the corner of Rainbow Street and Anzac Parade near the nine ways intersection, Kingsford town centre. ▪ Undertake infill street tree planting on east west connector streets to establish green corridors to surrounding residential areas. ▪ Provide landscaping on available verges and proposed footpath blisters/ footpath widening locations to define smaller localised spaces wherever possible. ▪ Introduce feature trees and landscaping to provide seasonal colour and variation in identified plazas, micro plazas and 'pause spots' including: – Meeks Street Plaza – Duke Street Plaza (new proposed) – Bowral Street Plaza (new proposed) – Addison Street triangle Plaza (new proposed) – Todman Avenue Plaza (new proposed) ▪ Establish a 'planting edge' (e.g. low hedge) in high movement zones to create a buffer between pedestrians and traffic. Key locations include: – Anzac Parade (both town centres) – Gardeners Road, Kingsford town centre ▪ Planting and landscape schemes are to be based on the indicative planting palette for the town centres (see Appendix) c) Retain large canopy trees throughout the town centres including large canopy tree located on the corner of Southern Cross Close and Houston Road, Kingsford

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Figure 121: Green boulevard – Las Ramblas, Barcelona, Spain
Source: www.expedia.com



Figure 122: Boulevard Malesherbes, Paris, France
Source: www.mlongworth.com

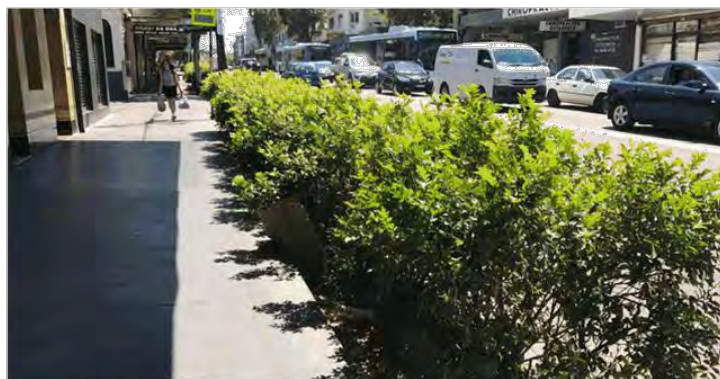


Figure 123: Plant hedging creates separation between public domain and traffic, Cleveland Street, Surry Hills
Source: Randwick City Council 2016

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Figure 124: Proposed open space linkages and landscape plan – Kensington town centre
Source: Conybeare Morrison 2016



Figure 125: Proposed open space linkages and landscape plan – Kingsford town centre
Source: Conybeare Morrison 2016

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8.3 Public Realm

To enhance and create a sense of place, the Kensington and Kingsford town centres must have a well-designed public realm that is attractive, free from clutter and welcoming.

A revitalised public realm will encourage people into the streets to interact and relax, contributing to the vitality of the town centres and enhancing urban living. It will also boost economic performance by attracting businesses and investment in the Kensington and Kingsford town centres.

There are a number of opportunities to improve the public realm within Kensington and Kingsford town centres such as creating new plazas and public areas through road closures and footpath widening.

Supporting the provision of outdoor dining in areas of high amenity such as the side streets away from traffic intensity will contribute to vibrancy and safety within the public domain. Active, people orientated street frontages can be achieved by encouraging businesses and retail to open directly to the footpath and other public areas. The provision of continuous awnings would further enhance the pedestrian experience.

The Urban Design and Landscape Plan Kingsford identifies a number of design approaches to improve the amenity and safety of the public realm including footpath widening, new urban furniture, and kerb readjustments to accommodate light rail movement and infrastructure elements.

These approaches are supplemented by the following strategies which identify additional opportunities to revitalise the public realm and create a high quality pedestrian experience for all users.

The Urban Elements Design Manual provides the technical guidelines for paving and urban furniture, and should be read in conjunction with this section.



Figure 126: Proposed Meeks Street Plaza Concept Image
Source: Spackman Mossop Michaels 2016



Figure 127: Proposed 'smart poles' along Anzac Parade
Source: Spackman Mossop Michaels 2016

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Strategies	Strategies
1. Minimise visual clutter and create legible coherent streetscapes. Actions a) Maximise the co-location of signage, lighting, banners and power poles onto multifunctional smart poles along Anzac Parade. b) Collaborate with the business chambers to develop a signage strategy that reflects the unique character of the town centres. This may include an Asian themed signage strategy for Kingsford town centre. c) Strengthen DCP 2013 controls relating to signage within the town centres by requiring that: – New works involve the removal of unsympathetic signage where possible. – All new signage be set below the street awning or awning fascia – a signage plan is submitted as part of the redevelopment of key sites. 2. Provide for the undergrounding of overhead powerlines along Anzac Parade. a) Continue to advocate Transport NSW to underground overhead powerlines along both sides of Anzac Parade in addition to the cross lines. b) Coordinate the undergrounding of powerlines in Kingsford town centre in line with the light rail roll out as provided for in the Randwick s94A Plan. c) Extend the undergrounding program to Kensington town centre by ensuring adequate allocation in the Kensington and Kingsford s94A development contributions plan	3. Create a network of safe, attractive and vibrant urban public spaces Actions a) Achieve wider footpaths through the application of increased setbacks in key locations in accordance with the Public Realm Map (Figures 132 and 133) <i>This would be in conjunction with new built form controls (see Part C Section 5.5 – Setbacks for further detail)</i> b) Develop Meeks Street Plaza as a key community focal point through specific design treatments, urban furniture, landscaping, decorative lighting and public art c) Provide opportunities for new micro plazas/ pause spots and improved amenity in the following locations: Kensington Town Centre: – Southern side of Carlton, Goodwood, and Ascot Streets: Potential for footpath widening – Corner of Duke Street and Anzac Parade: Potential for new plaza with seating and landscaping – Corner of Bowral Street and Anzac Parade: Potential for new plaza with seating, landscaping and public art Todman Square Precinct – Corner of Todman Avenue and Anzac Parade: Potential for new plaza and widened footpaths, upgrade paving and seating on southern corners of the intersection. This would improve the carrying capacity of the public domain in an area of high pedestrian activity in proximity to the Todman Avenue Light Rail Stop. However any improvements to this intersection would need to be considered in the context of larger setbacks and increased heights to adjoining sites (see Part C Section 5.5 – Setbacks) – North western corner of Addison Street and Anzac Parade (existing carpark): Potential to create small public plaza with footpath widening, paving upgrades, landscaping, seating and public art – South western corner of Addison Street and Anzac Parade: Potential to create small public plaza by retaining existing road closure and providing new seating, landscaping and public art Kingsford Town Centre – Southern side of Barker: potential for footpath widening Kingsford Mid-Town Precinct – Southern side of Middle, and Strachan Streets: potential for footpath widening – Southern side of Borrodale Road between Anzac Parade and Houston Lane: Potential for footpath extensions, kerb buildouts/blisters, landscaping, lighting, bike racks and seating – Corner of Harbourne Road and Rainbow Street: Potential to complete existing road closure

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Kingsford Junction Precinct

- Kingsford Triangle Site: North-eastern corner and eastern street edge. Potential for footpath extensions/kerb buildouts, and plaza with seating and public art. However this is contingent on increased setbacks for the site (see Built Form section – setbacks)
- North eastern corner of the Rainbow Street site: Potential for footpath extensions and kerb buildouts with public art
- Mid-block: Potential for new town square with seating, landscaping and public art. This is contingent on increased setbacks and public dedication of mid-block link (see Part C Section 5.7 – Setbacks and Section 5.7 – Mid-Block Links)

- d) Amend the RLEP 2012 to rezone the following plazas/micro plazas from B2 Local Centre to public open space:

Kensington town centre

- Duke Street plaza (proposed) (corner of Duke Street and Anzac Parade)
- Bowral Street plaza (proposed) (corner of Duke Street and Anzac Parade)
- Addison Street Triangle Plaza (proposed) (corner of Addison Street and Anzac Parade)
- Uni Lodge Plaza (existing) (corner of Addison Road and Anzac Parade)

Kingsford town centre

- Meeks Street Plaza

- e) Include DCP 2013 controls to encourage overlooking/ passive surveillance (e.g. balconies and habitable space) for sites adjoining key plazas/public open space

- f) Amend the DCP 2013 to include a sun access provision to protect solar access to key proposed public spaces as discussed in C6 Built Form 6.8 Solar Access and shown on the Public Realm Map (Figures 137 and 138)

Strategies

4. Introduce new urban furniture to provide rest areas throughout the public domain

- a) Review existing and provide new seating, bins and cycle racks focusing on the plazas identified in this Strategy, and other locations devoid of these elements (e.g. along Gardeners Road in Kingsford town centre)
- b) Urban furniture is to be consistent with Council's Urban Elements Design Manual 2006

*A 12 month DA/licensing fee waiving program has already been undertaken for Kingsford and Matraville town centres.

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Strategies

5. Promote outdoor dining to encourage more street activity

- a) Encourage outdoor dining in side streets where footpath widening/ kerb build outs are proposed Refer to Public Realm Map (Figures 132 and 133).
- b) Require high quality outdoor furniture for outdoor dining that reflects the character of the town centre, has an open appearance and minimises clutter
- c) Consider financial incentives to encourage outdoor dining in the Kensington town centre, such as a 12 month reduction in DA and footpath licensing fees*

Strategies

6. Ensure continuous weather protection along core retail strips and pedestrian routes

- a) Strengthen existing DCP controls requiring awnings to be integrated into building design and constructed at a consistent height above the street

Strategies

7. Improve existing footpath surfaces by applying cohesive and high quality paving treatments

- a) Provide RCC City Civic Paving (PA01) in line with Council's Urban Elements Design Manual 2006
- b) Extend paving material in the following locations to visually integrate light rail infrastructure with the town centres:
 - from Kingsford town centre south of the intersection to Stuart Street adjacent to the light rail terminus
 - to Carlton Street in Kensington town centre adjacent to the Carlton Street light rail stop.

Strategies

8. Lighting

- a) Provide street lighting on Anzac Parade using multi-functional poles in accordance with the Randwick City Light Rail Urban Design Guidelines
- b) Ensure public spaces, primary pedestrian streets and light rail stops are well lit to enhance public safety and provide a night time ambience in the town centres
- c) Consider lighting themes for key heritage/ contributory and/or future landmark buildings. Additional strategies on lighting is contained in Part C Section 8.7 – Safety of Streets and Public Space

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Figure 128: Outdoor dining, Marrickville, Sydney
Source: www.smh.com.au



Figure 130: Active street frontages, San Jose, California, USA
Source: www.spur.org



Figure 129: Outdoor dining, Lygon Street, Melbourne
Source: www.thatsmelbourne.com.au



Figure 131: Piazza Mazzini, Jesolo Italy
Source: www.contemporist.com

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Figure 132: Public realm map – Kensington town centre
Source: Conybeare Morrison 2016



Figure 133: Public realm map – Kingsford town centre
Source: Conybeare Morrison 2016

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8.4 Public Art and Cultural Activities

Public art and cultural events can help transform the public domain, acting as a means to engaging the community, fostering social interaction and helping to create a sense of place and identity.

The draft Issues Paper identifies the need to foster more public art to recognise and celebrate the history of the town centres, reflect their character and contribute to pedestrian vibrancy. It also identifies the need to provide and support cultural events in both centres such as festivals and markets.

During 2016, Transport NSW initiated a temporary public art program in key locations to increase visitation and foster activation of these sites during construction of the light rail. The following strategies aim to build up on this program by identifying locations to accommodate temporary and permanent public artwork, together with opportunities within the planning framework to encourage the provision of public art via private development.

A number of strategies also aim to encourage more cultural activities within the town centres as a means of bringing the community together and activating the urban environment.

Strategies	Actions
1. Facilitate public art and artistic expression in the public domain to enhance visual amenity, contribute to cultural identity and foster a sense of community	a) Incorporate a range of permanent public artworks in the following locations: Kensington Town Centre - Proposed Addison Road Plaza - Proposed Todman Avenue Plaza - Proposed Bowral Street Plaza Kingsford Town Centre - Meeks Street Plaza - Proposed Rainbow Street site plaza - Proposed Kingsford Triangle site plaza b) Coordinate public art with other public domain elements such as lighting, paving insets and specialised street furniture c) Consider new DCP controls requiring the provision of public art for major development/key opportunity sites including: - Kingsford Triangle site - Rainbow Street site - Todman Square d) Consider increasing the allocation of s94A funding towards public art in the town centres as part of the next new s94A Plan
2) Initiate programs and events to bring creativity and cultural activity into the experience of the town centres	a) Collaborate with Council's Events Team and the town centre business chambers to identify opportunities to activate the public domain day and night through a rotation of seasonal cultural events and activities This may include pop ups, festivals, cultural activities and temporary urban elements in public spaces (e.g. deckchairs, table tennis etc.) b) Develop long term strategic partnerships with UNSW and NIDA to bring formal and informal cultural and creative events into the town centres

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Figure 134: Public art, Chicago, USA
Source: www.chicago-outdoor-sculptures.blogspot.com



Figure 136: Public art, Taipei, Taiwan
Source: www.contemporist.com



Figure 135: Public art, New York, USA
Source: www.news.artnet.com



Figure 137: Kingsford Noodle Market
Source: Randwick City Council 2015



Figure 138: Kingsford Noodle Market
Source: Randwick City Council 2015

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8.5 Pedestrian Network

A safe, accessible and permeable pedestrian network is an integral aspect of a well-functioning and liveable town centre and must be key objective to achieve in the Kensington and Kingsford town centres.

Enhancing the town centres' pedestrian experience will encourage people to use the public domain, providing increased opportunities for interaction and connectedness. An accessible and permeable pedestrian network can also help ease congestion by shifting a greater share of travel to walking, or combining walking with public transport.

The urban/block structure of each town centre has an impact on existing pedestrian accessibility and permeability, with the majority of pedestrian activity concentrated on Anzac Parade.

Kingsford town centre has a more permeable urban structure, with laneways running parallel to the east and west of Anzac Parade, cross roads running east to west and pedestrian walk throughs in a number of locations. In Kensington pedestrian permeability is more limited due to the lack of laneways and pedestrian through site links.

Notwithstanding the limitations of the urban structure, the development process can be utilised to improve pedestrian accessibility and permeability within both town centres. A fine grain pedestrian network which reduces the length of walking trips can be achieved by requiring mid-block links on key opportunity sites, improving existing linkages through lighting and signage, and facilitating shared zones in a number of laneway locations.

The following strategies are aimed at improving pedestrian access and safety in the Kensington and Kingsford town centres and should be read in conjunction with the Transport for NSW Urban Design and Landscape Plan Kingsford.



Figure 139: Pedestrian link, Wentworthville Centre Revitalisation
Source: www.holroyd.nsw.gov.au



Figure 140: Shared Laneway, Sydney CBD
Source: www.sourcable.net



Figure 141: Pedestrian link, Adelaide
Source: www.adelaide.designmanual.com.au

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Strategies	Actions
1. Prioritise pedestrian access and safety throughout the public domain and street network	a) Implement pedestrian access, crossings and other safety measures identified in the Transport for NSW Urban Design and Landscape Plan b) Advocate Transport NSW to close slip lanes adjacent to refuge islands at the Rainbow Street and Gardeners Road crossings to maximise pedestrian safety c) Advocate Transport NSW for provision of access to the southern end of Carlton Street light rail stop d) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the Accessibility Map (Figures 142 and 143) e) Advocate for a reduced 40-50km/hour speed limit on Anzac Parade in both town centres f) Advocate for the relocation of the Anzac Parade pedestrian crossing closer to the intersection in Kingsford town centre to improve pedestrian accessibility as shown on the Accessibility Map (Figures 142 and 143)
2. Enhance pedestrian permeability and connectivity throughout the public domain.	a) Establish new pedestrian mid-block links as part of the redevelopment of sites as shown on the Accessibility Map (Figures 142 and 143). See also Part C Section 5.7 – Mid-Block Links b) Improve existing pedestrian links/ through links in the following locations so that they are safer, more direct and inviting: Kingsford town centre • Southern Cross Close Pedestrian Link: Remove existing seating and provide additional lighting and coordinated way finding signage. Kensington town centre • Pedestrian link adjacent to the northern elevation of Peters of Kensington: Provide lighting, coordinated way finding signage and consider public art installation to activate walkway and provide a sense of ownership • Pedestrian link adjacent to the northern elevation of the Masonic Temple: Provide lighting and coordinated way finding signage
3. Improve the appearance, safety and sanitation of service lanes to provide improved amenity for pedestrians	a) Work with Business Chambers to encourage property owners to improve the appearance, safety and sanitation of the rear of shops fronting service lanes

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Figure 142: Proposed accessibility improvements – Kensington town centre
Source: Conybeare Morrison 2016



Figure 143: Proposed accessibility improvements – Kingsford town centre
Source: Conybeare Morrison 2016

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8.6 Safety of Streets and Public Space

The perception of safety within the public domain is critical to the success of a town centre, attracting housing and businesses, which in turn adds to vibrancy and diversity of uses.

Lighting, landscape design, building design (such as windows overlooking public spaces), appropriate signage and on-street activity can maximise social interaction, fostering natural surveillance and reducing the perception and incidence of crime and anti-social behaviour in the town centres.

The following strategies aim to minimise the perception of, and limit opportunities for crime and anti-social behaviour through environmental design, and to improve the overall amenity of the public domain in both town centres.

Strategies	Actions
1. Design streets and public spaces to increase natural surveillance and foster a sense of safety	a) Apply Crime Prevention Through Environmental Design (CPTED) principles to all public domain and streetscape design* b) Review DCP controls to ensure that all new development provides active frontages and clear glazing on street and upper levels to encourage surveillance of streets and public spaces c) Conduct a review of public lighting and upgrade as required, focusing on: • Under awning lighting on Anzac Parade • lighting in side/backstreets • access ways, public spaces, pedestrian walk throughs and other urban spaces that are used at night time d) Install way finding signage throughout each town centre in accordance with the Randwick City Civic Signage Manual. Key locations include: • Gateway locations at the northern end of Kensington town centre and southern end of Kingsford town centre • light rail stops and terminus • pedestrian links e) Upgrade open air carparks to enhance surveillance, safety and attractiveness through: • additional planting of ground covers to soften expanses of concrete/ asphalt • maintaining clear views • improving pedestrian access and legibility • additional lighting and signage Key locations include: • On street parking on Houston Road, Houston Lane and Borrodale Road

*Crime Prevention Through Environmental Design (CPTED) is a multidisciplinary approach to reducing the incidence and perception of criminal behaviour through environmental design, with principles focusing on natural surveillance, legibility and territorial enforcement.

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8.7 Quantifying Public Space

Kensington and Kingsford town centres will gain a substantial amount of public space as a direct result of planning interventions and strategies outlined in this document.

The quantum of public space to be gained comprises wider footpaths, urban plazas, pedestrian links and shared access ways across both town centres.

The following graphic quantifies the amount of new public space in both town centres.

It demonstrates that both town centres will gain over 27,000m² in new public spaces, which is a significant delivery of public benefits to the community.



Figure 144: Public carpark with landscape intervention, Dandenong, Melbourne
Source: www.citygreen.com



Figure 145: Lighting in public carpark
Source: www.usask.com



Figure 146: New Public Space
Source: Randwick City Council 2016

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9.0 Social Infrastructure

This section considers the social infrastructure needs of existing and future residents of the Kensington and Kingsford town centres and wider area. It outlines a number of strategies and actions to ensure that residents and workers have access to new and upgraded community and cultural facilities and services.

Social infrastructure refers to the broad range of facilities, places, services, networks and programs that are essential to meeting the social and welfare needs of the community.

It includes the physical buildings, spaces and facilities that accommodate health, education, childcare, recreation, arts and cultural activities, as well as the programs, resources and social services that support community and cultural development.

Social infrastructure is an important consideration when planning the future growth of Kensington and Kingsford town centres, to support and enhance the community's social and cultural life. Local and international studies consistently demonstrate how the provision of social infrastructure contributes to the 'livability' of town centres, fostering diversity, social cohesion and community well-being.

In the case of Kensington and Kingsford, future social infrastructure provision requires collaboration between the public and private sectors to meet the needs of the growing population. The development industry can play a key role through a 'value uplift' mechanism given that more intensive residential/commercial development opportunities will be created resulting from proposed changes to planning controls.

This Strategy includes a number of actions to support the provision of childcare, arts and cultural facilities and social services; key priorities identified by Council's Community Development Department for the Kensington and Kingsford town centres.

Other social infrastructure considerations such as affordable housing and recreational facilities have been addressed in other sections of this Strategy.

Objectives

- To identify social infrastructure priorities to meet the needs of a diverse community
- To identify appropriate locations for community facilities that maximise access, effectiveness and amenity.
- To support the delivery of social services and community development initiatives
- To identify opportunities to support art and cultural development.

Community Feedback

Feedback received during consultation shows that people want infrastructure services to keep pace with population increases and to have community spaces which can be used for youth, cultural events and short-term festivals or markets. In summary, the community told us:

- Consider childcare, services for the elderly and other community services like information services, counselling and non-government agencies
- Infrastructure and amenities need to be provided as density increases
- Create a sense of community by increasing the mix of businesses, cultural events and workers
- Have indoor and outdoor spaces available for food festivals, market days or short term rented spaces for artists and reading spaces
- Build on existing artistic culture: include places for street theatre, photography exhibition, art and sculpture lessons
- Have a community centre for young people to socialise and 'hang out', which could also prevent anti-social behaviour.

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9.1 Existing Levels of Provision

There is a diverse complement of social infrastructure within and around the Kensington and Kingsford town centres. Operated or managed by the public, community or private sectors, these facilities and services make an important contribution to the community's quality of life.

Most sites within the Kensington and Kingsford town centres have access to a range of local and regional facilities. Recent research undertaken by the UNSW City Futures Department identifies that the community has good access to⁶⁸:

- A diverse range of medical services and facilities at the Randwick Hospitals Campus which comprises four major hospitals providing state wide, metropolitan and local community healthcare
- Extensive regional parks, foreshore areas and beaches including Centennial and Moore Parklands, and the eastern beaches of Clovelly, Coogee and Maroubra
- Recreational and sporting facilities such as swimming pools, gyms and sports courts served at both Des Renford Leisure Centre in Maroubra as well as at the UNSW

- Educational facilities ranging from primary, secondary and UNSW, NIDA and Randwick TAFE
- A variety of places of worship; and
- Emergency services including police, fire and ambulance.

Additionally, the local community will soon benefit from a new community centre facility currently being constructed at the (former) Kensington Bowling Club site. Delivering around 300m² of floor space available for community activities and a half basketball court, this centre will cater to a wide demography, including seniors and youth, and help fill a gap in community facility provision in the immediate area.

Based on an assessment of current levels of provision, Council's Community Development Department has identified the following social infrastructure priorities for Kensington and Kingsford town centres:

- Additional child care facilities
- Flexible office and meeting spaces for social service providers and community groups including seniors and youth
- Addressing the capacity of the primary school in Kensington
- A new art/cultural facility accommodating studios and gallery space.

This Strategy outlines a number of actions to encourage the provision of these identified priorities, noting that other community facility requirements such as library space, dedicated seniors and youth facilities need to be considered on an LGA wide basis as part of a comprehensive community facilities study.

9.2 Childcare Centres

Randwick City has an extensive range of community and privately operated childcare centres including an estimated 49 long day care centres, contributing to approximately 2,230 licensed places in the LGA⁶⁹. Notwithstanding this existing level of provision, demand for childcare services continues to remain high.

Council's Community Development Department has identified a substantial shortage of childcare spaces for the 0-2 year old age group, with only 16% of spaces in existing centres catering for this age group⁷⁰. The higher ratio of staff to children required under legislation is a key factor for this shortfall, as it is less economically feasible to increase the intake of 0-2 year olds due to the disproportionate costs involved.

In terms of the study area, the provision of childcare is an important consideration, with demographic trends indicating a likely increase in the number of children residing in the area in the years to come. For instance, between 2006-2011, there was a 17% increase in the number of children in the 0-4 age group living within Kensington (comprising the town centre and surrounding residential area)⁷¹.

The town centres' location adjacent to the Randwick Education and Health Strategic Centre, comprising the main employment hub in the LGA, will further fuel demand for child care services. In fact, the UNSW has determined that there is an existing shortage of at least 200-300 child care places for the tertiary institution alone, establishing a latent demand for childcare in close proximity to the UNSW campus⁷².

Given the projected population growth in the two centres, it is highly likely there will be additional childcare demand above and beyond the unmet demand already established by UNSW. If such trends continue without a commensurate increase in quality child care, there will not only be a substantial shortage in provision, but also flow on effects of reduced workforce participation, particularly by skilled up women.

⁶⁸K2K Liveability Indicators (2006) UNSW City Futures Department

⁶⁹Productivity Commission's Inquiry into Childcare and Early Childhood Learning (RCC Submission 2014)

⁷⁰ibid

⁷¹Demographic trends for Kingsford indicate a decrease in the number of children in the 0-4 age group. This is likely due to a higher number of students and lower number of families residing in the area.

⁷²Analysis of on campus childcare centre waiting lists (2016) Childcare Division, Campus Services, UNSW

Part C – Vision and Strategies

The provision of child care is generally a market led process. While Council cannot intervene in the macroeconomic parameters that shape the provision of this service, there is scope to utilise the planning framework to encourage the development of child care centres within the town centres.

Council's DCP 2013 contains a number of planning controls to guide the location and design of childcare centres, focusing on the safety and well-being of children and achieving high standard of amenity for the site and surrounding locality. Preferred locations include sites in proximity to employment and public transport; co-located with existing education/open space and community uses; or in buildings where there are end of trip facilities for employees. The DCP allows child care centres in multi storey developments, however limits their provision to the ground floor, effectively discouraging centres in other parts of the building such as rooftops or podiums.

Kensington and Kingsford town centres reflect many desirable locational attributes for child care centres, such as proximity to employment hubs, education and excellent access to public transport. From a planning perspective, however, the DCP 2013 requirements may be discouraging the provision of child care centres within the town centres, as due to the nature of built form and density, it may not always be

possible to locate child care centres on the ground floor of multi-storey buildings.

There are many examples of child care centres operating successfully above the ground floor of multi-storey developments in higher density centres such as the Sydney, North Sydney and Melbourne CBDs. If designed well, with particular consideration to fire and open space safety requirements, podiums and rooftops can provide a sound opportunity to accommodate child care centre facilities in multi-storey buildings.

The City of Sydney DCP 2012 recognises that in certain circumstances, it may be necessary to accommodate child care centres above the ground floor within higher density developments to cater to the needs of residents and workers. Accordingly the Sydney DCP 2012 permits child care centres above the ground floor in conjunction with additional requirements such as the provision of emergency access points and specific design and safety measures for outdoor play areas.

Similar provisions could be incorporated into the DCP 2013 to encourage above ground childcare centres, on podiums and rooftops of developments within the town centres. Additional DCP controls will be required to ensure that safety and fire access is not compromised in such circumstances.



Figure 147: Child care centre situated on three storey atrium in North Sydney CBD
Source: www.michaelbellarchitects.com



Figure 148: Example of child care centre with open space on podium in Bentleigh East, Melbourne.
Source: www.botanicaltraditions.com.au

Part C – Vision and Strategies

Proposed Changes to the Delivery of Child Care

In November 2016 the State Government announced a raft of proposed changes to the planning system to streamline planning approvals and support the provision of additional child care services across NSW. Key changes proposed include:

- Permitting school based child care as exempt or complying development (which provides a faster approval process than a conventional development application)
- Ensuring child care centre proposals are assessed under a single set of planning controls and guidelines
- Providing guidance upfront to assist developers and service providers to deliver high quality and safe child care facilities
- Aligning the National Quality Framework for early childhood education for planning and building centres with NSW planning controls; and
- Allowing temporary use of land provisions to apply for the temporary relocation of child care services in emergencies such as floods or fires.

The State Government will undertake further discussions with Councils, industry and the community during an upcoming consultation period. If adopted, the changes proposed are likely to increase the availability of child care services across Randwick City, particularly with respect to school based child care.

9.3 Education Facilities

The Kensington and Kingsford town centres are serviced by three primary public schools, being Kensington Public School, Daceyville Public School, Rainbow Street Public School, and two high schools, being Randwick Boys High School and Randwick Girls High School.

Walkability indicators prepared by the UNSW City Futures Research Centre indicates that 92% of dwellings within the Kensington and Kingsford suburbs are within walking distance (15 minutes) to a local primary school and 40% of dwellings are located within walking distance to a secondary school. All dwellings within the suburb are within a 30min walking distance to local primary schools and 74% of dwellings are within walking distance to the secondary schools.

Kensington Public School is currently at full capacity and cannot accommodate increased enrolments. The School is on a site of 0.7ha and the entire site is identified as a Heritage Item under the Randwick LEP 2012, therefore any future proposals will need to have regard to impacts on the heritage significance of buildings and spaces. There are limited expansion opportunities at Kensington Public School given its heritage significance and relatively small site area. Therefore in its current form, any increase in population and the corresponding increase in public school students in the corridor cannot be accommodated at Kensington Public School which is currently at capacity with 450 students. Daceyville Public School with a current enrolment of 284 students and larger site area of 2.9 ha however has capacity and the opportunity to absorb future student growth arising from the dwellings forecasts. The Department of Education will need to consider options to accommodate the forecast growth in primary school enrolments within the precinct. Rainbow Street Public School with 435 students is currently being redeveloped to accommodate up to 1,000 students, expected to be completed in 2019 and will have capacity to accommodate growth.

One of the four shortlisted entries in the K2K Urban Design Competition included multi-use of Kensington Public School facilities including the sharing of open spaces beyond the school boundaries and co-locating working hubs and other education uses in taller building forms outside of school hours. The Draft Central District Plan (November 2016) Liveability Priority 10 supports innovative school planning and delivery by:

- Reducing car use for school commuting
- Enabling flexible spaces of school facilities during construction to meet changing needs; and
- Incorporating planning incentives for the development of new schools and shared school facilities including playing fields and indoor facilities to meet wider community recreation needs

The draft Central District Plan estimates that school enrolments are expected to increase by 42% based on current enrolments in both government and non-government schools to 2036. Generally, schools within the Central District have high utilisation rates. It notes the Department of Education's preparation of a joint venture template that will include the shared use of playgrounds and other spaces. The Draft Plan also notes the Government's commitment to ongoing investment to upgrade schools and the establishment of a new Inner City High School in the Sydney CBD.

Part C – Vision and Strategies

An audit of all LGA schools as part of the Council's Recreation Needs Study, found that there is generally poor provision of sporting facilities at school sites. Those schools that do have sports fields are currently utilising them at a high rate for student sporting activities and play. As a result, there appears little opportunity to increase the provision of sporting and recreation facilities for external groups through shared use of Randwick school facilities.

Randwick Boys and Randwick Girls High School with enrolments of 683 and 946 students respectively both have existing capacity to service forecasts student growth from in the town centres.

Council will liaise closely with the Department of Education during the public consultation period on these issues.

9.4 Support Services

There is a critical need to maintain and attract more social service providers which specialise in health and community support including mental health, aged care, disability, youth and family services. Social services are presently discouraged from establishing offices in the LGA, due to the high costs of renting office space, and this has an adverse flow on effect on the well-being of some of the most marginalised and socially isolated members of the community⁹³.

Council's Social Inclusion Plan identifies key community groups who are vulnerable to disadvantage and exclusion (and who would benefit from improved access to social services)⁹⁴. These include people with poor or no English language skills; the unemployed; recent immigrants; people with limited access to computers and the Internet; people with disabilities; and those who are isolated at home.

Notably, a portion of international students are included in this cohort who are experiencing hardships stemming from income and accommodation pressure and social exclusion, and who would benefit from improved access to social services. It is likely that some of these students are residing in or close to the town centres given the location of the UNSW nearby.

Council has adopted a social inclusionary approach to encourage the participation of disadvantaged groups and individuals in community life. Social inclusion is an important facet of combating social disadvantage with recent studies demonstrating that participation in a locality or neighbourhood can have positive outcomes for the community.

To ensure that all people are afforded the ability to participate and be actively involved in community life, it is integral that opportunities be provided to attract social service providers into the LGA. One way is to provide for flexible office and meeting spaces at reduced rates and encouraging their joint use/co-location with compatible services within a single site to provide efficiencies and improved access to services to the general community.

9.5 Youth Facilities and Services

The provision of adequately funded facilities and services to meet the needs of youth is a critical issue for Randwick City. A Safer Randwick Plan identifies the need to provide a facility where young people can engage safely in various activities⁹⁵. It notes the complexities in identifying a suitable location that is accessible, well buffered from noise and compatible with surrounding land uses. More work is needed to identify a suitable location, and a whole of a LGA approach is required for this purpose.

As identified above, Council's Social Inclusion Plan identifies a need for affordable office space for a range of service providers to run regular outreach programs and activities catering for youth. This again highlights the need for additional flexible office/meeting room space to meet social needs of the community.

⁹³Randwick City Social Inclusion Plan 2010

⁹⁴Ibid

⁹⁵Randwick City Council (2003) A Safer Randwick Plan

Part C – Vision and Strategies

9.6 Community Services Hub

As noted earlier, the Rainbow Street site in Kingsford town centre is earmarked for a future potential Council Administration building, consolidating Council's administrative and civic functions into the single location. Once developed, this site is proposed to be Council's primary interface with the community where people come to undertake business such as paying rates, general enquiries, and holding formal and informal meetings.

The Rainbow Street site has the potential to be developed as a 'community services hub', combining the aforementioned civic and administrative services with sufficient floor space to accommodate flexible office/meeting spaces to meet social services needs. Community hubs are gaining traction as an efficient means of delivering community services, with shared use generating economies of scale, and allowing for the integration of infrastructure.

The Rainbow Street site's accessible location adjacent to the light rail terminus makes this an ideal site to accommodate a community services hub model. The community will benefit from having a 'one stop shop' where a number of services can be accessed in the one location.

The allocation of floor space towards flexible office/meeting spaces could be explored as part of the development of options for the site. Allocation of funding towards the provision of flexible office/meeting space has been incorporated into the K2K Community Infrastructure Plan.

What is a community hub?

'A conveniently located public place that is recognised and valued in the local community as a gathering place for people and an access point for a wide range of community activities, programs, services and events'

(Rossiter 2007 p2; Bond 2010 p1).

9.7 Gallery/Contemporary Arts Space

Studies into place making and urban renewal often highlight the important role of creative spaces (such as small galleries and performance spaces) in fostering vibrancy, liveability and a sense of place⁶⁰. Such spaces are incubators for creative life, help activate centres, and provide an important opportunity for people to produce and engage with art and culture⁶¹. Improving public access to arts and cultural facilities can also support local economies, by attracting arts and non-arts

businesses, as well as tourism and cultural energy into a precinct.

Randwick City currently lacks adequate facilities and exhibition spaces to support emerging creative industries, local artists and designers. While a variety of multipurpose community centres and facilities exist across the LGA, there are limited opportunities for artistic pursuits at the community level⁶².

A cultural audit undertaken over 2004-2005 identified a number of desirable cultural resources that would contribute to the community's cultural life⁶³. The audit highlighted the provision of a gallery/contemporary arts space as a key priority for the LGA, to provide a focus for specialist groups involved in the creation of, support for and appreciation of creativity and arts practice.

The future urban renewal of Kensington and Kingsford town centres provides an opportune time to consider the cultural needs of the community, and in particular identify ways to improve public access to art and culture. It is considered that the Todman Square Precinct, located at the heart of Kensington town centre, is well placed to accommodate a gallery/contemporary art space. Such a facility could act as a cultural anchor within the precinct, facilitate clustering and synergies between businesses that benefit from a

centralised location, while contributing to the activation of the town centre.

The dedication of floor space to Council for the provision of gallery/art space could be considered as part of the redevelopment of a site/s located within the Todman Square Precinct.

This floor space dedication would not count towards the calculation of total gross floor area on the site, which will to act as an incentive for the provision of this space. Allocation of funds towards a fit out of an art gallery/creative space has been incorporated into the K2K Community Infrastructure Plan.

⁶⁰Project for Public Places (2016)

⁶¹City of Sydney (2016) 'New Ideas for Old Buildings' Discussion Paper

⁶²A Cultural Randwick City Plan (2010)

⁶³ibid

Part C – Vision and Strategies



Figure 149: Creative space for artists/designers
Source: www.cityofsydney.nsw.gov.au



Figure 150: Boyd Studio Space, Southbank, Melbourne
Source: www.creativespaces.net.au

Draft Planning Strategy

Strategies	Actions
1. Encourage childcare centres to locate within Kensington and Kingsford town centres	a) Amend the DCP 2013 to encourage childcare centres on podiums and rooftops within the town centres, in conjunction with stringent controls on emergency access and safety
2. Support innovative approaches to shared use of school facilities	a) Continue discussion with NSW Department of Education on options for optimising use of local school facilities in the precinct including innovative approaches to shared use of buildings and spaces with the community
3. Attract and expand social services and programs to meet the needs of a diverse community	a) Incorporate flexible office/meeting room space within Kingsford for social services, youth outreach programs and services and other community services within the community infrastructure contributions scheme b) Undertake detailed planning for the delivery of a community hub at the Rainbow Street site in Kingsford town centre which promotes the co-location of Council administration/civic services and social/community facilities
4. Improve public access to art and cultural facilities within Kensington town centre	a) Incorporate a gallery/creative space for Kensington within the community infrastructure contributions scheme

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Part C – Vision and Strategies

10.0 Zoning and Landuse

10.1 Town Centre Zoning

Under the RLEP 2012 the Kensington and Kingsford town centres are zoned B2 Local Centre which allows flexibility for a range of retail, commercial, civic, cultural and residential uses. The objectives of the B2 Local Centre zone focus on maximising public transport patronage, achieving a high standard of urban design and amenity, and enabling residential development that is well integrated with and supports the primary business function of the zone.

New residential uses in the town centres generally occur in the form of mixed use development (with a retail component on the ground floor and apartments on upper levels).

A review of business zoned land was undertaken as part of Comprehensive LEP 2012 preparation process over 2010-2012. Council has endorsed the conclusion that the B2 Local Centre zone objectives are well aligned with the role, function and character of the Kensington and Kingsford town centres.

It has always been Council's intention to concentrate higher density developments in the town centres, while retaining the character of surrounding lower density residential suburbs. This position has not changed and densities will continue to be concentrated within the town centres to capitalise on excellent access to transport and facilities.

This draft Strategy recommends that the B2 Local Centre zoning be retained for the Kensington and Kingsford town centres in conjunction with land use permissibility presently afforded under the RLEP 2012. The B2 Local Centre zone is considered to be the best fit, reflecting the role, function, existing and future desired character, intensity and mix of land uses within these town centres.

Strategies to protect and enhance the business and retail nature of the town centres are further explored in Part C Section 4 – Business and Economy.

10.2 Zone Boundary Extensions

The existing zone boundary of the Kensington and Kingsford town centres was investigated under the draft Issues Paper to identify a suitable alignment with existing uses and the future desired character of these centres.

Three key opportunity sites were identified on the edge of Kingsford town centre that are currently zoned residential, however comprise a number of retail/commercial uses, or, are part of a block that is predominantly business in nature. These sites would provide a logical extension to the Kingsford town centre given their strategic location.

It is proposed that the B2 Local Centre zone be applied to these sites to reflect existing business uses, and ensure a cohesive zoning application across the entire block. The subject sites are listed in the table below and detailed further in the Appendix 3.

Table 14: Proposed Zone Boundary Extensions

Site	Current Zone	Proposed Zone	Current RLEP 2012 Controls	Proposed RLEP 2012 Controls
16-20 Barker Street, Kingsford	R3 Medium Density Residential	B2 Local Centre zone	Height: 9.5m FSR: 0.75:1	Height: 31m (9 storeys) FSR: 4:1
582-584 and 586-592 Anzac Parade, Kingsford	R2 Low Density Residential	B2 Local Centre zone	Height: 9.5m FSR: 0.5:1	Height: 31m (9 storeys) FSR: 4:1
63 Harbourne Road and 12-18 Rainbow Street, Kingsford	R3 Medium Density Residential	B2 Local Centre zone	Height: 12m FSR: 0.9:1	Height: 31m (9 storeys) FSR: 4:1

Source: Randwick City Council 2016

Part C – Vision and Strategies

10.3 Residential Interface Areas

Kensington and Kingsford town centres are bounded on all sides by residential zoned land. The majority of these residential interface areas are zoned R3 Medium Density Residential under the RLEP 2012, and feature residential flat buildings, dual occupancies and stand-alone dwelling houses. There are also pockets of R2 Low Density Residential zoned land to the south-east and south-west of Kingsford town centre, containing mostly single dwelling houses and some dual occupancy development. These interface areas benefit from their proximity to the town centres, jobs and transport opportunities.

This draft Strategy does not propose changes to the zoning or planning controls of these residential interface areas. However, these areas play an important role in supporting the town centres and provide an important built form transition between the town centres and surrounding lower density residential neighbourhoods.

Strategies	Actions
1. Consolidate the town centres' boundary to create a well-defined and compact urban form	a) Retain the existing RLEP 2012 B2 Local Centre zoning for Kensington and Kingsford town centres b) Amend RLEP 2012 to rezone the following sites from residential to B2 Local Centre zone (Figure 156): 16-20 Barker St, Kingsford 582-584 and 586-592 Anzac Parade, Kingsford; and 63 Harbourne Road and 12-18 Rainbow Street, Kingsford. NB: New built form controls are proposed to provide a suitable transition to surrounding residential zoned areas (see Part C Section 5 – Built Form for further information)
2. Promote a land use mix within the town centres	a) Maintain existing permissible uses for the B2 Local Centre zone under the RLEP 2012



Figure 151: Proposed B2 Zone boundary extension
Source: Randwick City Council 2016

Part D – Precincts and Structure Plan

1.0 Precinct Plans

As highlighted throughout this draft Strategy, three Precincts have been identified which are focused around strategic light rail infrastructure nodes and for which common strategic directions have been identified.

These Precincts share similar land use characteristics or built form, and have a reasonable amount of development potential.

Redevelopment within these precincts has the potential to create outstanding urban places for residents, workers and visitors to enjoy. The following section outlines the future vision for the identified Precincts, consolidating relevant Strategies identified in this document.

1.1 Kingsford Junction Civic Precinct Vision

The Kingsford Junction Precinct will be the civic hub of Randwick City Council and the gateway to Kingsford town centre (Figure 152).

Focused around the light rail terminus in the south of Kingsford town centre, this dynamic Precinct will be highly accessible, well connected and activated.

The Precinct will feature a variety of community uses such as car parking with associated retail/commercial, residential and civic land uses, clustered around the light rail terminus, making greater use of the public transport network.

All development will be designed to the highest quality. Large key sites adjacent to the terminus will accommodate taller slender landmark buildings reflecting architectural design excellence and best practice in sustainability.

A human scaled and highly permeable environment will be created through podiums integrated into built form, together with wider footpaths, and mid-block links throughout the Precinct.

The streetscape will be attractive and welcoming, encouraging social interaction through the provision of public plazas, large canopy trees, landscaping, seating, and interactive public art.

A community hub at the Rainbow Street site will consolidate government and civic services together with flexible office and meeting spaces to facilitate a one-stop shop of integrated and efficient community service delivery.

A new town square at the Rainbow Street site will provide a focal point for civic pride and community expression, encouraging people to linger, interact and connect.



Figure 152: Precinct Plan – Kingsford Junction
Source: Conybeare Morrison 2016



Figure 153: Precinct Plan – Kingsford Mid-Town
Source: Conybeare Morrison 2016

Part D – Precincts and Structure Plan

1.2 Kingsford Mid-Town Precinct

Vision

The Kingsford Mid-Town Precinct is located in the old heart of Kingsford town centre with buildings reflecting the historical development of the town centre, juxtaposing old and new.

Based around the Strachan Street light rail stop, Kingsford Mid-Town will be highly accessible and active, with strong links to UNSW, Kensington Park and surrounding residential areas.

The Precinct will be a focus for innovation, leading edge design and sustainability, with incubators and co-working hubs fostering start-ups and creative industries with strong synergies with UNSW nearby.

The Precinct will continue to maintain its strong convenience retail and dining role, reflected by a diverse range of shops, cafes and restaurants. It will be a lively Precinct, both day and night, building up on its distinct Asian dining character with active shop fronts and lively safe streets that will encourage people to mingle and meet.

Three taller buildings at corner sites will exhibit design excellence and emphasise the mid-town role of this Precinct. The historic fabric of the area, including O'Deas Corner and contributory buildings will be respected and celebrated, with new buildings sympathetic to their scale, form and detailing.

The greening of this Precinct with boulevard trees, landscaping and linear links to Kensington Park will contribute to the liveability of this Precinct, making it a place where people want to live, work and visit.

1.3 Todman Square Precinct

Vision

Todman Square will be a vibrant, eclectic Precinct and the new heart for Kensington town centre.

It will be the main shopping and cultural area in Kensington town centre, providing a diverse range of shops, dining and convenience retail, meeting the daily needs of residents, workers and visitors.

Todman Square will be highly activated with residential, retail, cultural and civic land uses clustered around the Todman Avenue Light Rail Stop. It will have excellent accessibility with strong connections to employment hubs including the Sydney CBD and Randwick Specialised Centre Precinct and east-west linkages to surrounding residential areas.

Todman Square will have a lively arts and innovation focused environment. A new community gallery/creative arts space will encourage artistic endeavour, stimulate creative energy and improve public accessibility to art and culture. This creative hub will be supported by arts and non-arts related businesses such as cafes and restaurants, and start-ups clustered around this cultural anchor.

Todman Square will achieve high quality urban design and amenity, with taller buildings at corner sites reflecting architectural design excellence and emphasising this new landmark location.

The Precinct will have integrated public domain spaces with their use and activation encouraged through new development. It will have a pedestrian focus with wider footpaths, outdoor dining and high level of permeability throughout with mid-block links allowing people to navigate the centre with ease.

A new plaza with public art, landscaping and furniture will encourage people to interact and connect.

Green linear links to an expanded Kokoda Park and the Randwick Racecourse Urban Forest will further foster the liveability of this Precinct.



Figure 154: Precinct Plan – Todman Square
Source: Conybeare Morrison 2016

Part D – Precincts and Structure Plan

1.4 Structure Plan for the Town Centres

The following two Structure Plans illustrate how the town centres sit within their surrounding context. They also illustrate how the town centres relate to their broader area and show opportunities that exist outside the town centre boundaries that may be investigated in future studies.

The Vision and Strategies for the town centres is contained in Part C and this section should be read in conjunction with this vision.

The boundaries of the Planning Strategy area relate primarily to the business zone areas of each town centre with some additional properties abutting the boundary included (see Part A – Overview). However, it is difficult to consider these areas in isolation and when assessing how they relate to surrounding areas, many opportunities arise. Some have already been identified in the draft Planning Strategy such as public improvements to Todman Avenue.

These Structure Plans go further and illustrate important relationships to surrounding land uses such as the Royal Randwick Racecourse and UNSW. They also illustrate emerging opportunities that may arise from the rejuvenation of the town centres and improvements to site permeability.

The Structure Plans are not statutory documents in the way that Local Environmental Plans are; they are more an illustration of key opportunities, relationships and emerging possibilities in this vibrant urban context. Each of the Structure Plans are discussed in turn below. The Structure Plans also highlight the importance of the Anzac Parade corridor and the need to consider this important boulevard in the broader context.

Kensington Urban Structure Plan

The Kensington town centre's proximity to the Royal Randwick Racecourse presents many opportunities for the future. These are difficult to visualise at this stage as the racecourse generally faces inwards and presents fences and gates to the areas that could potentially connect with the Kensington and the town centre.

Urban Forest

The Royal Randwick Racecourse has a number of opportunities for future improved connections have been identified, such as Bowral Street and Ascot Street providing pedestrian links for race goers and the general public, the potential for a north south cycle link through the racecourse, allowing cyclists to travel from High Street to Allison Road and on to the Centennial Parklands.

Key terms that are used in the structure plans are defined below:

Green Links

These streets present opportunities to use street tree planting and associated ground level plantings and possibly water sensitive urban design structures such as rain gardens to draw together and link adjoining parks are green spaces with the town centre.

Transport Corridors

Distinct from your typical street, the streets identified as transport corridors will cater for a range of transport functions, from traditional car transport to accommodating cycle facilities and also play a key role in linking the centres to their surrounding context.

Urban Interface

The areas directly adjoining the town centres is referred to as the urban interface and this highlights the importance of these areas on a number of levels. As the planning strategy has articulated, these areas have been carefully considered in the design and formulation of controls for the town centres to ensure solar access and good setbacks for example are achieved. These areas also have excellent accessibility to the emerging opportunities of the town centres. These areas play an important role in supporting the town centres and provide transition to surrounding low scale development.

Part D – Precincts and Structure Plan

Where the Royal Randwick Racecourse connects with Anzac Parade, there is a timber fence and behind it at the northern end is a majestic stand of Plane trees which has been identified as a potential 'urban forest' in the structure plan (see Figure 156). This could be utilised by the public and provide a valuable area of open space near to UNSW and strategically located between the two town centres. In this location the potential for a new built form on the corner of Anzac Parade and High Street has been identified which could define this important intersection and further frame the vista to the Sacred Heart Monastery. These potentials are subject to further discussions and investigations between the Australian Turf Club and Council. These examples highlight the hidden potential at this location.

A significant amount of new public domain has been identified as part of the Planning Strategy, and as the 'urban forest' shows, there are new areas waiting to be unlocked. One such area identified in this structure plan is the potential expansion of Kokoda Park through to Doncaster Avenue. This would vastly improve this important park and provide it with three street frontages instead of two and increase its accessibility and useability. This has been identified as potential only at this stage and requires further investigation.

Kingsford Urban Structure Plan

The Kingsford town centre adjoins the UNSW which is an important component of the Randwick Health and Education Strategic Centre. The town centre benefits greatly from this proximity and the planning strategy has built upon this important relationship. This Structure Plan has identified additional potential benefits such as a north south cycle way through the campus linking to the potential Royal Randwick Racecourse link. This could then be further extended down Forsyth Street and then link to Council's new civic plaza and the Kingsford Terminus. This would provide university students with a new link to the light rail and the new southern end of the Kingsford town centre, identified by the new name of 'Kingsford Junction'. Forsyth Street has also been identified as a new potential view corridor, opening up new views down the street to the new civic plaza and then through to the Kingsford Terminus and the buildings adjacent. This potential link requires further investigations and discussions with UNSW.

Mass transit has been discussed in the public arena as a future means of transit for metropolitan Sydney. The metro is underground, high capacity and is a fast means of mass transit. The possible extension of the Parramatta to the CBD metro has been flagged as a long term option to go through to Maroubra. This would be crucial in unlocking much of the development potential of the south east which is currently constrained due to the capacity of bus network and the CBD and south east light rail which is under construction and has limited remaining capacity (refer to Part C Section 7 – Sustainability and Transport). This Structure Plan has identified Council's new civic plaza at the corner of Rainbow Street and Anzac Parade as a future potential location for a metro stop on the way to Maroubra. This location adjacent to the Kingsford Terminus of the light rail and at this important future civic and commercial hub would be a strategic location for a new Metro stop.

Part D – Precincts and Structure Plan



Figure 155: Structure Plan – Kensington town centre
Source: Randwick City 2016

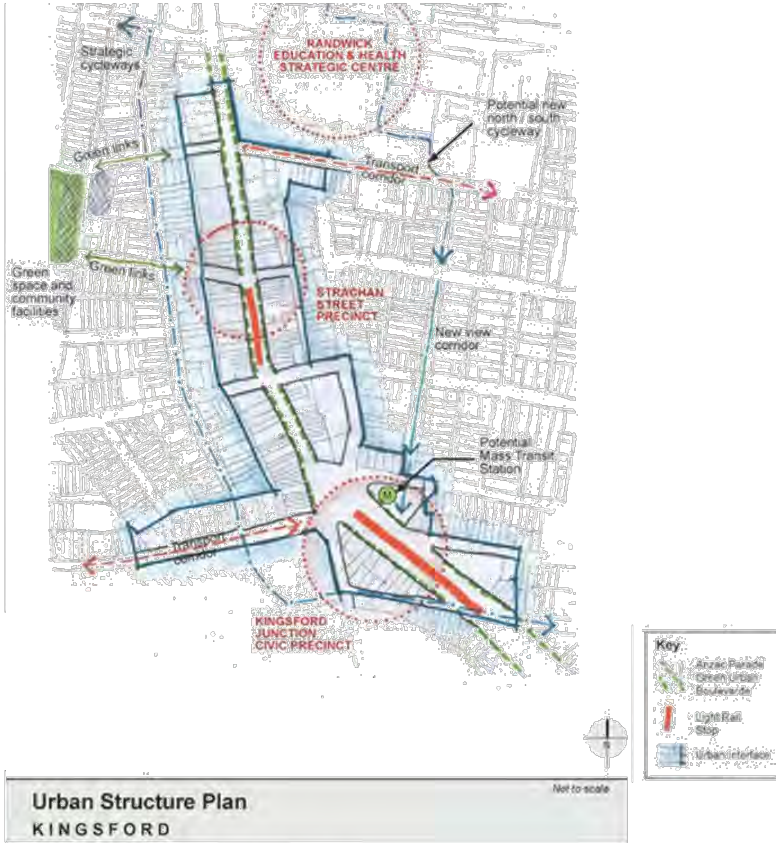


Figure 156: Structure Plan – Kingsford town centre
Source: Randwick City 2016

Part E – Funding Infrastructure

This Strategy identifies new infrastructure needed to support growth in the town centres and to ensure the long term vision for these centres are realised. The success of these town centres requires a combination of infrastructure and public domain improvements that are essential to accommodate growth and make the town centres vibrant and liveable places.

A schedule of infrastructure works needed to support growth in the town centres over the next 15 years has been compiled. Some of the items identified are directly from the K2K Urban Design Competition and community feedback including a new bicycle network, innovation centre and an automated waste collection system. Other items identified through this Strategy include essential public domain works, footpath widening and community facilities.

The estimated total cost of this infrastructure, community facilities and public domain improvements is approximately \$85 million. Funding this infrastructure will be based on the existing local development contributions framework (i.e. through s94A development contributions) and the economic uplift gained from a change in planning controls applying to this corridor through a new 'community infrastructure contribution'. In addition to these contribution schemes, an inclusionary zoning based approach for affordable housing is proposed, which will require a proportion of units to be

dedicated as affordable rental housing to be incorporated within the development.

A summary of the contribution schemes proposed to apply is shown in Table 15.

The aim of these three contribution schemes is to provide more certainty of what is required and possible to both landowners and developers and importantly, to help realise the overall vision for these town centres, as a vibrant and liveable place.

These schemes are supported by a comprehensive planning process, a strong evidence base, financial feasibility assessment and is aligned with community expectations for these town centres and are described below.

1.0 Infrastructure Contributions Scheme

The three proposed contribution schemes for the Kensington and Kingsford town centres are outlined as follows:

1.1 Development Contributions – Local Infrastructure Contributions

Section 94 of the Environmental Planning and Assessment Act (EP&A Act) enables the consent authority to levy contributions from developers by condition of development consent. Development contributions (monetary or in-kind) can be used to help provide for parks, local road improvements, town centre improvements and community facilities.

Table 15: Proposed Contribution Schemes

Contribution scheme to apply to K2K	Description
1. Local infrastructure contributions (s94A)	An increase of the maximum levy payable under s94A from 1% to 3% of the total construction costs.
2. Community infrastructure contribution (CIC)	A contribution charge of \$475/m ² towards community infrastructure on the additional planning capacity (GFA) made permissible under the proposed built form controls proposed in this strategy. The charge would only apply to the additional capacity above the existing base height and would apply to all developments seeking to achieve the maximum building heights as proposed in this draft strategy.
3. Affordable housing levy	A levy, commencing at 3% then increasing to 5% (from July 2019) of the total residential yield to be dedicated as affordable rental housing, incorporated within the development.

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The Randwick City Section 94A (s94A) Development Contributions Plan applies a 0.5% (for development with a development cost of \$100,000-\$200,000) to a maximum 1% levy to all development (with a development cost of \$200,001 and more) across the LGA. This is in accordance with the Minister of Planning's direction under s94E of the EP&A Act.

This rate can only be varied by the Minister for Planning based on a viable evidence based submission from council and submission to Independent Pricing and Regulatory Tribunal (IPART). Other rates currently applicable beyond the 1% include: Parramatta CBD at 3%, Burwood town centre at 4% and Chatswood CBD at 3%. Similarly, Waverley Council is currently seeking an exemption to the maximum rate payable for Bondi Junction town centre from 1% to 4%.

Council's existing s94A Plan (at a maximum rate of 1%) is not sufficient to fund the total infrastructure necessary to support growth in the town centres as shown in the table below. As such a key action of this strategy is to seek an exemption to the maximum levy imposed to 3% for the centres. This increased rate generates close to 68% of the required funding for infrastructure.

1.2 Community Infrastructure Contribution

While the increased s94A rate can fund the majority of the local infrastructure items, some of the community infrastructure items such as the fit out of an innovation centre, gallery and shared creative space, green links and new bicycle networks (as identified by the design competition) are outside the scope of Councils' s94A Plan, (meaning they are additional community infrastructure items and works which fall outside the scope of what has been traditionally funded through development contributions, in accordance with the Department of Planning's guidelines and practice notes).

The infrastructure items and works have been costed and categorised into either local infrastructure (to be funded under s94A) or community infrastructure (to be funded under a Community Infrastructure Contribution (CIC) as shown in the table below.

To fund the community infrastructure, a contribution is proposed on the new additional floor space capacity generated from the proposed new built form controls as outlined in Part C Section 5 – Built Form. The community infrastructure contribution is to be required as a financial contribution made as part of the development application process. Community infrastructure in the Kensington to Kingsford

Table 16: Proposed s94A Contributions

Estimated cost of total infrastructure to support growth	\$ 85,563,000 million
Contribution at 1% s94A levy (current)	\$ 19,664,750 million
Contribution at 3% s94A levy (proposed)	\$ 58,994,250 million

Table 17: Proposed Community Infrastructure Contributions

Estimated community infrastructure	\$40,750,000 million
Estimated local infrastructure (s94A)	\$44,813,000 million
TOTAL	\$85,563,000 million

Part E – Funding Infrastructure

precinct refers to new innovation centres, exhibition space, bicycle sharing facilities and water sensitive urban design which have been directly identified by this strategy to help realise the overall vision.

The developer can only achieve the maximum height proposed in this strategy if a contribution is made towards community infrastructure. The principle of this approach is that the cost of the community infrastructure charge is factored into the economic value uplift gained from the changes to built form controls and enables the council and the community to share

the benefits of density increases. Similar schemes in existence include Green Square within the City of Sydney and Macquarie Park within Ryde Council.

The following table summarises the total estimated cost of both community and local infrastructure needs attributable to the additional growth anticipated within the town centres and funding implications of the existing s94A at 1% with a CIC compared to a new increased levy at 3% with the CIC.

The results demonstrate that in order for the total infrastructure requirements to be provided (\$85m) that Council needs to implement both a 3% Section 94A contribution and a \$475/m² community infrastructure contribution on additional residential floor space, while also providing for a reasonable contingency (i.e. surplus).

1.3 Affordable Housing Levy

Part C Section 3.3 – Affordable Housing provided an overview of the legal mechanisms available to Council to facilitate affordable housing through the NSW planning framework. This part also established the critical need to provide affordable rental housing within the town centres for essential workers, in line with the Council's affordable housing program; and importantly, the need for a local planning mechanism to ensure affordable housing is delivered as part of the total supply of new housing within the area.

Table 18: Comparison of total contributions and infrastructure needed

Study Area	Section 94a at 1% Construction Costs +\$475/m ² CIC				Section 94a at 3 % Construction Costs +\$475/m ² CIC			
	K2K Contributions Required	Total Contribution	Difference	Surplus %	K2K Contributions Required	Total Contribution	Difference	Surplus %
Section 94A	\$45,963,000	\$19,664,750	-\$26,298,250	-57.22%	\$45,963,000	\$58,994,250	\$13,031,250	28.35%
Total CIC	\$39,600,000	\$41,858,781	\$2,258,781	5.70%	\$39,600,000	\$41,858,781	\$2,258,781	5.70%
Total	\$85,563,000	\$61,523,531	-\$24,039,469		\$85,563,000	\$100,853,031	\$15,290,031	

Source: Kensington to Kingsford Infrastructure Contribution Financial Feasibility Assessment (November 2016) prepared for Randwick City Council by Hill PDA

Part E – Funding Infrastructure

An affordable housing levy is proposed to apply to the Kensington and Kingsford town centres, pending enabling legislation under s94F of the EP&A Act, as authorised under the State Environmental Planning Policy No. 70 – Affordable Housing (Revised Schemes). The Department of Planning and Environment supports Council's inclusion in SEPP 70 and hence enabling the Council to use the contribution capabilities under s94F towards affordable housing.

The affordable housing levy proposed is to be introduced via a two stepped staged approach, commencing at 3% (up to June 2019) and increasing to a maximum of 5% (from July 2019 onwards), to apply to development applications for residential development in the Kensington to Kingsford town centres. The intent of this staged approach is to provide the market with a lead in time to factor in the contribution. Details relating to the contribution scheme including operational and management of the affordable housing dwellings will be outlined in an Affordable Housing Plan for the town centres to be submitted to the Department following endorsement of this strategy and confirmation that the Council will be authorised to levy under SEPP 70.

The preferred contribution mechanism is as dedicated (in-kind) affordable housing dwellings, to be incorporated within the new development. However, where this cannot be provided, in the case where the contribution amount is less than a reasonable sized dwelling to be dedicated, then an equivalent monetary contribution will be sought. The monies that are collected will be spent towards providing new affordable housing dwellings within the LGA.

The introduction of the proposed affordable housing levy can achieve more than 200 affordable rental dwellings for essential key workers in the area.

2.0 Planning Agreements

The legal instrument that sets out the applicant's offer to deliver the CIC in association with a development application is a voluntary planning agreement. Planning agreements are negotiated between Council and developers in the context of the development application process. The developer needs to voluntarily agree to the CIC monetary contribution to Council in order to gain the floorspace uplift proposed in the draft Planning Strategy. Council's Planning Agreements Policy (adopted 2007) establishes a framework to guide the preparation of planning agreements in a fair, efficient and transparent manner.

Planning agreements are legislated by

Table 19: Affordable Housing

Date of DA lodgement	Total residential floor area to be dedicated as affordable housing (as at 2017)	Estimated no. of additional affordable housing
To June 2019	3%	30
1 July 2019 onwards	5%	200

Strategies	Actions
1. Seek an exemption to the maximum levy payable under s94A for the Kensington and Kingsford town centres	a) Request in principle support from the Minister for Planning & Environment for an exemption to the maximum levy payable from 1% to 3% b) Amend Council's existing s94A development contributions plan to incorporate a 3% levy for the town centres and infrastructure identified to be funded
2. Review Council's existing VPA policy	a) Consider recommendations in the state government's recent draft Planning Agreements practice notes and review council's existing VPA policy in relation to the provision of community infrastructure
3. Introduce a community infrastructure contributions scheme to help fund the required community infrastructure identified by this Strategy	a) Introduce a community infrastructure contributions scheme within Randwick LEP 2012 based on discretionary built form controls (using existing and proposed controls as outlined in the strategy) which can only be surpassed in exchange for contributing towards community infrastructure b) Prepare supporting guidelines which lists the community infrastructure to be funded and operational details

Part E – Funding Infrastructure

section 93F of the EP&A Act and provides an alternative mechanism to authorise development contributions for a variety of public purposes, some of which extend beyond the scope of section 94 or section 94A of the EP&A Act. These additional purposes include the capital and recurrent funding of transport, community benefits and public facilities. All planning agreements must also be publicly exhibited for at least 28 days.

The NSW Department of Planning and Environment recently issued draft guidelines (practice note) for the use of planning agreements. Consistent with the Department's draft guidelines the items identified have been developed as the result of a comprehensive planning process for the town centres, community feedback including the outcome of the K2K Urban Design Competition. Moreover, it is important to note that the contribution schemes proposed has been derived from evidence based strategic investigation for the town centres, rather than individual development proposals in isolation. This is in keeping with the recent draft guidelines on planning agreements released by the Department of Planning and Environment.

3.0 Economic Viability & Development Feasibility

Council has commissioned independent feasibility analysis to ensure that the three proposed infrastructure schemes proposed do not render new development economically unviable. The development feasibility of selected sites in the town centres was analysed. The financial feasibility modelling took into account current market values, land costs, the economic uplift derived from the proposed change in built form controls, development margin and viability. The results demonstrated that for the majority of the selected sites in the modelling, the application of the contribution schemes proposed including affordable housing can be afforded on-site while also providing for a reasonable development margin. It was noted that, land acquisition costs were identified as being the most significant variable which impacted on the overall feasibility, and could not take into account land speculation.

Importantly, the economic modelling also identified that to encourage redevelopment along the corridor there is a need to increase FSRs and building heights within the study area. The revised built form controls as proposed under Part C Section 5 – Built Form, are likely to facilitate redevelopment and potentially unlock much of the development capacity which has not yet been realised.

Research has shown that development contributions and similar infrastructure charges, such as those proposed in this strategy, do not negatively impact on the cost of providing new housing and worsen housing affordability¹⁰⁰. Other costs such as stamp duty (24%) and GST (35%) are identified as having the most impact on total housing costs, while development contributions account for only a marginal (6%) proportion of total costs. And importantly, even if these costs were reduced, there is no guarantee the savings would be passed on to the consumer if the market is willing to pay a higher price.

¹⁰⁰Research undertaken by Urbis (2014) in City of Melbourne (2015) Homes for People: Housing Strategy 2014-18

Part F – Implementation Plan

The following table sets out the implementation timeframe for the actions contained in this Strategy and should be read in conjunction with the relevant themes. Some actions listed below are applicable to more than one theme, due to the interrelationship between the various urban design principles, but for clarity, the actions have been listed under one theme.

Each action has been allocated a timeframe for delivery as follows:
Short term – 1-2 years, Medium term – 3-6 years, Long term – 7 years+

Strategies	Actions	Time frame	Responsibility
Housing Growth and Diversity			
1. Direct housing growth into locations and sites that have the capacity to accommodate change	a) Amend the RLEP 2012 building height and floor space ratio controls for Kensington and Kingsford town centres, to provide for forecast dwelling growth (see Part C – Section 5 Built Form)	Short term	Council and DPE
	b) Concentrate higher density housing growth within key Precincts and sites in walkable proximity to light rail stops/terminus (see Part C Section 5 – Built Form)	Short term	
2. Encourage a diversity and mix of apartment sizes in the town centres having regard to changing demography, housing trends and affordability for a resident population	a) Consider new DCP controls requiring a mix of dwelling types, sizes and forms in all new major residential/mixed use development based on demographic trends and social mix	Short term	Council
3. Encourage adaptable and accessible housing to enable the community to age in place	a) Continue to implement the universal accessible housing principles and controls contained in Part C1 of DCP 2013 for new developments	Short term	Council
4. Provide for affordable housing options for key workers to enhance opportunities to live, work and learn together and to support the economic functions of the Randwick Education and Health Strategic Centre	a) Incorporate inclusionary zoning provisions within the RLEP 2012, based on a staged approach as described above	Short term	Council, DPE, Minister for Planning, IPART
	b) Update Council's existing Affordable Housing Strategy, Policy, Programs and Procedures to address the Kensington and Kingsford town centres Affordable Housing Scheme (once adopted)	Short term	
	c) Prepare a new Affordable Housing Plan for the town centres which will outline the operational and management details of the Affordable Housing Contributions Scheme	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
5. Encourage the development of family friendly apartments to facilitate social diversity in the community	a) Consider new DCP controls to encourage family friendly apartments including specific design requirements that address adequate storage and access to outdoor space where possible	Short term	Council
Business and Economy			
1. Support and strengthen the existing retail and services within the town centres to provide for the regular needs of residents	a) Support local precinct shopping programs such as "shop local" by developing an app for Kensington to Kingsford that connects people to what's on and what's open near them	Medium term	Council
	b) Continue work to lift the aesthetic standards of Anzac Parade by investigating grant opportunities for shopfront improvements	Short-medium term	
	c) Improve activation by providing more spaces suitable to outdoor dining in appropriate places	Medium term	
	d) Amend the DCP 2013 to encourage fine grain retail and laneways activation to create opportunities for diverse and interesting shopfronts and premises	Short term	
	e) Continue to investigate opportunities for regular evening events such as the night food markets in Meek Street Plaza and other locations within the centres	Short-medium term	
2. Support the establishment of a night time economy in Kensington and Kingsford	a) Ensure that new development create opportunities for appropriate retail uses at street level that trade into the evening	Short-medium term	Council
	b) Identify opportunities for decorative/feature lighting in outdoor dining areas to support the night time economy	Short term	
3. Nurture opportunities to establish small, start-up or creative enterprises both in new developments and in vacant premises	a) Use a community infrastructure contributions scheme to obtain Council-owned innovation spaces (such as co-working facilities and affordable office spaces)	Short-medium term	Council
	b) Provide an online guide to applying for planning consent for establishing a co-working space, incubator, accelerator or creative workshop	Medium term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Business and Economy			
4. Use planning regulation to encourage the provision of commercial office space which can be used by co-working operators, incubators and accelerators	a) Amend the RLEP 2012 to implement a minimum non-residential FSR at key sites to ensure first floor commercial space is provided in new developments	Short term	Council with operators of innovation hubs and start ups
	b) Work with innovation organisations to identify the technology infrastructure required to support innovation uses	Short term	
5. Use public domain improvements to make the centres attractive to innovation industries	a) Establish free public Wi-Fi	Medium term	Council
	b) See Part C Section 8 – Public Realm and Landscape	Short- Medium term	
6. Leverage the close proximity to the UNSW and health campuses to encourage startups and innovation spaces to locate in the Kensington and Kingsford town centres	a) Continue partnering with UNSW to provide support for their innovation program	Short-long term	Council and UNSW
	b) Utilise partnerships with UNSW and the Hospitals Campus establish UNSW Incubators within the centres	Medium term	
	c) Use branding and advertising to promote Kensington and Kingsford as a place for innovation and creative uses to locate	Short-medium term	
7. Ensure new developments provide for businesses fronting streets to ensure streets are vibrant and safe	a) Amend the RLEP 2012 to implement an active frontage provision to require active building frontages at street level throughout the centre, as identified on the active frontages map (Figures 38 and 39)	Short term	Council and DPE
	b) Amend the DCP 2013 to encourage retail and commercial uses to address laneways and secondary streets, as identified on the active frontages map (Figures 38 and 39)	Short term	
8. Provide adequate retail and commercial space to ensure future employment needs can be accommodated and the town centres can provide retail and other services to residents and visitors	a) Amend the RLEP 2012 to implement a minimum non-residential FSR applying to sites at key nodes, as identified in Figures 40 and 41, to ensure adequate space is available for the provision of local retail and services and for the provision of innovation spaces	Short term	Council

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Built Form			
1. Ensure the form and scale of development is appropriate to its location and contributes to a positive urban design outcome in the town centres	a) Amend RLEP 2012 to establish building heights appropriate to each part of the town centres as shown in the building heights map (Figures 56 and 57) b) Amend the DCP 2013 to introduce a secondary height limit to facilitate mews style developments for the sites indicated on the DCP Height Transition Map (Figures 58 and 59) c) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the DCP Height Transition Map (Figures 58 and 59) d) Amend the RLEP 2012 to establish maximum FSRs appropriate to each part of the town centres as shown on the FSR map (Figures 65 and 66) e) Amend the DCP 2013 to establish building setbacks in each part of the town centres as shown on the Building Setback Map (Figures 70 and 71) f) Amend the DCP 2013 requiring that development establish a four storey street wall by stepping back at the fourth storey to a minimum depth of 4m to achieve a visual separation between the lower and upper levels of a building	Short term	Council
2. Ensure that reasonable solar access is maintained to neighbouring properties and streets and public space	a) See Part C Section 8 – Public Realm and Landscape, Action 7(e)	Short term	Council
3. Achieve a high level of accessibility and permeability within the town centres	a) Amend the DCP 2013 to require that development on identified sites provide mid-block links to facilitate permeability in the block structure (Figures 70 and 71)	Short term	Council

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
4. Encourage a high standard of architectural design to make a positive contribution to the aesthetic quality, functionality and amenity of the urban environment	a) Continue to require that all new development involving the construction of a new building or external alterations to an existing building meet the requirements of RLEP 2012 (clause 6.11) relating to design excellence	Short term	Council
	b) Amend RLEP 2012 to require that all new development involving the construction of a new building in the following Precincts be subject to an architectural design competition process: • Todman Square Precinct • Kingsford Midtown Precinct • Kingsford Junction Precinct	Short term	
5. Recognise building roofs as a strong visual landmark element in built form design and the town centres' skyline	a) Amend RLEP 2012 to include the Standard LEP Instrument model provision on 'architectural roof features'	Short term	Council
Heritage Conservation			
1. Protect the heritage character and fabric of buildings that reflect the historical development of the town centres	a) Continue to protect the heritage significance of heritage items and contributory buildings through the consistent and rigorous application of relevant RLEP 2012 heritage provisions and DCP 2013 guidelines for heritage conservation	Short-long term	Council
	b) Update the heritage inventory sheet for O'Deas Corner (424-436 Anzac Parade, Kingsford) with key findings from the heritage condition assessment	Short term	
	c) Amend the DCP 2013 to add the following to the list of contributory buildings to be conserved and retained in Kingsford town centre: • 279-287 Anzac Parade, Kingsford	Short term	
	d) Amend the DCP 2013 to introduce a 6.5m upper level setback for contributory buildings	Short term	
	e) Amend the DCP 2013 for Kingsford town centre to incorporate additional controls for contributory buildings (currently applicable to Kensington town centre) including the requirement for the submission of a Heritage Impact Statement	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
2. Integrate heritage and contributory buildings into redevelopment	a) Require the retention and adaptive reuse of historic shopfronts	Short term	Council
	b) Strengthen the DCP 2013 controls for contributory buildings in Kingsford town centre	Short term	
3. Ensure that new infill development respects the height, scale, siting, character and proportions of contributory buildings	a) Amend the DCP 2013 for Kingsford town centre to require that new infill development/works: • Have regard to the scale, character and proportions of heritage and contributory buildings • Reflect segmented frontages of historic building groups through facades that are broken into smaller vertical sections and articulation • Provide consistent heights and alignment of street awnings with existing contributory forms • Retain the profile and massing of exposed side elevations. • Provide podiums that reference the principle influence line of historic streetscapes and are cohesive with the established street frontage	Short term	Council
Sustainability			
1. Encourage higher performance ratings for residential development through Green Star accreditation	a) Include 5-star green star performance in the RLEP 2012 as a criteria for achieving design excellence on key sites	Short term	Council
	b) Amend the DCP 2013 to encourage all other sites within Kensington and Kingsford town centres to achieve green star accreditation	Short term	
2. Ensure commercial development is built to best-practice sustainability standards	a) Amend the DCP 2013 to require that new commercial premises and hotel and motel accommodation with a floor area of 1,000m ² or more must achieve a minimum NABERS 5-star Energy and NABERS 4-star or 5-star Water rating	Short term	Council
3. Encourage existing buildings to improve their energy and water consumption performance	a) Continue participating with Woollahra and Waverley Councils in 3-Council sustainability project to improve the environmental performance of existing residential flat buildings and shop top housing	Short-medium term	Waverley Council, Woollahra Council Randwick City Council
4. Integrate more vegetation into the town centres to slow down and filter pollutants from stormwater, improve localised flooding impacts and protect the waterways by implementing water sensitive urban design	a) Prepare a strategy for water sensitive urban design throughout the town centres in conjunction with a landscape concept plan	Short term	Council
	b) Implement two pilot water sensitive urban design projects in the town centres	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
5. Reduce mains water demand by recycled or alternative non-potable water generated from local water resources within the public domain of Kensington and Kingsford town centres	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible	Short-term	Council
	b) Where possible, in the landscape concept plan, choose low water species for landscaping	Short-term	
6. Incorporate renewable energy and energy-efficient technologies in the public realm to further cultivate the image of the town centres as best practice environmentally sustainable precinct	a) Implement energy-efficient LED lighting on Anzac Parade and throughout the town centres	Short-medium term	Council and Ausgrid
	b) Investigate commissioning public art which can also demonstrate environmental sustainability innovation	Short term	
7. Investigate and if feasible, implement an automated underground waste collection system to reduce the visual clutter caused by garbage bins on streets and reduce litter within the town centres	a) Undertake a concept design and feasibility study for an automated underground waste collection system within the town centres	Short-term	Council
	b) Amend the DCP 2013 to require developments within the town centres to be capable of connecting to an automated underground waste collection system.	Short-term	
	c) Allocate funding for the relevant studies and implementation of an automated underground waste collection system.	Short-term	
Transport			
1. Advocate for additional mass transit to increase the public transport corridor capacity and provide for population growth	a) Advocate to the State Government for additional mass transit to Kingsford town centre and the more southern parts of the LGA	Short-long term	Council and Transport for NSW
	b) In the absence of additional mass transit, advocate to the State Government for adequate bus services to maintain a maximum morning peak hour level of crowding of 80%	Short-long term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Transport			
2. Encourage bicycle usage by planning for and delivering an improved cycle network and additional bicycle infrastructure	a) Continue to progress Council's cycle ways plan	Short-long term	Council and Royal Randwick Racecourse
	b) Investigate a new off-road cycleway through the Randwick Racecourse (as per competition winner)	Short-medium term	
	c) Allocate funding to provide for bicycle share hubs within the town centres	Short term	
	d) Allocate funding to construct an underground bicycle parking station at Kingsford Junction	Short term	
3. Reduce barriers to electronic vehicle ownership	a) Investigate opportunities for electric vehicle charging spaces within public car parks	Short term	Council
	b) Amend the DCP 2013 to encourage the installation of appropriate power supplies and electric vehicle charging points within new residential and commercial developments	Short term	
4. Encourage use of car share by residents in an around the town centre	a) Investigate opportunities for additional on-street car share parking spaces	Short term	Council
	b) Amend the DCP 2013 to require the provision of a car share parking spaces within new developments of more than 60 dwellings	Short term	
5. Reduce the car parking requirements and encourage alternative forms of transport to reduce local traffic congestion	a) Amend the DCP 2013 to reduce the car parking requirements to reflect the area's close proximity to the light rail which provides fast and reliable public transport	Short term	Council
	b) Allow a minimum and maximum car parking requirement to allow developments to respond to market demand and proximity to the light rail	Short term	
	c) Amend the DCP 2013 to increase requirements for bicycle and motorcycle parking to provide for alternatives to private car ownership	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
1. Increase the amount of open space within and around the town centres	a) Advocate for new public open space to be provided on the south-western corner of the Royal Randwick Racecourse site (as indicated on the Structure Plan)	Short-medium term	Council and Royal Randwick Racecourse
	b) Investigate future opportunities to expand the footprint of Kokoda Park eastwards and to increase its capacity (as indicated on the Structure Plan)	Medium-long term	
	c) Identify opportunities to convert redundant road space and other underutilised spaces to informal open space	Short term	
2. Establish an integrated open space network connecting the town centres with local parks and open spaces	a) Establish a green grid through avenue tree planting and landscaping to create connections to existing public open spaces	Medium-long term	Council
3. Establish a strong green 'boulevard' landscape character along Anzac Parade	a) Undertake a street tree planting program in accordance with the Light Rail Vegetation Offset Guide and Urban Design and Landscape Plan Kingsford, focusing on a hierarchy of scale along Anzac Parade	Medium term	Council
	b) Review the Randwick Street Tree Masterplan to ensure suitable species to cater for light rail infrastructure	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
4. Maximise the 'greening' of the public domain by applying a coordinated street tree and landscaping treatment.	a) Apply the recommended suite of landscape treatments in accordance with the Light Rail and Urban Design Plan	Short-medium term	Council
	b) Provide supplementary infill trees and landscaping throughout each town centre incorporating species that are appropriate to the site and location: • Introduce canopy trees and/or landscaping on redundant road spaces as identified in the Public Realm Map • Undertake infill street tree planting on east west connector streets to establish green corridors to surrounding residential areas • Provide landscaping on available verges and proposed footpath blisters/ footpath widening locations to define smaller localised spaces wherever possible • Introduce feature trees and landscaping to provide seasonal colour and variation in identified plazas • Establish a 'planting edge' (e.g. low hedge) in high movement zones to create a buffer between pedestrians and traffic	Short-medium term	
	c) Retain large canopy trees throughout the town centres	Short-medium term	
5. Minimise visual clutter and create legible coherent streetscapes.	a) Maximise the co-location of signage, lighting, banners and power poles onto multifunctional smart poles along Anzac Parade	Medium term	Council and local Business Chambers
	b) Collaborate with the business chambers to develop a signage strategy that reflects the unique character of the town centres. This may include an Asian themed signage strategy for Kingsford town centre	Short term	
	c) Strengthen DCP 2013 controls relating to signage within the town centres	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
6. Provide for the undergrounding of overhead powerlines along Anzac Parade.	a) Continue to advocate Transport for NSW to underground overhead powerlines along both sides of Anzac Parade in addition to the cross lines	Short-long term	Council and Transport for NSW
	b) Coordinate the undergrounding of powerlines in Kingsford town centre in line with the light rail roll out as provided for in the Randwick s94A Plan	Short-medium term	
	c) Extend the undergrounding program to Kensington town centre by ensuring adequate allocation in the Kensington and Kingsford s94A development contributions plan	Short-medium term	
7. Create a network of safe, attractive and vibrant urban public spaces	a) Achieve wider footpaths through the application of increased setbacks in key locations in accordance with the Public Realm Map (Figures 132 and 133)	Short-long term	Council
	b) Develop Meeks Street Plaza as a key community focal point through specific design treatments, urban furniture, landscaping, decorative lighting and public art	Short-long term	
	c) Provide opportunities for new micro plazas in accordance with the Public Realm Map (Figures 132 and 133)	Short-long term Short term	
	d) Amend the RLEP 2012 to rezone existing plazas/micro plazas from B2 Local Centre to public open space	Short term	
	e) Include DCP 2013 controls to encourage overlooking/ passive surveillance (e.g. balconies and habitable space) for sites adjoining key plazas/public open space	Short term	
	f) Amend the DCP 2013 to include a sun access provision to protect solar access to key proposed public spaces as discussed in Part C Section 5.6 – Solar Access and shown on the Public Realm Maps (Figures 132 and 133)	Short term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
8. Introduce new urban furniture to provide rest areas throughout the public domain	a) Review existing and provide new seating, bins and cycle racks focusing on the plazas identified in this Strategy, and other locations devoid of these elements (e.g. along Gardeners Road in Kingsford town centre)	Short-medium term	Council
	b) Urban furniture is to be consistent with Council's Urban Elements Design Manual 2006	Short-medium term	
9. Promote outdoor dining to encourage more street activity	a) Encourage outdoor dining in side streets where footpath widening/ kerb build outs are proposed	Medium term	Council
	b) Require high quality outdoor furniture for outdoor dining that reflects the character of the town centre, has an open appearance and minimises clutter	Medium term	
	c) Consider financial incentives to encourage outdoor dining in the Kensington town centre, such as a 12 month reduction in DA and footpath licensing fees	Medium term	
10. Ensure continuous weather protection along core retail strips and pedestrian routes	a) Strengthen existing DCP controls requiring awnings to be integrated into building design and constructed at a consistent height above the street	Short term	Council
11. Improve existing footpath surfaces by applying cohesive and high quality paving treatments	a) Provide RCC City Civic Paving (PA01) in line with Council's Urban Elements Design Manual 2006	Medium term	Council
	b) Extend paving material in identified locations to visually integrate light rail infrastructure with the town centres	Medium term	
12. Lighting	a) Provide street lighting on Anzac Parade using multi-functional poles in accordance with the Randwick City Light Rail Urban Design Guidelines	Medium term	Council
	b) Ensure public spaces, primary pedestrian streets and light rail stops are well lit to enhance public safety and provide a night time ambience in the town centres	Medium-long term	
	c) Consider lighting themes for key heritage/ contributory and/or future landmark buildings	Short-medium term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
13. Facilitate public art and artistic expression in the public domain to enhance visual amenity, contribute to cultural identity and foster a sense of community	a) Incorporate a range of permanent public artworks, as identified in the Public Realm Map (Figures 132 and 133)	Medium term	Council
	b) Coordinate public art with other public domain elements such as lighting, paving insets and specialised street furniture	Medium term	
	c) Consider new DCP 2013 controls requiring the provision of public art for major development/key opportunity sites	Short term	
	d) Consider increasing the allocation of s94A funding towards public art in the town centres as part of the next new s94A Plan	Short-medium term	
14. Initiate programs and events to bring creativity and cultural activity into the experience of the town centres	a) Collaborate with Council's Events Team and the town centre business chambers to identify opportunities to activate the public domain at day and night through a rotation of seasonal cultural events and activities	Short-medium term	Council, UNSW, NIDA
	b) Develop long term strategic partnerships with UNSW and NIDA to bring formal and informal cultural and creative events into the town centres	Medium-long term	
15. Prioritise pedestrian access and safety throughout the public domain and street network	a) Implement pedestrian access, crossings and other safety measures identified in the Transport for NSW Urban Design and Landscape Plan	Medium term	Council, Transport for NSW, RMS
	b) Advocate Transport NSW to close slip lanes adjacent to refuge islands at the Rainbow Street and Gardeners Road crossings to maximise pedestrian safety	Short-medium term	
	c) Advocate Transport NSW for provision of access to the southern end of Carlton Street light rail stop	Short-medium term	
	d) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the Accessibility Map (Figures 142 and 143)	Short term	
	e) Advocate for a reduced 40-50km/hour speed limit on Anzac Parade in both town centres	Short-medium term	
	f) Advocate for the relocation of the Anzac Parade pedestrian crossing closer to the intersection in Kingsford town centre to improve pedestrian accessibility as shown on the Accessibility Map (Figures 142 and 143)	Short-medium term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
16. Enhance pedestrian permeability and connectivity throughout the public domain	a) Amend the DCP 2013 to establish new pedestrian mid-block links as part of the redevelopment of sites as shown on the Accessibility Map (Figures 142 and 143)	Short term	Council
	b) Improve existing pedestrian links/through links so that they are safer, more direct and inviting	Short-medium term	
17. Improve the appearance, safety and sanitation of service lanes to provide improved amenity for pedestrians	a) Work with Business Chambers to encourage property owners to improve the appearance, safety and sanitation of the rear of shops fronting service lanes	Medium term	Council and Business Chambers
18. Design streets and public spaces to increase natural surveillance and foster a sense of safety	a) Apply Crime Prevention Through Environmental Design (CPTED) principles to all public domain and streetscape design	Short-long term	Council
	b) Review DCP 2013 controls to ensure that all new development provides active frontages and clear glazing on street and upper levels to encourage surveillance of streets and public spaces	Short term	
	c) Conduct a review of public lighting and upgrade as required	Short-long term	
	d) Install way finding signage throughout each town centre in accordance with the Randwick City Civic Signage Manual	Medium term	
	e) Upgrade open air car parks to enhance surveillance, safety and attractiveness	Medium-long term	

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Social Infrastructure			
1. Encourage childcare centres to locate within Kensington and Kingsford town centres	a) Amend the DCP 2013 to encourage childcare centres on podiums and rooftops within the town centres, in conjunction with stringent controls on emergency access and safety	Short term	Council and
2. Support innovative approaches to shared use of school facilities	a) Continue discussion with NSW Department of Education on options for optimising use of local school facilities in the precinct including innovative approaches to shared use of buildings and spaces with the community	Short-long term	Council and NSW Department of Education
3. Attract and expand social services and programs to meet the needs of a diverse community	a) Incorporate a flexible office/meeting room space within Kingsford for social services, youth outreach programs and services and other community services within the community infrastructure contributions scheme	Short term	Council and NSW Family and Community Services, other local community service providers
	b) Undertake detailed planning for the delivery of a community hub at the Rainbow Street site in Kingsford town centre which promotes the co-location of Council administration/civic services and social/community facilities	Medium-long term	
4. Improve public access to art and cultural facilities within Kensington town centre	a) Incorporate a gallery/creative space for Kensington within the community infrastructure contributions scheme.	Short	Council
Zoning and Land use			
1. Consolidate the town centres' boundary to create a well-defined and compact urban form	a) Retain the existing RLEP 2012 B2 Local Centre zoning for Kensington and Kingsford town centres	Short term	Council
	b) Amend RLEP 2012 to rezone the following sites from residential to B2 Local Centre zone (Figure 151): • 16-20 Barker St, Kingsford • 582-584 and 586-592 Anzac Parade, Kingsford; and • 63 Harbourn Road and 12-18 Rainbow Street, Kingsford		
2. Promote a land use mix within the town centres	a) Maintain existing permissible uses for the B2 Local Centre zone under the RLEP 2012	Short term	Council

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Funding Infrastructure			
1. Seek an exemption to the maximum levy payable under s94A for the Kensington and Kingsford town centres	a) Request in principle support from the DPE and Minister for Planning for an exemption to the maximum levy payable from 1% to 3% b) Amend Council's existing s94A development contributions plan to incorporate a 3% levy for the Kensington and Kingsford town centres and infrastructure identified to be funded	Short term	Council and DPE, Minister for Planning, IPART
2. Review Council's existing VPA policy	a) Consider recommendations in the state government's recent draft Planning Agreements practice notes and review council's existing VPA policy in relation to the provision of community infrastructure	Short-medium term	Council
3. Introduce a community infrastructure charge to help fund the required community infrastructure identified by this strategy	a) Introduce a community infrastructure contributions scheme within the RLEP 2012 based on discretionary built form controls (using existing and proposed controls) which can only be surpassed in exchange for contributing towards community infrastructure	Short term	Council
	b) Prepare supporting guidelines which lists the community infrastructure to be funded and operational details	Short term	

Appendix 1

Impact of Sydney Airport's prescribed airspace on building height

Land at Kingsford Junction (Nine-Ways) is a high frequency aviation corridor for Sydney Airport take-off and landings. The National Airports Safeguarding Framework administered by the Commonwealth Department of Infrastructure and Regional Development (DIRD) sets building height controls around Australia's airports to ensure the safety of aircraft and passengers (including the height of cranes operating during building construction stage). Sydney Airport's protected airspace is also known as "prescribed airspace". Prescribed airspace includes seven surfaces outlined on Sydney Airport's web site: www.sydneyairport.com.au/corporate/community-environment-and-planning/planning/airspace-protection.aspx

Council has made preliminary enquiries with Sydney Airport and DIRD in relation to height limitations applying to land within Kensington and Kingsford. Advice received in relation to the surfaces known the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) are particularly relevant for taller building forms proposed at Kingsford Junction (Nine Ways). The proposed maximum building height of 17 storeys is below the PANS-OPS but above the OLS in Kingsford. Kensington is not impacted by either the PANS-OPS or OLS.

Under the Commonwealth Airports Act 1996, any building or other structure that would penetrate prescribed airspace is known as a "controlled activity". The OLS surface (shown on a cart) is used during the visual stages of flight (rather than instrument navigation) and therefore a merit assessment is carried out. DIRD advises that authorities should be aware that intrusions may potentially have an impact on aviation safety, particularly if there are a number of obstacles in one area, which is why a Commonwealth approval for proposals exceeding the OLS is needed. This approval may be subject to conditions (imposed by Air Services Australia and the Civil Aviation Safety Authority). Sub regulation 14(2) of the Airports (Protection of Airspace) Regulations 1996 (the Regulations) states that:

"The Secretary must approve a proposal unless carrying out the controlled activity would interfere with the safety, efficiency or regularity of existing or future air transport operations into or out of the airport concerned."

The PANS-OPS surfaces are used in take-off and landing approaches and pilots rely entirely on instrument navigation. They are designed to protect aircraft from colliding with obstacles when flying on instruments. Under Regulation 14(5) of the Airports

Regulation, there is no discretion to approve a permanent penetration of the PANS-OPS. Penetrations lasting no more than three months by a structure such as a crane may be approved, but only with the support of Sydney Airport.

Sydney Airport has advised that, given the proximity of certain sites in the Kingsford area to the main flight path leading to Sydney Airport's east-west runway, a proponent should not assume that an application to erect a crane penetrating the PANS-OPS would be necessarily be approved. Therefore the airport height restrictions are an important consideration for future development applications even if they propose height below the PANS-OPS, given the need to erect a crane during construction.

Further consultation will be conducted with Sydney Airport, CASA and DIRD during the public exhibition stage of the draft Strategy on height limitations at Kingsford.

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Trees		Botanical name	Common name	Location
		<i>Pyrus calleryana</i>	Callery Pear	High Cross Park & High Street
		<i>Sapium sebiferum</i>	Chinese Tallow	High Cross Park street tree
		<i>Agathis robusta</i>	Queensland Kauri	Alison Road between Anzac Parade & Doncaster Avenue (Northern side)
		<i>Magnolia grandiflora</i>	Magnolia 'Little Gem'	High Cross Park
		<i>Pistacia chinensis</i>	Chinese Pistache	High Cross Park
		<i>Plantanus orientalis</i> 'Digitata'	Cut Leaf Plane	Anzac Parade & Alison Road between Darley Road & Wansey Road (Northern side)
		<i>Platanus acerifolia</i>	London Plane	Anzac Parade & Alison Road between Darley Rd & Wansey Road (Northern side)

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Shrubs/Accent plants	Botanical name	Common name	Location
	<i>Alternanthera dentate</i>	Ruby Leaf Alternanthera	Verges Anzac Parade
	<i>Callistemon verinalis</i>	Callistemon Little John	Verges Anzac Parade
 	<i>Carrisa macrocarpa</i>	Natal Plum	Verges Anzac Parade
	<i>Murray paniculata</i>	Orange Jessamine	High Cross Park & verges, Anzac Parade
	<i>Dianella caerulea</i>	Blue Flax Lily	Street verges
	<i>Daniella revolute</i>	Mauve Flax Lily	Street verges

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Shrubs/Accent plants	Botanical name	Common name	Location
	<i>Imperata cylindrica</i>	Blady Grass	Street verges
	<i>Microlaena stipoides</i>	Weeping Meadow Grass	Street Verges
	<i>Pennisetum alopecuroides</i>	Swamp Foxtail	Anzac Parade median & verges behind kerb (where appropriate)
	<i>Pennisetum setaceum</i>	Fountain Grass	Anzac Parade median & verges behind kerb (where appropriate)
	<i>Patersonia servicea</i>	Silky Purple Flag	Street verges

Appendix 3 – Town Centre boundary investigation

16-20 Barker Street,
Kingsford



Aerial photograph of location



View of existing buildings on subject sites from Barker Street



View of existing building on 18 Barker Street from Barker Street



View of existing building on 20 Barker Street from Harbourne Road



View of existing building on 20 Barker Street from Barker Street



View of existing building on 16 Barker Street from Barker Street

Appendix 3 – Town Centre boundary investigation

16-20 Barker Street,
Kingsford

Current planning controls	
 Existing zoning map	Randwick Local Environmental Plan 2012 Zoning: R3 Medium Density Residential FSR: 0.75:1 for developments other than for the purpose of a dwelling house Maximum Height: 9.5m for developments other than for the purpose of a dwelling house.
Analysis	
Site Description	The site consists of 3 lots. The lots are described as Lot 1 in DP 950767 No. 16 Barker Street, Lot 1 in DP 954209 18 Barker and Lot 20 DP 1032739 (being Lots 1-6 in SP 65941) 20 Barker Street. The land area of the 3 lots is approximately 1061.77m². The sites are regularly shaped with 16 and 18 Barker Street having singular frontages and 20 Barker Street having dual frontages to Barker Street and Harbourn Road. The sites are presently occupied with two single storey dwellings and a 4 storey residential flat building (6 units). The site is adjoined by a single storey business premises (McDonalds) to the west and a 2 storey residential flat building (6 units) to the south.
Streetscape	Harbourn Road has varied building heights ranging from 1 to 4 storeys, with consistent front setbacks, boundary fences and architecture patterns. Building heights range from 1 to 5 storeys, with varying setbacks on the northern side of Barker Street and consistent setbacks on the southern side of Barker Street. Boundary fences and architectural patterns are also consistent within the streetscape.

Appendix 3 – Town Centre Boundary Investigation

16-20 Barker Street,
Kingsford

Analysis	
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by mixed commercial and residential uses, multi business properties, single dwellings and residential flat buildings. Commercial uses include; a medical and dental centre, a natural medicine practice, a physiotherapist and psychologist practice, a tax accountant, an obstetrician gynaecologist, a Vietnamese roll restaurant, McDonalds, and a service station. A B2 Local Centre Business Zone (McDonalds) adjoins the western boundary of 16 Barker Street and is located within the Kingsford Town Centre. To the north of the site is the educational establishment, the UNSW. The site is zoned in SP2 Infrastructure and is a special purpose zone. A R3 Medium Density Residential zone continues into the surrounding east to south urban blocks and is characterised by single dwellings, semi-detached dwellings, dual occupancies, residential flat buildings, and town houses.
Topography	The site has a flat topography.
Landscape character and open space	The site and the surrounding areas are highly urbanised. A cluster of medium sized trees are found at the rear of 18 Barker Street. Both 16 and 20 Barker Street contain medium sized trees at the front of the lots fronting Barker Street.
Proximity to nearest centre	The site adjoins the Kingsford Town Centre on the western property boundary of 16 Barker Street.
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The site has convenient access to frequent and regular bus services along Anzac Parade with connections to the CBD and other destinations in the Eastern Suburbs. The closest bus stop is located outside of 243-253 Anzac Parade and is approximately 143m from 16 Barker Street. Once constructed, the site will have access to the south east light rail services along Anzac Parade with the closest light rail stop at Strachan Street. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.
Access	Both 16 and 18 Barker Street have singular hardstand parking facilities. 20 Barker Street has onsite garage parking facilities with access from Harbourn Road.

Appendix 3 – Town Centre Boundary Investigation

16-20 Barker Street,
Kingsford

Analysis	
Urban design	20 Barker Street occupies a prominent corner location. Collectively the subject sites occupy a strip of Barker Street and are visible from various vantage points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow town centre development such as mixed use buildings. Any increased building mass and dwelling numbers associated with higher density development would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access.
Planning Consideration	The subject sites are located within a strategic location as they adjoin the Kingsford Town Centre and would allow for the logical extension of the Kingsford Town Centre. A B2 Local Centre zone would offer greater flexibility for a broader range of business uses and allow for a consistent zoning application across the block.
Recommendation	Proposed zone: B2 Local Centre Proposed FSR: 4:1 Proposed height: 31m (nine storeys)

Appendix 3 – Town Centre Boundary Investigation

582-584 and 586-592
Anzac Parade, Kingsford



Aerial photograph of location



View of existing building on 582-584 Anzac Parade from Anzac Parade, Kingsford



View of 582-584 Anzac Parade access way from Wallace Street, Kingsford



View of existing building on 586-592 Anzac Parade from Anzac Parade, Kingsford

Appendix 3 – Town Centre Boundary Investigation

582-584 and 586-592
Anzac Parade, Kingsford

Current planning controls	
 Existing zoning map	Randwick Local Environmental Plan 2012 Zoning: R2 Low Density Residential FSR: 0.5: 1 for developments other than for the purpose of a dwelling house Maximum Height: 9.5m for developments other than for the purpose of a dwelling house
Analysis	
Site Description	The site consists of 2 lots. The lots are described as Lot 1 in DP 516025 No. 582-584 Anzac Parade and Lot 1 in DP 94260618 No. 586-592 Anzac Parade. The sites are irregularly shaped. The total land area of the two lots is approximately 895.76m². 582-584 Anzac Parade has dual frontages fronting Anzac Parade and Wallace Street. 586-592 Anzac Parade has a singular frontage onto Anzac Parade. The sites are presently occupied by two 2 storey multi business properties comprising of a pizza shop, ironing service, lawyers and an Indonesian restaurant. Adjoining the site to the west is the South's Juniors (4 storeys). To the east there is a 2 storey residential flat building (3 units) and a 2 storey residential flat building.
Streetscape	The south-western side of Anzac Parade provides a generally consistent streetscape in terms of building heights, setbacks boundary fences and architectural patterns. Both 421 and 425 Anzac Parade obtain a nil setback onto Anzac Parade.

Appendix 3 – Town Centre Boundary Investigation

582-584 and 586-592
Anzac Parade, Kingsford

Analysis	
Streetscape continued	A nil setback of the subject block is consistent with the neighbouring properties along the north-eastern side of Anzac Parade and the front setback is increased towards the south-east of Anzac Parade. Building heights are predominantly 1 to 2 storeys with the exception of 558A-580 Anzac Parade being 4 storeys. Boundary fences are consistent. However, architectural features vary due to the differing surrounding land uses (South Sydney Junior Rugby League Club, multi business properties (Pizza shop, Ironing service, lawyers and an Indonesian restaurant), a religious property (Holy Trinity Kingsford Anglican Church) and residential forms. Anzac Parade is a 60 metre wide arterial road. In front of the subject sites, Sturt Street crosses through Anzac Parade creating two intersections with Anzac Parade. Additionally, a section of the Anzac Parade contains public parking in the median strip.
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by single dwellings, semi-detached dwellings, dual occupancies, residential flat buildings, multi business properties (Pizza shop, Ironing service, lawyers and an Indonesian restaurant) and the South Sydney Junior Rugby League Club. A B2 Local Centre Business Zone adjoins the north-western property boundary of 582-584 Anzac Parade and is located within the Kingsford Town Centre. R3 Medium Density Residential zoned land, which consists of single dwellings, semi-detached dwellings, residential flat buildings, mixed commercial residential flat buildings and multi business properties is located to the south-west to the subject sites. The R2 Low Density Residential zone extends to the north, east and south-east of the subject sites and comprises mainly of single dwellings, semi-detached dwellings, dual occupancies and residential flat buildings. There are a number of commercial institutional uses within walking distance from the site, including the Holy Trinity Church (594-596 Anzac Parade), Souths Juniors Rugby League Club (558-580 Anzac Parade) and a car wash café (415-417 Anzac Parade).
Topography	The site slopes from south-west to north with an approximate 5.5 metre gradient increase. There is a sharp 1.5 metre (approximate) level increase in the middle of Lot 1 in DP 516025 No. 582-584 Anzac Parade.
Landscape character and open space	The site and the surrounding areas are highly urbanised. The site does not contain any significant vegetation.
Proximity to nearest centre	The site adjoins Kingsford Town Centre on the north-western property boundary of 582-584 Anzac Parade.

Appendix 3 – Town Centre Boundary Investigation

582-584 and 586-592
Anzac Parade, Kingsford

Analysis	
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The site has convenient access to frequent and regular bus services along Anzac Parade with connections to the CBD and other destinations in the Eastern Suburbs. A bus stop is located at the front of 586-592 Anzac Parade. Once constructed, the site will have access to the south east light rail services along Anzac Parade with the closest light rail stop being the Kingsford terminus. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.
Access	582 Anzac Parade has vehicle access from Wallace Street and 586-592 Anzac Parade has vehicle access from Anzac Parade.
Urban design	The 586-592 Anzac Parade occupies a shared corner location; both sites are visible from numerous points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow the development of business uses such as mixed use buildings. Any increased building mass and dwelling numbers associated with higher density development on the site would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access.
Planning Consideration	The subject sites are located within a strategic location as they adjoin the Kingsford Town Centre and would allow for a logical extension to the town centre. A B2 zone would reflect the existing business uses, offer greater flexibility for a broader range of business uses and result in a consistent zoning application across the block.
Recommendations	Proposed zone: B2 Local Centre Proposed FSR: 4:1 Proposed height: 31m (9 storeys) NB: A lower height limit of 7 storeys in conjunction with a shared zone on the east of the site would create a built form transition to adjoining residential properties. See Part C Section 5.2 – Built Form Controls.

Appendix 3 – Town Centre Boundary Investigation

63 Harbourne Road and
12-18 Rainbow Street,
Kingsford



Aerial photograph of location



View of existing building at 63 Harbourne Road from Harbourne Road, Kingsford



View of existing building at 63 Harbourne Road from Rainbow Street, Kingsford



View of existing building 12 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 14 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 16 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 18 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 18 Rainbow Street from Forsyth Street, Kingsford

Appendix 3 – Town Centre Boundary Investigation

63 Harbourne Road and
12-18 Rainbow Street,
Kingsford

Current planning controls	
 Existing zoning map	Randwick Local Environmental Plan 2012 Zoning: R3 Medium Density Residential FSR: 0.9: for developments other than for the purpose of a dwelling house Maximum Height: 12m for developments other than for the purpose of a dwelling house
Analysis	
Site Description	The site consists of 5 lots. The lots are described as Lot 12 in DP 6134 (Being lots 1-12 in SP 39850) No. 63 Harbourne Road Kingsford, Lot 13 in DP 6134 No. 12 Rainbow Street Kingsford, Lot 14 in DP 6134 (being lots 1-4 in SP 45197) No. 14 Rainbow Street Kingsford, Lot 15 in DP 6134 No. 16 Rainbow Street Kingsford and cor lot 16 in DP 6134 No. 18 Rainbow Street Kingsford. The land area of the 5 lots is approximately 2133.4m². The lots are regularly shaped with 12, 14, and 16 Rainbow Street having singular frontages. 63 Harbourne Street has dual frontages fronting Harbourne Road and Rainbow Street and 18 Rainbow Street has dual frontages fronting Rainbow Street and Forsyth Street. The sites are presently occupied with a 3 storey residential flat building (12 units), a 2 storey business property, a 2 storey residential flat building (4 units), a 4 storey residential flat building (6 units), and a 3 storey residential flat building (6 units). To the northern property boundary of the sites 63 Harbourne Road, 12 Rainbow Street and 14 Rainbow Street adjoin a single dwelling (2 storeys) and 14, 16 and 18 Rainbow Street adjoin a 3 storey residential flat building (22 units).

Appendix 3 – Town Centre Boundary Investigation

63 Harbourne Road and
12-18 Rainbow Street,
Kingsford

Analysis	
Streetscape	A large roundabout (Nineways Intersection) is located directly to the south-west of the sites. The roundabout connects Anzac Parade, Gardeners Road and Rainbow Street. Surrounding setbacks and building heights (ranging from 1 to 10 storeys) are varied, with consistent boundary fences and architectural patterns.
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by single dwellings, residential flat buildings, a boarding house and a business property (Amber Indoor and outdoor tiles). A B2 Local Centre Business Zone (Kingsford Town Centre) surrounds the sites from the west through to the south-east. The R3 Medium Density Residential zone continues to the surrounding north and east urban blocks and consists of a mixture of single dwellings, residential flat buildings, a mixed commercial residential flat building and a religious property (Kingsford Legacy Group Widows Club).
Topography	The site has a flat topography.
Landscape character and open space	The site and the surrounding areas are highly urbanised. The site does not contain any significant vegetation.
Proximity to nearest centre	The sites neighbours Kingsford Town Centre from the south-east to the west of the sites.
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The sites are within close proximity to a variety of bus stops with access to various destinations across Sydney including the inner east, inner west and CBD. Once constructed, the site will have access to the south east light rail services from the Kingsford terminus. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.
Access	63 Harbourne Road has vehicle access via Harbourne Road. 12 and 16 Rainbow Street have vehicle access to onsite parking facilities via Rainbow Street. 14 Rainbow Street does not have vehicle access, and 18 Rainbow Street has vehicle access to onsite parking facilities from Forsyth Street.

Appendix 3 – Town Centre Boundary Investigation

63 Harbourne Road and
12-18 Rainbow Street,
Kingsford

Analysis	
Urban design	63 Harbourne Road and 12 Rainbow Street occupy prominent corner locations. Collectively the subject sites occupy a strip of Rainbow Street and are visible from various vantage points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow higher density forms of development such as mixed use. Any increased building mass and dwelling numbers associate with higher density development on the site would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access. Major changes to strata laws are to commence on 30 November 2016. One of these changes includes the collective sale and renewal of strata properties. Currently, a strata community cannot decide to sell and redevelop their scheme without unanimous consent from all owners. The reforms will allow the majority of owners (at least 75% – based on the number of lots, not on unit entitlement) to agree to end, sell or redevelop their strata scheme. Any scheme existing before the new laws commence will need to 'opt in' to have collective sale and renewal as an option for their scheme, by passing an ordinary resolution at a general meeting. This is of particular concern for 14 Rainbow Street as two of the four single strata units are owned by the same owner.
Planning Consideration	The sites should be rezoned from R3 Medium Density Residential to B2 Local Centre. The subject sites are located within a strategic location, adjoin the Kingsford Town Centre and would allow for a logical extension to the Kingsford Town Centre. A B2 Local Centre zone would provide a consistent zoning application and offer greater flexibility for a broader range of business uses.
Recommendation	Proposed zone: B2 Local Centre Proposed FSR: 4:1 Proposed height: 31m (9 storeys) NB: A shared zone to the north of the site would create a built form transition to adjoining residential properties. See Part C Section 5.2 – Built Form Controls.

Appendix 4 – Reference List

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