

HYECORP PROPERTY GROUP

TRAFFIC AND TRANSPORT ASPECTS OF  
PLANNING PROPOSAL FOR  
PROPOSED MIXED USE DEVELOPMENT,  
PART 62, 64-66 PACIFIC HIGHWAY,  
ROSEVILLE

JULY 2018  
(Modified August 2019)

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## I. INTRODUCTION

- I.1 Hycorp Property Group engaged Colston Budd Rogers and Kafes to prepare a report examining the traffic and transport implications of a planning proposal for a mixed use development at part 62 and 64-66 Pacific Highway, Roseville. The site is located in Roseville Local Centre, as shown in Figure I.1.

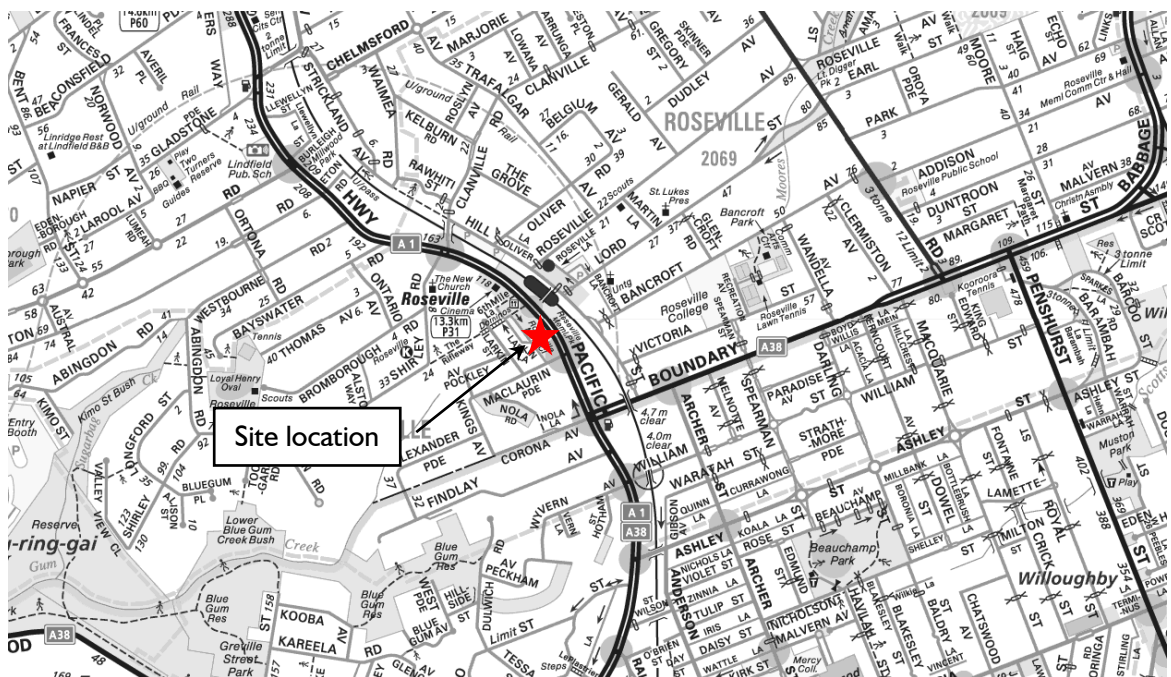


Figure I.1: Site Location

Basemap source: Sydway

- I.2 Our previous report, dated July 2018, has been modified to include responses to traffic and transport matters raised by council as set out in Council's table of assessments, dated 9 April 2019 and emails dated 5 July 2019 and 5 August 2019.
- I.3 The site is west of Pacific Highway and currently occupied by Roseville Memorial Club covering some 870m<sup>2</sup> GFA. The planning proposal would include a mixed use

development comprising residential apartments located above a new ground floor club.

- 1.4 The planning proposal for the subject site would provide for some 40 apartments above a new club (759m<sup>2</sup>). This represents a 20 per cent increase in apartments over the current planning controls. The new club would be some 13 per cent smaller than the existing club. Overall, the proposal covers seven levels, including six levels of residential apartments for a floor space ratio of 3.2:1.
- 1.5 The traffic and transport aspects of the planning proposal are reviewed in the following chapter.

## 2. TRAFFIC & TRANSPORT ASPECTS OF PLANNING PROPOSAL

2.1 Our review of the traffic and transport aspects of the planning proposal is set down through the following sections:

- site location and road network;
- existing traffic volumes;
- scale of development;
- policy context;
- public transport;
- cycling and pedestrian movement;
- parking provision;
- access, servicing and internal layout;
- traffic generation and effects;
- Roseville local centre uplift;
- response to traffic/transport matters raised by council; and
- summary.

### Site Location and Road Network

2.2 The site is located at part 62 and 64-66 Pacific Highway, Roseville and is occupied by Roseville Memorial Club covering some 870m<sup>2</sup> GFA. While the club provides no on-site parking, there are five parking spaces (with direct access off Larkin Lane) for use by club members and the general public. A separate single loading bay with access via Larkin Lane is provided on site. Surrounding land uses are generally commercial premises and retail shops within Roseville local centre. Roseville Memorial Park south of the site and a range of residential uses generally surround the area.

- 2.3 Pacific Highway is the major north-south arterial road connecting suburbs north of Sydney CBD. It provides the primary club frontage on the eastern boundary. It provides four to six traffic lanes with additional capacity at signalised intersections. Kerbside parking is generally permitted outside of clearway periods.
- 2.4 South of the site, Maclaurin Parade intersects with the Pacific Highway at a signalised intersection. Maclaurin Parade generally provides one traffic lane and one parking lane in each direction, clear of intersections. It provides local area access to residential properties further west and intersects with Larkin Lane at a priority controlled intersection south of the site.
- 2.5 Larkin Lane is a two-way road adjacent to the western boundary of the site. It provides access to the site and Larkin Lane parking north of the site. It also facilitates access to the rear of the shops fronting the Pacific Highway and Sixth Mile Lane further north. Parking demand for the 43 spaces is moderate to high on weekdays and nights, with patrons able to make use of this parking and other local area on-street parking when visiting the club. Larkin Lane is a no through road with all access via Maclaurin Parade to the south.

#### Existing Traffic Flows

- 2.6 Traffic generated by the proposal would have its greatest effects during the weekday morning and afternoon peak periods when it combines with commuter traffic. In order to gauge traffic conditions, counts were undertaken during the weekday morning and afternoon peak periods at the following intersections:
- Pacific Highway/Maclaurin Parade; and
  - Maclaurin Parade/Larkin Lane.
- 2.7 The results of the surveys are summarised in Table 2.1.
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<b>Road</b>	<b>Location</b>	<b>AM peak hour</b>	<b>PM peak hour</b>
Pacific Highway	North of Maclaurin Parade	3795	3900
	South of Maclaurin Parade	3870	3955
Larkin Lane	North of Maclaurin Parade	40	115
Maclaurin Parade	West of Larkin Lane	220	150
	East of Larkin Lane	230	245

- 2.8 Table 2.1 shows that the Pacific Highway carried between 3800 and 3900 vehicles per hour two-way during the morning and afternoon peak periods. Maclaurin Parade carried flows of 220 to 250 vehicles per hour two-way. Larkin Lane carried some 40 to 115 vehicles per hour two-way.
- 2.9 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections have been analysed using the SIDRA program.
- 2.10 SIDRA simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):
- For traffic signals, the average delay per vehicle in seconds is calculated as  $\text{delay}/(\text{all vehicles})$ , for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

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0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode.
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.11 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

2.12 The SIDRA analysis found that the signalised intersection of Pacific Highway and Maclaurin Parade operates with average delays of less than 14 seconds per vehicle during peak periods. This represents levels of service A, a good level of service. Observations indicate that in the morning peak period traffic can queue through the

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intersection from the Pacific Highway intersections to the south. This is mostly attributed to Boundary Street though includes other intersections further south through Chatswood. This can affect vehicles turning right from Maclaurin Parade in the morning peak period. The Pacific Highway right turn into Maclaurin Parade can also present some delay during weekday evenings.

- 2.13 The priority controlled intersection of Maclaurin Parade with Larkin Lane operates with average delays for the highest delayed movement of less than 14 seconds per vehicle during peak periods. This represents level of service A, a good level of service.

#### Scale of Development

- 2.14 The planning proposal would include a mixed use development comprising some 40 residential apartments located above a new ground floor club. Vehicular access would be from Larkin Lane. The proposal is summarised in Table 2.1 and achieves a floor space ratio of 3.2:1 across 4,125m<sup>2</sup> of gross floor area and a maximum height of 28.5 metres. The number of residential apartments is some 20 per cent more than permitted under the current planning controls. The proposed club is some 13 per cent smaller than the existing club.

<b>Use</b>	<b>Dwelling Type</b>	<b>No. of Apartments/Size</b>
Residential	1-bed	11
	2-bed	20
	3-bed	9
	<b>Total</b>	<b>40</b>
Club	-	759m <sup>2</sup>

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### Policy Context

- 2.15 There has long been several strategic state policies which have been relevant to future development in the Sydney metropolitan area. Greater Sydney Commission recently updated these policies with the release of Directions for a Greater Sydney 2017-2056 which aims to better integrate land use and infrastructure in a sustainable liveable Sydney. It builds on the Three Cities and Towards our Greater Sydney 2056 objectives of a productive, liveable and sustainable city. The North District Plan incorporates Roseville and includes an emphasis on the Harbour CBD being the regions metropolitan centre, and together with North Sydney, Chatswood, St Leonards and Macquarie Park, forms the states greatest economic asset, the Eastern Economic Corridor.
- 2.16 Infrastructure works and collaboration in health and education precincts are key to investment in the north district. Urban renewal and a focus on growth in dwellings in well-connected walkable places aim to provide residents with quicker and easier access to a range of jobs, housing types and activities. It prioritises housing diversity and choice within close proximity to shops, services and public transport. With a changing demographic that includes not only an ageing demographic but also more single person, single parent and couple only households, smaller homes and apartments are also expected to be in high demand.
- 2.17 In this context, Ku-ring-gai Council Local Centres DCP concentrates future development on land in and around key local centres, including Roseville. It aims to achieve a high quality built environment, landscape setting and community spaces. Development within B2 Local Centres such as Roseville will typically include alterations and additions, with improved efficiency and use of floor areas, with potential residential and commercial expansion. The site forms part of precinct R2 (Pacific Highway shops) and incorporates traditional strip retail and restaurants/cafes
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anchored by Roseville Cinema and Roseville club. The majority have frontages to the Pacific Highway and/or Council's Larkin Lane car park.

- 2.18 The precinct shows development potential as a boutique entertainment precinct with a focus on preserving the existing character with small scale infill development and adaptive reuse. The Larkin Lane frontage could also support low scale residential and commercial development.

### Public Transport

- 2.19 The site is located within a 100 metre walk of Roseville railway station which services the T1 North Shore Line. Roseville railway station is located north of the site and accessed via the pedestrian signals on the Pacific Highway. Train services provide convenient links with key destinations, including Sydney CBD, North Sydney, Chatswood, Gordon and Hornsby, with services generally at five minute frequencies during peak periods.
- 2.20 The site is also close to bus services which operate along Pacific Highway and Hill Street (east of the railway line). Bus stops are located on both sides of each road with all within a 180 metre walk. Local bus services are provided by Sydney Buses with each service generally operating at 15 minute frequencies during the weekday peak periods. These services include:
- route 558: Lindfield to Chatswood;
  - route 565: Chatswood to Macquarie University; and
  - route N90: Hornsby to Town Hall via Chatswood.
- 2.21 The proposal would increase residential densities close to existing regular public transport services. To support accessibility for cyclists, appropriate bicycle parking would be included.
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- 2.22 The planning proposal will therefore satisfy the government objectives as follows:
- enabling residents/patrons to readily access regular train and bus services close to the site;
  - providing an appropriate level of on-site parking, with reference to existing club activity and relevant council requirements, to encourage public transport use and increase the proportion of trips by public transport;
  - providing a mixed use development as part of a revitalised Roseville town centre and close to other retail and commercial uses to limit the need for external travel; and
  - providing for an increase in population living within 30 minutes by public transport of a city or major centre in the metropolitan area.
- 2.23 The site therefore has good access to well established and regular public transport services.

#### Cycling and Pedestrian Movement

- 2.24 The site is located within the Roseville Local Centre which provides residents with ample cycling and walking opportunities to locations such as shops, amenities and public transport. As noted in the previous section, the site is located within 100 metres of Roseville Station as well as bus stops within a similar distance along the highway. Figure 2.1 shows the existing cycle paths around Roseville.

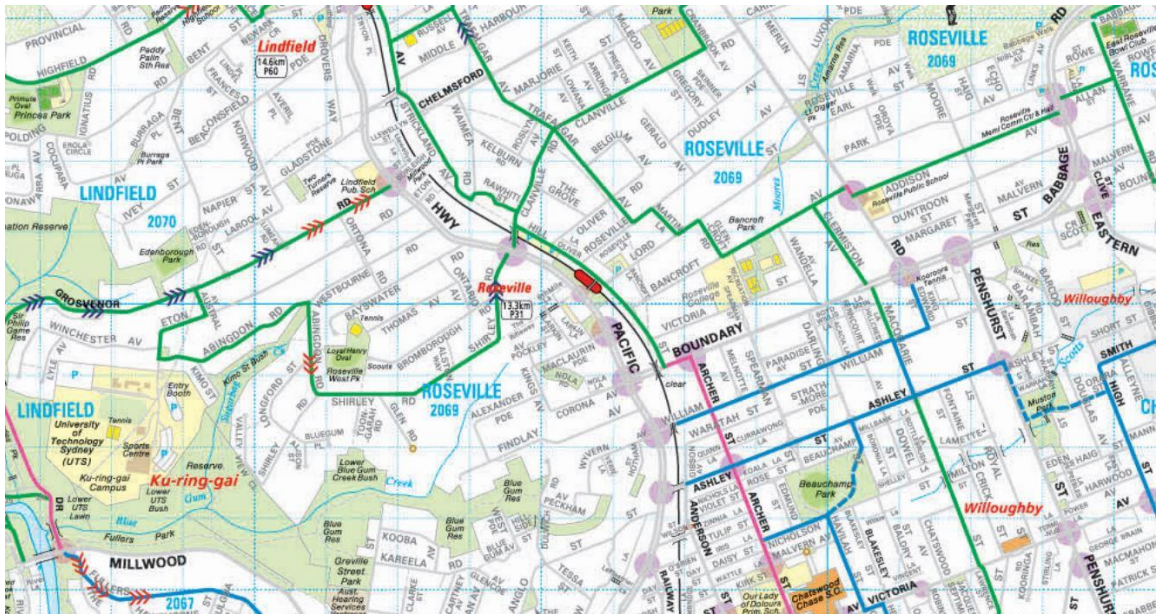


Figure 2.1: Ku-ring-gai Cycle Map

Source: Ku-ring-gai Council

- 2.25 Bicycle parking can be found throughout Roseville Local Centre and the site will provide bicycle parking within the basement for residents. As the proposed site is mainly residential, end of trip facilities are not required.
- 2.26 Pedestrian walkways are provided around the site linking the site to local shops and amenities as stated previously. Pedestrian crossings are provided at major intersections and adjacent to Roseville station to provide pedestrians with adequate walking paths to and from the site.

#### Parking Provision

- 2.27 Ku-ring-gai Council DCP 2016 includes minimum and maximum parking rates for residential apartments, as detailed in Table 2.2.

<b>Dwelling Type</b>	<b>No. of Apartments</b>	<b>Min. Parking Rate</b>	<b>Min. Parking Requirement</b>	<b>Max. Parking Rate</b>	<b>Max. Parking Requirement</b>
1-bed	11	0.6	7	1	11
2-bed	20	0.9	18	1.25	25
3-bed	9	1	9	2	18
<b>Total</b>	<b>40</b>	<b>-</b>	<b>34</b>	<b>-</b>	<b>54</b>

- 2.28 The DCP also requires one visitor parking space per six apartments. Application of this results in the need for seven parking spaces for visitors. In addition the DCP requires bicycle parking be provided at a rate of one space per five apartments for residents and one per 10 apartments for visitors. Application of this results in the need to provide eight bicycle parking spaces for residents and four spaces for visitors.
- 2.29 The proposal will provide car parking within range required by the DCP as well as appropriate bicycle parking for visitors and residents. Separate secure storage cages for use by residents will also be provided. The bicycle parking and storage facilities will be designed in accordance with AS2890.3. Appropriate motorbike parking will also be included as part of the basement car park.
- 2.30 The existing club currently provides no on-site parking with club patrons parking in the Larkin Lane car park or surrounding streets. As the proposed club is smaller in size there will be no additional parking demand.

#### Access, Servicing and Internal Layout

- 2.31 Vehicular access would be provided on Larkin Lane in the north-east corner of the site. The driveway will be a minimum six metres wide to allow two cars to pass.
- 2.32 Parking spaces will be a minimum of 5.4 metres long and 2.4 metres wide. Spaces with adjacent obstructions will be 0.3 metres wider to provide for doors to open.

Circulation aisles will be a minimum 5.8 metres wide. Columns will be set back 750mm from the front of spaces. Height clearances will be 2.2 metres throughout and 2.5 metres above disabled spaces. These dimensions are considered appropriate, being in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 6: Off-street parking for people with disabilities), AS 2890.1:2004 and AS 2890.6:2009. Ramps will connect the parking levels. The ramps will be provided with appropriate height clearances, gradients and transitions, in accordance with AS2890.1:2004, to prevent vehicles scraping.

- 2.33 Service vehicles would access the club loading dock on ground level via the shared use of the access driveway. The club would require deliveries by service vehicles, with the majority being vans and utility vehicles. The largest service vehicle would be up to 6.4 metres long and for keg deliveries.
- 2.34 The residential apartments would be serviced via a loading dock on basement level one. The ramp grades and height clearances on basement level one will be designed in accordance with AS2890.2:2002. Removalist trucks and furniture delivery vehicles would also be limited to 6.4 metre small rigid trucks. Council's garbage truck would access basement level one for garbage collection via the dedicated bay adjacent to the garbage room.

#### Traffic Generation and Effects

- 2.35 Traffic generated by the proposal will have its greatest effects during morning and afternoon peak periods when it combines with commuter traffic. Traffic generation estimates for the proposal have been sourced from RMS Technical Direction TDT 2013/ 04. It provides updated rates for high density residential flat dwellings (2012 surveys) that are close to public transport services, at least six storeys and mostly residential in nature. TDT 2013/ 04 specifies an average AM peak hour trip
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generation for Sydney of 0.19 vehicles per hour per apartment (two-way). The PM peak hour trip generation rate is slightly lower at 0.15 vehicles per hour per apartment (two-way), accounting for a greater 'spread' over a longer peak period.

- 2.36 Based on the above, the planning proposal to allow an uplift of 20 per cent to include 40 residential apartments would generate an additional one to two vehicles per hour two-way during weekday peak periods compared to a development compliant with the current planning controls.
- 2.37 Such a low increase in traffic generation would not have noticeable effects on the operation of the surrounding road network. Intersections would continue to operate at their existing satisfactory levels of service, with similar average delays per vehicle.

#### Roseville Local Centre Uplift

- 2.38 Assumptions on traffic generation of the development potential of the remaining Roseville Local Centre have been undertaken to assess the likely future traffic impacts. We have been advised that if a similar increase in FSR as proposed for the subject site was applied across future development sites within the Roseville Local Centre, it would result in an additional 180 to 220 units, with the majority of these located on the western side of the highway. Adopting the higher end of this range and the applicable traffic generation rates, these future residential uses could generate an additional 40 and 35 vehicles per hour two-way during the morning and afternoon peak periods, respectively. The majority of these vehicles would use Larkin Lane and Maclaurin Parade.
- 2.39 It is noted that upgraded parking arrangements would need to be considered within the basements of each development site, in accordance with the Local Centres DCP. With an expanded Larkin Lane car park possible through greater development site setbacks and improved efficiency, Larkin Lane may need to support an additional 50
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to 60 vehicles per hour two-way during the morning and afternoon peak hours (in addition to the subject site).

- 2.40 The study intersections previously analysed have been re-analysed with SIDRA to include the additional site generated traffic and potential residential uplift across the precinct. The analysis found that the signalised intersection of Pacific Highway and Maclaurin Parade would continue to operate with average delays of less than 14 seconds per vehicle during the morning and afternoon peak periods. This represents level of service A, a good level of intersection operation.
- 2.41 As discussed, the Pacific Highway right turn into Maclaurin Parade currently presents some delay during weekday evenings. Additional delay and queuing would result should the precinct be developed under the current planning controls. By including a short five second right turn phase while maintaining existing Pacific Highway 'green time', this delay can be significantly improved. Such modifications also result in a nominal change to Maclaurin Parade traffic delay and queuing at Pacific Highway.
- 2.42 The priority controlled intersection of Maclaurin Parade and Larkin Lane would continue to operate with average delays of less than 14 seconds per vehicle for the movement with the highest delay during peak periods. This represents level of service A, a good level of intersection operation.

#### Response to Matters Raised by Council

- 2.43 As noted in in chapter 1, the July 2018 traffic report has been modified to address the traffic and transport matters raised by Council as set out in the Table of Assessments, dated 9 April 2019 and the email dated 5 July 2019. The matters raised by council and our responses are provided in Table A1 in Appendix A.
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Summary

2.44 In summary, the main points relating to the traffic and transport implications of the planning proposal are as follows:

- i) the planning proposal would increase residential densities close to services and facilities in Roseville, and regular public transport services;
- ii) the site is well served by existing cycling and walking facilities;
- iii) the proposed parking provision is appropriate;
- iv) access, internal circulation and layout should be provided in accordance with Australian Standards;
- v) the uplift of some 20 per cent to 40 residential apartments would generate some one to two vehicles during the weekday peak hour periods compared to the current planning controls.
- vi) such a low increase in traffic generation would not have a noticeable effect on the operation of the surrounding road network;
- vii) future development across the local centre would have minor impacts on the operation of the study intersections;
- viii) some minor modifications to signal phasing at the Pacific Highway and Maclaurin Parade intersection could be considered; and
- ix) The traffic and transport matters raised by Council have been addressed.

APPENDIX A

RESPONSE TO COUNCIL'S  
UPDATED TABLE OF ASSESSMENTS

<b>Table A1: Table of Assessments</b>		
<b>Section</b>	<b>Comment</b>	<b>Response</b>
<b>Existing traffic flows (para 2.11)</b>	<p>The Traffic Report identifies that “longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved”.</p> <p>Council’s Strategic Traffic Engineer advises that there have been three pedestrian-related crashes at the Pacific Highway / Maclaurin Parade intersection in the last five years. The proposal will increase pedestrian movements in the area and therefore should address pedestrian safety.</p>	<p>We note that the RMS has provided late starts for the left turn movements out of both streets at this intersection. This holds traffic turning left at the start of a phase when the pedestrian crossing is activated. This allows pedestrians to start crossing the road while traffic is held by a red arrow for a minimum of 5 seconds. This is an appropriate measure to improve pedestrian safety at the intersection.</p>
<b>Existing traffic flows (para 2.12)</b>	<p>Council’s Strategic Traffic Engineer has advised that there have been ongoing issues related to vehicles attempting to turn right out of Maclaurin Parade being impacted by vehicles queued on Pacific Highway travelling south. Consideration should be given to this issue and discussed with RMS.</p> <p>In the email dated 5 July, Council noted <i>“a search of Council’s records shows that the most recent record of residents experiencing difficulty turning right out of Maclaurin Parade dates back to late 2017, which roughly coincides with the completion of the upgrade project. This may indicate that the upgrade of the intersection of Boundary Street and Pacific Highway has improved conditions for vehicles turning right out of Maclaurin Parade.”</i></p>	<p>This issue was noted in our report. Since the upgrade of the intersection of Boundary Street and Pacific Highway the number of times queues extend back from this intersection to Maclaurin Parade occurs less frequently. As Council would be aware RMS optimises the timing of traffic signals to maximise traffic flow on the major road and a consequence of this is that side streets often experience long delays. Previous representations to RMS to change the phasing (such as introduce a right turn phase into Maclaurin Parade or increase green times for side street traffic) has not been supported by the RMS. On 9 July 2019 RMS confirmed its previous advice that it would not support the provision of a separate right turn phase into Maclaurin Parade as this would reduce the available green time for northbound traffic on the highway.</p>
<b>Scale of development (para 2.14)</b>	<p>The breakdown in this section of Traffic Report of the 40 units proposed to be accommodated by the Planning Proposal is incorrect, indicating 11 x 1-bed, 21 x 2-bed, 8 x 3-bed (the Planning Proposal states 40 units – 11 x 1-bed, 20 x 2-bed, 9 x 3-bed). It is noted that the unit mix, as per the Planning Proposal, is used in the parking requirement assessment (para 2.27).</p>	<p>Noted – the traffic and parking assessment in our report is based on the unit mix set out in the Planning Proposal.</p> <p>Section 2.14 has been updated to reflect the unit mix in the Planning Proposal.</p>
<b>Policy context</b>	<p>While the proposal is located in the Roseville local centre, justification should still be provided in relation to the following strategic considerations:</p> <ul style="list-style-type: none"> <li>• Integration of land use and transport: <ul style="list-style-type: none"> <li>○ mode splits for journeys to work based on the relevant travel</li> </ul> </li> </ul>	<p>The site is located within a 100 metre walk of Roseville railway station which services the T1 North Shore Line. Roseville railway station is located north of the site and accessed via the pedestrian signals on the Pacific Highway. Train services provide convenient links with</p>

	<p>zone, and</p> <ul style="list-style-type: none"> <li>○ strategic centres accessible in 30 minutes by public transport, as an indicator of access to employment.</li> </ul> <ul style="list-style-type: none"> <li>● Liveability: <ul style="list-style-type: none"> <li>○ extent of 15 minute walking and cycling catchment, and</li> <li>○ analysis of extent of retail/supermarket, medical, educational, recreational, leisure and community facilities within the walking catchment.</li> </ul> </li> <li>● Capacity of public transport (rail, bus) to accommodate additional passengers resulting from the proposal: <ul style="list-style-type: none"> <li>○ rail station platform capacity,</li> <li>○ bus stop capacity, and</li> <li>○ bus stop and station platform accessibility.</li> </ul> </li> </ul> <p>The Traffic Report should include details of bus and train routes, destinations, frequencies, distance to station/stops and access to other local infrastructure including schools, parks, playgrounds, retail, medical and the like.</p>	<p>key destinations, including Sydney CBD, North Sydney, Chatswood, Gordon and Hornsby, with services generally at five minute frequencies during peak periods and operate from 4:40am to 12:30 am.</p> <p>The site is also close to bus services which operate along Pacific Highway and Hill Street (east of the railway line). Bus stops are located on both sides of each road with all within a 180 metre walk. Local bus services are provided by Sydney Buses with each service generally operating at 15 minute frequencies during the weekday peak periods. These services include:</p> <ul style="list-style-type: none"> <li>○ route 558: Lindfield to Chatswood;</li> <li>○ route 565: Chatswood to Macquarie University; and</li> <li>○ route N90: Hornsby to Town Hall via Chatswood.</li> </ul> <p>The planning proposal would result in an additional 7 units on the subject site than permitted under the existing planning controls. Based on the expected number of people per apartment and existing travel modes for the area, the additional 7 units would result in an increase in demand for travel by bus or train of less than 10 people in the AM/PM peak periods. Such a minor increase would have no effect on the capacity of existing bus/train services.</p> <p>With regards to access to other local infrastructure including schools, parks, playgrounds, retail, medical and the like. The majority of these are located within walking distance or easily accessible by bus/train in addition to travel by car as set out below:</p> <ul style="list-style-type: none"> <li>● the site is located within the Roseville village centre which provides a range of local facilities including small shops (chemist, restaurants and cafes, convenience stores, bakery and fruit shop, dry cleaners, post office, liquor shop, newsagent,</li> </ul>
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		<p>cinema and a medical centre;</p> <ul style="list-style-type: none"> <li>• Chatswood CBD is located some 1.5 kilometres to the south and easily accessible by bus or train. It provides services (retail, commercial and support services) that are typical of a regional centre;</li> <li>• Lindfield public school, is located some 800 metres north of the site. In addition a number of primary and high schools are located with Chatswood CBD and easily accessible by bus and train.</li> <li>• 3 parks are located within 800 metre of the site (Loyal Henry, Blue Gum Park and Bancroft Park). These provide an opportunity for a range of recreational activities.</li> </ul>
<p><b>Parking provision (para 2.27)</b></p>	<p>The Traffic Report uses car parking rates from the residential flat building section of the Local Centres DCP (7B.1) however should refer to the rates for a mixed use development (8B.2). The DCP provisions for mixed use developments require that car parking provision for non-residential uses must also be addressed. The Traffic Report does not address parking required for the Club on the basis that this is an existing facility. The DCP (Part 22R) requires that, because club parking demand and usage is variable depending on the nature and operations of individual clubs, each situation should be treated on its merits, and therefore a traffic assessment report should assess the parking requirements based on the facilities to be provided and the parking demands of similar developments. The DCP (8B.2) also requires the provision of at least one car share space which has not been included in the parking requirement assessment.</p> <p>Potential impacts on surrounding public car parking areas, including the Larkin Lane car park, should be considered and addressed in the Traffic Report.</p> <p>Further, as it is recommended that the Planning Proposal be amended such that the additional use (residential flat building) is not tied to the provision of a ground floor registered Club, the Traffic Report should also consider the parking implications of the range of uses which may be permissible within the ground floor of any future development.</p>	<p>Using the rates set out Section 8B.2 of the DCP, the Planning Proposal would require a minimum of 34 and a maximum of 54 residential spaces (plus 7 visitor spaces). The only change from that calculated in our traffic report (using the rates set out in Section 7B.1) is the minimum parking has decreased from 40 to 34 spaces</p> <p>With regards to club parking this was addressed in our traffic report for the DA for the complying the mixed use development (club with residential above) on the site. In summary it found that:</p> <ul style="list-style-type: none"> <li>• The existing club provides no site parking with club patrons parking on street or in the Larkin Lane car park;</li> <li>• The proposed club is smaller than the existing club;</li> <li>• While parking for the proposed club will continue to occur on street or within the Larkin Lane car park there will be reduced demand for parking in these locations as the club is smaller.</li> </ul> <p>Sections 2.27 to 2.30 have been modified to address these matters.</p>

<p><b>Roseville local centre uplift (para 2.40)</b></p>	<p>With reference to future potential development in the Roseville Local Centre, the Traffic Report highlights that additional delay and queuing could result on the Pacific Highway as a result of right turn movements into Maclaurin Parade and recommends a short five second right turn phase. This issue should be discussed with RMS. Council’s Strategic Traffic Engineer has advised that previous requests by Council to introduce a right turn phase were refused on the basis that it would increase delays for northbound traffic on Pacific Highway. Alternatives should also be explored.</p>	<p>Noted - Previous representations to RMS to change the phasing (to introduce a right turn phase into Maclaurin Parade) have not been supported by the RMS as it would take green time away from through movements on the Pacific Highway.</p>
<p><b>3.4 Integrating Land Use and Transport</b></p>	<p>This Direction requires that a Planning Proposal must include provisions that give effect to and are consistent with the aims, objectives and principles of:</p> <ul style="list-style-type: none"> <li>• Improving Transport Choice – Guidelines for planning and development (DUAP 2001), and</li> <li>• The Right Place for Business and Services – Planning Policy (DUAP 2001).</li> </ul> <p>The Planning Proposal demonstrates that the proposed development is consistent with transit orientated development principles which will promote use of public transport, and the Planning Proposal is supported by a Traffic Report (Appendix 2). However, the Traffic Report does not sufficiently consider strategic transport issues including the integration of land use and transport, liveability, and the capacity of public transport to accommodate additional passengers. The Traffic Report should also provide details of bus and train routes, destinations, frequencies, distance to station/stops and access to other local infrastructure, schools, parks, playgrounds, retail, medical etc</p> <p>Refer to further details in the comments on the Traffic Report further on in this table.</p>	<p>See response to Policy Context</p>