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Project title    63-77 West Parade, West Ryde

Job number

254204-00

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cc                Michael File

File reference

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Prepared by    Suan Guo

Date

15 March 2017

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Subject            Update to Transport and Accessibility Report (2010)

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## 1        Introduction

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Arup has been commissioned by the New South Wales Land and Housing Corporation (LAHC) to provide an addendum to the Transport and Accessibility Impact Study that was prepared in February 2010 to support the development application for 63-77 West Parade, West Ryde Sydney.

This update has been triggered by the following modifications to the proposed Part 3A Concept Plans for this development:

- Removal of the 619m<sup>2</sup> of commercial space
- Removal of the 71m<sup>2</sup> of retail space
- The reallocation of housing mix to 65% private, 5% affordable and 30% social

This technical note has conducted a review of the changes in yield and highlighted the amendments associated with traffic generation and parking requirements identified in the previous transport study.

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## 2 Amendments to Development Yields

With the introduction of the new *Future Directions for Social Housing in NSW*, a new base target ratio of 70:30 for private to social housing has been established. This, in part with other factors, has triggered the following changes to the yield schedule previously proposed for this development.

Table 1 summaries the change in yields for this development compared to the original development application.

Table 1: Comparison of original and revised yields

Building	Revision	1 bed	2 bed	3 bed	Total Units	Retail GFA (m <sup>2</sup> )	Total GFA (m <sup>2</sup> )
A	Original	27	39	11	77	71	7,625
12 levels	Revised	35	41	9	85	0	7,031
	% Change	30%	5%	-18%	10%		-8%
B	Original	13	19	-	32	620	3,236
8 levels	Revised	15	19	4	38	0	3,063
	% Change	15%	0%		19%		-5%
C	Original	13	16	-	29		2,288
5 levels	Revised	6	18	-	24		2,112
	% Change	-54%	13%		-17%		-8%
<b>TOTAL</b>	Original	53	74	11	138	691	13,149
	Revised	56	78	13	147	0	12,206
	% Change	6%	5%	18%	7%		-7%

In summary, the proposed development has removed all non-residential land uses, while slightly increasing the total number of residential units. The total gross floor area has reduced.

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## 3 Transport Impacts

### 3.1 Parking

A review of background documentation indicates parking rates have been updated since the lodgement of the previous development application. The following documents and associated parking rates have been applied:

- City of Ryde Development Control Plan 2014 – Residential development (high density)
  - 0.6 to 1 space/ one bedroom dwelling
  - 0.9 to 1.2 spaces/ two bedroom dwelling
  - 1.4 to 1.6 spaces/ three bedroom dwelling
  - 1 visitor space/ five dwellings
- State Environmental Planning Policy (Affordable Rental Housing) 2009 – Social housing
  - 0.4 space/ one bedroom dwelling
  - 0.5 space/ two bedroom dwelling
  - 1 bay/ three bedroom dwelling
  - No allowance for visitor parking indicated

Applying the above parking rates to the respective dwelling yields, the parking requirements for the development was generated; this is shown in Table 2.

Table 2: Summary of parking requirements

Parking Type*	Housing mix	1 bed	2 bed	3 bed	Total
Social Housing	30%	18	26	0	20
Affordable Housing	5%	3	4	0	3
Private Housing**	65%	36	51	8	79
Visitor (1 in 5 private dwellings)					19
Total Parking Required					122
Total Parking Provision					117
Parking Shortfall					5

\*3 bedroom apartments are allocated to private housing only

\*\*Given the proximity of the development from high frequency public transport (~250m to West Ryde Rail Station), the lower range of the residential (high density) parking rates have been utilised.

Comparing the parking requirements with the proposed parking supply, a five bay shortfall was identified. It is recommended that five additional parking bays (total of 122 bays) should be allowed for in order to meet the necessary parking requirements for this development site.

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## 3.2 Traffic Generation

Similar to the parking rates, a review of background documentation indicates traffic generation rates for residential developments have been updated since the original development application. The key changes to traffic generation rates are captured in RMS's Guide to Traffic Generating Developments (2013). This document indicates a similar average peak hour traffic generation rate for high density residential flat dwellings indiscriminate of private, affordable or social housing. These rates were updated based on updated field surveys conducted by RMS in the Sydney metropolitan area in 2012. It focused on high density residential flat dwellings that are close to public transport.

The conditions governing the revised trip generation rates resonates well with the location of the proposed development site, which is located approximately 250m to West Ryde Station.

A summary of the original and revised trip generation rates is outlined in Table 3.

Table 3: Comparison of traffic generation rates

Land Use	Original Rates* <i>RTA – Guide to traffic generating developments (2002)</i>	Updated Rates* <i>RMS – Guide to traffic generating developments (2013)</i>
Private Housing	0.24 vehicle trips per unit	0.19 vehicle trips per unit
Social Housing	0.2 vehicle trips per unit	0.19 vehicle trips per unit
Retail**	N/A	N/A
Office	2 vehicle trips per 100m <sup>2</sup> (GFA)	1.6 vehicle trips per 100m <sup>2</sup> (GFA)

\*These rates conservatively represent the maximum peak hour rate

\*\*Retail component under the original DA was assumed to service predominantly the residential and commercial tenants; as a result no parking or traffic generation was assumed for this particular land use.

As highlighted in section 2, the revised yields encompassed an amendment to the dwelling mix and removal of the office land use. Applying the rates summarised above to the revised yields, updated peak hour traffic generation was calculated. A comparison of the original and revised traffic generation is highlighted in Table 4.

Table 4: Comparison of peak hour development traffic generation

Land Use	Original DA (vehicles per hour)	Current Proposed Yields (vehicles per hour)	Relative Change (%)
Private Housing	13	10	-23%
Social Housing	19	19	0%
Retail*	-	-	-
Office	13	-	-
<b>TOTAL</b>	<b>45</b>	<b>29</b>	<b>-36%</b>

Compared to the previous development application, a reduction of 36% in traffic generation onto the surrounding road network is anticipated. As a result, the amendments in yield will not provide a detrimental traffic impact relative to the previous approved development application.

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## 4 Summary and Conclusion

This technical note forms an addendum to the Transport and Accessibility Impact Study prepared by Arup (February 2010) to support the development application (DA) for 63-77 West Parade, West Ryde. This note investigated the changes in transport impacts associated with the following amendments to the proposed development yields:

- Removal of the 619m<sup>2</sup> of commercial space
- Removal of the 71m<sup>2</sup> of retail space
- The reallocation of housing mix to 65% private, 5% affordable and 30% social

The outcome of this investigation noted the following:

- Parking – Updated parking rates for private, affordable and social housing have been developed since the original DA. Application of these rates to the revised development yields indicated a total parking requirement of 122 bays; resulting in a parking shortfall of five parking bays. It is recommended that the proposed development increases the parking supply on site by five bays to meet the parking requirements.
- Traffic Generation – Updated traffic generation rates for high density residential developments have been established since the original DA. Application of these rates to the revised development yields indicated a lower traffic generation compared to the previously approved DA. As a result, the proposed amendments will not produce any additional impacts onto the surrounding road network.

### DOCUMENT CHECKING (not mandatory for File Note)

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