

# Traffic Impact Assessment;

# 16 Masons Drive, North Parramatta

For Uniting Church of Australia 1 December 2017 parking; traffic; civil design; communication; **ptC.** 

# **Document Control**

16 Masons Drive, North Parramatta, Traffic Impact Assessment

lssue	Date	Issue Details	Author	Reviewed
1	1/12/17	Draft Issue	S.Hong	C.Saunders/A.Uddin
2				
3				

## Contact

Chris Saunders +61 2 8920 0800 +61 410 744 810

chris.saunders@ptcconsultants.co

COMMERCIAL IN CONFIDENCE

The information contained in this document, including any intellectual property rights arising from designs developed and documents created, is confidential and proprietary to **ptc.** 

This document may only be used by the person/organisation to whom it is addressed for the stated purpose for which it is provided and must not be imparted to or reproduced, in whole or in part, by any third person without the prior written approval of a **ptc.** authorised representative. **ptc.** reserves all legal rights and remedies in relation to any infringement of its rights in respect of its intellectual property and/or confidential information.

© 2017

**ptc.** Suite 102, 506 Miller Street Cammeray NSW 2062 info@ptcconsultants.co t + 61 2 8920 0800 ptcconsultants.co

# Contents

1. 2.	Executive Summary Introduction	1 2
2.1	Project Summary	2
2.2	Purpose of this Report	3
2.3	Site Context	4
2.4	Development Site	5
2.5	Development Proposal	6
3.	Existing Transport Facilities	7
3.1	Road Hierarchy	7
3.2	Public Transport	10
3.2.		10
3.3	Active Travel	12
3.3.	1 Bicycle Network	12
4.	Development Traffic Assessment	13
4.1	Existing Traffic Generation	13
4.2	Proposed Traffic Generation	13
4.3	Traffic Impact Summary	14
5.	Parking Provision	15
5.1	Existing Parking Conditions	15
5.2	Parking Occupancy Survey	16
5.3	Parking Impact Summary	16
Figure Figure Figure Figure Figure Figure Figure Figure	e 1 - Site Location e 2 - Local Land Use Map (Source: NSW Planning Viewer) e 3 - Aerial View of Subject Site & Surrounds (Source: Nearmap) e 4 - Location of Parking Facilities and Surrounding Land Uses e 5 - Road Hierachy (RMS Road Hierarchy Review) e 6 - Masons Drive - Southbound e 7 - Pennant Hills Road - Westbound e 8 - James Ruse Drive - Southbound e 9 - Local Bus Stops e 10 - City of Parramatta Council Cycling Map e 11 - Open-space Guest/Staff Parking Area	2 4 5 7 8 8 9 10 12 15
Table Table Table Table	<ul> <li>1 - Existing Number of Parking Spaces</li> <li>2 - Bus Service Summary</li> <li>3 - Existing Traffic Generation</li> <li>4 - Net Trip Generation Summary</li> <li>5 - Existing Number of Parking Spaces</li> <li>6 - Parking Occupancy Survey Results</li> </ul>	6 11 13 13 15 16

2

# 1. Executive Summary

- The Planning Proposal seeks to modify the original development consent (DA84/342) in order to gain additional permitted land use at the address of 16 Masons Drive, North Parramatta, under Schedule 1 of the Parramatta Local Environmental Plan (PLEP) 2011.
- The original development consent restricts the occupation of residential accommodation on the site to persons associated with the educational use of the premises and their families. The proposal seeks permission to rent the existing ten bedrooms within Yurora House (on-site), to the general public.
- With reference to the *RMS Guide to Traffic Generating Developments 2002*, a review of the potential traffic generation of the site indicated that the modification will lead to a negligible net increase in traffic generation. Whilst the rooms will remain as accommodation, the facility may generate more trips due to occupants travelling outside the subject site such as neighbouring city centres, employment hubs and other surrounding areas. Therefore, it is anticipated that there will be a minor increase in trips generated, however, this increase is not expected to have a notable impact on the existing local traffic conditions.
- There are currently 44 parking spaces and 5 accessible spaces, in the immediate vicinity of Yurora House. A parking occupancy survey was conducted on the 23<sup>rd</sup> November 2017, at 8.30am and 10.00am as these periods are anticipated to experience the greatest demand from staff and visitors to the various on-site facilities at 16 Masons Dr. The results indicated the under-utilisation of these spaces with 36% and 59% occupancy rate, at 8.30am and 10.00am respectively, Moreover, it is anticipated that the close proximity of the bus stops will also provide visitors a viable transportation option, with frequent services and strong connection to neighbouring town centres and employment hubs.
- The existing capacity of the site car park has already been adequately accommodating the parking demands of the rooms, and no notable change in parking demands are anticipated. It is anticipated that the proposed modification will not have a notable impact on the parking conditions.
- In light of the above, the proposed modification to the original development consent (DA84/342) has been endorsed in the context of parking and traffic.

# 2. Introduction

# 2.1 Project Summary

**ptc.** has been engaged by Tract Consultants Pty Ltd, on behalf of Uniting Church of Australia, to prepare a Traffic and Parking Assessment to accompany a Planning Proposal for 16 Masons Drive, North Parramatta. This proposal seeks additional permitted land to the site under Schedule 1 of the Parramatta Local Environmental Plan (PLEP) 2011.



The location of the site is outlined in Figure 1.

Figure 1 - Site Location

# 2.2 Purpose of this Report

This report presents the following considerations in relation to the Traffic and Parking assessment of the Proposal:

Section 1	Executive Summary
Section 2	A description of the project;
Section 3	A description of the road network serving the development property, and existing traffic volumes through key local intersections;
Section 4	Determination of the traffic activity associated with the development proposal, and the adequacy of the surrounding road network;
Section 5	Assessment of the proposed parking provision in the context of the relevant planning control requirements.

## 2.3 Site Context

The site of the proposal lies within an educational establishment (SP2) zone, situated north-east from the Parramatta CBD. Key features surrounding the site include:

- The educational establishment precinct (SP2) continues towards the north-east, comprising The King's School and Tara Anglican School for Girls;
- To the west, lies a public recreation precinct (RE1) comprising the Lake Parramatta Reserve;
- To the south-west, lies the enterprise corridor (B6) and a mixed-use (B4) precinct, comprising the North Parramatta town centre;
- The greater residential precinct of North Parramatta, comprising typically low-density residential (R2) and medium-density residential (R3) zones.



Figure 2 - Local Land Use Map (Source: NSW Planning Viewer)

# 2.4 Development Site

The proposal relates to the following site:

• 16 Masons Drive, North Parramatta (Lot No. 3, DP857976) (47,800m<sup>2</sup>)



Figure 3 - Aerial View of Subject Site & Surrounds (Source: Nearmap)

The property has a site area of approximately 47,800m<sup>2</sup> with a property frontage of approximately 160m to Masons Drive. The site is currently occupied by a Centre for Ministry, operated by The Uniting Church in Australia and Charles Sturt University. The location of parking facilities are indicated in Figure 4.



Figure 4 - Location of Parking Facilities and Surrounding Land Uses

## 2.5 Development Proposal

The development proposal involves the modification of the original development consent (D84/342), to permit renting the 10 existing boarding rooms located at 16 Masons Dr to the general public. The original development consent only permits these rooms to be used for short-term accommodation for persons (and family) associated with the educational facilities.

The proposal will retain the existing number of on-site parking spaces. A parking occupancy survey has been conducted to gain a better understanding of the existing parking conditions, within the site, and the feasibility of the proposed modification.

	Number of Parking Spaces
General Parking spaces in the within 16 Masons Drive (in the immediate vicinity of Yurora House)	44
Staff Parking within 16 Masons Drive	35
Accessible	5
Off-site Parking	(large informal overflow parking area)
Total	84

Table 1 - Existing Number of Parking Spaces

# 3. Existing Transport Facilities

## 3.1 Road Hierarchy

The subject site is located in the suburb of North Paramatta, and is primarily serviced by the State Roads including Pennant Hills Road (north) and James Ruse Drive, as well as Regional Roads including Pennant Hills Road (south). The site is also serviced by local roads managed by City of Paramatta Council.



Figure 5 – Road Hierachy (RMS Road Hierarchy Review)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

State Roads	- Freeways and Primary Arterials (RMS Managed)
Regional Roads	- Secondary or sub arterials (Council Managed, Part funded by the State)
Local Roads	- Collector and local access roads (Council Managed)

Masons Drive	
Road Classification	Local Road
Alignment	North – South
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	10m
Speed Limit	50 km/h
School Zone	Yes
Parking Controls	No Parking (6am-9.30am; School Days); Unrestricted
Forms Site Frontage	Yes



Figure 6 – Masons Drive - Southbound

Pennant Hills Road	
Road Classification	State Road/ Regional Road
Alignment	East – West
Number of Lanes	Varies; generally 2 lanes in each direction
Carriageway Type	Divided
Carriageway Width	13m
Speed Limit	60 km/h
School Zone	Yes
Parking Controls	No Stopping on both sides of carriageway
Forms Site Frontage	No



Figure 7 – Pennant Hills Road - Westbound

James Ruse Drive	
Road Classification	State Road
Alignment	North – South
Number of Lanes	Varies; generally 2 lanes in each direction
Carriageway Type	Divided
Carriageway Width	23m
Speed Limit	80 km/h
School Zone	No
Parking Controls	No Stopping; Clearways
Forms Site Frontage	No



Figure 8 – James Ruse Drive – Southbound

### 3.2 Public Transport

The locality was assessed in the context of available forms of public transport that may be utilised by prospective occupants. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggest that 400m-800m is a comfortable walking distance.

#### 3.2.1 Bus Services

The only notable form of public transport available in the locality is via bus services. Two services were identified operating along Masons Drive and Pennant Hills Road. These services are operated by Sydney Bus Network and the bus stop locations are shown in Figure 9 and a summary of the services are shown in Table 2.



Figure 9 - Local Bus Stops

Route No.	Frequency (approximate)	Coverage	Stop Location
625	Every 20-30 minutes during weekdays Every 60 minutes during Saturday Limited services on Sunday & Public Holidays (Valid from 26 November 2017)	Parramatta to Pennant Hills	15 metres
M54	Every 20-30 minutes during weekdays Every 20-30 minutes during Saturday Every 20-30 minutes during Sunday and public holidays (Valid from 26 November 2017)	Parramatta to Macquarie Park via Epping	350 metres

Table 2 – Bus Service Summary

When considering the above routes and frequency, it is summarised that they provide moderate connectivity to the surrounding Parramatta region. With regular services provided over weekdays and weekends, it is anticipated that the bus network will provide a viable alternative transportation option for occupants, with direct connections to Parramatta Train Station for trips outside the Parramatta area.

# 3.3 Active Travel

In addition to public transport, the locality has also been assessed for its active transport potential. It is noted that the proximity of the bus stops and frequent services during peak hours will also likely lead to higher rates of walking, although a higher rate of driving will likely be observed during off-peak periods. Other features are also anticipated to attract active transport, including public parks, such as Lake Parramatta and the Lake Parramatta Reserve.

In terms of public infrastructure, Masons Drive and the surrounding local road network provide dedicated footpaths for pedestrians. Moreover, the wider local road network offers a high level of amenity and safety for pedestrians, providing refuge islands, school zones and supporting signage throughout the locality.

#### 3.3.1 Bicycle Network

In the context of cycling, the site has been found to lie proximate to on-road paths, with connections north to Westmead, Parramatta CBD and Carlingford. It was therefore concluded that the site will offer prospective occupants the opportunity to travel to nearby major employment hubs and local features via cycling.



Figure 10 - City of Parramatta Council Cycling Map

# 4. Development Traffic Assessment

The potential traffic generation associated with the proposed building has been established with reference to the following RMS material:

• RMS Guide to Traffic Generating Developments, October 2002 (RMS Guide)

# 4.1 Existing Traffic Generation

The site is currently occupied as a boarding house, accommodating 10 bedrooms. Currently, the *RMS Guide to Traffic Generating Developments (2002)* does not provide guidelines for the traffic generation of boarding house. Therefore, for the purpose of the report, **ptc.** considers the rates for a medium-density residential flat building, to be a suitable guidance for calculating the traffic generation. The Guide provides the following rates for medium-density residential dwellings:

- Small units and flats (up to two bedrooms)
  - Daily vehicle trips = 4-5 per dwelling
  - Weekday peak hour vehicle trips = 0.4-0.5 per dwelling

With reference to the small unit and flats (up to two bedrooms) rates, the existing trips generated by the site have been estimated in Table 3. The calculations have been based on 10 one bedroom dwellings.

Table 3 - Existing Traffic Generation

Component	Period	Vehicle Trip Rate	Dwellings	Existing Trips	
Yurora House	Peak Hourly	0.4/Dwelling	10	4	
raiora nouse	Daily	4/Dwelling	10	40	

## 4.2 Proposed Traffic Generation

Applying the medium-density residential (small units and flat) rates to the proposed development, results in the following traffic activity as outlined in Table 4.

Table 4 - Net Trip Generation Summary

Component	Period	Vehicle Trip Rate	Dwellings	Existing Trips	Proposed Trips	Net Trips
Yurora House	Peak Hourly	0.4/Dwelling	10	4	4	0
	Daily	4/Dwelling	10	40	40	0

The RMS Guide indicates that there will be no peak hourly or daily net trips, resulting from the proposed modification. However, realistically, it is anticipated that the trip generation will marginally increase with the proposed modification. This is due to the occupants, who are not associated with the educational use of the

premise, will most likely generate more trips to areas outside the subject site, such as neighbouring city centres, employment hubs and other surrounding features.

However, it is expected that this increase in trips will be minor and can be considered negligible. In the context of local road traffic volumes, it is anticipated that the increase in traffic volume will not create a notable impact on the local road conditions. Moreover, it is also anticipated that the bus network will provide a viable transportation option, with frequent services and strong connection to the wider Parramatta region and neighbouring city centres.

## 4.3 Traffic Impact Summary

In light of the above assessment, the proposal is endorsed in the context of traffic implications, where net changes in traffic generations are anticipated to be minor, and insignificant in the context of the traffic volumes of the local road network.

# 5. Parking Provision

## 5.1 Existing Parking Conditions

As discussed in Section 2.5, the proposed modification will retain the existing number of parking spaces. The existing number of parking spaces can be seen in the table below.

Table 5 - Existing Number of Parking Spaces

	Number of Parking Spaces
Parking spaces within 16 Masons Drive (in the immediate vicinity of Yurora House)	44
Accessible	5
Total	49

An additional 35 parking spaces are also provided within the site, which are primarily used by staff members of Uniting Church of Australia and Charles Sturt University. This mitigates the demand for the parking spaces in the immediate vicinity of Yurora House. It is also noted that the Uniting Church of Australia operates an open space area across the road at 5 Masons Drive, which is allocated for staff parking and guest parking during conferences.



Figure 11 - Open-space Guest/Staff Parking Area

## 5.2 Parking Occupancy Survey

A parking occupancy survey was conducted on the 23<sup>rd</sup> November 2017, from 8:30am-10:00am, to gain a better understanding of the current parking conditions/demand, as well as to ensure the feasibility of the proposed modification. The results, gathered from the survey, can be seen in Table 6.

	Parking Spaces	Occupied Parking Spaces	
	Total	8:30am	10:00am
Parking spaces within 16 Masons Drive (in the immediate vicinity of Yurora House)	44	16	26
Accessible	5	2	2
Total	49	18	28

Table 6 - Parking Occupancy Survey Results

The results indicate the under-utilisation of the parking spaces, in the immediate vicinity of the Yurora House with approximately 36% and 59% occupancy rate, at 8.30am and 10.00am respectively. The accessible parking spaces were also under-utilised with 40% occupancy rate, during the time of visit.

With the above in consideration, the proposed modification, to the original development consent (DA84/342), is not expected to notably impact the existing parking conditions. Moreover, it is anticipated that the close proximity of the bus stops will also provide occupants a viable transportation option, with frequent services and strong connection to surrounding city centres and the Parramatta CBD.

#### 5.3 Parking Impact Summary

The existing on-site parking capacity is considered to be adequate for the current use of the Yurora House. It is anticipated that the current number of parking spaces, available on-site, will be an adequate provision for the future parking demand of Yurora House, under the proposed modifications.