Planning Proposal for 53-73 Toongabbie Rd, Toongabbie
Traffic and Parking Assessment

Reference: 15SYT0078
29 June 2015

ABN 65 010 868 621

Unit G04, 27 Mars Road, Lane Cove West NSW 2066
PO Box 98, North Ryde NSW 1670
T: 02 9418 3033 **F**: 02 9418 3112 **E**: ttmnsw@ttmgroup.com.au

Rev No.	Author	Reviewed/Approved		Description	Date
		Name	Signature		
1	C Hutcheson	C Hutcheson		Draft	26.06.2015
2	C Hutcheson	C Hutcheson		Final	29.06.2015
3					
4					
5					

Contents

Table Index

Figure Index

1. Introduction

1.1. Background

TTM Consulting was engaged by Think Planners to prepare a traffic engineering report investigating a planning proposal for the site at 53-73 Toongabbie Rd, Toongabbie. It is understood that the planning proposal will be lodged with Holroyd Council.

1.2. Scope

This report investigates transport aspects associated with the planning proposal. The scope of the transport aspects investigated includes:

- Parking supply required to cater for development demand
- Identification of likely traffic volumes and traffic distribution from the future development
- Identification of likely traffic impact of development on the public road network
- Access configuration to provide efficient and safe manoeuvring between the site and the public road network
- Access to suitable levels of public transport

To assess the proposed transport arrangements, the proposal has been assessed against the following guidelines and planning documents:

- Holroyd Development Control Plan 2013
- RMS Guide to Traffic Generating Developments
- Building Code of Australia 2015

1.3. Site Location

The site is located at 53-73 Toongabbie Rd, Toongabbie, approximately mid-way between Portia Road and Octavia Street, as shown in Figure 1.1.

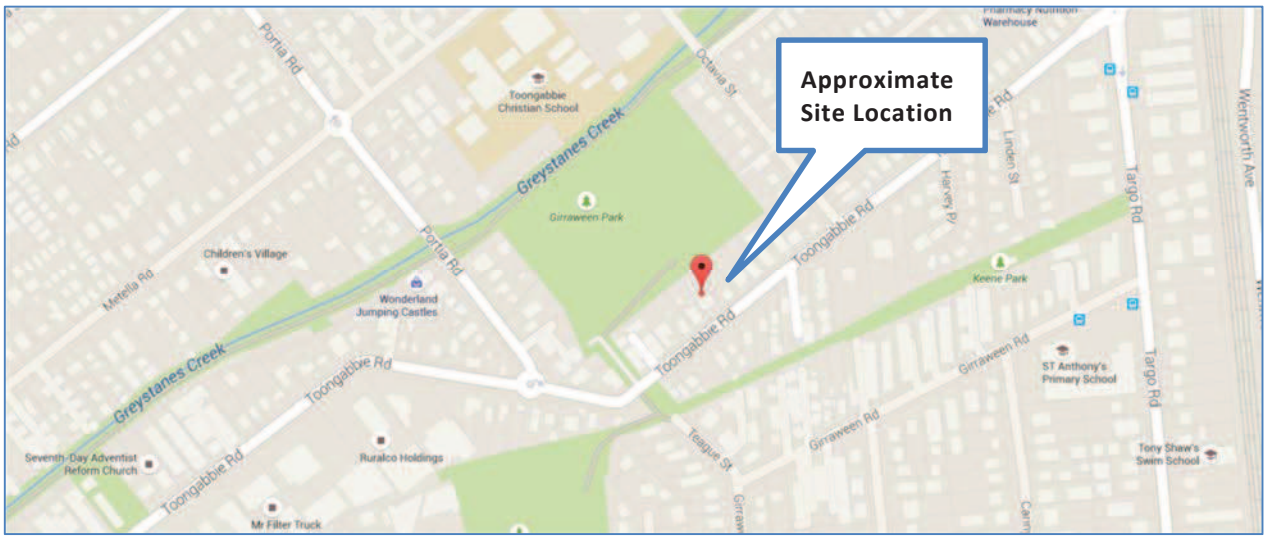

Figure 1.1: Site Location

1.4. Current Site Use

The site currently encompasses a number of residential properties (7 houses + 2 x 6 unit villas) as shown in Figure 1.2. Access is currently from Toongabbie Road via four separate driveways, one to each residence.

Figure 1.2: Existing Development

2. The Proposed Development

2.1. Planning Proposal

The Planning Proposal comprises rezoning the site from R2 to R4 with an FSR of 1:1. It is estimated that up to 100 apartments could be provided as a result.

The planning Proposal anticipates that the 100 apartments will be spread over four buildings with 25 apartments per building.

For the purposes of the Planning Proposal assessment it is assumed that 75% of the apartments have two or less bedrooms and 25% have three or more bedrooms.

2.2. Access

It is anticipated that there would be separate driveways to each of the four buildings. The frontage to Toongabbie Road is approximately 230 metres. The driveway spacing would therefore be around 58 metres if each block is configured similarly.

2.3. Parking

Parking would be supplied in accordance with Holroyd Development Control Plan 2013

3. Existing Transport Infrastructure

3.1. The Road Network

The majority of roads in the immediate vicinity of the site are administered by Holroyd Council. Toongabbie Road south of Portia Road is classified as a regional road for funding purposes as shown in Figure 3.1. Speed limits on Toongabbie Road south of Portia Road and Portia Road itself are 60 km/hr.

The section of Toongabbie Road north of Portia Road is classified as a local road for funding purposes. This section of Toongabbie Road is signposted at 50 km/hr.

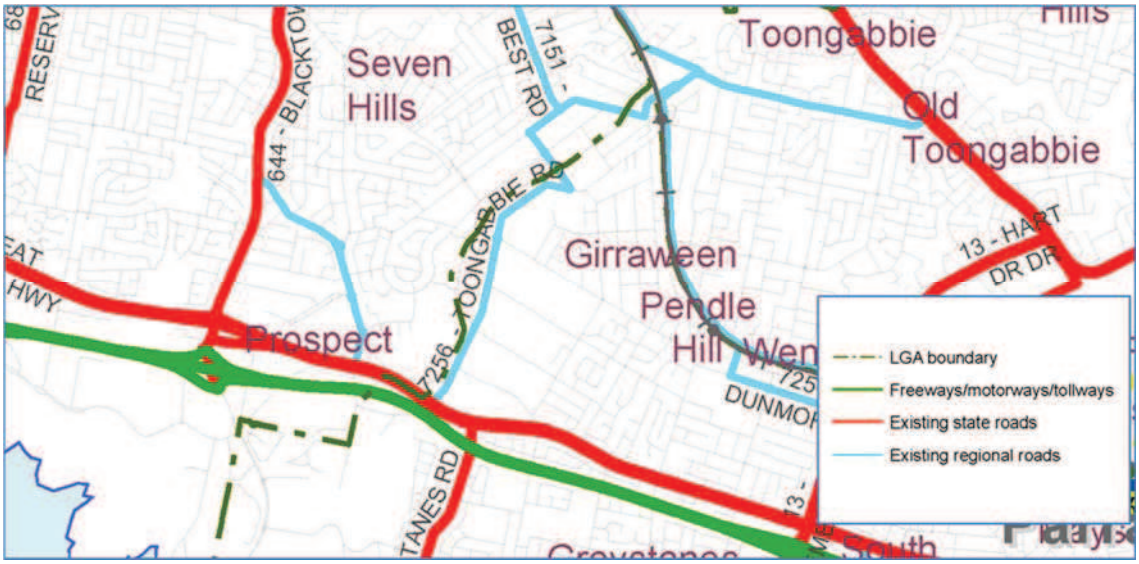

Figure 3.1: Road Hierarchy

Toongabbie Road north of Portia Road performs a major collector function. Its' carriageway is approximately 12.5 metres wide with single travel lanes in each direction plus on street parking on both sides. Acceptable peak period traffic flows for these types of roads in established urban areas are up to 1,000 vehicles per hour.

The intersection of Toongabbie Road with Octavia Street to the east is un-signalised. The intersection of Toongabbie Road with Portia Road to the west is a three leg roundabout.

3.2. Public and Active Transport

Toongabbie train station, on the Main Western line, is located approximately 650 metres from the centre of the site (as the crow flies). This is within acceptable walking distance guidelines specified by Transport for NSW. It is served by Sydney Trains T1 Western and T5 Cumberland line services as follows:

- T1 Western line:
  - 16 trains to the Sydney CBD in the morning peak (7.00 to 9.00 am)

- 9 trains from the Sydney CBD in the afternoon peak (4.30 to 6.30 pm)
- 2 trains per hour in each direction the inter-peak period

- T5 Cumberland line:
  - 4 trains to Blacktown in the morning peak (7.00 to 9.00 am)
  - 4 trains from Blacktown in the afternoon peak (4.30 to 6.30 pm)
  - 2 trains per hour in each direction the inter-peak period

Bus services in the area are provided by Hillsbus and shown in Figure 3.2. The 705 service between Parramatta and Blacktown via Westmead, Seven Hills and Lalor Park is within walking distance of the subject site. Services run at 30 minute headways in peak periods and 60 minute headways in the inter-peak period.

Figure 3.2: Local Bus Services

A formal pedestrian footpath is located on the western side of Toongabbie Road adjacent to the subject site. Girraween Park is located at the rear of the subject site. A pedestrian access path to the park is located off Toongabbie Road just west of the subject site.

The Draft Holroyd Bike Plan (2009) identifies a bike route along an existing path adjacent to Greystanes Creek to the west of the site. The path can be accessed via Portia Road or Octavia Street. Portia Road is identified in the bike plan as a proposed on-street bike path.

4. Car Parking Arrangements

4.1. Council Parking Supply Requirement

4.2. Car Parking

Holroyd Development Control Plan 2013 specifies parking requirements for various types of developments. For residential flat buildings the following minimum and maximum parking rates apply:

- Studio / 1 bedroom – 0.8 minimum / 1 maximum per dwelling
- 2 bedrooms – 1 minimum / 1.5 maximum per dwelling
- 3 bedrooms – 1.2 minimum / 2 maximum per dwelling
- 4+ bedrooms – 1.5 minimum / 2 maximum per dwelling
- Visitors – 0.2 minimum / 0.5 maximum per dwelling

The required spaces are identified in Table 4.1.

Table 4.1: Car Parking Supply Requirement (multi dwelling housing)

Item	Quantity	Minimum Requirement	Maximum Requirement
2 bedroom dwellings	75	75 resident spaces	112.5 resident spaces
3 bedroom dwellings	25	30 resident spaces	50 resident spaces
Visitor Parking	25	20 visitor spaces	50 visitor spaces
Total		**125 spaces**	**213 spaces**

4.3. Bicycle Parking

Holroyd Development Control Plan 2013 specifies the following minimum bicycle parking rates for residential flat buildings (there is no maximum limit):

- Studio / 1 bedroom – none required
- 2 bedrooms – 0.5 per dwelling
- 3 bedrooms – 0.5 per dwelling
- 4+ bedrooms – 0.5 per dwelling
- Visitors – 0.1 per dwelling

The required spaces are identified in Table 4.1.

Table 4.2: Bicycle Parking Supply Requirement (multi dwelling housing)

Item	Quantity	Minimum Requirement
2 bedroom dwellings	75	37.5 resident bicycle spaces
3 bedroom dwellings	25	12.5 resident bicycle spaces
Visitor Parking	25	10 visitor bicycle spaces
Total		**110 bicycle spaces**

4.4. Accessible Parking

4.4.1. Residents

Holroyd Development Control Plan 2013 stipulates that for multi dwelling developments and residential flat buildings 15% of dwelling units shall comply with AS4299- 1995- Adaptable Housing Class B. Hence up to 15 of the proposal for up to 100 dwellings would have to comply with this requirement.

Clause 3.7.3 of AS4299- 1995 states that for residential estate developments one car parking space per adaptable unit shall have minimum dimensions to comply with requirements for parking for people with disabilities. Thus up to 15 of the 185 to 213 resident spaces will need to be designed for accessible parking in accordance with AS/NZS 2890. 6 - Off-street carparking for people with disabilities.

4.4.2. Visitors

Holroyd Development Control Plan 2013 stipulates that parking for the disabled should be provided at the rate of 2 spaces per 100 visitors or customer spaces up to 400 spaces, and 1 per 100 thereafter, or part thereof. Based on an estimated 20 to 50 visitor spaces, a minimum of one of these spaces should be designed for accessible parking in accordance with AS/NZS 2890. 6 - Off-street carparking for people with disabilities.

5. Existing Traffic Volumes

Traffic counts were recently recorded at the intersection of Toongabbie Road with Octavia Street as part of the "Toongabbie to Blacktown Rail Electricity Supply REF" completed in November 2013. Flows recorded on Toongabbie Road are replicated in Table 5.1.

Table 5.1: Existing Peak Hour Traffic Flows

Toongabbie Road	Morning Peak Hour (8.00 to 9.00 am)	Evening Peak Hour (5.00 to 6.00 pm)
East of Portia Road		
Eastbound	385	219
Westbound	276	237
Two-way	661	456
West of Octavia Street		
Eastbound	390	229
Westbound	277	254
Two-way	667	483

The existing traffic flows shown in Table 5.1 are within reasonable limits for the function that Toongabbie Road performs as a major collector road (up to 1,000 vehicles per hour). Hence they are considered to be acceptable.

6. Estimated Future Transport Demands

6.1. Estimated Development Traffic Generation

Traffic generation has estimated been based on the RMS Guide to Traffic Generating Developments. Applicable rates are:

- Dwelling houses:
  - Daily vehicle trips = 9.0 per dwelling.
  - Weekday peak hour vehicle trips = 0.85 per dwelling.
- Medium density residential flat building:
  - Smaller 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.
  - Larger units and town houses (three or more bedrooms):
    - Daily vehicle trips = 5.0-6.5 per dwelling.
    - Weekday peak hour vehicle trips = 0.5-0.65 per dwelling.

6.1.1. Existing Development Traffic

Based on the above rates the traffic generation of the existing four dwellings and 12 units (assumed to be 2 bedroom) would be around:

- 117 daily trips
- 11 peak hour trips

6.1.2. Proposed Development Traffic Volume

For the purposes of the Planning Proposal assessment it is assumed that 75% of the apartments have two or less bedrooms and 25% have three or more bedrooms. The resultant traffic generation would be:

- around 494 daily trips
- around 49 peak hour trips

Taking into account the existing traffic generation the additional traffic arising from the proposed development would be 38 vehicles in the peak hours.

6.2. Estimated Development Traffic Distribution

Inbound and outbound traffic for the existing dwellings and the Planning Proposal is estimated to be:

- 20% of development traffic is inbound in the AM Peak, with the remaining 80% outbound
- 80% of development traffic is inbound in the PM Peak, with the remaining 20% outbound

The distribution of the traffic is based on existing flows on Toongabbie Road as shown in Figure 6.1.

Figure 6.1: Estimated Distribution of Development Generated Traffic

6.3. Existing and Future Traffic Flows

The existing and future traffic flows resulting from the development are presented in Table 6.1.

Table 6.1: Existing and Future Peak Hour Traffic Flows

Toongabbie Road	Morning Peak Hour (8.00 to 9.00 am)	Evening Peak Hour (5.00 to 6.00 pm)
Existing Traffic Flows		
East of Portia Road		
Eastbound	385	219
Westbound	276	237
Two-way	661	456
West of Octavia Street		
Eastbound	390	229
Westbound	277	254
Two-way	667	483
Future Traffic Flows		
East of Portia Road		
Eastbound	389	233
Westbound	293	241
Two-way	682	474
West of Octavia Street		
Eastbound	402	233
Westbound	280	269
Two-way	682	502
Net Increase in Traffic Flows		
East of Portia Road		
Eastbound	4	14
Westbound	17	4
Two-way	21	18
West of Octavia Street		
Eastbound	12	4
Westbound	3	15
Two-way	15	19

From Table 6.1 it can be seen that traffic flows remain within reasonable limits for the function that Toongabbie Road performs as a major collector road (up to 1,000 vehicles per hour). Hence they are considered to be acceptable.

7. Site Access Arrangements

7.1. General Access Requirements

Holroyd Development Control Plan 2013 contains development controls for parking and vehicular access. Elements relevant to this traffic assessment and the implications for the planning proposal are summarised in Table 7.1.

Table 7.1: Parking and Vehicular Access Requirements

Clause from Section 6.9 Parking and Vehicular Access	Implications for Planning Proposal
C2. Vehicle access points shall be limited to a minimum.	The proposal allows for up to 4 separate driveways. This be a reduction from the current situation with 9 separate driveways. It will increase on-street parking supply and reduce the number of potential conflicts points.
C3. Ensure clear site lines at pedestrian and vehicle crossings.	Sight lines at the site boundary are satisfactory. Detailed design will need to consider internal issues.
C6. Where possible, vehicular parking entries shall be located off secondary streets.	Toongabbie Road is the only possible access.
C11. Driveways associated with residential flat buildings shall be arranged to facilitate safe and efficient vehicular access. Vehicles shall be able to enter and leave the site in a forward direction with minimal on-site manoeuvring. (i.e. Maximum of a three point turn)	Will be addressed in the detailed design.
C12. A full width plain concrete vehicle crossing shall be constructed at the vehicle entrance to the property in accordance with Council's requirements with a minimum width of 5m and a maximum width of 6m at the property boundary line.	Will be provided.
C13. Car parking spaces allocated to dwellings that are built to the Adaptable Housing Standard – AS 4299 must comply with the dimensions specified in that standard.	Up to 15 resident spaces will be designed in accordance with AS/NZS 2890. 6 - Off-street carparking for people with disabilities.
C15. One car wash bay shall be provided for all developments having 10 or more dwellings. The car wash bay shall be a common, independent area and not serve as a visitor parking space.	An additional space will be required for car washing. This could be a single space for the entire development if a shared area exists. Otherwise it may require 4 car wash bays, one for each building.

7.2. Access for Service Vehicles

Holroyd Development Control Plan 2013 does not specify a requirements for loading facilities for residential flat buildings with access from the local road network. It is proposed that loading and waste servicing will be conducted on-street.

8. Summary and Conclusions

This report has examined the traffic and parking implications of a planning proposal for the site at 53-73 Toongabbie Rd, Toongabbie. The planning proposal allows for up to 100 dwellings to be provided within four separate buildings (25 dwellings per building).

8.1. Existing Transport Infrastructure

The site has direct access to Toongabbie Road. It is within walking distance of Toongabbie train station and local bus services. It is also accessible by bicycle.

8.2. Parking

The following parking requirements will need to be satisfied (assuming 100 dwellings, 75% x 2 bed, 25% x 3 bed):

- 90 to 148 standard resident car parking spaces
- 15 accessible resident car parking spaces
- 19 to 49 standard visitor car parking spaces
- 1 accessible visitor car parking space
- 100 resident bicycle parking spaces
- 10 visitor bicycle parking spaces
- 1 to 4 car wash bays depending on the site layout

8.3. Impact on Surrounding Road Network

Increases in traffic in peak periods are forecast to be up to 26 vehicles per hour (two way). This increase will have a negligible impact on local traffic conditions. Resultant flows are within acceptable levels.

8.4. Site Access Arrangements

The proposal allows for up to 4 separate driveways. This be a reduction from the current situation with 9 separate driveways. It will increase on-street parking supply and reduce the number of potential conflicts points.

8.5. Conclusion

Based on the assessment contained within this report, TTM see no traffic engineering reason why the relevant approvals should not be granted.