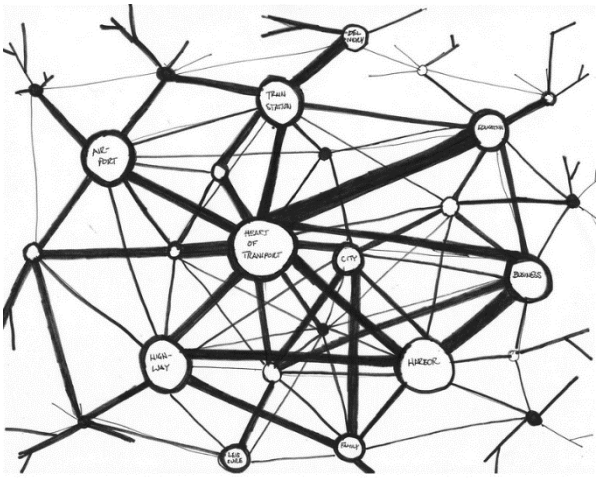
TSA

ABN: 79 943 737 368

TRAFFIC AND TRANSPORT IMPACT STATEMENT

7 CONCORD AVENUE, CONCORD WEST (PLANNING PROPOSAL RESIDENTIAL DEVELOPMENT)



Date:
14 August 2018

Office:
Suite 15/9 Hoyle Ave., Castle Hill NSW 2154

All Correspondence:
75 Gindurra Ave., Castle Hill NSW 2154

Ph: (02) 8850 2799

Mob:
0418 262 125 (David Thompson)
0450 747 401 (Yafeng Zhu)

Email:
david@thompsonstanbury.com.au
yafeng@thompsonstanbury.com.au

Website:
www.thompsonstanbury.com.au

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1. INTRODUCTION

The Department of Planning and Environment ('DPE') has recently issued a Gateway Determination (IRF 17/47) dated 8 January 2018, for amendments to Canada Bay Local Environmental Plan 2013 (LEP 2013) for rezoning of the site at 7 Concord Avenue, Concord West from Industrial (IN3) to Medium Density Residential (R3) land use, in conjunction with increasing the maximum permissible building height from 12m to 25m and reducing the maximum floor space ratio from 1:1 to 1.6:1. This State Government direction is subject to a number of conditions, of which an updated Planning Proposal to be submitted to The Sydney Region East Panel and DPE for assessment and / or endorsement, which is required to incorporate, among other specialist studies, a Traffic and Transport Impact Assessment (TIA).

The Practice of TSA has been engaged by Elton Consulting on behalf of F.T.D Holdings Pty. Ltd. and Floridana Pty. Ltd. to prepare the TIA to accompany the updated Planning Proposal. This report assesses and documents the potential parking, traffic and transport impacts of the development that is associated with the updated Planning Proposal on the surrounding road network in terms of traffic efficiency and safety. Particular consideration has been given to the following specific issues:

- Likely additional traffic generated by the rezoning;
- The impact of this additional traffic on the existing surrounding road network;
- The extent and timing of infrastructure upgrading works (related to all road users being vehicles, pedestrians and cyclists in conjunction with public transport considerations) required within and adjoining the subject land to adequately accommodate the proposal; and
- The proposed development access arrangements and suitability with respect to existing environmental and traffic conditions.

This report should be read in conjunction with a Concept Plan prepared by Antoniades Architects. The report has been prepared pursuant to State Environmental Planning Policy (Infrastructure) 2007 and we understand that it should be consistent with current traffic studies for the Burwood-Concord and Homebush precincts, which are currently being prepared by Council. In this regard, we note that the Roads and Maritime Services (RMS) in their recent letter dated 9 April 2018, advised that '*public exhibition of the planning proposal should be postponed*' to enable alignment between the updated planning proposal and Burwood-Concord and Homebush precincts' traffic assessments. Further, section 5.3 of this report presented comments from Transport for NSW that conveyed the same sentiment as that of the RMS advice above.

This Practice has been requested by the client to prepare this TIA at this time and this is prior to completion of the abovementioned traffic studies, and as such an addendum report is could be required to address the outcomes presented within the Council studies which may impact on the subject proposal.

2. SITE DETAILS

2.1 Site Location

The subject site is located on the western terminating end of Station Avenue, approximately 20m west of its junction with George Street, Concord West. This location is shown in the context of its surrounding road network and local land use in **Figures 1** and **2** overleaf.

2.2 Site Description

The subject site provides a legal description of Lot 1 in Deposited Plan 219742 and a street address of 7 Concord Avenue, Concord West. It forms an irregular shaped parcel of land, providing a single frontage to Station Avenue of approximately 5m, being the width of the public road. The total site area is approximately 15,023m^2.

2.3 Existing Use

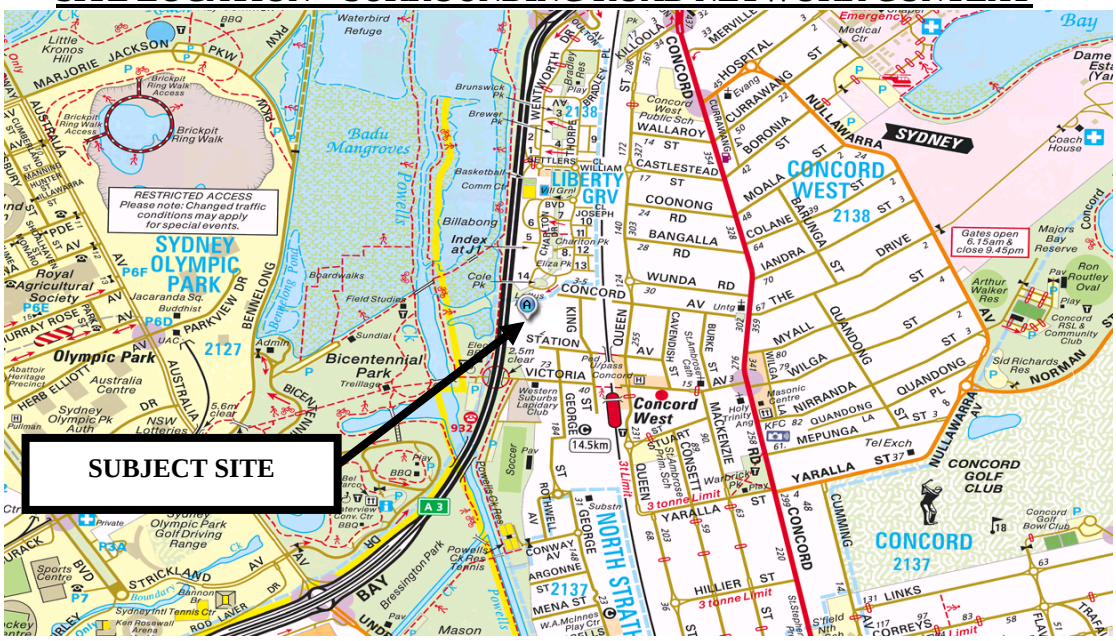
The subject land historically accommodated an industrial land use providing a large industrial factory building with an ancillary two-storey office component with a GFA of 5,158m^2 and 709m^2 respectively. These buildings are currently fitted out to accommodate indoor recreational activities (paintball and go-karting) in conjunction with providing storage for concreting equipment. Vehicular access to the site is provided off Station Avenue at its western terminating end.

2.4 Surrounding Uses

The subject land is primarily surrounded by a mix of low-density detached residential dwellings and medium density residential apartment buildings in its immediate vicinity, with the following exceptions:

- A furniture manufacturer adjoining the site to the south, fronting the southern side of Station Avenue;
- A church and primary school situated on the southern side of Victoria Avenue, approximately 100m south of the subject site; and
- Bicentennial Park situated approximately 250m to the west of the subject site.

FIGURE 1
SITE LOCATION – SURROUNDING ROAD NETWORK CONTEXT



Source: http://www.street-directory.com.au (Accessed 28/05/18)

FIGURE 2
SITE LOCATION – LOCAL LAND USE CONTEXT

Source: Six Maps (Accessed 18/07/18)

3. BACKGROUND

3.1 Parramatta Road Urban Corridor Strategy

The Parramatta Road Corridor has been identified by State and local Governments as a strategically important transport route connecting people who live, work and travel within precincts between Sydney CBD to Parramatta. Over the next 30 years, the Corridor is anticipated to accommodate 27,000 new residences and generate 50,000 new jobs. This projected long term growth within the Corridor is subject to careful planning considerations, which form the Parramatta Road Urban Transformation Program (PRUTP). One of the technical studies that have been prepared as part of the PRUTP is a Strategic Transport Plan undertaken by Transport for NSW, which proposes the following initiatives to address the future transportation, infrastructure and amenity needs of people within precincts adjoining the Corridor:

- The WestConnex Project, which includes a widening of the M4, a duplication of the M5 motorway and new sections providing connectivity between the two key corridors;

- Increased number of ferry services along terminals within Parramatta River and potentially a new terminal at Rhodes;

- Potentially four new light rail routes linking to Parramatta CBD via Strathfield, Burwood and Sydney Olympic Park;

- Western Sydney Rail Upgrade is expected to increase capacity on the T1 North Shore, Northern and Western Line Services to enable more efficient services;

- Sydney Metro Project, which comprises of a 36 km Sydney Metro Northwest link which is expected open in 2019 and a 30-kilometre Sydney Metro City & Southwest link, which is to connect to Sydney Metro Northwest in Chatswood and then move beneath Sydney Harbour, through Sydney CBD and south west to Bankstown;

- A new pedestrian/cycling and transit link (i.e. Homebush Bay Bridge) between Rhodes and Wentworth Point; and

- Transport initiatives for eight precincts (Granville, Auburn, Homebush Burwood-Concord, Kings Bay, Taverners Hill, Leichhardt and Camperdown) affected by future development adjacent to the Parramatta Road Corridor. The PRUTP Precinct Transport Report prepared by UrbanGrowth in 2016 in conjunction with traffic studies, which are to be undertaken by the relevant local government authorities are to address such matters for which future land use within these precincts are to be cognisant of.

It is noted that the subject site is situated within the Homebush Precinct.

3.2 Description of Proposal

The updated Planning Proposal seeks to amend City of Canada Bay LEP 2013 with respect to the 15,023m^2 site as follows:

- Amend the site's existing IN3 Industrial zoning to R3 Medium Density Residential to allow for medium density residential development comprising a combination of townhouses and residential flat buildings between three to eight storeys in height; and

- Amend the site's floor space ratio from 1:1 to 1.6:1 and building height controls from 12m to 25m allow for a variety of building envelopes throughout the site.

The Proposal involves the demolition of existing site structures and the provision of 261 residential dwellings, with the following bedroom composition:

- 7 x Studio

- 54 x 1-bedroom dwellings;

- 158 x 2-bedroom dwellings; and

- 42 x 3-bedroom dwellings.

Various areas of open space are proposed to be provided throughout the site fronting Station Avenue and Concord Avenue. It is understood that vehicular access to the site is proposed via a new local road with a north/south alignment running through approximately the centre of the site, facilitating connectivity between Concord Avenue in the north and Station Avenue in the south. This new road is envisaged to have a shared path along both sides of the road to facilitate a through site north-south pedestrian, cyclist and visual link between Concord Avenue and Station Avenue.

In addition to the above, it is understood that the proposed development is expected to be primarily serviced by basement car parking, containing a total of 245 spaces. It is understood that the proposed parking provision is consistent with the numerical parking requirements specified within PRUTP Strategic Transport Plan for the Homebush precinct.

4. EXISTING TRANSPORT CONDITIONS

4.1 Road Network Function and Controls

4.1.1 Regional Road Network

The Regional Road network in the vicinity of the subject site primarily consists of Homebush Bay Drive and Concord Road.

4.1.1.1 Homebush Bay Drive

Homebush Bay Drive performs a State Road function under the care and control of the Roads and Maritime Services. It forms part of Mona Vale Road, Ryde Road, Church Street, Concord Road and King Georges Road which provides an important north-south arterial route throughout the Sydney Metropolitan Area. To this extent, it connects with the major east-west motorways servicing Sydney being the M2, M4 and M5.

In the vicinity of Concord West, Homebush Bay Drive provides a dual carriageway providing two through lanes in each direction being separated by a raised concrete median. It intersects with major approach roads under traffic signal control, where pavement widening facilitates the provision of exclusive turning lanes. In this regard, Homebush Bay Drive intersects with Concord Road under traffic signal control within the local vicinity of the site. Further, on and off ramps are provided at the roundabout intersection of Australia Avenue and Underwood Road at the periphery of Sydney Olympic Park and on approach/departure of the M4 Motorway (Both Underwood Road and M4 Motorway services connectivity to Parramatta Road/Great Western Highway. Traffic flow is governed by a sign posted speed limit of 80 km/h.

4.1.1.2 Concord Road

Concord Road performs a State Road function providing a north-south arterial function between Homebush Bay Drive in the vicinity of the study area and Parramatta Road in the south. Concord Road primarily provides two through lanes in each direction however localised pavement widening is provided on approach to major intersections (which primarily operate under traffic signal control) to accommodate additional exclusive turning lanes. Traffic flow is governed by a sign posted speed limit of 60 km/h. Clearway restrictions apply within Concord Road between 6:00am – 10:00am and 3:00pm – 7:00pm Monday – Friday.

4.1.1.3 Parramatta Road

Parramatta Road performs a State Road function under the care and control of the Roads and Maritime Services. It forms a major east/west link between Sydney CBD in the east and Penrith in the west (then extending further west as a continuation of the M4 Western Motorway). In the vicinity of the study area, Parramatta Road forms a six lane undivided carriageway, providing three lanes in either direction, delineated by a double barrier line. Traffic flow is governed by a sign posted speed limit of 60km/hr.

4.1.2 Local Road Network

The follow describes key local roads most affected by the traffic generated by the subject proposal.

4.1.2.1 Pomeroy Street

Pomeroy Street performs a collector road function under the care and control of Council. In this regard, it provides an east-west connection between Queen Street/Beronga Street in the east and Underwood Road in the west intersecting with both under a 'dog bone' roundabout and traffic signals respectively. Continuing further west, Pomeroy Street curves to the north-west, forming Wentworth Road, which terminates in a dead end at its north-western extremity.

It should be noted that based on the surrounding road hierarchy, Pomeroy Street is the only road that provides connectivity between traffic to the east and west of the railway line within the surrounding precinct. In this regard, access to the development site and adjoining land uses from the wider regional road network must pass through the intersection Pomeroy Street and George Street, which operates under traffic signal control.

Pomeroy Street provides a 13m wide pavement providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. On approach to its intersection with George Street, two through lanes are provided in each intersection approach (with the eastern Pomeroy Street approach also providing an exclusive right turn lane) to accommodate turning or overtaking manoeuvres.

Traffic flow is governed by a sign posted speed limit of 50km/h.

4.1.2.2 George Street

George Street performs a minor Collector Road linking Station Avenue in the north with Parramatta Road/Nipper Street in the south. At its northern extremity immediately adjacent to the site, it forms a T-junction with Station Avenue under major/minor priority control, with Station Avenue forming the priority route. At its southern extremity, it intersects with Parramatta Road/Nipper Street under traffic signals.

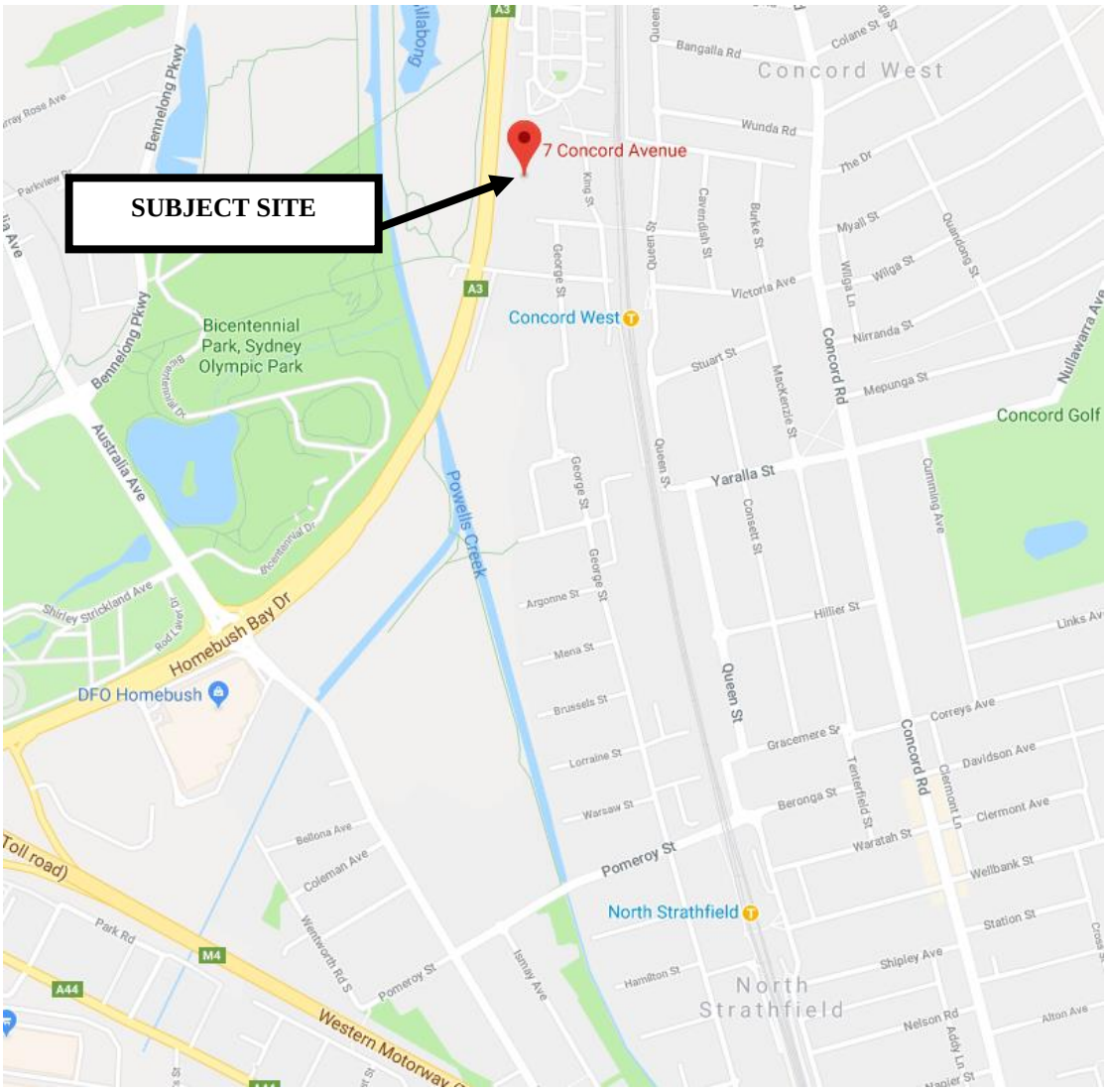
George Street provides a 13m wide pavement providing one through lane of traffic in each direction in conjunction with parallel parking between formal kerb and guttering along both sides of the road. Pedestrian footpaths are provided along both sides of the road. Traffic flow between Station Avenue and Allen Street is governed by a sign posted speed limit of 50km/h. The speed limit within George Street to the south of Allen Street is signposted as 40km/h, owing to the adjoining land use within that section of the road designated as a high pedestrian activity area.

4.1.2.3 Station Avenue

Station Avenue to the west of the railway line performs a local access function to abutting developments including the subject site. It provides an east/west alignment, intersecting with King Street at its eastern extremity and terminating in a dead end at its western extremity, in the immediate vicinity of the site. Station Avenue forms a 5m wide pavement accommodating two way traffic between formal kerb and guttering along both sides of the road. 'No-stopping' parking restrictions apply along the southern side of the road.

The regional and local network is illustrated in **Figure 3** below.

FIGURE 3
SURROUNDING ROAD NETWORK



Source: Google Maps (Accessed 18/07/18)

4.2 Existing Traffic Volumes

Based on the configuration of the existing public road layout in the general vicinity of the site, the traffic generated by the subject proposal is required to pass through the intersection of Pomeroy Street and George Street. In this regard, this Practice has undertaken traffic surveys at this intersection (being the primary access to the subject and adjoining sites) during peak commuter periods between 7.00am – 9.00am and 4.00pm – 6.00pm on 22 May 2018. **Figure 4** overleaf illustrates the surveyed peak hour (7.30am – 8.30am and 4.00pm – 5.00pm) traffic flows at the surveyed intersections, whilst full details are available upon request.

It is noted that a previous traffic study has been prepared by Transport and Traffic Planning Associates in December 2015 for the proposed development, which included survey results along Concord Road (at Correys Avenue and Wellbank Street). However, our observations have indicated that these locations are not within close proximity to the site. As such, the traffic generated by the proposed development is likely to be filtered/diluted via multiple routes along Concord Road such that the impact on any particular intersection along Concord Road is expected to be negligible. In this regard, assessment of the external traffic impacts associated with the proposed development is limited to the intersection of Pomeroy Street and George Street, as it is the intersection most affected by the proposed development.

There are some minor gains and losses in the peak hour traffic demands between the surveys recently undertaken by this Practice and the survey results reflected in the previous traffic study, which is to be expected owing to the differing survey days, turning movements at adjacent intersections and potential changes in people's travel patterns (i.e. greater use of public transport in the surrounding precinct in line with the transport initiatives implemented as part of the PRUTP, resulting in lower traffic on the surrounding road network).

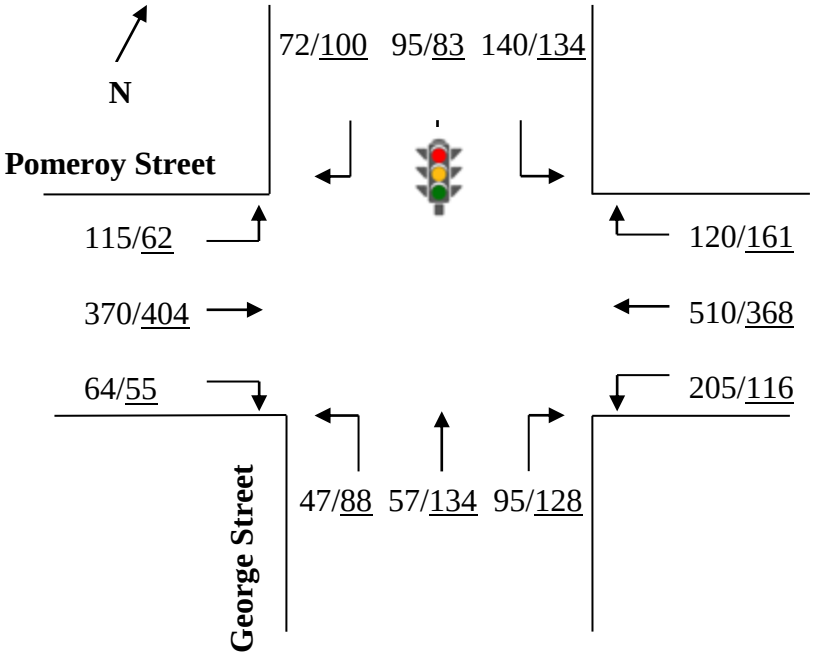
Table 1 provides a summary of the through traffic flows at this intersection during the surveyed peak hour periods.

TABLE 1
PEAK HOUR THROUGH TRAFFIC FLOWS (INTERSECTION OF GEORGE STREET AND POMEROY STREET)

Road	Northbound or Eastbound (Vehicles per Hour)		Southbound or Westbound (Vehicles per Hour)	
	AM	PM	AM	PM
Pomeroy Street	199	350	307	317
George Street	549	521	835	645

FIGURE 4
EXISTING (2018) WEEKDAY PEAK HOUR TRAFFIC VOLUMES
7:30AM – 8:30AM AND 4:00PM – 5:00PM

Legend: AM Peak / PM Peak



In addition to the above, it is further acknowledged that the previous traffic study contained peak hour traffic surveys at the intersection of George Street and Victoria Avenue. Recent inspections have indicated that traffic demands at this intersection during peak periods have not changed to any significant extent compared to the results presented in the previous traffic study. In this regard, the peak hour traffic flow at this intersection have been observed to be generally low (being less than 200 vehicles per hour), with drivers generally experiencing free flow conditions with minimal impedance.

Pedestrian movements across the formal pedestrian crossing within George Street to the immediate south of Victoria Avenue are primarily generated by students/parents/other custodians travelling to and from Victoria Avenue Primary School via Concord West Railway Station, coinciding with the starting and finishing periods of the school. The level of pedestrian activity outside of these school times have been observed to be low. Since the peak traffic generated by residential land uses primarily associated with journeys to and from work generally lies outside of school zone periods (8:00am – 9:30am and 2:30pm – 4:00pm), the impact on the existing pedestrian crossing is expected to be minimal.

4.3 Existing Road Network Operation

4.3.1 Intersection of Pomeroy Street and George Street

In order to objectively assess the operation of the surveyed intersection of Pomeroy Street and George Street, a SIDRA analysis has been undertaken. SIDRA is a computerised traffic arrangement program which, when volume and geometrical configurations of an intersection are imputed, provides an objective assessment of the operation efficiency under varying types of control (i.e. signs, signal and roundabouts). Key indicators of SIDRA include level of service where results are placed on a continuum from A to F, with A providing the greatest intersection efficiency and therefore being the most desirable by the Roads and Maritime Services.

Other key indicators provided by SIDRA are average vehicle delay, the number of stops per hour and the degree of saturation. Degree of saturation (DS), known as the X-value, is the ratio of the arrival rate of vehicles to the capacity of the approach. The X-value is a useful and professionally accepted measure of intersection performance. A value of 0.75 permits the intersection to operate in a generally satisfactory manner and provides tolerance for minor disturbances and fluctuations in the traffic conditions. At values of 'X' at 0.8 the traffic will be subject to queuing and delays which could extend over more than one signal cycle. For intersections controlled by traffic signals both queue length and delay increase rapidly as DS approaches 1.0. For intersections controlled by a roundabout or give way or stop signs, a degree of saturation of 0.8 or less indicates satisfactory intersection operation. SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out in **Table 2** (being the RMS NSW method of calculation of Level of Service).

TABLE 2
LEVELS OF SERVICE CRITERIA FOR INTERSECTION

Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
SIGNALISED INTERSECTIONS AND ROUNDABOUTS		
A	Less than 14	Little or no delay
B	15 to 28	Minimal delay and spare capacity
C	29 to 42	Satisfactory delays with spare capacity
D	43 to 56	Satisfactory by near capacity
E	57 to 70	At capacity, incidents will cause excessive delays
F	> 70	Extreme delay, unsatisfactory
GIVE WAY & STOP SIGNS		
A	Less than 14	Good
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Near capacity
E	57 to 70	At capacity and requires other control mode
F	> 70	Unsatisfactory and requires other control mode

The results of the analyses are presented in **Table 3** overleaf, whilst more detailed surveys are available upon request.

TABLE 3 SIDRA OUTPUT – EXISTING WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF POMEROY STREET & GEORGE STREET		
Approach	**AM Peak**	**PM Peak**
George Street South		
Average Vehicle Delay	42.2	47.8
Degree of Saturation	0.37	0.89
Level of Service	C	D
Pomeroy Street East		
Average Vehicle Delay	21.5	31.9
Degree of Saturation	0.69	0.69
Level of Service	B	C
George Street North		
Average Vehicle Delay	36.8	45.1
Degree of Saturation	0.46	0.87
Level of Service	C	D
Pomeroy Street West		
Average Vehicle Delay	33.0	54.9
Degree of Saturation	0.73	0.88
Level of Service	C	D
Total Intersection		
Average Vehicle Delay	29.5	43.8
Degree of Saturation	0.73	0.89
Level of Service	C	D

Table 3 indicates that the intersection of Pomeroy Street and George Street currently provides level of service 'C' during the morning peak period and a level of service 'D' during the afternoon peak period, signifying satisfactory operating conditions.

4.3.2 Midblock Capacity of the Adjoining Local Road Network

The lower order local road network comprising sections of George Street, Station Avenue and Concord Avenue servicing the development site in its immediate vicinity have been observed to carry bidirectional traffic flows of between 200 – 350 vehicles per hour per direction during peak periods. In order to undertake an assessment of the operational performance of these roads, reference is made to the Roads & Maritime Services' *Guide to Traffic Generating Developments*. The document indicates that a two lane urban road accommodating up to 380 vehicles vehicles per hour in each direction provides a Level of Service (LoS) 'A/B'

The Roads & Maritime Services define a route LoS of 'A/B' as indicating free or stable flow where drivers are reasonably unaffected by others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is high, and the general level of comfort and convenience provided is good.

The above Roads & Maritime Services LoS definition is commensurate with the overall traffic conditions observed by this Practice immediately adjoining the subject site, whereby motorists have generally been observed to access and vacate the surrounding precinct with a good level of safety and efficiency.

4.4 Existing Public Transport and Non-Car Travel

4.4.1 Train

The subject site is located approximately 400m walking distance (5 minutes) to Concord West Railway Station, which exclusively services the T1 line. The T1 Line within the Sydney Trains Network provides high frequency services between the Blue Mountains (and beyond) and Hornsby (and beyond). The T1 Line also links with other Lines within the Sydney Trains Network at Blacktown, Parramatta, Granville, Lidcombe, Strathfield and The City.

4.4.2 Bus

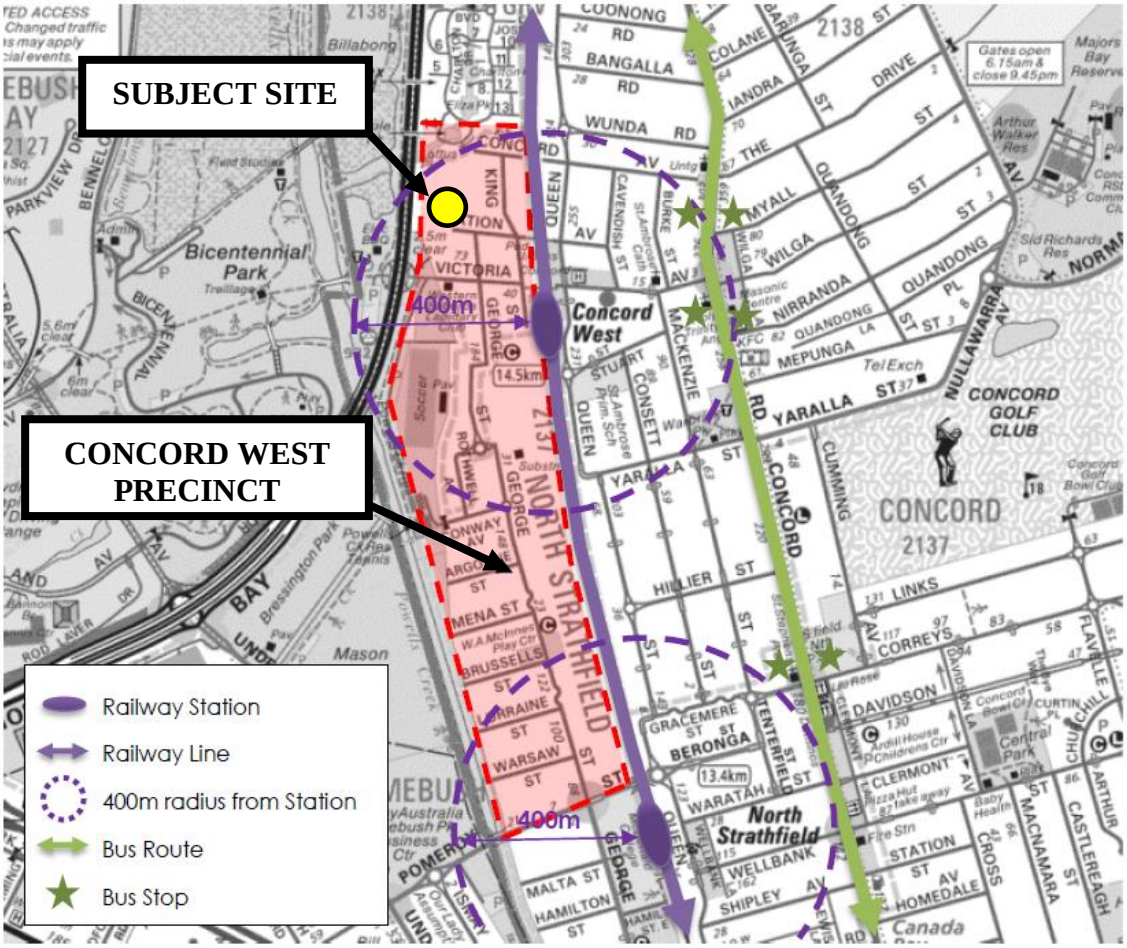
A number of bus services operate along both sides of Concord Road in the general vicinity of the subject site within approximately a 400m radius:

- Route 458 between Ryde and Burwood via Rhodes Shopping Centre;
- Route M41 between Hurstville and Macquarie Park;
- Route N80 between CBD and Hornsby via Strathfield; and
- Route N81 between CBD and Hornsby via Sydney Olympic Park

The above services combine to provide a service frequency of around 10-20 minutes during peak weekday and weekend periods, lengthening up to 30 – 60 minutes during other periods.

The extent of abovementioned public transport services (inclusive of train and bus) with respect to the subject site is reflected in **Figure 4** overleaf, being an extract of the *Traffic, Transport, Accessibility and Parking Report* prepared by GTA Consulting in May 2014 for the Concord West Precinct.

FIGURE 4
EXISTING PUBLIC TRANSPORT SERVICES WITHIN CLOSE PROXIMITY TO THE SUBJECT SITE



Source: GTA Consulting's Traffic, Transport, Accessibility and Parking Report for Concord West Precinct Masterplan

4.4.3 Walk / Cycle

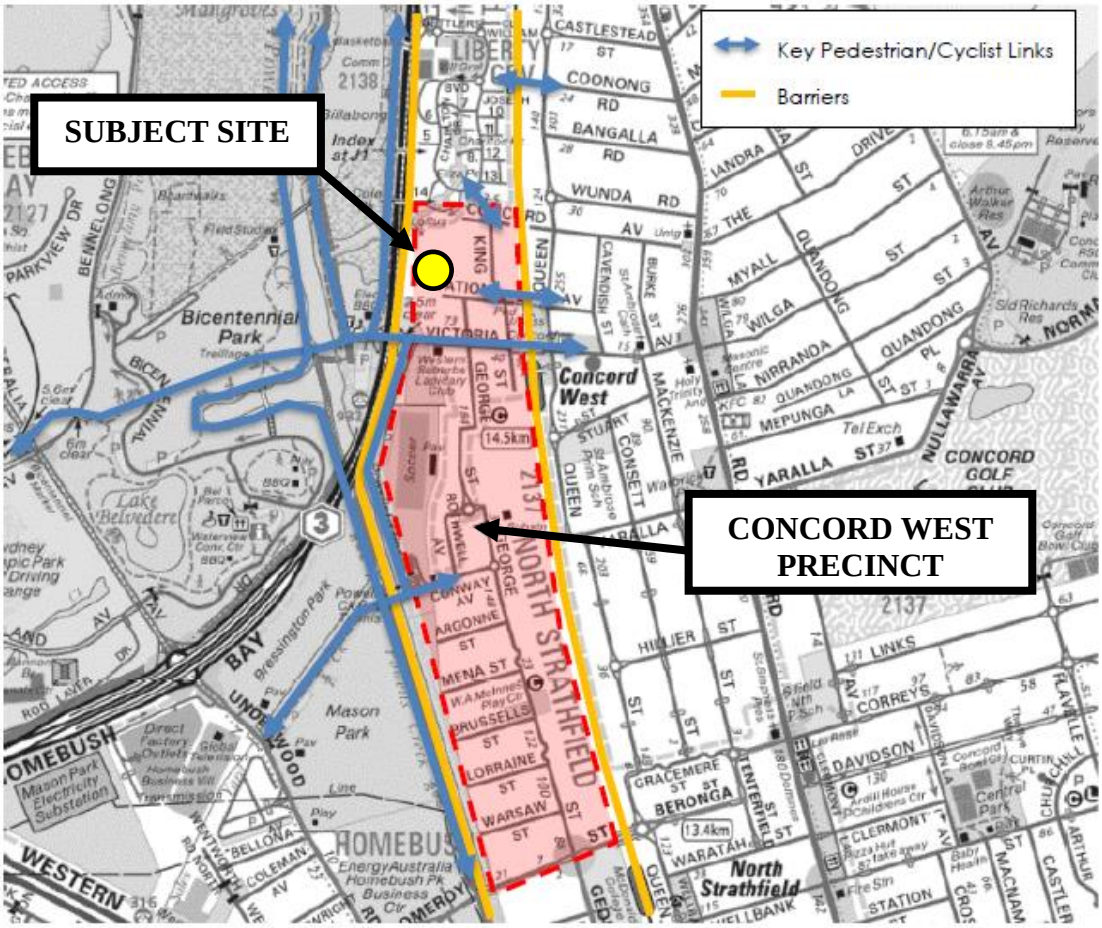
Pedestrians are provided with the following infrastructure in the vicinity of the subject site:

- Footpaths are provided on:
  - The northern side of Station Street between the subject site and George Street;
  - Both sides of George Street;
  - Both sides of Victoria Avenue; and
  - Both sides of King Street.

- A formal pedestrian crossing across George Street to the immediate south of Victoria Avenue.

In a broader context, the pedestrian and cycle routes currently provided for the surrounding precinct are reproduced in **Figure 5** below.

FIGURE 5
EXISTING PEDESTRIAN/CYCLE ROUTES WITHIN CLOSE PROXIMITY TO THE SUBJECT SITE



Source: GTA Consulting's Traffic, Transport, Accessibility and Parking Report for Concord West Precinct Masterplan

The existing pedestrian infrastructure presented above is anticipated to provide safe and efficient pedestrian connectivity between public transport (namely Concord West Railway Station) and the subject site.

5. PROJECTED TRANSPORT CONDITIONS

5.1 Previous/Existing Traffic Generation

Section 2.3 of this report presented that the site previously supported an industrial land use with a combined factory and office GFA of 5,867m^2 (with approximately 709m^2 dedicated for the office component). The Roads & Maritime Services (RMS) have established average traffic generation rates for warehouse and office space as published within its *Guide to Traffic Generating Developments*, being 1 trip per 100m^2 and 2 trips per 100m^2 respectively.

Application of the above rates to the existing development yield results in a historical peak hour traffic generation, estimated to be in the order of 66 peak trips to and from the site.

In addition to the above, it is acknowledged that the existing buildings are currently used for the purposes of a paintball/Go-karting facility. The RMS does not provide specific traffic generation rates pertaining to these developments within its *Guide to Traffic Generating Developments*. However, it refers to the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, which specify the following rates pertinent to the historic and existing land use:

General Industrial – 0.97 trips per unit
Multipurpose Recreational Facility – 5.77 trips per unit

From the above rates presented within the ITE *Trip Generation Manual*, it is evident that the existing recreational development is expected to be a more intensive traffic generator compared with the previous industrial development, which is consistent with our observations and assessments of such uses on previous projects. In this regard, for the purposes of a worst case assessment, the determination of the net traffic generation presented in the subsequent sections of this report is to be based on the peak hour traffic generation of the historic land use.

5.2 Projected Traffic Generation

The planning proposal is understood to involve the provision of a higher density residential development comprising 261 dwellings in line with zoning specified as part of the Parramatta Road Corridor Transformation Study being R3 Medium Density Housing. The Roads & Maritime Services specifies the following average weekday commuter peak hour traffic generation rates for such developments within the updated surveys presented within the technical direction of the *Guide to Traffic Generating Developments (TDT 2013/04a)*:

0.19 trips per dwelling during the AM Peak
0.15 trips per dwelling during the PM peak

The abovementioned RMS rates have also been adopted within the previous traffic study for the proposed development prepared by Transport and Traffic Planning

Associates in December 2015, which led to a Gateway Determination issued by the DPE. Further, RMS within their letter dated 9 April 2018 (Ref: SYD18/00283 (A21646051)) has requested further detail to be provided to *justify usage of the traffic generation rates provided within RMS's technical direction document with reference to journey to work mode share data for the subject locality*.

With regards to the above RMS comment, the peak hour traffic generation rates contained within *TDT 2013/04* are considered to be appropriate for the following reasons:

- The rates are cognisant of the subject site's close proximity to public transport and the existing pedestrian infrastructure, which currently and is expected to continue to provide for safe and efficient pedestrian links between the subject site and public transport; and

- The PRUTP Precinct Transport Report refers to the Bureau of Transport Statistics (BTS) Journey to Work (JTW) data, which indicates that almost half (48%) of residents within the surrounding precinct, currently journey to/from work via non-car forms of travel (e.g. train, walk/cycle, etc.). This trend is anticipated to grow with the implementation of the transport initiatives (presented within Section 3 of this report) forming part of the Parramatta Road Urban Corridor Strategy that is in line with the State Government's overall objective of reducing private vehicle utilisation.

In consideration of the above discussion, the previously presented traffic generation rates contained within *TDT 2013/04* is considered to be suitable for approximating the projected traffic associated with the subject proposal. In this regard, application of the previously presented rates to the proposed dwelling numbers, the proposed development is projected to generate in the order of 50 morning and 40 evening peak hour vehicle trips to and from the site.

5.3 Cumulative Traffic Generation and Impacts

Sections 5.1 and 5.2 of this report has identified the following:

- The previous industrial land use is estimated to generate up to 66 peak hour trips to and from the site. The existing recreational development is expected to generate a higher level of traffic; and

- The proposed development is forecasted to generate up to 50 morning and 40 evening peak hour trips to and from the site.

Based on the above, the traffic generating capacity of the proposed development represents approximately between 60 - 80% of that capable of being generated by the previous site development (and potentially less compared with the existing development). Accordingly, the subject proposal is not anticipated to generate any additional impact on the overall performance of the surrounding road network, which

is consistent with the guidelines specified by Transport for NSW within their letter dated 13 March 2018 (Ref: PP_2017_CANA_005_00), stating the following:

> *'The subject site should be designed around no net increase in traffic generation as compared with existing use if it is to proceed in advance of a more holistic precinct wide study'.*

In light of the above assessment, the existing road, transport and pedestrian infrastructure is considered to be adequate in supporting the additional traffic generated by proposed development, without the need for any additional upgrades/improvements.

In a broader context, the traffic and transport impacts associated with the subject proposal and other developments in accordance with Parramatta Road Urban Corridor Strategy have been addressed in previously prepared traffic studies (i.e. GTA Consulting's *Traffic, Transport, Accessibility and Parking Report* for the Concord West Precinct, UrbanGrowth *PRUTP Precinct Transport Report*, etc.) and are to be further refined in new precinct specific studies currently being undertaken by the relevant Councils. In particular, GTA Consulting's Traffic study for the Concord West Precinct specify the following upgrades within the surrounding road network to better service peak traffic activity associated with the future redevelopment of the precinct (inclusive of traffic generated by the proposed development):

> *"The George Street/ Pomeroy Street intersection is to be upgraded (via a consent condition) as part of the primary school (Victoria Avenue) development within the study area. A new left turn slip lane and 30m short auxiliary left turn lane will be provided on George Street (north approach).*
>
> *Additional intersection upgrades are recommended based on the likely traffic capacity required for the indicative site yields (i.e. total 785 dwellings).*
>
> *It is proposed to lengthen the 'No Parking' restriction on the south approach from 40 m to 120m (i.e. to Malta Street) during the AM peak periods, consistent with the existing 'No Parking' restriction during the PM peak periods (3:00 to 7:00pm). The works will increase the capacity of the north (additional intersection approach lane) and south (additional queuing area and more capacity for the right turn) approaches to the intersection during the AM peak hour. The above works are considered satisfactory to cater for the development of 785 dwellings within the study area, as detailed in the following assessment.*
>
> *Beyond this level of development, additional intersection works would be required to accommodate additional dwelling numbers."*

With regards to the above, it is understood that the abovementioned upgrades at the intersection of Pomeroy Street and George Street is an issue that is still being resolved

with the Department of Education and is expected to be resolved prior to the rezoning of the development site. In any case, as the proposed development is projected to have a lower peak traffic generating capacity compared with the existing/previous land uses, the existing road infrastructure and intersection controls in the immediate vicinity of the site is expected to be capable of accommodating the peak traffic generated by the proposed development during the interim period.

Further, it has been previously mentioned that Council is currently in the process of preparing a new Precinct Wide Traffic Study, which expands on the previous traffic assessments completed as part of the PRUTP that is expected to further assess the traffic and transport impacts associated with all future land uses (including the subject proposal) within the precinct and determine the future road hierarchy. This document is to be reviewed once it is made available to this Practice, upon which updates/revisions to this traffic and transport report are to be made, if necessary.

With regards to emergency service vehicle access & manoeuvrability, separate submissions have been made by Transport for NSW and Fire and Rescue NSW, upon which, it is understood that the master plan for the rezoned land has been updated to comply with the relevant requirements.

6. CONCLUSIONS

This Practice has undertaken an assessment of the potential traffic and transport related impacts resulting from the proposed rezoning of 7 Concord Avenue, Concord West. Based on this assessment, the following conclusions are provided:

- The subject proposal involves the rezoning of the site from IN3 Industrial to R3 Residential in conjunction with increased building height controls and reduced FSR under City of Canada Bay LEP 2013 to allow for higher density residential development associated with high demand uses. The Concept Plan is designed to create a vibrant and co-generational residential environment providing 261 standard residential apartments;

- The road network surrounding the subject site currently provides motorists with a good/satisfactory level of service;

- The proposed development is expected to generate 52 morning and 41 evening peak hour vehicle trips to and from the site, being significantly less than that capable of being generated by the previous and existing operational uses occupying the site;

- The subject development is therefore not projected to have any unreasonable impacts on the level of safety and efficiency afforded by the existing surrounding road, pedestrian and public transport network to warrant any potential improvements; and

- The strategic planning process for the Concord West and other surrounding Precincts forming part of the Parramatta Road Urban Corridor Strategy has considered the broader traffic and transport infrastructure requirements to service the additional demand generated by future land uses including the subject proposal, which are detailed in previously prepared traffic studies and are to be further refined in new precinct specific studies currently being undertaken by the relevant Councils.

Based on the contents of this report and the recommendations and conclusions herein, we do not consider that there are any traffic related matters of significance. Accordingly, we are in support of proposed rezoning application to permit a residential use for the subject site.