TRAFFIC AND PARKING IMPACT ASSESSMENT

Industrial and Commercial Development

29 Anzac Street, Greenacre NSW

Prepared for: **NUOVO DESIGN STUDIO PTY LTD**

N221832A (version 1a)

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1. Introduction

Motion Traffic Engineers was commissioned by Nuovo Design Studio to undertake a traffic and parking impact assessment of Proposed Industrial and Commercial Development at 29 Anzac Street, Greenacre. Vehicle access and egress to/from the site is via a driveway off Anzac Street.

This traffic report presents an assessment of the anticipated transport implications of the proposed industrial and commercial development with the following considerations:

- Background and existing traffic and parking conditions of the proposed industrial and commercial development site
- Assessment of the public transport network within the vicinity of the site
- Adequacy of car and parking provision
- The projected traffic generation of the industrial and commercial development
- The transport impact of the industrial and commercial development on the surrounding road network

In the course of preparing this assessment, the proposed site and its environs have been inspected, plans of the development examined, and all relevant traffic and parking data collected and analysed.

2.Background and Existing Conditions

2.1. Location and Land Use

The site is currently a vacant land with no permanent structures..

The site is located west of Greenacre. The immediate surroundings of the site are predominantly industrial and commercial businesses. Khaled Ibn Al Walid Mosque is located north of the site, and south of the site, Tradelink, Greenacre Trade (Plumbing supply store) is located. Site is located in *Light Industrial(IN2) zone.*

Figures 1 and 2 shows the location of the Proposed Industrial and Commercial Development site from the aerial and street map perspective respectively. Figure 2 also shows the location of the surveyed intersection in relation to the site.

Figures 3 show photographs of the site taken at Anzac Street.

Figure 1: Location of the Subject Site on Aerial View Perspective

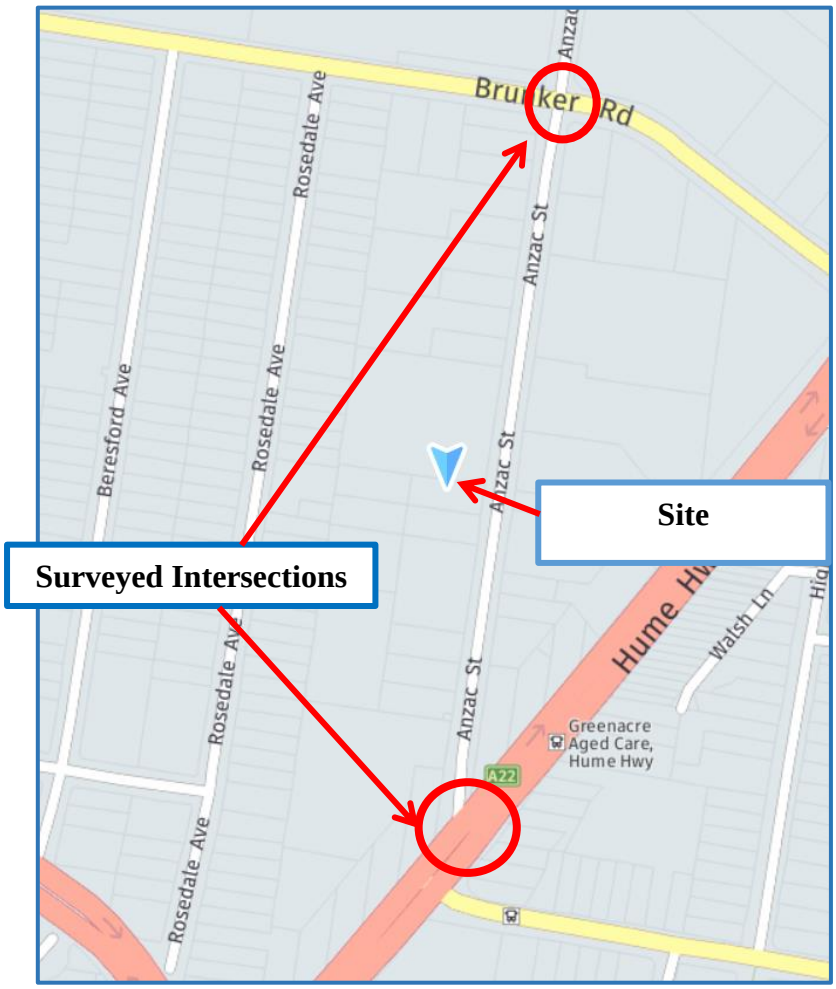

Figure 2: Location of the Site on Street Map in Relation to Surveyed Intersections

Figure 3: Photograph of Proposed industrial and commercial development Site from Anzac Street

2.2.Road Network

Anzac Street is a local road near the site with one lane each way at the midblock. The sign post shows speed limit is 50km/hr. On-street kerbside parking is allowed on both side of Anzac Street. Figure 4a shows a photograph of Anzac Street.

Hume Highway is an arterial road with three lanes each way on a divided carriageway. The sign post shows speed limit is 60km/hr. On-street kerbside parking is not permitted on either side of the road. Figure 4b shows a photograph of Hume Highway.

Brunker Road is a collector road with two lanes each way. The sign post shows speed limit is 60 km/hr. On-street parking is restricted at all. Figure 4c shows a photograph of Brunker Road.

Figure 4a: Anzac Street looking north from the site

Figure 4b: Brunker Road looking west at Intersection with Anzac Street

Figure 4c: Hume Highway liking south from Intersection with Anzac Street

2.3.Public Transport

The nearest bus stop is located approximately 190 metres south of the site, at the Hume Highway. This bus stop is serviced by bus route 925 and route provides transport to nearby suburbs including Bankstown, Panania Train Station and Lidcombe Train stations Lidcombe. Figure 5 shows the bus services near the development.

Overall, the site has good access to the public transport.

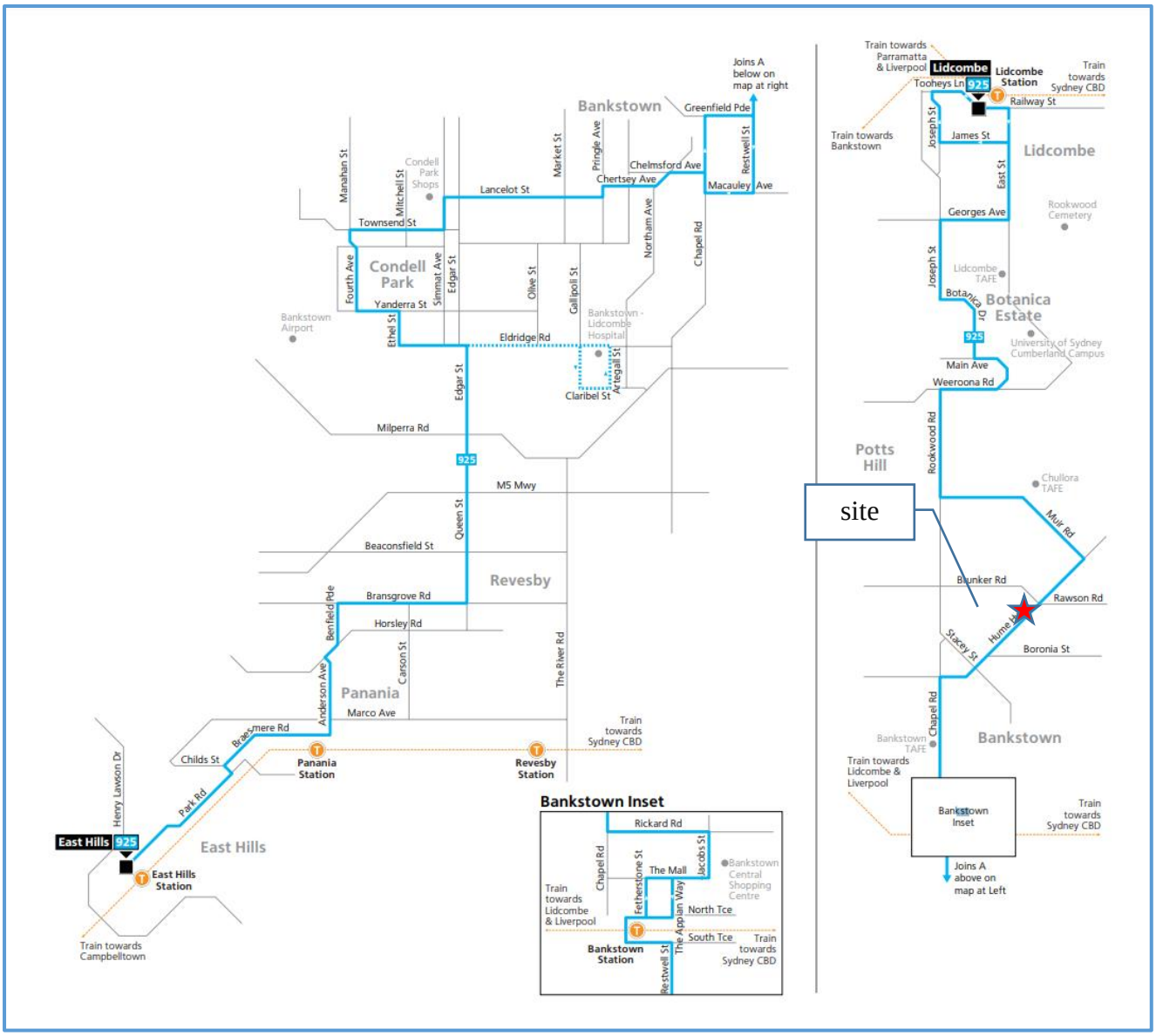

Figure 5: Local Public Transport Map and the Site Location

2.4. Public Parking

On-street parking is permitted on Anzac Street and is time restricted. There is a low number of vacant car spaces during business hours and a driver will need to circulate to find a vacant car space.

2.5. Intersection Description

As part of the traffic impact assessment, the performance of two nearby intersections was surveyed and assessed:

- The signalised intersection of Brunker Road with Anzac Street
- The priority intersection of Hume Highway with Anzac Street

External traffic to and from the proposed industrial and commercial development is likely to travel through at least one of the above intersections.

The signalised intersection of Brunker Road with Anzac Street is a four-leg intersection with all turn movements permitted. Pedestrian crossings are provided except for the western approach leg on Brunker Road. Figure 6a shows a layout of the intersection using SIDRA of the weekday PM period. Figure 6b shows a layout of the intersection from aerial view. The numbers on the lane represent the length of short lanes in metres.

The priority intersection of Hume Highway with Anzac Street is a three-leg intersection with only left turn movements permitted. Pedestrian crossing is not provided. Figure 6c shows a layout of the intersection using SIDRA of the weekday PM period. Figure 6d shows a layout of the intersection from aerial view.

Figure 6a: The signalised intersection of Brunker Road with Anzac Street in aerial view

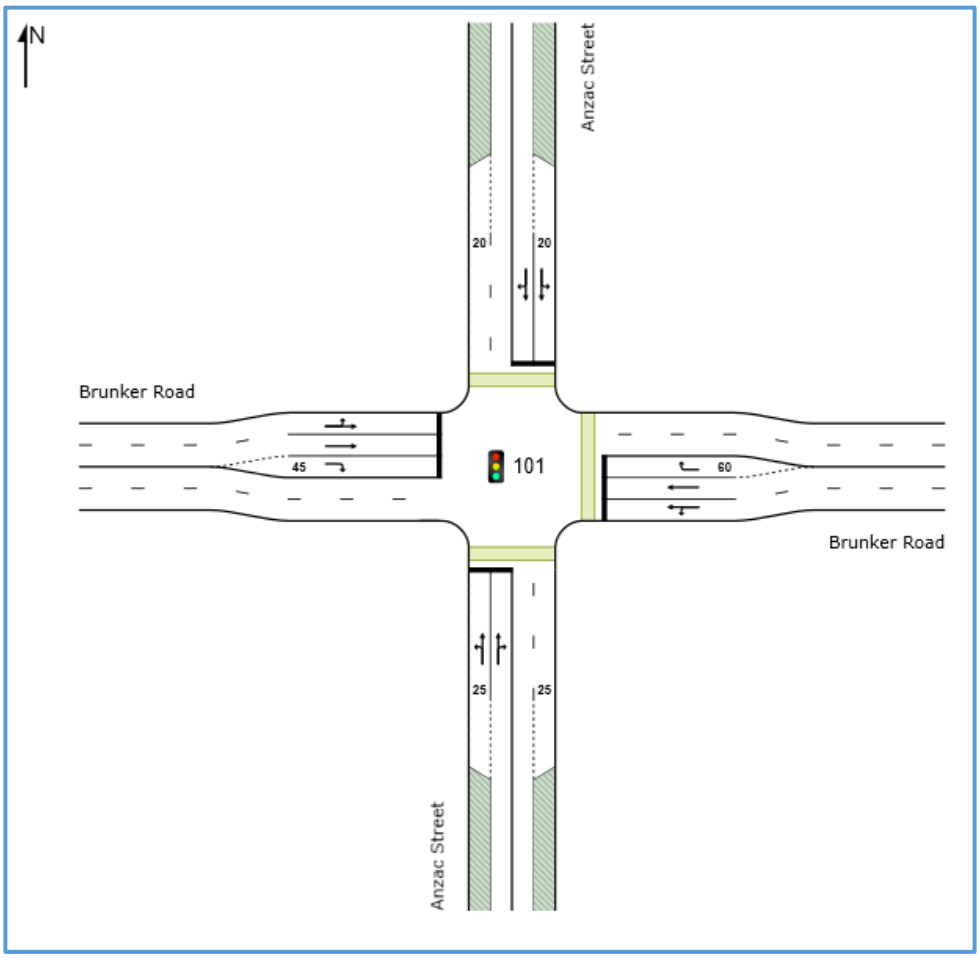

Figure 6b: The signalised intersection of Pacific Highway with St Johns Avenue (SIDRA)

Figure 6c: The priority intersection of Hume Highway with Anzac Street in aerial view

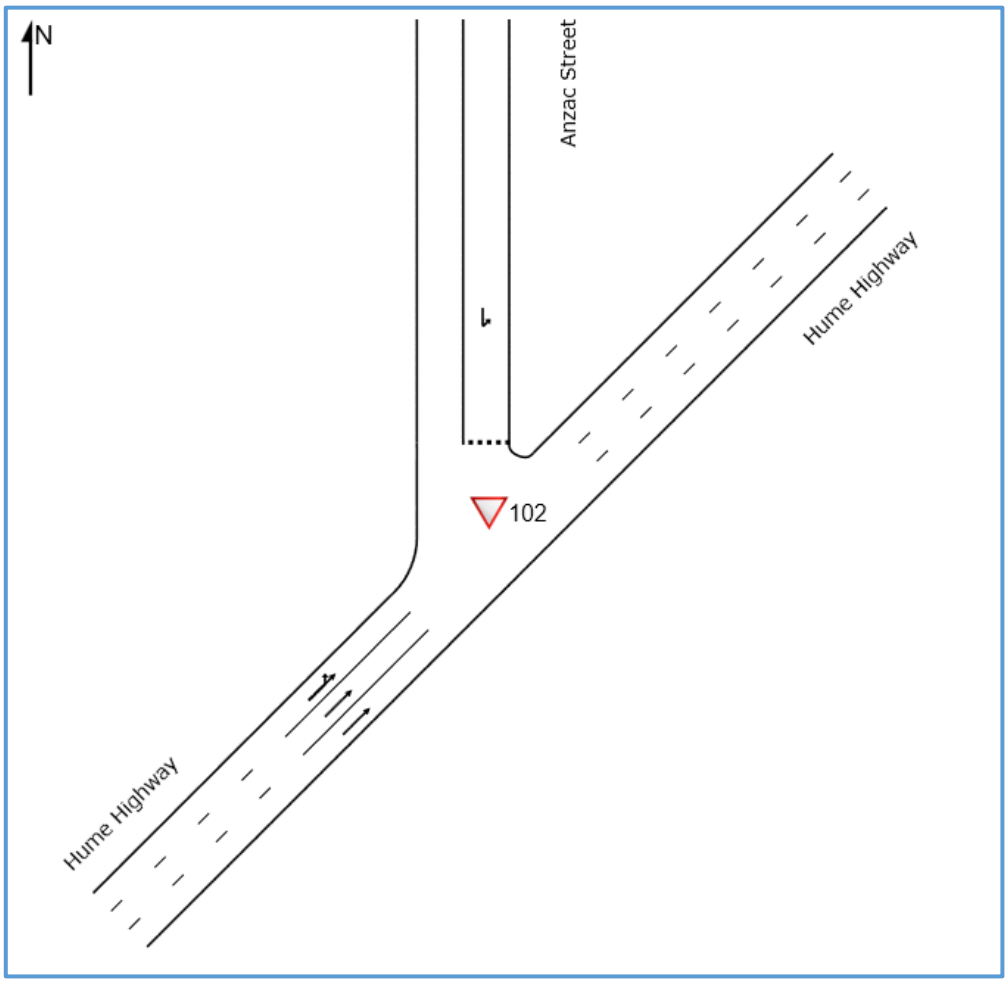

Figure 6d: The signalised intersection of Pacific Highway with Park Avenue (SIDRA)

2.6. Existing Traffic Volumes

As part of the traffic assessment, traffic counts have been undertaken at the above-mentioned intersections and the AM and PM peak hours are identified accordingly. The AM peak hour is 8am to 9am and the PM peak hour is 5pm to 6pm. The traffic survey were undertaken in June 2022.

The following Figures present the traffic volumes in vehicles for the weekday peak hours.

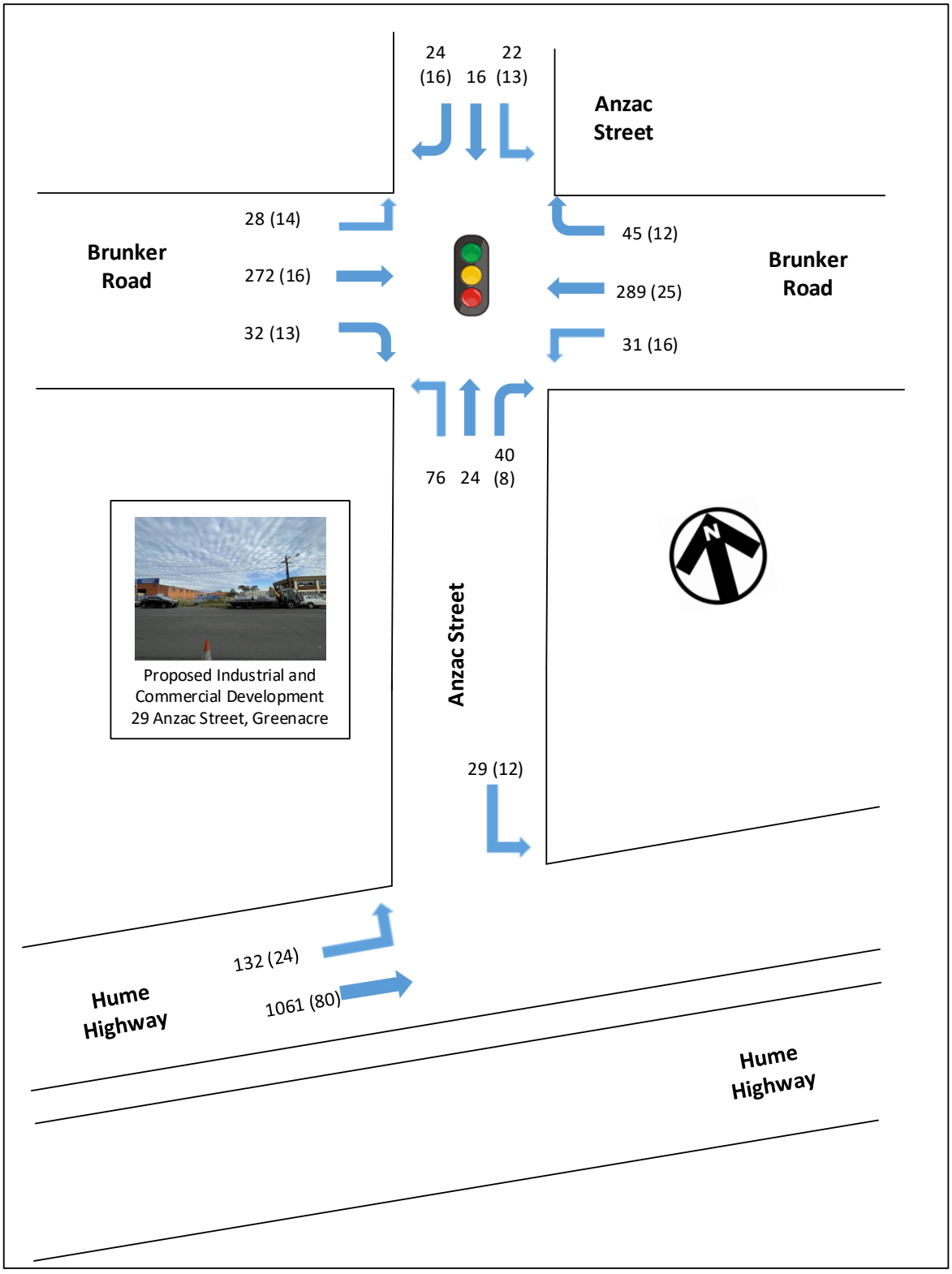

Figure 7a: Existing Weekday Traffic Volumes AM Peak Hour

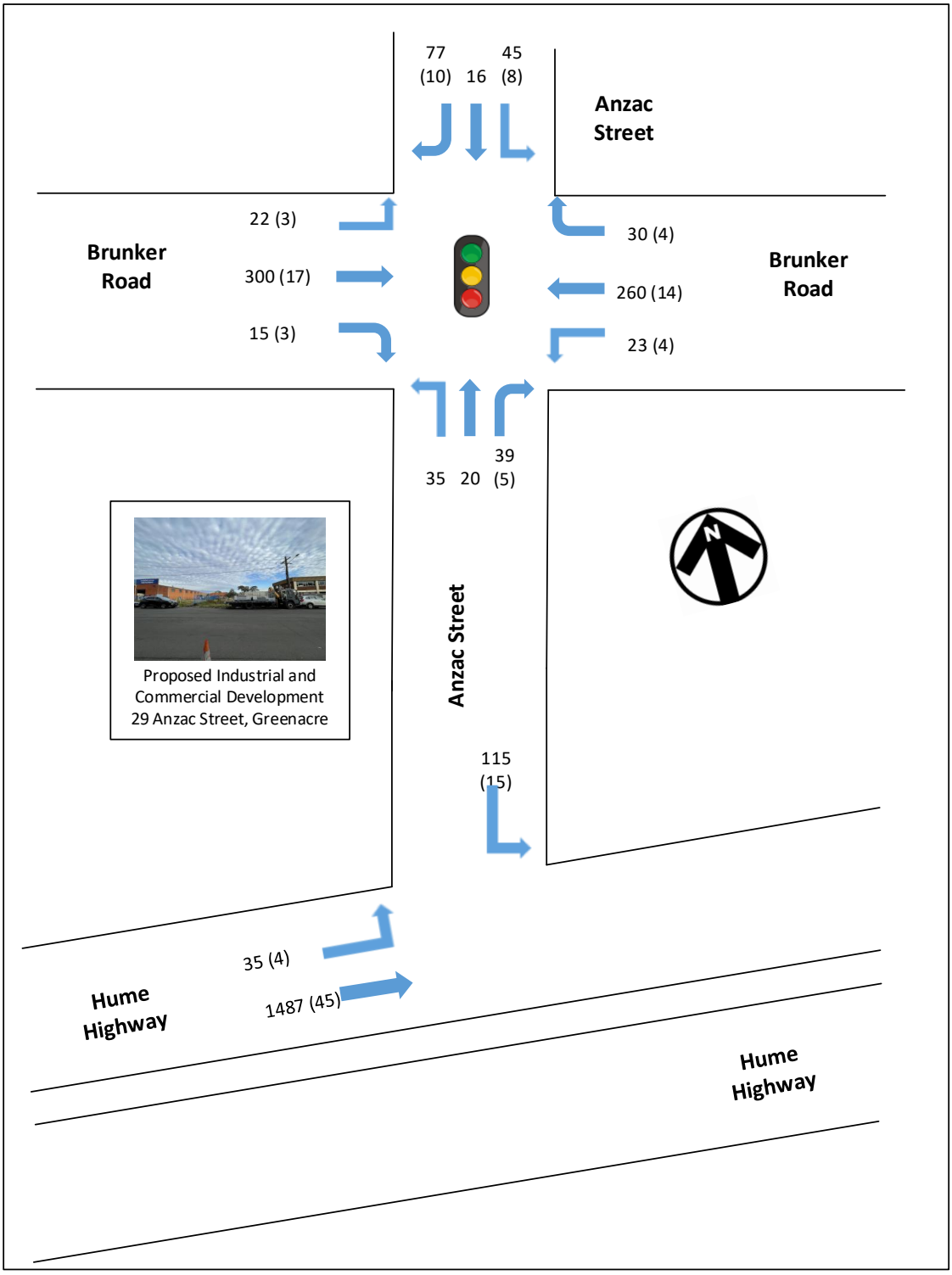

Figure 7b: Existing Weekday Traffic Volumes PM Peak Hour

2.7.Intersection Assessment with Existing Traffic

An intersection assessment has been undertaken for:

- The signalised intersection of Brunker Road with Anzac Street
- The priority intersection of Hume Highway with Anzac Street

The existing intersection operating performance was assessed using the SIDRA software package (version 9) to determine the Degree of Saturation (DS), Average Delay (AVD in seconds) and Level of Service (LoS) at each intersection. The SIDRA program provides Level of Service Criteria Tables for various intersection types. The key indicator of intersection performance is Level of Service, where results are placed on a continuum from 'A' to 'F', as shown in Table 1.

LoS	Traffic Signal / Roundabout	Give Way / Stop Sign / T-Junction control
A	Good operation	Good operation
B	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	Satisfactory	Satisfactory, but accident study required
D	Operating near capacity	Near capacity & accident study required
E	At capacity, at signals incidents will cause excessive delays.	At capacity, requires other control mode
F	Unsatisfactory and requires additional capacity, Roundabouts require other control mode	At capacity, requires other control mode

Table 1: Intersection Level of Service

The Average Vehicle Delay (AVD) provides a measure of the operational performance of an intersection as indicated below, which relates AVD to LOS. The AVD's should be taken as a guide only as longer delays could be tolerated in some locations (i.e., inner city conditions) and on some roads (i.e. minor side street intersecting with a major arterial route). For traffic signals, the average delay over all movements should be taken. For roundabouts and priority control intersections (sign control) the critical movement for level of service assessment should be that movement with the highest average delay.

LoS	Average Delay per Vehicles (seconds/vehicle)
A	Less than 14
B	15 to 28
C	29 to 42
D	43 to 56
E	57 to 70
F	>70

Table 2: Intersection Average Delay (AVD)

The degree of saturation (DS) is another measure of the operational performance of individual intersections. For intersections controlled by traffic signals both queue length and delay increase rapidly as DS approaches 1. It is usual to attempt to keep DS to less than 0.9. Degrees of Saturation in the order of 0.7 generally represent satisfactory intersection operation. When DS exceed 0.9 queues can be anticipated.

The results of the intersection analysis are as follows

Intersection/ Performance criteria	Weekdays AM Peak Hour Existing	Weekdays PM Peak Hour Existing
Anzac Street / Brunker Road *LoS* *AVD(s)* *DS*	 A 12.4 0.20	 A 13.6 0.22
Anzac Street / Hume Highway *LoS* *AVD(s)* *DS*	 N/A (worst: A) 0.5 0.23	 N/A (worst: A) 0.7 0.30

Table 3: Existing intersection performances

All intersections are operating at good level of services with the current traffic volume. There are spare capacities at these intersections to accommodate additional traffic volume. The full intersection results are presented in Appendix A

2.8.Conclusions on the Existing Conditions

The proposed industrial and commercial development is located in an area where there are a low number of vacant car spaces on Anzac Street.

The nearby intersection has spare capacity to accommodate additional traffic.

The local area has good access to bus and train services.

3. Proposed Industrial and Commercial Development

A description of the Industrial and commercial development for which approval is now sought are as follow :

Construction of four level of building and building has following components:

- Industrial premise on ground floor with GFA of 344.34 m2
- Office premise on first floor and second floor with GFA of 344.83 m2
- Restaurant on first floor with GFA of 138.82 m2 and 36 seats
    - The restaurant operates during the evening
- Shop area on ground floor with 29.62 m2

3.1.Parking

Parking is provided on ground level and basement level. Access and egress to the ground level is via a one-way driveway runs off Anzac Street and access egress to basement floor is via two-way ramp runs off Anzac Street.

Total of eighteen car spaces provided and has following components:

- three car spaces are allocated on ground level
- fourteen car spaces and 1 shared zone are allocated on basement level
- loading bay for a small rigid truck

A full scaled plan of the proposed development is provided as part of the Development Application.

4. Parking Requirements

4.1. Car Parking According to Canterbury Development Control Plan 2021

The car parking requirements for a Proposed Industrial and Commercial Development are mentioned in "*Bankstown Development Control Plan"*. The car parking rates are as follows as it applies to the Proposed Industrial and Commercial Development:

Industrial:

- 1 car space per 100m^2 GFA

Office:

- 1 car space per 40m^2 GFA

Restaurant:

- 1 car space per 0.15 spacer per square metre of total dining area

Retail:

- 1 car space per 100m^2

Table 4 below presents the minimum car parking requirement for the proposed Industrial and Commercial Development based on the car parking rates listed above.

Land-use	GFA(m2)	Car Parking Rate	Car Spaces Required	Car Spaces Provided
Industrial	344.34	1 car space per 100m2	3.4	17
Office	344.83	1 car space per 40m2	8.6	
Restaurant	138.82	0.15 per square metre	20.8	
Retail	29.62	1 car space per 100m2	0.3	
Total			33	17

Table 4: Summary of DEVELOPMENT CONTROL PLAN Car Parking Requirements

As presented in Table 4 above, the proposed Industrial and Commercial Development does not comply with *Canterbury Development Control Plan*.

The restaurant operates in the evening. Table 5 presents the daytime parking requirements on a weekday. There are sufficient car spaces during the day to comply with Council car parling requirements.

Land-use	GFA(m2)	Car Parking Rate	Car Spaces Required	Car Spaces Provided
Industrial	344.34	1 car space per 100m2	3.4	17
Office	344.83	1 car space per 40m2	8.6	
Restaurant	138.82	0.15 per square metre		
Retail	29.62	1 car space per 100m2	0.3	
Total			12.3	17

Table 5: Summary of DEVELOPMENT CONTROL PLAN Car Parking Requirements during the Day

Table 6 presents the evening parking requirements when the restaurant is open and the remainder of the landuses are not operating. The restaurant is three car spaces short of meeting Council car parking requirements. There are a large number of vacant car spaces on Anzac Street after 6pm when the nearby commercial and industrial businesses are not operating. Two of the car spaces can be met on the site frontage.

Land-use	GFA(m2)	Car Parking Rate	Car Spaces Required	Car Spaces Provided
Industrial	344.34	1 car space per 100m2		17
Office	344.83	1 car space per 40m2		
Restaurant	138.82	0.15 per square metre	20.8	
Retail	29.62	1 car space per 100m2		
Total				17

Table 6: Summary of DEVELOPMENT CONTROL PLAN Car Parking Requirements during the Evening

5.Traffic Generation and Impact

5.1. Traffic Generation

The *RTA Guide to Traffic Generating Developments* provides typical weekday PM peak hour trip generation rates for Industrial and Commercial development as follows:

Industrial:

- 1 trip per 100m^2 for the weekday evening peak hour

Retail:

- 5.6 trips per 100m^2 for weekday evening hour

Office:

- 2 trips per 100m^2 for weekday evening hour for office premise

Restaurant:

- 5 trips per 100m^2 for weekday evening hour for restaurant premise

Application of the above-mentioned rates to the proposed industrial development results the peak hour trip generation presented in Table 5 below:

Land-use	GFA(m2)	Trip generation rate	Trips generated
Industrial	344.34	1 trip per 100m2	3.4
Office	344.83	2 trips per 100m2	6.9
Restaurant	138.82	5 trips per 100m2	6.9
Retail	29.62	5.6 trips per 100m2	1.7
Total			19

Table 5: Projected Trips Generation for the Industrial and Commercial development

5.2.Trip Distribution

The proposed industrial and commercial development building is a moderate trip generator in both AM and PM peak hour. Table 6 presents the trip distribution for the weekday AM and PM peak hour. It is assumed that restaurant and retail businesses are not active in the AM peak hour.

The proposed industrial development is a moderate trip generator in the weekday peak hours.

	Weekday AM Peak Hour		
Land Use	**Origin**	**Destination**	**Total**
Industrial	2.8	0.7	3.4
Office	0.7	6.2	6.9
Restaurant			
Retail			
Total	4	7	11

	Weekday PM Peak Hour		
Land Use	**Origin**	**Destination**	**Total**
Industrial	0.7	2.8	3.4
Office	6.2	0.7	6.9
Restaurant	6.2	0.7	6.9
Retail	0.8	0.8	1.7
Total	14	5	19

Table 5: Trips generated by the Proposed Industrial and Commercial Development for the weekday peak hours

5.3. Traffic Volume with Proposed Industrial and Commercial Development

The additional development trips are assigned onto the local traffic network. The following figures present the traffic volume with the development trips (in red for origin trips and blue for destination trips) for the weekday AM and PM peak hours.

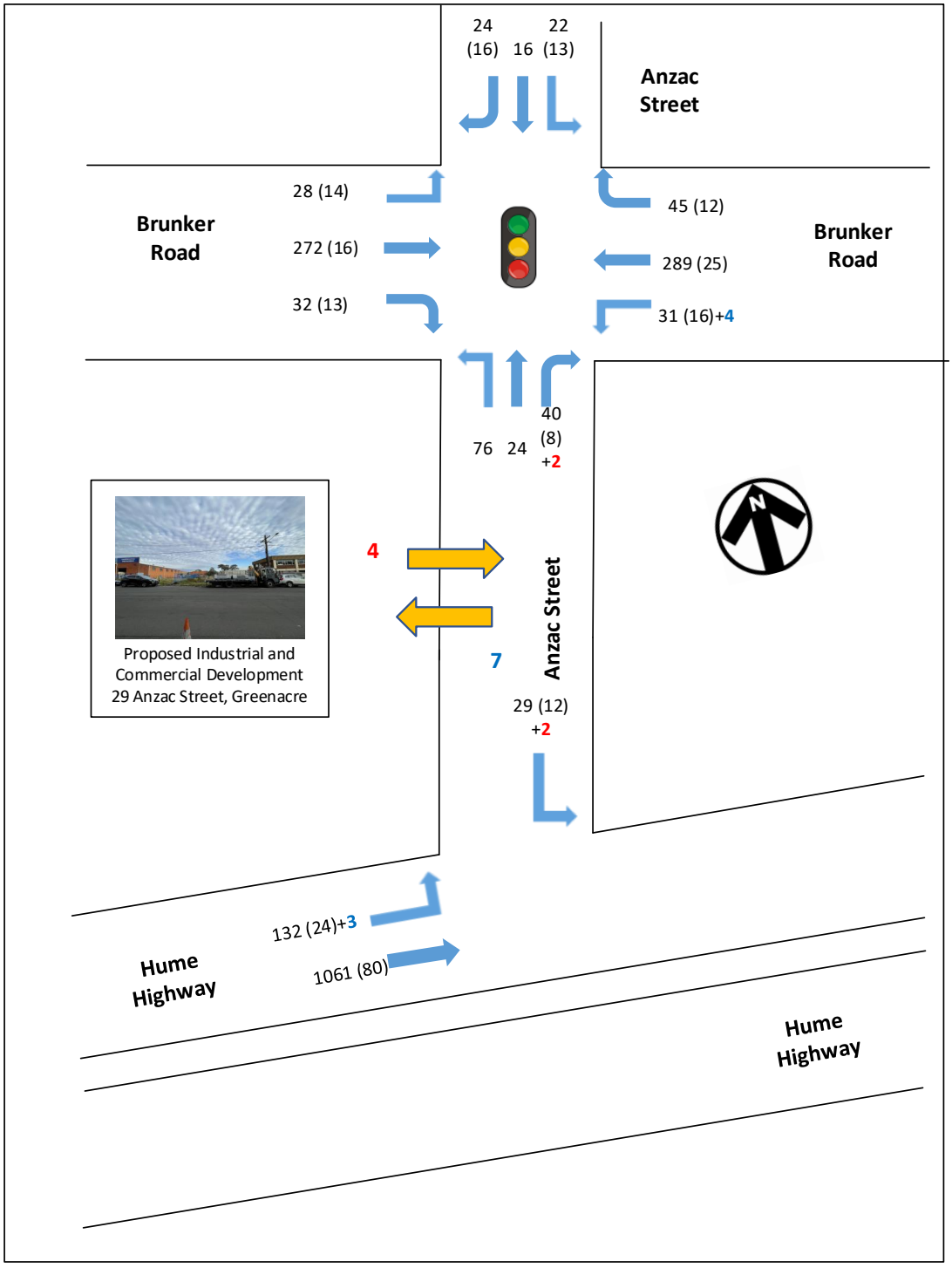

Figure 10a: Existing Weekday Traffic Volumes with Industrial and Commercial development Traffic AM Peak Hour

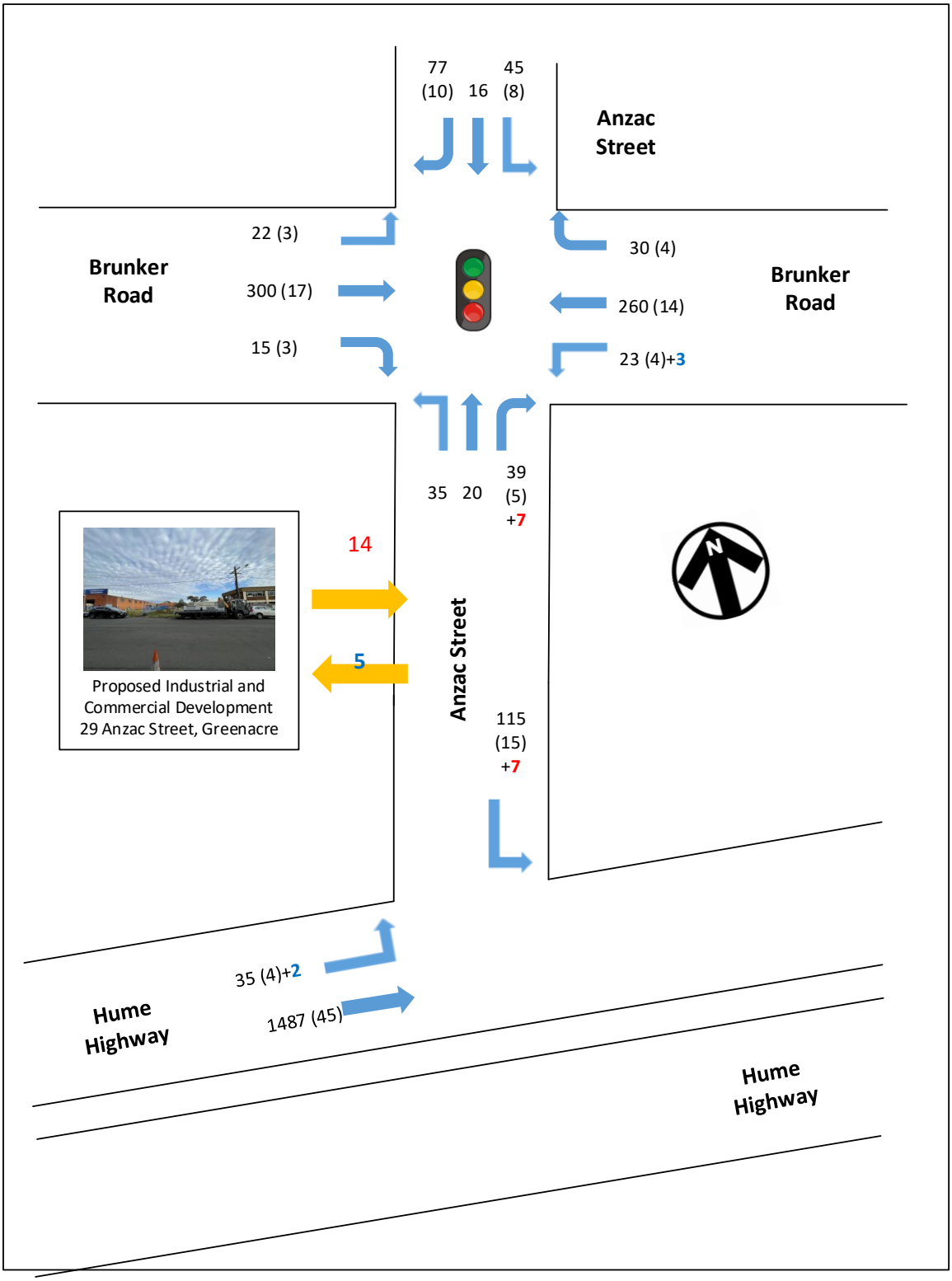

Figure 10b: Existing Weekday Traffic Volumes with Industrial and Commercial development Traffic PM Peak Hour

5.4. Traffic Impact

This section assesses the following intersections for the existing traffic with the Proposed industrial and commercial development Traffic. The results of the intersection assessment are as follows:

Intersection/ Performance criteria	Performance with Existing Traffic		Projected Performance with Existing and Proposed Apartment Traffic	
	Weekdays AM Peak Hour Existing	Weekdays PM Peak Hour Existing	Weekdays AM Peak Hour Projected	Weekdays PM Peak Hour Projected
Anzac Street / Brunker Road				
LoS	A	A	A	A
AVD(s)	12.4	13.6	12.4	13.6
DS	0.20	0.22	0.20	0.22
Anzac Street / Hume Highway				
LoS	N/A (worst: A)	N/A (worst: A)	N/A (worst: A)	N/A (worst: A)
AVD(s)	0.5	0.7	0.5	0.7
DS	0.23	0.30	0.25	0.30

Table 6: Projected Intersection Performance with Proposed Industrial and Commercial Development

As presented in Table 6 above, the additional trips generated by the Proposed Industrial and Commercial Development have minimum impact on the intersection performances in both AM and PM peak hours. The LoS, AVD and DS of each intersection are not significantly affected by the addition of Proposed Industrial and Commercial Development. The traffic impact of the Proposed Industrial and Commercial Development is therefore considered acceptable.

The full SIDRA results are presented in Appendix B for the future conditions with the Proposed Industrial and Commercial Development traffic.

6. Conclusions

This traffic impact assessment reports relates to a Proposed Industrial and Commercial Development at 29 Anzac Street in Greenacre. Based on the analysis and discussions presented in this report, the following conclusions are made:

- The subject site is located in a *IN2 - Light Industrial* with good access to public transport.
- The surrounding intersections currently operate at good levels of service
- The proposed Industrial and Commercial Development complies with Council's car parking requirements when the restaurant is not operating during the day on weekdays. The restaurant opens in the evening and relies on a small number of on-street car spaces
- The Proposed Industrial and Commercial Development is expected to generate a moderate number of additional trips in both AM and PM peak hours
- According to the Intersection Assessment , the additional trips can be accommodated in the nearby intersections without significantly affecting the performance of any turn movement, approach arm or the overall intersection

~~There are no general traffic engineering reasons why a development consent for the Proposed Industrial and Commercial Development at 29 Anzac Street in Greenacre should not be granted.~~

APPENDIX A

INTERSECTION ASSESSMENT FOR EXISTING TRAFFIC

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Anzac Street														
1	L2	76	0	80	0.0	0.162	23.1	LOS B	1.8	12.9	0.80	0.73	0.80	32.8
2	T1	24	0	25	0.0	* 0.193	19.0	LOS B	1.8	13.6	0.81	0.70	0.81	34.9
3	R2	48	8	51	16.7	0.193	23.7	LOS B	1.8	13.6	0.81	0.70	0.81	34.9
Approach		148	8	156	5.4	0.193	22.6	LOS B	1.8	13.6	0.81	0.71	0.81	33.9
East: Brunker Road														
4	L2	47	16	49	34.0	0.197	12.9	LOS A	2.8	22.2	0.55	0.52	0.55	43.4
5	T1	313	24	329	7.7	* 0.197	7.9	LOS A	3.0	22.3	0.55	0.49	0.55	44.2
6	R2	57	12	60	21.1	0.130	15.4	LOS B	1.1	8.7	0.61	0.69	0.61	33.4
Approach		417	52	439	12.5	0.197	9.5	LOS A	3.0	22.3	0.56	0.52	0.56	42.1
North: Anzac Street														
7	L2	35	13	37	37.1	0.094	23.2	LOS B	0.8	7.7	0.78	0.70	0.78	28.8
8	T1	16	0	17	0.0	0.174	19.0	LOS B	1.4	12.1	0.80	0.69	0.80	35.0
9	R2	40	16	42	40.0	0.174	23.9	LOS B	1.4	12.1	0.80	0.69	0.80	25.7
Approach		91	29	96	31.9	0.174	22.8	LOS B	1.4	12.1	0.80	0.70	0.80	28.9
West: Brunker Road														
10	L2	42	14	44	33.3	0.179	12.8	LOS A	2.5	19.8	0.55	0.51	0.55	37.7
11	T1	288	16	303	5.6	0.179	7.8	LOS A	2.7	19.9	0.55	0.48	0.55	44.5
12	R2	45	13	47	28.9	0.105	14.2	LOS A	0.8	6.8	0.57	0.67	0.57	37.4
Approach		375	43	395	11.5	0.179	9.1	LOS A	2.7	19.9	0.55	0.50	0.55	42.3
All Vehicles		1031	132	1085	12.8	0.197	12.4	LOS A	3.0	22.3	0.61	0.56	0.61	38.7

Table A1: The Signalised Intersection Performance of Brunker Road with Anzac Street with Weekday AM Peak Hour Existing Conditions

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Anzac Street														
7b	L3	41	12	43	29.3	0.041	6.9	LOS A	0.2	1.4	0.38	0.58	0.38	44.7
Approach		41	12	43	29.3	0.041	6.9	LOS A	0.2	1.4	0.38	0.58	0.38	44.7
SouthWest: Hume Highway														
30a	L1	156	24	164	15.4	0.246	2.4	LOS A	0.0	0.0	0.00	0.18	0.00	51.2
31	T1	1141	80	1201	7.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.4
Approach		1297	104	1365	8.0	0.246	0.3	NA	0.0	0.0	0.00	0.06	0.00	58.1
All Vehicles		1338	116	1408	8.7	0.246	0.5	NA	0.2	1.4	0.01	0.07	0.01	57.1

Table A2: The priority Intersection Performance of Hume Highway with Anzac Street Weekday AM Peak Hour Existing Conditions

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Anzac Street														
1	L2	35	0	37	0.0	0.057	18.6	LOS B	0.7	5.0	0.69	0.68	0.69	35.1
2	T1	20	0	21	0.0	0.133	14.6	LOS B	1.4	10.3	0.71	0.66	0.71	37.1
3	R2	44	5	46	11.4	0.133	19.3	LOS B	1.4	10.3	0.71	0.66	0.71	37.1
Approach		99	5	104	5.1	0.133	18.1	LOS B	1.4	10.3	0.71	0.67	0.71	36.4
East: Brunker Road														
4	L2	27	4	28	14.8	0.189	15.5	LOS B	2.8	20.6	0.63	0.55	0.63	41.9
5	T1	274	14	288	5.1	0.189	10.7	LOS A	2.8	20.7	0.63	0.54	0.63	40.7
6	R2	34	4	36	11.8	0.088	18.5	LOS B	0.7	5.4	0.68	0.69	0.68	31.6
Approach		335	22	353	6.6	0.189	11.9	LOS A	2.8	20.7	0.64	0.55	0.64	39.6
North: Anzac Street														
7	L2	53	8	56	15.1	0.095	19.0	LOS B	1.1	8.8	0.70	0.70	0.70	31.2
8	T1	16	0	17	0.0	* 0.219	15.2	LOS B	2.3	17.4	0.74	0.71	0.74	36.3
9	R2	87	10	92	11.5	0.219	19.8	LOS B	2.3	17.4	0.74	0.71	0.74	28.5
Approach		156	18	164	11.5	0.219	19.1	LOS B	2.3	17.4	0.73	0.70	0.73	30.5
West: Brunker Road														
10	L2	25	3	26	12.0	0.214	15.6	LOS B	3.2	23.7	0.64	0.56	0.64	35.5
11	T1	317	17	334	5.4	* 0.214	10.9	LOS A	3.3	23.8	0.64	0.54	0.64	40.7
12	R2	18	3	19	16.7	0.043	16.8	LOS B	0.3	2.8	0.63	0.66	0.63	36.0
Approach		360	23	379	6.4	0.214	11.5	LOS A	3.3	23.8	0.64	0.55	0.64	39.9
All Vehicles		950	68	1000	7.2	0.219	13.6	LOS A	3.3	23.8	0.66	0.59	0.66	37.4

Table A3: The Signalised Intersection Performance of Brunker Road with Anzac Street with Weekday PM Peak Hour Existing Conditions

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Anzac Street														
7b	L3	130	15	137	11.5	0.142	7.7	LOS A	0.6	4.4	0.49	0.70	0.49	44.6
Approach		130	15	137	11.5	0.142	7.7	LOS A	0.6	4.4	0.49	0.70	0.49	44.6
SouthWest: Hume Highway														
30a	L1	80	45	84	56.3	0.301	2.3	LOS A	0.0	0.0	0.00	0.08	0.00	50.9
31	T1	1532	45	1613	2.9	0.301	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		1612	90	1697	5.6	0.301	0.1	NA	0.0	0.0	0.00	0.02	0.00	59.1
All Vehicles		1742	105	1834	6.0	0.301	0.7	NA	0.6	4.4	0.04	0.08	0.04	56.6

Table A4: The priority Intersection Performance of Hume Highway with Anzac Street Weekday PM Peak Hour Existing Conditions

APPENDIX B

INTERSECTION ASSESSMENT FOR FUTURE CONDITION WITH THE INDUSTRIAL AND COMMERCIAL TRAFFIC

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Anzac Street														
1	L2	76	0	80	0.0	0.162	23.1	LOS B	1.8	12.9	0.80	0.73	0.80	32.8
2	T1	24	0	25	0.0	* 0.198	19.0	LOS B	1.8	14.0	0.81	0.70	0.81	34.9
3	R2	50	8	53	16.0	0.198	23.7	LOS B	1.8	14.0	0.81	0.70	0.81	34.9
Approach		150	8	158	5.3	0.198	22.7	LOS B	1.8	14.0	0.81	0.71	0.81	33.9
East: Brunker Road														
4	L2	51	16	54	31.4	0.199	12.9	LOS A	2.8	22.4	0.55	0.53	0.55	43.3
5	T1	313	24	329	7.7	* 0.199	7.9	LOS A	3.0	22.6	0.55	0.49	0.55	44.1
6	R2	57	12	60	21.1	0.130	15.4	LOS B	1.1	8.7	0.61	0.69	0.61	33.4
Approach		421	52	443	12.4	0.199	9.5	LOS A	3.0	22.6	0.56	0.52	0.56	42.0
North: Anzac Street														
7	L2	35	13	37	37.1	0.094	23.2	LOS B	0.8	7.7	0.78	0.70	0.78	28.8
8	T1	16	0	17	0.0	0.174	19.0	LOS B	1.4	12.1	0.80	0.69	0.80	35.0
9	R2	40	16	42	40.0	0.174	23.9	LOS B	1.4	12.1	0.80	0.69	0.80	25.7
Approach		91	29	96	31.9	0.174	22.8	LOS B	1.4	12.1	0.80	0.70	0.80	28.9
West: Brunker Road														
10	L2	42	14	44	33.3	0.179	12.8	LOS A	2.5	19.8	0.55	0.51	0.55	37.7
11	T1	288	16	303	5.6	0.179	7.8	LOS A	2.7	19.9	0.55	0.48	0.55	44.5
12	R2	45	13	47	28.9	0.106	14.2	LOS A	0.8	6.8	0.57	0.67	0.57	37.4
Approach		375	43	395	11.5	0.179	9.1	LOS A	2.7	19.9	0.55	0.50	0.55	42.3
All Vehicles		1037	132	1092	12.7	0.199	12.4	LOS A	3.0	22.6	0.61	0.56	0.61	38.7

Table B1: The Signalised Intersection Performance of Brunker Road with Anzac Street for the Weekdays AM Peak Hour with the industrial and commercial traffic

Table B2: The priority Intersection Performance of Hume Highway with Anzac Street for the Weekdays AM Peak Hour with the gym traffic

Table B3: The Signalised Intersection Performance of Brunker Road with Anzac Street for Weekday PM Peak Hour with the industrial and commercial traffic

Table B4: The priority Intersection Performance of Hume Highway with Anzac Street for the Weekday PM Peak Hour with the industrial and commercial traffic