



# TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

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29 October 2021  
Ref: 21298 (Rev G)

## Nepean Business Park Supplementary Traffic Assessment

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This document provides a supplementary traffic assessment responding to issues raised by TfNSW in relation to the proposed Nepean Business Park (NBP) development.

### \* Confirmation of Previous Assumptions / Considerations

- The proposed distribution of development generated traffic movements (i.e. approach & departure routes) reflects the pattern of existing precinct generated traffic movements except for the new site road and access intersection.
- The projected ingress / egress distribution pattern (i.e. 70% & 30%) reflects that recorded for the Erskine Park and Wonderland sites from the RMS study (see Appendix A).
- The adopted “background traffic growth” reflects that projected in the study undertaken for the RMS for the Castlereagh Road upgrade project of 1.3% p.a.

It might be suggested that the projected future traffic volumes on Castlereagh Road should reflect those provided on TfNSW Strategic Traffic Forecasting Model.

Details of this model have been obtained from TfNSW for the years 2021 and 2031. The complication is however, that these models include a “generation node” for the North Penrith area where the site is located.

The models are for 2 hour AM and PM peaks and the increased generation out of this node between 2021 and 2031 is 409 vtpm in the AM and 373 vtpm in the PM.

The total 2 way volumes on Castlereagh Road south of Andrews Road for 2021 and 2031 are as follows:

	<b>AM</b>	<b>PM</b>
2021	5,435	5,833
2031	6,566 – 409 = 6,157 + 13%	7,127 – 373 6,754 + 15.8%

Therefore, the adoption of the basis of traffic growth from the RMS study is vindicated.

- The on-street traffic peaks recorded and utilised for the TTPA study were 8-9am and 4.30-5.30pm whereas the peak site generations for Erskine Park were:

6.15am - 7.15am      1124 vtpm (8.0 - 9.0am 929 vtpm – 82%)

2.45pm - 3.45pm      1050 vtpm (4.30 - 5.30pm 812 vtpm – 77%)

Thus, overlaying the site peak generation over the network peak generation produces a somewhat ‘over the top’ assessment circumstance. Nonetheless this review is undertaken with the new projected site peak overlaid on the network peak.

The Peak Traffic Generation rates from the RMS study for Erskine Park and Wonderland were as follows:

	<b>Vtph per 100m<sup>2</sup></b>		
	<b>Network Peak</b>		<b>Site Peak</b>
	<b>AM</b>	<b>PM</b>	
Erskine Park	0.13	0.14	0.163 (+20.7%)
Wonderland	0.17	0.17	0.202 (+18.8%)

TfNSW has advised that an agreement has been made for the traffic assessments undertaken for major business park developments in the Mamre Road South Precinct to adopt a Site Maximum Generation Rate of 0.26 vtpm per 100m<sup>2</sup> (see Appendix B) with 0.23 for the AM peak and 0.24 for the PM peak.

Having regard for this advice and the expressed concern in relation to the permitted uses (regardless of the use outcomes) this Supplementary Traffic Assessment has adopted a revised Network Peak Traffic Generation rate of 0.35 vtpm per 100m<sup>2</sup>. If the Network Peak to Site Peak ratio adopts that for Erskine Park/Wonderland (i.e. +20%) then the adopted Site Maximum Generation Rate is actually 0.42 vtpm per 100m<sup>2</sup>.

**\* Review Methodology**

Consideration has been given to:

- the “Eastern Creek Employment Lands Precinct Plan” document – Blacktown City Council

At the time this document envisaged 20,000 jobs at 45 jobs per ha and permitted office and retail uses as well as mixed business, child care centre and refreshment room uses.

- the “Erskine Park Employment Area” document – Penrith LEP

At the time this document identified 4 zones including an Employment Zone and permitted uses including office, retail, child care centre as well as schools, colleges and other educational institutions

- The outcomes for so called Business Parks, Industrial Estates and Employment Lands in the Sydney Metropolitan Area over the past decade or more have essentially been 90% warehouse use. There have essentially been no office or retail or school or child care centre development in Erskine Park or Eastern Creek or similar new Industrial Employment areas.
- The HillPDA assessment of 4000 workers for the NBP was based on an overly optimistic assumption of a ‘jobs per ha’ outcome of 85.1 persons (46.9 ha @ 85 per ha = 3987 with 20% - 797 related to office use). HillPDA have prepared a revised assessment identifying a “jobs per ha” outcome of 30 persons equating to a total of 1,400 jobs for the 46.9 ha.
- To put this into context in relation to peak traffic generation, the following assessment is made using the RMS study data.

<b>Erskine Park</b>	<b>5,805 Workers</b>	
	<b>AM</b>	<b>PM</b>
Vehicle Trips (incl. trucks)	1165	972
Vtph per worker	0.20	0.167

With the adopted overly robust traffic generation factor of 0.35 vtph per 100m<sup>2</sup>, the projected peak traffic generation is 689 vtph and for 1,400 workers, this equates to 0.49 vtph per worker.

I understand TfNSW have also raised the issue of other potential uses such as:

– **Garden Centres and Hardware**

There is an existing Bunnings outlet very close to NBP in Penrith North which is subject to a proposed DA for expansion so it is extremely unlikely that any other competing hardware or garden centre business would locate within the NBP

– **Higher level of Office floorspace**

The HillPDA document suggested 20% office and I understand that other subsequent assessments have put forward the opinion that there will be no (or negligible) demand for purely office floorspace. There will be ancillary office floorspace in warehouse development and this could be up to 20% of the total warehouse floorspace, however ancillary office is included in the total traffic generation rates for Erskine Park, Wonderland and also the Mamre Road sites.

– **Function Centre**

I am not aware of any function centre which is located within an Industrial Area such as North Penrith however even if such a use did eventuate, it would not generate traffic concurrent with the peak industrial traffic times.

– **Markets**

I am not aware of any markets use within an industrial area however again, even if such a use did eventuate, it would not generate traffic concurrent with the peak industrial traffic times.

\* **Methodology:**

- Figure A shows the pre COVID network AM and PM peak movements at the relevant intersections
- Figure B shows the network peak volumes increased with background growth to 2030 (10 years)
- Figure C shows the assessed distribution of traffic generated by the completed development (196,900 m<sup>2</sup> GFA @0.35vrph/100m<sup>2</sup> = 689vtph)
- Figure D shows the 2030 peak volumes incorporating the total traffic generation of the development

The SIDRA traffic modelling has been revised to incorporate these increased development volumes and the SIDRA output is attached and summarised in the followings:

	<b>AM</b>		<b>PM</b>	
	<b>LOS</b>	<b>AVD</b>	<b>LOS</b>	<b>AVD</b>
Castlereagh / Lugard	A	10.5	A	11.3
Castlereagh / Andrews / Old Castlereagh	A	14.3	A	14.2

The result of the revised SIDRA modelling indicate that the existing intersections will operate quite satisfactorily under the circumstance of 2030 traffic volumes and the traffic generated by the completion of development on the subdivision lots.

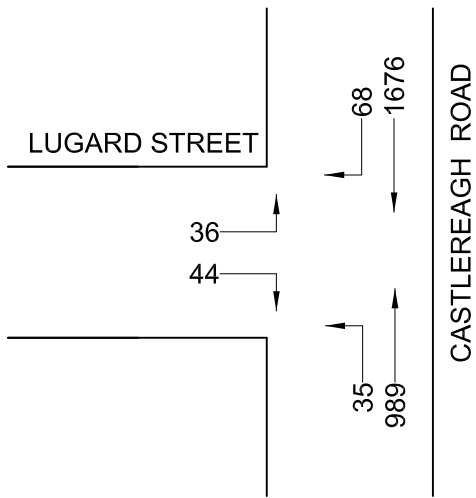
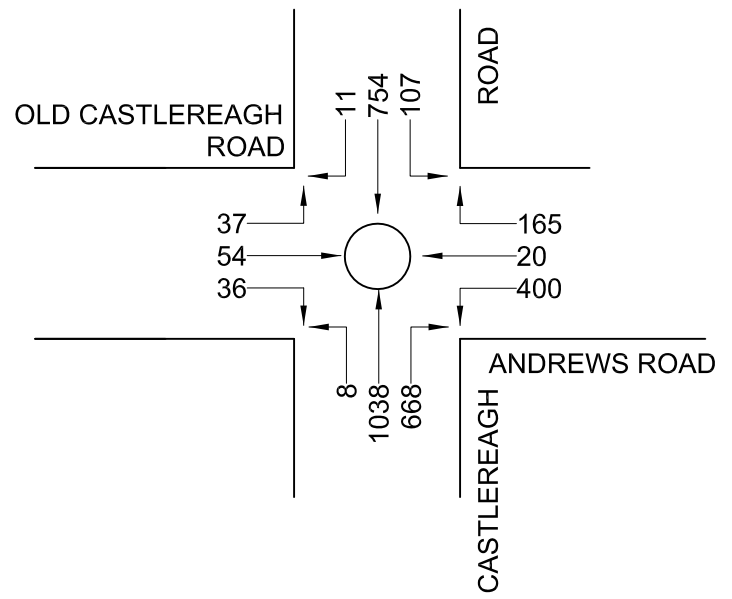
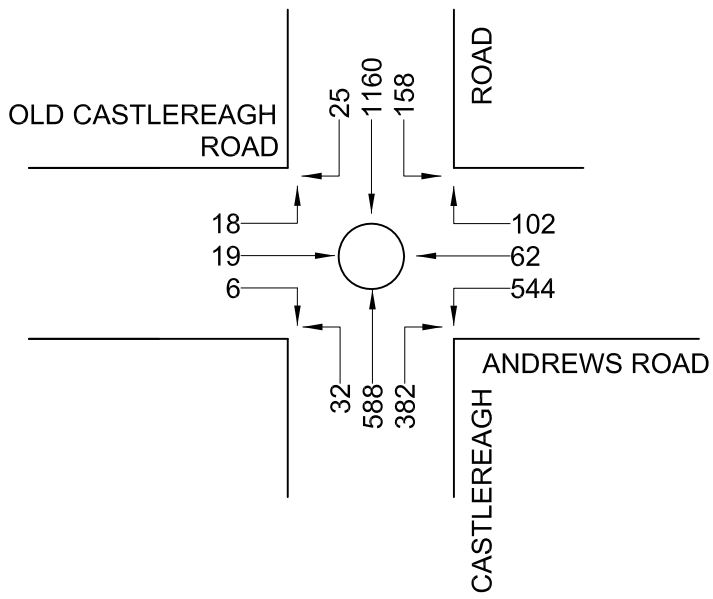
The documents which I have given consideration in relation to the likely development outcome are reproduced in Appendix D.

Yours faithfully

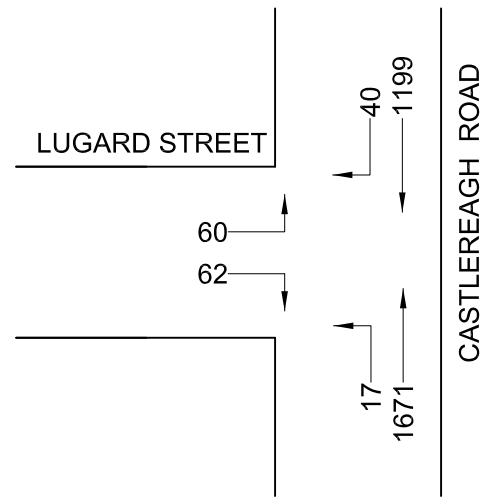


Ross Nettle  
Director  
Transport and Traffic Planning Associates

Encl



AM



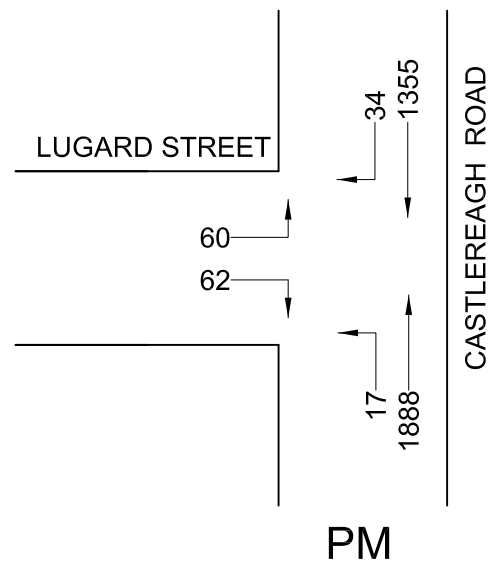
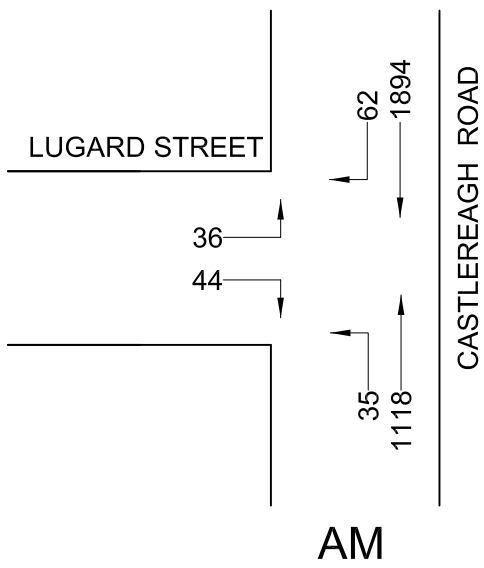
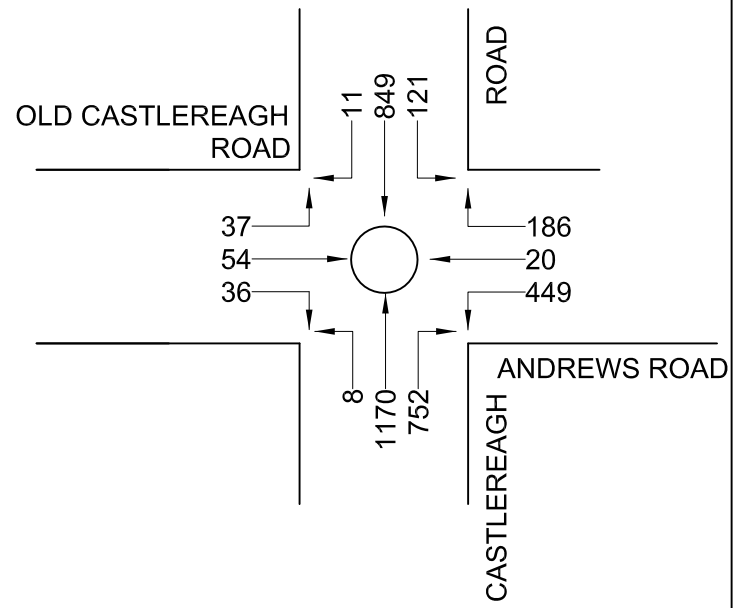
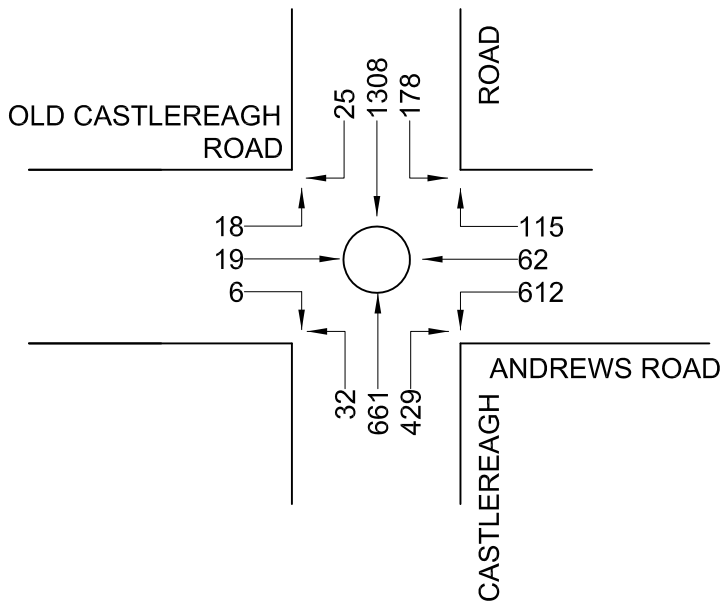
PM

LEGEND

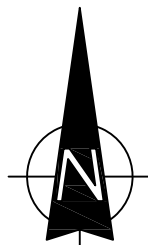


EXISTING PEAK TRAFFIC VOLUMES

FIG A

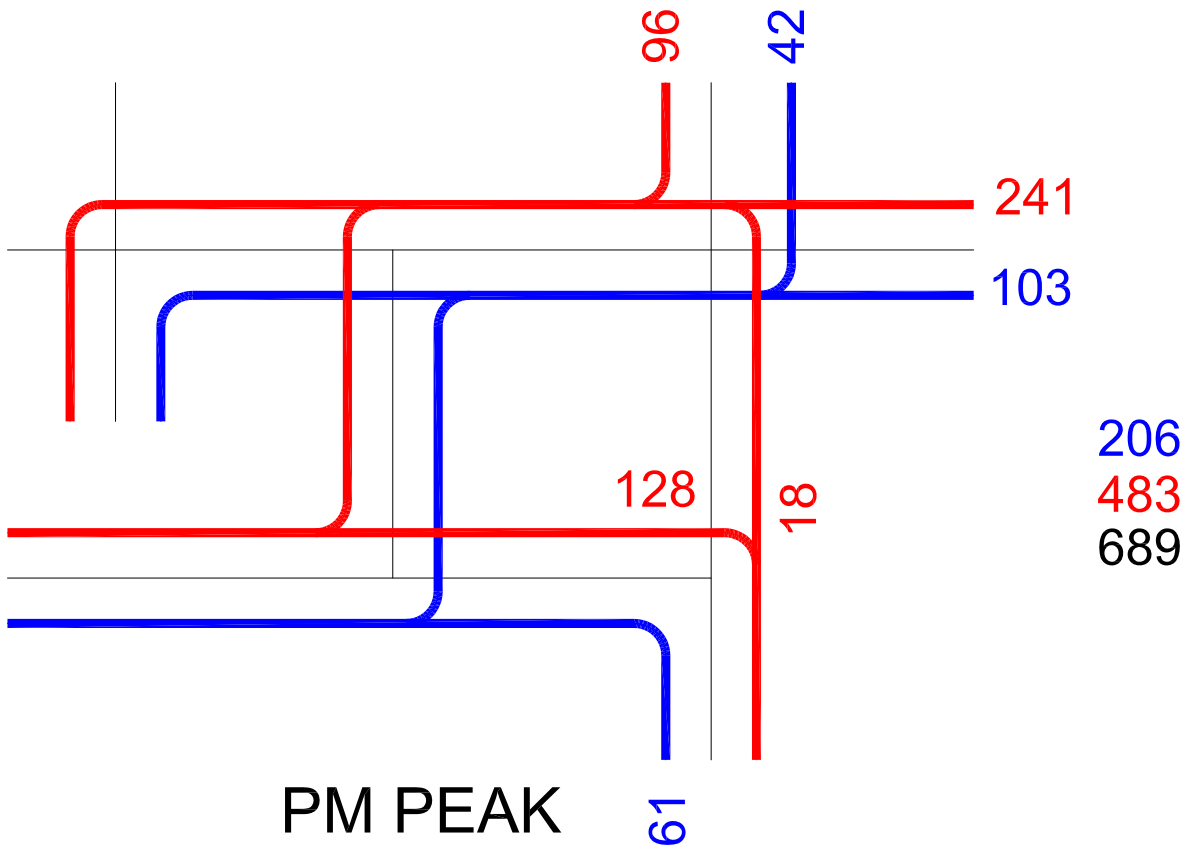
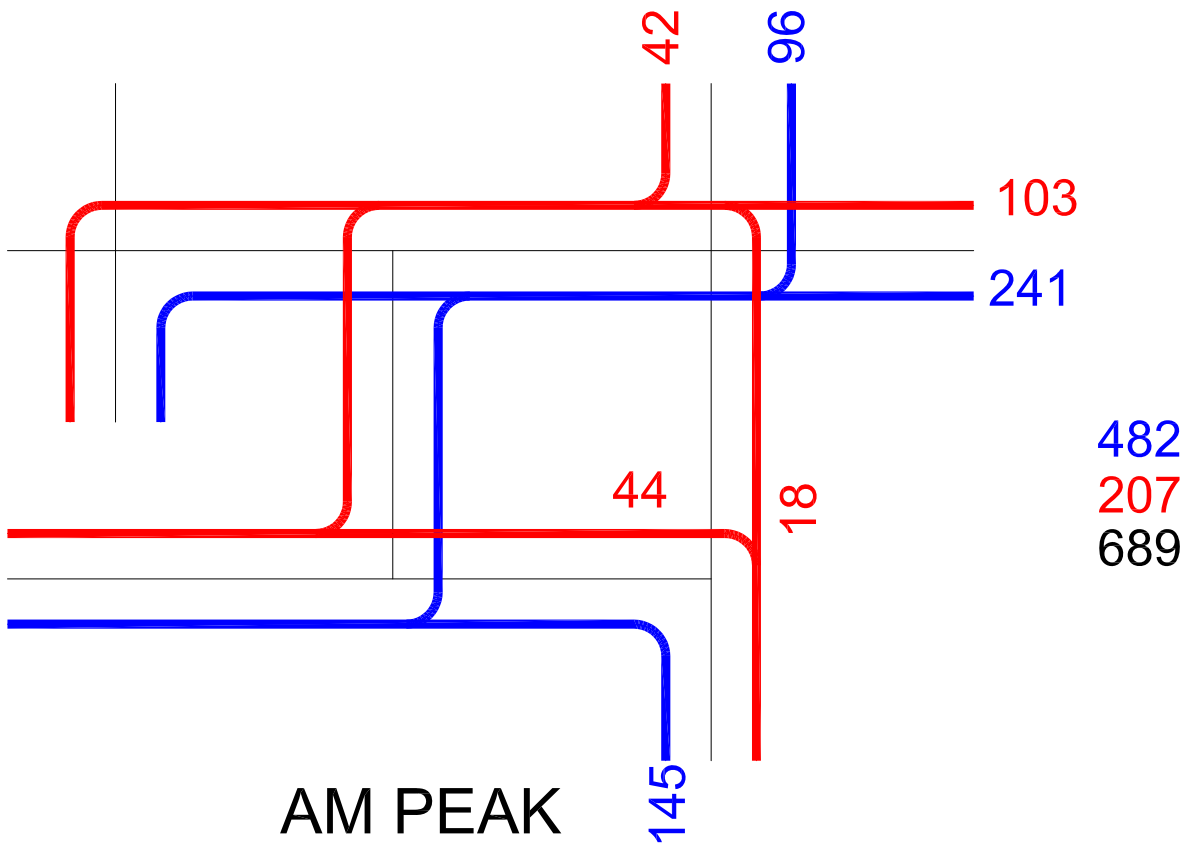


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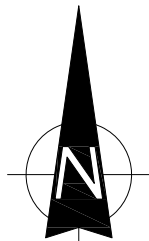


**FUTURE 2030  
PEAK  
TRAFFIC VOLUMES**

**FIG B**



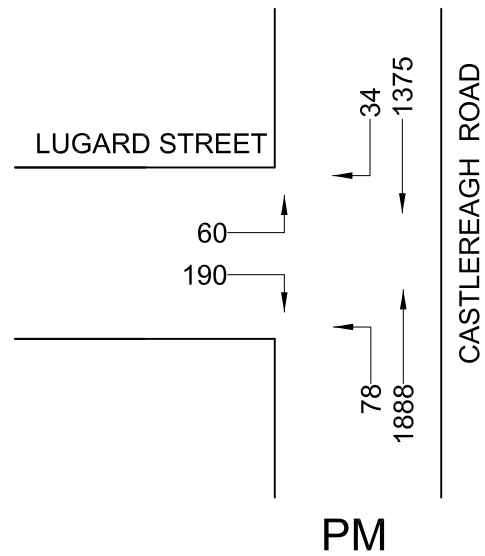
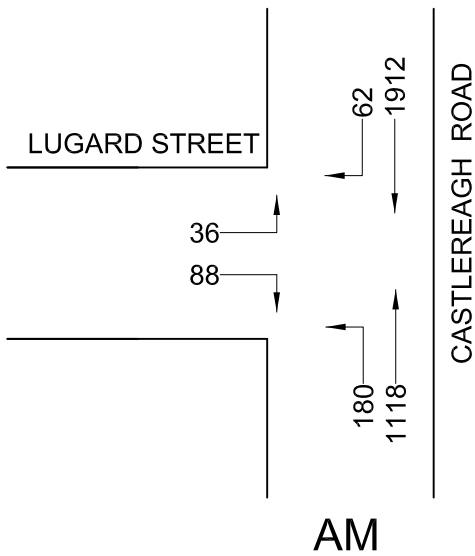
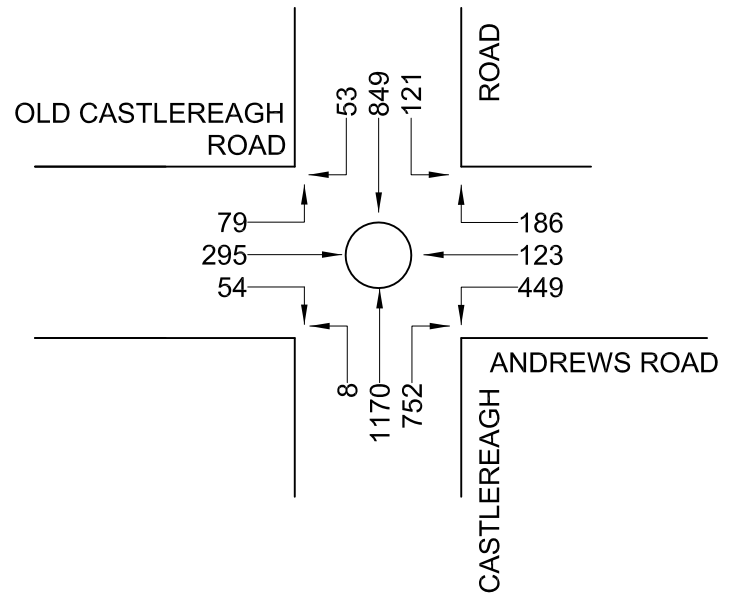
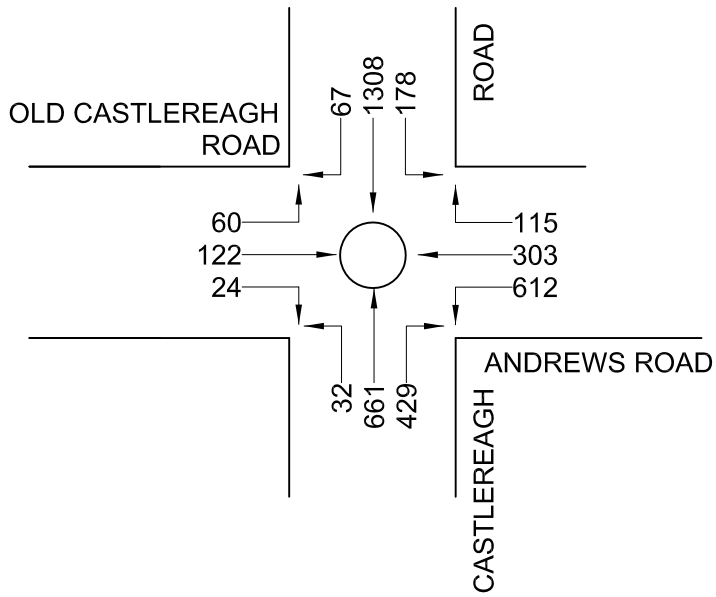
**LEGEND**



**DEVELOPMENT  
PEAK  
VOLUMES**

**FIG C**





**LEGEND**



**2030 PEAK  
TRAFFIC VOLUMES  
WITH  
DEVELOPMENT**

**FIG D**

# Appendix A



Table 3.16 Site 1 - Peak hours

Peak hour	Vehicles										Persons																	
	IN					OUT					IN								OUT									
	TRUCKS					TRUCKS					TRUCKS				TRUCKS				TRUCKS				TRUCKS					
Vehicles	Cars	Rigid	Artic.	Buses	Total	Cars	Rigid	Artic.	Buses	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total
AM 6:15 to 7:15	967	73	50	5	795	126	75	47	3	251	734	15	78	50	2	1	2	0	882	135	7	76	47	0	0	1	0	266
PM 14:45 to 15:45	180	96	52	2	329	681	67	49	2	799	204	2	99	50	0	0	0	0	355	811	4	71	49	1	0	3	0	939

Peak hour	Vehicles										Persons																	
	IN					OUT					IN								OUT									
	TRUCKS					TRUCKS					TRUCKS				TRUCKS				TRUCKS				TRUCKS					
Vehicles	Cars	Rigid	Artic.	Buses	Total	Cars	Rigid	Artic.	Buses	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total
AM 6:15 to 7:15	967	73	50	5	795	126	75	47	3	251	734	15	78	50	2	1	2	0	882	135	7	76	47	0	0	1	0	266
PM 14:45 to 15:45	180	96	52	2	329	681	67	49	2	799	204	2	99	50	0	0	0	0	355	811	4	71	49	1	0	3	0	939

Table 3.17 Site 1 - Hourly data - consecutive

DATE 29 March 2017	SITE 1 ERSKINE PARK INDUSTRIAL ESTATE, ERSKINE PARK																											Grand Total		
	1-hour Data	Vehicles										Persons																1-hour Data		
		WEATHER Fine	IN					OUT					IN								OUT									
TIME	Cars		Rigid	Artic.	Buses	Total	Cars	Rigid	Artic.	Buses	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total	By car	By bus	By rigid	By artic.	Bikes	Motorbikes	Pedestrians	Other	Total	Vehicles
6:00 to 7:00	603	58	44	3	708	93	69	38	2	202	662	3	61	44	1	1	1	0	773	99	2	70	38	0	0	0	0	209	910	982
7:00 to 8:00	522	77	59	4	662	116	81	47	4	248	590	23	84	58	1	0	1	0	757	132	12	82	49	0	0	1	0	276	910	1033
8:00 to 9:00	515	72	73	1	661	119	86	63	0	268	546	0	75	72	0	2	0	0	695	126	0	91	64	0	0	0	0	281	929	976
9:00 to 10:00	314	89	69	1	473	180	83	66	1	330	346	21	93	69	0	2	0	0	531	200	1	87	75	0	0	0	0	363	803	894
10:00 to 11:00	210	91	82	0	383	175	88	75	0	338	244	0	98	81	0	0	1	1	425	197	0	92	75	0	0	0	0	364	721	789
11:00 to 12:00	155	101	65	0	321	173	99	72	0	344	192	0	112	63	1	0	0	0	368	194	0	102	74	1	0	0	0	371	665	739
12:00 to 13:00	223	105	76	0	404	278	96	69	0	443	265	0	112	75	0	1	0	0	453	333	0	99	69	1	0	0	1	503	847	956
13:00 to 14:00	313	74	48	0	435	374	86	66	0	526	369	0	79	46	1	1	0	0	466	413	0	95	70	3	1	0	0	582	951	1078
14:00 to 15:00	209	91	49	0	349	534	64	58	0	656	235	0	94	48	0	1	0	0	378	592	0	72	58	0	1	0	0	723	1005	1101
15:00 to 16:00	147	90	55	3	295	687	63	49	2	801	164	3	93	53	0	0	0	0	313	820	4	65	49	2	0	3	0	943	1096	1256
16:00 to 17:00	77	45	38	4	164	535	60	49	4	648	84	5	46	38	0	0	0	0	173	602	8	62	49	1	1	3	0	726	812	899
17:00 to 18:00	74	23	17	2	116	485	32	23	2	542	88	2	24	17	0	2	0	0	133	527	2	34	24	0	2	0	0	589	658	722
18:00 to 19:00	38	6	15	0	59	196	7	18	1	222	42	0	6	14	0	0	0	0	62	225	10	7	19	0	2	0	0	263	281	325
Total	3400	922	690	18	5030	3945	914	693	16	5568	3827	57	977	678	4	10	3	1	5557	4460	39	958	713	8	7	7	1	6193	10588	11750

# Appendix B

## 7 Traffic Assessment

### 7.1 Trip Rates

The assessment of industrial development within Western Sydney has generally – in recent years – referenced the trip generation rates provided in the RMS Guide Update, and specifically sites displaying the similar characteristics of (large scale) industrial development, including the Erskine Park Industrial Estate, and the Wonderland Business Park, Eastern Creek Roads & Maritime survey sites (as detailed in the RMS Guide Update).

However, as reference, Ason Group is currently working with TfNSW with regard to the wider precinct modelling in regard to traffic generation assumptions for the MRP. The trip rates that have been agreed through this process as suitable for adoption in the assessment of developments in the MRP are shown by Table 5. To ensure consistency with the background MRP assessment being undertaken separately, these rates have been adopted for the purposes of this assessment.

**Table 5: TfNSW Agreed Trip Rates**

Time Period	Rate per 100m <sup>2</sup>
Daily Trips	2.91
Local Road AM Peak (7am – 8am)	0.23
Local Road PM Peak (4pm – 5pm)	0.24
Site Maximum Generation Rate (All Vehicles)	0.26
Site Maximum Generation Rate (Heavy Vehicles)	0.07

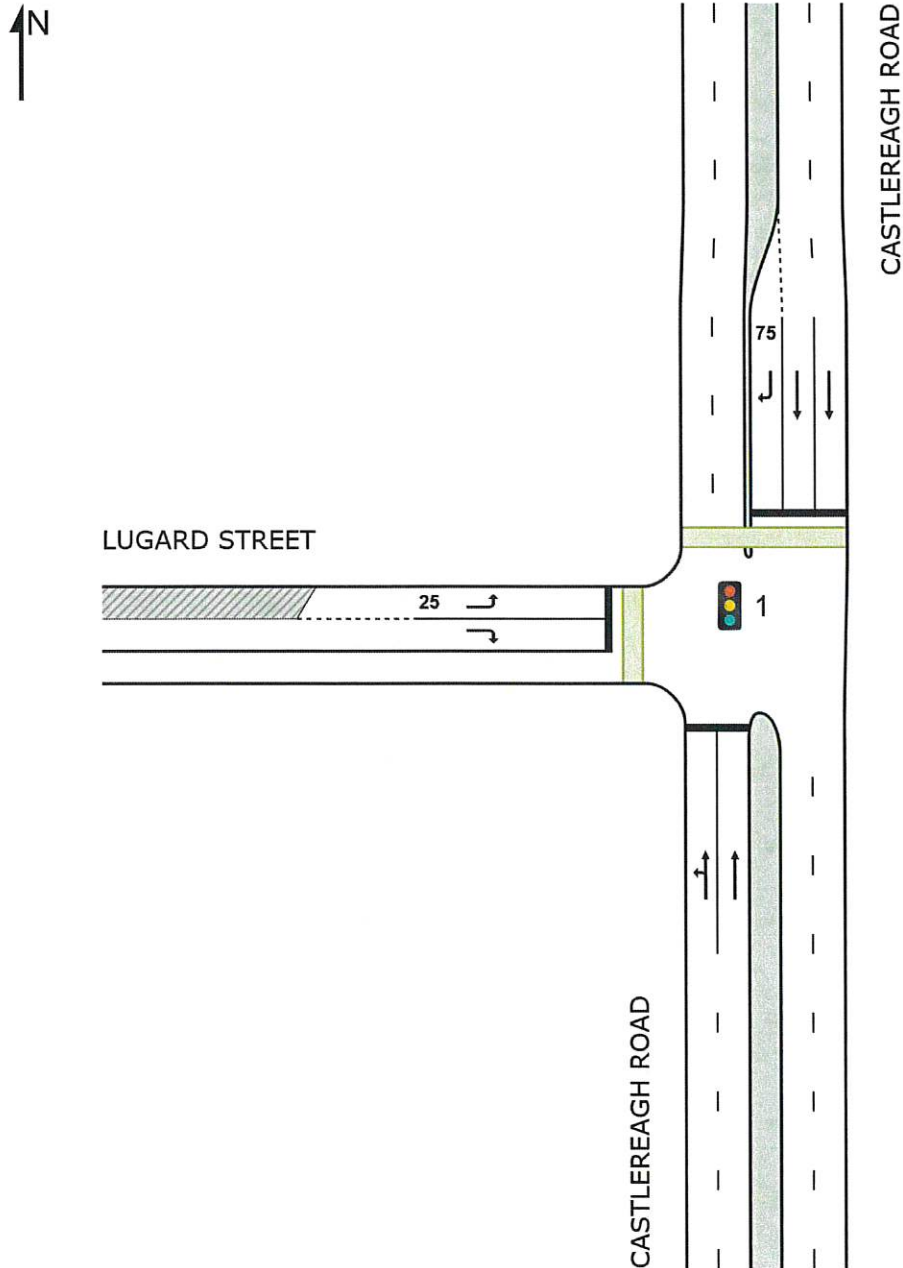
# Appendix C

# SITE LAYOUT

## Site: 1 [AM LUGARD - CASTLEREAGH (Site Folder: FUTURE 2030 + DEVELOPMENT)]

18210 - PENRITH LAKES, PENRITH  
Site Category: PENRITH LAKES  
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



## MOVEMENT SUMMARY

**Site: 1 [AM LUGARD - CASTLEREAGH - RP - 140s (Site Folder: FUTURE 2030 + DEVELOPMENT)]**

18210 - PENRITH LAKES, PENRITH

Site Category: PENRITH LAKES

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] veh/h	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: CASTLEREAGH ROAD														
1	L2	180	4	180	2.2	0.587	6.5	LOS A	1.9	14.1	0.05	0.20	0.05	54.8
2	T1	1118	99	1118	8.9	0.587	0.9	LOS A	2.1	15.4	0.05	0.11	0.05	58.3
Approach		1298	103	1298	7.9	0.587	1.7	LOS A	2.1	15.4	0.05	0.12	0.05	57.8
North: CASTLEREAGH ROAD														
8	T1	1912	114	1912	6.0	* 0.751	13.5	LOS A	41.7	306.8	0.67	0.62	0.67	47.9
9	R2	62	22	62	35.5	0.285	17.1	LOS B	2.0	18.0	0.51	0.71	0.51	42.2
Approach		1974	136	1974	6.9	0.751	13.7	LOS A	41.7	306.8	0.66	0.63	0.66	47.7
West: LUGARD STREET														
10	L2	36	17	36	47.2	0.091	45.3	LOS D	1.8	17.6	0.77	0.72	0.77	29.8
12	R2	88	14	88	15.9	* 0.246	55.0	LOS D	5.0	39.8	0.87	0.77	0.87	26.6
Approach		124	31	124	25.0	0.246	52.2	LOS D	5.0	39.8	0.84	0.75	0.84	27.4
All Vehicles		3396	270	3396	8.0	0.751	10.5	LOS A	41.7	306.8	0.43	0.44	0.43	49.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[ Ped ped	Dist ] m					
		ped/h	ped/h	sec			m			sec	m	m/sec
North: CASTLEREAGH ROAD												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	94.3	39.1	0.41
West: LUGARD STREET												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	88.8	31.9	0.36
All Pedestrians		100	105	64.3	LOS F	0.2	0.2	0.96	0.96	91.6	35.5	0.39

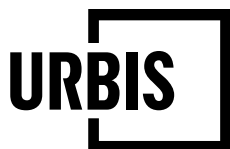
Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.



## Appendix D



**ANGEL PLACE  
LEVEL 8, 123 PITT STREET  
SYDNEY NSW 2000**

URBIS.COM.AU  
Urbis Pty Ltd  
ABN 50 105 256 228

22 October 2021

To whom it may concern,

## **NEPEAN BUSINESS PARK JOBS AND USES**

### **Background**

The Nepean Business Park is a 49ha site located at 14 - 278 Old Castlereagh Road Penrith with a development application currently before the NSW State Government for the subdivision into 93 industrial lots. The area of zoned developable land is approximately 46ha.

The site immediately adjoins the North Penrith industrial area which shares the most similar locational characteristics with the Nepean Business Park, although the subject site is slightly less accessible. The key business types located in North Penrith include warehousing, light manufacturing and wholesaling. Local services and bulky goods/retail, mainly home services and automotive showrooms, also feature on the southern end of the precinct along Castlereagh Road. Australia Post Business Hub have their main distribution centre for the region located within the precinct.

### **Review of Uses Identified by TfNSW**

A letter from Transport for NSW dated 26 August 2021 responding to the exhibition of the Nepean Business Park subdivision DA states the following:

*The Employment zoned land permits significant traffic generating uses which have not been considered in the assessment to date. This may include Business premises; Food and drink premises; Function centres; Garden centres; Hardware and building supplies; Markets; Office premises. These may generate significantly higher traffic demands if pursued in future Development Applications.*

The definition of each use identified above is provided in Appendix A. While the zoning permits these employment uses, the Nepean Business Park is unlikely to attract these uses due to the locational characteristics of the site and the key locational success drivers of these uses.

- **Business premises** – the definition includes “premises such as banks, post offices, hairdressers, dry cleaners, travel agencies, internet access facilities, betting agencies”. The identified uses are typically located within local centres such as the Penrith CBD and adjacent to key retail nodes. It is not economically viable for any significant volume of these uses to occupy the Nepean Business Park due to its remote location away from main roads and other supportive uses that would drive a critical mass of visitation. This is also reflected in there being none of this type of use within North Penrith.

- **Food and drink premises** – the site is not located on a main road to attract typical fast food users who rely on passing traffic for an economic business model. Such uses would be limited to servicing the local workforce within the Park.
- **Function centres** – Function centres generally are located with good transport accessibility and in high amenity locations. A function centre is very unlikely to be viable in an industrial precinct as it would be negatively impacted by the industrial operations.
- **Garden centres** – it may be viable to have a garden centre located within the estate however garden centres typically require exposure on main roads to attract passing traffic.
- **Hardware and building supplies** – Bunnings are typically only located along main roads in order to maximise exposure. There are also two existing Bunnings located in Penrith including one located on Castlereagh Road in North Penrith. This indicates that it is entirely unlikely that a Bunnings would operate in this location.
- **Markets** – unlikely to be viable in an industrial precinct with limited passing traffic as markets are generally reliant on exposure to a significant resident population.
- **Office premises** – Contemporary office development is generally located in high amenity areas close to public transport. The Penrith CBD is more attractive to office development being close to rail and bus connections and close to business, government and other services and facilities. The Nepean Business Park has a significant disadvantage due to the location and transport factors meaning it will be very difficult to make a commercial office development feasible. We expect the demand for office within the Nepean Business park to be small offices ancillary to warehouse and other industrial uses as seen through comparable industrial precincts.

## Positioning

Due to being located directly adjacent to the North Penrith industrial estate, it is anticipated that businesses will view the Nepean Business Park as an extension of the existing precinct. We recommend that the precinct be positioned as an extension of the Penrith North Precinct, though offer a slight point of difference as a business park / modern industrial estate rather than a 'traditional' industrial estate. This would include positioning the site as offering a quiet and attractive business environment that is home to a mix of light industrial and warehousing businesses with ancillary office components.

This position is supported by Penrith City Council's submission on the draft DCP where they suggest that the same controls should apply to the site as the neighbouring North Penrith Industrial area. This would provide for a cohesive precinct of similar development and uses.

We have analysed the market and potential uses for the Nepean Business Park and conclude that the development on the subject site will be a mix of businesses such as warehousing, freight, logistics, light manufacturing and industrial businesses.

The demand for standalone office businesses / buildings is likely to be very small due to the site location and limited public transport. Offices within the business park are anticipated to be ancillary to the warehousing, freight, logistics, light manufacturing or industrial.

Due to changes arising from the COVID pandemic, we expect even higher demand for warehousing to service the 'last mile' of online shopping and a reduced demand for office space as businesses change their employment models.



### **Number of Jobs**

The North Penrith employment area has 5,662 jobs over 204ha of developed land (27.7 jobs per hectare) which is similar to Emu Plains (27.9 jobs per hectare) and St Marys (23.6 jobs per hectare) (reference Penrith Council draft Employment Lands Strategy June 2021). If the North Penrith employment density is realised at the Nepean Business Park, there will be approximately 1,250 full time jobs within the 46ha of net developable land.

However, given that such industrial estates typically take many decades to reach complete development of all lots, the number of permanent jobs upon completion of the subdivision will commence at zero and rise to the expected numbers over say 20 years.

### **Jobs Closer to Home**

The creation of jobs at the Nepean Business Park will mean that local residents can travel shorter distances to work and help create jobs for Penrith residents that currently leave the LGA to work.

Penrith City suffers from a poor job containment ratio of 72.3%, which means there is only around 72 jobs for every 100 working residents in Penrith. In addition, only 38.6% of Penrith City's resident workers were employed locally in 2016 and that number is even less for industry-related workers that would be seeking jobs at Nepean Business Park. This equates to more than 60% of workers that live in Penrith and travel outside the LGA to go to work.

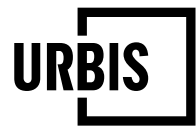
Creating more jobs near where people live will help realise the State Government's vision of a '30 minute city'. The 30 minute city is a NSW State Government policy to maximise the number of residents able to reach their nearest centre using public transport and/or walking within 30 minutes. Creating jobs near where people live will create an incentive to shift away from cars towards other forms of transport such as walking and cycling. This vision will create significant environmental, economic and social benefits as a result of better traffic conditions, less congestion and time spent commuting. Shorter commuting distances and less car dependence can have several environmental and health benefits such as less air pollution and an improved quality of life.

Because of Penrith City's low job containment ratio, creating more jobs at the Nepean Business Park means that overall, more traffic will move in the opposite direction to peak hour flows (less workers have to leave the LGA to work). The reverse would be true for suburbs with high job containment ratios. Creating local jobs close to where people live may also create localised commuter traffic zones segregated from regional traffic, thus easing the pressure on regional roads.

Accordingly, this assists in achieving the aims of the 30 minute city and the reduction of overall cumulative traffic congestion across the Sydney-wide road network.

Yours sincerely,

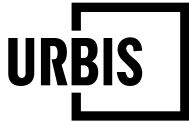
A handwritten signature in black ink, appearing to be "A. Stur" or similar, written in a cursive style.



Alex Stuart  
Associate Director  
+61 2 8233 9992  
astuart@urbis.com.au

**Attachments**

A - Definition of land uses identified by TfNSW



## Appendix A: Land Use Definitions

**business premises** means a building or place at or on which—

- (a) an occupation, profession or trade (other than an industry) is carried on for the provision of services directly to members of the public on a regular basis, or
- (b) a service is provided directly to members of the public on a regular basis,

and includes a funeral home and, without limitation, premises such as banks, post offices, hairdressers, dry cleaners, travel agencies, internet access facilities, betting agencies and the like, but does not include an entertainment facility, home business, home occupation (sex services), medical centre, restricted premises, sex services premises or veterinary hospital.

**Note** - Business premises are a type of **commercial premises**—see the definition of that term in this Dictionary.

**food and drink premises** means premises that are used for the preparation and retail sale of food or drink (or both) for immediate consumption on or off the premises, and includes any of the following—

- (a) a restaurant or cafe,
- (b) take away food and drink premises,
- (c) a pub,
- (d) a small bar.

**Note** - Food and drink premises are a type of **retail premises**—see the definition of that term in this Dictionary.

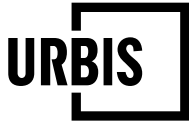
**function centre** means a building or place used for the holding of events, functions, conferences and the like, and includes convention centres, exhibition centres and reception centres, but does not include an entertainment facility.

**garden centre** means a building or place the principal purpose of which is the retail sale of plants and landscaping and gardening supplies and equipment. It may include a restaurant or cafe and the sale of any of the following—

- (a) outdoor furniture and furnishings, barbecues, shading and awnings, pools, spas and associated supplies, and items associated with the construction and maintenance of outdoor areas,
- (b) pets and pet supplies,
- (c) fresh produce.

**Note** — Garden centres are a type of **retail premises**—see the definition of that term in this Dictionary.

**hardware and building supplies** means a building or place the principal purpose of which is the sale or hire of goods or materials, such as household fixtures, timber, tools, paint, wallpaper, plumbing



supplies and the like, that are used in the construction and maintenance of buildings and adjacent outdoor areas.

**Note** - Hardware and building supplies are a type of **retail premises**—see the definition of that term in this Dictionary.

**market** means an open-air area, or an existing building, that is used for the purpose of selling, exposing or offering goods, merchandise or materials for sale by independent stall holders, and includes temporary structures and existing permanent structures used for that purpose on an intermittent or occasional basis.

**Note** - Markets are a type of **retail premises**—see the definition of that term in this Dictionary.

**office premises** means a building or place used for the purpose of administrative, clerical, technical, professional or similar activities that do not include dealing with members of the public at the building or place on a direct and regular basis, except where such dealing is a minor activity (by appointment) that is ancillary to the main purpose for which the building or place is used.

**Note** - Office premises are a type of **commercial premises**—see the definition of that term in this Dictionary.

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Colliers International (NSW) Pty Ltd

13 October 2021

Dylan Baudinet  
Precinct Capital Pty Ltd

By email – dylan@precinctgroup.com.au

Dear Dylan,

Thank you for your time to discuss the Nepean Business Park project.

Over the past 12 months, the industrial and logistics sector has featured a more transformational change than in perhaps the past decade. The disruption of global supply chains throughout the year meant significant investments in technology and automation have occurred as occupiers accelerate their supply chain innovation agendas. Similarly, the exponential rise of e-commerce has resulted in substantial investments in online retail platforms and occupiers are increasingly taking on additional warehouse space to meet demand levels.

Leasing demand across Sydney remains strong with around 450,000 sqm of gross take-up being recorded in Q1 2021. This follows approximately 1.3 million sqm of take-up recorded in 2020 and as a result leasing options in most markets are limited, particularly in the prime market. Based on current occupier requirements, we expect take-up activity in 2021 will well exceed the long-term average.

According to Colliers research, we have less than 5 years supply of developable industrial land, which is a concerning fact when considering the above leasing demand metrics.

We believe Nepean Business Park is an excellent opportunity to ease the demand for industrial product, given that the low to mid tier business operator is struggling to secure a premise.

Parramatta, Western Sydney's major CBD, is forecasting an office vacancy rate of 15.6%. With a total of 90,184sqm upcoming available office accommodation, incentive levels are forecasted to reach 32% and rents are forecasted to drop 14% by March 2022. This can be attributed to the fact that workplaces are adapting to decentralised models i.e. to working from home.

We do not believe it will be viable to develop standalone office accommodation at Nepean Business Park due to the above reasons along with the fact that NPB offers poor public transportation.

Sincerely,

A handwritten signature in black ink, appearing to read "Fab Dalfonso".

Fab Dalfonso  
National Director

A handwritten signature in black ink, appearing to read "Rino Gazzera".

Rino Gazzera  
Director



22 October 2021

Dear Dylan,

## **Subject: Nepean Business Park – Likely Land uses and Employment**

As instructed, we have prepared this letter in response to recent changes in the employment landscape and the likely outcomes for Nepean Business Park if developed in the short term.

Our previous report dated August 2019 on the economic impacts of the proposed business park adopted a rate of around 85 jobs per hectare based on mixed employment uses with new industries with a higher component of R&D and office space than traditional industrial areas.

We understand that recently you have found little market appetite for non-industrial commercial uses in this location and that the current market interest is for industrial warehouses. We have reviewed the letters from PRD, Colliers and Macquarie Commercial which have all shared this view. Of particular note is their commentary regarding the very limited demand for office space and the lack of viability of developing offices in Penrith.

At the time of the 2019 report the commercial office market across Sydney had experience almost five years of stable conditions for rental and capital growth. In 2019, there were over 8 million square metres of office floorspace across Sydney's major commercial centres.<sup>1</sup> By far, the largest commercial centres was the Sydney CBD followed by Macquarie Park, North Sydney and Parramatta. Just prior to COVID-19 vacancy rates were at a record low of less than 3% in the CBD and fringe locations and the because of increasing rents businesses were starting to pay more attention to suburb locations.

However the COVID-19 pandemic has had a huge impact and is likely to have long-term impacts to both the Sydney CBD and the suburban office market due to behavioural changes to office place flexibility. Of relevance to the forecasting of commercial floorspace requirements has been a dramatic increase in working from home rates.

During the pandemic, across Australia, around 30% of commercial office employees worked from home to slow the spread of the virus. In Sydney and Melbourne, this resulted in widespread office vacancies and greater internet/broadband network strain.

A survey undertaken for Infrastructure Australia into COVID-19 impacts found that:

- The proportion of respondents who wish to work from home once per week or more has grown from 27% prior to COVID-19 to 42% post-COVID-19.

---

<sup>1</sup> Sydney CBD, Macquarie Park, North Sydney, Parramatta, St Leonard's/Crows Nest and Chatswood

- Around 15% of employees surveyed would like to increase their level of working from home post-COVID-19 compared with pre-COVID-19 levels.

As the workplace becomes more flexible with more employees working remotely from home, office space requirements are likely to be reduced to reflect this new demand while any new space will need to offer increased amenity and services to incentive employees back into the office<sup>2</sup>.

Additional research undertaken by Investa has concluded that the impact of increased working from home rates would likely see a reduction in commercial office space of up to 15%. This estimate is based on the prospect of staff working from home between two and two and half days a week, an increase of one to two days when compared to pre-COVID-19 levels of working from home<sup>3</sup>.

The estimate also considers the offset to softer demand from the likely increase in workspace ratios – anywhere between 10%-20% – as greater amounts of space are earmarked for collaborative work and meetings.

Nepean Business Park wasn't envisaged to be a commercial office park. It was envisaged to be more a hybrid commercial office / industrial estate as it was never meant to compete with the Penrith CBD. Nevertheless, remote working and more flexible solutions to work practices means the market for commercial office space at Nepean Business Park has considerably reduced. Many businesses no longer require the level of office space ancillary to the warehouse / industrial component since a high proportion of white-collar operations can be performed remotely. For example, Nepean Business Park could accommodate a 'dark store' while its headquarters operate from office space in Penrith CBD, Macquarie Park, The Aerotropolis or some other location.

The low levels of vacant industrial and warehousing space in the St Marys to Penrith corridor means strong demand for this type of space. Macquarie Commercial estimate as much as 95% of users in the Nepean Business Park would be warehouse, distribution, industrial and associated types of uses similar to the current uses in the North Penrith, Kingswood, Jamisontown and St Marys industrial estates.

These industrial estates have lower job density ratios – generally around 25 to 35 jobs per hectare (gross)<sup>4</sup> as shown in the table immediately below.

Industrial Precinct	Total Developable Land (ha)	Total Developed Land (ha)	Jobs in 2019	Jobs per hectare
St Marys North	294.2	237.0	6,236	26
North Penrith	263.9	203.0	6,363	31
Emu Plains	128.1	99.7	3,083	31
Jamisontown	88.4	86.9	3,248	37
<b>TOTAL</b>	<b>774.6</b>	<b>626.6</b>	<b>18,930</b>	<b>30</b>

Source: Penrith Industrial Precincts Technical Report, June 2021

Given the above, the most likely uses for the site in the short-term (within the next 10 years) is industrial style buildings as suggested by Macquarie Commercial. Most likely job density on site would be around 30 jobs per hectare. With a developable area of around 47 hectares this would amount to around 1,400 jobs.

<sup>2</sup> "Work from home trend eats into office demand", Financial Review, Nick Lenaghan 18th of January 2020

<sup>3</sup> Investa Property Group is a company that delivers end-to-end property management for commercial real estate assets, located in the core Australian CBD markets

<sup>4</sup> Gross meaning the inclusion of internal roads

I trust this answers your question about the likely outcome for Nepean Business Park in the short term. Please do not hesitate to contact me if you have any further queries.



**Adrian Hack**

Principal, HillPDA

*BTP (Hons), MLE, MPIA*

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11<sup>th</sup> October, 2021

To whom it may concern

**RE: Nepean Business Park – Market Analysis of Land Uses and Employment**

**Introduction**

Macquarie Commercial is a locally owned and operated independent commercial agency based in Penrith, New South Wales, which opened in November 2015. The team boasts over 50 years' combined experience working within the Nepean commercial and industrial markets with multi-national agencies like Colliers International and franchise offices such as PRD Commercial. The team has been involved in many significant and major transactions within the Penrith area over the past three decades.

Penrith has had a limiting supply of developable industrial land which has been reducing for many years. We receive regular enquiry from small, medium and large business seeking premises to lease or land to purchase.

Job containment is a major issue locally as many workers are required to leave the area for employment. The NSW Government's objective of delivering the "30 minute City" is intended to improve job containment and relieve traffic congestion on Sydney roads.

The impact of COVID is also altering workplaces and resulting in higher demand for warehouses servicing home shopping, and a reduced demand for office space as work-from-home practices increase. These trends are expected to continue into the post-COVID era.

**Warehouse and Industrial Development**

The overwhelming demand for the Nepean Business Park will be for warehousing, logistics, and industrial uses which is particularly fueled by the ever-increasing rise of home shopping and delivery requirements. We estimate that perhaps 95% or more of the developable area could be utilised for warehouse, distribution, industrial and associated types of uses. The level of demand can be evidenced by the Penrith industrial vacancy rate being consistently very low.

**Office Development**

Due to Nepean Business Park being located on the edge of a catchment (i.e. the edge of Sydney) with no rail/metro connection and very limited bus services, we believe it is highly unlikely the business park will attract any significant level of office development. Rather it will be an extension of the adjacent North Penrith Industrial area.

Contemporary office development is typically co-locating with strong public transport presence, as well as access to established retail centres. Penrith CBD offers more attractive premises for office users, being close to rail and bus connections and close to business, government and other services and facilities. We have therefore seen a number of office developments proposed in Penrith CBD including:

- 331 High Street Penrith which has approximately 1000m<sup>2</sup> of office space and has been approved ready to go since 2008. Construction is still pending.
- 84 Henry Street Penrith has just commenced construction after 9 years of being vacant.
- Landcom in Thornton has had an office site ready to go adjacent to Penrith station since 2014.

As you can see from the examples above, it has been difficult for office development to commercially stack up and break ground in Penrith CBD for many years. The Nepean Business Park has a significant disadvantage due to the location and transport factors noted above which will mean it will be even more difficult to make a commercial office development feasible.

We expect the demand for office within the Nepean Business park to be small offices ancillary to warehouse and other industrial uses as seen through comparable industrial precincts.

Accordingly, we estimate that if there were to be any standalone office development then it could be up to 3 small lots (approximately 3% of the developable area).

### **Shops and Other Services and Facilities**

As the site is not located on a main thoroughfare (particularly a homeward bound journey), any demand for such shops and facilities will be very locally based and service the estate itself. Retail premises are not permissible so it would not be possible for a supermarket to anchor a retail precinct which would bring shoppers to the site. Accordingly, there may be demand for a café, sandwich shop, convenience store, etc of about 2-5 shops totaling 200-600m<sup>2</sup> of floor space which would service the day to day needs of workers within the business park.

### **Hardware**

Whilst the zoning permits hardware uses, we only see a minor or specialized hardware use being applicable. The dominant retailer Bunnings already has two established sites in Jamisontown and Penrith in much better locations than the Nepean Business Park. Bunnings have advised us that they will only locate to sites that have significant main road frontage. The Nepean Business Park has no main road frontage so it is very unlikely that the site would be of interest to Bunnings.

### **Retail and Bulky Goods**

Retail and bulky goods uses are not permitted in the zone.

**Conclusion**

The overwhelming demand will be for warehouse, distribution, industrial and associated types of uses as opposed to office, retail, or other uses.

Should you require any further information or wish to discuss in more detail, please don't hesitate to contact the undersigned agent at any time.

Yours sincerely,



Matthew Neale  
Director  
Macquarie Commercial



Our Ref: M190009

13 October 2021

Great River NSW Pty Ltd  
Level 1, 2 Barrack Street  
**SYDNEY NSW 2000**

*Attention: Dylan Baudinet*

**RE: NEPEAN BUSINESS PARK PERMISSIBLE USES AND TRAFFIC GENERATION**

This letter provides a town planning response to contentions raised related to traffic generation, as part of Land and Environment Court Matter 2021/204069, for the proposed subdivision of land associated with the Nepean Business Park development at 14-98 Old Castlereagh Road, Penrith.

In relation to traffic generation for the proposed development, Transport for NSW (TfNSW) made the following comment in their letter dated 26 August 2021:

*2. Comment*

*TfNSW raises concerns to the Department with regard to the adopted trip generation rate. The adopted trip generation rate for this development of 0.2 vehicle trips per hour (vtp/h) per 100m<sup>2</sup> of GFA for the AM and PM network peaks is considered very low.*

*The Employment zoned land permits significant traffic generating uses which have not been considered in the assessment to date. This may include Business premises; Food and drink premises; Function centres; Garden centres; Hardware and building supplies; Markets; Office premises. These may generate significantly higher traffic demands if pursued in future Development Applications.*

At a meeting with TfNSW on 27 September 2021, data from the following three trip generating sites were discussed:

- Erskine Park
- Eastern Creek
- Mamre Road

All of these three sites are located in the area subject to *State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA)*. It was agreed that the Applicant would investigate the uses at these sites and compare them to the uses permissible at the Nepean Business Park to determine an appropriate trip generation rate for the project.

The subject land is zoned Employment under *State Environmental Planning Policy (Penrith Lakes Scheme) 1989 (Penrith Lakes SEPP)*. The Erskine Park and Eastern Creek precincts were identified as 'Employment' precincts during their creation. The word 'Employment' for either precinct has little or no relevance. The types of uses that will be realised in any of the precincts is determined by the permissible uses listed in each zone, which is further analysed below.





TfNSW identifies the following uses as significant traffic generating uses:

- Business premises
- Food and drink premises
- Function centres
- Garden centres
- Hardware and building supplies
- Markets
- Office premises

Of the above, the following are permissible in the WSEA (which includes the Mamre Road, Erskine Park and Eastern Creek areas). It is therefore appropriate to set the following uses aside:

- Food and drink premises
- Garden centres
- Hardware and building supplies

In addition to the above, the WSEA (Mamre Road, Erskine Park and Eastern Creek precincts) permits the following significant traffic generating uses which are not permissible in the Employment zone:

- Depots
- Places of public worship
- Recreation facilities (indoor)
- Service stations
- Vehicle repair stations

That leaves the following uses that are applicable to the Nepean Business Park Employment zoned land that are not permissible at the other comparable sites:

- Business premises
- Function centres
- Markets
- Office premises

An economist (Urbis) and real estate agent (Macquarie Commercial) have reviewed the above uses and advised that they are unlikely to occupy any significant floor space within the Nepean Business Park (refer to attached letters).

They have also advised that the dominant use at the Nepean Business Park will be warehouse or distribution centres and light industries, which is consistent with the uses at the WSEA (Mamre Road, Erskine Park and Eastern Creek precincts).





## Conclusion

The reference to the term 'Employment' has little or no relevance to the traffic generation rate as it is the permissible uses that define what will be realised within each precinct.

The Nepean Business Park Employment zone and WSEA precincts (Mamre Road, Erskine Park and Eastern Creek precincts) share many common permissible uses which will make up the majority of uses within each zone, such as warehouse or distribution centres and light industries.

The WSEA precincts have a number of permissible significant traffic generating uses that are not permissible in the Employment zone. Equally, the Employment zone has a number of permissible significant traffic generating uses that are not permissible in the WSEA precincts.

An economist (Urbis) and real estate agent (Macquarie Commercial) have advised that the additional significant traffic generating uses identified by TfNSW will have little demand and are unlikely to make up significant floor space within the Nepean Business Park.

The anticipated users at the Nepean Business Park, i.e. warehouse or distribution centres and light industries, will be very similar to the uses in WSEA. If the end uses are comparable, then it is anticipated that the traffic generation from each precinct will also be comparable on a trip generation basis.

Yours faithfully,  
Planning Ingenuity Pty Ltd



Jeff Mead  
**MANAGING DIRECTOR**

13 October 2021

Precinct Group Pty Ltd  
Attention: Dylan Baudinet  
Level 1, 2 Barrack Street  
Sydney NSW 2000

Dear Dylan,

**Re: Nepean Business Park. 14 - 278 Old Castlereagh Road Penrith**

Thank you for the opportunity to discuss the above project.

Below is a summary of our view of the site and market place.

We understand the zoning of the site will permit warehousing, light industry and office premises.

Moving into the future we anticipate the majority of users to be dominated by warehousing and industrial occupiers.

Industrial vacancy rates are below 1% with businesses now being put on waiting lists. Companies that are not securing their position run the risk of being without an industrial building to operate from.

In the outer west region, there is limited available stock in most size ranges and no 5,000m<sup>2</sup> – 10,000m<sup>2</sup>+ warehouses available for sale or lease. We have more than 40,000m<sup>2</sup> of enquiry to fill as and when opportunities become available.

With regards to office space in Penrith, there is significantly less demand. We currently have 200m<sup>2</sup> to 400m<sup>2</sup> of office enquiry for Penrith, as this is a limited market.

Based on this demand, and the lack of government and corporate representation there has been almost no new office development for many years in Penrith. Current land owners and developers have not been able to make a project viable.

The majority of office users have a requirement to be located in the CBD and in close proximity to the train station, general transport and amenities (banks, retailers, restaurants).

It is unlikely a standalone office style development would be successful on the site.

As an example, this style of development was constructed on the University Site on the Werrington Campus and was not viable. In order to attract tenants to overcome the issues described above the rents were reduced significantly. The vacancy rate was high and leasing time significant.

Land owners that have land banked sites for many years in the Penrith CBD have not developed their sites due to the overall viability. Some of these key CBD locations have direct access to transport and other businesses.

It is highly likely any office accommodation will be directly associated with the warehousing uses that will occupy the total site. For an industrial building, typically 90% or more of the total area is made up of a warehousing component.

With increasing technology and work place trends, we are finding the office ratio in an industrial building is reducing.

If you have any questions, please feel free to contact me anytime.

Yours Sincerely,  
PRD Commercial Western Sydney



Robert Tappouras  
Director