

Ref: 23/084

28<sup>th</sup> September 2023

JBC Family Nominees Pty Ltd *CI*-Land Development Solutions PO Box 853

THE JUNCTION NSW 2291

Attention: - Bella Williams Dear

Bella,

#### RE: Traffic & Parking Assessment - Change of Use to Depot - Lot 1 DP 581002 - 20 Selwyn Street, Mayfield East.

Reference is made to your request for traffic advice in regard to the proposed change of use of to a depot on Lot 1 DP 581002 - 20 Selwyn Street, Mayfield East. It is understood this advice is required to support a development application to Newcastle City Council for the proposal. Please find below a suitable Traffic Impact Statement relating to the proposed development to support the development application.

### **Traffic Impact Statement**

### Development

The proposed development involves the change of use of the site to a depot comprising building materials storage and handling, office and staff amenities, access, and parking. The site operations and structures are proposed within the northern half of the site and long-term parking is proposed within the southern half of the site. The concept plans for the proposed development are provided in *Attachment 1.* 

The development site currently has no formal operations occurring, with the new development proposing to operate 7 am to 5 pm Monday to Friday for the purposes of site storage, supply and delivery of scaffolding and building materials. All site structures and buildings will be of a relocatable temporary nature. No formal access for the site exists nor is on-site car parking currently provided. Three (3) 6.0-metrewide accesses are proposed via Selwyn Street.

There are no buildings on the site nor any adjoining properties. The site is surrounded by roads - Industrial Drive at its western boundaries and Selwyn Street at its eastern boundaries. The northern tip of the site is bounded by the Selwyn Street I southbound Industrial Drive on-ramp intersection, whilst the southern tip is located at the Selwyn Street underpass of Industrial Drive.

The site location is shown below in *Figure 1* in the context of the surrounding development, road, and rail network. *Photograph 1* below shows the existing site.



Photograph 1 - Site from its northern end

## **Road Network**

Industrial Drive is a major transport road collecting and distributing traffic to and from Newcastle suburbs west and southeast of the site and connecting to regional areas. It serves as a subarterial road under a functional road hierarchy as State Highway 10 from the Pacific Highway (Maitland Road) at its western end, past George Street and Selwyn Street near the development site and continuing to the Pacific Highway (Stewart Avenue / Hunter Street) in Newcastle to the southeast. Industrial Drive is under the care and control of the TfNSW.

Adjacent to the site Industrial Drive is a four-lane two-way sealed road separated by a concrete median island with 3.0- to 3.3-metre-wide travel lanes and sealed cycleway / breakdown lanes approximately 1.5 metres wide with kerb and gutter and longitude drainage on both sides of the road. Industrial Drive has an 80 km/h speed zoning near the site and at the time of inspection it was observed to be in good condition as shown in *Photograph 2* below.



#### Photograph 2 - Industrial Drive on ramp near the site

Selwyn Street is an urban road collecting and distributing traffic to and from Industrial Drive and the southern suburbs of Newcastle. It serves as a local collector road under a functional road hierarchy, therefore, is under the care and control of the Newcastle city Council. Near the site it has an 8-metre carriageway is a two-lane two-way sealed road with centreline marking and 3.0-to 3.3-metre-wide travel lanes and grassed / gravel shoulders approximately 1.0 metre in width. Selwyn Street has a 50 km/h speed zoning near the site and at the time of inspection was in fair condition as shown in *Photograph 3* below.

George Street near the site is an urban local road under the care and control of Newcastle City Council. Under a functional road hierarchy, it would function as a minor local collector road with its primary function being to collect and distribute traffic between Ingall Street, Industrial Drive and Selwyn Street while also providing vehicular access to adjoining properties. Near the site it is a two-lane two-way sealed road except were widened at intersections, with a carriageway width between kerbs of 17 metres east of Industrial Drive and 13 metres west of Industrial Drive. A 50 km/h speed limit applies to this section of road and at the time of inspection George Street was observed to be in good condition as shown in **Photograph 4** below.



Photograph 3 - Selwyn Street fronting the site showing Industrial Drive bridge.



Photograph 4 - George Street from Selwyn Street across Industrial Drive

# **Traffic Generation**

The proposed development can be likened to a warehouse / distribution centre as no goods are manufactured on site however scaffolding and materials are delivered to the site, stored on site, and then delivered to off-site locations for use. The industrial use buildings / storage areas cover approximately  $1,000 \text{ m}^2$  of the site area.

TfNSWs RTA¢ Guide to Traffic Generating Developments (2002) and Technical Direction TDT 2013/04 provides advice on the traffic generating potential of business parks. The rates recommended within the Guide are as follows:

Sydney Average	Sydney Range	Regional Average	Regional Range
0.52	0.15-1.31	0.70	0.32-1.20
0.56	0.16-1.50	0.78	0.39-1.30
4.60	1.89-10.47	7.83	3.78-11.99
	Average 0.52 0.56	Average         Range           0.52         0.15-1.31           0.56         0.16-1.50	Average         Range         Average           0.52         0.15-1.31         0.70           0.56         0.16-1.50         0.78

Source: - RMS TDT 2013/04

For proposed development, the peak traffic generations (rounded up) for 1,000 m<sup>2</sup> GFA of building / storage area are calculated as:

AM peak hour traffic	= 1,000 m <sup>2</sup> x 0.70 / 100
	= 7 vtph

#### **PM peak hour** traffic = 1,000 m<sup>2</sup> x 0.78 / 100 = 8 vtph

Intersect Traffic previously engaged Northern Transport Planning and Engineering (NTPE) to carry out manual traffic counts at the Industrial Drive / Ingall Street Signalised four-way cross intersection which was undertaken on 19 June 2018. The counts revealed that the peak hour traffic occurred between 7.30 am and 8.30 am and 4:15 pm to 5:15 pm.

The mid-block traffic volumes calculated from these traffic counts have been utilised to represent current 2023 volumes. The predicted 2023 and 2033 volumes have been calculated using an annual background growth rate factor of 2.0% per annum for all roads and are as shown in **Table 1** below. The tally sheets for the manual traffic counts carried out by NTPE and Intersect Traffic are provided within **Attachment B**.

Road	Section	2023 AM peak vtph	2023 PM peak vtph		2033 PM peak vtph
Industrial Drive	West of Ingall Street	3294	3059	3823	3551
Industrial Drive	East of Ingall Street	2972	2733	3449	3172
Ingall Street	North of Industrial Drive	149	188	182	229
Ingall Street	South of Industrial Drive	384	321	468	392

 Table 1 - Mid-block 2023 and 2033 traffic volumes

Traffic was observed to be significantly less than 200 vtph on George Street and Selwyn Street during peak hours. The addition of the 8 vtph on Selwyn or George Street would therefore not impact on the LoS currently being experienced on these two roads.

The 8 vtph development traffic also amounts to a maximum of less than 0.3% of traffic on Industrial Drive and either the Industrial Drive / Ingall Street or the Industrial Drive / George Street intersections and as these intersections are signalised the impact on the state (and local) road network and intersection network would be negligible. Therefore, the traffic volume increase will not be noticeable and will not adversely impact on either two-way mid-block traffic flows or intersection performance of the surrounding roads or further afield.

### Access

Three accesses each 6.0 metres wide are proposed for the site. For a carpark with less than 25 vehicles and using *Table 3.2 of Australian Standards AS2890.1-2004 Parking facilities* - *Part 1 Off-street car parking,* the access is required to be a Category 1 access and thus should be a minimum combined entry / exit access at between 3.0 to 5.5 metres wide. Therefore, the proposed accesses comply with the standards.

As the largest vehicle to use the site will be an heavy ridged vehicle and turning paths have been provided by Land Development Solutions as part of the DA documentation showing compliance to the Australian Standards.

By observation at the site, sight distances for the proposed accesses are a minimum of 80 metres therefore would comply with the requirements of *Figure 3.1* within *Australian Standard AS2890.1-2004 Parking facilities - Part 1 Off-street car parking,* which requires a desirable sight distance of 70 metres for a 50 km/h frontage road speed zoning which is the case for all three Selwyn Street accesses. Therefore, again the proposed site access complies with these requirements of the Australian Standard and therefore is considered suitably safe for use.

Overall, it is concluded that the proposed development vehicular access will be fully compliant with the requirements of *Australian Standard AS2890.1-2004 Parking facilities - Part 1 Off-street car parking* and Newcastle City Councils requirements and would provide a suitably safe vehicular access for forward entry and exit at the site.

### On-site car parking

In regard to the proposed use of the site, the relevant car parking requirement within *Section* 7.03 of the Newcastle DCP (2012) November 2022 amendment is as follows.

Warehouse or Distribution Centre
1 space per 200 m<sup>2</sup> or 1 space per 2 staff, OR
Industrial
1 space per 100 m<sup>2</sup> or 1 space per 2 staff.
Using the higher (industrial) rate the DCP car parking requirement is as follows.

Car Parking =  $1000 \text{ m}^2 / 100 \text{ x}$  1 OR 20 permanent staff / 2 = 10 or 10 spaces.

The site has been separated into two halves with the southern half proposed for overnight parking of up to 10 vehicles to be used for loading / unloading scaffolding at the northern end of the site during daylight operations and then transportation to the off-site building construction work locations. Up to 6 utilities will be used by the workforce who will take them home after work from the development site (or the work locations) and go directly to the site (or work locations) prior to commencing the days work. Up to 20 other casual employees will not operate from the site and will meet permanent staff on construction work locations. One site manager is proposed to operate from the development site each day and travel to off-site locations at times as required. Approximately 3 informal car parking spaces are to be provided near the offices at the northern half of the site which allows for site visitors during the day.

As parking at the southern end of the site is proposed to be accommodate for 10 site operation vehicles; and parking at the northern end of the site is proposed to be accommodate loading vehicles as required and 3 car parking spaces near the offices, the development has access to 13 parking spaces and therefore it is considered compliant with Newcastle City Council requirements. Vehicle parking dimensions and layout have not been provided on the plans however, there is adequate area available on the plans for this provision and can be conditioned on the development consent.

### Alternative transport modes

The development is not ideally located for access to and use of alternative transport modes. The nearest bus stops for travel in either direction to or from the site are located in George Street at Smith Street approximately 350 metres from the site. The service connects to the surrounding suburbs, above towns and train stations other bus interchanges for many other bus routes and provide a very good service for site access however, it is unlikely that this service would be used by staff or visitors to the site.

No hardstand footpaths exist adjacent to the site. Reasonably level grassed verges exist on either side of Selwyn Street however they are not considered usable for pedestrians. The grassed area widens at the northern end of the site and would be suitable for pedestrian access to the site if this unlikely event is required. The nearest hardstand pedestrian facilities are the signalised pedestrian crossings of Industrial Drive / George Street four-way cross intersection located approximately 100 metres west of the northern end of the site. These crossings, approximately 150 metres west of the site, connect to the bus stops via the concrete pedestrian footpaths, approximately 1 metre wide, present on both sides of George Street and then connect to other residential street footpaths further west of Industrial Drive. 1.5-metre-wide onroad cycleways are present on both sides of Industrial Drive at the intersection of Industrial Drive / George Street intersection.

There would be little, pedestrian or bicycle traffic generated by this development and therefore, it is considered no nexus exists for the provision of additional alternative transport services and infrastructure resulting from the development.

## Conclusion

Having undertaken this traffic, parking, and access assessment for the change of use of the site to a storage depot the following has been concluded.

- > The local and state road network adjacent to the site has sufficient spare capacity to cater for the addition of up to 8 vtph expected to be generated by this development during normal business hours,
- > The peak hour traffic volume generated by the development will not have an adverse impact on George Street, Selwyn Street or Industrial Drive.
- > The increase of traffic of less than 0.3% of traffic currently experienced at the signalised intersections at Industrial Drive / George Street and Industrial Drive / Ingall Street would be unnoticed and would not adversely impact on these intersections or others on the state and road network.
- > The proposed vehicular accesses comply with the requirements of the Australian Standards allowing forward entry and exit for all vehicles accessing the site.
- > The proposed development is compliant with Newcastle City Councilos DCP car parking requirements providing sufficient and suitable on-site car parking.
- > The site has good access to nearby public transport if required.
- > No nexus exists for the upgrading or provision of any additional external pedestrian or bicycle facilities resulting from the development.

It is recommended that Newcastle City Council could support the change of use of Lot 1 DP 581002 - 20 Selwyn Street, Mayfield East to a storage depot. The development will not adversely impact on the adjoining local and state road network and complies with all the relevant requirements of Newcastle City Council and Australian Standards.

For further information or clarification please do not hesitate to contact me on 0423 324 188.

Yours sincerely d. barry

Jeff Garry Director Intersect Traffic







Project Selwyn Street Industrial 20 Selwyn Street Mayfield East 2304 cent JBC Forniy Trust







Denting No. SK-004







Project