

Ref: 20/205

27th February 2021

Hill Top Planners ,
PO Box 469
MAITLAND NSW 2320

Attention: - Richard Bennett

Dear Richard,

RE: Traffic Advice – Lot Access – Residential Subdivision – Princess Street, Morpeth.

As requested I have reviewed the documentation regarding a subdivision of Lot 1 DP634551, 123 Princess Street, Morpeth. I note you have received approval for this subdivision but with a condition that all access to Lots 7 & 8 be via Princess Street. It is understood your intention is to seek the deletion of the condition requiring that these lots be required to have vehicular access to Princess Street, so that vehicular access to Lots 7 and 8 can be approved to Tank Street. You are therefore seeking a road safety assessment of vehicular access to Lots 7 and 8 being via Tank Street to support your application for the deletion of the access condition. The following traffic advice is provided.

The site as well as Tank Street and Princess Street was inspected on Thursday 25th February 2021 and the relevant conditions related to road safety were as follows;

1. Tank Street is part of a local collector road that connects Morpeth to the adjoining suburbs of Tenambit, Metford and Ashtonfield. As such it is under the care and control of Maitland City Council. Importantly, it is not an access controlled road so vehicular access to Tank Street is not prohibited under the Roads Act 1993 as evidenced by the existing vehicular accesses to Tank Street in the vicinity of the site including an existing vehicular access to the site.
2. The speed zone in Tank Street past the site is 50 km/h. While observing traffic in the area for a 30 minute period there was no evidence that speeding within this zone was occurring and I would expect the 85th percentile speed in this section of Tank Street would be close to 50 km/h. However no accurate measure of speed was undertaken as part of this assessment.
3. Tank Street is constructed as an urban standard sealed road with a carriageway width between kerb and gutter of 10.7 metres with two marked travel lanes (Centreline and edge marked), one in each direction, approximately 3.6 metres wide. The eastern side of the road along the site frontage had a breakdown / stopping lane 2.3 metres wide to upright kerb and gutter while on the western side of the road the breakdown / stopping lane was only 1.2 metres wide to roll kerb and gutter.

4. Princess Street is a seal urban village road approximately 6 metres wide between upright kerb and gutter. It was also observed that Princess Street already had some level of on-street car parking demand that was making two-way traffic flow along the street more difficult and slower while also making access to some properties more difficult.
5. James Street to the site was unformed from a distance of 160 metres from the site. It is understood a temporary turning head is proposed in James Street as part of this development and no connection to the constructed part of James Street will be made as part of this development.

Other information relevant to this assessment is as follows;

- Intersect Traffic undertook traffic counts at the Tank Street / High Street intersection immediately north of the site on Thursday 17th October 2019 during the AM and PM peak traffic periods for a previous project. These determined that the peak traffic volumes on Tank Street in 2029 along the site frontage would have been southbound 332 vtpm in the AM peak and 215 vtpm in the PM peak as well as northbound 281 vtpm in the AM peak and 280 vtpm in the PM peak. The count sheets for these counts are provided in **Attachment 1**.

In assessing the road safety of vehicular access to proposed Lots 7 and 8 the critical matters requiring assessment are considered to be;

1. The function of Tank Street and any statutory regulation in regard to vehicular access.
2. Safe sight distance for the vehicular accesses. This would include the sight distance from the access to oncoming traffic (safe intersection sight distance) and sight distance for vehicles approaching the access (stopping sight distance); and
3. Traffic volumes on Tank Street and safety for vehicles entering the site from Tank Street.

In addressing these matters the following advice is provided;

Function of Tank Street / Legality of vehicular access to Tank Street

As a local collector road it is considered that vehicular access to Tank Street can be considered as Maitland City Council has no strategic policy to deny vehicular access to local collector roads and the road is not a designated access controlled road under the Roads Act 1993. This is best evidenced by the existing vehicular accesses to the property and adjoining properties to the south and north towards Swan Street. As such there is no legal impediment to the approval of vehicular access to Tank Street.

Further it is noted that at 6 metres wide Princess Street is really only a local access way designed to cater for low traffic volumes and serve low lot volumes therefore any opportunity to safely direct traffic flows away from Princess Street should be seriously considered by Council.

Sight Distance

Having suitably safe sight distance to and from the vehicular access is probably the most important aspect in regard to the safety of the vehicular access and is the main and in most cases the only legitimate reason to deny vehicular access to any road. There are two sight distances that need to be considered and these are Safe Access Sight Distance which relates to the vehicular sight lines from the access to oncoming traffic in both directions and approach sight distance which relates to the sight distance from an oncoming car to a car entering or exiting the vehicular access to allow the oncoming car to stop to avoid an accident.

During the site inspection it was observed that sight distance to and from the access to the south was unrestricted and in excess of 500 metres. However sight distance to and from the access towards the north was restricted by the vertical alignment of Tank Street with a crest on the road being located to the north of the site. Observations from the existing driveway to the site indicated that from the point of viewing an oncoming southbound car to the car passing the driveway was approximately a 6 second timeframe. This would indicate that at 50 km/h this represents a distance of approximately 80 metres. Subsequently the point of viewing a southbound vehicle was identified and marked and the following available sight distances were measured from the northern and southern points of the property.

Minimum available safe access sight distance – 75 metres ; and
Maximum available safe access sight distance – 110 metres.

Guidance for safe intersection sight distance is provided within *Figure 3.2* of Australian Standard *AS2890.1-2004 – Parking facilities – Part 1 Off-street car parking facilities*. This figure provides a table for safe access sight distance with columns for domestic properties (up to 3 dwellings) and the other for all other development for different speed environments / frontages. Given the size of Lots 7 and 8 it is considered that there is little chance of there being more than 3 dwellings on these lots therefore the domestic property column has been used for assessment purposes. Reading from the table the relevant safe access sight distances are;

50 km/h – 40 metres; and
70 km/h – 70 metres.

This indicates that satisfactory sight distance for vehicular accesses to Tank Street at the site is available for not only the posted speed zoning but also for vehicles travelling at up to 70 km/h on Tank Street noting that to the south there is also sufficient sight distance to safely exit the driveway with northbound vehicles travelling at up to 110 km/h (190 metres). It is therefore concluded that there is sufficient available sight distance for any vehicular accesses to Lot 7 and Lot 8 to be suitably safe for vehicles exiting the driveway.

For vehicles entering the vehicular accesses not only is the sight distance to approaching vehicles important but the sight distance for vehicles approaching the access that is important. In this regard the approach sight distance is critical. Guidance on approach sight distance is provided within *Table 3.1* of *Austroads Guide to Road Design Part 4A – Unsignalised and signalised intersections (2017)*.

This table indicates approach sight distance should be as follows for the different speed zones;

- 50 km/h – 55 metres
- 60 km/h – 73 metres
- 100 km/h – 165 metres; and
- 110 km/h – 193 metres.

These are similar to the safe access sight distances and again any vehicular access constructed to proposed Lots 7 and 8 of the development would be able to meet these requirements in the relevant directions. Therefore, it is concluded that there is sufficient available sight distance from any access point to Tank Street within both Lots 7 and 8 of the proposed development to ensure sufficient sight distance is available to provide a suitably safe vehicular access.

Traffic Volumes – Tank Street

The traffic volumes on Tank Street if high enough could increase the safety risk for vehicles entering and exiting the vehicle accesses off Tank Street to Lots 7 and 8. If there are insufficient gaps within the traffic exiting the site can become difficult and more risks are likely to be taken by drivers. However total traffic volumes on Tank Street would be a maximum 613 vtpm in the AM peak which would be expected to increase to 735 vtpm in ten years' time, which is equivalent to approximately 50 % capacity of the road .

However, with only up to 3 vtpm using each site access with a maximum 2 exiting movements there would be sufficient acceptable gaps in the traffic (approximately 6 seconds) to allow vehicles to exit the site with little delay and thus there would be no need for any major risk taking. Further vehicles turning left into the site would be able to use the breakdown / stopping lane to get out of the through traffic lane when approaching the access to enter the property as there is little evidence of the breakdown / stopping lane being used for regular on-street car parking.

In regard to right turning traffic into the vehicular accesses again with traffic volumes of 735 vtpm on Tank Street and maximum right turn volumes of 2 vtpm at each access there is no warrant for any right turn protection in accordance with *Figure 3.25 of Austroads Guide to Traffic Management – Part 6 Intersections, interchanges and crossings management (2020)*.

CONCLUSION

Having undertaken this review of the road safety environment for the provision of vehicular accesses off Tank Street, Morpeth to proposed Lots 7 and 8 of a subdivision of 123 Princess Street, Morpeth (Lot 1 DP634551) it is concluded that suitably safe vehicular accesses to these lots off Tank Street could be constructed to Maitland City Council requirements. Therefore there is no valid or legitimate reason to prohibit vehicular access to Tank Street for these lots. This is evidenced by the fact that vehicular accesses have already been constructed to Tank Street in the vicinity of the site and that there is no known traffic accident history at these accesses.

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

Yours sincerely

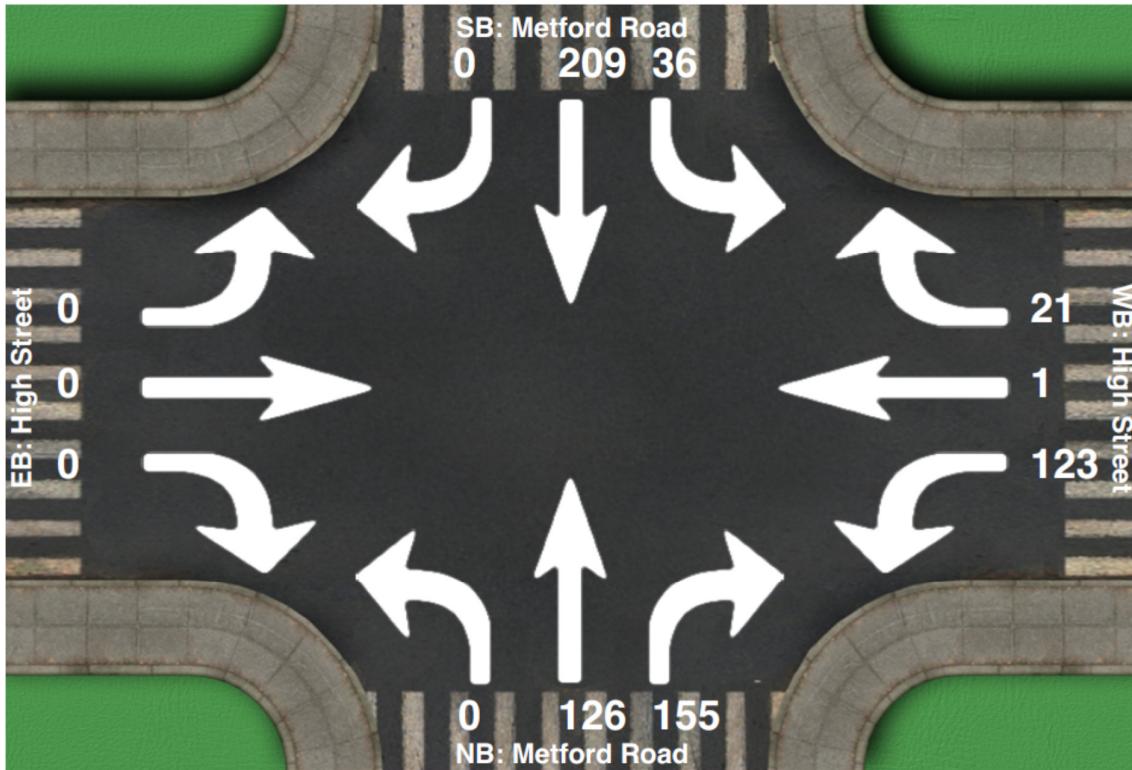
A handwritten signature in black ink, appearing to read 'J. Garry', with a small horizontal line underneath.

Jeff Garry
Director
Intersect Traffic

Attachment 1 – Intersect Traffic – Traffic count sheets

Intersection Peak Hour

Location: Metford Road at High Street, Morpeth
 GPS Coordinates:
 Date: 2019-10-17
 Day of week: Thursday
 Weather:
 Analyst: Jeff



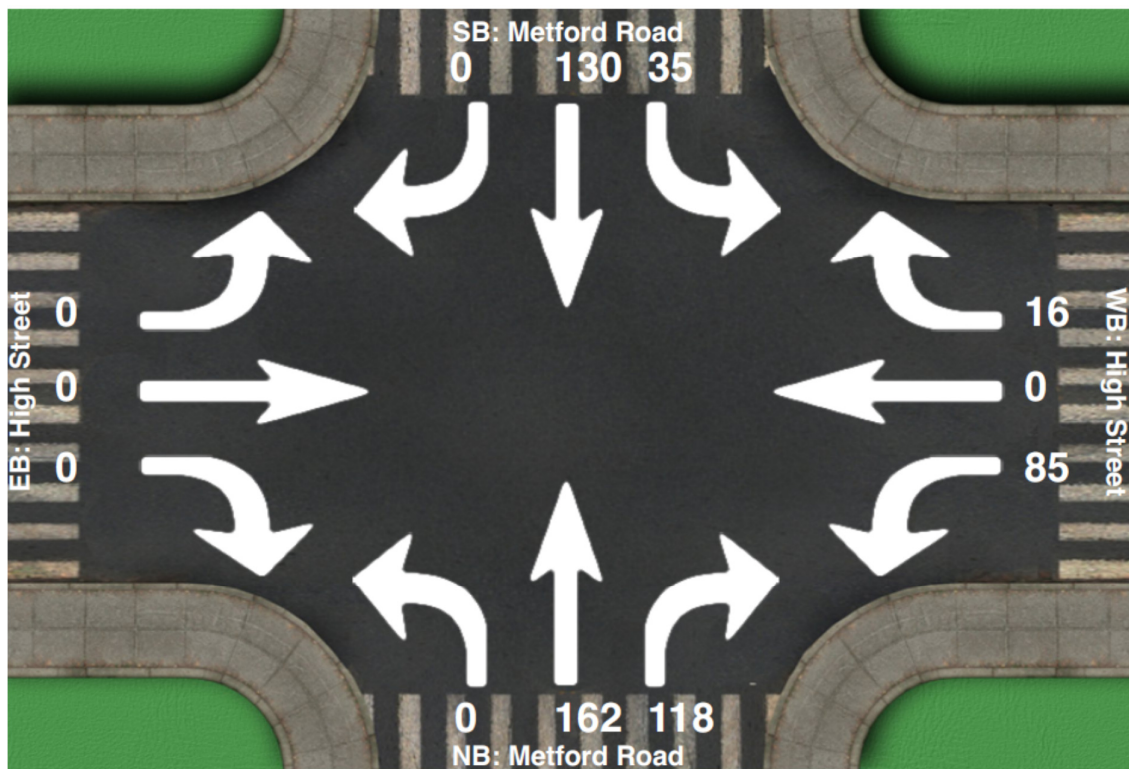
Intersection Peak Hour

08:00 - 09:00

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	36	209	0	123	1	21	0	126	155	0	0	0	671
Factor	0.82	0.87	0.00	0.68	0.25	0.75	0.00	0.73	0.66	0.00	0.00	0.00	0.82
Approach Factor	0.90			0.70			0.69			0.00			

Intersection Peak Hour

Location: Metford Road at High Street, Morpeth
GPS Coordinates: Lat=-32.726691, Lon=151.623853
Date: 2019-10-17
Day of week: Thursday
Weather:
Analyst: Jeff



Intersection Peak Hour

16:00 - 17:00

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	35	130	0	85	0	16	0	162	118	0	0	0	546
Factor	0.80	0.90	0.00	0.82	0.00	0.57	0.00	0.94	0.92	0.00	0.00	0.00	0.94
Approach Factor	0.88			0.77			0.93			0.00			