

To: Masud Hasan
From: Stella Qu, Transport Planner
Date: 28/08/2017
Subject: Modification to warehouse and distribution centre at 5-35 Yarrunga St & 36-36 A Kookaburra Road, Prestons (SSD 7155)

Reference:

Background

Council has received a referral from Department of Planning & Environment to provide Council requirements to Section 96 (2) modification to the abovementioned application (SSD 7155).

The application is seeking to

- Increase of GFA of Warehouse 1 from 26,950sqm to 36,570sqm which will result in additional GFA of 12,835 sqm to the overall development site with a total of 129,040 sqm GFA.
- Construct warehouse 6 to facilitate a truck workshop and vehicle-part distribution with ancillary office space and display area, hardstand area, 124 parking spaces and access to Yarrunga Street.
- Modification to the design of the vehicular access arrangements on site.

This memo provides:

- Traffic and Transport Section comments on the application and associated assessment of Traffic and Parking implications dated June 2017.
- Required road upgrades to cater for the proposed development.

ASSESSMENT OF APPLICATION

Traffic impact assessment of the proposal has been carried out in accordance with the Roads and Maritime Services (RMS) Guide to Traffic Generating Developments, with reference to Council's DCP and AS 2890.

The critical traffic issues assessed includes:

- Adequacy of the off-street parking provisions;
- Suitability of vehicular access arrangements;
- Internal circulation and servicing arrangements; and

- Traffic impact of the proposed development including review of existing traffic conditions adjacent to the proposed development site.

Traffic Generation Rates

Vehicular trip generation rate adopted in the assessment report is 0.19 vtpm per 100 m² which is inconsistent with rates for warehouse and industrial uses, specified in the *RMS Guide to Traffic Generating Developments* and a rate for a similar size business park.

Traffic generation rates for warehouse and factories are 0.5 vph/100 m² GFA and 1/100 m² GFA respectively (RMS Guide).

The RMS recent survey of traffic generation from a similar size business park (approximately 136,737 m² GFA) indicates that peak vehicle-trips per 100m² of GFA is 0.919 vph/100 m² GFA.

The whole site will generate approximately 645 -1186 vehicles per hour during the peak hours. The cumulative traffic impact of the development on the surrounding road network is significant.

The traffic assessment report and associated traffic modelling should be updated by using trip generation rate of 0.5 vph/100 m² GFA in accordance with the RMS Guide.

Traffic impact on the surrounding road network and intersection

The section of Bernera Road between Kurrajong Road and Yato Road currently is line marked with a single traffic lane in each direction, as the road shoulders are not of sufficient width to be used as traffic lanes.

This road section carries approximately 750 – 890 vehicles per hour in peak hour direction. Additional traffic expected to be generated from the development site will result in the mid-block capacity of Bernera Road being exceeded.

The section of Bernera Road between Kurrajong Road and Yato Road should be widened to a four lanes road, to minimise traffic impact of the proposed additional development.

The road widen and required traffic lanes should be in accordance with Austroads Guidelines. The proposed 3.0 m wide traffic lanes as indicated on roadworks layout plan (Drawing No. C08753.11-R 240) are not acceptable.

A design plan showing a four-lane road of Bernera Road between Kurrajong Road and Yato Road as well as the proposed 900 mm central median should be submitted to Council for review, prior to the determination of the DA

Benera Road/Yato Road intersection Improvement

The proposed additional development would be expected to have significant impact on the existing Bernera Road/Yato Road intersection.

As specified in the previous consent of the development, the intersection improvement works are to be carried, to Council and RMS requirements.

An update SIDRA model for the intersection with a total of additional 645 vehicles per hour from the subject site, is to be submitted to Council and the RMS to assist in the determination of the required intersection improvement. An electronic copy of the model should be submitted to Council for review.

Car parking assessment

Council DCP requires 1 space per 250sqm in GFA for Warehouse developments of GFA >1000sqm.

The subject site will require 516 car parking spaces. There are approximately 600 car parking spaces proposed on the site, which is sufficient.

Permanent truck parking spaces for all the expected demand shall be provided on the site.

Access Arrangement

It is noted that the site plan (Drawing No: S96 – A 103) has made a number of changes to the original site plan approved by the DP&E, which include:

- Additional heavy vehicular access off Bernera Road with a raised centre median on Bernera Road;
- Locations and layouts of car parking areas;
- Locations of loading areas;

Council does not support the proposed additional heavy vehicular access off Bernera Road as Bernera Road is a collector road which carries significant traffic volume. There is an alternative access via the private access road 2, which can provide access, at the north-east corner of the subject site.

As such, the proposed additional access is not supported by Council.

The proposed upgrade at Bernera Road/Yarrunga Street intersection will require road widening along the frontage of subject site. The existing RMS VMS sign will also need to be relocated due its proximity to the intersection and would be affected by the intersection upgrade.

The site plan needs to identify road affectation on the subject site as well as the proposed new location of the VMS sign.

Other requirements

Conclusion

Bernera Road/Yato Road intersection Improvement - The overall development including this modification will generate more than 650 vehicles per hour during AM and PM peak hours. It will have significant traffic impact on the section of Bernera Road between Kurrajong Road and Yarrunga Street and Bernera Road/Yarrunga Street intersection.

The SIDRA model of Bernera Road/Yarrunga Street intersection should be updated to include additional 650 vehicles generated from LOGOS development as well as traffic expected to be generated from other local developments including Charter Hall development.

Electronic copy of SIDRA model should be submitted to Council for review.

Access Arrangement - The proposed additional heavy vehicular access off Bernera Road with a central median is not supported by Council. The access shall be via the private access road 2.

Required Road Widening and Intersection Upgrade –

The proposed development requires:

- Upgrade at Bernera Road/Yarrunga Street intersection and its widening affection on the subject site;
- The section of Bernera Road between Kurrajong Road and Yarrunga Street is to be widened to a 4-lane road

A design drawing showing the following is to be submitted to Council for review:

- The proposed upgrade at Bernera Road/Yarrunga Street intersection and its widening affection on the subject site;
- The section of Bernera Road between Kurrajong Road and Yarrunga Street to be widened to a 4-lane road;
- The relocation of the existing RMS VMS sign;
- Removal of the proposed additional heavy vehicular access off Bernera Road and associated the central median

The revised site plan should be submitted to Council for review and approval, proper to determination of the DA.

The application should not be approved until the abovementioned additional information has been submitted to Council for review and approval.

If you have any further enquiries in relation to the above issue, please do not hesitate to contact me.

Stella Qu
Transport Planner

Reviewed by

Charles Wiafe