
Colston Budd Rogers & Kafes Pty Ltd

as Trustee for C & B Unit Trust
ABN 27 623 918 759

Our Ref: TR/9472/sk

17 March, 2016

Transport Planning
Traffic Studies
Parking Studies

Stockland
Level 25
133 Castlereagh Street
SYDNEY NSW 2000

Att: Christian Kublins

Email: Christian.Kublins@stockland.com.au

Dear Sir,

RE: PROPOSED WAREHOUSE DEVELOPMENT, WARWICK FARM

- I. At the JRPP meeting on Thursday 10 March 2016, the panel agreed to defer consideration of the development application for a proposed warehouse development on the subject site for a period of four weeks. This is to enable the applicant to respond to the material presented and the Council to prepare a revised assessment report. With respect to traffic, the following matters were raised in the submission at the JRPP meeting by Mr & Mrs van den Bos and in their submission to the DA dated 19 June 2015.

Traffic matters raised at JRPP meeting

- *This development should not be approved until transport modeling has been carried out using SIDRA network software, and the intersections are actually networked, rather than modeling individual intersections and full micro-simulation modeling;*
- *Necessary infrastructure updates should be costed before any approval is given;*
- *Who is paying for these upgrades? The developer, Council, State or Federal Government?*
- *How is the warehousing traffic going to get out? How are residents going to get to work?*

Traffic matters raised in submission dated 19 June 2015

- *that the proposed development does not provide adequate parking;*
- *that the traffic assessment has underestimated the amount of traffic generated by the proposed development;*

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- *the traffic assessment for the proposed development is inadequate in that network modeling has not been undertaken to assess the cumulative traffic effects of the proposed development, other proposed developments and background traffic growth; and*
 - *the adjacent road network (and in particular Governor Macquarie Drive) has inadequate capacity to cater for traffic generated by the proposed development.*
2. Thus in summary the traffic matters raised by Mr & Mrs van den Bos can be summarised as:
- whether the proposed parking provision is appropriate;
 - whether an appropriate traffic assessment has been undertaken (in terms of estimates of traffic generation and the type of traffic modeling undertaken);
 - whether the adjacent road network has capacity to cater for traffic generated by the proposed development; and
 - funding of any necessary road upgrades.
3. We prepared the traffic report⁽¹⁾ that accompanied the DA for proposed warehouse development on the subject site. The DA comprised:
- 48,560m² of warehouse area;
 - 3,145m² of office area;
 - 345 parking spaces; and
 - access from Governor Macquarie Drive (via a new roundabout).
4. During the assessment of the DA, Council requested that the roundabout providing access to the site be replaced with traffic signals.
5. Our response to the traffic matters raised in submissions is set out through the following sections.

Parking Provision

6. As set out in our traffic report, in order to determine appropriate parking provision for the proposed warehouse development, consideration was given to parking rates in Council's DCP, RMS Guidelines and parking provided at similar warehouse developments within the Liverpool LGA. Parking requirements for the proposed development, based on the above, are set out below:
- Liverpool DCP – 746 spaces;

⁽¹⁾ "Traffic Report for Proposed Warehouse Development, Governor Macquarie Drive, Warwick Farm", April 2015, Colston Budd Hunt & Kafes Pty Ltd.

- RMS Guidelines – 172 spaces; and
 - Other warehouse developments – 246 spaces.
7. As can be seen there is a wide variation in parking requirements based on Council's DCP, RMS Guidelines and parking provided at similar warehouse developments within the Liverpool LGA. We note that the Council DCP does not separate parking requirements for industrial and warehouse developments (noting that industrial developments generally have a much higher employment density than warehouses). Therefore the DCP rate for proposed warehouse development is not considered appropriate. Based on the above, we recommended provision of 345 spaces being more than required by RMS Guidelines/provision and at other sites within the Liverpool LGA, but less than the Council DCP. In our view the proposed parking provision is therefore appropriate.
8. We note that Council comprehensively addressed the variation in parking to the DCP rates in its assessment report.

Traffic Generation

9. RMS traffic generation rates for warehouse developments were used to estimate the traffic generation of the proposed development. These are considered appropriate given the proposed development is a warehouse development. We note that:
- the RMS rates take into account up to 10% of the warehouse development being office space; and
 - the traffic assessment assumed that 20% of all traffic generated by the proposed development in the AM/PM peak hours being trucks with appropriate conversion of trucks to PCU's.
10. Thus the traffic generation rates used to assess the proposed development are appropriate.

Traffic Assessment

11. The traffic assessment set out in our report built upon previous work undertaken as part of the rezoning of the subject site to allow for the proposed warehouse development. As part of the rezoning proposal for the subject site, a detailed traffic assessment was undertaken by Stapleton Transportation and Planning (Warwick Farm Industrial & Stabling Rezoning Proposal, Traffic Impact Assessment, August 2010). This report assessed the traffic effects of the subject site, other proposed developments in area (including the Masters and Inglis sites) and background traffic growth. Both network modeling (using SCATES) and

isolated intersection analysis (using SIDRA) was undertaken. The report found that the existing road network was operating at a poor level of service and identified a number of road network improvements to address existing issues and accommodate traffic generated by the proposed development.

12. With regard to the subject site, the Stapleton report assumed that the subject site would generate some 220 vehicles per hour (two way) in the AM/PM peak hours. This similar to that estimated in our report (some 260 vehicles per hour (two way) in the AM/PM peak hours).
13. Building upon the findings of the Stapleton report and the subsequent development approvals for the Inglis and Masters sites, a series of road works were identified and agreed with landowners, Council and RMS to accommodate development of the sites. The identified road works form part of a Voluntary Planning Agreement (VPA) and include the following works:
 - upgrade works at the intersection of Governor Macquarie Drive and the Hume Highway;
 - signalisation of the intersection of Governor Macquarie Drive and Munday Street;
 - widening of Governor Macquarie Drive to four traffic lanes;
 - provision of a roundabout on Governor Macquarie Drive providing access to the Inglis site to the north and the proposed Stockland site to the south;
 - provision of a roundabout on Governor Macquarie Drive at the racecourse access road;
 - the two roundabout will provide two approach lanes and two circulating lanes for Governor Macquarie Drive.
14. In accordance with the draft conditions of consent, the road works set out in the VPA will be completed prior to the issue of an occupation certificate for the proposed development.
15. Given that the traffic generation of the proposed development is similar to the traffic generation assessed at the time of the rezoning, the proposed warehouse development would result in no change to the impact on the operation of the upgraded road network. The road works set out in the VPA would therefore cater for the proposed development.

16. As noted previously during the assessment of the DA, Council requested that the proposed roundabout on Governor Macquarie Drive, which would provide access to the site, be replaced with traffic signals. A supplementary traffic assessment was undertaken by us and provided to Council (letter dated 6 October 2015). The assessment found that with either traffic signals or a roundabout at the site access onto Governor Macquarie Drive, the intersection would operate at a satisfactory level of service in the AM/PM peak periods.

Summary

17. In summary the matters raised by Mr & Mrs van de Bos with respect to traffic impacts of the proposed development have been appropriately addressed either as part of the DA or through previous work undertaken during the rezoning of the subject and other sites in the area. In particular, we note that
- the proposed parking provision is appropriate, taking into account DCP rates, RMS Guidelines and parking provision of other similar developments within Liverpool LGA;
 - the estimates of traffic generation of the proposed warehouse development are consistent with RMS Guidelines and account for appropriate conversion of trucks to PCU's;
 - detailed modeling of the traffic effects of the subject site, other development proposals and background traffic growth was undertaken as part of the rezoning of the subject site; and
 - a package of roadworks has been identified and agreed with RMS/Council (to be funded through a VPA) to accommodate traffic from the proposed developments.

Yours faithfully,
COLSTON BUDD ROGERS & KAFES PTY LTD

A handwritten signature in black ink, appearing to read 'T. Rogers', with a stylized flourish at the end.

T. Rogers
Director