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19 August 2013

Chris Wilson
Executive Director
NSW Department of Planning and Infrastructure
23-33 Bridge Street
SYDNEY NSW 2000

Attention: Ben Lusher

Dear Ben,

**NINE NETWORK AUSTRALIA SITE CONCEPT PLAN MP10_0198 - TRAFFIC
6-30 ARTARMON ROAD, WILLOUGHBY**

Further to our meeting of 16 July 2013, please find attached a copy of the revised Transport and Accessibility Impact Assessment prepared by AECOM in relation to the Preferred Project and in response to the Independent Transport Assessment carried out by Arup. This letter responds to the question of the need for improvements to the Willoughby Road/Artarmon Road/Small Street intersection raised in your letter dated 11 July 2013.

This submission precedes the submission of a Preferred Project Report in order to assist in the Department's assessment of this issue. It is anticipated that the PPR and design scheme will be submitted to the Department in late-August.

1.0 PREFERRED PROJECT

As a result of further analysis of the built form within the site, SJB are in the process of finalising a Preferred Project scheme which proposed 450 dwellings, a 25% reduction from the total of 600 dwellings sought in the exhibited Concept Plan. AECOM's revised assessment finds that there will be a corresponding reduction in impacts on the local road network, with the forecast traffic generation from the Concept Plan site being less than that currently generated by the site in both the AM and PM weekday peak periods.

2.0 WILLOUGHBY RD/ARTARMON RD INTERSECTION UPGRADE

Arup modelled three scenarios for the Willoughby Road/Artarmon Road/Small Street using SIDRA intersection analysis software, being the existing situation; the development of the Nine Network Australia site for 600 dwellings AND the redevelopment of the Willoughby Leisure Centre (WLC); and the future scenario with upgrades to the intersection to provide a northbound right-turn lane and a slip lane for southbound traffic exiting Small Street. The purpose of this upgrade is to improve the performance of the intersection during the weekend peak period which is associated with the use of the netball courts at the WLC during winter.

The proposed intersection upgrades modelled by Arup are those which were proposed by GTA Consultants to support the future development of the WLC as envisaged in Willoughby City Council's Master Plan for the site. Whilst the Master Plan has been drafted and publicly exhibited, this plan has not been finalised or endorsed by Council, and no Development Application for the

site has been lodged. Notwithstanding this, given that the WLC is the key influence on existing congestion issues at the intersection on Saturday mornings and the long-term nature of any Concept Approval, the proponent agrees that it is relevant to take this intersection into account.

3.0 INTERSECTION PERFORMANCE IMPACTS OF PREFERRED PROJECT

With the reduction in the number of dwellings proposed on the Nine Network Australia site, AECOM's updated modelling indicates the following in terms of the Level of Service (LoS) at the Willoughby Road/Artarmon Road intersection post-development:

- AM Weekday Peak:
 - No change from existing LoS B for overall intersection.
 - Improvement in conditions for east-bound traffic exiting Artarmon Road from LoS E (pre-development) to LoS D (post-development).
 - Average delay for east-bound traffic exiting Artarmon Road reduced by approximately 8 seconds.
- PM Weekday Peak:
 - No change from existing LoS B for overall intersection.
 - No change to average LoS for any intersection approach.
- Saturday AM Peak:
 - No change from existing LoS D for overall intersection.
 - Minor decrease in average delays for north-bound and south-bound traffic on Willoughby Road between 8 and 14 seconds.

As a result it can be concluded that the development of the site in accordance with the Preferred Project Report will not significantly impact on general traffic, and will in fact **improve** weekday morning traffic conditions for vehicles entering the intersection from Artarmon Road. The proposal will not significantly impact upon existing weekday evening traffic conditions. Whilst there will not be any significant impact the operation of the intersection during weekday peak periods (i.e. 5 days per week, every week), there will be some adverse impacts upon traffic flow during the Saturday morning peak during netball season (i.e. 1 day per week, half the year) as a result of the proposed development.

4.0 ARUP'S RECOMMENDED INTERSECTION SOLUTION AND ALTERNATIVES

According to Arup's study (based on 600 dwelling and WLC upgrades), the recommended right hand turn and slip-lane intersection upgrades would provide little benefit to the future weekday AM (1.1 second reduction in average delay) or weekday PM (5.7 second reduction in average delay) intersection performance. During Saturday morning peak periods, the proposed upgrade would improve the overall performance of the intersection from either LoS F (based on Arup's review of 600 dwellings) or LoS D (based on AECOM's review of 450 dwellings) to LoS C.

Willoughby City Council's Corporate & Transport Committee Meeting on 6 May 2013 ranked the proposed upgrade to the Willoughby Road/Artarmon Road intersection as only Priority No.41 in terms of other potential intersection improvements within the local government area, based on the cost of the proposed upgrades and the limited overall improvement to traffic flow.

Given the limited benefit (one morning per week, half of the year), and significant cost, involved in the upgrades proposed by Arup, and in light of the reduced traffic load generated by the Preferred Project, AECOM's report has instead recommended an alternate option for improvement of the intersection.

Banning right hand turn movements from Willoughby Road into Artarmon Road on Saturday mornings (as per current weekday arrangements) would improve the current (LoS D) and future (LoS D) operation of the Willoughby Road/Artarmon Road intersection by to achieve LoS C which is considered by the RMS to be 'satisfactory'. The impact of this movement would be to redistribute the less than 20 vehicles per hour that would otherwise undertake the right hand turn movement into Artarmon Road under the future (post-development) scenario to alternate intersections and roads.

This improvement also directly relates to additional traffic generated by the Nine Network Australia sight (i.e. additional traffic turning into Artarmon Road to visit the site), and therefore to the actual impacts of the proposed Concept Plan.

5.0 NEXUS

Of relevance to the nexus between the Concept Plan and the upgrade of the Willoughby Road/Artarmon Road intersection, Arup's assessment concludes that:

"Traffic modelling demonstrates that the Willoughby Road/Artarmon Road intersection currently operates above its operational capacity. The addition of residential traffic results in a significant deterioration in future intersection performance to level of service F. The modelling shows a clear nexus between the intersection performance and the traffic generated from the site."

On the basis of Arup's review, the Department's letter dated 11 July 2013 states that:

"The Department requests that consideration be given to incorporating the necessary intersection upgrades as part of the Concept Plan application."

However, Arup's study has not modelled the impact of residential traffic from the Nine Network Australia site alone, but has also included additional future traffic from the proposed upgrades to the Council-owned WLC. It would therefore be unreasonable for the cost of the recommended intersection upgrades to be borne entirely by the future developer of the Nine Network Australia site when the future deterioration in intersection performance will equally be contributed to by the WLC upgrades.

As noted in Arup's study, the intersection already operates above its current capacity, indicating that the intersection required upgrades irrespective of the proposed developments at either the WLC or Nine Network Australia site. It is further noted that the existing issues associated with the operation of this intersection on Saturday mornings are directly associated with the operation of the Council-owned WLC and associated sports courts.

Willoughby Road is classified as a Main Road administered by the State Government, however, Transport for NSW (who are the agency with responsibility for all state transport matters in NSW) have made no request for any amendments or upgrades to this intersection in their submission on the Concept Plan.

As discussed at **Section 4.0** above, AECOM has recommended an upgrade to the intersection upgrade which is substantially less costly than the upgrade proposed by Arup, and which would allow the intersection to achieve the same level of service (LoS C) on Saturday mornings, which is considered by the RMS to be 'satisfactory'.

In light of the above, it is considered that there is no nexus between the Concept Plan for 450 dwellings on the Nine Network Australia site and the upgrade proposed in Arup's assessment report. It is, however, appropriate that the mitigation measure identified by AECOM involving the banning of right-hand turn movement from Willoughby Road on Saturday mornings toward the Nine Network Australia site on Artarmon Road. This measure addresses the impact of vehicle

movements directly associated with the Concept Plan development and ensures that the Willoughby Road/Artarmon Road will operate at a satisfactory level of service during this peak period.

It is therefore recommended that, should the Department determine to recommend approval of the Nine Network Australia site Concept Plan, the following conditions of approval be included:

- The proponent shall consult with the NSW Roads and Maritime Service to introduce a ban on right-hand turn movements from Willoughby Road into Artarmon Road on Saturday mornings prior to the occupation of any residential dwelling on the site;

6.0 CONCLUSION

The Preferred Project Report for the Nine Network Australia Concept Plan site proposes a substantial reduction in the intensity of residential development on the site, and as a result the impact of the development on the Willoughby Road/Artarmon Road intersection is also reduced.

AECOM has recommended that by banning vehicle movements from turning right onto Artarmon Road towards the Nine Network Australia site, this intersection will be able to operate at Level of Service C with future development, with this service level considered to be satisfactory by the RMS. Whilst there is a clear nexus between this measure and the development of the Nine Network Australia site, the recommendation in Arup's review serves only to improve the movement of vehicles associated with the Willoughby Leisure Centre from Willoughby Road into and out of Small Street, and has no nexus with the Concept Plan scheme.

In light of the above, it is considered that solution proposed by AECOM will satisfactorily address the impact of the proposed Concept Plan on the Willoughby Road/Artarmon Road intersection during Saturday mornings, and restore this intersection to a level of service which is superior to its current operation and is considered satisfactory by the RMS.

Should you have any queries about this matter, please do not hesitate to contact me on 9956 6962 or gkirkby@jbaplanning.com.au.

Yours faithfully



Gordon Kirkby
Director - Approvals