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Our Ref: PH 181110 ELTR.doc
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Landcom
Level 2, 330 Church St
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Dear Paul and David

**Re: Edmondson Park - MP10_0118 & MP10_0119
Response to Issues Raised by Campbelltown Council**

The following information has been prepared to address the noise issues raised by the Campbelltown Council at the Edmondson Park Project in their letter to the Department of Planning.

Their comments and the Wilkinson Murray response are presented in the following sections.

Noise and Vibration Impacts

A review of the noise and vibration impacts for the project revealed a number of areas in both the Concept Plan and the Stage 1 Project Application documents that require further clarification, including:

a. Ambient Noise Levels

1. *The report does not specify whether the noise data was filtered against concurrent weather data (wind speed and rain) and how this may have affected the noise monitoring results.*

Weather conditions were suitable for noise measurements with the exception of Sunday 26 July when rain occurred. This period was excluded in accordance with DECCW procedures. Periods of exclusion are shown in the noise plots in the Appendices where the excluded periods are shown in grey.

2. *Noise data gathered prior to 19 July was taken within school holidays. The report should discuss how noise levels may be affected (in particular with regards to modified traffic flows) and justify if this data is valid.*

Friday the 19 July is the last day of the school holidays. The majority of noise logging was conducted during normal work periods and weekends.

The results of individual daily traffic noise levels were reviewed and no significant change in traffic noise levels, that influenced presented results, is indicated.

Further, given the high traffic flows on the motorway any change in traffic flow as a result of holidays is likely to be acoustically insignificant.

b. Noise and Vibration Criteria

1. The three noise logging locations are concentrated in the southern portion of the site. As a result, the background noise levels and derived construction noise limits may not be representative of receivers located in the northern area of the site.

The assessment of construction noise was conducted against noise objectives based on the project application for the Stage 1 application only. The construction noise objectives for this site are based on background noise levels measured in the southern area.

It is acknowledged that the background noise levels at the northern end of the site have not been measured. As no construction noise assessment of the northern area of the development has been conducted it is envisaged that additional ambient noise monitoring will be conducted at the northern end of the site when project applications are submitted in the future. These measurements will confirm site specific construction noise objectives for these areas.

2. Table 4-4 offers an interpretation of external rail and road noise criteria, which is not explicitly supported by the Department of Planning Development Near Rail Corridors and Busy Roads – Interim Guideline.
 - a. For road noise, it would be more appropriate to refer to the Department of Environment, Climate Change and Water (DECCW) Environmental Criteria for Road Traffic Noise to address external criteria and the requirements for ventilation.

The “Department of Planning Development Near Rail Corridors and Busy Roads – Interim Guideline”, provides guidance on the application of the State Infrastructure SEPP. This SEPP has been gazetted and is a mandatory requirement by law. Therefore compliance with the internal noise criteria and associated ventilation requirements of this SEPP is applicable to the development.

It is noted that the addition of 10 dB to determine an equivalent windows open external noise criteria is consistent with the ECTRN.

In the case of ventilation the ECTRN does not specify criteria for ventilation however Section 3.6 of the SEPP Guideline states “*If internal noise levels with windows or doors open exceed the criteria by more than 10dBA, the*

design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia". It should be noted that the ventilation criteria presented in Table 4-4 is external noise criteria.

Therefore the criteria presented in Table 4-4 are considered applicable to the site.

- b. For rail noise, the noise objectives outlined in RailCorp Environment Protection Licence (EPL 12208) could be referred to.

As with road noise, the criteria of the Infrastructure SEPP are applicable for receivers potentially affected by future rail noise.

The Railcorp EPL 12208 is applied to the operator of the railway line, not surrounding receivers. It is also noted that these licence conditions are not consistent with the Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (IGANRIP) criteria upon which the Environmental Assessment for the SWRL was based.

3. Section 4.4 of the report outlines a rail vibration criterion of 108dBA re 10-9 m/sec based on the findings of the South West Rail Link Environmental Assessment (SWRL EA). As it is unusual to apply the A-weighting network to rail vibration levels, and as such, it is assumed that this is a typographic error and the limit should read 108dB re 10⁻⁹ m/sec. Regardless, Development Near Rail Corridors and Busy Roads – Interim Guideline states the following:
 - a. *"Vibration levels such as the intermittent vibration emitted by trains should comply with the criteria in Assessing Vibration: a technical guideline (DECC 2006). The standards used for assessing the risk of vibration damage to structures are German Standard DIN 4150 Part 3 1999 and British Standard BS 7385 Part 2 1993. Human comfort is normally assessed with reference to the above British Standard or Australian Standard AS 2670.2 1990".*

Therefore it is recommended that the rail vibration criteria be revised accordingly.

The EA technical paper, prepared by Heggies, on rail noise and vibration for the SWRL has been reviewed by us to determine if the impact of rail vibration is likely be acceptable with respect to the amenity of occupants of developments adjacent to the rail corridor.

Wilkinson Murray is in general agreement with the findings of Heggies in their assessment. This agreement is predicated on the predictions of Heggies being correct.

The criterion of 108 dB re 10⁻⁹ m/sec has been proposed by Heggies based with some reference to the IGANRIP VDV criteria which also

references AS2670. This is consistent with the council recommendations above.

c. Road Noise Impacts

1. The report should outline the origin of the traffic data used in the modelling. It should also discuss whether the topographic contours include the earthworks associated with the widening of the motorway.

Traffic data is based on data provided the project traffic consultant, AECOM.

2. It should be noted that split source heights should be considered where the percentage of heavy vehicles exceed 10 per cent to account for heavy vehicle exhaust noise. This may not be feasible using CoRTN and the report does not provide details on this issue.

The noise modelling using CoRTN split traffic into cars and heavy vehicles. The heavy vehicles were modelled using 2 source heights one at 1.5 m for the engine/wheels and one at 3.6 m for the exhaust.

d. Stage 1 Report

Comments on the Stage 1 Report are generally the same as for the Concept Plan Report, where applicable. Additional comments are as follows:

1. The report states that whilst the SWRL is to cross the northern end of the site, it is sufficiently remote from the Stage 1 area such that noise and vibration from its operation is not of significance. The report should further justify this statement by outlining what type of land use is planned to be located in the vicinity of the rail corridor.

A review of the EA for the SWRL indicates the Stage 1 site is well beyond the area of potential rail noise and vibration affectation. There is no predicted adverse impact from rail operations with no development on the land between Stage 1 and the rail corridor. Any development on the intervening land will only serve to further reduce rail noise levels.

2. With regards to Figure 3-1, Logger location B in the Stage 1 Report appears to be different to Logger location B in the Concept Plan Report. However, noise logging results are exactly the same in both reports. It should be clarified whether this is a coincidence or an oversight.

The logger location B in both reports is the same location. The location shown in Figure 3-1 of the Stage 1 Project Application is the correct location on the aerial. The location B shown in Figure 3-1 of the concept report is a graphical error.

3. The construction noise assessment is based on a total Leq sound power level of 116dB(A). It is unclear how this was derived from the Table 5-1 L_{max} sound power levels.

The estimate of overall noise levels of construction was determined by summing a number of the louder construction equipment to determine an indicative overall site construction noise level.

It has been assumed that L_{Aeq} noise levels of continuous plan are atypically 3 dB lower than the maximum equipment noise levels.

At this early stage of the project the exact construction methodology is not known and will not be determined until the successful contractor is appointed.

4. As houses within Stage 1 were modelled indicatively, it would be appropriate to discuss road noise mitigation in a more general manner, such as was done in the Concept Plan Report. This would allow consideration of a wider range of options.

Noted.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

WILKINSON MURRAY



Brian Clarke

Senior Associate

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