

Mr Ronan Pringle  
Village Building Company  
Argyle Corner, 92 Hoskins Street  
Mitchell  
ACT 2911

1 May 2020

Reference: 0523454

Dear Ronan,

**Subject: Review of Noise assessments completed for Capital Asphalt Plant, Hume ACT**

## 1. INTRODUCTION

ERM Australia Pacific Pty Ltd (ERM) has been commissioned by Village Building Company (VBC) to review Capital Asphalt Services Pty Ltd (Capital) revised noise assessment completed for Development Application (Application Number 201936510) for the proposed asphalt plant located at Block 67 Section 22, Hume, ACT ("the proposed asphalt plant"), lodged in December 2019.

In February 2020, ERM provided a letter report that reviewed the noise aspects associated with the proposed asphalt plant "*Letter of submission for DA 201936510 – Capital Asphalt Plant, Hume ACT*" (ERM, 2020). In response to the issues raised by ERM regarding the adequacy of the air quality and noise assessments, Capital have now provided supplementary documentation for the assessment of potential noise impacts of the proposed asphalt plant.

This letter report provides a review of noise aspects associated with the proposed asphalt plant, now referencing:

- Proposed Asphalt Plant, Hume: 5 Paspaley Street (Block 67 Section 22) Proposed Asphalt Plant Noise Management Plan ("Capital NMP") (SLR 2019);
- Letter of submission for DA 201936510 – Capital Asphalt Plant, Hume ACT (ERM, 2020); and
- Proposed Asphalt Plant, Hume: 5 Paspaley Street (Block 67 Section 22) Proposed Asphalt Plant Noise Management Plan ("Capital NMP") (SLR 2020).

### 1.1 Background

In 2012 the then Queanbeyan City Council rezoned land now referred to as South Jerrabomberra for residential purposes under the Queanbeyan Local Environmental Plan (South Tralee) 2012. South Jerrabomberra, previously known as South Tralee, is located in NSW and will be home to 1,500 residences once developed. South Jerrabomberra abuts the NSW/ACT border and on the ACT side of the border is Hume Industrial Estate. A 'buffer area' to the Hume Industrial Estate will be developed up to 200m into the South Jerrabomberra land area incorporating land uses permissible in the RE2 and B1 zones

Contained within the Hume Industrial Estate is the existing Downer EDI asphalt plant. There is concern that the development of another asphalt plant in Hume Industrial Estate in addition to the continued operation to the existing Downer EDI asphalt plant could lead to adverse noise impacts at the future residences of South Jerrabomberra.

The locations of the proposed asphalt plant, the existing Downer EDI asphalt plant and the VBC site (South Jerrabomberra) are shown in Figure 1-1.



Figure 1-1: Study area

## 2. ENVIRONMENTAL ASPECTS REVIEW

### **Issue 1: The Noise Management Plan for the proposed asphalt plant does not provide a clear delineation of noise impact across the South Jerrabomberra site.**

As discussed in Section 1.1, the Hume Industrial Estate abuts the NSW border where the zoned urban area of South Jerrabomberra is located. South Jerrabomberra is zoned for 1,500 residential dwellings and as such should be considered in the assessments of air quality and noise impacts.

The previous Noise Assessment (SLR, 2019) only considered a single residence on the NSW side of the NSW/ACT border, with no exact location provided in co-ordinates or its location on a map. In its review of the 2019 SLR Noise Management Plan (ERM, 2020), ERM recommended that SLR "*should consider all current and future sensitive land use locations located in the vicinity of the proposed asphalt plant, including South Jerrabomberra.*"

The latest Noise Assessment (SLR, 2020) includes a single receptor within the South Jerrabomberra site area. In addition, the location of the receptor within the NSW side of the NSW/ACT border still remains unknown, with no co-ordinates or location indicated on a map provided.

The South Jerrabomberra project site covers a significant area to the north east, east and south east of the NSW/ACT border. Additionally the proposed South Jerrabomberra site is located on the side of a hill which overlooks the proposed Asphalt plant. The placement of a sensitive receptor at the closest point to the proposed asphalt plant may or may not show the worst predicted impacts for the South Jerrabomberra site. It is noted that the latest Noise Assessment predicts there will be a marginal exceedance of the night-time noise standard at the receptor within the South Jerrabomberra site area. At present, the location and size of the area where this exceedance would exist is unknown. A visual representation of the range in predicted noise impacts, such as a noise contour map, would help highlight any areas of predicted exceedances at South Jerrabomberra.

*Recommendation 1: Predictions of noise impacts should consider sensitive receptors at multiple locations within the South Jerrabomberra site plan. Visual representations of the noise impacts in the form of a contour map should be provided.*

### **Issue 2: The proposed asphalt plant does not provide a clear explanation on the noise sources and assumptions adopted for daytime and night-time noise impact predictions.**

In the previous noise impact assessment (SLR, 2019), there was no assessment of sleep disturbance. This was highlighted in the assessment review (ERM, 2020), and has been addressed the latest noise assessment (SLR, 2020).

The latest noise assessment (SLR, 2020) has adopted a single 'worst-case' scenario in its noise modelling. This scenario assumes that during the day-time phase, all sources occur at the same time.

For the night-time period, the assessment states that "*either the asphalt plant or the mobile plant would be operating during the night period*". This has been interpreted as meaning that either the asphalt plant or the mobile plant (trucks/ front-loaders, etc) will be operational, but not concurrently during the night time period.

SLR have presented a range of results for predicted night-time noise impacts at each receptor, shown in Table 2.1.

**Table 2.1: Predicted asphalt plant noise levels and assessment (SLR, 2020)**

Assessment Location	Address	Zone Noise Standard, dBA LA10(10minute)		Predicted Noise Level, dBA LA10(10minute)	
		Day	Night	Day	Night
1	99 Tralee Street	65	55	66	58 – 66
2	1 Paspaley Street	65	55	67	59 – 67
3	6 Paspaley Street	65	55	47	43 – 46
4	9 Paspaley Street	65	55	67	60 – 63
5	"Rose Cottage"	65	55	33	27 – 31
6	Residence on NSW land, Tralee	45	35	40	33 – 36

It is assumed that the range in night time noise impacts is due to either the asphalt-plant being operational, or the mobile plant being operational. The assumption then follows, that by adding these two values together the 'worst-case' predicted noise impact (i.e full asphalt-plant *and* mobile-plant operations) would be determined.

For example, at receptor 6, the predicted night-time noise levels range from 33 – 36 dBA LA<sub>10</sub>. Added together, this creates a predicted noise level of 38 dBA LA<sub>10</sub>, which is less than the 40 dBA LA<sub>10</sub> predicted for day-time ('worst-case' which assumes both asphalt plant and mobile plant are fully operational together).

There may be other differences in operations, which are not clear in the report

*Recommendation 2: The assessment assumptions adopted for the night-time scenario should be clarified or expanded upon to provide certainty in the results.*

### **Issue 3: The noise impact assessment for the proposed asphalt plant has not considered noise enhancing meteorological conditions in its modelling**

The noise assessment (SLR, 2020) has used modelling to predict noise levels associated with the proposed asphalt plant. Under Section 4.3.2 of the report (*Modelling Procedures and Information*), the report states that as the assessment locations are very near to the proposed asphalt plant and associated noise sources, meteorological conditions would have very little influence on noise propagation. As such, for the assessment, the effect of neutral meteorological conditions only have been considered.

ERM agree that at close distances up to several hundred metres (m), meteorological conditions do not significantly influence receiver noise levels. However, at a separation distances of 600m it is anticipated that winter temperature inversion conditions may increase noise levels by several (2 - 4) dB compared with a neutral weather condition scenario. As temperature inversions often form at night-time within the Canberra basin, these conditions should be considered as part of the assessment.

*Recommendation 3: Modelling of noise impacts at the site should consider meteorological parameters, particularly temperature inversions, to identify potential noise impacts which could typical occur throughout the year in the project area.*

Do not hesitate to contact the undersigned, if you would like any additional clarification.

Yours sincerely,



Aaron McKernan  
Principal - Annette