

Midland Highway - Perth Link Roads

Post Construction Noise Assessment – Summary Report

February 2021



Project information

The Midland Highway Perth Links Road Project (Project) involved constructing a 4-lane dual carriageway highway (approximately 4.5 km long), with a roundabout at the southern entrance to Perth, a high-speed system interchange at Illawarra Road and access ramps at the northern end of Perth. The Project was completed in June 2020.

Why was the noise assessment carried out?

In October 2020, following concerns from community members, engineering consultant GHD were engaged by the Department of State Growth to undertake a post-construction noise assessment to confirm if current traffic noise levels are consistent with predictions made during the design of the Project.

How was the assessment carried out?

In Tasmania, the Department's *State Noise Strategy* and *Tasmanian State Road Traffic Noise Management Guidelines* set the target criteria for traffic noise from State Roads and guide how traffic noise from State Roads is managed.

The NSW Government's *Post-Construction Noise Assessment Procedure* was used to verify if current traffic noise levels were consistent with the design phase noise assessment.

The procedure outlines how comparisons can be made between:

- The design phase noise model.
- Predicted noise levels from the post-construction noise model; and
- Actual measured noise levels.

To understand noise levels after construction, noise monitoring was conducted at nine homes near the Project. Loggers were deployed between 15 October and 4 November 2020 to measure current road traffic noise levels.

Due to the reduced traffic volumes associated with COVID-19, road traffic volumes were also logged during the same period. Traffic count data was used to indicate total volumes, speeds and heavy vehicle percentages. This data was used to provide updated traffic volumes for the noise model.

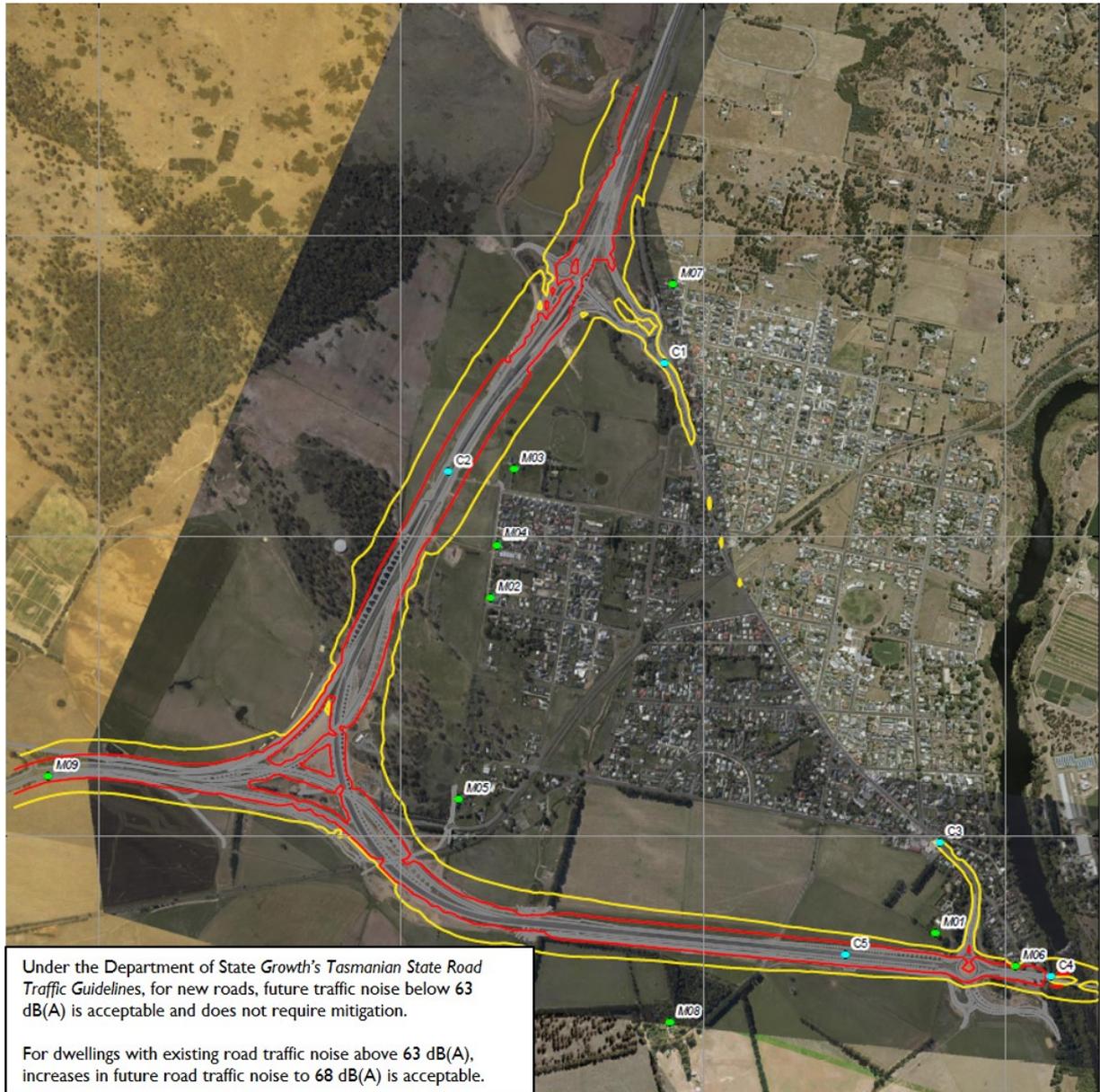
A post-construction noise model was developed from the final design drawings, the noise measurements and updated traffic volumes. Validation testing was undertaken to determine the accuracy of the noise model. The results indicate the modelled predictions correlate with the measured results, and the post-construction noise model is suitable for assessment purposes.

The post-construction noise model considered noise levels 10 years into the future, recognising the incremental growth in traffic volume that will occur over this period (as did the design phase noise assessment).

What are the results of the assessment?

The post-construction noise modelling results showed:

- **Actual noise levels are typically lower than predicted in the design phase noise assessment**, provided to Northern Midlands Council as part of the Planning Permit process. These lower than forecast noise levels are due to conservative assumptions made in the design phase noise assessment. For example, in the design phase model, it was assumed that a louder pavement material would be used than was actually constructed.
- Comparison of the design phase and post-construction noise assessment results are within an acceptable range of each other, and the design stage assessment is considered acceptable. This means no additional houses require noise mitigation treatment under the Department's guidelines.
- A review of the homes was also undertaken to determine if the 10-year future traffic noise (in 2030) would increase the existing background noise by more than 15 dB. No homes triggered this traffic noise criteria.



- Traffic counter locations **Post-construction noise modelling results** ——— Perth Link Roads Design
● Noise logger locations ——— 63 dBA contour
— 68 dBA contour

What happens now

- Under the Department's guidelines, no additional houses require noise mitigation treatment.

Where can I find out more details?

- The Department's *State Noise Strategy and Tasmanian State Road Traffic Noise Management Guidelines* can be found [here](#) or by visiting the following URL:
https://www.transport.tas.gov.au/_data/assets/pdf_file/0017/111527/DSG_Traffic_Noise_Guidelines_20151029.PDF
- The Environment Protection Policy (Noise) (2009) can be found by visiting the following URL:
https://epa.tas.gov.au/Documents/EPP_Noise_2009.pdf
- NSW Government's *Post Construction Noise Assessment Procedure* (Roads and Maritime, 2017)

Who can I contact?

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