

Our Ref: ATP170617-AA-01\_Everleigh Precinct 1.5

Enquiries to: Sasho Temelkoski

26 August 2020

MIRVAC Masterplanned Communities Riverside Centre Level 17, 123 Eagle Street BRISBANE QLD 4000

**Attention: Desmond Leong** 

Via e-mail: desmond.leong@mirvac.com

Dear Sir.

## Re: Everleigh Estate, Precinct 1.5 (Allotments 1241 to 1251) Advice on the Acoustic Design Requirements for Low-set and High-Set Houses

The master planned Everleigh Estate has been subject of detailed acoustic assessment at development approval stage and there are a number of traffic noise mitigation measures implemented in the design and construction of this estate to ensure high quality noise amenity for the residents.

Precinct 1.5 of Everleigh Estate comprises of number of allotments which are located at significant setback from Teviot Road and Everleigh Drive, thus are not affected by traffic noise emissions and standard construction is applicable to most allotments within this precinct.

Only allotments 1241 to 1251 are affected by traffic noise emissions from Everleigh Drive and thus require upgrade to the building façade to ensure protection of the internal noise amenity.

The traffic noise levels on the most exposed façade (ground and first floor) of the future dwellings facing Everleigh Drive on the allotments 1241 to 1251 and the corresponding QDCMP4.4 Noise Categories are summarised in Table 1.1.



Table 1.1 Traffic Noise Level and Coresponding QDCMP4.4 Noise Categories

Lot Number	Floor Level	Traffic Noise L <sub>10,18hr</sub> dB(A)	QDCMP4.4 Noise Category
1241	Ground	65	Noise Category 2
	First	66	Noise Category 2
1242	Ground	65	Noise Category 2
	First	66	Noise Category 2
1243	Ground	65	Noise Category 2
	First	66	Noise Category 2
1244	Ground	65	Noise Category 2
	First	66	Noise Category 2
1245	Ground	65	Noise Category 2
	First	66	Noise Category 2
1246	Ground	65	Noise Category 2
	First	66	Noise Category 2
1247	Ground	65	Noise Category 2
	First	66	Noise Category 2
1248	Ground	64	Noise Category 2
	First	66	Noise Category 2
1249	Ground	64	Noise Category 2
	First	66	Noise Category 2
1250	Ground	64	Noise Category 2
	First	66	Noise Category 2
1251	Ground	64	Noise Category 2
	First	66	Noise Category 2

The future dwellings (low-set or high-set) on allotments 1241 to 1251 are impacted by traffic noise corresponding with QDCMP4.4 Noise Category 2, therefore architectural treatment is required to the dwelling facades.

There are two options available for architectural treatment to the building façades, as follows:

• **Option 1:** Implementation of the 'acceptable forms of construction' specified in Queensland Development Code (QDC) Mandatory Part 4.4 (*Buildings in a Transport Noise Corridor*) for Noise Category 2; or



• **Option 2:** Floor plan specific acoustic design, in accordance with AS3671-1989, to ensure compliance with the internal noise criteria.

Please note that the acceptable forms of construction as specified in Schedule 2 of QDCMP4.4 are highly conservative with costly design requirements, particularly for the windows. Cost-effective design solutions can be provided if floor plan specific acoustic design report is prepared as per AS3671-1989. The procedure for calculating the weighted sound reduction indices (R<sub>w</sub>) accounts for directivity, thus lesser design requirements are applicable to the facades which are not directly facing the road.

Should you have any questions about the QDCMP4.4 noise categories applicable to allotments 1241 to 1251 or require floor plan specific acoustic design report, please do not hesitate to contact our office on (07) 5593 0487.

Yours faithfully

Sasho Temelkoski MIEAust CPEng RPEQ MAAS

Managing Director and Principal Engineer

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