

Our Ref: ATP170617-AA-01\_Precinct 12 and Precinct 1 (North)  
Enquiries to: Sasho Temelkoski

12 January 2021

MIRVAC Masterplanned Communities  
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**Attention: Desmond Leong**

**Via e-mail: [desmond.leong@mirvac.com](mailto:desmond.leong@mirvac.com)**

Dear Sir,

**Re: Everleigh Estate, Precinct 12 and Portion of Precinct 1 North of Everleigh Drive  
– 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.

The upper floors (First Floors) of future high-set dwellings at the allotments adjacent to Teviot Road are affected by traffic noise and thus require upgrade to the building façade to ensure protection of the internal noise amenity.

This letter summarises the traffic noise levels and corresponding QDC MP4.4 Noise Categories applicable to the future dwellings at the following allotments which are affected by road traffic noise:

- Lots 2001-2003 & 2026 (Precinct 1); and
- Lots 2004-2014, 2025, 2041 & 2053-2055 (Precinct 12).

The traffic noise levels on the most exposed façade of the First Floor of future high-set dwellings and the corresponding QDC MP4.4 Noise Categories are summarised in Table 1.1.

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**Table 1.1 Traffic Noise Level and Corresponding QDC MP4.4 Noise Categories**

Precinct	Lot Number	Floor Level	Traffic Noise L <sub>10,18hr</sub> dB(A)	QDC MP4.4 Noise Category
P1	Lot 2001	First	68	Noise Category 3
P1	Lot 2002	First	68	Noise Category 3
P1	Lot 2003	First	68	Noise Category 3
P12	Lot 2004	First	68	Noise Category 3
P12	Lot 2005	First	68	Noise Category 3
P12	Lot 2006	First	68	Noise Category 3
P12	Lot 2007	First	68	Noise Category 3
P12	Lot 2008	First	68	Noise Category 3
P12	Lot 2009	First	67	Noise Category 2
P12	Lot 2010	First	67	Noise Category 2
P12	Lot 2011	First	66	Noise Category 2
P12	Lot 2012	First	66	Noise Category 2
P12	Lot 2013	First	66	Noise Category 2
P12	Lot 2014	First	68	Noise Category 3
P12	Lot 2025	First	64	Noise Category 2
P1	Lot 2026	First	64	Noise Category 2
P12	Lot 2041	First	64	Noise Category 2
P12	Lot 2053	First	68	Noise Category 3
P12	Lot 2054	First	65	Noise Category 2
P12	Lot 2055	First	65	Noise Category 2

Due to the noise barrier along Teviot Road, the traffic noise levels at the Ground Floors are low. In accordance with the DA acoustic report prepared for Everleigh Estate, there are no acoustic requirements for the Ground Floors of the allotments within Precinct 12 and the portion of Precinct 1 located north of Everleigh Drive. Standard construction is acceptable for the Ground Floors.

Future high-set dwellings listed in Table 1.1 are impacted by traffic noise corresponding with QDC MP4.4 Noise Category 2 or 3 on the upper floor (First Floor). Therefore architectural treatment is required to the dwelling facades on the First Floor.

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 the relevant Noise Category; 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 for Noise Categories 2 and 3 as specified in Schedule 2 of QDC MP4.4 are highly conservative with costly design requirements, particularly for the windows. For the upper floors of the future dwellings, cost-effective design solutions can be provided if floor plan specific acoustic design report is prepared as per AS3671-1989 (Option 2). The procedure for calculating the weighted sound reduction indices ( $R_w$ ) 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 QDC MP4.4 noise categories, or require floor plan specific acoustic design report, please do not hesitate to contact our office on (07) 5593 0487.

Yours faithfully



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Managing Director and Principal Engineer