NOISE MEASUREMENT SERVICES

Noise Assessment Report
42A Bognuda Street
Bundamba QLD 4304
Lot 900 on SP250861
Addendum to Report 1850 R4

Report No 7730_2 ***11th June 2025***

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Executive Summary

This Addendum Report is prepared in response to a request from Goodrock Property to update a previous noise impact assessment to reflect the current (updated) proposed subdivision layout at 42A Bognuda Street, Bundamba (Lot 900 on SP270961, the site is also known as Stage 6C and 6D of the Citiswich Masterplan).

The most recent version of the original noise impact assessment for the site is report number 1850 R4 prepared by Noise Measurement Services and dated 22 August 2013. This Addendum Report presents updated results and conclusions that are based on the current proposed subdivision layout, while the assessment methodology remains unchanged and is detailed in the original report.

The assessment considers noise from road traffic on the Warrego Highway, Bognuda Street and River Road, and nearby industrial sources including the Advanced Water Treatment Plant to the west, and existing and possible future industrial uses to the north and east. The noise prediction models from the original assessment have been recalculated to receiver points representing the updated subdivision layout. Results from the updated noise model, and assessment as per the methodology of the original noise impact assessment is presented in **Section 2**.

Conclusions and Recommendations

It is concluded that:

- The residential properties within the proposed subdivision at 42A Bognuda Street can achieve the noise amenity requirements of Council and State Government without significant noise mitigation. Some noise from the adjacent industrial or services industries will be audible at some locations, however.
- Future dwellings on Lots 1 – 12 and 88 – 90 (inclusive) may require acoustic design and construction.

It is recommended that:

- The future dwellings on Lots 1 – 12 and 88 – 90 (inclusive) are constructed to meet the minimum construction requirements as detailed in **Section 2** of this Report.

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0	27/03/2025	Draft Report for Consideration	MD	MT
1	31/03/2025	Noise contour maps added	MD	MT
2	11/06/2025	Updated subdivision plan	MD	MD

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REPORT FOR **Goodrock Property**

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Signed

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1. Background

This Addendum Report is prepared in response to a request from Goodrock Property to update a previous noise impact assessment to reflect the current (updated) proposed subdivision layout at 42A Bognuda Street, Bundamba (Lot 900 on SP270961, the site is also known as Stage 6C and 6D of the Citiswich Masterplan).

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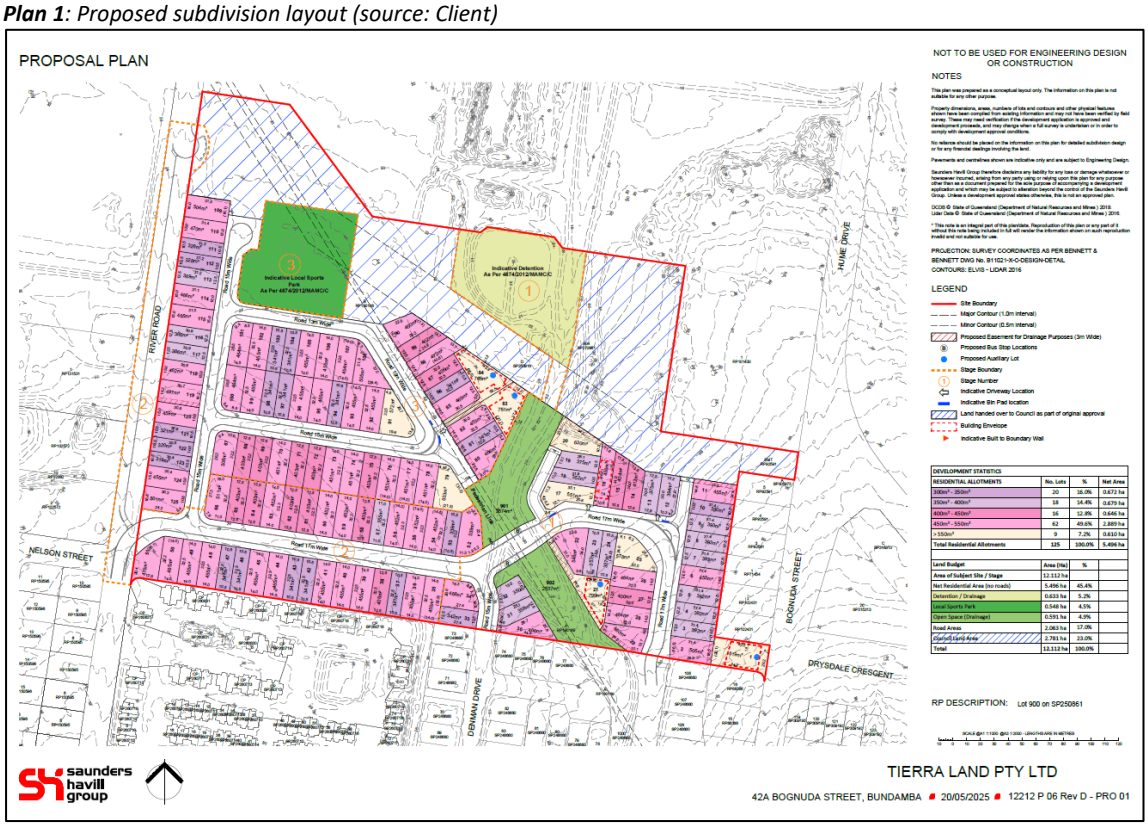
The assessment considers noise from road traffic on the Warrego Highway, Bognuda Street and River Road, and nearby industrial sources including the Advanced Water Treatment Plant to the west, and existing and possible future industrial uses to the north and east. The noise prediction models from the original assessment have been recalculated to receiver points representing the updated subdivision layout. Results from the updated noise model, and assessment as per the methodology of the original noise impact assessment is presented in **Section 2**. The proposed subdivision plan is presented in **Plan 1**.

***Plan 1**: Proposed subdivision layout (source: Client)*



2. Cumulative Noise Assessment

The cumulative noise from existing and future sources of noise is predicted at ground and first floor height for each Lot. Modelled noise sources include road traffic on the Warrego Highway, Bognuda Street and River Road, and nearby industrial sources including the Advanced Water Treatment Plant to the west, and existing and possible future industrial uses to the north and east.

Further details of the noise model are presented in the original noise impact assessment report. Predicted noise levels from the road traffic and environmental (industry) models are presented in **Table 1**, with the Design sound level being the highest of the two results. Visual noise contours are presented in **Appendix B**.

The Noise Category is assigned in accordance with the Queensland Development Code Mandatory Part 4.4 and construction requirements are presented in **Appendix A**.

Table 1: *Predicted noise levels from road traffic and industrial sources, and corresponding Noise Category. Levels are in dB(A) L_{10} and are façade adjusted.*

Lot	Ground Floor				First Floor (highset)			
	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category
1	66	64	66	**2**	68	63	68	**3**
2	57	60	60	**1**	59	60	60	**1**
3	57	60	60	**1**	59	60	60	**1**
4	58	59	59	**1**	60	60	60	**1**
5	58	59	59	**1**	60	59	60	**1**
6	58	59	59	**1**	59	59	59	**1**
7	57	59	59	**1**	59	59	59	**1**
8	57	59	59	**1**	59	59	59	**1**
9	57	59	59	**1**	59	59	59	**1**
10	57	59	59	**1**	59	59	59	**1**
11	57	60	60	**1**	59	59	59	**1**
12	55	58	58	**1**	56	58	58	**1**
13	54	57	57	**0**	56	57	57	**0**
14	54	57	57	**0**	55	57	57	**0**
15	54	57	57	**0**	55	57	57	**0**
16	53	57	57	**0**	55	56	56	**0**
17	53	56	56	**0**	54	56	56	**0**
18	53	56	56	**0**	54	56	56	**0**
19	53	56	56	**0**	54	56	56	**0**
20	53	56	56	**0**	54	56	56	**0**
21	54	56	56	**0**	55	56	56	**0**
22	53	56	56	**0**	54	56	56	**0**
23	53	56	56	**0**	55	56	56	**0**
24	54	56	56	**0**	55	56	56	**0**
25	54	57	57	**0**	56	57	57	**0**
26	55	57	57	**0**	56	57	57	**0**
27	55	57	57	**0**	56	57	57	**0**
28	55	57	57	**0**	56	57	57	**0**
29	55	57	57	**0**	56	57	57	**0**
30	52	54	54	**0**	54	55	55	**0**
31	52	54	54	**0**	53	54	54	**0**
32	52	54	54	**0**	53	54	54	**0**
33	52	53	53	**0**	53	53	53	**0**
34	52	53	53	**0**	53	53	53	**0**
35	52	53	53	**0**	52	53	53	**0**

Lot	Ground Floor				First Floor (highset)			
	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category
36	52	52	52	**0**	52	53	53	**0**
37	51	53	53	**0**	52	52	52	**0**
38	51	52	52	**0**	52	52	52	**0**
39	51	52	52	**0**	52	52	52	**0**
40	51	52	52	**0**	52	52	52	**0**
41	51	51	51	**0**	52	51	52	**0**
42	51	51	51	**0**	52	51	52	**0**
43	51	51	51	**0**	52	51	52	**0**
44	51	51	51	**0**	52	51	52	**0**
45	51	51	51	**0**	52	51	52	**0**
46	51	50	51	**0**	52	51	52	**0**
47	50	50	50	**0**	51	51	51	**0**
48	47	50	50	**0**	48	50	50	**0**
49	47	50	50	**0**	49	50	50	**0**
50	48	50	50	**0**	50	50	50	**0**
51	51	49	51	**0**	52	49	52	**0**
52	52	54	54	**0**	53	54	54	**0**
53	52	53	53	**0**	53	54	54	**0**
54	51	53	53	**0**	52	54	54	**0**
55	52	53	53	**0**	52	53	53	**0**
56	52	53	53	**0**	52	53	53	**0**
57	51	53	53	**0**	52	53	53	**0**
58	51	53	53	**0**	52	53	53	**0**
59	51	53	53	**0**	52	53	53	**0**
60	51	53	53	**0**	52	52	52	**0**
61	51	52	52	**0**	52	52	52	**0**
62	51	52	52	**0**	52	52	52	**0**
63	51	52	52	**0**	52	52	52	**0**
64	51	52	52	**0**	52	52	52	**0**
65	51	52	52	**0**	52	51	52	**0**
66	51	51	51	**0**	52	51	52	**0**
67	51	52	52	**0**	52	52	52	**0**
68	51	52	52	**0**	52	52	52	**0**
69	51	52	52	**0**	52	52	52	**0**
70	51	53	53	**0**	52	53	53	**0**
71	51	53	53	**0**	52	53	53	**0**
72	51	53	53	**0**	52	53	53	**0**
73	51	53	53	**0**	52	53	53	**0**
74	51	53	53	**0**	52	54	54	**0**
75	52	54	54	**0**	52	54	54	**0**
76	52	54	54	**0**	52	54	54	**0**
77	52	54	54	**0**	52	54	54	**0**
78	52	54	54	**0**	53	54	54	**0**
79	52	54	54	**0**	53	54	54	**0**
80	52	55	55	**0**	53	55	55	**0**
81	52	55	55	**0**	53	56	56	**0**
82	52	55	55	**0**	53	56	56	**0**
83	52	56	56	**0**	53	57	57	**0**
84	52	57	57	**0**	53	57	57	**0**
85	52	56	56	**0**	53	56	56	**0**
86	52	57	57	**0**	53	57	57	**0**
87	52	57	57	**0**	53	57	57	**0**

Lot	Ground Floor				First Floor (highset)			
	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category	Predicted Road Traffic Noise $L_{A10,18hr}$	Predicted Industry Noise L_{A10}	Design Noise Level	MP4.4 Category
88	52	57	57	**0**	53	58	58	**1**
89	52	58	58	**1**	53	58	58	**1**
90	52	58	58	**1**	53	58	58	**1**
91	52	55	55	**0**	53	55	55	**0**
92	52	55	55	**0**	52	55	55	**0**
93	52	54	54	**0**	52	55	55	**0**
94	52	54	54	**0**	52	55	55	**0**
95	51	54	54	**0**	52	54	54	**0**
96	51	54	54	**0**	52	54	54	**0**
97	51	54	54	**0**	52	54	54	**0**
98	51	54	54	**0**	52	54	54	**0**
99	51	53	53	**0**	52	54	54	**0**
100	51	53	53	**0**	52	53	53	**0**
101	51	54	54	**0**	52	54	54	**0**
102	51	54	54	**0**	52	55	55	**0**
103	51	55	55	**0**	52	55	55	**0**
104	51	55	55	**0**	52	55	55	**0**
105	51	55	55	**0**	52	55	55	**0**
106	52	55	55	**0**	52	55	55	**0**
107	52	56	56	**0**	52	56	56	**0**
108	52	56	56	**0**	52	56	56	**0**
109	51	57	57	**0**	52	57	57	**0**
110	51	56	56	**0**	52	56	56	**0**
111	51	56	56	**0**	52	55	55	**0**
112	51	55	55	**0**	52	55	55	**0**
113	51	55	55	**0**	52	55	55	**0**
114	51	54	54	**0**	52	54	54	**0**
115	51	53	53	**0**	52	53	53	**0**
116	51	53	53	**0**	52	53	53	**0**
117	51	53	53	**0**	52	52	52	**0**
118	51	52	52	**0**	52	52	52	**0**
119	51	52	52	**0**	52	52	52	**0**
120	51	52	52	**0**	52	52	52	**0**
121	51	51	51	**0**	52	51	52	**0**
122	51	51	51	**0**	52	51	52	**0**
123	51	51	51	**0**	52	51	52	**0**
124	51	51	51	**0**	52	51	52	**0**
125	48	50	50	**0**	49	50	50	**0**

3. Conclusion and Recommendations

It is concluded that:

- The residential properties within the proposed subdivision at 42A Bognuda Street can achieve the noise amenity requirements of Council and State Government without significant noise mitigation. Some noise from the adjacent industrial or services industries will be audible at some locations, however.
- Future dwellings on Lots 1 – 12 and 88 - 90 (inclusive) may require acoustic design and construction.

It is recommended that:

- The future dwellings on Lots 1 – 12 and 88 - 90 (inclusive) are constructed to meet the minimum construction requirements as detailed in **Section 2** of this Report.

Appendix A: Acoustic Treatment

The assigned noise categories for the proposed Lots include 0, 1 and 2. The requirements for categories 1 and 2 are reproduced in **Table A1**, while acceptable forms of construction are reproduced in **Table A2**. There are no acoustic design requirements for category 0.

Table A1: *Schedule 1 of the Queensland Development Code (reproduced from Version 1.1)*

Noise category	Minimum *transport noise reduction* (*dB (A)*) required for *habitable rooms*	Component of building's *external envelope*	Minimum R_w required for each component
Category 4	40	Glazing	43
		External walls	52
		Roof	45
		Floors	51
		Entry doors	35
Category 3	35	Glazing	38 (where total area of glazing for a habitable room is greater than 1.8m^2)
			35 (where total area of glazing for a habitable room is less than or equal to 1.8m^2)
		External walls	47
		Roof	41
		Floors	45
		Entry doors	33
Category 2	30	Glazing	35 (where total area of glazing for a habitable room is greater than 1.8m^2)
			32 (where total area of glazing for a habitable room is less than or equal to 1.8m^2)
		External walls	41
		Roof	38
		Floors	45
		Entry doors	33
Category 1	25	Glazing	27 (where total area of glazing for a habitable room is greater than 1.8m^2)
			24 (where total area of glazing for a habitable room is less than or equal to 1.8m^2)
		External walls	35
		Roof	35
		Entry doors	28
Category 0	No additional acoustic treatment required – standard building assessment provisions apply.		

Table A2: *Schedule 2 of the Queensland Development Code (reproduced from Version 1.1)*

Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
Glazing	43	Double glazing consisting of two panes of minimum 5mm thick glass with at least 100mm air gap and full perimeter *acoustically rated seals*.
	38	Minimum 14.38mm thick laminated glass, with full perimeter *acoustically rated seals*; OR Double glazing consisting of one pane of minimum 5mm thick glass and one pane of minimum 6mm thick glass with at least 44mm air gap, and full perimeter *acoustically rated seals*
	35	Minimum 10.38mm thick laminated glass, with full perimeter *acoustically rated seals*.
	32	Minimum 6.38mm thick laminated glass with full perimeter *acoustically rated seals*.
	27	Minimum 4mm thick glass with full perimeter *acoustically rated seals*
	24	Minimum 4mm thick glass with standard weather seals
External walls	52	Two leaves of clay brick masonry, at least 270mm in total, with subfloor vents fitted with noise attenuators.
	47	Two leaves of clay brick masonry at least 110mm thick with: (i) cavity not less than 50mm between leaves; and (ii) 50mm thick mineral insulation or 50mm thick glass wool insulation with a density of 11kg/m3 or 50mm thick polyester insulation with a density of 20kg/m^3 in the cavity. OR Two leaves of clay brick masonry at last 110mm thick with: (i) cavity not less than 50mm between leaves; and (ii) at least 13mm thick cement render on each face OR Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) Mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m^3 positioned between studs; and (iii) One layer of plasterboard at least 13mm thick fixed to outside face of studs. OR Single leaf of minimum 150mm thick masonry of hollow, dense concrete blocks, with mortar joints laid to prevent moisture bridging.
	41	Two leaves of clay brick masonry at least 110mm thick with cavity not less than 50mm between leaves OR Single leaf of clay brick masonry at last 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m^3 positioned between studs; and (iii) One layer of plasterboard at least 10mm thick fixed to outside face of studs OR Single leaf of brick masonry at least 110mm thick with at least 13mm thick render on each face

		OR Concrete brickwork at least 110mm thick OR In-situ concrete at least 100mm thick OR Precast concrete at least 100mm thick and without joints.
	35	Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) One layer of plasterboard at least 10mm thick fixed to outside face of studs OR Minimum 6mm thick fibre cement sheeting or weatherboards or plank cladding externally, minimum 90mm deep timber stud or 92mm metal stud, standard plasterboard at least 13mm thick internally.
Roof	45	Concrete or terracotta tile or sheet metal roof with sarking, acoustically rated plasterboard ceiling at least 13mm thick fixed to ceiling joists, cellulose fibre insulation at least 100mm thick with a density of at least 45kg/m^3 in the cavity. OR Concrete or terracotta tile or sheet metal roof with sarking, 2 layers of acoustically rated plasterboard at least 16mm thick fixed to ceiling joists, glass wool insulation at least 50mm thick with a density of at least 11kg/m^3 or polyester insulation at least 50mm thick with a density of at least 20kg/m^3 in the cavity.
	41	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling joists, glass wool insulation at least 50mm thick with a density of at least 11kg/m^3 or polyester insulation at least 50mm thick with a density of at least 20kg/m^3 in the cavity. OR Concrete suspended slab at least 100mm thick.
	38	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling cavity, mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m^3.
	35	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling cavity.
Floors	51	Concrete slab at least 150mm thick.
	45	Concrete slab at least 100mm thick OR Tongued and grooved boards at least 19mm thick with: (i) timber joists not less than 175mm x 50mm; and (ii) mineral insulation or glass wool insulation at least 75mm thick with a density of at least 11kg/m^3 positioned between joists and laid on plasterboard at least 10mm thick fixed to underside of joists; and (iii) mineral insulation or glass wool insulation at least 25mm thick with a density of at least 11kg/m^3 laid over entire floor, including tops of joists before flooring is laid; and (iv) secured to battens at least 75mm x 50mm; and (v) the assembled flooring laid over the joists, but not fixed to them, with battens lying between the joists.
Entry Doors	35	Solid core timber not less than 45mm thick, fixed so as to overlap the frame or rebate of the frame by not less than 10mm, with full perimeter *acoustically rated seals*.
	33	Fixed so as to overlap the frame or rebate of the frame by not less than

		10mm, fitted with full perimeter *acoustically rated seals* and constructed of – (i) solid core, wood, particleboard or blockboard not less than 45mm thick; and/or (ii) acoustically laminated glass not less than 10.38mm thick.
	28	Fixed so as to overlap the frame or rebate of the frame, constructed of – (i) Wood, particleboard or blockboard not less than 33mm thick; or (ii) Compressed fibre reinforced sheeting not less than 9mm thick; or (iii) Other suitable material with a mass per unit area not less than 24.4kg/m^2; or (iv) Solid core timber door not less than 35mm thick fitted with full perimeter *acoustically rated seals*.

Appendix B: Visual Noise Contours

Plate B1: Road traffic noise contours at 1.8m (ground floor height). Levels are in dB(A) L10,18hr and are façade-adjusted.

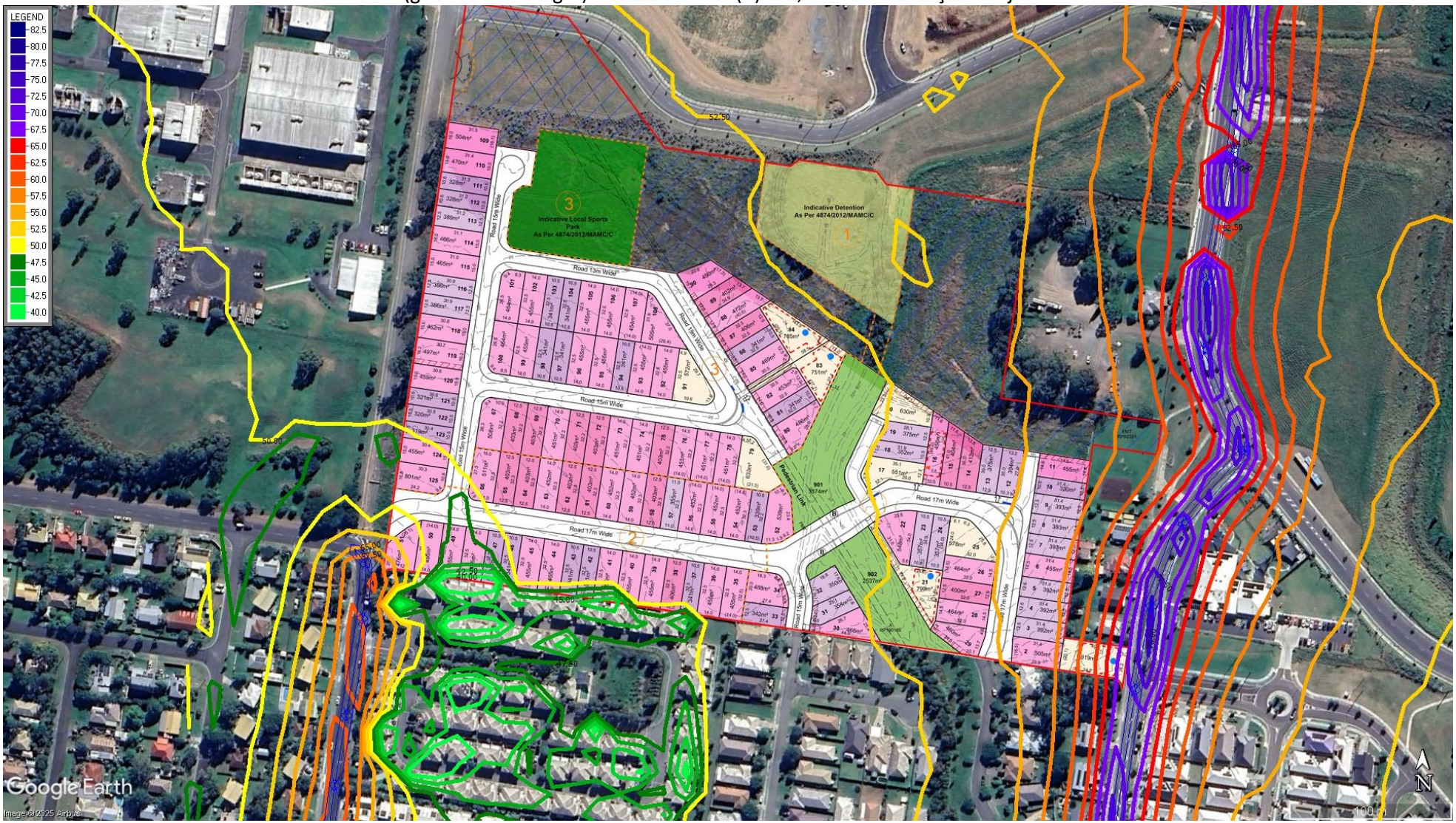


Plate B2: Road traffic noise contours at 4.6m (first floor height). Levels are in dB(A) L10,18hr and are façade-adjusted.

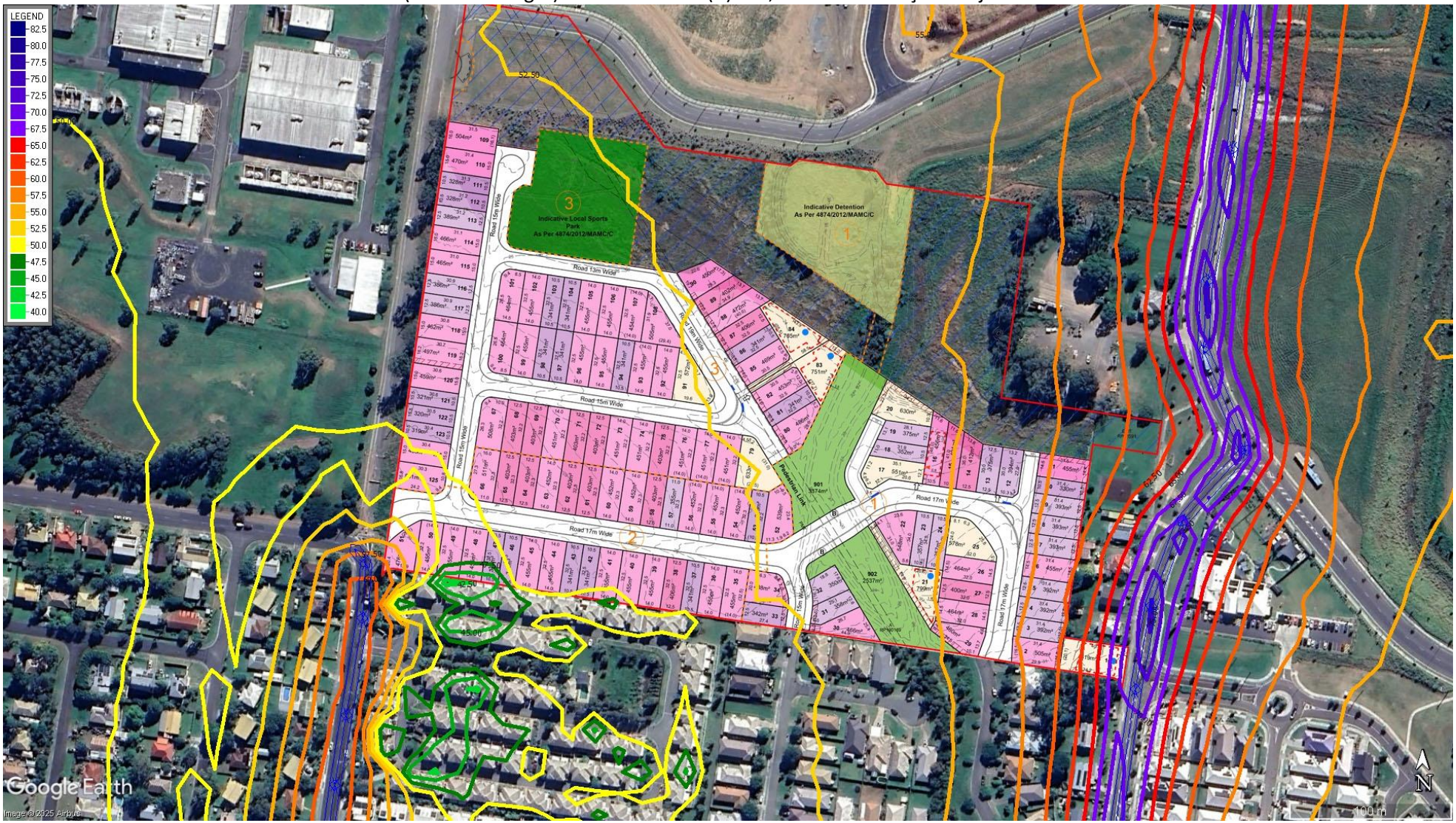


Plate B3: Industry noise contours at 1.8m (ground floor height). Levels are in dB(A) L10 and are façade-adjusted.

Plate B4: Industry noise contours at 4.6m (first floor height). Levels are in dB(A) L10 and are façade-adjusted.