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NOISE IMPACT ASSESSMENT – MCU

Commissioned by:	Flux Property Group Ltd
Date:	28th September 2026
Project number:	6802
Version:	V.2
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DOCUMENT INFORMATION			
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Date:	28th September 2026	**Date**:	28th September 2026

VERSION HISTORY				
Version	**Description**	**Date**	**Author**	**Approved by**
V.1	Final	28/09/2026	Mathew Dyer	Ross Palmer
V.2	Amended – updated plans	15/10/2026	Mathew Dyer	
V.3				

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EXECUTIVE SUMMARY

Palmer Acoustics (Australia) Pty Ltd has been commissioned by Flux Property Group Pty Ltd to prepare a noise impact assessment for the site at 137 Nudgee Road Ascot (Lot 1–RP98178).

The site is in a transport corridor Doomben Line rail and exposed to high levels of traffic noise from Nudgee Road. The construction is to meet the requirements of Brisbane City Council and Main Roads and identify impacts on neighbouring sensitive receptors.

Conclusion:

- The site is impacted by elevated levels of road traffic noise from Nudgee Road and Lamington Avenue.
- A 2.5m noise barrier is required along the eastern boundary
- Amplified music must be kept below 75dBC – any request past these limits would trigger the requirement of an Office of liquor Licencing and Regulation (OLGR) assessment.

Recommendation:
A 2.5m Noise barrier is required to ensure that noise levels are maintained when deliveries are made. It is required that all deliveries be between the hours of 7am 6pm.

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1 INTRODUCTION

Palmer Acoustics (Australia) Pty Ltd has been commissioned by Flux Property Group Pty Ltd to provide a noise impact assessment for the site at 137 Nudgee Road Ascot (Lot 1–RP98178).

The site is in a transport corridor Doomben Line rail and exposed to high levels of traffic noise from Nudgee Road. The construction is to meet the requirements of Brisbane City Council and Main Roads and identify impacts onto neighbouring sensitive receptors.

This report considers the following overlays and codes:

- Brisbane City Plan 2014
  - Planning Scheme Policy: Noise.
- Racecourse precinct neighbourhood plan
- Low-medium density residential (3-4 storey mix)
- Mixed use code
- Food and drink outlet



Figure 1: Site location

1.1 Existing site and surroundings

The site is currently vacant and is located on the corner of Nudgee Road and Lamington Avenue.

The adjoining lots are described as follows:

- **North**: Two Storey Residential Ascot Budget Inn
- **East**: Two Storey Airway Motel

The area is zoned as a LMR2 Low-medium density residential (3 or 4 storey mix) under the Brisbane City Plan 2014.



Figure 2: Brisbane City Council - Zoning



Figure 3: Brisbane City Council – Interactive–Doomben Railway **-** Cat 4-3 Ground



Figure 4: Plans provided by Elevation Architecture



Figure 5: Plans provided by Elevation Architecture

2 NOISE ASSESSMENT EQUIPMENT AND PROCEDURES

2.1 Instrumentation

The following instruments were used to measure the ambient noise levels:

- Larson Davis 831 class 1 data logger (Serial number 1621)
- B & K 4230 Calibrator (serial number 1638750)

The sound level measuring equipment was field calibrated before and after the measurements and was found to be within 0.1dB of the reference signal 94dB at 1000Hz. The equipment used in this assessment holds calibration certificates from an accredited NATA calibration laboratory.

2.2 Measurement Procedures

A noise logger was installed on the roof of the existing building, at a height of 5.5m above ground. Ambient and traffic noise levels were monitored continuously over a 2-day period, from 7th – 9th September 2026. The measurement location is identified as **ML1** on Figure 7.

Weather was clear and calm: Bom Weather Station Brisbane Airport:

Date	Day	Temps		Rain
		Min	Max	
		°C	°C	mm
6	Su	15.4	27.1	0
7	Mo	14.2	24.4	0
8	Tu	15.3	23.1	0
9	We	11.9	23.8	0

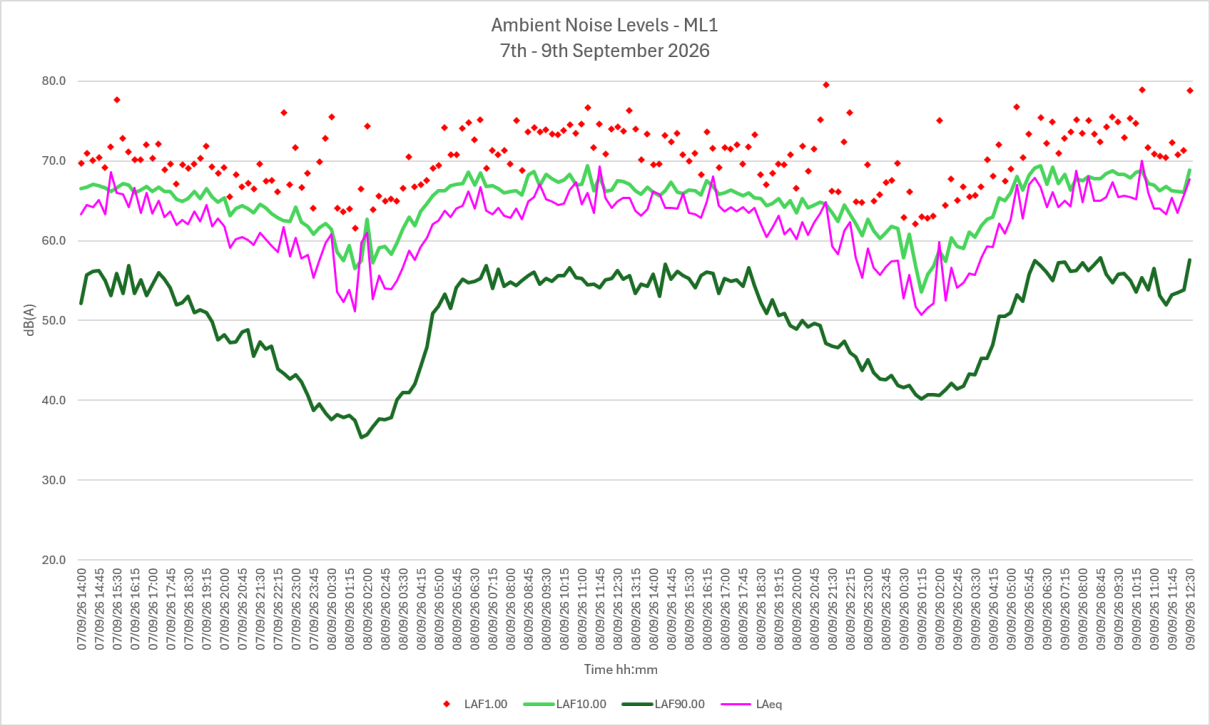


Figure 6: Graph showing ambient sound levels



Figure 7: ML1 on roof of existing structure



Figure 8: ML1 overlooking Lamington Ave

3 AMBIENT NOISE LEVELS

The ambient and road traffic noise levels measured at ML1 are presented in Table 4. The noise sources present during the survey include:

- Road traffic noise (dominant); and
- Rail traffic

Table 1: Measured Ambient Noise Levels ML1 7th Monday – 8th Tuesday September 2026

Time	Measured Noise Levels dB(A) Façade adjusted				
	L_{A01}	L_{A10}	L_{A90}	L_{Aeq}	RBL
Day: 7 am to 6 pm	75.4	64.9	53.4	65.6	50
Evening: 6 pm to 10 pm	70.0	64.8	49.2	61.8	48
Night: 10 pm to 7 am	75.3	62.2	46.0	61.2	39

BCC – SC6.21 Noise impact assessment planning scheme policy
Method for determining the tenth percentile

Step 1	Sort the L_{A90}, 1 hour data in each assessment period in ascending order.
Step 2	Work out the tenth per cent position of the number of samples in the assessment period. This can be calculated by multiplying the number of samples by 0.1.
Step 3	Determine the tenth percentile: If the tenth per cent position (from step 2) is an integer, then the tenth percentile is determined by taking the arithmetic average of the value at the tenth per cent position and the value at the next highest position. If the tenth per cent position (from step 2) is not an integer, then the tenth percentile is the value at the next highest position. Examples: For a dataset of size 40, the tenth per cent position is 4 (i.e. 0.1x40). As this is an integer, the tenth percentile is the average of the values at the 4th position and the 5th position from the top of the sorted data (from step 1). For a dataset of size 44, the tenth per cent position is 4.4 (i.e. 0.1x44). As the value is not an integer, the tenth percentile is the value at the 5th position from the top (from step 1).

6. Determine the RBL to be used for assessment purposes. This is taken to be the median value of the corresponding day/evening/night ABLs. For example, for a week's worth of monitoring, the evening RBL is the median of the seven evening ABLs – i.e. the fourth highest (or lowest) value. Where this level is found to be less than 25dB(A), the RBL is to be set to 25dBA. A practical example is illustrated in Table 3.

4 EXTERNAL TO INTERNAL

High volume road and rail traffic noise in the area require specific attention to maintain acceptable internal amenity for staff and patrons. The following calculations were used to determine the proposed external building Rw values.

4.1 Road Traffic Noise –

Current exposure to Road Traffic Noise
L10 (18hr)
68dB(A) – Free Field at 5.5 metres

Expected increase over a 10 year period +3dB(A) = **71dB**(A) Free Field

Table 2: Road Noise Categories MP4.4

Noise Category	Level of transport noise * ($L_{A10, 18hr}$) for State-controlled roads and designated local government roads
Category 0	≤ 57 dB(A)
Category 1	58 – 62 dB(A)
Category 2	63 – 67 dB(A)
Category 3	68 – 72 dB(A)
Category 4	≥ 73 dB(A)

The Site is subject to Category 3 noise levels at 5.5 metres

4.2 Rail Noise

The development is situated at the default categories 3 to 4 of the Doomben Rail Noise Corridor at ground level, based on the state planning policy. These contours are calculated rather than measured, on site measurements were conducted to more accurately determine the relevant noise category for the Site.

Table 3: Rail Noise Categories

Noise Category	Single Event Maximum Noise L_{Amax} for Railway
Category 0	≤ 69 dB(A)
Category 1	70 – 74 dB(A)
Category 2	75 – 79 dB(A)
Category 3	80 – 84 dB(A)
Category 4	≥ 85 dB(A)

To assess the potential impact of rail noise, the methodology used in MP4.4 Rail has been adopted to gain the values to compare in the above table.

Table 4: Rail Passes 8th September 2026

Record	Time	LAmax	Leq	Type
668	11:22:55	78.7	69.6	EMU
614	10:47:35	72.1	68.3	EMU
984	14:51:46	72.0	67.4	EMU
947	14:29:24	71.4	68.2	EMU
585	10:30:49	70.7	66.7	EMU
504	09:42:40	70.4	67.3	EMU
1076	15:59:25	70.1	67.2	EMU
709	11:53:31	68.0	65.2	EMU
894	13:55:01	65.2	64.2	EMU
	Average	71	67	
	Façade	76	70	

The location is subject to Category 2 Rail noise.

5 RECOMMENDED EXTERNAL CONSTRUCTION

Road traffic noise is the dominant noise source, and to maintain a reasonable level within the establishment the following is recommended:

Table 5: AS2107 – Internal noise for restaurants and cafeterias 40dB

	Exterior L10, 18hr	Minimum Rw for each component			
Façade	dB(A)	Walls	Roof Ceiling	Floors	Entrance Doors
North	≤ 57 dB(A)	41	38	N/A	27
East	72	41	38	N/A	27
South	72	41	38	N/A	33
West	72	41	38	N/A	33

Table 6: AS3671 – Road traffic noise intrusion – Building siting and Construction

Tennancy	Room type	Element	Impact	Criteria	Rw
			dB(A)	Internal	
1 & 2	All Rooms	Windows	71	40	**38**

6 CRITERIA

6.1 The Brisbane City Council City Plan 2014 – 9.3 Development Codes

The acoustic performance requirements for development in the low-medium residential zone are presented as Performance Outcome PO1 and PO7, shown below:

Table 9.3.3.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development	
PO1 Development: a. has hours of operation which are controlled so that the use does not detrimentally impact on the amenity of adjoining residents; b. does not result in noise emissions that exceed the noise (planning) criteria in Table 9.3.3.3.F, low frequency noise criteria in Table 9.3.3.3.G and night-time noise criteria in Table 9.3.3.3.H in a sensitive zone or a nearby sensitive use, except music noise where located in a Special entertainment precinct identified in a neighbourhood plan. Note—A noise impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO1.1** Development: a. for accommodation activities, dwelling unit or emergency services has unlimited hours of operation; b. for a club, if licensed, bar, function facility, hotel or nightclub entertainment facility does not generate noise which is clearly audible and detectable, or impacts on the amenity of a resident, in a dwelling or other sensitive use; Note—Development for a club, if licensed, bar, function facility, hotel or nightclub entertainment facility is not expected to achieve this outcome. c. for any other use: i. where in the Principal centre zone or Major centre zone has unlimited hours of operation; ii. where in the District centre zone, Neighbourhood centre zone or Mixed use zone: A. has hours of operation, including for deliveries, which are limited to 6am to 10pm; or B. does not generate noise which is clearly audible and disturbing in a dwelling or other sensitive use; iii. where in any other zone: A. has hours of operation, including for deliveries, which are limited to 6am to 8pm; or B. does not generate noise which is clearly audible and disturbing in a dwelling or other sensitive use. **AO1.2** Development ensures mechanical plant or equipment is acoustically screened from an adjoining sensitive use. Note—Mechanical plant includes generators, motors, compressors and pumps e.g. air-conditioning, refrigeration or cold room motors

Additional criteria for development if for a food and drink outlet

PO7 Development mitigates impacts on residential amenity in or adjoining the building through: a. providing an outdoor dining area that is appropriately located; b. ensuring external dining and entertainment areas are visually and acoustically screened from an adjoining dwelling.	**AO7** Development provides for external dining or entertainment areas to be: a. located in or directly adjacent to the public realm; b. visually and acoustically screened from an adjoining dwelling.

Table 9.3.3.3.F Noise (planning) Criteria

Criteria Location	Intrusive noise criteria	Acoustic amenity criteria		
	Day, evening and night LAeq,adj,T are not greater than the RBL plus the value in this column for the relevant criteria location, where T equals: • day – 11hr • evening – 4hr • night – 9hr	Day, evening and night LAeq,adj,T are not greater than the values in the columns below for the relevant criteria location, where T equals: • day – 11hr • evening – 4hr • night – 9hr		
		Day	Evening	Night
Medium density residential zone boundary	**3dB(A)**	**55dB(A)**	**50dB(A)**	**45dB(A)**

Table 9.3.3.3.G – Low frequency noise Criteria

Criteria Location	Day (7am-6pm) LCeq,adj,11hr is not greater than the following values at the relevant criteria location	Evening (6pm-10pm) LCeq,adj,4hr is not greater than the following values at the relevant criteria location	Night (10pm-7am) LCeq,adj,9hr is not greater than the following values at the relevant criteria location
Low–medium density residential zone boundary	**65dB(C)**	**65dB(C)**	**60dB(C)**

7 IMPACT ON ADJACENT RESIDETIAL AREAS

Activities that are to be considered include:

- Mechanical plant
- Car movement
- Door slams
- Patron noise
- Amplified music

Operational hours are restricted to Day/evening only with the establishment to be closed from 10pm

7.1 Mechanical Plant

The development will incorporate air conditioning, although the specific model, siting and installation have not been determined at this stage. State requirements are set out under Section 440U of the Environmental Protection Act 1994; in that Act, noise from air conditioning must not exceed the following noise levels:

- Between 10pm and 7am: 3 dB(A) above the background level
- From 7am to 10pm: 5 dB(A) above the background level

Background level means the background A-weighted sound pressure level under the prescribed standard measured Brisbane City Council

Mechanical plant is to be acoustically and visually screened

7.2 Activities

Pen 3D 2000 - model this program uses the algorithms from the *Calculation of Road Traffic Noise* UK Department of Transport (1992) traffic noise prediction models and propagation.



Figure 9: Site view showing sensitive receptors (SR1 – 3)

Table 7: The following Sound Power levels (SWL)were used for each activity

Activity	63 hz	125 hz	250 hz	500 hz	1Kz	2 Khz	4 Khz	8Khz	SwL
Door Slam	88	92	86	89	93	87	85	83	
Car moving	83	90	84	81	84	85	81	78	96
Truck	97	96	87	81	82	81	79	77	100
Patrons (25) A	60	65	70	75	79	80	79	70	96

Activities on the current site only affect **SR2**. For this reason, calculations have been undertaken at SR2 at heights of 1.8m and 4.5m.



Figure 10: Truck (1 per/hr, Car (20 per/hr) and Patron (25 Outdoors)

Table 8: Background RBLs are lower than the stated BCC Criteria in **Table 9.3.3.3.F**

Background RBL + 3dB LAeq		
Day	Evening	Night
53	51	N/A

8 RESULTS

Table 9: Door slams

Source	Distance	SPL LAeq @10m dB(A)	Events 1/hr	Duration Seconds	Derating LAeq	Attenuation	SR1 1.8m/4.8m	Criteria 53/51
Car Doors (21)	10	68	20	2	-20	13	46/53 adj	Y/Y

Table 10: All other activities

Activity (event over 1hour)	Distance	Result SR1 LAeq (1hr)		Criteria 1hr/Day/evening	Pass Y/N
		1.8m	4.5m		
Car moving	8.5m	37	36	53/51	Y
Truck	8m	29	28	53/51	Y
Truck idling (30mins)	8m	60	59	53/51	N
Patrons (25) A	31m	<35	<35	53/51	Y

Table 11: All activities combined

Event	Height		Criteria	Pass Y/N
1hour/Leq	1.8	4.5	53/51dB(A)	
Combined activities	29	28	60/60 dB(A)	N

All activities individually pass the day/evening criteria except for Truck idling during unloading.

The combined levels do not pass the BBC criteria, the installation of a 2.5m noise barrier along the eastern boundary will be required.

9 NOISE BARRIER

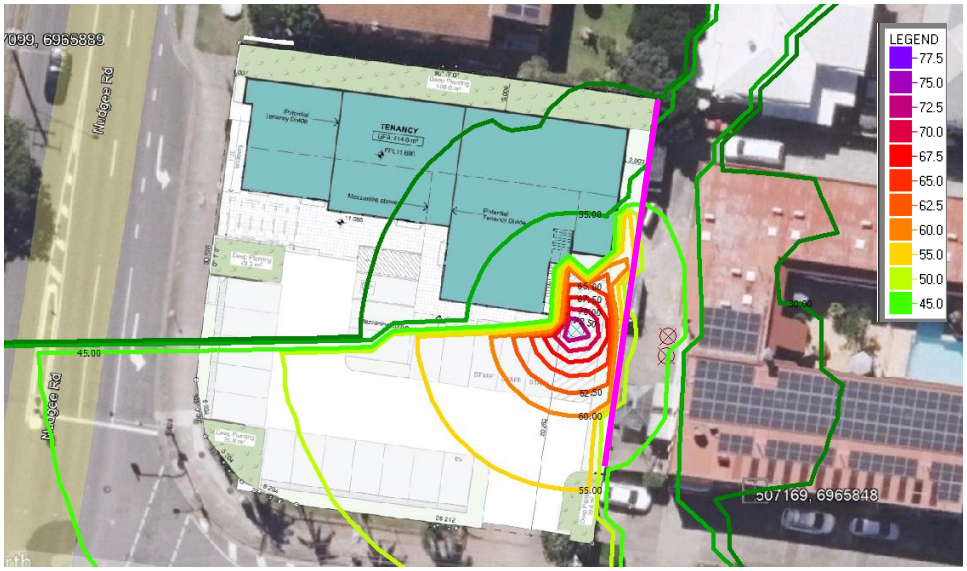


Figure 12: Truck (Idling/30min) contours 1.8m – Noise Barrier 2.5m



Figure 13: Truck (Idling/30min) contours 4.5m– Noise Barrier 2.5m

Table 12: All other activities

Activity (event over 1hour)	Result SR2 LAeq (1hr)		Criteria 1hr/Day/evening	Pass Y/N
	1.8m	4.5m		
Truck idling (30mins)	47	53	53/51	Y
Combined	47	53	53/51	Y

A noise barrier is to be constructed of a material with a surface mass greater than 12kg/m^2 with no gaps or holes. Typical construction example: 16mm timber palings with a 40% overlap no gaps. Other construction types are referenced in the MRTS15 document from Main Roads.

10 AMPLIFIED MUSIC

Noise Level. The sound level of music played at the venue must not exceed 75 dB(C) measured at a point 3 metres from the nearest speaker, at all times.

Speaker Orientation. All speakers must be directed inwards and downwards. Any speakers installed on the external facade of the venue must be directed towards Nudgee Road.

Table 13: Amplified music

Location	Distance	SPL at 3m	Attenuation	SR2	Criteria 65dBc
Upper level 4.5m	15m	75dBC	14	61	Y
Lower level outdoor	30m	75dBC		<30	Y

11 CONCLUSIONS AND RECOMMENDATIONS

Conclusion

- The site is impacted by elevated levels of road traffic noise from Nudgee Road and Lamington Avenue.
- A 2.5m noise barrier is required along the eastern boundary
- Amplified music must be kept below 75dBC – any request past these limits would trigger the requirement of an Office of liquor Licencing and Regulation (OLGR) assessment.

Recommendation:
A 2.5m Noise barrier is required to ensure that noise levels are maintained when deliveries are made. It is required that all deliveries are between the hours of 7am 6pm.

Author:



Mathew Dyer –
Acoustic Consultant

Reviewed by:



ROSS H. PALMER CPEng RPEQ 3534
Principal Engineer

APPENDIX

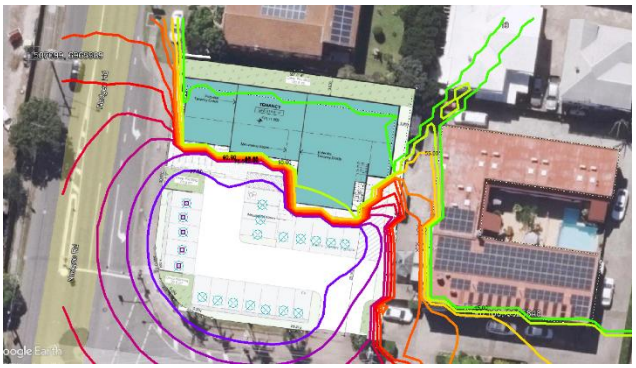
A CALCULATIONS

POINT CALCULATIONS						
Pen3D2000 V1.9.5						
Environmental Calculations						
	All point and line sources included. Line source segmentation					
	Noise level results are the logarithmic addition of all the noise					
	Noise level results incorporate the incoherent ground reflectior					
	Meteorology :					
		Wind speed 0.0 (m/s)	Wind direction 0	Mast height		
		Temperature 20.0 (C)	Temperature Gradient 0.0 (C/			
		Surface Roughness of terrain 0.023000000 (m)	Zero			
	Receptor	X Posn	Y Posn	Height		Noise Leve
		(m)	(m)	(m)		(dB(A))
	1.5	507160.7	6965858	1.8		63.1
	Source	X Posn	Y Posn	Height		Noise Leve
		(m)	(m)	(m)		(dB(A))
	Door01	507135.5	6965865	0.5		49.9
	Door000	507135.1	6965863	0.5		50
	Door000	507134.7	6965860	0.5		49.9
	Door000	507138.8	6965860	0.5		50.8
	Door000	507141.6	6965860	0.5		51.5
	Door000	507144	6965859	0.5		52
	Door000	507146.4	6965859	0.5		52.6
	Door000	507148.6	6965859	0.5		53.1
	Door000	507141.2	6965848	0.5		50.5
	Door001	507138.8	6965848	0.5		50.1
	Door001	507136	6965848	0.5		49.7
	Door001	507133.5	6965849	0.5		49.3
	Door001	507130.7	6965849	0.5		48.8
	Door001	507128.3	6965850	0.5		48.4
	Door001	507125.9	6965850	0.5		48
	Door001	507122.1	6965855	0.5		47.5
	Door001	507122.8	6965857	0.5		47.6
	Door001	507122.6	6965859	0.5		47.6
	Door001	507123.2	6965862	0.5		47.6
	Door002	507123.3	6965864	0.5		47.6
	Door002	507123.7	6965867	0.5		47.6
	Receptor	X Posn	Y Posn	Height		Noise Leve
		(m)	(m)	(m)		(dB(A))
	4.5m high	507160.9	6965861	4.5		70.3
	Source	X Posn	Y Posn	Height		Noise Leve
		(m)	(m)	(m)		(dB(A))
	Door01	507135.5	6965865	0.5		32.5
	Door000	507135.1	6965863	0.5		56.9
	Door000	507134.7	6965860	0.5		56.8
	Door000	507138.8	6965860	0.5		58.2
	Door000	507141.6	6965860	0.5		59.3
	Door000	507144	6965859	0.5		60.3
	Door000	507146.4	6965859	0.5		61.5
	Door000	507148.6	6965859	0.5		62.7
	Door000	507141.2	6965848	0.5		57.6
	Door001	507138.8	6965848	0.5		57
	Door001	507136	6965848	0.5		56.3
	Door001	507133.5	6965849	0.5		55.7
	Door001	507130.7	6965849	0.5		55.1
	Door001	507128.3	6965850	0.5		54.6
	Door001	507125.9	6965850	0.5		54.1
	Door001	507122.1	6965855	0.5		53.5
	Door001	507122.8	6965857	0.5		53.7
	Door001	507122.6	6965859	0.5		53.7
	Door001	507123.2	6965862	0.5		53.8
	Door002	507123.3	6965864	0.5		53.8
	Door002	507123.7	6965867	0.5		32.1

Traffic Flow Calculations

1.8m - 63 dB(A) at RS2
20 door slams
2 seconds – each event
40 events/1hour
3600 seconds
10*LOG((2*40)/(1*3600))
43dB(A) + 2.5 façade ajd
(46dB(A)

4.5m - 71 dB(A) at RS2
20 door slams
2 seconds – each event
40 events/1hour
3600 seconds
10*LOG((2*40)/(1*3600))
50dB(A) + 2.5 façade ajd



Truck Calc – idling leq – 2.5 Noise barrier – Noise source 1.5m high

POINT CALCULATIONS
Pen3D2000 V1.9.5
Environmental Calculations

All point and line sources included. Line source segmentation angle: 10 degrees. Calculations for specified meteorology.
Noise level results are the logarithmic addition of all the noise sources
Noise level results incorporate the incoherent ground reflection algorithm
Meteorology :
Wind speed 0.0 (m/s) Wind direction 0 Mast height 10.0 (m)
Temperature 20.0 (C) Temperature Gradient 0.0 (C/100m) Humidity 50.0 (%)
Surface Roughness of terrain 0.023000000 (m) Zero plane offset 0.080000000 (m)

Receptor	X Posn (m)	Y Posn (m)	Height (m)	Noise Level (dB(A))
1.8	507160.8	6965860	1.8	46.8
4.5	507161	6965862	4.5	53.2

C: MP4.4 "DEEMED TO SATISFY"

Schedule 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 1.8m²)
			35 (where total area of glazing for a *habitable room* is less than or equal to 1.8m²)
		External walls	47
		Roof	41
		Floors	45
		Entry doors	33

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QUEENSLAND DEVELOPMENT CODE MP 4.4 – BUILDINGS IN A TRANSPORT NOISE CORRIDOR

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 2	30	Glazing	35 (where total area of glazing for a *habitable room* is greater than 1.8m²)
			32 (where total area of glazing for a *habitable room* is less than or equal to 1.8m²)
		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 1.8m²)
			24 (where total area of glazing for a *habitable room* is less than or equal to 1.8m²)
		External walls	35
		Roof	35
		Entry Doors	28
Category 0	No additional acoustic treatment required – standard building assessment provisions apply.		

Version 1.1 Page 8 Publication Date: 17 August 2015

Schedule 2

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

Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
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/m^3 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.

QUEENSLAND DEVELOPMENT CODE MP 4.4 – BUILDINGS IN A TRANSPORT NOISE CORRIDOR

Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
	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.

QUEENSLAND DEVELOPMENT CODE MP 4.4 – BUILDINGS IN A TRANSPORT NOISE CORRIDOR

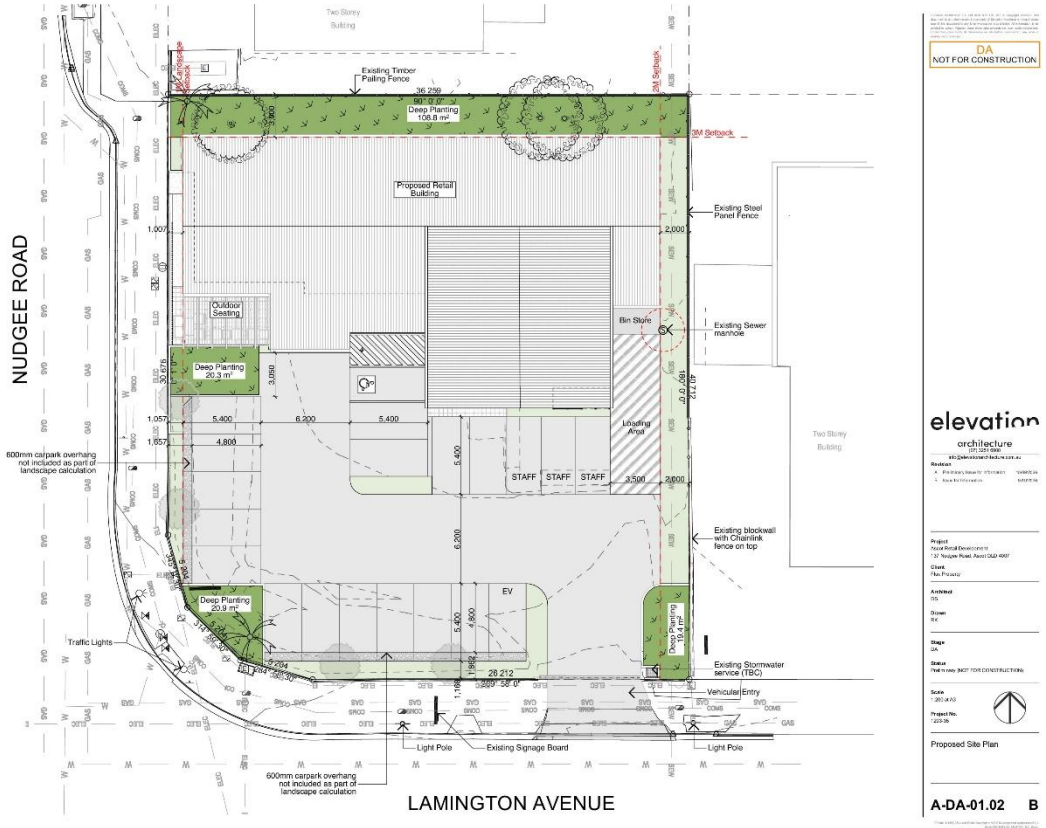
Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
	35	Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) One layer 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.

Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
	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.

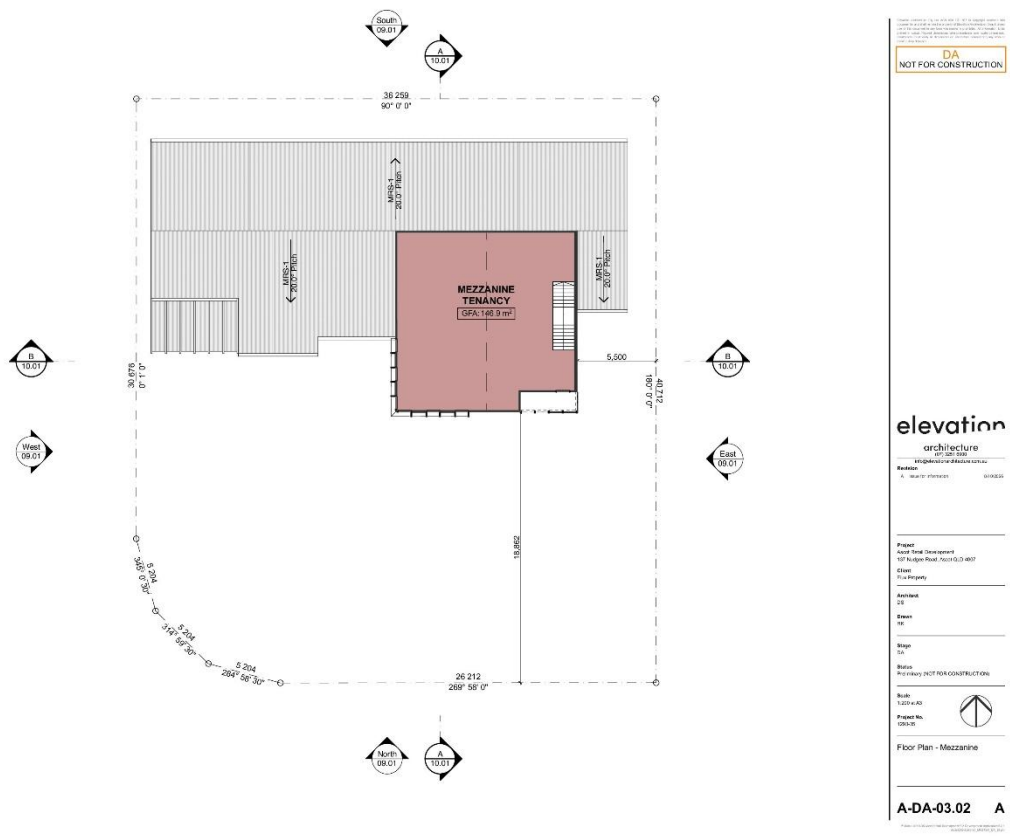
Component of building's *external envelope*	Minimum R_w	Acceptable forms of construction
	28	Fixed so as to overlap the frame or rebate of the frame, constructed of - (i) Wood, particleboard or blockboard not less than 33mm thick; or (ii) Compressed fibre reinforced sheeting not less than 9mm thick; 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*.

D: plans


1 North Elevation
Scale 1:200
2 West Elevation
Scale 1:200
3 South Elevation
Scale 1:200
4 East Elevation
Scale 1:200
NUDGEE ROAD
LAMINGTON AVENUE
SITE BOUNDARY
SIGNAGE
CLD-01 Galvanized Steel Cladding
CLD-02 Timber Look Horizontal Cladding
CLD-03 Axon Cladding 133 Lexicon Half White
CLD-04 Timber Look Vertical Cladding
PF-01 Colorbond Monument
DA
NOT FOR CONSTRUCTION
elevation
architecture
Elevations
A-DA-09.01 A


NUDGEE ROAD
LAMINGTON AVENUE
Existing Timber Paling Fence
Deep Planting 108.8 m²
3M Setback
Proposed Retail Building
Existing Steel Panel Fence
Outdoor Seating
Bin Store
Existing Sewer manhole
Deep Planting 20.3 m²
Loading Area
STAFF
Existing blockwall with Chainlink fence on top
Deep Planting 20.9 m²
EV
Deep Planting 16.4 m²
Traffic Lights
Existing Stormwater service (TBC)
Vehicular Entry
Light Pole
Existing Signage Board
600mm carpark overhang not included as part of landscape calculation
DA
NOT FOR CONSTRUCTION
elevation
architecture
Proposed Site Plan
A-DA-01.02 B


South 09.01
A 10.01
36 259
90° 0' 0"
Deep Planting 108.8 m²
3,000
1,007
Potential Tenancy Divide
TENANCY
GFA:414.6 m²
FFL11.600
2,000
Mezzanine above
Potential Tenancy Divide
11.565
B 10.01
Deep Planting 20.3 m²
30.676
0° 1' 0"
180° 0' 0"
40.712
West 09.01
East 09.01
Mezzanine above
STAFF
STAFF
STAFF
20.252
EV
Deep Planting 20.9 m²
Deep Planting 19.4 m²
5.204
345° 0' 30"
5.204
314° 59' 30"
5.204
284° 56' 30"
26.212
269° 58' 0"
North 09.01
DA
NOT FOR CONSTRUCTION
elevation
architecture
Project
Ascot Retail Development
137 Nudgee Road, Ascot QLD 4007
Client
Flux Property
Architect
DS
Drawn
RK
Stage
DA
Status
Preliminary (NOT FOR CONSTRUCTION)
Scale
1:200 at A3
Project No.
1223-35
Floor Plan - Ground
A-DA-03.01 B


South 09.01
A 10.01
36 259
90° 0' 0"
MRS-1
20.0° Pitch
MEZZANINE TENANCY
GFA:146.9 m²
5,500
B 10.01
30.676
0° 1' 0"
180° 0' 0"
40.712
West 09.01
East 09.01
18.862
5.204
345° 0' 30"
5.204
314° 59' 30"
5.204
284° 56' 30"
26.212
269° 58' 0"
North 09.01
DA
NOT FOR CONSTRUCTION
elevation
architecture
Revision
A
Project
Ascot Retail Development
137 Nudgee Road, Ascot QLD 4007
Client
Flux Property
Architect
DS
Drawn
RK
Stage
DA
Status
Preliminary (NOT FOR CONSTRUCTION)
Scale
1:200 at A3
Project No.
1223-35
Floor Plan - Mezzanine
A-DA-03.02 A