



464 St Kilda Road, Melbourne

Acoustic Report for Town Planning

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E-LAB Consulting

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Document QA and Revisions

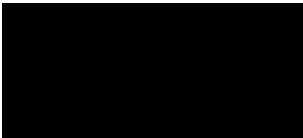
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1 INTRODUCTION

1.1 DOCUMENT PURPOSE

This report has been prepared in support of a Town Planning (TP) submission made to the City of Port Phillip for the proposed development at 464 St Kilda Road, Melbourne.

In summary, this assessment shall address the following key considerations:

- Noise intrusion from road traffic and commercial noise sources surrounding the site.
- Noise emission from mechanical plant and equipment serving the development.
- Noise intrusion from the associated mechanical plant to the development.

For clarity, this report addresses the residential component of the proposed development for the purposes of the current Town Planning application. Although food and beverage tenancies are proposed at ground floor level, they have not been assessed in detail within this report because the ultimate tenancy configuration, operators, fit-out, hours of operation, and associated services are not yet known. Any acoustic assessment of those tenancies would typically be undertaken separately at a later stage, once sufficient detail is available to properly define the relevant noise sources and operational characteristics.

1.2 RELEVANT DOCUMENTS

The following standards, guidelines and drawings have been used to establish the project specific acoustic design requirements for the development.

- Victorian Planning Provisions (VPP).
- Port Phillip Planning Scheme.
- AS/NZS 2107:2016 Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors.
- Environment Protection Regulations (EPR) 2021, S.R. No 47/2021.
- EPA Victoria Publication 1826.5 “Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues”. (5TH September 2025).
- EPA Victoria Publication 1254.2 “Noise control guidelines”.
- Architectural drawings set, prepared by Cox Architecture, dated 26th August 2025.
- IGS Services Drawings, dated 29th September 2025.

2 PROJECT OVERVIEW

2.1 SITE DESCRIPTION

The subject site is located at 464 St Kilda Road, Melbourne. The location of the proposed development, noise monitoring (#) points and the surrounding noise-sensitive receivers are shown in Figure 1. The noise-sensitive receivers have been identified with a detailed description in Table 1.

Figure 1: Acoustic site plan identifying the surrounding noise-sensitive receivers and noise monitoring locations.



Source: Google Maps & E-LAB

Table 1: Description of nearby noise sensitive receivers.

Receiver	Description
East of the Site	Multi-storey apartment buildings.
South of the Site	Multi-storey commercial premises including healthcare services.
West of the Site	Multi-storey apartment buildings.
North of the Site	Commercial premises.

2.2 DEVELOPMENT PROPOSAL

The residential development application at 464 St Kilda Road, Melbourne seeks approval for the following:

- Basement L2 to L1 - Car parking and storage.
- Ground - Apartments, food and beverage facing St Kilda Road, lobby, services, substation. Carpark access point from Queens Lane.
- Level 1 – Apartments, amenity.
- Level 2 – Apartments, amenity, pool.
- Level 3 to Level 27 – Apartments.
- Roof – Services.

3 NOISE SURVEY

An environmental noise survey was conducted by E-LAB Consulting around the proposed development site. The purpose of the noise survey was to determine the existing ambient noise, impact from traffic and nearby commercial noise, and background noise levels present at the site.

The measurement results have been used to establish the environmental noise emission criteria and aid in determining required building envelope acoustic performance to protect future amenities. Measurement results are provided in Section 3.4 of this report.

3.1 SITE OBSERVATIONS

During the site visit, the following potential noise sources around the site were identified and considered in the assessment:

Traffic Noise:

- The primary noise source is traffic along St Kilda Road, where there is a steady flow of cars, occasional heavy vehicles and trams.
- The site is located in proximity to tram stops and an intersection, which subjects the site to sounds of tram bells and brakes and the sound of pedestrian travel, as well as noise due to idling vehicles at traffic lights.

Mechanical Noise:

- Surrounding mechanical noise was not audible.
- The impact of existing commercial noise on the development is considered minimal.

3.2 NOISE MEASUREMENT EQUIPMENT

The following instrumentation was used for noise measurement and analysis:

- NTI XL3 Sound Level Meter, A3A-00549-D1.
- Pulsar Acoustic Calibrator, Model 105, S/N 100360.

All instrument systems are laboratory calibrated using instrumentation traceable to Australian National Standards and certified within the last two years thus conforming to Australian Standards. The measurement system was also field calibrated prior to and after noise surveys. Calibration drift was found to be less than 0.1dB during measurements. No adjustments for instrument drift during the measurement period were warranted.

3.3 MEASUREMENT LOCATIONS

Noise measurements were conducted at the locations presented in Figure 1 and correspond to:

- 1: Front of site, ~29m from eastern façade.
- 2: Front of site, ~19m from eastern façade.
- 3: Front of site, at eastern façade.
- 4: Back of site, in Queens Lane, with a line of sight to Queens Road.

3.4 ATTENDED NOISE SURVEY RESULTS

Attended (short-duration) noise measurements were conducted at the development site between 7th April 2026 and 9th April 2026 to evaluate the noise environment surrounding the development. All measurements were taken for at least 10 minutes, during dry conditions with wind speeds less than 18 km/hr.

The results of the measurements, including average (L_{Aeq}) and background (L_{A90}) noise levels, are presented in Table 2 below.

Table 2: Summary of Measured Attended Average (L_{Aeq}) and Background (L_{A90}) Noise Levels.

LOCATION	MEASUREMENT START TIME	COMMENTS	MEASURED NOISE LEVELS - dB(A)	
			L_{Aeq}	L_{A90}
1: Front of site, 29m from eastern façade	07/04/2026 8:50am	Traffic noise from cars, frequent trams and occasional heavy vehicles	73	54
2: Front of site, 19m from eastern façade	07/04/2026 9:01am	Traffic noise from cars, frequent trams and occasional heavy vehicles	67	51
	07/04/2026 9:11am	Traffic noise from cars, frequent trams and occasional heavy vehicles	67	52
	08/04/2026 6:49pm	Traffic noise from cars, frequent trams and occasional heavy vehicles	63	50
	08/04/2026 7:00pm	Traffic noise from cars, frequent trams and occasional heavy vehicles	62	51
3: Front of site, at eastern façade	07/04/2026 9:22am	Traffic noise from cars, frequent trams and occasional heavy vehicles	61	50
	07/04/2026 9:32am	Traffic noise from cars, frequent trams and occasional heavy vehicles	63	51
4: Back of site, in Queens Lane	07/04/2026 9:47am	Sound of distant traffic from Queens Road, intermittent light local traffic	60	54
	07/04/2026 9:57am	Sound of distant traffic from Queens Road, intermittent light local traffic	59	53
	08/04/2026 6:22pm	Sound of distant traffic from Queens Road, intermittent light local traffic	60	53
	08/04/2026 6:32pm	Sound of distant traffic from Queens Road, intermittent light local traffic	61	54
	09/04/2026 2:20am	Sound of distant light traffic from Queens Road	49	43
	09/04/2026 2:30am	Sound of distant light traffic from Queens Road	48	43

4 CRITERIA, LEGISLATIONS AND GUIDELINES

This section presents the regulatory requirements, and acoustic design criteria for the proposed development.

4.1 PLANNING SCHEME

Planning Condition	Details
Port Phillip Planning 34.01-2 Use of Land	<i>'A use must not detrimentally affect the amenity of the neighbourhood, including through the:</i> <i>▪ Transport of materials, goods or commodities to or from the land.</i> <i>▪ Appearance of any building, works or materials.</i> <i>▪ Emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil.'</i>
Port Phillip Planning SCHEDULE 26 TO CLAUSE 43.02 DESIGN AND DEVELOPMENT OVERLAY Design Objectives	<i>'Private Amenity and Outlook:</i> ... <i>To ensure a high degree of internal amenity for building occupants, including providing for outlook and privacy, natural ventilation, sunlight and daylight and noise minimisation.'</i> <i>'Building Services:</i> ... <i>Building services on rooftops should be screened to avoid detrimental noise and visual impacts on the amenity of both private and public realms'</i> <i>Noise attenuation measures and suppression techniques should be incorporated into developments to ensure noise does not unreasonably affect the amenity of public areas and nearby residences.'</i>

4.2 NOISE EMISSION FROM SITE

4.2.1 Noise from commercial operators

Within Victoria, noise emissions from commercial premises are governed by the Victorian EPA Environment Protection Regulations (EPR) 2021 and supporting Publication 1826.5 *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (Noise Protocol).

The Noise Protocol prescribes procedures for determining the statutory environmental noise limits which apply at noise sensitive locations, such as residential areas. The assessment of site noise emission limits contained in this section has been carried out in accordance with the Noise Protocol procedures.

Operating time periods applicable to noise emission limits are defined in the EPR (Part 5.3, Division 3, Regulation 116) in relation to noise emitted from commercial, industrial and trade premises. These periods are reproduced below:

Table 3: Time periods for commercial noise limits – commercial, industrial and trade premises.

PERIOD	APPLICABLE DAYS	APPLICABLE TIMES
Day	Monday to Saturday (except public holidays)	07:00 to 18:00
Evening	Monday to Saturday	18:00 to 22:00
	Sunday and public holidays	07:00 to 22:00
Night	All days	22:00 to 07:00

The limits of permissible noise at noise sensitive areas (residential receivers) applicable to this project are outlined in Table 4 below.

Noise limits are determined in accordance with Part 1 of the Noise Protocol considering the following factors:

- The time of day (day, evening or night).
- Proportions of land use for residential, industrial, and commercial uses in the immediately adjacent area (see Figure 2), for the nearest noise sensitive area (see Figure 1).
- Zoning levels (ZL’s) determined in accordance with Noise Protocol Part I-A 1.1.
- Existing background noise level values measured at the nearest sensitive area. Refer to 3.4 for details.

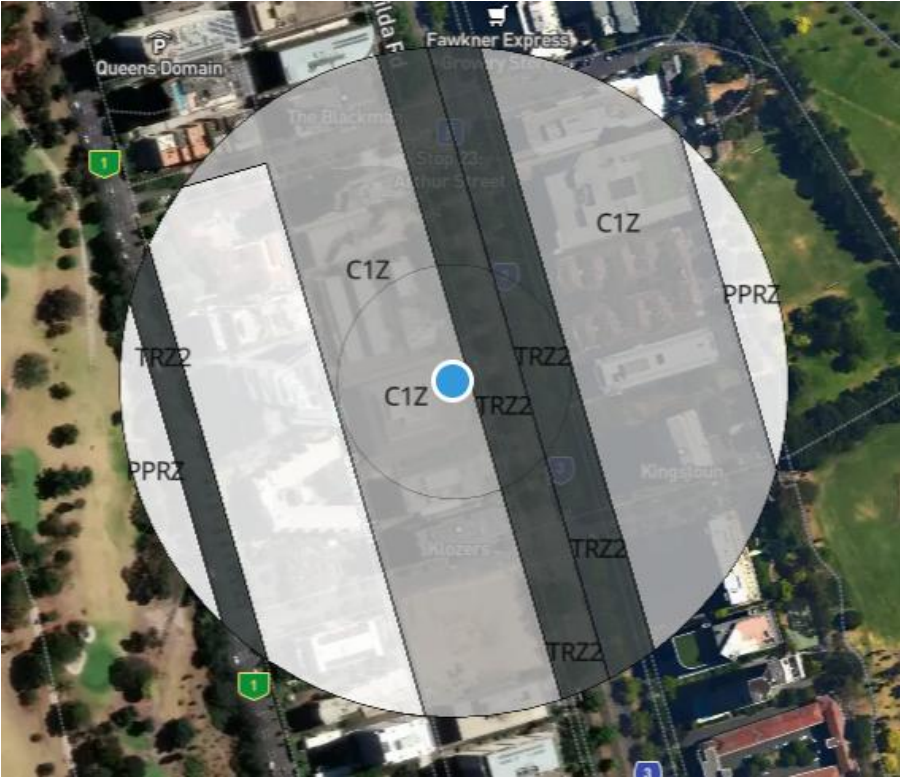
The following background noise measurements will be based on measurement location 4 as it represents the most sensitive receivers.

Table 4: Permissible plant noise limits at nearest sensitive receivers as per EPA Noise Protocol.

PERIOD	MEASURED BACKGROUND LEVEL L _{A90} dB(A)	ZONING LEVEL dB(A)	BACKGROUND CATEGORY	NOISE LIMIT ^[1] dB(A)
Day	54	61	‘Neutral’	61
Evening	54	54	‘High’	57
Night	43	49	‘Neutral’	49

Note 1: For equipment solely used in relation to emergencies (e.g. fire pumps, smoke spill fans, stair pressurisation fans), the relevant noise limit applicable to the testing or maintenance of this equipment is increased by 10 dB for the day period and by 5 dB for evening and night periods.

Figure 2: Planning Victoria Map.



Source: Planning VIC / Arcadian / VA

4.2.2 Noise from fixed domestic plant

Within Victoria, noise emissions from domestic mechanical plants are governed by the Victorian EPA Environment Protection Regulations (EPR) 2021 and supporting Publication 1973 *Noise guideline: Assessing noise from residential equipment*. This is applicable to condenser units located on resident balconies, if applicable.

Publication 1973 offers prohibited times when noise from residential equipment must be inaudible within a habitable room within any other residence, regardless of whether any door or window giving access to the room is open.

Prohibited Times – Heating Equipment

Prohibited times for fixed residential equipment for heating (including central heating, a hot water system or a heat pump, air conditioner or split system used for heating), the prohibited times for noise to be heard in any other residence are:

- Monday – Friday 10 pm – 7 am
- Weekends and public holidays 10 pm – 9 am

Prohibited Times – Cooling Equipment

For an air conditioner, evaporative cooler or split system used for cooling, prohibited times are:

- Monday – Friday 11 pm – 7 am
- Weekends and public holidays 11 pm – 9 am

Non-Prohibited Times

During the day and evening (non-prohibited times), it is expected that a domestic plant will not present unreasonable noise emissions provided that it:

- Does not exceed the background noise level by more than 5 dB.
- Is free of clearly noticeable rattles or vibrations.
- Is free of prominent tonal, impulsive, or intermittent noise characteristics.

4.2.3 Delivery Trucks / Loading Docks

All deliveries and vehicles will enter the building via the Queens Lane carpark entrance.

EPA Victoria Publication 1254.2 “*Noise control guidelines*” includes the noise control guidelines for deliveries to shops and similar commercial properties when there is the risk of impact to residential premises.

Appropriate deliveries schedules as per EPA’s guidelines are presented in Table 5 below. It is suggested that deliveries follow the guideline schedules to limit impact to adjacent residential premises.

Table 5: Schedule for deliveries affecting residential premises.

GENERAL DELIVERIES ^[1]	
Monday to Saturday	7am to 10pm
Sundays and public holidays	9am to 10pm
DELIVERIES WITH TRUCK-MOUNTED REFRIGERATION UNITS	
Monday to Saturday	7am to 10pm
Sundays and public holidays	9am to 10pm

Note 1: All ancillary motors or trucks should be turned off whilst making the delivery.

4.2.4 Waste Removal

EPA Victoria Publication 1254.2 “*Noise control guidelines*” includes noise control guidelines for industrial and domestic waste collection when there is the risk to impact residential premises. Annoyance created by waste collection tends to intensify in the early-morning period (i.e., before 7 am).

Where a residential area is impacted by noise from the collection of refuse, then the guideline suggests that collections be restricted to the times contained within the schedule in Table 6.

Table 6: Schedule for garbage trucks (industrial / commercial collection).

COLLECTIONS PER WEEK	DAYS	INDUSTRIAL / COMMERCIAL WASTE	DOMESTIC / RESIDENTIAL WASTE
1	Monday to Saturday	6:30am to 8pm	6am to 6pm
	Sundays and public holidays	9am to 8pm	N/A
≥2	Monday to Saturday	7am to 8pm	7am to 6pm
	Sundays and public holidays	9am to 8pm	N/A

Collection of commercial refuse should also follow the following guidelines:

- Refuse bins should be located within the site at locations that minimise the likelihood of noise impacts to residential premises.
- Compaction should be carried out while the vehicle is moving.
- Bottles should not be broken up at collection site.

Noisy verbal communication between operators should be avoided where possible.

4.2.5 Swimming Pool

The Environment Protection Regulations 2021 (EPR2021) address various sources of noise, specifying prohibited times for noise emissions from these designated sources.

Noise is deemed unreasonable if it occurs during these prohibited hours and is audible to occupants in habitable rooms of neighbouring residences.

For swimming pool, spa or water pumps except when used to fill a heat tank.

- Monday to Friday before 7 am and after 10 pm.

4.2.6 Substation

The noise limits shown in Table 4 and Section 4.2 also apply to the proposed substation on the Ground Floor. At the time of writing this report, noise levels from the substation have not been made available. A preliminary noise assessment has been undertaken with an assumed noise spectrum based on standard substation noise data. The assessment assumes that the substation and associated ventilation equipment may run at any time (i.e. before 7:00am) and therefore has been assessed to the most stringent noise limits (i.e. night-time limits). The following acoustic requirements apply. The substation and associated ventilation equipment should be designed to not exceed the value presented in Table 7 below and should be free of audible tonality. As this analysis is preliminary, further refinement is to be undertaken as the design progresses.

Table 7: Substation requirements.

Item	Maximum Sound Pressure Level LAeq,15min @1m measured from any substation opening, dB(A)
Substation and associated ventilation equipment	50

4.2.7 Summary Of Noise Emission Requirements

Table 8: Summary of plant noise emission requirements.

NOISE SOURCE	METRIC	PERIOD	OVERALL NOISE LIMIT dB(A)
Commercial uses (i.e. mechanical plant, substation)	LAeq,T	Day	61
	LAeq,T	Evening	57
	LAeq,T	Night	49
Domestic fixed plant (i.e. balcony condenser units)	LAeq,T	Day	LA90 + 5dB
	LAeq,T	Evening	LA90 + 5dB
	LAeq,T	Night	Inaudible

4.3 INTERNAL NOISE LEVELS – EXTERNAL NOISE INTRUSION

4.3.1 Victorian Planning Provision

The Victorian Planning Provision 52.20-7.7 objectives are applicable to the project and reproduced in this section.

Noise Impact Objectives

- To contain noise sources in developments that may affect existing dwellings or small second dwellings.
- To protect residents from external and internal noise sources.

Provision 52.20-7.7 Noise Impact

- Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings or small second dwellings.
- The layout of new dwellings and buildings should minimise noise transmission within the site.
- Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts building services, non-residential uses, car parking, communal areas and other dwellings.
- New dwellings should be designed and constructed to include acoustic measures to reduce noise levels from off-site noise sources.

In particular, the clause states that buildings within a noise influence area (described in Table 9 below) should be designed and constructed to achieve the following internal noise levels:

- Not greater than 35dB(A) for bedrooms, assessed as an $L_{Aeq,8h}$ from 10pm to 6am.
- Not greater than 40dB(A) for living areas, assessed $L_{Aeq,16h}$ from 6am to 10pm.

Table 9: Extract of Noise Influence Area – Victorian Planning Provisions.

Noise Source	Noise Influence Area
Zone interface - Industry	300 meters from the Industrial 1, 2 and 3 zone boundaries
Roads - Freeways, tollways and other roads carrying 40,000 Annual Average Daily Traffic Volume	300 metres from the nearest trafficable lane
Railways - Railway servicing passengers in Victoria	80 metres from the centre of the nearest track
Railways - Railway servicing freight outside Metropolitan Victoria	80 metres from the centre of the nearest track
Railways - Railway servicing freight in Metropolitan Melbourne	135 meters from the centre of the nearest track

Note 1: The noise influence area should be measured from the closest part of the building to the noise source.

The development site falls within a Noise Influence Area as it is located within 300m from St Kilda Road which carries more than 40,000 annual average daily traffic volume. Consequently, Clause 52.20-7.7 internal noise requirements are applicable to the project.

4.3.2 AS/NZS 2107:2016

Australian Standard AS/NZS 2107:2016 provides recommended design noise levels for building interiors. These recommendations are also applicable to the project and drive internal noise design targets for spaces not addressed by the planning scheme requirements.

Design noise levels from the standard are applicable to steady and quasi-steady noise, this includes contributions from intrusive noise through the building envelope and internally generated noise from building services.

Table 10 below shows the recommended internal noise levels for various spaces within the project.

Table 10: Design Sound Levels for Different Areas of Occupancy in Buildings – AS/NZS 2107.

TYPE OF OCCUPANCY/ACTIVITY	DESIGN SOUND LEVEL ($L_{Aeq,T}$) RANGE, dB
Apartments common areas (e.g. amenities, foyer, lift lobby)	45 to 50
Living areas	35 to 45
Sleeping areas (night-time)	35 to 40

5 NOISE INTRUSION ASSESSMENT

5.1 METHODOLOGY

Façade Noise Assessment

To provide acoustic amenity to occupants of the proposed development and achieve the recommended internal noise limits, the noise impact of surrounding noise sources was assessed at the façade of the proposed development.

- Noise emissions from vehicles were modelled in accordance with the CoRTN prediction techniques and calibrated to the measurements conducted for this assessment.

All recommendations in this section are based on acoustic requirements only. Structural, thermal and any other considerations will be considered during design development for the final façade glazing system (i.e. double glazing, single glazed units etc.).

Internal Noise Calculation

The internal noise levels were subsequently calculated using BS EN 12354-3:200 and architectural inputs, including room dimensions, facade element areas, and proposed façade constructions, to predict the expected internal acoustic environment.

5.2 FAÇADE NOISE ASSESSMENT RESULTS

Table 11 below provides a summary of the predicted noise level at the development facades with exposure to external noise intrusion.

Table 11: Predicted façade noise level.

L _{Aeq,t} dB	GND	L1	L3-L10	L10+
East	62	62	62	60
West	58	58	58	56

5.3 PROPOSED FAÇADE CONSTRUCTIONS

Façade elements should be designed to mitigate noise intrusion from external noise sources, achieving the corresponding applicable criteria listed in Section 4.3.

Markups presenting the facade performance requirements and locations are provided in **Appendix B**.

5.3.1 Glazed Façade Elements

A markup of the required acoustic rating for glazed façade elements on architectural general arrangement plans is provided in **Appendix B**. The preliminary façade recommendations in **Appendix B** will be refined once the architectural design has progressed into a detailed design.

Table 12: Acoustic Ratings & Glazing Arrangements.

REQUIRED ACOUSTIC RATING (R _w)	TYPICAL EQUIVALENT GLASS
33	<u>Single</u> : 6.38mm laminated glass <u>Double</u> : 6mm / 12mm airgap / 6mm glazing
36	<u>Double</u> : 10mm / 12mm airgap / 4mm glazing
38	<u>Double</u> : 10mm / 12mm airgap / 6mm glazing
40	<u>Double</u> : 10mm / 12mm airgap / 6.38mm glazing

It is noted that the glazing build-up provided in Table 12, is indicative only and intended for planning and costing purposes. The critical requirement is compliance with the minimum R_w rating specified in Table 12. The Principal Contractor shall be responsible for ensuring that the final installed glazing system, including glazing, frames and seals, achieves this minimum acoustic performance and is supported by relevant test certificates.

5.3.2 Non-Glazed Façade Elements

In addition to the required glazing systems outlined in Table 12, the solid/non-glazed elements of the façade shall be constructed to ensure the resulting internal noise levels within each space in the proposed development do not exceed the project internal noise limits outlined in Section 4.3.

Concrete roof construction provides sufficient acoustic performance without requiring additional treatment. All ceiling penetrations (including those for lighting fixtures and services) must be sealed with appropriate flexible sealant to maintain acoustic integrity. Where ventilation openings are required in ceiling spaces, these must incorporate suitable acoustic treatment to preserve the specified acoustic performance of the ceiling assembly and ensure compliance with the internal noise criteria outlined in Table 10.

Masonry constructions such as concrete or core-filled blockwork will be satisfactory with no additional acoustic treatment required.

Lightweight constructions are to have an indicative acoustic performance of more than 10dB greater than the corresponding acoustic glazing rating to ensure the resulting internal noise levels within each space in the proposed development do not exceed the recommended internal noise levels outlined in Section 4.3.

6 NOISE EMISSION ASSESSMENT

6.1 PLANT NOISE ASSESSMENT

The noise emission limits presented in Section 4.2 are applicable to future plant associated with the proposed development. The assessment should, where relevant, consider the noise impacts of the following equipment:

- Mechanical equipment, such as fans, condenser units, ERVs, cooling towers, chillers, etc
- Hydraulic or fire pumps
- Generator
- Substation
- Specialist equipment, such as pool and spa plant

At this stage of the project, detailed mechanical equipment specifications are not yet available, and therefore a formal compliance assessment cannot be undertaken.

Review and assessment of the proposed external equipment is to be undertaken once plant items and locations have been selected to ensure compliance with the applicable noise emission criteria.

Standard mitigating noise controls which may be implemented to achieve compliance include but are not limited to:

- Infill of plant screening to present solid acoustic barriers.
- Installation of absorption elements.
- Selection of quieter plant models.
- Installation of attenuators and / or acoustic louvres.

Assessment of particular treatment requirements are to be conducted as the design progresses and relevant information becomes available.

7 CONSTRUCTION NOISE & VIBRATION

The sections below outline the recommended construction site operating hours for construction noise and vibration as per recommendations in Publication 1834.

7.1 Construction Site Operating Hours

All noise and vibration are expected to be minimised at all times. Limiting times of operation of noisy equipment, vehicles and operations is an effective way of reducing noise and vibration. The below sections prescribe the allowed working hours for construction noise and vibration.

7.1.1 Normal Working Hours

Publication 1834 defines 'normal working hours' for commercial construction and demolition sites as:

- 7 am — 6 pm Monday to Friday
- 7 am — 1 pm Saturdays

Noise associated with works within these periods should be minimised as far as practicable.

7.1.2 Outside Normal Working Hours (Weekend/Evening Work Hours)

Publication 1834 defines 'outside normal working hours' for commercial construction and demolition sites as:

- 6 pm — 10 pm Monday to Friday
- 1 pm — 10 pm Saturdays
- 7 am — 10 pm Sundays and public holidays

Any works required to be conducted within these periods should adhere to requirements laid out in Section 4.4 of Publication 1834.

8 CONCLUSION

E-LAB Consulting has prepared this Noise Impact Assessment in support of an application for the proposed development at 464 St Kilda Road, Melbourne.

The following noise and vibration assessments were conducted as part of this noise impact assessment:

- Noise impact from road traffic along St Kilda Road, Queens Lane and Queens Road.
- Noise mechanical plant and equipment serving the proposed development on surrounding noise sensitive receivers.
- Internal noise limits for residential components of the development.

Mechanical plant used on the site will need to be designed to comply with the noise emission and noise intrusion criteria in the detailed design stage of the project. Controlling noise from plant and equipment would include a combination of enclosed plant rooms, silencers, lined ductwork, acoustic barriers, acoustic louvres and the selection of quiet plant where required.

Current regulations and standards associated with the development have been reviewed and assessed in accordance with existing site constraints. The construction standards have been provided to satisfy the local council and other relevant standards.

Having given regard to the assessment conducted within this report, it is the finding of this noise impact assessment that the proposed development is compliant with the relevant noise criteria controls for this type of development, with the recommended design consideration provided in this report.

Appendix A

Glossary of Acoustic Terms

Ambient Noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Background Noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the LA90 noise level.
Decibel [dB]	The units of sound pressure level.
dB(A)	A-weighted decibels. Noise measured using the A filter.
Extraneous Noise	Noise resulting from activities that are not typical of the area. Atypical activities include construction, and traffic generated by holidays period and by special events such as concert or sporting events. Normal daily traffic is not considered to be extraneous.
Free Field	An environment in which there are no acoustic reflective surfaces. Free field noise measurements are carried out outdoors at least 3.5m from any acoustic reflecting structures other than the ground
Intermittent Noise	Level that drops to the background noise level several times during the period of observation.
LAFmax	The maximum A-weighted sound pressure level measured over a period. 'F'(fast) time weighting - Sound level meter design-goal time constant which is 0.125 seconds.
LA90	A-weighted, sound level just exceeded 90% of the measurement period and calculated by statistical analysis. See also the background noise level.
LAeq,T	The constant A-weighted sound which has the same energy as the fluctuating sound of the traffic, averaged over time T.
Reflection	Sound wave changed in direction of propagation due to a solid object met on its path.
Rw	The Sound Insulation Rating R-w is a measure of the noise reduction performance of the partition.
Sound Pressure Level, Lp	The level of sound measured on a sound level meter and expressed in decibels (dB). Where $L_p = 10 \log_{10}$ $(P_a/P_o)^2$ dB (or $20 \log_{10} (P_a/P_o)$ dB) where P_a is the rms sound pressure in Pascal and P_o is a reference sound pressure conventionally chosen is $20 \mu\text{Pa}$ (20×10^{-6} Pa) for airborne sound. L_p varies with distance from a noise source.
Sound Power Level, Lw	The sound power level of a noise source is the inherent noise of the device. Therefore, sound power level does not vary with distance from

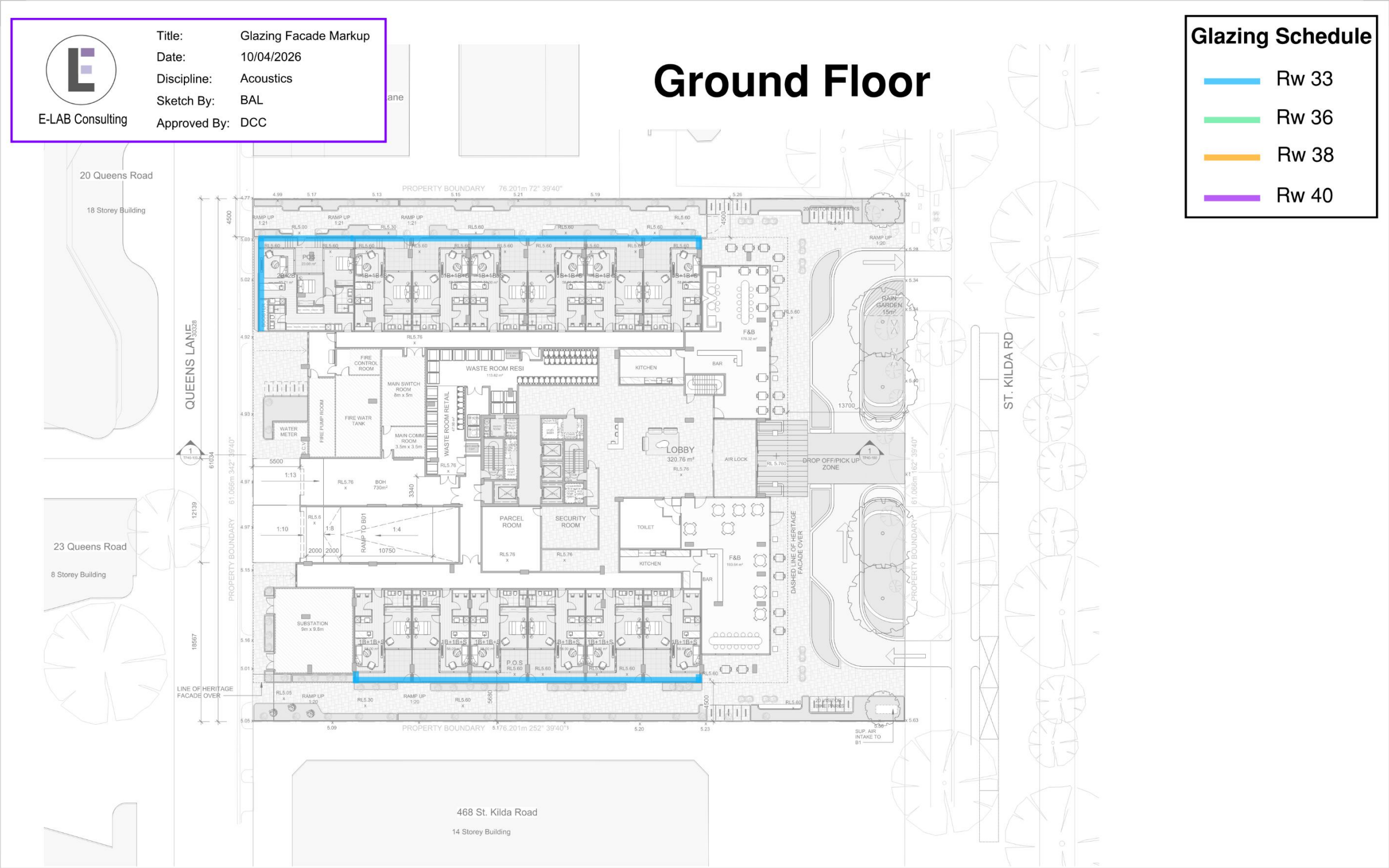
the noise source or with a different acoustic environment. $L_w = L_p + 10 \log_{10} 'a' \text{ dB}$,

re: 1pW, (10-12 watts) where 'a' is the measurement noise-emission area (m²) in a free field.

Tonal Noise

For example, humming or whining from equipment. The presence of tonal characteristics creates additional annoyance.

Appendix B External Façade Glazing Requirements



COX

Cox Architecture
coxarchitecture.com.au

Project: 464 ST KILDA ROAD

Scale: 1:200 @ A1

Acknowledgement

Date: 13/02/2025

Drawing Title:

GROUND FLOOR PLAN

Drawing Number:

TP21-100

PLOT STAMP DATE: 04/02/2025 10:29 AM





E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 1

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40

COX

Cox Architecture
coxarchitecture.com.au

Project: 464 ST KILDA ROAD
Scale: 1:200 @ A1
Date: 25/11/2024
Acknowledgement:
Revision:
Drawing Title: PLAN - LEVEL 01
Drawing Number: TP21-101



E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 2

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40

COX

Cox Architecture
coxarchitecture.com.au

Project: 464 ST KILDA ROAD

Scale: 1:200 @ A1

Acknowledgement

Date: 25/11/2024

Drawing Title:

PLAN LEVEL 02

Revision:

Drawing Number:

TP21-102

POST STAMP DATE: 10/04/2026 11:42 PM



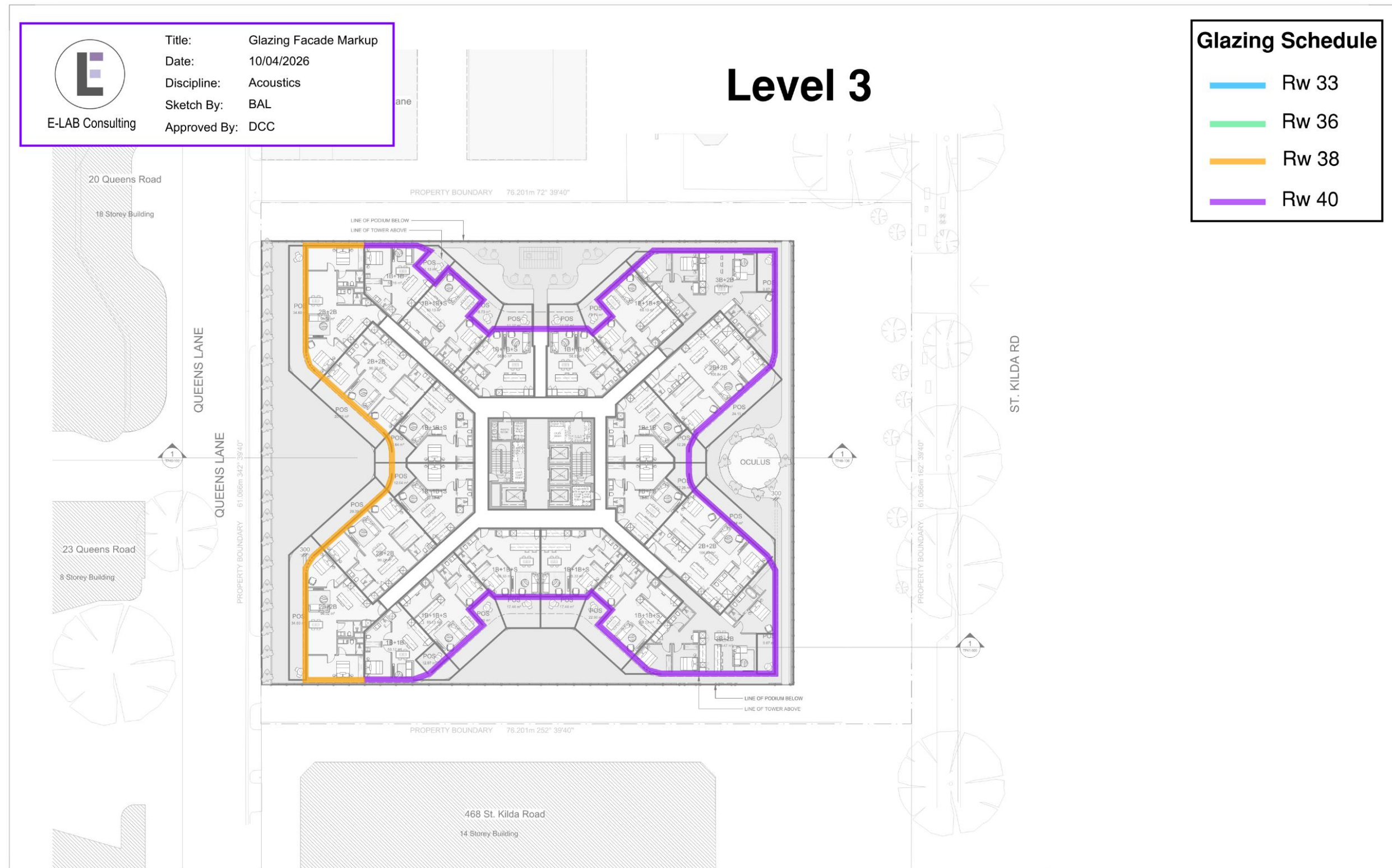
E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 3

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40



COX

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Project 464 ST KILDA ROAD

Scale: 1:200 @ A1

Acknowledgement

Date: 25/11/2024

Drawing Title:

PLAN - LEVEL 03

Revision:

Drawing Number: TP21-103

PROJECT START DATE: 10/04/2024 14:40 AM



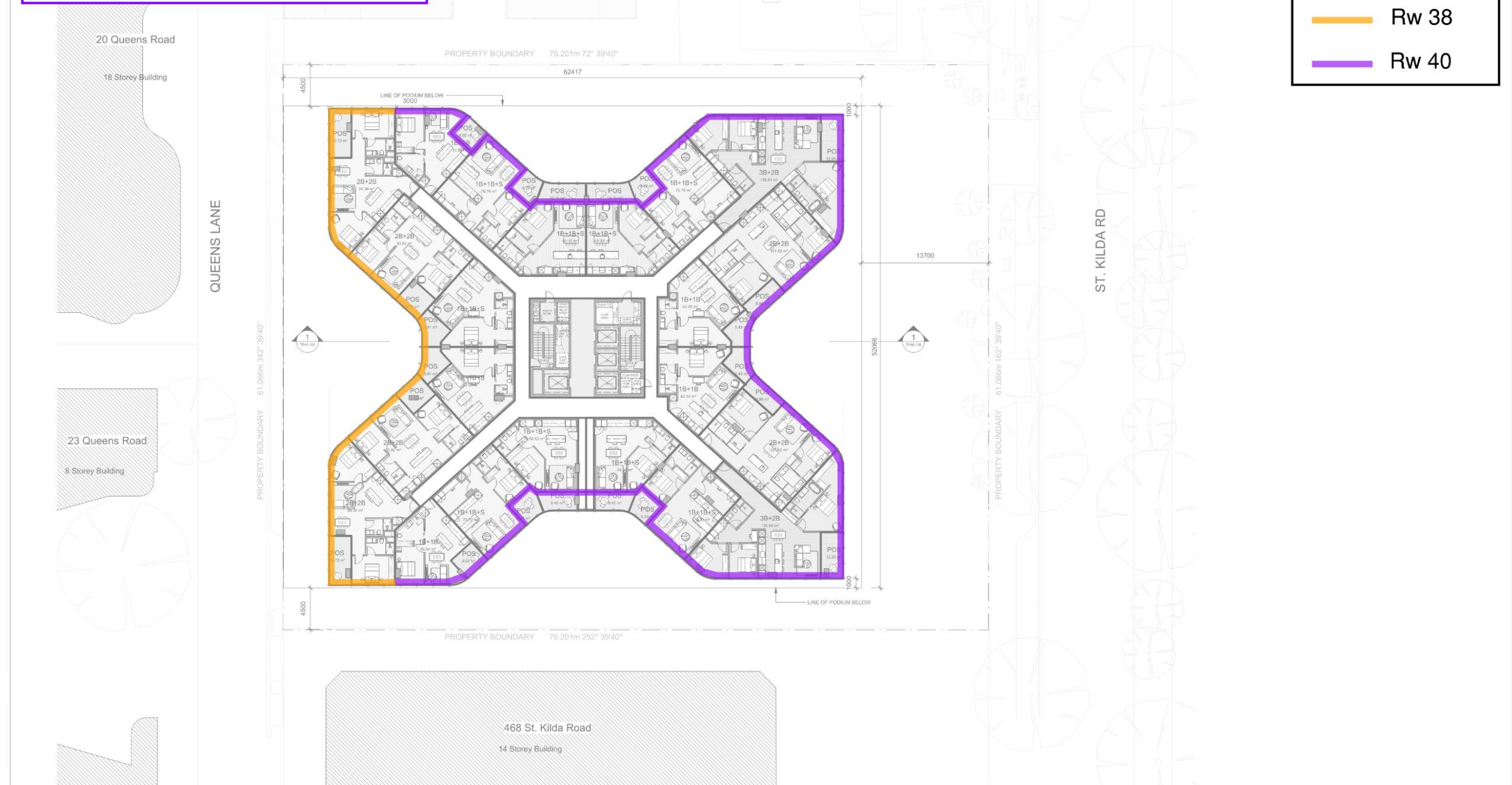
E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 4 to Level 11

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40



COX

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Project	464 ST KILDA ROAD	Scale:	1:200 @ A1
Acknowledgement		Date:	25/11/2024
Drawing Title:	PLAN - LEVEL 04-11	Revision:	
		Drawing Number:	TP21-104

DATE: 25/11/2024
TIME: 11:45 AM



E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 11 to Level 15

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40



COX

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Project	464 ST KILDA ROAD	Scale:	1:200 @ A1
Acknowledgement		Date:	25/11/2024
Drawing Title:	PLAN - LEVEL 12-17	Revision:	
		Drawing Number:	TP21-112





E-LAB Consulting

Title: Glazing Facade Markup
Date: 10/04/2026
Discipline: Acoustics
Sketch By: BAL
Approved By: DCC

Level 16 to Roof

Glazing Schedule

- Rw 33
- Rw 36
- Rw 38
- Rw 40



COX

Cox Architecture
coxarchitecture.com.au

Project	464 ST KILDA ROAD	Scale:	1:200 @ A1
Acknowledgement		Date:	25/11/2024
Drawing Title:	PLAN - LEVEL 12-17	Revision:	
		Drawing Number:	TP21-112

