173-177 BARKLY AVENUE, BURNLEY

Acoustic Report

Prepared For

STORHUB VICTORIA TRUST IV

DOC. REF: V2121-01-P ACOUSTIC REPORT (R1)
24 MARCH 2026

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ENFIELD
ACOUSTICS
NOISE
VIBRATION

Project	173-177 Barkly Avenue, Burnley
Subject	Acoustic Report
Client	Storhub Victoria Trust IV
Document Reference	V2121-01-P Acoustic Report (r1)
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ENFIELD ACOUSTICS NOISE VIBRATION

1 Introduction & Scope

Enfield Acoustics has been engaged by Storhub Victoria Trust IV (Applicant) to assess potential noise impacts relating to the proposed self storage facility at 173-177 Barkly Avenue, Burnley (Subject Land). This assessment will form part of the planning permit application for the proposed development (Application).

It is understood that the storage facility is proposed to operate from 8.30am to 5.30pm Monday to Saturday however, given that the use is primarily a self-storage facility, after-hours access (including Sunday) will also be available to customers via an access code.

The use is well sited within a Commercial 2 zone and we consider a self storage facility to be a low risk with regard to noise emission.

Based on our review of the proposal, key noise sources relevant to the development include:

- Vehicle noise emissions from the entry/exit gates
- Internal noise emissions from self-storage activities
- Mechanical plant

To this end, Enfield Acoustics has:

1. Confirmed proximities to existing residential dwellings surrounding the Subject Land;
2. Visited an existing storage facility of similar scale and character to benchmark noise emissions;
3. Visited the Subject Land to carry out background noise measurements and determine statutory noise limits; and
4. Conducted 3D computational noise modelling to assess potential noise emissions from the proposed use against relevant noise policies

Our assessment has been conducted with reference to Plans prepared by Gray Puksand 19 March 2026.

2 Site Inspection

Enfield Acoustics visited the Subject Land to survey nearby sensitive uses and to conduct attended background noise measurements on 13 November 2024. The nearest sensitive uses adjacent to the Subject Land were identified as follows:

Tag	Location of Sensitive Use	Direction	Type
R1	Adam Street	West	Single-storey
R2	Adam Street	North	Single-storey
R3	Stawell Street	Northeast	Single-storey

Refer below for a site map showing locations of sensitive uses relative to the Subject Land:

Given that the sensitive uses identified above are the closest to the Subject Land, it is intrinsic that compliance at these locations would also result in compliance at all other possible sensitive uses proximate to the Subject Land.

The following background noise levels were recorded at approximately 1am:

Location	Sound Pressure Level, L_{A90}
Adam Street	37 dB(A), L_{90}

It was observed that the ambient noise environment was dominated by distant traffic noise. Noise measurements were conducted at approximately 1am as it is typically representative of average noise levels for the most sensitive 'Night' period.

3 Policy Requirements

3.1 Noise Protocol

Noise from any commercial use must comply with the *Environment Protection Regulations 2021* (Regulations) and *Publication 1826: Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues* (Noise Protocol).

Zoning levels and resulting noise limits at identified sensitive uses have been calculated in accordance with the methodologies under the Noise Protocol, as follows:

Period	Zoning Level	Background Noise Level	Noise Limit
'Day' Period 7am to 6pm (Monday to Saturday)	58 dB(A)	Assumed 'Neutral'	**58 dB(A)**
'Evening' Period 6pm to 10pm (Monday to Saturday) 7am to 10pm (Sundays)	51 dB(A)	Assumed 'Neutral'	**51 dB(A)**
'Night' Period 10pm to 7am (All days)	46 dB(A)	37 dB(A) 'Neutral'	**46 dB(A)**

Based on the table above, the background noise environment was found to be 'Neutral' for the 'Night' period. The background noise environment was otherwise assumed to be 'Neutral' for the 'Day/Evening' periods to remain conservative, noting that background noise classification is unlikely to be 'low' due to elevated traffic levels on the Citylink freeway to the south.

The Noise Protocol considers 30-minute average energy noise emissions, meaning that the relevant assessment metric being considered is $L_{Aeq\text{-}30min}$, dB(A).

3.2 Sleep Disturbance

Given that 24-hour operation is proposed and the storage facility could be accessed during the 'Night' period by customers, it is appropriate that sleep disturbance impacts are also considered in our assessment. In fact, there is very little probability of sustained noise emission occurring from a self storage facility and transient noise impacts assessed using sleep disturbance criteria is more likely to reflect the actual impacts.

No specific policy exists in assessing noise impacts from carparks, however 'Sleep Disturbance' criteria derived from the NSW Road Traffic Policy can be used as a method of assessing the likelihood of noise impacts for short duration or transient events.

The Sleep Disturbance assessment trigger of $\mathbf{L_{max}}$ **65dB(A)** outside habitable room windows is often used to determine if transient noise emissions are likely to cause adverse impacts during the most sensitive 'Night' period (10pm to 7am). However, for very infrequent events of 1-2 during the 'Night' period, it is generally accepted that outdoor noise levels of up to 80dB(A), L_{max} do not impact on health and wellbeing.

4 Assessment

4.1 Benchmark Noise Monitoring

Our office has previously carried out noise measurements at a storage facility (Storage King Burwood) of similar scale and character to the proposal which we have used to benchmark noise emissions from the proposal.

Based on our observations and benchmarking, a storage facility does not generate material noise emissions. This is not surprising given that the primary use is to store items, with the majority of the facility being largely unused and vacant. Even with storage activities occurring (e.g.,

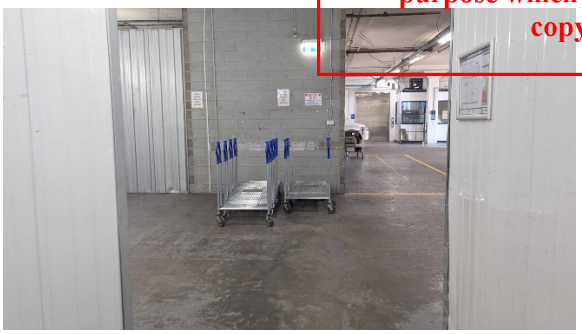
loading/unloading), the operations are not machinery-intensive, and noise was observed to be primarily driven by the movements of trolleys and pallet jacks.

Based on our observations and measurements from the benchmark site, noise sources from storage activities were measured as follows:

Item	Sound Power Level
Trolley/pallet jack loading and movements *15m from source*	53 dB(A) $L_{eq\text{-}10min}$
Internal activity noise levels *2m from source* *Loading/unloading, trolley/pallet jack movements, opening/closing roller doors*	62 dB(A) $L_{eq\text{-}10min}$ 83 dB(A) L_{max}

Loading/unloading at the entrance

Inside storage facility



Trolleys for moving items

Pallet jack for moving items

4.2 Noise Modelling

Based on the data obtained from the benchmark site and previous measurements conducted by our office, a 3D computational noise model has been generated using the software package CadnaA.

The noise model assumes the following:

Noise Source	Assumptions	Sound Power Level
Internal activity noise	All activities occurring simultaneously and continuously for 30 minutes throughout the entire facility.	62 dB(A) $L_{eq\text{-}30min}$
Passenger vehicle passby	Full utilisation of ground-floor carpark within 30 minutes (9 car lots).	85 dB(A) $L_{eq\text{-}30min}$
MRV passby	Full utilisation of ground-floor carpark within 30 minutes (4 MRV lots).	98 dB(A) $L_{eq\text{-}30min}$
Notes:	SWL's derived from benchmark noise emissions conducted at other similar premises, warehouses and carparks.	

In addition to the above sound power levels, the following were assumed in the noise model:

- Corrugated steel roof construction (R_w>21)
- Approximately 3m wall along the northern boundary

4.3 Internal Self Storage Activities

Based on the assumptions in Section 4.2, worst-case noise levels from internal storage activities have been modelled as follows:

Noise Protocol Assessment

Location	Effective Noise Level L_{Aeq}	Noise Protocol Limit	Exceedance/comply?
R1	30 dB(A)	58 dB(A) – Day 51 dB(A) – Evening 46 dB(A) - Night	✓
R2	30 dB(A)		✓
R3	33 dB(A)		✓

Sleep Disturbance Assessment

Location	Effective Noise Level L_{Amax}	Sleep Disturbance Threshold	Exceedance/comply?
R1	52 dB(A)	65 dB(A)	✓
R2	50 dB(A)		✓
R3	51 dB(A)		✓

Noise modelling maps are provided at Appendix A.

The results of the modelling indicate that internal noise emissions from storage activities can comply with all periods of the Noise Protocol by significant margins, indicating a satisfactory outcome. The result of the modelling also indicates that storage activities can comply with the Sleep Disturbance Threshold by significant margins at all sensitive uses.

This is not surprising given that self storage activities are not generally intensive in nature.

Overall, we consider our assessment to be conservative as internal noise emissions from storage activities are assumed to be constant throughout the entire facility within a 30-minute period. In effect, internal noise levels are expected to vary depending on the activities conducted and floors being used, especially during the 'Night' period when activities will be infrequent if occurring at all.

To this end, we are satisfied that storage activities within the facility will not result in adverse noise impacts at the identified sensitive uses.

4.4 Carpark Noise

Based on the assumptions in Section 4.2, worst-case noise levels from vehicle entry and exit (including MRVs) have been modelled as follows:

Noise Protocol Assessment

Location	Effective Noise Level L_{Aeq}	Noise Protocol Limit	Exceedance/comply?
R1	37 dB(A)	58 dB(A) – Day 51 dB(A) – Evening 46 dB(A) - Night	✓
R2	33 dB(A)		✓
R3	12 dB(A)		✓

Sleep Disturbance Assessment

Location	Effective Noise Level L_{Amax}	Sleep Disturbance Threshold	Exceedance/comply?
R1	60 dB(A)	65 dB(A)	✓
R2	55 dB(A)		✓
R3	32 dB(A)		✓

Noise modelling maps are provided at Appendix A.

The results of the modelling indicate that vehicle ingress and egress can comply with all periods of the Noise Protocol by significant margins, indicating a satisfactory outcome. The result of the modelling also indicates that vehicle ingress and egress can comply with the Sleep Disturbance Threshold by reasonable margins at all sensitive uses.

Our assessment of carpark noise impacts is likely conservative as we have assumed full utilisation of the carpark within 30 minutes during all periods. In reality, vehicle ingress and egress during the 'Night' period are expected to be limited and infrequent.

No adverse noise impacts are expected to result from traffic within the carpark itself, noting that it is well shielded from all surrounding sensitive uses.

4.5 Mechanical Plant Noise

Moderate forms of mechanical plant and/or equipment may be required for the development, however, exact plant selections are not yet known. Based on our observations at the benchmark site, mechanical plant is likely to consist of ventilation fans and small domestic sized air-conditioning (AC) units for the office.

Generally, our view is that noise from mechanical plant and equipment presents as low risk in terms of adverse noise impacts, for the following reasons:

- The proposal is for a storage facility which does not require intensive or commercial grade mechanical plant
- Any mechanical plant and/or equipment that is located internally are appreciably mitigated by regular forms of building envelope construction.
- There are sufficient opportunities to mitigate mechanical plant noise as part of the fit-out requirements undertaken by tenants, as follows:
    - Installation of duct attenuators
    - Localised plant screening
    - Selection of quieter equipment
    - Effective positioning of equipment (e.g., on the roof or south façade)

Ultimately, all mechanical plant and equipment must comply with the Noise Protocol and is enforceable by the EPA, regardless of planning controls.

It is recommended however that any mechanical plant is acoustically screened (fixed screens or the built form) to break line-of-sight to the dwellings as best practice and to minimise noise impacts.

Appropriately, specific assessments can be carried out during later stages once mechanical plant and equipment requirements are known.

4.6 Waste Collection

Guidance for appropriate waste collection hours are provided by *EPA Publication 1254.2 – Noise Control Guidelines dated May 2021* (Publication 1254), as follows:

Schedule: Industrial waste collection
One collection per week
6:30 am – 8 pm Monday to Saturday
9 am – 8 pm Sunday and public holidays
Two or more collections per week
7 am – 8 pm Monday to Saturday
9 am – 8 pm Sunday and public holidays

To that end, it is recommended that the following controls apply to the permit:

Waste Collection

- Collections occurring once per week shall be restricted to the hours:
  - 6.30am to 8.00pm, Monday to Saturday
  - 9.00am to 8.00pm, Sunday and public holidays

- Collections occurring twice or more per week shall be restricted to the hours:
  - 7.00am to 8.00pm, Monday to Saturday
  - 9.00am to 8.00pm, Sunday and public holidays

5 Conclusion and Recommendations

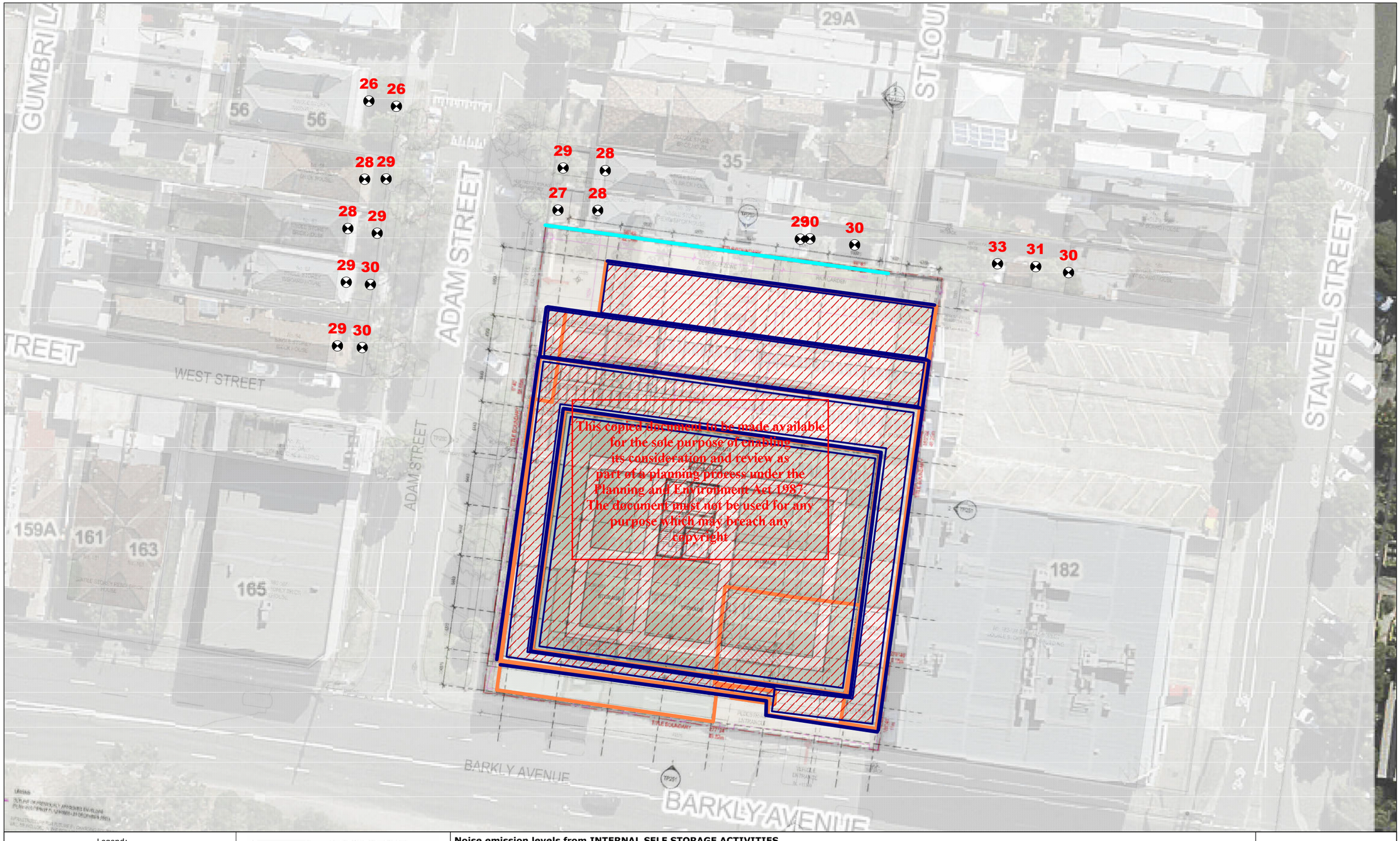
Enfield Acoustics has assessed potential noise impacts resulting from the proposed storage facility at 173-177 Barkly Avenue, Burnley and is satisfied that the application can be approved.

Based on our assessment, noise emissions from the proposal can comply with the Noise Protocol limits and Sleep Disturbance Threshold. This is not surprising given the intended use being a self-storage facility, which is not expected to generate material or consistent noise emissions, especially during the most sensitive 'Night' period.

To mitigate any risk of non-compliance from mechanical plant, it is recommended that mechanical plant is assessed at a later stage when all requirements are known to determine the extent of noise mitigation required (if any). In principle, however, there are sufficient opportunities to mitigate mechanical plant noise to ensure compliance with the Noise Protocol is achieved.

On this basis, Enfield Acoustics is satisfied that the application can be approved where the recommendations in this report are adopted.

Appendix A: Noise Modelling Map



Legend:

- Line Source
- Area Source
- vert. Area Source
- Building
- Barrier
- Contour Line
- Receiver
- Building Evaluation

Scale: 1: 446 @ A3

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Noise emission levels from INTERNAL SELF STORAGE ACTIVITIES

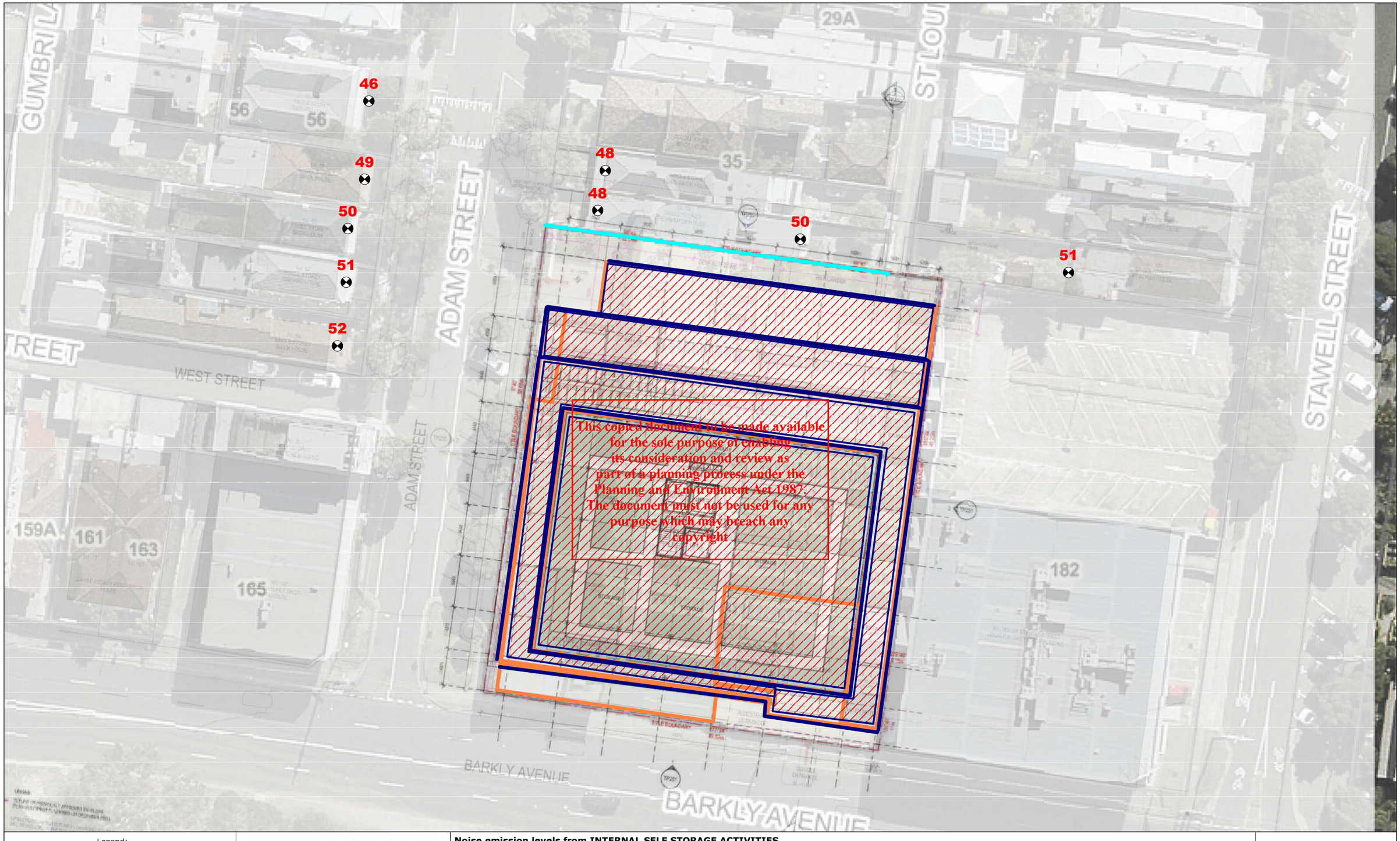
LAeq Noise Levels

Noise Protocol Assessment

Project No: V2121 Drawing No: MAP-01 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613



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Noise emission levels from INTERNAL SELF STORAGE ACTIVITIES

LAmax Noise Levels

Sleep Disturbancel Assessment

ADVERTISED PLAN

Project No: V2121 Drawing No: MAP-02 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613

Legend:

- Line Source
- Area Source
- vert. Area Source
- Building
- Barrier
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- Receiver
- Building Evaluation

Scale: 1: 446 @ A3

ENFIELD ACOUSTICS NOISE VIBRATION

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Noise emission levels from CARPARK INGRESS/EGRESS

LAeq Noise Levels

Noise Protocol Assessment

Project No: V2121 Drawing No: MAP-03 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613

Legend:

- Line Source
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Noise emission levels from CARPARK INGRESS/EGRESS

LAmax Noise Levels

Sleep Disturbance Assessment

ADVERTISED PLAN

Project No: V2121 Drawing No: MAP-04 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613