

Annexure 9

Acoustic Advisor Assessment

Whitney Cocking

Technical Advisor Review Noise – 1 Molesworth Street Pipitea Wellington

Title	Acoustic Advisor Report 1 Molesworth Street Development	Report No	2
SR	514663	Status	WCC Issued
Date	24 May 2022	Discipline	Acoustics (Noise)
Authors	Whitney Cocking	Issued to	Matthew Brajkovich Resource Consents Planner
Reviewer	Lindsay Hannah		

The Acoustic Team has reviewed the Application by Her Majesty the Queen (“the Applicant”) for 1 Molesworth Street Pipitea Wellington.

A group of supporting documents have been submitted as part of the Resource Consent Application for review this includes (but is not limited to) an Assessment of Effects (AEE) entitled ‘**Assessment of Environmental Effects Report Parliamentary Precinct 1 Molesworth Street**’ (the AEE) prepared by Peter Coop. An acoustic report has been prepared by Acoustic Engineering Services Ltd (AES). For clarity this report comments only on potential noise effects generated by mechanical plant.

The site (Parliamentary Precinct) is bounded by Bowen Street, Molesworth Street, Hill Street and Ballantrae Place and the land is Her Majesty the Queen. The site is presently occupied by an assortment of buildings, structures and grounds necessary to serve the democratic needs of the people of New Zealand. The site is zoned **Central Area** under the Operative Wellington City Council District Plan. The surrounding sites are also within the Central Area also, apart from an Open Space A zone directly to the south-east and an Open Space B zone to the south-west (on the opposite side of Bowen Street). There is also an Inner Residentially zoned site to the north-west (on the opposite side of Hill Street).

Being zoned Central Area the background sound levels are expected to be modest to high noise levels during a typical day with lower levels produced in the evening and night. No sample levels are presented in the Application or acoustic report.

The proposal seeks to construct three new buildings on the precinct and will involve extensive landscaping. Section 2.3 of the AEE discusses the proposal's main points. In addition to day to day operational noise, the activity will also produce modest to high levels of temporary noise from construction and vibration. Operational noise will be produced by people, traffic and fixed plant. The AES noise report only discusses mechanical plant and does not address the other potential or actual noise effects associated with the proposal.

The fixed plant noise effects have been assessed by AES who have specified that it is reasonable to expect that the plant can be designed to ensure compliance with the District Plan Noise standards at the nearest neighbouring properties, before suggesting a condition on resource consent to ensure compliance. The AEE also recommends a number of resource consent conditions that could be imposed to meet noise standards. For clarity the AES report has not provided an assessment of actual or potential noise levels and no predicted noise levels are presented.

The acoustic report simply suggests, without further evidence or supporting information that the plant can be designed to ensure compliance with the permitted District Plan noise effects. We are unable to make a final statement on these conclusions as the acoustic report does not provide sufficient information to allow us to do so. Accordingly, it is not possible to make specific comments on any actual or potential noise effects based on the AES acoustic report as the report does not address such matters in any detail beyond providing generic statements.

Moving to the Assessment of Environmental Effects, the AEE refers to the AES report as support for compliance with the permitted noise rules. The Assessment of Environmental Effects does, however, note that resource consent could be imposed for the plant as well as confirmation of compliance with the permitted noise limits (acoustic certification) for the plant once completed. We agree and are of the view that conditions must be imposed as the noise assessment report and Assessment of Environmental Effects provides no actual assessment of actual or potential noise effects to allow us to assess any potential adverse noise effects. Further no assessment of construction noise and vibration has been provided, again only generic statements stating that the temporary negative effects of construction can be successfully avoided through a proposed construction Noise Management Plan (Section 4.3 of the AEE). We agree and recommend conditioning of consent for a detailed noise and vibration management plan (CNVMP) be developed to ensure noise and vibration remain reasonable at all times the control measures shall be in line with s.16 Best Practical Option (BPO) requirements of the Resource Management Act. We also recommend that this CNVMP should be reviewed and approved by Council and any reasonable changes to the draft CNVMP made. Accordingly we recommend the following conditions. These conditions are directly based on the recommendations of the Applicant or are specifically recommended to ensure that any potential or actual adverse noise effects are suitably managed so that the activity will comply at all times with the District Plan noise rules.

Recommended Noise Conditions

(...) Boundary Noise Emissions (As received in Adjacent Centrally Zoned Sites)

The Consent Holder must ensure noise emission levels (excluding fixed plant noise) when measured at or within the boundary of any fee simple site, other than the site from which the noise is emitted, shall not exceed the following:

At all times: 60 dBA $L_{Aeq(15\ min)}$

At all times: 85 dBA L_{AFmax}

Advice Note: *Measurements must be measured and assessed in accordance with NZS 6801:2008 "Acoustics – Measurement of environmental sound" and NZS 6802:2008 "Acoustics - Environmental Noise"*

(...) Boundary Noise Emissions (As Received in Adjacent Inner Residentially Zoned Sites)

The Consent Holder must ensure noise emission levels (excluding fixed plant noise) when measured at or within the boundary of any fee simple site or at the outside wall of any building on any site, other than the site from which the noise is emitted, shall not exceed the following:

Monday to Saturday 7am to 7pm – 55 dB $L_{Aeq(15\ min)}$

Monday to Saturday 7pm to 10pm – 50 dB $L_{Aeq(15\ min)}$

At all other times – 40 dB $L_{Aeq(15\ min)}$

All days 10pm to 7am – 70 dB L_{AFmax}

Advice Note: *Measurements must be measured and assessed in accordance with NZS 6801:2008 "Acoustics – Measurement of environmental sound" and NZS 6802:2008 "Acoustics - Environmental Noise"*

(...) Fixed Plant Boundary Noise Emissions (As received in Adjacent Centrally Zoned Sites)

The Consent Holder must ensure all fixed plant and equipment including heating, cooling and ventilation plant must be located, designed and operated so that noise emission levels, when measured at or within the land parcel, other than the building or site from which the noise is emitted, do not exceed the following limits:

At all times: 55 dBA $L_{Aeq(15\ min)}$

At all times: 70 dBA L_{AFmax}

Advice Note: Measurements must be measured and assessed in accordance with NZS 6801:2008 “Acoustics – Measurement of environmental sound” and NZS 6802:2008 “Acoustics - Environmental Noise”

(...) Fixed Plant Certification

The Consent Holder must ensure that noise emission levels emanating from all fixed plant and equipment must be monitored at the commissioning stage (prior to occupation) by a qualified and experienced acoustic expert suitable to Council. Written certification in the form of an acoustic measurement and compliance commissioning report must be provided to Council's Compliance Monitoring Officer and Acoustic Engineer for approval. The certificate must certify that commutative worst case fixed plant noise emissions comply with the noise limits set out in Condition (XX) above

(...) Fixed Speaker

The Consent Holder must ensure that noise emission levels emanating from any electronic sound systems associated with the commercial operations of the site shall not exceed 75 dB L_{Aeq} when measured over any 2-minute period. In any event, measurements shall be made no closer than 0.6 metres from any part of a loudspeaker and at a height no greater than 1.8 metres (representative of the head of a passer-by).

(....) Construction Noise

The Consent Holder must ensure that construction activities are managed and controlled so that the noise received at any residential or commercial site does not exceed the limits set out in Table 2 and Table 3 of ‘NZS6803:1999 Acoustics – Construction’ Noise when measured and assessed in accordance with that Standard.

(....) Construction Noise and Vibration Management Plan (CNVMP)

The Consent Holder must ensure that not less than 20 working days prior to commencing any construction activities authorised by this consent, the Consent Holder must submit to Wellington City Councils Compliance Monitoring Officer (CMO) a draft Construction Noise and Vibration Management Plan (CNVMP) for approval.

The Construction Noise and Vibration Management Plan must include but not be limited to:

- a. Background and purpose of Construction Noise Management Plan
- b. Objectives of Construction Noise Management Plan
- c. Description of the project (nature and scale)
- d. Description of the site, designated areas and construction work areas
- e. Description and location of noise sensitive sites (commercial and residential)
- f. Construction and vibration levels
- g. Noise and vibration sources
- h. Project period(s), sequencing and staging
- i. Performance noise and vibration standards
- j. Hours of operations (all activity types and activity area)

- k. Physical noise and vibration mitigation measures inline with s.16 BPO of the RMA
- l. Managerial noise and vibration mitigation measures inline with s.16 BPO of the RMA
- m. Community consultation and communication procedures
- n. Consultation and communication procedures with Council re: noise complaints
- o. Contact details of the person in charge of noise management
- p. Construction noise and vibration monitoring and reporting
- q. Non-compliance contingency planning and monitoring
- r. Methods to review the CNVMP with respect to changes in the program

s. *Construction Noise Management Plan approval and sign off*

(....) Construction Noise and Vibration Management Plan Approval

The Consent Holder must not undertake any activities authorised by this consent until the draft Construction Noise Management Plan (CNVMP) has been signed off by Councils Compliance Monitoring Officer as final and is denoted by Council as being 'approved for use' as the final Construction Noise and Vibration Management Plan (CNVMP).

(....) Construction Noise Management Accordance

The Consent Holder must at all times ensure the on-site activities are carried out in accordance with the final 'for use' Construction Noise Management Plan.

Please advise if you require any further information or if the Applicant wishes to discuss any changes to the recommended noise conditions.



Whitney Cocking Environmental Noise/Compliance Officer.
City Consenting and Compliance: **City Consenting and
Compliance: Wellington City Council**

24 May 2022

Appendix A: Supporting Information



