

1. INTRODUCTION

1.1 My name is Matthew Armin Lindenberg and I hold the position of Principal Planner at Beca Ltd. I have the qualifications and experience set out in my evidence in chief (**EIC**), dated 18 July 2023. I am providing planning rebuttal evidence on behalf of Kāinga Ora – Homes and Communities (**Kāinga Ora**) in respect of Hearing Stream 5, specifically in relation to the provisions within the Noise Chapter of the PDP.

1.1 As set out in my EIC, I confirm that I have read the Environment Court's Code of Conduct contained in the Environment Court Practice Note 2023 and agree to comply with it. I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

2. SCOPE OF REBUTTAL EVIDENCE

2.1 This statement of evidence focuses primarily on responding to the relief sought through the evidence of Ms O'Sullivan (on behalf of WIAL) and Ms Heppelthwaite (on behalf of Waka Kotahi and KiwiRail), as they relate to the provisions that I discussed, and the relief sought, in my EIC.

2.2 Attached to this rebuttal statement as **Attachment A** is an updated set of provisions which reflect the latest amendments recommended through rebuttal evidence on behalf of Kāinga Ora, in particular the proposed amendments recommended to the ventilation standard NOISE-S6 as set out in the rebuttal evidence of Mr Jimmieson.

3. EVIDENCE OF K O'SULLIVAN (WELLINGTON INTERNATIONAL AIRPORT LIMITED)

Applicability of NZS6805 (paras 5.9 – 5.28 of Ms O'Sullivan's EIC)

3.1 The EIC of Ms O'Sullivan provides an overview of the New Zealand Standard for Airport Noise Management and Land Use Planning (NZS6805:1992) and its applicability to the approach set out in the Council's evidence in regarding the Noise chapter provisions of the PDP with regard to the airport.

3.2 I understand that NZS6805:1992 (**the Standard**) establishes a concept of the 'Airnoise Boundary' as an appropriate mechanism within District Plans to establish compatible

land use planning and to set limits for the management of aircraft noise at airports to protect community health and amenity values.

- 3.3 The Standard provides a maximum level of aircraft noise exposure (identified as the 'Inner Air Noise Overlay' in the proposed Noise Chapter provisions of the PDP), as well as an outer control boundary. Table 1 in clause 1.8.2 of the Standard sets out recommendations for land use planning within the Airnoise Boundary (which corresponds with the outer extent of the 'Inner Air Noise Overlay'), and Table 2 for the land within the noise contours of 55dB L_{dn} and 65dB L_{dn} (which, in part, corresponds with the 'Outer Air Noise Overlay').
- 3.4 The Standard provides recommendations for local authorities to consider whether the 'Airnoise Boundary' contours provide a reasonable basis for land use planning. In addition, the Standard also acknowledges that whether or not these contours provide a reasonable basis for future land use planning around airports requires taking into account (amongst other matters listed in clause 1.4.3.7 of the Standard) the extent of non-compliance of existing land uses; the impacts (such as economic, social and health considerations); the effect of the contours on the flexibility for aircraft operators to meet the community's demand for services; as well as the costs and benefits of land use controls (based on the 'Airnoise Boundary'), when compared against other options which would achieve the same objective of managing the adverse effects of airport noise.
- 3.5 In my opinion, the Standard provides appropriate scope to acknowledge that in some cases both existing development and other resource demands may mean the "ideal" extent of physical separation of, or restrictions placed upon, noise sensitive activities in proximity to the airport may not always be either possible nor practicable. I consider this is particularly the case in the context of the requirements of both the NPS-UD and the Amendment Act, noting that the PDP must give effect to the NPS-UD.
- 3.6 Therefore, I consider that the general approach proposed by the Council in relation to the Noise Chapter provisions of the PDP strikes an appropriate balance between enablement for urban growth, whilst also managing potential adverse effects on the health and amenity of people as well as issues of land use compatibility. As a result, I continue to support the general approach to the management of noise sensitive activities in proximity to the airport proposed by the Council, subject to the relief sought in my EIC.

Definitions (paras 5.29 – 5.34)

- 3.7 My EIC proposed a minor amendment to the definition of the ‘Inner Air Noise Overlay’. The EIC of Ms O’Sullivan has also proposed amendments to the definition of the ‘Inner Air Noise Overlay’, as well as the definition of the ‘Outer Air Noise Overlay’.
- 3.8 Having reviewed the evidence of Ms O’Sullivan, I can confirm that I am generally supportive of the amendments proposed by Ms O’Sullivan to these definitions, noting the nature of Ms O’Sullivan’s amendments to the ‘Inner Air Noise Overlay’ are consistent with the intent of the relief sought to this definition as set out in my EIC.
- 3.9 For clarity, I do not consider that Ms O’Sullivan’s proposed new definitions relating to ‘High Noise Area’ and ‘Moderate Noise Area’ are necessary, for the reasons I discuss below in relation to the ‘Methods’ within the Noise Chapter (in relation to the proposed ‘splitting’ of the rules / standards framework applying to the airport).

Objectives and Policies (paras 5.40 – 5.51)

- 3.10 Having reviewed the relief sought by Ms O’Sullivan in relation to the objectives and policies of the Noise Chapter provisions, I continue to support the amendments I have set out in my EIC.
- 3.11 In particular, as referenced above (and discussed further below), I do not consider that there is a need to ‘split’ the policy direction applying to the airport from other noise generating activities. As a result, I do not consider that the newly proposed policy NOISE-P7 recommended by Ms O’Sullivan is necessary and as such consider that the general approach to the structure of the objectives and policies proposed by the Council is appropriate.

Methods (paras 5.52 – 5.71)

- 3.12 In relation to the rule framework within the Noise Chapter provisions applying to the airport, the relief sought by Ms O’Sullivan has sought to ‘split’ the rules / standards applying to the airport away from the current rule structure proposed by the Council. I note (and discuss further below), that this same ‘splitting’ approach has also been proposed through the evidence of Ms Heppelthwaite (on behalf of Waka Kotahi and KiwiRail) in relation to the rule framework proposed to apply to State highway and rail corridors.

- 3.13 I consider the general structure of the rule framework proposed by the Council is appropriate and workable. I do not consider that the structure of the rule framework proposed by the Council is ambiguous or uncertain – such that the framework of provisions would benefit further from splitting out rules / standards to apply separately for specific types of noise generating activities. I consider that this approach would simply create a more voluminous suite of Noise Chapter provisions for plan-readers to navigate.
- 3.14 In addition, and for clarity, I continue to support the general ‘activity status’ approach proposed by the Council within rule NOISE-R3 (e.g. a Permitted Activity / Restricted Discretionary Activity / Discretionary Activity), subject to the relief sought through my EIC.
- 3.15 Specifically in relation to the standards within the Noise Chapter provisions and also for the reasons set out above, I also do not consider that there is a need to create new standards relating to the airport (or the State highway and rail network), separate from the current suite of standards (in particular NOISE-S4 – NOISE-S6).
- 3.16 I note that the rebuttal evidence of Mr Jimmieson (on behalf of Kāinga Ora) proposes a suite of recommended amendments in relation to vibration standard NOISE-S6, in response to the proposed new ventilation standard recommended by Ms O’Sullivan (on behalf of WIAL). I support the proposed amendments recommended by Mr Jimmieson to standard NOISE-S6, including the reasoning for the recommended amendments which are set out in Mr Jimmieson’s rebuttal statement.

Subdivision Chapter (paras 5.83 – 5.94)

- 3.17 To align with the relief sought through the Noise Chapter provisions, Ms O’Sullivan has also proposed amendments within the Subdivision chapter, in particular to the objectives and policies.
- 3.18 With regard to the relief sought by Ms O’Sullivan in relation to the proposed addition to objective SUB-O1 (and also sought to be amended by Ms Heppelthwaite on behalf of Waka Kotahi and KiwiRail), I generally support the additional text proposed by Ms O’Sullivan as I consider her proposed wording aligns with the relief I proposed in my EIC regarding the wording of objective NOISE-O2 (in relation to incompatible use / development).

3.19 Ms O’Sullivan has also proposed amendments to the new policy SUB-PX put forward by the Council. For the avoidance of doubt, having reviewed the relief sought by Ms O’Sullivan, I continue to favour the relief sought I have sought to policy SUB-PX within the Subdivision Chapter provisions, for the reasons set out in my EIC.

4. EVIDENCE OF C HEPPELTHWAITE (KIWIRAIL AND WAKA KOTAHI)

Relief Sought - NOISE (paras 9.0 – 9.14)

4.1 Ms Heppelthwaite discusses and outlines the relief sought to the Noise Chapter rule framework in Section 9 of her EIC. Having reviewed the relief sought by Ms Heppelthwaite, I confirm that:

- (a) I continue to oppose the ‘default distance’ approach currently proposed (by both the Council as well as Ms Heppelthwaite) in relation to the State highway and rail corridors. As set out in my EIC, I consider the appropriate starting point for the development of any such framework of provisions for inclusion within a district plan is to first specifically identify (through a ‘modelled’ approach) the actual spatial extent of the noise to be generated from these infrastructure corridors – such that any rules relating to the management of noise sensitive activities only apply to locations where there is certainty of a potential noise effect to be present. I note that this ‘modelled’ approach is consistent with the approach taken in the PDP to the identification of noise effects likely to be generated by Wellington Airport, where potential aircraft noise is modelled (leading to the ability to spatially identify noise control boundaries). This modelling also allows the predicted noise levels to be amended over time in response to changes in aircraft technology, changes in flight patterns etc, and therefore ensures that any land use controls are most appropriately tied to actual effects (acknowledging that the current operation of the Airport, i.e. actual effects, is some way “inside” the 65 dBA control);
- (b) I continue to support the Council’s conclusion that, to date, insufficient evidence and justification has been provided in relation to the incorporation of any specific rules or standards within the PDP with regard to State highway and rail corridor vibration; and
- (c) If the Hearings Panel were of a mind to adopt the currently proposed rule framework recommended by the Council in relation to the State highway and

rail networks, as I have outlined above in relation to the evidence of Ms O'Sullivan (regarding WIAL), I do not consider there is a need within the currently proposed rule framework to 'split' any rule / standards relating to State highways and rail corridors into their own, separate, rules and standards.

4.2 However, I do note that – if a framework of provisions were to be included within the District Plan which specifically related to a modelled and spatially defined 'noise effects boundary' for the State highway and rail corridors – I could generally support the principles discussed by Ms Heppelthwaite (as set out in paras 9.2 – 9.6 of her EIC) which have informed her recommendations to the shaping of such a rule framework for the District Plan, including:

- (a) The number of dwellings (e.g. density) to be developed at any one time does not change the need for an acoustic assessment and therefore should not be a 'trigger' for consent to be required (which aligns with the reasoning set out in my EIC);
- (b) Noise sensitive activities (residential and non-residential) should be permitted where acoustic and ventilation standards are complied with (which aligns with the approach set out in my EIC);
- (c) Non-compliances with the permitted standards relating to acoustic insulation and ventilation requirements can be appropriately assessed as a restricted discretionary activity (which aligns with the approach set out in my EIC); and
- (d) Any potential adverse effects relating to how non-compliance with the standards could have the potential to compromise the ongoing efficient operation of the noise generating activity (e.g. the State highway and rail networks, or the Airport for that matter) could be adequately addressed through matters of discretion – rather than the need to incorporate a rule which required the noise generating activity to be identified as an affected party for any resource consent application (which aligns with the approach set out in my EIC).

5. CONCLUSION

5.1 A complete set of the proposed changes to the PDP provisions relating to the Noise chapter, including the amendments proposed to the ventilation standard NOISE-S6 as recommended in the rebuttal evidence of Mr Jimmieson, are included at **Attachment A**. The latest amendments recommended through the rebuttal evidence on behalf of

Kāinga Ora are shown in blue text mark-ups, with the original amendments set out in Attachment B to my EIC continuing to show in green text markups.

- 5.2 It is my opinion that the underlying principles that have informed these proposed changes will better align the PDP with the NPS-UD and the purpose and principles of the RMA, as amended by the Housing Supply Act.



Matthew Lindenberg

25 July 2023

**ATTACHMENT A:
COMBINED RELIEF SOUGHT (BOTH EIC AND REBUTTAL)**

Proposed EIC amendments on behalf of Kāinga Ora shown in green text.

Proposed Rebuttal evidence amendments on behalf of Kāinga Ora shown in blue text.

Amend the Definitions chapter as follows:

Definitions

<p>AIR NOISE OVERLAY</p>	<p>means an area defined by planning maps to show land subject to development restrictions due to potential noise effects from Wellington International Airport. The Air Noise Overlay comprises:</p> <ul style="list-style-type: none"> a. Inner Air Noise Overlay – being properties <u>exposed to noise levels greater than 65 dBA</u>, lying between the Airport and a modelled 65 dBA contour, fitted to property boundaries. b. Outer Air Noise Overlay – being properties lying between the 65 dBA contour and a modelled 60 dBA contour, fitted to property boundaries. <p>a. Air Noise Boundary—being a line shown on district plan maps used for controlling the emission of noise from aircraft operations at Wellington International Airport measured using rolling 90 day average 24 hour night weighted sound exposure in accordance with NZS 6805:1992 Airport noise management and land use planning. The location of the Air Noise Boundary is based on the modelled L_{dn} 65 dBA contour and therefore corresponds to the outer extent of the Inner Air Noise Overlay.</p> <p>Note: The Air Noise Overlay is applied to all parts of a property, regardless of whether the modelled contour affects less than the entire property.</p>
<p><u>AIR NOISE BOUNDARY</u></p>	<p><u>means a line shown on district plan maps used for controlling the emission of noise from aircraft operations at Wellington International Airport measured using rolling 90 day average 24 hour night-weighted sound exposure in accordance with NZS 6805:1992 Airport noise management and land use planning. The location of the Air Noise Boundary is based on the modelled L_{dn} 65 dBA contour and therefore corresponds to the outer extent of the Inner Air Noise Overlay.</u></p>
<p><u>FIXED PLANT</u></p>	<p><u>means plant that is permanently or temporarily located and operated at any location and includes mechanical and building services equipment such as equipment that is:</u></p> <ul style="list-style-type: none"> a. <u>required for ventilating, extracting, heating, cooling, conditioning, and exhaust either of buildings or commercial activities;</u> b. <u>associated with boilers or plant equipment, furnaces, incinerators or refuse equipment;</u> c. <u>electrical equipment, plumbing (including pumps), lift or escalator equipment; or</u> d. <u>similar plant, equipment, items, rooms or services.</u>
<p>NOISE SENSITIVE ACTIVITY</p>	<p>means any lawfully established:</p> <ul style="list-style-type: none"> a. residential activity, including activity in visitor accommodation or retirement accommodation; b. educational activity; c. health care activity <u>or hospital activity;</u> d. congregation within any place of worship; and e. activity at a marae.
<p>WELLINGTON AIR NOISE MANAGEMENT COMMITTEE (WANMC)</p>	<p>means the body primarily responsible for the NMP, being a partnership between the Airport, aircraft operators, and the local community. Wellington City Council contributes to the WANMC, including through providing updated noise exposure reports from the noise monitoring system.</p>

Amend the Introduction section of the Airport chapter as follows:

Introduction to Airport Zone Chapter

Airport Noise

The management of noise associated with the Airport's operations is addressed in the District Plan Noise Chapter. Noise is subject to the following interrelated controls:

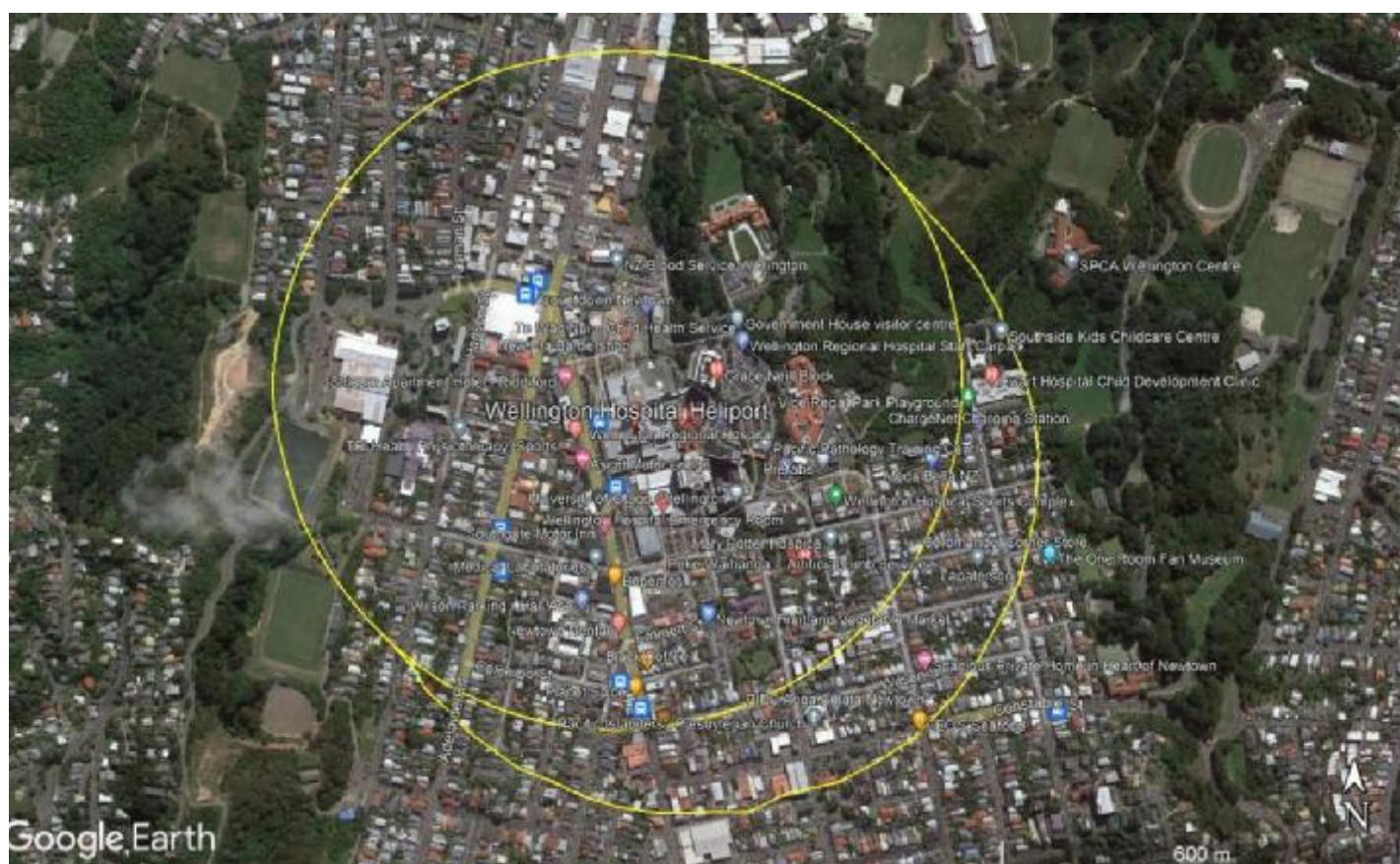
1. District Plan provisions which reference specific noise restrictions.
2. District Plan provisions which reference the Airport's Noise Management Plan (~~NMPANMP~~).
3. The ~~NMPANMP~~, which sits outside of the District Plan.

4. The Air Noise overlay (ANO)—65 dB Air Noise Boundary (ANB) which is demarcated on the District Plan maps, and referenced in District Plan provisions and the NMPANMP. The extent and nature of the ANO ANB is guided by the recommendations of New Zealand Standard NZS6805:1992 Airport Noise Management and Land Use Planning.
5. The Inner Air Noise Overlay and the Outer Air Noise Overlay, which are used to manage intensity of development by noise sensitive activities (such as residential development). The Outer edge of the Inner Air Noise Overlay approximates the ANB. The Outer edge of the Outer Air Noise Boundary approximates a 60 dB airnoise contour.

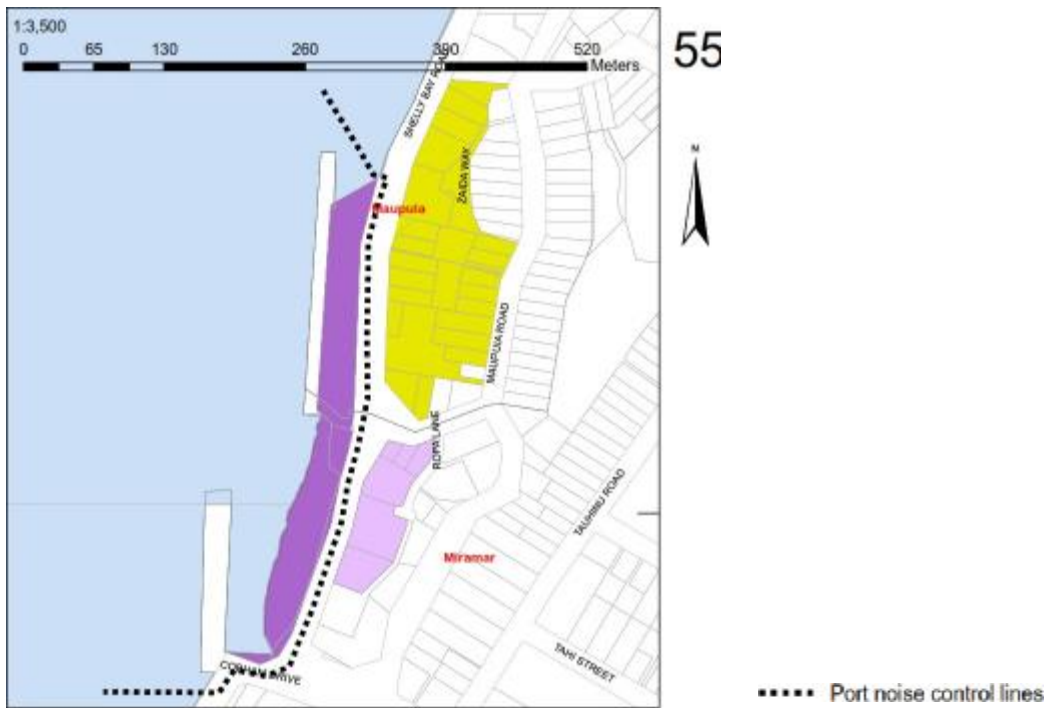
District Plan Maps

Amend planning maps to insert a noise overlay referred to as:

500 metre Heli Noise Effects Advisory overlay (HNEAO)



Amend planning maps to include the existing Burnham Wharf (Miramar) port noise control line shown by Map 55 in the operative district plan:



Amend the Noise Chapter as follows:

Te Oro

Noise

NOISE	Noise
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P1 Sch1 Introduction

Effective management of noise and vibration is a key aspect of achieving good environmental outcomes throughout the City.

Noise is well recognised as a potential environmental pollutant and nuisance. It can adversely affect health and amenity values, interfere with communication, and disturb sleep and concentration. For those, and other reasons, noise is the subject of frequent complaints received by council. Wellington's relatively compact nature, and anticipated residential intensification in the city centre area and other mixed use areas, make noise management an ongoing and important issue.

The provisions of this chapter manage potential adverse noise effects that can arise from a diverse range of activities. In addition, section 16 of the RMA imposes a duty on all persons to avoid unreasonable noise (which includes vibration) by adopting the best practicable option (BPO), regardless of whether the activity complies with a standard or rule. Section 17 of the RMA further imposes a general duty to avoid, remedy or mitigate adverse noise effects. At all times the Council has a responsibility to exercise its powers under the RMA to ensure that the general duties of sections 16 and 17 are met. RMA Sections 326 and 327 are used by Wellington City Council to control excessive noise.

The objectives, policies, rules and standards of the Noise chapter are linked to zones and to specific activities. They take into account the level, duration and nature of noise – within the context of the surrounding environment and whether noise can be reasonably mitigated. The provisions identify where sound insulation is a requirement for new noise sensitive activities, and also limit the establishment of noise sensitive activities in some cases. Noise sensitive activities are defined by the District Plan. Noise overlays are used in several cases to define areas in which noise effects from specific sources can be expected, up to prescribed limits. Examples include the Air Noise Overlay and the Port Noise Overlay. Noise overlays may also prescribe limits to intensification of noise sensitive activities (such as new residential development) and/or acoustic insulation and ventilation standards to assist in managing the effects of noise received in the overlays.

Other than where expressly provided for, the measurement of noise must be in accordance with New Zealand Standard NZS6801:2008 Acoustics – Measurement of Environmental Sound and New Zealand Standard NZS6802:2008 Acoustics – Environmental Noise. Some other standards are expressly provided for, such as NZS6803: 1999 Acoustics Construction Noise.

Some activities that generate noise are exempt from the noise rules set out in this chapter. This is because they are not controlled by the RMA, e.g. vehicles being driven on a road, or aircraft above 1,000 feet in flight over built up areas. In addition, the Civil Aviation Act 1990 imposes certain rules requiring noise abatement procedures for aircraft operating in the vicinity of Wellington International Airport.

The following activities are exempt from the rules and standards contained in this chapter. They are:

1. Aircraft being operated above 1,000 feet (305m) over built up areas, or above 500 feet (152m) over rural areas;
2. Aircraft used in emergencies or as air ambulances;
3. Vehicles being driven on a road (within the meaning of section 2(1) of the Transport Act 1998), or within a site as part of or compatible with a normal residential activity (including apartments or mixed use activity);
4. Trains on rail lines (public or private) and crossing bells within the road reserve, including at railway yards, railway sidings or stations. This exemption does not apply to the testing (when stationary), maintenance, loading or unloading of trains;
5. Any warning device or siren used by emergency services for civil defence or emergency purposes (and routine testing and maintenance);
6. The use of generators and mobile equipment (including vehicles) when used solely for civil defence or emergency purposes, including testing and maintenance not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities, or for the continuation of radiocommunication broadcasts;
7. Rural activities, including, agricultural vehicles, machinery or equipment used on a seasonal or intermittent basis in the Rural Zones excluding any fixed plant; and

8. Crowd or people noise from special events or temporary event activities including any events located in Open Space and Recreation Zones.

Note: Where standards are provided for specific activities, and there is a conflict between those standards and the zone interface standards or zone standards, the specific activity standards will prevail. In addition, resource consent may be required for the activity that generates noise. Provisions controlling the establishment of those activities may be contained in other chapters of the district plan.

Other relevant District Plan provisions
<p>It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance.</p> <p>The noise provisions, while district wide, need to be considered in conjunction with zone specific chapters and their associated standards for activities. The relevant zone chapter will depend on the location of the activity.</p> <p>Noise from temporary activities is addressed in the Temporary Activities Chapter.</p> <p>Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of an activity are set out in the General Approach chapter.</p>

Objectives	
P1 Sch1	<p>NOISE-01</p> <p>Managing noise generation and effects</p> <p>Amenity values and peoples' health and well-being are not compromised by protected from adverse noise levels, consistent with the anticipated outcomes for the receiving environment.</p>
P1 Sch1	<p>NOISE-02</p> <p>Reverse sensitivity incompatible use and development</p> <p>Existing and authorised activities that generate high higher levels of noise are protected from reverse sensitivity effects incompatible use and development.</p>
Policies	
P1 Sch1	<p>NOISE-P1</p> <p>General management of noise</p> <p>Enable the generation of noise from activities that:</p> <ol style="list-style-type: none"> 1. Maintain Are compatible with the anticipated amenity values of the receiving environment; and 2. Does not compromise the health, safety and wellbeing of people and communities.
P1 Sch1	<p>NOISE-P2</p> <p>Construction noise</p> <p>Enable construction activities while ensuring that unreasonable noise and vibration effects are managed effectively.</p>

NOISE-P3	<p>Higher noise areas</p> <p>Allow for higher noise levels to be generated within:</p> <ol style="list-style-type: none">1. General Rural Zone;2. Commercial and Mixed Use Zones <u>Zone</u>;3. Hospital Zone;4. Tertiary Education Zone;5. Stadium Zone;6. Port Zone;7. Airport Zone and associated airspace;8. City Centre Zone;9. <u>Courtenay Place Noise Area</u>;10. Mixed Use Zone;11. General Industrial Zone; and12. State Highway and Railway <u>networks designations</u>
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		<p>The <u>Port Noise Management Plan and the Airport Noise Management Plan (both required by NOISE-S3) provide additional context for management of noise at those regionally significant facilities.</u></p>
P1 Sch1	NOISE-P4	<p><u>Protection of noise sensitive activities by aAcoustic treatment of buildings and provision of alternative ventilation for buildings containing noise sensitive activities</u></p> <p>Require sound insulation and / or mechanical ventilation for <u>buildings housing</u> new noise sensitive activities within:</p> <ol style="list-style-type: none"> The City Centre Zone; <u>Courtenay Place Noise Area;</u> The Waterfront Zone; The Centres Zones<u>Neighbourhood Centre Zone;</u> <u>Local Centre Zone;</u> <u>Metropolitan Centre Zone;</u> The Mixed Use Zones; <u>Commercial Zone;</u> <u>General Industrial Zones;</u> Outer Port Noise Overlay; The Air Noise Overlay (<u>Inner Air Noise Overlay and Outer Air Noise Overlay</u>); and Identified corridors adjacent to the State Highways and railway networks. <p>Two standards of acoustic insulation are prescribed to achieve acceptable indoor acoustic amenity in habitable rooms. <u>NOISE-S4 is the standard for High noise areas, and NOISE-S5 is the standard for Moderate noise areas.</u></p>
P1 Sch1	NOISE-P5	<p>Noise at Wellington Regional Stadium and the Basin Reserve</p> <p>Require that activities at Wellington Regional Stadium and the Basin Reserve, other than special entertainment events authorised as temporary activities, are managed effectively to mitigate adverse noise effects on residential amenity.</p>
ISPP	NOISE-P6	<p>Development restrictions on<u>of</u> noise sensitive activities</p> <p><u>Restrict/Manage</u> the development of noise sensitive activities within:</p> <ol style="list-style-type: none"> The Inner Air Noise Overlay<u>High and Moderate Noise Areas;</u> and Other locations<u>Buildings housing noise sensitive activities in High and Moderate Noise Areas</u> where ventilation and acoustic insulation standards are not met. <p><u>High and Moderate Noise Areas are listed in NOISE-R3.1 and NOISE-R3.2. The relevant acoustic insulation and ventilation standards are NOISE-S4, NOISE-S5 and NOISE-S6.</u></p>
Rules: Land use activities		
P1 Sch1	NOISE-R1	Noise not otherwise provided for in this chapter
	All Zones	<ol style="list-style-type: none"> Activity status: Permitted <p>Where:</p> <ol style="list-style-type: none"> Compliance with NOISE-S1 <u>and APP4</u> is achieved.

All Zones	<p>2. Activity status: Restricted Discretionary</p> <p>Where:</p> <ul style="list-style-type: none">a. Compliance with the requirements of NOISE-R1.1.a cannot be achieved. <p>Matters of discretion are:</p> <ul style="list-style-type: none">1. The matters in NOISE-P1; and2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.
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P1 Sch1

	NOISE-R2	Noise from construction, maintenance, earthworks, and demolition activities
	All Zones	1. Activity status: Permitted Where: a. All work will occur within the hours of 7.30am to 6.00pm Monday to Saturday; or b. Compliance with NOISE-S2 (Construction Activities) is achieved.
	All Zones	2. Activity status: Restricted Discretionary Where: a. Compliance with the requirements of NOISE-R2.1.a cannot be achieved. Matters of discretion are: 1. The matters in NOISE-P2; and 2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.
ISPP	NOISE-R3	Noise sensitive activity in a new building, or in alterations / additions to an existing building
	As specified in Rule	1. Activity status: Permitted Where: a. Compliance with NOISE-S4 (High Noise Areas) <u>and NOISE-S6 (Ventilation)</u> is achieved <u>for one residential unit on a site</u> within: i. <u>40m of a State Highway;</u> ii. <u>40m of a Railway corridor;</u> iii. <u>Courtenay Place Noise Area;</u> iv. <u>General Industrial Zone;</u> or v. Inner Air Noise Overlay. <u>Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation.</u>

As specified in Rule	<p>2. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance with NOISE-S5 (Moderate Noise Areas) <u>and NOISE-S6 (Ventilation)</u> is achieved for up to three residential units on a site within:</p> <ul style="list-style-type: none"> i. The area between 40m and 100m80m of a State Highway with a posted speed limit greater than > 70 km/hour; ii. The area between 40m and 100m of a Railway corridor; iii. City Centre Zone; iv. Mixed Use Zone; v. <u>Commercial zone;</u> vi. Neighbourhood Centre Zone; vii. Local Centre Zone; viii. Metropolitan Centre Zone; ix. <u>Waterfront Zone;</u> x. Outer Port Noise Overlay; and xi. Outer Air Noise Overlay. <p>Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation. Unless otherwise restricted by zone or overlay based rules, there is no limit on the number units per site on land</p>
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		<u>further than 40m from a State Highway that has a posted speed limit equal to or less than 70 km/hour.</u>
	All Zones	<p>3. Activity status: Restricted Discretionary</p> <p>Where:</p> <ul style="list-style-type: none"> a. Compliance with the requirements of NOISE-S4, NOISE-S5 and NOISE-S6 or NOISE-S5 cannot be achieved<u>is cannot be achieved for two residential units on a site listed by NOISE-R3.1; or</u> b. Any noise sensitive activity is proposed on a site within land subject to NOISE-R3.2; c. Two residential units are proposed on a site within the Inner Air Noise Overlay; and d. Compliance with the requirements of NOISE-S5 and NOISE-S6 is achieved for four or more residential units on a site listed by NOISE-R3.2<u>Four or more residential units are proposed on a site within the Outer Air Noise Overlay;</u> e. <u>Compliance with the requirements of NOISE-R3.1 for the Courtenay Place Noise Area is not otherwise achieved; or.</u> f. Any other noise sensitive activity is proposed on a site within land subject to NOISE-R3.2 and the requirements of NOISE-S5 and NOISE-S6 are achieved. <p>Matters of discretion are:</p> <ul style="list-style-type: none"> 1. The matters of assessment in NOISE-S4, and NOISE-S5 and NOISE-S6; and 2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard. <p><u>Wellington International Airport Limited will be considered an affected party for applications within the Inner Air Noise Overlay.</u></p> <p>Note: This rule does not obligate Wellington International Airport Limited (WIAL) to provide or upgrade mechanical ventilation or noise insulation in a residential unit which has already received such treatment.</p>
		<p>4. Activity status: Discretionary</p> <p>Where:</p> <ul style="list-style-type: none"> a. Three or more residential units are proposed on a site subject to NOISE-3.1; or b. <u>Compliance with the requirements of NOISE-R3.13 for the Inner Air Noise Overlay is not otherwise achieved; or</u> c. Any <u>other</u> noise sensitive activity is proposed on a site within land subject to NOISE-R3.1.; and d. <u>Wellington International Airport Limited will be considered an affected party for applications within the Inner Air Noise Overlay. Three or more residential units are proposed on a site within the Inner Air Noise Overlay.</u> <p>Note: This rule does not obligate Wellington International Airport Limited (WIAL) to provide or upgrade mechanical ventilation or noise insulation in a residential unit which has already received such treatment.</p>
	NOISE-R4	Helicopter Landing Noise
	Hospital Zone Airport Zone	<p>1. Activity status: Permitted</p> <p><u>Note: The likelihood of noise arising from helicopter activity in the area surrounding Wellington Regional Hospital (Newtown) is signalled by a mapped noise alert overlay. Aircraft (which includes helicopters) used in emergencies or as air ambulances, are exempt from the provisions of the Noise chapter. There are no associated standards.</u></p>

	All other Zones	2. Activity status: Permitted Where:
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P1 Sch1

		a. Compliance with the recommended limits and noise management provisions as set out in NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas is achieved.
	All other Zones	3. Activity status: Discretionary Where: a. Any of the requirements of NOISE-R4.2 cannot be achieved.
	NOISE-R5	Noise from Wellington Regional Stadium and the Basin Reserve
	Stadium zone Basin Reserve	1. Activity status: Permitted Where: a. The noise is from Wellington Regional Stadium or the Basin Reserve; and i. Compliance with NOISE-S1 and APP4 is achieved; or ii. Compliance with TEMP-S8 or TEMP-S9 is achieved.
	Stadium zone Basin Reserve	2. Activity status: Restricted Discretionary Where: a. Compliance with NOISE-R5.1.a is not achieved. Matters of discretion are: 1. Whether noise emission levels would increase the background noise levels for a noise sensitive activity, creating a noise nuisance for the occupants of a noise sensitive site; 2. Whether the sound characteristics of the noise emissions or the time of day at which noise occurs is likely to lead to sleep disturbance or other form of nuisance associated with noise; 3. The manner in which buildings, structures or machinery are designed and arranged to reduce the noise emission levels likely to emanate from the noise source; and 4. The best practicable options available to reduce the adverse effects of the noise.
	NOISE-R6	Fixed Plant Noise

P1 Sch1

All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <ul style="list-style-type: none">a. Compliance with NOISE-S7 and APP5 is achieved; orb. The noise is generated by fixed plant used solely for emergency or civil defence purposes; orc. The noise is generated by fixed plant in relation to Operational Port Activities, and:<ul style="list-style-type: none">i. Only operates for maintenance between 8:00am and 5:00pm weekdays; andii. Compliance with NOISE-S1 and APP5 is achieved; or Compliance with NOISE-S7 is achieved. <p>Exemption: The noise limits set in standard NOISE-S7 do not apply to fixed plant located in the Special Purpose Port Zone, in relation to Operational Port Activities.</p> <p>Fixed plant is exempt from the noise limits provided that it:</p> <p>only operates for maintenance between 8:00am and 5:00pm weekdays, and can comply with NOISE-S1.</p>
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	All Zones	<p>2. Activity status: Restricted Discretionary</p> <p>Where:</p> <p>a. Compliance with the requirements of NOISE-R6.1 cannot be achieved.</p> <p>Matters of discretion are:</p> <p>1. The matters in NOISE-P1; and</p> <p>2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.</p>
P1 Sch1	NOISE-R7	Commercial facility dog noise (day care, dog parks, boarding kennels)
	As specified in Rule	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S1 <u>and APP4</u> within:</p> <p>i. General Rural zone;</p> <p>ii. Large Lot Residential zone;</p> <p>iii. General Industrial zone;</p> <p>iv. City Centre zone;</p> <p>v. Metropolitan Centre zone;</p> <p>vi. Town Centre zone;</p> <p>vii. Mixed use zone;</p> <p>viii. Commercial zone;</p> <p>ix. Local Centre zone;</p> <p>x. Neighbourhood Centre zone; and</p> <p>b. The hours of operation are between 7:00am and 7:00pm, all days of the week; and</p> <p>c. Operation does not include overnight boarding and / or outdoor facilities for overnight stay.</p>
	All other Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Any of the requirements of NOISE-R7.1 cannot be achieved.</p>
P1 Sch1	NOISE-R8	Shooting range and firearm noise
	<u>Airport Zone</u> <u>General Rural Zone</u>	<p>1. <u>Activity status: Permitted</u></p> <p><u>Where:</u></p> <p>a. <u>In the Airport Zone, shooting is:</u></p> <p>i. <u>For the purposes of wildlife management in respect of aircraft safety; and</u></p> <p>ii. <u>Complies with any terms set by the Airport Noise Management Plan (ANMP).</u></p> <p>b. <u>In the General Rural Zone is for the purpose of conservation activities or informal recreation activities.</u></p>

<p><u>All Zones</u></p>	<p>2. Activity status: Discretionary</p> <p><u>Where:</u></p> <ul style="list-style-type: none">a. <u>Any of the requirements of NOISE-R8.1 cannot be achieved.</u>b. <u>Shooting range or firearm noise otherwise occurs and is not subject to provisions of the Temporary Activities chapter.</u>
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P1 Sch1

	NOISE-R9	Blasting noise
	All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S2 (Blasting); and</p> <p>b. The activity is a quarrying activity.</p>
	Quarry Zone	<p>2. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S2 (Kiwi Point Quarry); and</p> <p>b. The activity is a quarrying activity; and</p> <p>c. Located in the Special Purpose Quarry Zone (Kiwi Point Quarry)</p>
	All Zones	<p>3. Activity status: Restricted Discretionary</p> <p>Where:</p> <p>a. Compliance is not achieved with NOISE-R9.1.a or NOISE-R9.1.b</p> <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Peak noise levels from blast events; 2. The frequency and the number of blast events; 3. The number of blasts per year; 4. The extent to which noise and vibration effects from blasting activities are minimised; and 5. Whether surrounding property owners will be notified of blasting events in advance of the activity.
	NOISE-R10	Home business noise
	All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S2 (Home Business Activity) <u>and APP4.</u></p>
	All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Any of the requirements of NOISE-R10.1 cannot be achieved.</p>
	NOISE-R11	Electronic sound system noise
	<u>All Zones Commercial and Mixed Use Zones</u>	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S2 (Electronic Sound System Noise).</p>

P1 Sch1

P1 Sch1

All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Any of the requirements of NOISE-R11.1 cannot be achieved.</p>
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P1 Sch1

NOISE-R12	Port noise
All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S1 <u>and APP4</u>.</p>
All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Compliance with NOISE-R12.1 cannot be achieved.</p>

P1 Sch1

NOISE-R13	Airport noise
<u>All Zones</u> <u>Airport Zone</u>	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with the following standards:</p> <ul style="list-style-type: none"> i. <u>NOISE-S1;</u> ii. NOISE-S8; iii. <u>NOISE-S9;</u> iv. NOISE-S10; v. NOISE-S11; vi. NOISE-S12; vii. NOISE-S14;<u>;-and</u> viii. NOISE-S15; <p><u>And</u></p> <p>b. <u>Compliance is achieved with all of the following conditions in the identified designations:</u></p> <ul style="list-style-type: none"> i. <u>WIAL2 (Miramar South Area)</u> <ul style="list-style-type: none"> a. <u>Conditions 10 and 11</u> b. <u>Conditions 14 to 18</u> ii. <u>WIAL4 (Airport Main Site Area)</u> <ul style="list-style-type: none"> a. <u>Conditions 23 to 27</u> b. <u>Conditions 29 to 31</u> iii. <u>WIAL5 (Airport East Side Area)</u> <ul style="list-style-type: none"> a. <u>Conditions 31 and 33</u> b. <u>Conditions 34 and 35</u> c. <u>Condition 37</u> <p><u>Aircraft noise will be measured in accordance with NZS 6805:1992 Airport noise management and land use planning and calculated as a 90-day rolling average. All terminology must have the meaning that may be used or defined in the context of NZS6805:1992 Airport noise management and land use planning.</u></p> <p><u>The level of noise from aircraft operations, for comparison with Ldn 65 dBA, is calculated from the total amount of noise energy produced by each aircraft event (landing or take-off) over a period of 90 days. This method of control does not directly control individual aircraft events, but does so indirectly by taking into account their contribution to the amount of noise generated in a 24 hour period.</u></p>

<p>All Zones <u>Airport</u> <u>Zone</u></p>	<p>2. Activity status: Restricted Discretionary</p> <p>Where:</p>
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		<p>a. Compliance is not achieved with NOISE-R13.1.a <u>(except in relation to NOISE-S10)</u>;</p> <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Relevant matters listed in NOISE-P1; 2. The degree to which noise emissions can be reduced through mitigation or management measures, changes in the location, or methods of operation of the activity; 3. Whether the proposal will have any adverse effects on the health and safety of people; and 4. The effects of the type, intensity and duration of the noise emitted from any activity. 5. <u>Relevant matters in the Airport Noise Management Plan (ANMP) – see NOISE-S3.</u>
	<u>All Zones</u> <u>Airport Zone</u>	<p>3. Activity status: Non-complying</p> <p>Where:</p> <ol style="list-style-type: none"> a. Compliance is not achieved with: <ol style="list-style-type: none"> i. NOISE-S9; ii. NOISE-S10; and b. Noise from any land based activity in the Airport Zone exceeds the limits in NOISE-S14 by more than 5dB. <p>Notification Status: An application for resource consent made in respect of this rule must be publicly notified.</p>

Standards – Permitted activity noise and sound insulation standards		
P1 Sch1	NOISE-S1	Maximum permitted activity noise levels by zone
	<p>Subject to any Temporary Activity exclusions in the District Plan, or conditions of a resource consent or designation, noise generated by any activity in all zones must not exceed permitted noise limits within the receiving zone set out in APP4 – Permitted Noise Standards.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and 3. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.
P1 Sch1	NOISE-S2	Maximum permitted noise levels by activity

	<p>1. Construction activities</p>	<p>The noise from any construction, maintenance, earthworks and demolition activities must be measured, assessed, managed and controlled in accordance with the requirements of NZS6803:1999 Acoustics Construction Noise.</p> <p>Noise due to the following activities shall be exempt from compliance:</p> <ol style="list-style-type: none"> 1. Urgent repair of utilities to maintain continuity of service, to protect life or limb or minimise or prevent loss or serious damage to property. 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;
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		<p>2. In the City Centre Zone, where the best practicable option to reduce noise to a reasonable level requires construction work to be undertaken outside normal working hours.</p> <p>The vibration from any construction, maintenance, earthworks and demolition activities must be measured, assessed, managed and controlled in accordance with the requirements of DIN 4150-3:2016 Structural Vibration – Part 3: Effects of Vibration on Structures Nothing in this Standard shall be used to prevent emergency work from taking place.</p>	<p>2. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and</p> <p>3. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.</p>
	<p>2. Blasting</p>	<p>Peak noise levels from blasting activities must not exceed the following when measured within the notional boundary of any building set out in NOISE-S2 (Blasting) a, b or c <u>1, 2 or 3</u>, below:</p> <ol style="list-style-type: none"> 1. Occupied noise sensitive activity and visitor accommodation: <ol style="list-style-type: none"> a. permissible blasting time window: 7:00am to 7:00pm; and b. number of blasts per year: ≤ 20; and <ol style="list-style-type: none"> i. maximum peak sound level of 120 dB LZpeak; or c. number of blasts per year: >20; and <ol style="list-style-type: none"> i. maximum peak sound level of 115 dB LZpeak; or 2. Occupied commercial and industrial buildings: <ol style="list-style-type: none"> a. permissible blasting time window: All hours of occupation; and b. no limit on number of blasts per year; and <ol style="list-style-type: none"> i. maximum peak sound level of 125 dB LZpeak; or 3. Unoccupied buildings <ol style="list-style-type: none"> a. permissible blasting time window: All times; and b. no limit on the number of blasts per year; and c. all blasts comply with a maximum peak sound level of 140 dB LZpeak. 	
	<p>3. Kiwi Point Quarry</p>	<ol style="list-style-type: none"> 1. Peak noise from blasting activities must not exceed the levels set out in NOISE-S2 (Blasting) when measured within the notional boundary of any building. 2. Blasting of faces for crushed rock production may only occur between 10.00am and 2.00pm weekdays. 3. In all cases, for the northern face residents of Tarawera Road, Plumer Street, 113, 130, 166, 170 and 175 Fraser Avenue, and 146 Burma Road, and for the southern face the residents of 25-46 Gurkha Crescent, Shastri Terrace and 6-28 (even numbers) Imran Terrace and the abattoir operator must be notified by mail, by email or by other electronic means no less than one week in advance of blasting. 4. Blasting must be immediately preceded by a siren or hooter with a sound which distinguishes it from normal Police, Ambulance or Fire Service sirens. 	

	4. Home business activity	Noise generated by any home business activity (or noise source associated with the work from home business activity), when measured at or within the boundary of any site, other than the site from which the noise is emitted,	
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		must comply with the noise limits stated in NOISE-S1 <u>and APP4.</u>	
	5. Electronic sound system noise	<p>Electronic sound systems within the Commercial and Mixed Use zones must comply with the below:</p> <ol style="list-style-type: none"> 1. <u>Within the Commercial and Mixed Use zones, n</u>Noise emission levels in any public space (including streets and parks) generated by electronic sound systems must not exceed 75dB LAeq (2 minutes). In any event the measurements must 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). 2. The measured level(s) under NOISE-S2 (Electronic sound systems) shall have no adjustments for Special Audible Characteristics (SAC's) when assessed in accordance with New Zealand Standards NZS 6802:2008 Acoustics – Environmental Noise 	
P1 Sch1	NOISE-S3	Noise management plans	

	Port Activities	<ol style="list-style-type: none"> 1. The port company (CentrePort) must at all times operate in accordance with a Port Noise Management Plan, which must include but is not limited to the matters set out below. The Port Noise Management Plan must be developed to the satisfaction of Wellington City Council and Greater Wellington Regional Council. 2. The port company must undertake a noise monitoring programme annually (once every calendar year) to ensure that noise from port related activities comply with NOISE-S1 at the Port Noise Control Line. This monitoring will be undertaken in accordance with the 'CentrePort Noise Management Plan for CentrePort Ltd' (dated December 2008) and the information shall be reported to Wellington City Council's Compliance Manager. 3. The Port Noise Management Plan must: <ol style="list-style-type: none"> a. State the objectives of the Management Plan. b. Identify all significant noise sources from port activities undertaken by the port within the Port Zone and the adjacent Coastal Marine Area. c. Identify the best practical options to ensure the emission of noise does not exceed the noise levels specified in NOISE-S1. d. Identify techniques that will be considered to reduce the emission of noise over time and indicate which of these techniques will be adopted to achieve realistic objectives in managing noise. e. Explain how the port company will take noise effects into account in the design and location of new, altered or extended port activities. f. Identify how the port company will work with independent companies and external contractors to ensure that transport noise and noise from other activities within the port area will be kept to a minimum practical noise level. g. Identify procedures for noise reduction through the port company's staff and contractor training. 	
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		<ul style="list-style-type: none">h. Provide for the establishment and maintenance of a Port Noise Liaison Committee (the port company may provide for this function within the operation of its Environmental Consultative Committee).i. (List the Port Noise Liaison Committee functions; and the procedures for the recommendations of the Committee to be considered and determined by the port company.j. Detail procedures for receiving and deciding on complaints.k. Detail procedures for noise monitoring, auditing and reporting.l. Include procedures for the review and alteration of the Port Noise Management Plan.	
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	<p>Airport Activities</p>	<p>The provisions below do not, in any way, limit the obligations of the Airport company (WIAL) to fully comply with any Airport Designation Condition.</p> <ol style="list-style-type: none"> 1. The Airport must at all times maintain and implement an Airport Noise Management Plan (ANMP). Any alteration or update to the ANMP is subject to certification by the Council. 2. The ANMP must include, as a minimum: <ol style="list-style-type: none"> a. Terms of Reference which include the purpose, membership and functions of the ANMC. b. A statement of noise management objectives and policies for the Airport; c. Details of methods and processes for remedying and mitigating adverse effects of Airport noise including but not limited to: <ol style="list-style-type: none"> i. improvements to Airport layout to reduce ground noise; ii. Guidance relating to APU usage and how that usage will be reduced over time where practicable; iii. improvements to Airport equipment (including provision of engine test shielding such as an acoustic enclosure for propeller driven aircraft) to reduce ground noise; iv. aircraft operating procedures in the air and on the ground procedures to minimise noise where this is practicably achievable; v. an Airport Wide Construction Noise Management Plan which outlines methods for guiding the way construction noise is managed including guidance for where a Project Specific Construction Noise Plan is required for a project. d. Procedures for the convening, ongoing maintenance and operation of the ANMC; e. Mechanisms to give effect to a noise monitoring programme to assess compliance with district plan noise standards; f. Procedures for reporting to the ANMC any Aircraft Operations and engine testing activities which contravene district plan noise standards; 	
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		<ul style="list-style-type: none"> g. Methods necessary for the Airport to complete implementation of the Quieter Homes Programme; h. A complaints procedure including: recording; reporting back to complainants; corrective actions; and reporting to the Council and to the ANMC; i. A dispute resolution procedure to resolve any disputes between the Airport company and the ANMC about the contents and implementation of the ANMP; j. Communication methods to maintain contact with potentially noise affected communities; k. Preparation and implementation of an annual stakeholder communications plan; l. Procedures for obtaining and making noise monitoring and compliance data publicly available on WIAL's website; m. Procedures (including frequency) for reviewing and amending the ANMP. n. Arrangements for funding the ongoing membership and function of the ANMC. 	
ISPP	NOISE-S4	Acoustic Insulation – high noise areas	

<p>Within 40m of a State Highway</p> <p>Within 40m of a Railway Corridor</p> <p><u>General Industrial Zone</u></p> <p>Courtenay Place Noise Area</p> <p>Inner Air Noise Overlay</p>	<ol style="list-style-type: none"> 1. Any habitable room in a building used by a noise sensitive activity in a new building or alteration or addition to an existing building, must be designed, constructed, and maintained to achieve a minimum external to internal noise reduction for habitable rooms of not less than 35 dB Dtr,2m,nT,w + Ctr. 2. <u>Any alteration, addition or change of use of an existing building does not increase the gross floor area occupied by a noise sensitive activity by more than 25m²; and the addition or alteration does not increase the number of bedrooms by more than one.</u> 3. Compliance with this standard must be achieved by ensuring habitable rooms are designed and constructed in a manner that accords with: <ol style="list-style-type: none"> a. Table II – Minimum construction requirements for external building elements of habitable rooms to achieve an advanced level of acoustic insulation; or b. an acoustic design certificate signed by a suitably qualified <u>and experienced</u> acoustic expertengineer stating the design proposed will achieve compliance with this standard. 4. Acoustic insulation must be assessed in accordance with ISO 717-1:2020 Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation. 5. The requirements of (a) above do not apply where an acoustic design certificate signed by a suitably qualified <u>and experienced</u> acoustic expertengineer, confirms the level of noise incident on the most exposed part of the exterior of any habitable room can be shown, under a reasonable maximum use scenario, to <u>does</u> not exceed the following <u>outdoor</u> noise limits at all points 1.5m above ground level, and any part of the floor levels above ground: <ol style="list-style-type: none"> a. less than 55 dB LAeq (1h) for rail noise; or b. Less than 57 dB LAeq (1h <u>24h</u>) for roadhighway noise; or c. Less than 57 dB L_{dnAeq} (1 hr) for port noise. 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. <u>Adverse effects on health and amenity indoors for occupants of buildings containing noise sensitive activities;</u> 3. The ability to achieve acceptable outdoor acoustic amenity; 4. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); 5. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation; and 6. In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to insulate to the required standard without detracting from identified heritage values.
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		<p>Notes:</p> <ol style="list-style-type: none"> 1. This standard applies in addition to, and does not affect the requirements of, the Building Act 2004. 2. Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation. 3. <u>'Reasonable maximum use scenario' shall be the level of noise incident on the exterior of the habitable room based on:</u> <ol style="list-style-type: none"> a. <u>Rail noise – 70 LAeq(1h) at a distance of 12 metres from the track, then deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.</u> b. <u>Highway noise – The current day measured or predicted road traffic noise level LAeq (24 h) plus 2 dB.</u> c. <u>Port noise – The maximum permitted port noise Ldn level based on the location of the Port Noise Control Line. Port noise sources shall be deemed to be operating within wharf areas.</u> 	
<p>P1 Sch1</p>	<p>NOISE-S5</p>	<p>Acoustic insulation – moderate noise areas</p>	

<p>City Centre Zone</p> <p>Mixed Use Zone</p> <p>Commercial Zone</p> <p>General Industrial Zone</p> <p>Neighbourhood Centre Zone</p> <p>Local Centre Zone</p> <p>Metropolitan Centre Zone</p> <p>Waterfront Zone</p> <p>The area between 40m and 100m of a railway corridor</p> <p>The area between 40m and 100m of a State Highway with a posted speed limit >70 km/hour</p> <p>Outer Port Noise Overlay</p>	<ol style="list-style-type: none"> 1. Any habitable room in a building used by a noise sensitive activity in a new building or alteration or addition to an existing building, must be designed, constructed, and maintained to achieve a minimum external to internal noise reduction for habitable rooms of not less than 30 dB Dtr,2m,nT,w + Ctr. 2. <u>Any alteration, addition or change of use of an existing building does not increase the gross floor area occupied by a noise sensitive activity by more than 25m²; and the addition or alteration does not increase the number of bedrooms by more than one.</u> 3. Acoustic insulation must be assessed in accordance with ISO 717-1:2020 Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation. 4. Compliance with this standard must be achieved by ensuring habitable rooms are designed and constructed in a manner that accords with: <ol style="list-style-type: none"> a. Table I – Minimum construction requirements for external building elements of habitable rooms to achieve a moderate level of acoustic insulation; or b. an acoustic design certificate signed by a suitably qualified and experienced acoustic expert/engineer stating the design proposed will achieve compliance with this standard. 5. The requirements of (a) above do not apply where an acoustic design certificate signed by a suitably qualified and experienced acoustic expert/engineer, confirms the level of noise incident on the most exposed part of the exterior of any habitable room can be shown, under a reasonable maximum use scenario, to does not exceed the following noise limits at all points 1.5m above ground level, and any part of the floor levels above ground: <ol style="list-style-type: none"> a. Less than 55 dB LAeq (1h) for rail noise; or b. Less than 57 dB LAeq (1h) <u>(24h)</u> for road <u>highway</u> noise; or 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. <u>Adverse effects on health and amenity indoors for occupants of buildings containing noise sensitive activities;</u> 3. The ability to achieve acceptable outdoor acoustic amenity; 4. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); 5. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation; and 6. In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to insulate to the required standard without detracting from identified heritage values
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	Outer Air Noise Overlay	<p>c. Less than 57 dB L_{dn}Aeq (1 hr) for port noise.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. This standard applies in addition to, and does not affect the requirements of, the Building Act 2004. 2. Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation. 3. <u>'Reasonable maximum use scenario' shall be the level of noise incident on the exterior of the habitable room based on:</u> <ol style="list-style-type: none"> a. <u>Rail noise – 70 LAeq(1h) at a distance of 12 metres from the track, then deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.</u> b. <u>Highway noise – The current day measured or predicted road traffic noise level LAeq (24 h) plus 2 dB.</u> c. <u>Port noise – The maximum permitted port noise L_{dn} level based on the location of the Port Noise Control Line. Port noise sources shall be deemed to be operating within wharf areas.</u> 	
P1 Sch1	NOISE-S6	Ventilation requirements	

All Zones	<ol style="list-style-type: none"> 1. The minimum external to internal noise reduction levels in NOISE-S4 and NOISE-S5 must be achieved at the same time as the ventilation requirements of the New Zealand Building Code. <u>Minimum ventilation standards are set out below for habitable rooms classified into one of two possible categories as follows:</u> <ol style="list-style-type: none"> a. <u>Habitable rooms with openable windows sufficient in area to meet the ventilation requirements of the New Zealand Building Code; and</u> b. <u>All other habitable rooms requiring to be acoustically insulated under NOISE-S4 and NOISE-S5</u> 2. Where habitable rooms are provided with windows openable to the outside environment sufficient in area to meet the ventilation requirements of the New Zealand Building Code, and where these windows must remain closed to achieve compliance with <u>NOISE-S4 and NOISE-S5 acoustic insulation standards, the room shall meet the following minimum requirements:</u> <ol style="list-style-type: none"> a. <u>The room is to be provided with a mechanical ventilation system compliant with section 1.5 Mechanical Ventilation of NZBC G4/AS1 air flow rates adjustable by the occupant in increments up to a high air flow setting of at least three air changes per hour; and</u> b. <u>The room is provided with cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C when assessed using a 2.5% design weather condition for the applicable location. An acceptable design weather set is NIWA 2.5% published weather data for the applicable region; and</u> 	<u>Assessment criteria where the standard is infringed:</u> <ol style="list-style-type: none"> 1. <u>The ability to achieve acceptable indoor ventilation and acoustic amenity;</u> 2. <u>Any mitigation of the proposed ventilation noise, in accordance with a best practicable option approach;</u> 3. <u>The ability to mitigate adverse effects through the imposition of conditions;</u> 4. <u>In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to achieve ventilation to the required standard without detracting from identified heritage values</u>
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- c. An HVAC system installed in compliance with (a) and (b) above must not generate noise at levels greater than 35 dB LAeq (30s) when measured 1.5 metres from any grille or diffuser, outlet/inlet, and
 - d. Filtration shall be provided to all HVAC systems comply with NZBC G4/AS1 (or equivalent), and
 - e. Flexible duct shall be compliant with AS 4254.1:2012, and
 - f. Rigid duct shall be compliant with AS 4254.2:2012
3. Excluding habitable rooms qualifying under (2) above, i.e. where opening windows are not provided, minimum ventilation system requirements for habitable rooms requiring to be acoustically insulated under NOISE-S4 and NOISE-S5 are set out as follows;
- ~~a. The room is to be provided with a mechanical ventilation system with air flow rates adjustable by the occupant in increments up to a high air flow setting of at least six air changes per hour, with relief provided for equivalent volumes of spill air; and/or~~
 - a. HVAC systems shall be compliant with sections 2a-f above, and
 - b. The mechanical ventilation system referred in 2a above shall be able to supply outside air at an adjustable rate up to 1ACH.
 - ~~c. The room is provided with cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C and~~
 - d. ~~Any ventilation system installed in compliance with (a) and (b) above must not generate noise at levels greater than 35 dB LAeq (30s) when measured 1 metre from any grille or diffuser up to maximum flow rate of three air changes per hour~~
4. Alternatively, in lieu of sections 2 and 3 above, a design verified by a suitably qualified and experienced HVAC expert stating the design proposed will provide ventilation and internal space temperature controls to meet or exceed the outcomes described in parts 2 and 3.
- ~~4.5. Confirmation of compliance with this standard will be required by a qualified professional.~~
- ~~5.6. Mechanical ventilation systems shall include Filter Class of at least ISO Coarse 70%, and the filter shall be readily serviceable.~~
- ~~6.7. Where ventilation ducting is built in and not serviceable, it shall be rigid.~~
- ~~7.8. Where ventilation ducting is serviceable, it may be flexible.~~

Note: This standard applies in addition to, and does not affect the requirements of, the Building Act 2004.

<p>P1 Sch1</p>	<p>NOISE-S7</p>	<p>Fixed plant noise</p>	
	<p>All zones</p>	<p>1. Noise generated by fixed plant noise must not exceed the noise limits set out in APP5 – Fixed Plant Noise Standards.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. Management of effects from the activities with regard to the matters set out in NOISE-P2; 3. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and

			4. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.
P1 Sch1	NOISE-S8	Hours of aircraft operation	

	<p>Airport Zone</p>	<ol style="list-style-type: none"> 1. Domestic aircraft operations shall not occur during the following hours: <ol style="list-style-type: none"> a. midnight (12am) to 6am. 2. International aircraft operations shall not occur during the following hours: <ol style="list-style-type: none"> a. Midnight to 6am for departures. b. 1am to 6am for arrivals. 3. No aircraft shall operate under their main engine power within the East Side Precinct between the hours of 10pm and 7am. <p>Except:</p> <ol style="list-style-type: none"> 4. Disrupted flights where aircraft operations are permitted for an additional 30 minutes; 5. In statutory holiday periods where operations are permitted for an additional 60 minutes; 6. For the purposes of this condition, statutory holiday period means: <ol style="list-style-type: none"> a. The period from 25 December to 2 January, inclusive. Where 25 December falls on either a Sunday or Monday, the period includes the entire of the previous weekend. Where 1 January falls on a weekend, the period includes the two subsequent working days. Where 2 January falls on a Friday, the period includes the following weekend. b. The Saturday, Sunday and Monday of Wellington Anniversary weekend, Queens Birthday Weekend, and Labour Weekend. c. Good Friday to Easter Monday inclusive. d. Matariki Day. e. Waitangi Day. f. ANZAC Day. g. Any other day decreed as a national statutory holiday. h. Where Matariki Day, Waitangi Day or ANZAC Day falls (or is recognised) on a Friday or a Monday, the adjacent weekend is included in the statutory holiday period. i. The hours from midnight to 6am immediately following the expiry of each statutory holiday period defined above. 7. Aircraft using the Airport as a planned alternative to landing at a scheduled airport, but which shall not take-off unless otherwise permitted; 8. Aircraft landing in an emergency; 9. The operation of emergency flights required to rescue persons from life threatening situations or to transport patients, human vital organs, or medical personnel in a medical emergency; 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>
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		<p>10. The operation of unscheduled flights required to meet the needs of any state of emergency declared under the Civil Defence Emergency Management Act 2002 or any international civil defence emergency;</p> <p>11. Aircraft carrying heads of state and/or senior dignitaries acting in their official capacity or other military aircraft operations;</p> <p>12. No more than 4 aircraft movements per night with noise levels not exceeding 65 dB LA_{Fmax} (1 sec) at or beyond the edge of the Air Noise Boundary.</p>	
P1 Sch1	NOISE-S9	Calculation and management of aircraft noise	

		<p>1.— Aircraft noise shall be measured and modelled in accordance with NZS6805:1992 Airport Noise Management and Land Use Planning and calculated as a Ldn 90 day rolling average. All terminology shall have the meaning that may be used or defined in the context of NZS:6805-1992.</p> <p>2.— The Airport company (WIAL) shall ensure that all Aircraft Operations are managed so that the rolling day 90 day average 24 hour night weighted sound exposure level does not exceed a Day/night Level (Ldn) of 65dBA outside the Air Noise Boundary shown within the District Plan Maps.</p> <p>3.— Within the East Side Precinct, Aircraft Operations and the operation of Auxiliary Power Units (APUs) shall be managed so that the rolling 90 day average 24 hours night weighted sound exposure does not exceed a Day/Night Level (Ldn) of 65 dB outside of the East Side Precinct Compliance Line identified on Figure 6 below. In assessing compliance with this limit, account shall be taken of the cumulative effect of all aircraft operations and APUs from the Airport.</p> <p>4.— Noise monitoring shall take place at any point along the line shown in Figure 6 below. The rolling 90 day average Ldn noise level from aircraft operations and the operation of APUs must not exceed the corresponding level determined to correlate with 65 dB Ldn at the East Side Precinct Compliance Line. This noise level shall be determined once the noise monitoring location is finalised and shall be recorded in the Airport Noise Management Plan.</p> <p>5.— The Airport must demonstrate compliance with the standards above by undertaking continuous noise monitoring in accordance with NZS 6805:1992 and the guidance provided in the Airport Noise Management Plan. The results of this noise monitoring shall be made publicly available on the Airport website.</p> <p>Except:</p> <p>1.— The following aircraft operations shall be excluded from the calculation of the 90 day rolling average:</p> <p>a.— Aircraft operating in an emergency.</p> <p>b.— The operation of emergency flights required to rescue persons from life threatening situations or to transport patients, human vital organs, or medical personnel in a medical emergency.</p> <p>c.— The operation of unscheduled flights required to meet the needs of any state of emergency declared under the Civil Defence Emergency</p>	<p>Assessment criteria where the standard is infringed:</p> <p>1.— Type, intensity and duration of the noise;</p> <p>2.— Mitigation or management measures;</p> <p>3.— Health and safety;</p> <p>4.— Effects on internal and external noise amenity for dwellings outside the Airport zone; and</p> <p>5.— The Airport Noise Management Plan.</p> <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>
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Management Act 2002 or any international civil defence emergency.



Figure 6—NOISE: East Side Precinct Compliance Line and Noise Monitoring

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NOISE-S10

Engine testing noise

	<p>Airport Zone</p>	<ol style="list-style-type: none"> 1. There shall be no aircraft engine testing in the East Side Precinct, or in the area shown by Attachment 4 of designation WIAL4. 2. Engine testing shall adhere to the following: <ol style="list-style-type: none"> a. Testing shall only be undertaken during the hours of 6am to 8pm; b. For essential unscheduled maintenance, testing is able to occur between 8pm and 11pm and where these events do occur, they shall be reported to the Airport Noise Management Committee (ANMC) on an annual basis; c. To operate an aircraft within flying hours but provided the engine run is no longer than required for normal procedures, which for the purpose of this condition, shall provide solely for short duration engine runs by way of flight preparation while the aircraft is positioned on the apron; 3. Restrictions on engine testing from 11pm to 6am do not apply if engine testing can be carried out in compliance with all of the following: <ol style="list-style-type: none"> a. measured noise levels do not exceed 60 dB LAEQ (15 min) at or within the boundary of any residential zone; b. measured noise levels do not exceed 75 dB LAFmax at or within the boundary of any residential zone; c. noise levels shall be measured in accordance with NZS6801: 2008 Acoustics Measurement of Environmental Sound; 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Mitigation or management measures; 3. Health and safety; 4. Effects on internal and external noise amenity for dwellings outside the Airport zone;and 5. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations</p>
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		<ul style="list-style-type: none"> d. the total number of engine test events relating to aircraft using the Airport as an alternate landing site shall not exceed 18 in any consecutive 12 month period; e. the total duration of engine test events using the Airport as an alternate landing site shall be no more than 20 minutes. 	
P1 Sch1	NOISE-S11	Noise from ground power units and auxiliary power units (Main site)	
	Airport Zone (Main Site)	<ol style="list-style-type: none"> 1. The operation of ground power units (GPUs) and auxiliary power units (APUs) within the Airport (excluding East Side Precinct), when measured at any adjoining Residential zone, shall not exceed the following limits: <ul style="list-style-type: none"> a. Monday to Saturday 7am to 10pm 55 dB LAeq (15 min) b. At all other times 45 dB LAeq (15 min) c. All days 10pm to 7am 75 dB LAFmax <p>Except:</p> <ol style="list-style-type: none"> 2. Aircraft under tow; 3. The first 60 minutes after an aircraft has stopped on the gate, unless the Pilot of an Aircraft requires a longer duration due to operational or public health and safety reasons; 4. 60 minutes prior to scheduled departure unless the Pilot of an Aircraft requires a longer duration due to operational or public health and safety reasons; 5. The use of APUs to provide for engine testing. 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>
P1 Sch1	NOISE-S12	Noise from ground power units and auxiliary power units (East Side)	
	Airport Zone (East Side)	<p>1. Any aircraft stand within the East Side Precinct shall have a Plugin ground power unit (GPU) available.</p> <p>1. The operation of APUs in the East Side Precinct is subject to the relevant standards in NOISE-S9.</p> <ol style="list-style-type: none"> 1. There shall be no operating of APUs on land within the East Side Precinct between the hours of 10pm and 7am, apart from aircraft under tow. Where aircraft are under tow the use of the APU shall cease as soon as reasonably practicable after completion of the tow. 2. The operation of APUs on land within the East Side Precinct shall be restricted to a period not exceeding 15 minutes after the aircraft has stopped at the gate and 15 minutes prior to leaving the gate. 	<p>Assessment Criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. 7. In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.
P1 Sch1	NOISE-S13	Airport East Side Precinct residential noise mitigation	

	<u>Airport zone (East Side Precinct)</u>	1. <u>Prior to construction activity occurring to the east of the line shown on the map within Attachment 2 of designation WIAL5, or prior to land within the East Side Precinct being used to facilitate Code C (or</u>	
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	Medium Density Residential Zone	<p>larger) Aircraft (whichever is the earlier), the Airport shall offer to install mechanical ventilation to habitable rooms of those residential dwellings listed in Attachment 2 of designation WIAL5.</p> <p>2. Where the property owner accepts this offer, the following requirements apply:</p> <p>a. The Airport shall meet the full cost of the ventilation work.</p> <p>b. Any habitable room within any dwelling listed in Attachment 2 with openable windows must be provided with a positive supplementary source of fresh air ducted from the outside of the habitable room.</p> <p>c. The supplementary source of fresh air is to achieve a minimum of 7.5 litres per second/per person.</p> <p>The offer and outcomes from the ventilation work shall be to no less a standard than similar home ventilation packages provided under the Wellington Airport Quieter Homes programme (as at 2021).</p>	
P1 Sch1	NOISE-S14	Land based noise	
	Airport Zone	<ol style="list-style-type: none"> Noise emission levels from any activity within the Airport designations<u>Zone</u>, other than aircraft operations, engine testing and the operation of GPUs and APUs, when measured at any adjoining residential zone, shall not exceed the following limits: <ol style="list-style-type: none"> Monday to Saturday 7am to 10pm 55 dB L_{Aeq} (15min) At all other times 45 dB L_{Aeq} (15min) All days 10pm to 7am 75 dB L_{AFmax} In the East Side Precinct, for the purposes of calculating compliance with this limit, account shall be taken of the cumulative effect of all land based activities undertaken within the Airport <u>Zone</u>, other than aircraft operations, the operation of APUs and any engine testing. 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> Type, intensity and duration of the noise; Number of annual occurrences; Mitigation or management measures; Health and safety; Effects on internal and external noise amenity for dwellings outside the Airport zone; The requirements of NZS 6803:1999 Acoustics – Construction Noise; and The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>
P1 Sch1	NOISE-S15	Miramar South Precinct noise	

	<p>Airport Zone (Miramar South)</p>	<p>In relation to the Miramar South Precinct ("the Site"):</p> <ol style="list-style-type: none"> 1. Noise emission levels from within the Site when measured on any site that includes an occupied residence in the residential zone beyond the Site shall not exceed: <ol style="list-style-type: none"> a. Monday to Sunday 7am to 10pm 55 dB L_{Aeq} (15 min) b. Monday to Sunday 1am to 6am 40 dB L_{Aeq} (15 min) c. At all other times 45 dB L_{Aeq} (15 min) d. All days 10pm to 7am 75 dB L_{AFmax} 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Mitigation or management measures; 3. Health and safety; 4. Effects on internal and external noise amenity for dwellings outside the Miramar South Precinct; 5. The requirements of NZS 6803:1999 Acoustics – Construction Noise;
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	<ol style="list-style-type: none"> 2. Noise emission levels from the Site when measured on any site in the Centre Zone shall not exceed: <ol style="list-style-type: none"> a. At all times 60 dB L_{Aeq} (15 min) b. At all times 85 dB L_AF_{max} 3. Noise during construction activities shall comply with the requirements of NZS 6803:1999 Acoustics— Construction Noise. 4. A close boarded fence (or other acoustically effective barrier) with a density of at least 10 kg/m² and a height of two metres shall be installed around the perimeter of the site excluding site access points. This shall be inspected regularly and maintained to ensure its continued acoustic effectiveness. 3. Entry / egress for trucks shall not be located opposite residential zoned areas. Trucks shall not drive along the Residential zoned parts of Miro Street, Kedah Street, or Kauri Street except where there are specific circumstances where this is necessary. 4. Truck engines shall not be left to idle on the Site and signage shall be placed in appropriate locations within the Site to advise drivers of this requirement. The Airport or its agents shall actively monitor this requirement. 5. Building services shall be designed such that noise levels from this source at the Site boundary are at least 10 dB lower than the limits set out in 1 above. 6. All warehouse doors shall be fast closing and shall remain closed at night-time unless in use. 7. There shall be no servicing or maintenance of equipment outdoors at night. 	<ol style="list-style-type: none"> 6. The Airport Miramar South Construction Noise Management Plan; 7. The acoustic assessment report prepared by the Airport for development of the Site; and 8. The Airport Noise Management Plan.
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P1 Sch1	TABLE I - Minimum construction requirements necessary to achieve a moderate external sound insulation level of DnT,w + Ctr > 30 dB:		
	Building Element	Minimum Construction Requirement	
	External Walls of Habitable Rooms	Stud Walls:	
		Exterior cladding:	20 mm timber or 9mm compressed fibre cement sheet over timber frame (100 mm x 50 mm). *
		Cavity infill:	Fibrous acoustic blanket (batts or similar of a minimum mass of 9 kg/m ³) required in cavity for all exterior walls. Minimum 90 mm wall cavity.
		Interior lining:	One layer of 12 mm gypsum plasterboard.
			Where exterior walls have continuous cladding with a mass of greater than 25 kg/m ² (e.g. brick veneer or minimum 25 mm stucco plaster), internal wall linings need to be no thicker than 10 mm gypsum plasterboard.
		Combined superficial density:	Minimum not less than 25 kg/m ² being the combined mass of external and internal linings excluding structural elements (e.g. window frames or wall studs) with no less than 10 kg/m ² on each side of structural elements.
	Mass Walls:	190 mm concrete block, strapped and lined internally with 10 mm gypsum plaster board, or 150 mm concrete wall.	

	Glazed Areas of Habitable Rooms	Glazed areas up to 10% of floor area:	6 mm glazing single float
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		Glazed areas between 10% and 35% of floor area:	6 mm laminated glazing
		Glazed areas greater than 35% of floor area:	Require a specialist acoustic report to show conformance with the insulation rule.
		Frames to be aluminium window frames with compression seals.	
Skillion Roof	Cladding:	0.5 mm profiled steel or 6 mm corrugated fibre cement, or membrane over 15mm thick ply, or concrete or clay tiles.	
	Sarking:	17mm plywood (no gaps).	
	Frame:	Minimum 100 mm gap with fibrous acoustic blanket (batts or similar of a mass of 9 kg/m ³).	
	Ceiling:	Two layers of 10 mm gypsum plaster board (no through ceiling lighting penetrations unless correctly acoustically rated). Fibrous acoustic blanket (batts or similar of a minimum mass of 9 kg/m ³).	
	Combined superficial density:	Combined mass of cladding and lining of not less than 25 kg/m ² with no less than 10 kg/m ² on each side of structural elements.	
Pitched Roof (all roofs other than skillion roofs)	Cladding:	0.5 mm profiled steel or tiles, or membrane over 15mm thick ply.	
	Frame:	Timber truss with 100 mm fibrous acoustic blanket. (batts or similar of a minimum mass of 9 kg/m ³) required for all ceilings.	
	Ceiling:	12 mm gypsum plaster board.	
	Combined superficial density:	Combined mass with cladding and lining of not less than 25 kg/m ² .	
Floor areas open to outside	Cladding:	Under-floor areas of non-concrete slab type floors exposed to external sound will require a cladding layer lining the underside of floor joists of not less than 12 mm ply	
	Combined superficial density:	Floors to attain a combined mass not less than 25 kg/m ² for the floor layer and any external cladding (excluding floor joists or bearers).	
External Door to Habitable Rooms	Solid core door (min 25kg/m ²) with compression seals (where the door is exposed to exterior noise)		
<p>Notes:</p> <ul style="list-style-type: none"> The table refers to common specifications for timber size. Nominal specifications may in some cases be slightly less than the common specifications stated in the schedule for timber size. In determining the insulating performance of roof/ceiling arrangements, roof spaces are assumed to have no more than the casual ventilation typical of the jointing capping and guttering detail used in normal construction. 			
P1 Sch1	TABLE II - Minimum construction requirements necessary to achieve an advanced external sound insulation level of DnT,w + Ctr > 35 dB:		
	Building Element	Minimum Construction Requirements	
	External walls	1. Wall cavity infill of fibrous insulation, batts or similar, with a minimum density of 9kg/m ³ ; and 2. cladding and internal wall lining complying with either Option A, B or C below:	
		Option A	Light cladding: timber weatherboard or sheet materials with surface mass between 16kg/m ² and 30kg/m ² of wall cladding

		Option B	Medium cladding: surface mass between 30 kg/m ² and 65kg/m ² of wall cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm
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				thick high density plasterboard
		Option C	Heavy cladding: surface mass greater than 65kg/m ² of wall cladding	Internal lining of minimum 6kg/m ² plasterboard, such as one layer of 10mm thick plasterboard
	Roof/ceiling	1. Ceiling cavity infill of fibrous insulation, batts or similar, with a minimum density of 7kg/m ³ ; and 2. ceiling penetrations, such as for recessed lighting or ventilation, must not allow additional noise break-in; and 3. roof type and internal ceiling lining complying with either Option A, B or C below:		
		Option A	Skillion roof with light cladding: surface mass up to 13kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm thick high density plasterboard on resilient/isolating mountings
		Option B	Pitched roof with light cladding: surface mass up to 20kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm thick high density plasterboard
		Option C	Heavy roof cladding: surface mass greater than 20kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as one layer of 10mm thick high density plasterboard
		Glazed areas	1. Timber or aluminum frames with full compression seals on opening panes (excludes glazed sliding doors or windows) 2. glazed areas shall be less than 35% of each room floor area 3. double-glazing with: <ol style="list-style-type: none"> a laminated pane of glass at least 6mm thick; and a cavity between the two panes of glass at least 12mm deep; and a second pane of glass at least 6mm thick; or any other glazing with a minimum performance of $R_w + C_{tr} 34dB$. 	
	Exterior doors to any habitable room	Solid core exterior door, minimum surface mass 20kg/m ² , with compression seals; or other door sets with minimum performance of $R_w 30dB$		