

The notified Plan Change 6 amendments are in **green type**. The recommended changes following submissions are in **blue type**.

25.8 Noise and Vibration

25.8.1 Purpose

- a) Noise and vibration can have an adverse effect on amenity values, adversely affecting people's health, interfering with communication and disturbing sleep and concentration. Under the Act, noise includes vibration, so the objectives and policies on noise cover vibration as well, unless the context requires otherwise.
- b) District Plan standards for noise are important in determining when resource consents will be required for land uses and the assessment of applications. The District Plan provisions are subject to Section 16 of the Act, which requires everyone carrying out activities to adopt the best practicable option to ensure that noise does not exceed a reasonable level.
- c) The duty to adopt the best practicable option is not always avoided by compliance with a District Plan rule on noise. Noise may be deemed to be unreasonable even though the District Plan does not require resource consent. Enforcement action for unreasonable noise will usually be based on the noise enforcement provisions of the Act, but may be based on exceeding the District Plan standards.

25.8.2 Objectives and Policies: Noise and Vibration

Objective	Policies
25.8.2.1 Activities have minimal adverse noise and vibration effects on other activities and sites, consistent with the amenity values of the receiving environment.	25.8.2.1a The amenity values of the surrounding neighbourhood and adjoining activities, especially noise-sensitive activities, shall be protected from the effects of unreasonable noise.
	25.8.2.1b Construction, maintenance and demolition activities shall be required to minimise potential adverse effects on the surrounding neighbourhood and adjoining activities.
	25.8.2.1c Noise effects arising from new and altered roads should be managed using best practicable options to ensure noise levels received by existing premises and facilities that are sensitive to noise are reasonable.
	25.8.2.1d Commercial, industrial and community activities shall ensure that noise received at the boundary of Residential and Special Character Zones is consistent with the residential noise environment.

	<p>25.8.2.1e Noise from non-residential activities in residential areas shall not unduly adversely affect residential amenity values.</p>
	<p>25.8.2.1f Temporary events shall minimise noise impacts on residential activities when taking into account the level and duration of the noise.</p>
<p>Explanation</p>	
<p><i>The policies ensure that noise levels will be appropriately managed to protect the amenity values of receiving environments.</i></p> <p><i>Management of the interface between areas is important to ensure that noise is within a reasonable expectation for the zoning and noise levels meet accepted minimum standards for the receiving environment. Within industrial and commercial areas, higher noise levels are accepted, but will be controlled to prevent unreasonable noise from transferring between sites.</i></p> <p><i>The policies will capture changes to the noise environment arising from new and altered roads. The Plan aims to limit people's exposure to traffic noise from new transport corridors by reducing noise at the source, and requiring insulation for new development beside busy transport corridors (see Objective 25.8.2.2).</i></p> <p><i>Many construction activities are inherently noisy but methods are available which can control the emission and impact of this noise. Noise experienced during construction is of a temporary nature and provided that noise at inconvenient times can be mitigated or avoided, reasonable levels of construction noise can be accommodated.</i></p>	
<p>Objective</p>	<p>Policies</p>
<p>25.8.2.2 Reduce reverse-sensitivity effects arising from new noise-sensitive activities locating:</p> <ul style="list-style-type: none"> i. Within the Central City, Business, Industrial, Te Rapa North Industrial, Ruakura Logistics and Ruakura Industrial Park Zones. ii. Near to transport networks. iii. Within a defined helinoise boundary. iv. Within the noise emission boundary of the Te Rapa Dairy Manufacturing Site. 	<p>25.8.2.2a Noise-sensitive activities locating within the Central City, Business, Industrial, Ruakura Logistics, Te Rapa North and Ruakura Industrial Park Zones or within an existing defined helinoise boundary or within the Te Rapa Dairy Manufacturing Site Noise Emission Boundary should include design and materials to reduce interior noise to acceptable levels.</p> <p>25.8.2.2b Noise-sensitive activities locating near transport corridors that carry high traffic volumes, or railways, should include design and materials to reduce interior noise to acceptable levels.</p> <p>25.8.2.2c Noise-sensitive activities located within the Rototuna North East Character Zone adjacent to the Waikato Expressway (Designation E90) within the habitable building setback should provide</p>

	sufficient acoustic treatment to protect its residential noise environment.
Explanation	
<p><i>The objectives and policies recognise that some areas of the City contain a diverse range of activities, and that there is increased potential for conflict over noise, particularly when noise-sensitive activities locate near existing noisy activities.</i></p> <p><i>The objective and policies recognise that noise-sensitive activities establishing in these areas will require appropriate design and materials, such as acoustic insulation, to achieve an acceptable internal noise environment.</i></p> <p><i>The objectives and policies also recognise that the noise levels within the Te Rapa Dairy Manufacturing Site Noise Emission Boundary were agreed through an appeal settlement on the Waikato District Plan and the area around the Dairy Manufacturing Site was subsequently transferred into Hamilton City. Noise sensitive activities locating within the Dairy Manufacturing Site Noise Emission Boundary need to be aware of the existing noise levels within the Noise Emission Boundary.</i></p> <p><i>In the Rototuna North East Character Zone, the use of a specific building setback provision pre and post the construction of the Waikato Expressway (Designation E90) negates the need for additional acoustic mitigation of dwellings beyond the setback and provides protection for the outdoor amenity of residential properties within the setback. However, habitable buildings located within the setback do have an increased potential to be affected. Accordingly noise-sensitive activities establishing in this area will require appropriate design and materials, such as acoustic insulation, to achieve an acceptable internal noise environment.</i></p>	
Objective	Policies
<p>25.8.2.3 Reduce reverse-sensitivity vibration effects arising from new development locating near to the rail transport network.</p>	<p>25.8.2.3a New buildings locating near to the rail network should include design and materials to reduce vibration to acceptable levels.</p>
Explanation	
<p><i>The objectives and policies recognise that in some areas of the City near to the rail network there is potential for vibration effects. The objective aims to ensure that new buildings locating near to the rail are designed to recognise the environment in which they are located.</i></p>	

25.8.3 Rules – Specific Standards

25.8.3.1 Measurement and Assessment of Noise

- a) Noise levels shall be measured in accordance with NZS 6801:2008 “Acoustics – Measurement of Environmental Sound” and assessed in accordance with NZS 6802:2008 ‘Acoustics – Environmental Noise’. These apply unless otherwise stated.

25.8.3.2 Construction Noise

- a) All construction noise shall comply with the relevant noise levels stated in NZS6803: 1999, section 7.2 'Recommended numerical limits for construction noise' and shall be measured and assessed in accordance with NZS 6803:1999 'Acoustics – Construction Noise'.

25.8.3.3 Construction Vibration

- a) Construction vibration received by any building on any other site shall comply with the provisions of and be measured and assessed in accordance with German Standard DIN 4150-3:1999 Structural vibration – Effects of vibration on structures.

25.8.3.4 Design and Construction of New and Altered Roads

- a) Application of this standard.
 - i. This standard shall apply only to new and altered roads predicted to carry at least 2000 annual average daily traffic (AADT) at the design year.
- b) This standard shall not apply:
 - i. In circumstances where NZS 6806: 2010 does not apply, as listed in paragraph 1.3.1 of NZS 6806: 2010.
 - ii. To local transport corridors identified within Volume 2, Appendix 15-4, Figures 15-4b to 15-4f.
 - iii. To altered roads where the vertical or horizontal alignment changes relate solely to providing pedestrian footpaths, cycleways, dedicated passenger transport or high-occupancy vehicle lanes, vehicle stopping or parking whereby that part of the carriageway dedicated to usual vehicle movement does not move closer to any protected premises and facilities.
- c) Road-traffic noise shall be measured and assessed in accordance with NZS 6806:2010 'Acoustics – Road traffic noise – New and altered roads'.
- d) Subject to 25.8.3.4(a) and (b) above, new or altered roads are designed and constructed to mitigate road-traffic noise in compliance with NZS 6806: 2010 'Acoustics – Road traffic noise – New and altered roads'.

Note

1. This rule mainly affects road controlling authorities such as Council and the New Zealand Transport Authority, but sometimes may affect a private developer building or altering a road in a subdivision designed to carry the requisite traffic volumes. The practical effect of the standard is that traffic noise received at 'protected premises and facilities' will be reduced by design features such as quieter road surfaces.

25.8.3.5 Helicopter Landing Area Noise

- a) Helicopter noise from helicopter landing areas shall be measured and assessed in accordance with NZS 6807:1994 'Noise management and land-use planning for helicopter landing areas'.

Note

1. An activity that does not comply with NZS6807:1994 in Rule 25.8.3.5 will require consent, and the operator may be required to establish a helinoise boundary around the helicopter landing area, as described in NZS 6807:1994 via a change to the District Plan in accordance with the first schedule of the Act. Any new 'noise-sensitive activities' inside a defined helinoise boundary may be subject to the noise insulation requirements of NZS 6807:1994.

2. In addition to District Plan requirements, helicopter operation is subject to civil aviation controls.

25.8.3.6 Events and Temporary Activities

- a) The relevant zone noise standards shall apply to all events and temporary activities, except as provided in Rule 25.3.5.2(c) and 25.3.5.3(e).

25.8.3.7 Noise Performance Standards for Activities in all Zones Except Major Facilities, Knowledge, Open Space, Ruakura Logistics and Ruakura Industrial Park Zones

- a) Activities in all Zones except Major Facilities, Knowledge, Open Space, Ruakura Logistics and Ruakura Industrial Park Zones, shall not exceed the following noise levels at any point within the boundary of any other site in the:
- i. Residential Zones.
 - ii. Special Character Zone.

Time of day	Noise level measured in L_{Aeq} [15 min]	Noise level measured in L_{AFmax}
iii. 0600 – 0700 hours	45 dB	75 dB
iv. 0700 – 2000 hours	50 dB	-
v. 2000 – 2300 hours	45 dB	-
vi. 2300 – 0600 hours	40 dB	75 dB

- b) Activities in all zones except the Major Facilities, Knowledge and Open Space Zones shall not exceed the following noise levels at any point within the notional boundary of any other site in the Future Urban Zone.

Time of day	Noise level measured in L_{Aeq} [15 min]	Noise level measured in L_{AFmax}
i. 0700 – 2200 hours	55 dB	-
ii. 2200 – 0700 hours	40 dB	75 dB

- c) Any activity within the Industrial and Te Rapa North Industrial zones shall not exceed a noise level of 65dBA (L_{Aeq} [15 min]) at any point within the boundary of any other site within that zone. This standard does not apply to sites held in common ownership with the site containing the activity generating the noise. This standard applies to Stages 1A and 1B of the Te Rapa North Industrial Zone, but does not apply to the remainder of the Te Rapa North Industrial Zone until such time as the Deferred Industrial Zone overlay is removed.
- d) Activities in the Te Awa Lakes Business 6 Zone shall not exceed the following levels within any other Business 6 zoned site:

Time of Day	Limit (L_{Aeq})	Limit (L_{AFmax})
<u>0700 – 2300 hours</u>	<u>60 dB</u>	<u>-</u>
<u>2300 – 0700 hours</u>	<u>55 dB</u>	<u>75 dB</u>

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	<u>65 dB at 63 Hz L_{eq}</u>	
	<u>60 dB at 125 Hz L_{eq}</u>	

In situations where common building elements such as floors and walls connect two units under different ownership in Te Awa Lakes Business Zones, the noise (rating) level arising from any activity measured in any unit under different ownership or occupancy must not exceed the following levels.

<u>Unit Affected</u>	<u>Rooms</u>	<u>0700 – 2300 hours</u>	<u>2300-0700 hours</u>
<u>In all units except those containing activities sensitive to noise</u>	<u>All Rooms</u>	<u>50 dB LAeq</u>	<u>50 dB LAeq</u>
<u>In units containing noise sensitive activities</u>	<u>Bedrooms</u>	<u>40 dB LAeq</u>	<u>35 dB LAeq</u> <u>45 dB at 63 Hz Leg</u> <u>40 dB at 125 Hz Leg</u>
<u>In units containing noise sensitive activities</u>	<u>All other habitable rooms</u>	<u>40 dB LAeq</u>	<u>40 dB LAeq</u>

- The 63Hz and 125Hz octave band limits shall not apply to fixed mechanical plant.
- Adjustments for noise containing Special Audible Characteristics in accordance with New Zealand Standards NZS 6802:2008 “Acoustics – Environmental Noise” will only apply to A-weighted levels.
- A noise sensitive space means any indoor space within a unit, sensitive to noise excluding any bathroom, water closet, laundry, pantry, walk in wardrobe, corridor, hallway, lobby, stairwell, clothes drying area, kitchens not part of a dwelling, garage or other space of a specialised nature occupied neither frequently nor for extended periods.
- A unit means a defined part of a building under different ownership, including apartments and separate leased areas within a building.
- These minimum sound insulation performance standards apply in addition to the requirements of the NZ Building Code G6.

ed) Application of this standard.

- This standard does not apply to activities provided for by Rule 25.3.5.2(c) and 25.3.5.3(e)
- This standard does not apply to helicopter noise at helicopter landing areas, road traffic noise, or construction noise.
- This standard does not apply to residential activities, including the use of garden equipment (such as lawnmowers, chainsaws or wood chippers) ancillary to residential activities. Short duration use at reasonable times will usually be acceptable.

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- iv. This standard does not apply to noise from temporary emergency use of generators for continued power supply provided that the best practicable option to control the noise is adopted.
- v. This standard does not apply to activities within the Te Rapa Dairy Manufacturing Site.
- vi. This standard applies to all other activities, including home-based businesses, pool pumps, air conditioning units and domestic wind turbines.

Note

1. The Te Rapa North Deferred Industrial Area, excluding Stages ~~1A and 1B~~, is assessed against the Future Urban noise standards until such time as the Deferred Industrial Zone overlay is removed.

25.8.3.8 Te Rapa Dairy Manufacturing Site Noise Emission Boundary

- a) Any activity within the Te Rapa Dairy Manufacturing Site shall be designed and conducted so that noise from site activities, other than construction noise, measured at the Te Rapa Dairy Manufacturing Site Noise Emission Boundary shown on Planning Maps 1B, 2B, 6B and 7B and Figure 6-6 in Volume 2 shall not exceed 45 dB L_{Aeq} (15 min).

25.8.3.9 Noise Performance Standards for Activities in the Major Facilities Zone, Knowledge Zone and Open Space Zones

- a) Activities within the Major Facilities Zone, Knowledge Zone and Open Space Zones shall not exceed the following noise levels at any point within the notional boundary of any other site within the:
 - i. Future Urban Zone.

Or, any point within the boundary of any other site in the:

 - ii. Residential Zones.
 - iii. Special Character Zone.

Time of day	Noise level measured in L_{Aeq} [15 min]	Noise level measured in L_{AFmax}
iv. 0700 – 2300 hours	55dB	-
v. 2300 – 0600 hours	40dB	75 dB
vi. 0600 – 0700 hours	45dB	75 dB

- vii. Rule 25.8.3.9(a) vi shall not apply to the Knowledge Zone and the Ruakura Open Space Zone (excluding Lot 3 DPS 66853), in which case the application of night noise limit of Rule 25.8.3.9a)v shall be extended to apply between the hours of 2300 hours to 0700 hours.

viii. The noise (rating) level from any other site must not exceed 65 dB L_{Aeq} at any point within the boundary of the Te Awa Lakes Major Facilities Zone.

- b) Rule 25.8.3.9(a) shall not apply to crowd noise from events.

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- c) For Seddon Park, Waikato Stadium, Claudelands Events Centre and Te Rapa Racecourse the noise standards outlined in Rule 25.8.3.9(a) shall apply except for six days per calendar year when the following standards shall apply.
- i. The noise (including practice or testing) does not exceed the following noise levels at any point within the boundary of any site in the:
- Residential Zone
 - Special Character Zone

Time of day	Noise levels measured in L_{Aeq} [15 min]	Noise levels measured in L_{AFmax}
ii. 1000 – 2300 hours	75 dB 70 dB at 63Hz 65 dB at 125Hz	85 dB
iii. On New Year's Eve these noise levels shall apply up to 0030 hours the following day (January 1).		

- iv. Rule 25.8.3.9(c)i shall not apply to crowd noise from events.
- v. The noise event does not exceed four hours' duration, except on two of the six occasions when the duration of the noise event must not exceed seven hours, exclusive of practice and sound checks.
- vi. Practice or testing involving the use of electronic sound amplification must not exceed two hours.
- vii. The public is notified at least 14 days before the noise event, including information about:
- The nature of the noise event and the fact that the noise limits for general activities may be exceeded.
 - Proposed dates and start and finish time of the event itself, and the expected times of any testing or practice.
 - Contact details before and during the noise event.
 - Possible alternative dates in the event of postponement.
- Note**
1. A suitable method for achieving compliance with this standard is the publishing of a public notice containing the required information in a newspaper with a circulation that covers the entire area affected by the proposal.
- viii. Provide a noise management plan to Council at least one month before the event to demonstrate compliance with the relevant noise standards.
- d) Application of this standard:
- i. This standard does not apply to activities provided for by Rule 25.3.5.2(c) and 25.3.5.3(e)
- ii. This standard does not apply in relation to noise received from the Te Rapa Racecourse at the following existing sites on Minogue Drive.
- Pt Lot 1 DP 311765

- Lot 5 DP 443687
- Section 3 SO 318174

iii. This standard does not apply to noise from helicopter noise at helicopter landing areas, road traffic noise, or construction noise.

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25.8.3.10 Noise-sensitive Activities – Activities in all Zones except Ruakura Logistics Zone, Ruakura Industrial Park Zone and the Knowledge Zone

- a) The standards in Rule 25.8.3.10(e), (f) and (g) shall apply to the construction of new ~~and altered~~ buildings to be used for noise-sensitive activities ~~and to additions of habitable rooms to existing buildings~~, within:
- i. The Central City Zone, Business 1 to 7 Zones, Industrial Zone, Te Rapa North Industrial Zone, the Te Rapa Dairy Manufacturing Site Noise Emission Boundary, Rototuna Town Centre Zone and the Te Awa Lakes Business 6 Zone and the Te Awa Lakes Major Facilities Zone.
 - ii. All sites, near existing and proposed transport corridors that carry high traffic volumes, as defined in 25.8.3.10(b), and (c) below.
 - iii. All sites, near a railway line, as defined in 25.8.3.10(d) below.

~~iv.~~ The Rototuna North East Character Zone, where the residential activity is within the 55dB $L_{Aeq(24hr)}$ contour line from the Waikato Expressway, established via subdivision in accordance with 23.6.12c, where habitable rooms are located outside of the 55dB $L_{Aeq(24hr)}$ contour, no acoustic treatment is required even if one or more boundaries of the lot is intersected by the noise contour.

Commented [CD5]: NZTA Submission 20.01

- b) “Near existing and proposed transport corridors that carry high traffic volumes” applies to noise sensitive activities where the building line of the building containing the activity is within 40m of the nearest edge of the carriageway (not being a state highway) of:

i. Either:

~~Any All~~ existing arterial transport corridor ~~or any of the following collector transport corridors~~

- Bader Street
- Bankwood Road- South of Comries Road
- Beerescourt Road
- Brooklyn Road
- Bryant Road
- Cambridge Road
- Clyde Street- East of Wairere Drive
- Collins Road- West of Ohaupo Road
- Comries Road
- Grandview Road- Avalon Drive to Hyde Street
- Knighton Road- Clyde Street to Ruakura Road
- Maeroa Road- Ulster Street to Norton Road
- Naylor Street- Grey Street to Wairere Drive
- New Castle Road
- Palmerston Street- Pembroke Street to Cobham Drive

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- Pukete Road
- Rifle Range Road
- Sandwich Road
- Seddon Road- Tainui Street to Norton Road
- Silverdale Road

Note

For the avoidance of doubt, only the Collector or Arterial portion of the transport corridors listed above are covered by this rule.

Or

On transport corridors that carry an average annual daily traffic level (AADT) of

- 5,000 AADT where the posted speed limit is ≤50km/hr.
- 2,000 AADT where the posted speed limit is >50km/hr.

Commented [CD6]: Submission 27.92

- ii. A Designated transport corridors (where the designation defines the location of the carriageway) that is/are predicted to carry an annual average daily traffic level (AADT) at the design year of at least:

- 5,000 AADT where the posted speed limit is ≤50km/hr.
- 2,000 AADT where the posted speed limit is >50km/hr.

- iii. Under Rule 25.8.3.10b)ii the 40m distance shall be measured from either:

- a) The designation boundary; or
- b) The location of the carriage way confirmed in writing by the Requiring Authority; or
- c) The location of the carriage way confirmed through an outline plan of works approval under s176A of the RMA

Commented [CD7]: Further submission 4.16 Weston Lea

Where the designation does not define the location of the carriageway for Rule 25.8.2.10(b)(ii) then the 40m distance shall be measured from the designation boundary.

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- c) "Near existing and proposed transport corridors that carry high traffic volumes" also applies to noise sensitive activities where the building line of the building containing the activity is within:
- i. 100m of the Waikato Expressway (Designations E90, and E90a and E81a), except that this standard does not apply to:
 1. the land zoned Rototuna North East Character Zone – see Rule 25.8.3.10(h)(a)(iv) above; or
 2. feeder roads serving the expressway interchanges where the noise sensitive activity is more than 100m from the Waikato Expressway proper or any of its interchanges; or
 - ii. 80m of any other state highway where the speed limit is equal to or greater than 70km/hour, or where the speed limit is less than 70 km/hour and the AADT is at least 10,000 vehicle per day; or

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- iii. 40m of any state highway where the speed limit is less than 70km/hour and the AADT is less than 10,000 vehicles per day;
 - iv. Where the distances specified in (i), (ii) and (iii) above shall be measured from the edge of the carriageway, or the designation boundary if the carriageway location has not been confirmed in writing by the Requiring Authority; and
 - v. Where the speed limit specified in (ii) and (iii) above shall be the posted speed limit in the case of an existing state highway, or the speed limit confirmed in writing by the Requiring Authority for a proposed state highway; and
 - vi. Where the AADT specified in (ii) and (iii) above shall be the current AADT for an existing state highway, or the predicted AADT in the design year confirmed in writing by the Requiring Authority for a proposed state highway.
- d) "Near a railway line" applies to noise sensitive activities where the building line of the building containing the activity is within 40m of the boundary of a designation for Railway Purposes (Designations F1 and F1a).
- e) Where this standard applies (as defined by Rule 25.8.3.10(a) to (d) above) Any habitable room in the building containing the noise sensitive activity shall be protected from noise arising from outside the building by ensuring the building is designed and constructed to meet an indoor design sound level of 35dB $L_{Aeq(24hr)}$ in bedrooms and 40dB $L_{Aeq(24hr)}$ in all other habitable rooms ~~or~~
- ~~i.~~
 - ii. Where only 25.8.3.10(a)iv ~~and iii~~ applies, the outdoor noise level shall be the level incidental on the residential activity based on the noise level prediction parameters in Rule 23.6.12(c) ~~an acoustic design certificate shall state that the indoor design sound level of 35dB $L_{Aeq(24hr)}$ in bedrooms and 40dB $L_{Aeq(24hr)}$ in all other habitable rooms is able to be met.~~
- f) Compliance with Rule 25.8.3.10(e)i shall be achieved by:
- i. An acoustic design certificate that describes the proposed design of the building that will achieve compliance with the internal noise design standards in Rule 25.8.3.10(e); or
 - ii. An existing solid building or landform blocking the line of sight from all parts of all windows and doors of any new habitable room(s) to any part of the carriageway, or the designation if the carriageway location has not been confirmed in writing by the Requiring Authority, within the relevant distance specified in:
 - 1. Rule 25.8.3.10 (b) for transport corridors that are not state highway, or
 - 2. Rule 25.8.3.10 (c) for transport corridors that are state highway, and any habitable room is set back at least 40m from any part of the carriageway, or the designation if the carriageway location has not been confirmed in writing by the Requiring Authority.
- g) Where the internal noise design standards in Rule 25.8.3.10(e) can only be achieved in a habitable room with windows and doors closed, an alternative ventilation system shall be installed that complies with the requirements of Section G4 – Ventilation of the New Zealand Building Code 2011.

- h) Within the Rotorua North East Character Zone, any habitable rooms in new residential activities or the construction of new habitable rooms or extensions to habitable rooms in existing residential activities where constructed on a site within the applicable set back for the zone shall meet the following criteria:
- i. Where the location of the Waikato Expressway carriageway adjacent to the site is not confirmed, any residential activity located within the habitable building setback of 65m shall be designed and constructed to ensure that the noise level from the Waikato Expressway designation boundary is no greater than 35dB $L_{Aeq(24hr)}$ in any bedroom and 40dB $L_{Aeq(24hr)}$ in any other habitable room (the internal noise limits). The outdoor noise level shall be the level incidental on the residential activity based on the noise level prediction parameters in Rule 23.6.12 c).
 - ii. Where the location of the carriageway within the designation corridor of the Waikato Expressway adjacent to the site has been confirmed in writing by the Requiring Authority, or confirmed through an Outline Plan of Works approval under s176A of the RMA, or construction is underway or completed, any residential activity within the 55dB $L_{Aeq(24hr)}$ contour line from the Waikato Expressway, established via subdivision in accordance with 23.6.12 c), shall be designed and constructed to ensure that the noise level from the Expressway is no greater than 35dB $L_{Aeq(24hr)}$ in any bedroom and 40dB $L_{Aeq(24hr)}$ in any other habitable room (the internal noise limits). The outdoor noise level shall be the level incidental on the residential activity based on the noise level prediction parameters in Rule 23.6.12 c).
 - iii. A design report shall be prepared by a suitably qualified acoustic engineer approved by the Hamilton City Council, and provided to the Planning Guidance Manager, Hamilton City Council, that demonstrates the internal noise limits will be achieved.
 - iv. For those rooms where windows and doors need to be closed to achieve the internal noise limit, an alternative ventilation system that complies with the requirements of Section G4 of the Building Code shall be installed. This system shall be designed to achieve a level of no less than 10dB L_{Aeq} below the traffic design level for that room.

Note

1. If habitable rooms are located outside of the 65m setback or 55dB $L_{Aeq(24hr)}$ noise contour, no acoustic treatment is required even if one or more boundaries of the lot is intersected by either the setback or noise contour.

25.8.3.11 Noise-sensitive Activities – Ruakura Logistics Zone, Ruakura Industrial Park Zone and Knowledge Zone

- a) Buildings to be used for noise-sensitive activities shall not be constructed with any part of the building within 40m of the designation for the Waikato Expressway. This requirement shall not apply to the feeder roads serving the Pardoia Boulevard and Ruakura interchanges.
- b) The following standards in this rule shall apply to the construction of new and altered buildings to be used for noise-sensitive activities within:
 - i. The Ruakura Logistics Zone, the Ruakura Industrial Park Zone and the Knowledge Zone.

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- ii. All sites, near existing and proposed transport corridors that carry high traffic volumes, as defined in Rule 25.8.3.11 (c) and (d) below.
 - iii. All sites, near a railway line, as defined in Rule 25.8.3.11(e) below.
- c) “Near existing and proposed transport corridors that carry high traffic volumes” applies to noise sensitive activities where the building line of the building containing the activity is within 40m of the nearest edge of the carriageway of:
- i. All existing transport corridors, and
 - ii. Designated transport corridors (where the designation defines the location of the carriageway), that are predicted to carry an annual average daily traffic level (AADT) at the design year of at least:
 - 5,000 AADT where the posted speed limit is ≤ 50 km/hr.
 - 2,000 AADT where the posted speed limit is > 50 km/hr.
- d) “Near existing and proposed transport corridors that carry high traffic volumes” also applies to noise-sensitive activities where the building line of the building containing the activity is within 100m of the boundary with the Waikato Expressway designation, except for parts of the feeder roads serving the Pardoia Boulevard and Ruakura Interchanges beyond 100m from these interchanges”
- e) “Near a railway line” applies to noise sensitive activities where the building line of the building containing the activity is within 40m of the boundary of a designation for Railway Purposes.
- f) Where this standard applies, either:
- Any room in a building shall be protected from noise arising from outside the building by ensuring the external sound insulation level achieves the minimum performance standard of $D_{2m,nT,w} + C_{tr} > 30$ dB, or
 - Where only Rule 25.8.3.11(b)ii and iii apply, an acoustic design certificate signed by a suitably qualified acoustic engineer shall state the outdoor noise levels will not exceed 55 dB $L_{Aeq(1h)}$ for rail noise or 57 dB $L_{Aeq(24h)}$ for road-traffic noise at the building facade.
- g) Where Rule 25.8.3.11(f) applies, a supplementary source of air shall be provided to achieve a minimum ventilation as specified in Section G4 Ventilation of the New Zealand Building Code 2011 and provide cooling. The ventilation system shall generate less than 35dB L_{Aeq} measured at 1 metre from the internal grill/diffuser.

25.8.3.12 Operational Vibration from Rail Lines – Activities in All Zones

- a) Any new building developed for a vibration sensitive activity within 20m of a boundary of a designation for railway purposes shall comply with Class C vibration limits in NS 8176E:2005 – Vibration and Shock: Measurement of Vibration in Buildings from Land Based Transport and Guidance to Evaluation of its Effects on Human Beings.
- b) Where Rule 25.8.3.12(a) applies a design report prepared by an acoustics engineer, demonstrating compliance with the vibration criteria, shall be submitted to the Council prior to construction of the building.

Note

1. Some properties more than 20m from a rail line may experience vibration from passing trains. Factors such as soil ground conditions, distance from rail lines and building design will affect the amount of vibration received. For more information, professional advice can be sought from engineers before undertaking building work near the rail corridor.

25.8.3.13 Noise Performance Standards for Activities in the Ruakura Logistics and Ruakura Industrial Park Zones

a) Activities shall not exceed the following noise limits

- i. At or within the notional boundary of any residential unit on any other site within the Ruakura Logistics Zone or within the Ryburn Road and Percival Road Large Lot Residential Zone (as identified in Appendix 14-1).
- ii. At or within the boundary of any site in the Residential Zones and Knowledge Zone, except as provided for in i above.

Time of day	Noise levels measured in $L_{Aeq} [15 \text{ min}]$	Noise levels measured in L_{AFmax}
0700 – 2000 hours	55 dB	-
2000 – 2300 hours	50 dB	-
2300 – 0700 hours	40 dB	75 dB

- b) Any activity within the Ruakura Logistics and Ruakura Industrial Park Zones shall not exceed a noise limit of 70dB ($L_{Aeq} [15 \text{ min}]$) within the boundary of any other site within that Zone. This standard does not apply to sites held in common ownership with the site containing the activity generating the noise.
- c) Application of this standard.
 - i. This standard does not apply to temporary activities.
 - ii. This standard does not apply to noise from helicopters at helicopter landing areas, road noise, or construction.
 - iii. This standard does not apply to residential activities, the use of garden equipment (such as lawnmowers, chainsaws or wood chippers) ancillary to residential activities. Short duration use at reasonable times will be acceptable.
 - iv. This standard applies to all other activities, including home-based businesses, pool pumps, air conditioning units and site based wind turbines.
 - v. Assessment of the standard shall be in accordance with NZS6801:2008 and NZS6802:2008 including a reference time interval (t) of 15 minutes.
- d) A noise barrier shall be provided to ensure that the noise limits in Rule 25.8.3.13(a) are met and in accordance with the following:
 - i. The barrier shall be constructed at, or to the north of, the northern-most limit of the Inland Port operations area (Sub Area A (Inland Port)) and in any other locations necessary to ensure the noise limits in Rule 25.8.3.13(a) will be met.

- ii. The barrier may be constructed in stages to suit staged development of the Inland Port (Sub Area A (Inland Port)).
- iii. The barrier shall be designed and constructed in accordance with best practice and certified by a suitably qualified expert.
- iv. The barrier shall be designed to avoid or minimise the reflection of noise from passing trains onto residential properties on Ryburn Road.
- v. The noise barrier shall form part of the Noise Management Plan for each stage of development of the Inland Port (Sub Area A (Inland Port)).

25.8.3.14 Non-Conformity with Standards in the Ruakura Logistics Zone

- a) Any activity in the Inland Port (Sub Area A (Inland Port)) which is between 40 dBL_{Aeq(15 min)} and 45 dBL_{Aeq(15 min)} between 2300 and 0700 hours when measured under 25.8.3.13a is a restricted discretionary activity. This shall be considered without notification or the need to obtain approval from affected persons, except as provided for by sections 95A(2)(b) and (c), 95B(2) and (3) and 95C(1) to (4) of the Act.
- b) Any activity in the Inland Port (Sub Area A (Inland Port)) which exceeds 45 dBL_{Aeq(15 min)} between 2300 and 0700 hours when measured under 25.8.3.13a) is a non-complying activity.

25.8.4 Other Resource Consent Information

Refer to Chapter 1: Plan Overview for guidance on the following.

- How to Use this District Plan
- Explanation of Activity Status
- Activity Status Defaults
- Notification / Non-notification Rules
- Rules Having Early or Delayed Effect

Refer to Volume 2, Appendix 1: District Plan Administration for the following.

- Definitions and Terms Used in the District Plan
- Information Requirements
- Controlled Activities – Matters of Control
- Restricted Discretionary, Discretionary and Non-Complying Activities Assessment Criteria
- Design Guides
- Other Methods of Implementation