

**IN THE ENVIRONMENT COURT**

**ENV-**

**I MUA I TE KOOTI TAIAO  
I ŌTAUTAHI ROHE**

**IN THE MATTER**

of the Resource Management Act 1991 ("**RMA**")

**AND**

**IN THE MATTER**

of Clause 14(1) of Schedule 1 of the RMA

**BETWEEN**

**KIWIRAIL HOLDINGS LIMITED**

Applicant

**AND**

**AUCKLAND COUNCIL**

Respondent

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**NOTICE OF APPEAL TO THE ENVIRONMENT COURT AGAINST DECISIONS  
ON PROPOSED PRIVATE PLAN CHANGE 50 (DRURY CENTRE PRECINCT)**

**17 JUNE 2022**

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To: The Registrar  
The Environment Court  
AUCKLAND

**KIWIRAIL HOLDINGS LIMITED** ("**KiwiRail**") appeals against parts of the decisions of Auckland Council ("**Council**") in respect of changes to the Auckland Unitary Plan ("**AUP**") under Private Plan Change 50 ("**PC50**").

### **BACKGROUND AND DECISIONS APPEALED**

1. KiwiRail made a submission on PC50 on 22 October 2020.<sup>1</sup> KiwiRail presented evidence and legal submissions in support of its submission at the hearing on PC50 on 6 December 2021.
2. KiwiRail received notice of the Council's decision on PC50 on 5 May 2022 ("**Decision**").
3. The parts of the Decision being appealed are the decisions to reject or to accept only in part the matters raised in KiwiRail's submission or to amend PC50 in a way that is inconsistent with the matters raised in KiwiRail's submission.
4. KiwiRail is not a trade competitor for the purposes of section 308D of the RMA.
5. KiwiRail is a State-Owned Enterprise responsible for the management and operation of the national railway network. Its role includes managing railway infrastructure and land, as well as freight and passenger services within New Zealand.
6. KiwiRail is a requiring authority pursuant to section 167 of the RMA and is responsible for designations for railway purposes throughout New Zealand, including the North Island Main Trunk Line ("**NIMT**"), which is adjacent to the PC50 area.

### **SCOPE OF APPEAL**

7. KiwiRail appeals the following parts of the Decision:
  - (a) Objective IX.2(7).
  - (b) Policy IX.3(18).

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<sup>1</sup> Submission Number 30.

- (c) Standard IX.6.7(1).
- (d) Standard IX.6.9(1).
- (e) Restricted discretionary activities: Matter of discretion IX.8.1(8)(a) – Infringement of standard IX.6.7.
- (f) Restricted discretionary activities: Assessment criteria IX.8.2(8)(a) – Infringement of standard IX.6.7.
- (g) Restricted discretionary activities: Assessment criteria IX.8.2(10)(a) – Infringement of standard IX.6.9.

### **REASONS FOR APPEAL**

- 8. PC50, in its present form:
  - (a) will not promote the sustainable management of the natural and physical resources in Drury, and is therefore contrary to or inconsistent with Part 2 and other provisions of the RMA;
  - (b) is inconsistent with other relevant planning documents, including the AUP;
  - (c) will not meet the reasonably foreseeable needs of future generations;
  - (d) will not enable the social, economic and cultural wellbeing of the people of Drury;
  - (e) does not avoid, remedy or mitigate actual and potential adverse effects on the environment; and
  - (f) is not the most appropriate way to achieve the objectives of the AUP in terms of section 32 of the RMA.
- 9. In addition to the general reasons outlined above, KiwiRail appeals the Decision for the specific reasons set out below.

**Reverse sensitivity and noise and vibration mitigation for sensitive activities in proximity to rail network**

10. Reverse sensitivity is a well-established planning principle and is an adverse effect for the purposes of the RMA.<sup>2</sup> It refers to the susceptibility of lawfully established effects-generating activities (which often cannot internalise all of their effects) to complaints or objections about their lawful activities arising from the location of new sensitive activities, typically residential dwellings, nearby.
11. Full internalisation of the noise and vibration effects of the NIMT cannot reasonably be achieved due to the nature of rail activities. While KiwiRail constantly seeks to ensure it operates the rail corridor in a way to internalise noise and vibration effects as far as reasonably practicable, it has limited ability to change the levels of noise and vibration from the use of the tracks. Accordingly, KiwiRail sought that PC50 recognise the need to both mitigate the potential health and amenity effects on nearby residents arising from rail activities but also to mitigate the potential for reverse sensitivity effects on the NIMT.
12. To achieve this outcome, KiwiRail's submission sought amendments to PC50 as notified to provide a framework to address reverse sensitivity and health and amenity effects arising from noise and vibration created by the rail corridor, including through land use controls requiring noise and vibration standards to be met for noise sensitive activities within 100 metres of the rail corridor.
13. The Decision only partially addresses the provisions sought by KiwiRail. The Decision accepted that activities located near a rail corridor need noise mitigation for health and amenity effects,<sup>3</sup> and incorporated acoustic attenuation controls for habitable spaces adjacent to the rail corridor to address adverse health and amenity effects.<sup>4</sup> The Decision also accepted the requirement for mechanical ventilation and certification as recommended by the s42A Report.<sup>5</sup>
14. However, the Decision did not accept the need to include acoustic attenuation in relation to vibration in response to rail noise.<sup>6</sup>

<sup>2</sup> See *AFFCO New Zealand v Napier City Council* NZEnvC Wellington W082/2004, 4 November 2004 at [29] as cited in *Tasti Products Ltd v Auckland Council* [2016] NZHC 1673 at [60].

<sup>3</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [318].

<sup>4</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [322].

<sup>5</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [322].

<sup>6</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [323].

15. As accepted in the s42A Report, rail vibration is not an effect that can be readily internalised in the rail corridor.<sup>7</sup> The inclusion of a vibration standard was supported by the s42A Report.<sup>8</sup>
16. The Decision includes references to health and amenity effects in the relevant objectives, policies, standards, matters for discretion and assessment criteria. However, the Decision did not incorporate reference to the need to protect the NIMT from reverse sensitivity effects.<sup>9</sup>
17. The Decision fails to adequately acknowledge the link that health and amenity effects and vibration effects have with reverse sensitivity effects on infrastructure development. This failure to acknowledge reverse sensitivity puts KiwiRail's significant infrastructure in the NIMT at risk. As recognised in the AUP:<sup>10</sup>

The sensitivity of adjacent activities, particularly residential, to these effects can lead to complaints and ultimately constraints on the operation of infrastructure. Managing these reverse sensitivity effects is essential.

18. This risk is significant given the national importance of the infrastructure that KiwiRail provides, its increasing role in freight and passenger transport, and the benefits of modal shift to rail in helping meet New Zealand's climate change emission reduction targets.
19. The development that will be provided for by PC50 is new residential development, on a greenfields site, located adjacent to existing infrastructure. This will result in increased urbanisation. It is appropriate, and prudent planning practice, that the PC50 provisions recognise and provide for the interface between the adjoining activities and the potential for effects not only on residents but also on the rail network itself.
20. The AUP also contains objectives and policies that recognise and provide for the potential for reverse sensitivity effects on regionally significant infrastructure, and direct that such infrastructure be protected from these effects.<sup>11</sup> The relief sought by KiwiRail would give effect to these provisions

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<sup>7</sup> Private Plan Modifications 48, 49 and 50 Addendum Hearing Report, David Mead, Auckland Council, 19 November 2021, at [159].

<sup>8</sup> Private Plan Modifications 48, 49 and 50 Addendum Hearing Report, David Mead, Auckland Council, 19 November 2021, at [159].

<sup>9</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [324].

<sup>10</sup> This is recognised in the AUP at E26.1.1.

<sup>11</sup> See for example the Auckland-wide infrastructure rules (E26.2.1(6) Objectives and E26.2.2(3) Policies) and E25.2 and E25.3 (Noise and Vibration).

by providing protection for the rail network from potential adverse effects associated with reverse sensitivity – protection that is not provided in the Decision.

*Relief sought*

21. KiwiRail seeks that PC50 is amended as follows or such alternative or consequential relief that addresses KiwiRail's concerns:

IX.2 Objectives

(7) Activities sensitive to noise and vibration adjacent to the rail corridor and/or an arterial road are designed to protect people's health and residential amenity while they are indoors, and to protect the North Island Main Trunk Line against adverse effects, including reverse sensitivity effects, of subdivision, use and development.

Policy IX.3 – Noise and vibration sensitive activities adjacent to the rail and current and future arterial road corridor

(18) Ensure that Activities sensitive to noise and vibration adjacent to the railway corridor and/or current and future arterial roads are designed with acoustic attenuation measures to protect people's health and residential amenity while they are indoors and to protect the North Island Main Trunk Line against adverse effects, including reverse sensitivity effects, of subdivision, use and development.

Standard IX.6.7 Noise and vibration sensitive activities within 60m of the rail corridor

Purpose: Ensure Activities sensitive to noise and vibration adjacent to the railway corridor are designed to protect people's health and residential amenity while they are indoors, and to protect the North Island Main Trunk Line against adverse effects, including reverse sensitivity effects, of subdivision, use, and development.

(1) Any new building or alteration to an existing building that contains an activity sensitive to noise and / or vibration, within 60 metres of the rail corridor, must be designed, constructed and maintained to:

- (a) not exceed 35 dB LAeq (1 hour) for sleeping areas and 40 dB LAeq (1 hour) for all other habitable spaces; and  
(b) achieve rail vibration levels not exceeding 0.3 mm/s.

IX.8.1 Matters of discretion

(8) Infringement of standard IX.6.7 – Development within 60m of the rail corridor

(a) Effects on human health and residential amenity while indoors and to protect the North Island Main Trunk Line from reverse sensitivity effects.

IX.8.2 Assessment criteria

(8) Infringement of standard IX.6.7 – Development within 60m of the rail corridor

(a) Whether Noise and vibration sensitive activities adjacent to the railway corridor are designed to protect people's health and amenity while they are indoors and protect the North Island Main Trunk Line from reverse sensitivity effects. This includes:-

(i) whether the activities sensitive to noise and vibration could be located further from the railway corridor;

(ii) the extent to which the noise and vibration criteria are achieved and the effects of any non-compliance;

(iii) the character of and degree of amenity provided by the existing environment and proposed activity;

(iv) the reverse sensitivity effects on the railway corridor and the extent to which mitigation measures can enable their ongoing operation, maintenance and upgrade;

(v) special topographical building features or ground conditions which will mitigate vibration impacts; and

(vi) the outcome of any consultation with KiwiRail.

### **Setback of buildings and structures from railway corridor boundary**

22. KiwiRail's submission sought to include a new permitted activity standard in various zones requiring that all buildings and structures be set back a minimum of 5 metres from the rail corridor.
23. The Decision stated that 2.5 metres is adequate for routine building maintenance on properties adjoining the railway line.<sup>12</sup> While this goes some way to addressing KiwiRail's concerns, 2.5 metres is not a sufficient distance to ensure that potential health and safety risks are appropriately managed, and to ensure that landowners and occupiers can safely conduct their activities and maintain and use their buildings or structures, while minimising the potential for interference with the rail corridor. This is especially the case for high rise buildings, for which noise and vibration effects can be particularly acute.

<sup>12</sup> Decision of the Auckland Council Hearing Panel (29 April 2022) at [329].

24. Sufficient setbacks are a critical land use control to manage the interface between operations within the railway corridor and activities that may occur near the boundary of adjoining land, and to ensure the health and safety of people and communities. If development near the railway corridor is not appropriately managed, there is a risk of conflict between the operation of the rail network and use of the built environment. A district plan requirement for buildings and structures to be sufficiently set back from the railway corridor boundary is therefore an appropriate mechanism to reduce the likelihood of adjoining landowners inadvertently accessing the rail corridor.
25. A 5 metre setback minimises the risk of objects or structures entering the rail corridor from neighbouring properties which could cause disruption to the network or, more seriously, a collision or accident. As the railway corridor will be electrified, there will also be high risks of electrocution should an object or person from a neighbouring property come into contact with the wires. Unless the neighbouring buildings are sufficiently set back from the railway corridor, these are significant safety hazards. Five metres is the appropriate distance for a setback to ensure that these risks can be appropriately managed.

*Relief sought*

26. KiwiRail seeks that PC50 is amended as follows or by such alternative or consequential relief that addresses KiwiRail's concerns:

Standard IX.6.9 Safe operation of the NIMT

Purpose: To ensure the safe operation of the North Island Main Trunk Line by providing for buildings on adjoining sites to be maintained within their site boundaries.

(1) Buildings must be setback at least ~~2.55~~ metres from any boundary which adjoins the North Island Main Trunk Line.

IX.8.2 Assessment criteria

(10) Infringement of standard IX.6.9 – Safe operation of the NIMT

(a) Whether the proposal ensures that buildings can be maintained within their site boundaries while providing for the safe operation of the North Island Main Trunk Line, including:

(a) the size, nature and location of the buildings on the site;

(b) the extent to which the safety and efficiency of railway operations will be adversely affected;

(c) the outcome of any consultation with KiwiRail; and

(d) any characteristics of the proposed use that will make compliance unnecessary.



**ATTACHMENTS**

27. The following documents are attached to this notice:
- (a) A copy of the relevant parts of the Decision.
  - (b) A copy of KiwiRail's submission.
  - (c) A list of the relevant names and addresses of persons who lodged submissions who are to be served with a copy of this notice.

**KIWIRAIL HOLDINGS LIMITED** by its solicitors  
and authorised agents Russell McVeagh:




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**Signature:** A A Arthur-Young | K L Gunnell

**Date:** 17 June 2022

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**TO:** The Registrar of the Environment Court at Auckland.

**AND TO:** Auckland Council.

**AND TO:** The relevant submitters on the provisions appealed.

**Advice to recipients of copy of notice of appeal***How to become a party to proceedings*

1. You may be a party to the appeal if you made a submission or a further submission on the matter of this appeal.
2. To become a party to the appeal, you must:
  - (a) within 15 working days after the period for lodging a notice of appeal ends, lodge a notice of your wish to be a party to the proceedings (in form 33) with the Environment Court and serve copies of your notice on the relevant local authority and the appellant; and
  - (b) within 20 working days after the period for lodging a notice of appeal ends, serve copies of your notice on all other parties.
3. Your right to be a party to the proceedings in the Court may be limited by the trade competition provisions in section 274(1) and Part 11A of the Resource Management Act 1991.
4. You may apply to the Environment Court under section 281 of the Resource Management Act 1991 for a waiver of the above timing requirements (see form 38).

*Advice*

If you have any questions about this notice, contact the Environment Court in Auckland, Wellington, or Christchurch.

**APPENDIX A – DECISION ON APPEAL**

## EXECUTIVE SUMMARY

We have set out at a 'high level' our key findings in the Executive Summary to provide 'context' when reading the substantive part of the decision. Other matters are also addressed that are not included in the Executive Summary.

- We have approved the Plan Change.
- The Plan Change will give effect to the National Policy Statement on Urban Development (**NPS-UD**). It also gives effect to the Regional Policy Statement (**RPS**) in terms of B2 – Urban Growth and Form and B3 – Infrastructure, Transport and Energy. Given the Applicant's commitment to the proposed Staging of Development with Transport Upgrades, the associated precinct provisions are appropriate, workable and will achieve the necessary transport infrastructure related upgrades.
- We are satisfied that the transport infrastructure related upgrades identified by the Applicant are those necessary to address the adverse effects from PC 50, and those necessary to give effect to the statutory planning documents.
- The Staging of Development with Transport Upgrades provisions, and the other associated precinct provisions are appropriate and workable and will ensure the necessary transport infrastructure related upgrades are provided prior to or at the same time as subdivision and or development.
- We have applied the zoning, sub-precinct and building heights as set out in the Reply precinct provisions.
- We have included acoustic attenuation controls for habitable spaces (but not outdoor spaces) adjacent to the rail corridor zone and arterial roads to address adverse health and amenity effects. We have not included vibration as we had insufficient evidence to warrant imposing controls.
- We have imposed a 2.5 m building setback from the rail designation boundary.
- We have retained the riparian margins (planting) at 10 metres either side of permanent or intermittent streams. The riparian provisions have been amended to focus attention on managing development impacts and mitigating them with the aim of improving ecological values while still allowing public access.

## INTRODUCTION

1. The private plan change request was made under Clause 21 of Schedule 1 to the RMA and was accepted by the Council, under clause 25(2)(b) of Schedule 1 to the RMA on 27 August 2020.

*(“SMP”). In any case, once confirmed, the northern floodplain would be set aside as drainage reserve/open space, and residential development would not be possible. In this respect, a lower order residential zoning would not reflect the ultimate use of that part of the site. The future use of this part of the site is indicated on proposed Precinct Plan 1.*

263. We agree with Mr Roberts and Ms Morgan.
264. With respect to building heights Mr Roberts and Ms Morgan were of the view that 19.5m was not sufficient to provide for six storeys, and 22.5m would do so comfortably and in a manner consistent with other THAB zones around Metropolitan Centres in Auckland, and consistent with the decision we have made in PC 49. Mr Turbott’s suggested 32.5m height limit did not appear to be based on any other expert opinion (eg urban design, landscape, traffic etc). It also appears that no other party expressly supported the 32.5m height limit.
265. It is our view that six storeys is sufficient to ensure land is used efficiently adjacent to centre and the public transport network (Objective H6.2(1)). At the same time, this would be in keeping with the planned urban built character of the surrounding area, and providing a transition in building scale from the adjoining higher density business zone (Policy H6.3(4)(a)), being the Mixed Use zone on the southern side of Waihoehoe Road.

### **Commercial Activity at Ground Floor along Waihoehoe Road**

266. Mr Turbott appeared to recommend that commercial activity should be provided for at ground floor along Waihoehoe Road, and he disagreed that this frontage should have a residential neighbourhood character. The THAB zone is a residential zone and provides for a limited range of commercial activities as a restricted discretionary activity, including small dairies and restaurants/cafes, as well as some community activities.
267. In our view, commercial activities are appropriately concentrated within the PC 48 area, including within the Metropolitan Centre and Mixed Use zones. This enables the concentration of commercial activities within the Drury Centre as a means of supporting the function, role and amenity of the Drury Centre.

### **Noise and Vibration Matters**

#### Rail Noise and Vibration

268. Noise and vibration was a key issue outstanding in PC 50 (and PCs 48 and 49) between the Applicant, KiwiRail, ACS/AT and Kāinga Ora (KO). The issue was, if, and if so the extent to which, noise and vibration attenuation was required to mitigate the health and amenity effects from road and rail noise and vibration.
269. In response to the submissions received, Mr Mead originally recommended that precinct standards be introduced to address potential effects from rail vibration and set back of buildings from the rail corridor, but otherwise considered that rail and road

noise issues could be managed by standards in E25.6.10 in the AUP (OP) (which require noise insulation for noise sensitive activities in Business zones).

270. With respect to rail noise, Kiwirail's submission sought to insert permitted activity standards to require all new buildings, and alterations to existing buildings, containing noise sensitive activities located within 100m of the rail corridor to be appropriately mitigated in relation to rail noise and vibration<sup>134</sup>. Where a proposed activity did not comply with those standards a restricted discretionary activity resource consent would be required.
271. Ms Butler, planner for Kiwirail, advised that in applying KiwiRail's standard, all bedrooms in new buildings, or alterations to existing buildings, within 100m of the railway corridor would be required to achieve an internal noise level of 35dB LAeq, with a 40dBAeq limit for all other habitable rooms based on rail activity noise levels. If windows were required to be closed to achieve the internal noise levels, then an alternative ventilation system would be required to be installed to ensure an adequate supply of fresh air<sup>135</sup>.
272. It was Ms Butler's opinion that the provisions sought by KiwiRail would strike an appropriate balance between the onus on existing lawful emitters like the railway network to manage their effects and those new sensitive activities to protect themselves against such effects<sup>136</sup>.
273. Ms Butler endorsed the position of Mr Roberts and Ms Morgan, planners for the applicant, who originally proposed to include a design requirement for noise sensitive activities close to the NIMT to ensure that potential reverse sensitivity and residential amenity effects are managed, in a manner that would effectively achieve objectives E25.2(1), (2) and (3).<sup>137</sup>
274. Mr Mead noted in the section 42A report that the THAB zoning proposed does not contain any standards relating to the internal noise environment for noise sensitive activities. The AUP (OP) (Chapter 25) controls internal noise levels for noise sensitive activities in Business zones, but no similar provision exists for residential zones, despite these areas often abutting busy and noisy rail and road corridors. Mr Mead stated he generally agreed that as roads get busier, the effects of road noise on health and amenity increase; and he acknowledged that the greenfields context provided the opportunity to 'future proof' new buildings (rather than retrofit noise insulation or roadside noise barriers at a later stage)<sup>138</sup>.
275. To address the concerns of Kiwirail and AT, Mr Mead supported a new standard that cross referenced to E25.6.10, which requires new buildings either adjacent to an arterial road or near to the rail corridor to be built to the internal noise standards

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<sup>134</sup> Ms Butler's Evidence-in-Chief at [4.9]

<sup>135</sup> Ibid, at [4.10]

<sup>136</sup> Ibid, at [4.15]

<sup>137</sup> Mr Roberts' and Ms Morgan's Evidence-in-Chief at [14.6]

<sup>138</sup> Section 42A report at [499]

specified for noise sensitive activities in Business zones<sup>139</sup>. He did not specify the distance in which this new standard should apply, suggesting that this was a matter that Kiwirail and the plan change proponent may wish to address (and we address this below).

276. Dr Chiles, noise and vibration expert for Kiwirail, stated in his evidence-in-chief<sup>140</sup>:

*“It is widely accepted nationally and internationally that sound and vibration from rail networks have the potential to cause adverse health effects on people living nearby. This has been documented by authoritative bodies such as the World Health Organisation (“WHO”),<sup>1</sup> including a relatively recent publication by WHO Europe in October 2018 (“2018 WHO Guidelines”), which set out guidelines for managing environmental noise.<sup>2</sup> These WHO publications are underpinned by robust scientific research. I am not aware of any fundamental disagreement in the acoustics profession with the information published by WHO regarding rail noise effects.”*

277. Dr Chiles went on to say that based on the evidence of adverse effects, WHO makes recommendations to policymakers to reduce rail sound exposure to below a range of guideline values. The relief sought by KiwiRail on Plan Change 50 is consistent with this direction, as an integral part of its broader noise management activities.<sup>141</sup>

278. It was Dr Chiles’ opinion that the amendments sought by KiwiRail would allow for new buildings and alterations to existing buildings near the NIMT to provide people with acceptable indoor living conditions. He considered this relief should manage adverse health and amenity effects experienced by those people to a reasonable degree, which in turn should manage reverse sensitivity effects on KiwiRail<sup>142</sup>.

279. In terms of the internal noise criteria and ventilation requirements, Dr Chiles agreed with Mr Mead that, technically, cross reference could be made to E25.6.10 rather than introducing separate provisions for the plan change area. However, he advised there was a difficulty related to the fundamental structure of the rule, noting that E25.6.10 applied the same standard of sound insulation everywhere based on the external noise exposure being at the zone noise limits. Dr Chiles was of the opinion that this does not work for rail noise because<sup>143</sup>:

*“(a) Rail noise varies with distance from the track and between different sides of exposed buildings depending on whether they are facing towards or away (or side on) from the track. Therefore, the appropriate degree of sound insulation varies between buildings and between different façades of the same building.*

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<sup>139</sup> Ibid, at [500]

<sup>140</sup> Dr Chiles’ Evidence-in-Chief at [4.1]

<sup>141</sup> Ibid at [4.3]

<sup>142</sup> Ibid at [6.4]

<sup>143</sup> Dr Chiles’ Evidence-in-Chief at [7.4]

*(b) The zone noise limits for the THAB zone are relatively low (Table E25.6.2.1) with a night-time external noise limit of 40 dB LAeq. The sound insulation requirements in E25.6.10 are based on this 10 external exposure and consequently would result in no treatment being required as the internal noise level would be met regardless. This is because the design would be based on a level that is not representative of rail noise.”*

280. He concluded, the issues with E25.6.10 made it unsuitable for application to rail noise in the THAB zone. To remedy these defects Dr Chiles stated this would require specification of external rail noise exposure to over-ride the provisions in E25.6.10, which would represent a fundamental change to the way E25.6.10 currently applies. He remained of the opinion that the amendments sought by KiwiRail would provide a clearer and less ambiguous rule structure<sup>144</sup>.
281. Mr Hegley, acoustic expert for KO, stated that the reason given by KiwiRail for the proposed noise and vibration controls was reverse sensitivity effects arising from the proposed plan change. He advised us that KiwiRail had, however, provided no evidence that there would be any such adverse reserve sensitivity effects from trains passing the subject site.
282. Mr Hegley further stated that the noise control levels proposed by KiwiRail were not appropriate to adopt in PC 50 as they did not provide a realistic level of the actual noise levels that would be emitted along the rail corridor<sup>145</sup>. He considered this would have the effect of requiring additional but unnecessary acoustic attenuation and its associated costs.<sup>146</sup>
283. Mr Hegley went on to say that he accepted it would be impracticable for KiwiRail to fully internalise its effects. On this basis he supported the concern expressed by KiwiRail and the desirability to protect residents from the adverse effects of noise and vibration from rail activities. However, his ‘support’ for appropriate controls was that any such protection needed to be based on substantiated information and evidence<sup>147</sup>.
284. Like Dr Chiles, Mr Hegley noted concerns with the application of any rule imposing E25.6.10 on residential dwellings within the PC 50 area. This was due to the need to define the distance from the tracks over which the standard applied. Mr Hegley also had reservations with the 100m distance suggested by Kiwirail. He noted a further issue with the adoption of E25.6.10; that it essentially specifies a façade reduction meaning no account could be taken for the reductions in noise level a particular façade would experience given its distance, orientation and screening from other buildings, from the NIMT<sup>148</sup>.

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<sup>144</sup> Ibid at [8.5]

<sup>145</sup> Mr Hegley’s Evidence-in-Chief at [4.3]

<sup>146</sup> Ibid at [4.4]

<sup>147</sup> Ibid at [7.2]

<sup>148</sup> Mr Hegley’s Evidence-in-Chief at [7.10]



285. Mr Hegley concluded that if there was sufficient justification for controlling train noise, his preference was for a specific train noise rule for PC 50 rather than a modification to Rule E25.6.10.

286. Mr Campbell, planner for KO, acknowledged that<sup>149</sup>:

*“major infrastructure networks have the potential to generate some level of adverse effects on land in the immediate vicinity and, where appropriate, planning instruments should recognise and address those effects, noting that effects should only be mitigated following adopting of the Best Practicable Option to minimise and mitigate the off-site effects as far as possible. However, it is also important that those restrictions are no more stringent than necessary, otherwise there is a risk of unnecessary costs imposed on developers (and current and future home or business owners) and a risk that land is not developed efficiently to its full potential.*

*In my opinion, it is appropriate that the submitters (KiwiRail and Auckland Transport) ensure that practical measures are undertaken to reduce noise at source, and only after then, to consider managing those significant actual or potential effects that cannot be controlled at source, if required...*

*At the same time, any rules should only be required to manage the actual or potential effects on noise sensitive uses. In my view, any significant adverse health and safety effects should be dealt with, but I have not seen any evidence that reverse sensitivity and health and safety effects arise in the context of the rail or road corridors affected by the proposed provisions and the transport authorities have not provided evidence of circumstances in which the road or rail networks have had to constrain or cease operations as a result of complaints.”*

287. Mr Campbell was of the opinion that KiwiRail was seeking that the burden to mitigate the effects of the road and rail network operations be placed solely on the surrounding community and the Council to manage. He opined there did not appear to be a corresponding obligation placed upon Kiwirail (and AT for road noise) to manage their impacts in terms of noise and vibration. In that context, it was his conclusion that the relief sought by these submitters was not an appropriate planning response<sup>150</sup>.

288. Ms Butler addressed a number of these matters in her 4<sup>th</sup> Statement of Evidence. She set out<sup>151</sup>:

*This supplementary statement of evidence responds to matters raised in the Private Plan Modifications 48,49 and 50 Addendum Hearing Report ("Addendum*

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<sup>149</sup> Mr Campbell's Evidence-in-Chief at [6.1-6.3]

<sup>150</sup> Ibid at [7.35]

<sup>151</sup> Ms Butler's 4<sup>th</sup> Statement of Evidence at [1.2]

*Hearing Report") provided by David Mead, including attachment 3 which is a memorandum from Andrew Gordon, relating to railway sound and vibration.*

289. She went on to state<sup>152</sup>:

*In the Addendum Hearing Report, Mr Mead had amended his recommendation as it relates to rail noise. Mr Mead supports the rail noise standard proposed by KiwiRail to apply within 60m of the rail corridor. Mr Mead has noted that the standard could be improved further by setting out the method of compliance (e.g. by certification). I support this standard set out by Mr Mead.*

*I believe 100m is the optimal distance to apply the noise standard, to provide a reasonable degree of amenity and acceptable indoor living conditions for those living within proximity to the rail corridor who will be affected by noise arising from the corridor. This position is supported by Dr Chile's expert evidence. However, as KiwiRail has already agreed upon a 60 metre distance as part of pre-hearing discussions with the Applicant, KiwiRail is willing to retain its acceptance of 60 metres in this case, despite the Applicant since resiling from its acceptance of the noise standard. (Underlining is our emphasis)*

290. We note that the Applicant accepted a 60m noise attenuation setback; noting it was Mr Roberts and Ms Morgan's professional view that no controls should be imposed. In section 32 terms, it was their view that noise and vibration controls should be addressed regionally, and not on a plan change by plan change basis.
291. On the issue of vibration, Mr Mead agreed that a vibration standard was appropriate. He understood that Chapter 25 of the AUP (OP) only controlled vibration from construction, but not vibration from permanent infrastructure like rail lines<sup>153</sup>. He adopted KiwiRail's request for a standard relating to addressing the potential effects of railway vibration within 60m of the railway network<sup>154</sup>.
292. Mr Hegley agreed vibration should be considered. However, it was his view compliance with a standard, such as that proposed by KiwiRail, was impractical<sup>155</sup>. He advised us that the cost of vibration isolating a dwelling for this situation would be cost prohibitive for the average resident and not justified compared to the benefit<sup>156</sup>. He went on to say that he was not aware of any potential reverse sensitivity effects from train vibration for KiwiRail, and that based on the information available he did not support a train vibration control<sup>157</sup>.
293. Mr Roberts' and Ms Morgan's outlined their change in position on acoustic effects in their rebuttal evidence. They removed all precinct provisions relating to noise sensitive activities within 100m of the railway corridor<sup>158</sup>. They stated that there was

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<sup>152</sup> Ms Butler's 4<sup>th</sup> Statement of Evidence at [3.1 and 3.3]

<sup>153</sup> Section 42 report at [502]

<sup>154</sup> Ibid at [501]

<sup>155</sup> Mr Hegley's Evidence-in-Chief at [7.13]

<sup>156</sup> Ibid, at [7.15]

<sup>157</sup> Ibid, at [7.18]

<sup>158</sup> Mr Roberts' and Ms Morgan's Rebuttal Evidence at [8]

insufficient evidence to suggest that the presence of residential activities in the plan change area would give rise to adverse reverse sensitivity effects in relation to the rail corridor that would need to be managed through the AUP (OP)<sup>159</sup>. Ms Butler unsurprisingly was disappointed with this response as the noise provisions were highly important for Kiwirail for the reasons she had set out in her evidence.

### Road Noise and Vibration

294. Turning to noise and vibration effects associated with road transport, ACS/AT put forward a similar case for PCs 48-50 to that provided in PC 51. Ms Sinclair set out AT's position summarising that their primary submission identified concerns about potential health effects and reverse sensitivity challenges of noise sensitive activities developed in proximity to arterial roads. AT requested a new policy, rule and assessment criteria for noise sensitive activities in proximity to arterial roads.<sup>160</sup>
295. As discussed above, Mr Mead considered that given the greenfield nature of the development, it was appropriate to 'future proof' new buildings adjacent to arterial roads to manage noise, (rather than retrofit mitigation measures at a later stage). Mr Mead consequently recommended new provisions to cross reference Chapter E25 for noise sensitive activities that adjoin an arterial road<sup>161</sup>.
296. Ms Drewery advised that Waihoehoe Road was the existing transport corridor of most significance for health and reverse sensitivity effects in the PC 50 area. She also identified that the proposed Ōpāheke North-South FTN Arterial is a proposed new transport corridor that would run through the PC 50 area and would have similar potential health and reverse sensitivity effects for residents<sup>162</sup>.
297. Ms Drewery agreed with Mr Mead that where residential accommodation was built in residential zones adjacent to noisy roads; internal noise levels can be high, resulting in health, amenity and reverse sensitivity effects. Ms Drewery's evidence-in-chief set out the following<sup>163</sup>:

*"The most recent published reviews of studies relating to the health effects of noise are the World Health Organisation (WHO) Environmental Noise Guidelines for the European Region (2018) and enHealth The Health Effects of Environmental Noise (2018). These reviews conclude that there is sufficient evidence of a causal relationship between environmental noise and sleep disturbance and cardiovascular disease."*<sup>164</sup>

298. Ms Drewery considered the current provisions of the AUP (OP) failed to address these effects and that it was appropriate to look at road traffic noise levels under a

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<sup>159</sup> Ibid, at [8.10]

<sup>160</sup> Ms Sinclair's Evidence-in-chief at [9.1]

<sup>161</sup> Section 42 Report at [499]

<sup>162</sup> Ms Drewery's Evidence-in-Chief at [5.1]

<sup>163</sup> Ms Drewery's Evidence-in-Chief at [6.3]

<sup>164</sup> Ms Drewery's Evidence-in-Chief at [6.3]

'Mitigated' scenario in the case of the current NoR applications for assessing health and reverse sensitivity effects. She noted there was some risk to this approach as the final BPO would not be confirmed until the detailed design stage. Under the 'Do Minimum' scenario, Ms Drewery advised the Hearing Panel that noise levels of up to 69 dB LAeq(24 hour) could be expected at the boundary of PC 50 adjacent to Waihoehoe Road and in close proximity to the Ōpāheke North-South FTN Arterial. This reduces to 65 dB LAeq(24 hour) under the 'Mitigated' scenario<sup>165</sup>.

299. To address the potential health and reverse sensitivity effects that could occur due to the lack of internal noise criteria in the AUP (OP) for residential receivers in residential zones, Ms Drewery recommended that the following rule be included in the precinct provisions for PC 50:

***“Noise sensitive activities within the Waihoehoe Road, Kath Henry Lane and Ōpāheke North-South FTN Arterial traffic noise contour***

*Any new building or alteration to an existing building that contains an activity sensitive to noise within the 55 dB LAeq(24hour) traffic noise contour, must be designed, constructed and maintained to not exceed 40 dB LAeq (24 hour) in all habitable spaces”.*<sup>166</sup>

300. Ms Drewery advised that if consideration was given to the siting and orientation of buildings as well as their internal layout at the planning stage of a development, noise mitigation does not have to be costly. Where treatment to the buildings, such as mechanical ventilation or enhancements to the façade, are required this is only likely to be for the front row of dwellings as long as there is no line of sight from the second row of dwellings to either of the transport corridors<sup>167</sup>.
301. When comparing her recommendation with Mr Mead's approach, while she agreed this was a potential option, on balance, Ms Drewery considered the standard she had proposed was simpler to apply, and provided greater certainty as to its spatial application through the use of contour mapping<sup>168</sup>.
302. Ms Sinclair agreed with section 6.1 of Ms Drewery's evidence that the AUP OP does not include noise criteria for residential zones and there was no sound reduction requirement for noise sensitive activities. Ms Sinclair further noted it was her opinion that to avoid future effects that may arise (including potential health effects on future residents), it was appropriate to set rules that will manage what is an avoidable effect<sup>169</sup>.
303. She agreed with Ms Drewery's recommendation to include a new standard in the precinct provisions for PC 50 to address AT's concerns. Ms Sinclair proposed a

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<sup>165</sup> Ibid at [5.6]

<sup>166</sup> Ibid at [6.12]

<sup>167</sup> Ibid at [6.13]

<sup>168</sup> Ms Drewery's Evidence-in Chief at [6.15]

<sup>169</sup> Ibid at [9.4]

differently worded standard to that of Mr Mead, relying on the evidence of Ms Drewery. She concluded that her recommended provisions would ensure health and reverse sensitivity effects would be adequately managed within the traffic noise contour<sup>170</sup>.

304. Mr Campbell agreed with the initial position of council's reporting officer Mr Mead. It was Mr Campbell's opinion that there were already sufficient controls within E25 (noise and vibration) chapter of the AUP (OP) to ensure effects on noise sensitive activities were appropriately managed. It was his opinion that the provision of an additional layer of controls within the precinct plan was an unnecessary doubling up of regulatory methods<sup>171</sup>. Mr Campbell therefore disagreed with AT's request to include reverse sensitivity controls for Waihoehoe Road (or other arterial roads), further noting that mitigation can be achieved through the future roading construction to manage any perceived or actual reverse sensitivity effects on the roading corridor<sup>172</sup>.
305. Mr Mead amended his recommendation as it related to rail and arterial road noise in the Addendum section 42A report. He stated that while there appeared to be agreement amongst the parties that road and rail noise needs to be managed as it relates to noise sensitive activities, the issue appeared to be who provides the mitigation, and in a developing urban area, when is this mitigation most effectively delivered.<sup>173</sup>
306. Mr Mead highlighted that the rail line exists today, and that works within the rail corridor will occur and the number of trains will increase, in the future. These works and increased activity will be within the current designation and will not trigger any specific mitigation requirements. In this context, Mr Mead considered it reasonable for new development 'coming to the effect' to provide its own mitigation on amenity and well-being arising from proximity to the rail line<sup>174</sup>.
307. Mr Mead advised Rule E25.6.33 required that noise levels from traffic from new and altered roads must comply with the requirements of New Zealand Standard NZS 6806: 2010 Acoustics – Road traffic noise – New and altered roads. He further outlined that Waihoehoe Road is an existing road, not a new road, but that (at least) the section between Fitzgerald Road and Great South Road was likely to be altered in the future. Depending upon noise levels, Mr Mead understood that NZ 6806:2010 would require, upon alteration, noise mitigation, either through road surfaces, noise barriers or acoustic insulation of dwellings present to achieve an internal noise environment of 40 dB LAeq(24 hour) for noise sensitive activities<sup>175</sup>.

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<sup>170</sup> Ms Sinclair's Evidence-in-Chief at [9.5]

<sup>171</sup> Mr Campbell's Evidence-in-Chief at [7.3]

<sup>172</sup> Ibid, at [7.20]

<sup>173</sup> Section 42A Addendum report at [133]

<sup>174</sup> Ibid at [134]

<sup>175</sup> Section 42A Addendum report at [135]

308. The Addendum section 42A Report acknowledged that there may be benefit from taking a region-wide approach to this issue as it relates to greenfield land. However, with no such prospect of a region-wide approach in sight, Mr Mead saw the benefit of introducing appropriate standards within the large greenfield development areas now, having reviewed the advice of Mr Gordon, Council's Acoustic expert.
309. Mr Mead now generally supported the amendments sought by KiwiRail with a suggested 60m setback from the rail corridor. He considered his recommended standard was clear as to what noise standard should be achieved within the noise sensitive activity and what level of noise should be assumed to be generated by the rail line. We note this included a provision for rail vibration levels not exceeding 0.3mm/s as well as a requirement for mechanical ventilation<sup>176</sup>.
310. In addition, Mr Mead advised that the standard could be further improved by setting out the method of compliance (e.g. certification). He included within his standard provision for certification. Ms Butler expressed her support for Mr Mead's standard.<sup>177</sup>
311. For the arterial road noise standard, he considered that any standard (such as that proposed by AT) needed to be clear as to where within a precinct it applied and what level of road noise should be anticipated. He outlined his concerns with the AT proposed standard including implications from changes to ground levels and isolated screening of buildings.
312. To maintain a consistent approach, Mr Mead supported a standard distance being applied within which noise attenuation would be required, where no noise contour information is available. Based on the evidence, his understanding was that the most sensitive development is that adjacent to the road, with development further back likely to be shielded by development fronting the road. In his view a 40m wide control area was sufficient to capture the first row of development and he proposed a standard to the effect, with an accompanying clause that requires the preparation of a compliance report<sup>178</sup>.
313. Mr Mead did not see the need for a specific road vibration standard. His understanding was that such a standard was aimed at annoyance type issues, rather than directly related to an impact on people's health. Further, vehicles driving along a well-maintained road free of any potholes or other uneven surfaces are expected to create negligible vibration at immediately adjacent buildings<sup>179</sup>.
314. We note that Mr Campbell stated that if we were to consider that acoustic attenuation was required, he would favour a standard based approach to address noise sensitive activities that fronted the arterial road, rather than the provision of the 40m width corridor and a requirement for a suite of acoustic assessments, many of which might

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<sup>176</sup> Ibid, at [140]

<sup>177</sup> Ms Butler's 4<sup>th</sup> Statement of evidence, at [3.2]

<sup>178</sup> Ibid, at [145-146]

<sup>179</sup> Ibid, at [151]

ultimately demonstrate that no specific acoustic attenuation was required. He recommended that acoustic controls could be limited to the first block of development fronting an arterial road, for example, a standard could apply to any noise sensitive building (whole or part) located within 10 metres of an Arterial Road<sup>180</sup>.

315. Mr Campbell was also of the opinion that if we were to adopt a standard to manage noise effects from the road, then it should include a requirement for the provision of ventilation for sensitive activities that front an Arterial Road<sup>181</sup>.
316. Having reviewed Mr Mead's recommended noise provisions in the Addendum Section 42A report and relying upon Ms Drewery's evidence-in-chief and supplementary evidence, Ms Sinclair provided us with a set of revised recommended provisions relating to noise sensitive activities within 75 metres of the boundary of Waihoehoe Road and Opaheke North-South FTN to ensure health, amenity and future reverse sensitivity effects are adequately managed.<sup>182</sup> The basis for the 75m was not clear to us from either Ms Drewery's or Ms Sinclair's evidence.
317. The Applicant's final position on road and rail noise and vibration set out in Mr Brabant's Reply Submissions were<sup>183</sup>:

*"a. A specific rule for mitigation of the effects of road noise is not necessary or appropriate, given this matter is most appropriately addressed on a region-wide basis.*

*b. If the Panel considers that a rule is necessary, applying a standard requiring internal noise levels to be achieved for the first row of houses on the affected roads would be the most efficient and effective method. Generally, a 40m setback distance would achieve this.*

*c. A 2.5m setback rule is proposed from the NIMT.*

*d. A vibration control as sought by KiwiRail is opposed."*

### Road and Rail – Findings

318. We have found that there is sufficient evidence to demonstrate that a resource management response is required to address the health and amenity effects associated with rail and road noise. We do not find there is sufficient evidence to justify, in section 32 terms, controls in relation to rail vibration.
319. While we consider that these provisions would be more appropriately addressed on a region-wide basis, we agree that from what we have been advised there is no region wide plan in the foreseeable future, and this plan change (along with the amount of greenfield development contemplated by PCs 48, 49 and 50 (and PC 51 and 61 that

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<sup>180</sup> Mr Campbell's Supplementary Evidence, at [2.11]

<sup>181</sup> Mr Campbell's Supplementary Evidence, at [2.13]

<sup>182</sup> Ms Sinclair's Supplementary Evidence, at [2.3b]

<sup>183</sup> Mr Brabant's Reply Submissions at [53]

this Hearing Panel heard), controls on noise from rail and road noise, as set out above, is justified in PC 50 (and PCs 48 and 49).

320. With respect to rail noise, we have agreed with the parties that a 60m control area from the rail corridor is appropriate.
321. With respect to road noise, we preferred a standard setback (control area) approach as opposed to a noise contour approach as we considered this method provided more clarity to plan users. Based on the evidence, particularly the reasoning of Mr Mead and Mr Campbell, and for consistency with PC 49 (and the reasoning set out in that decision) we find that a 40 metre control area is appropriate.
322. Furthermore, we find that the associated provisions, for both road and rail noise should also include a requirement for mechanical ventilation and to demonstrate compliance with this standard. We have therefore included acoustic attenuation controls for habitable spaces adjacent to the rail and arterial road corridors to address adverse health and amenity effects. In this regard we accept Mr Mead's recommendation that a cross reference to the "residential dwelling" component of Rule E25.6.10(3)(b) is appropriate in the absence of the AUP (OP) having a corresponding rule in the residential zones.
323. We have not included acoustic attenuation in relation to vibration, or for outdoor areas in response to either rail or road noise. This is because we found there was insufficient evidence to warrant the imposition of a rule as being the most appropriate means to address this issue.
324. We agree with KO and the legal submissions presented by Mr Matheson; that we were not persuaded that the noise and vibration would lead to reverse sensitivity effects on either the rail or the road network<sup>184</sup>.

### **Building Setback from the North Island Main Trunk Line.**

325. Kiwirail sought a 5m building yard setback from the rail corridor for a number of reasons set out in Ms Butler's evidence-in-chief<sup>185</sup>. In Ms Butler's view it was mainly a safety issue and managing the interface between operations within the rail corridor and activities on adjoining sites, while also ensuring the continued operation of the rail network without disruption<sup>186</sup>.
326. With regards to the rail setback standard, Mr Mead agreed with KiwiRail's general concerns about development adjacent to the rail corridor potentially disrupting operations. However, he considered a 2.5m wide set back was sufficient to address these concerns.<sup>187</sup>

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<sup>184</sup> Mr Matheson's Legal Submissions at [3.6]

<sup>185</sup> Noting Ms Butler filed a number statement of evidence (deemed necessary given how the hearings were structured and needing to address rail noise vibrations at the December 2021 hearing).

<sup>186</sup> Ms Butler's Evidence-in-Chief at [5.1 a-f]

<sup>187</sup> Ibid, at [162]



327. Ms Butler stated in her later evidence<sup>188</sup>:

*KiwiRail has sought the inclusion of a 5 metre wide setback along the rail corridor. However, Mr Mead considers a 2.5 metre wide setback is sufficient to enable access to buildings for maintenance along the rail corridor without needing to venture into or over the rail corridor.*<sup>13</sup>

*I am concerned that 2.5 metres does not leave sufficient room for maintenance and cleaning to be undertaken safely. I maintain my position that a 5 metre setback is required, particularly in the context of a greenfields development where there is opportunity to ensure that sufficient provision is made for safe access before houses are constructed.*

328. Mr Campbell's initial view of the submission by KiwiRail seeking a 5 metre wide yard setback along the rail designation was that it should not be accepted. It was his opinion that it was not justified by specific evidence addressing the need, in this location, for this control on adjacent land.<sup>189</sup> However, Mr Campbell changed his position on the appropriateness of a building setback, advising that having reviewed the matter further he would support the provision of a maintenance yard adjoining the NIMT line on the basis it was for building maintenance reasons only<sup>190</sup>.

329. With regards to an appropriate width for a building setback from the rail designation, we are in agreement with Mr Mead, the Applicant and Mr Campbell that a 2.5m width is an adequate setback for routine building maintenance on properties adjoining the railway line. We note that this is consistent with the decision we have made in PC 48 on the same issue.

### **Ecological Matters**

330. Section 10.5 of the Plan Change Application provided a summary of the ecological effects of PC 50 highlighting that the plan change presented an opportunity to restore and enhance the aquatic and freshwater quality values in the plan change area<sup>191</sup>. As set out it is Applicant's intention that the Waihoihoi Stream and other intermittent streams and wetlands be retained and enhanced.

331. The section 42A report outlined the outstanding issues which arose in relation to ecological management including<sup>192</sup>:

- streams not being shown on the precinct map;
- 10m riparian restoration;

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<sup>188</sup> Ms Butler's 4<sup>th</sup> Statement of Evidence at [3.9 and 3.10]

<sup>189</sup> Mr Campbell's Evidence-in-Chief at [1.3c]

<sup>190</sup> Ibid, at [2.17]

<sup>191</sup> Appendix 10 of the Plan Change Application provides a full ecological assessment.

<sup>192</sup> Section 42A at [237]

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		<u>schools or sites designated for this purpose.</u> As a general principle, the length of a block should be no greater than 280m, and the perimeter of the block should be no greater than 600m;

### Decision on submissions

429. In approving PC 50 we have provided a set of precinct provisions that, in our view, appropriately address the other infrastructure issues raised by PC 50.
430. We are satisfied that, based on the issues and evidence before us, the matters relating to servicing and other infrastructure have been appropriately addressed. On this basis we **accept** or **accept in part** those submissions which supported or sought changes which we have accepted to address servicing and other infrastructure, and **reject** those submissions which sought changes to the precinct provisions which we have not made.

### **Submissions on Noise and Vibration matters**

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
8.1	Dong Leng	Undertake further consideration in regard to the interface between the land forming PPC50 and the property at 160 Waihoehoe Road to reduce any potential dominance that activities provided for by the PPC50 may have on the property should the zoning not be extended to cover this land. Undertake further assessment as to how to mitigate scale, form and character effects on this property.
22.53	Auckland Transport	Add a new policy as follows: Avoid the establishment of activities sensitive to noise adjacent to arterial roads, unless it can be demonstrated that potential adverse effects from and on the corridor can be appropriately mitigated.
22.54	Auckland Transport	Add a new standard to IX.6 to require that the assessed incident noise level to the façade of any building facing an arterial road that accommodates a noise-sensitive space is limited to a given level (Auckland Transport to confirm appropriate level). As a consequential amendment, add a new rule to Activity table IX4.1 as follows: (X) Development that does not comply with IX.6.X Noise Mitigation - RD
22.55	Auckland Transport	Add a new assessment criterion to IX.8.2 as follows: The extent to which noise sensitive activities in proximity to arterial roads are managed.
27.1	Matthew Royston Kerr	Decline the plan change on the basis of reverse sensitivity effects of the THAB zone on adjacent FUZ land; increased traffic effects along Waihoehoe Road with insufficient provisions for the upgrade of the corridor; inefficiency and uncertainty with regard to the rezoning and urban development of the remaining FUZ land in the Opaheke Drury area.
30.1	KiwiRail	Amend IX.1 Precinct Description to add: <u>The North Island Main Trunk railway line, which runs the entire length of the Precinct's western boundary is protected from reverse sensitivity effects by ensuring that new buildings and activities will be designed and located to manage any adverse effects</u>
30.2	KiwiRail	Add new Objective IX.2(5) as follows: <u>(5) The NIMT is protected from adverse effects, including reverse sensitivity effects, of subdivision, use and development by,</u>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		<p>1. setbacks within which incompatible activities will be managed;</p> <p>2. standards designed to protect noise sensitive receiver's health and amenity.</p>
30.3	KiwiRail	<p>Add new policy IX.3(12) as follows:</p> <p><u>(12) Adverse effects on the operation of the regionally significant NIMT and on the health and safety of adjacent development and noise sensitive receivers are managed through setbacks and performance standards.</u></p>
30.4	KiwiRail	<p>Insert new activity (A5) to Activity table IX.4.1 as set out below and renumber existing (A5) and (A6) to (A6) and (A7).</p> <p>(A5) Development that does not comply with IX6.7 Setback from NIMT and IX6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary - RD</p>
30.5	KiwiRail	<p>Add to IX.6 Standards a new standard IX.6.7 as follows:</p> <p><u>IX.6.7 Setback from NIMT</u></p> <p><u>Buildings must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.</u></p>
30.6	KiwiRail	<p>Add to IX.6 Standards a new standard IX.6.8 to manage potential human health effects from rail noise and vibration where buildings containing noise sensitive activities are located adjacent to (within 100m of) the railway corridor. See submission for full proposed wording.</p>
30.7	KiwiRail	<p>Insert new matters of discretion in IX.8.1 as follows:</p> <p>(4) Setback from NIMT and Noise Sensitive Activities within 100m of a Rail Network Boundary</p> <p>Effects from non-compliance with Standards IX.6.7 and IX.6.8</p>
30.8	KiwiRail	<p>Insert new assessment criteria in IX.8.2 as follows:</p> <p>(4) Setback from NIMT</p> <p>(a) The size, nature and location of the buildings on the site.</p> <p>(b) The extent to which the safety and efficiency of railway operations will be adversely affected.</p> <p>(c) The outcome of any consultation with KiwiRail.</p> <p>(d) Any characteristics of the proposed use that will make compliance unnecessary.</p> <p>(5) Noise Sensitive Activities within 100m of a Rail Network Boundary</p> <p>(a) Whether the activity sensitive to noise could be located further from the railway corridor</p> <p>(b) The extent to which the noise and vibration criteria are achieved and the effects of any non-compliance</p> <p>(c) The character of and degree of amenity provided by the existing environment and proposed activity.</p> <p>(d) The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures can enable their ongoing operation, maintenance and upgrade.</p> <p>(e) Special topographical, building features or ground conditions which will mitigate vibration impacts;</p> <p>(f) The outcome of any consultation with KiwiRail.</p>

### Decision on submissions

431. We have comprehensively addressed these matters in the decision above.

432. In approving PC 50 we have provided a set of noise provisions in relation to both rail and road (and not imposed vibration controls) that, in our view, appropriately address the matters of concern to submitters.
433. We are satisfied that, based on the issues and evidence before us, the matters relating to noise and vibration have been appropriately addressed. On this basis we **accept** or **accept in part** those submissions which supported or sought changes which we have accepted to address the noise and vibration issues, and **reject** those submissions which sought changes to the precinct provisions which we have not made.

### Submissions on open space matters

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
19.2	The Ministry of Housing and Urban Development	Enable further open space through zoning (primarily refers to the PC49 area)
21.19	Auckland Council	Amend policy IX.3(4) to read as follows: (4) In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contributes to a sense of place for Drury East, by incorporating any distinctive site features and integrating with the stream network. <u>Also, if Auckland Council ownership is proposed, the open spaces must be consistent with the council's open space and parks acquisition and provision policies.</u>
21.20	Auckland Council	Include indicative open spaces in the precinct plan as shown in Attachment 1 to the submission.
24.7	Ministry of Education	Amend plan change to ensure there is provision of appropriate public open space to support the surrounding community.
25.1	Leith McFadden	Zone areas for parks and public space

### Decision on submissions

434. We have addressed these matters in the decision above.
435. In approving PC 50 we have provided a set of precinct provisions that, in our view, appropriately address the relevant open-space issues raised by PC 50.
436. We are satisfied that, based on the issues and evidence before us, the matters relating to open-space issues have been appropriately addressed. On this basis we **accept** or **accept in part** those submissions which supported or sought changes which we have accepted to address open-space issues, and **reject** those submissions which sought changes to the precinct provisions which we have not made.

- (6) Freshwater, sediment quality, and biodiversity is improved.
- (7) Activities sensitive to noise adjacent to the rail corridor and/or an arterial road are designed to protect people's health and residential amenity while they are indoors.

### **IX.3 Policies**

- (1) Require collector roads to be generally in the locations shown in IX.10.X Waihoehoe: Precinct Plan 1 while allowing for variation, where it would achieve a highly connected street layout that integrates with the surrounding transport network.
- (2) Ensure that development provides a local road network that achieves a highly connected street layout and integrates with the collector road network within the precinct, and the surrounding transport network, and supports the safety and amenity of the open space and stream network.
- (3) Require streets to be attractively designed and appropriately provide for all transport modes.
- (4) In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contributes to a sense of place and a quality network of open spaces for the Waihoehoe Precinct and Drury-Opāheke, including by:
  - (a) incorporating any distinctive site features; and
  - (b) integrating with the stream network to create a green corridor.
- (5) Promote a mode shift to public and active modes of transport by:
  - a) Requiring active mode connections to the Drury Central train station and Drury Centre for all stages of development;
  - b) Requiring streets to be designed to provide safe separated access for cyclists on collector roads; and
  - c) Requiring safe and secure cycle parking for all residential activities.
- (6) Manage the adverse effects of traffic generation on the surrounding transport network, including by ensuring:
  - a) Public transport can operate efficiently at all times;
  - b) The surrounding road network can operate with reasonable efficiency during inter-peak periods;
  - c) Safe and efficient movement of freight vehicles within and through the Drury South Industrial precinct; and
  - d) Any upgrades to the transport network are safe for pedestrians, cyclists and motorists.
- (7) Provide for the progressive upgrade of existing roads adjoining the Waihoehoe precinct, to provide for all modes and connect with the existing transport network to the Drury Central train station.

- (16) Ensure development manages flooding effects upstream and downstream of the site and in the Waihoehoe precinct so that the risks to people and property (including infrastructure) are not increased for all flood events, up to a 100-year ARI flood event. This includes appropriately designed and sited flood attenuation devices.

Mana Whenua values

- (17) Development responds to Mana Whenua values by:
- (a) Delivering a green corridor following the stream network;
  - (b) Taking an integrated approach to stormwater management;
  - (c) Ensuring the design of streets and publicly accessible open spaces incorporate Te Aranga design principles.

Noise sensitive activities adjacent to the rail and current and future arterial road corridor

- (18) Ensure that Activities sensitive to noise adjacent to the railway corridor and/or current and future arterial roads are designed with acoustic attenuation measures to protect people’s health and residential amenity while they are indoors.

All relevant overlay, Auckland-wide and zone objectives and policies apply in this precinct in addition to those specified above.

**IX.4 Activity table**

All relevant overlay, Auckland-wide and zone activity tables apply unless the activity is listed in Activity Table IX.4.1 below.

Activity Table IX.4.1 specifies the activity status of district land use activities and development in the Waihoehoe Precinct pursuant to section(s) 9(3) of the Resource Management Act 1991 and the activity status for subdivision pursuant to section 11 of the Resource Management Act 1991.

**Table IX.4.1 Activity table**

Activity		Activity Status
<b>Subdivision and Development</b>		
(A1)	Subdivision, or new buildings prior to subdivision, including private roads (excluding alterations and additions that are a permitted activity in the underlying zone)	RD
(A2)	Development that does not comply with Standard IX.6.1 Staging of Development with Transport Upgrades	RD
<b>Subdivision</b>		

- (2) Within Sub-Precinct B the maximum impervious area within a riparian yard must not exceed 10 per cent of the riparian yard area.

### **IX.6.5 Stormwater Quality**

Purpose: Contribute to improvements to water quality and stream health.

- (1) Stormwater runoff from new, or redevelopment of existing, high contaminant generating carparks, all publicly accessible carparks exposed to rainfall, and all ~~or~~ public roads must be treated with a stormwater management device(s) meeting the following standards:
- (a) the device or system must be sized and designed in accordance with 'Guidance Document 2017/001 Stormwater Management Devices in the Auckland Region (GD01)'; or
  - (b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance to that of 'Guidance Document 2017/001 Stormwater Management Devices in the Auckland Region (GD01)'.
  - (c) For all other trafficked impervious surfaces, water quality treatment in accordance with the approved stormwater management plan must be installed.
- (2) New buildings, and additions to buildings must be constructed using inert cladding, roofing and spouting building materials that avoid the use of high contaminant yielding building products which have:
- (a) exposed surface(s) or surface coating of metallic zinc of any alloy containing greater than 10% zinc; or
  - (b) exposed surface(s) or surface coating of metallic copper or any alloy containing greater than 10% copper; or
  - (c) exposed treated timber surface(s) or any roof material with a copper-containing or zinc-containing algaecide.

### **IX.6.6 Fences adjoining publicly accessible open space**

Purpose: Ensure development positively contributes to the visual quality and interest of open spaces.

- (1) Fences, or walls, or a combination of these structures, within a side or rear yard adjoining a publicly accessible open space (excluding roads) must not exceed the heights specified below, measured from the ground level at the boundary:
- (i) 1.2m in height, or;
  - (ii) 1.8m in height if the fence is at least 50 per cent visually open.

### **IX.6.7 Noise sensitive activities within 60m of the rail corridor**

Purpose: Ensure Activities sensitive to noise adjacent to the railway corridor are designed to protect people's health and residential amenity while they are indoors.

- (1) Any new building or alteration to an existing building that contains an activity sensitive to noise, within 60 metres of the rail corridor, must be designed, constructed and maintained to not exceed 35 dB LAeq (1 hour) for sleeping areas and 40 dB LAeq (1 hour) for all other habitable spaces.

**Note** Railway noise is assumed to be 70 dB LAeq(1 hour) at a distance of 12 metres from the track and must be 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.

- (2) If windows must be closed to achieve the design noise levels in Standard Rule IX.6.8, the building must be designed, constructed and maintained with a mechanical ventilation system that meets the requirements of E25.6.10(3)(b).
- (3) A report must be submitted by a suitably qualified and experienced person to the council demonstrating compliance with Rule IX.6.8 (1) and (2) prior to the construction or alteration of any building containing an activity sensitive to noise located within the areas specified in IX.6.8 (1).

### **1X.6.8 Noise sensitive activities within 40m of an existing or future Arterial Road in Table 1X 6.1.1**

Purpose: Ensure Activities sensitive to noise adjacent to the arterial road are designed to protect people's health and residential amenity while they are indoors..

- (1) Any new buildings or alterations to existing buildings containing an activity sensitive to noise within 40m to the boundary of an arterial road must be designed, constructed and maintained to not exceed 40 dB LAeq (24 hour) for all habitable noise sensitive spaces.
- (2) If windows must be closed to achieve the design noise levels in Standard Rule IX.6.9 1, the building must be designed, constructed and maintained with a mechanical ventilation system that meets the requirements of E25.6.10(3)(b).
- (3) A report must be submitted by a suitably qualified and experienced person to the council demonstrating that compliance with Rule IX.6.9(1) and (2) can be achieved prior to the construction or alteration of any building containing an activity sensitive to noise located within the areas specified in IX.6.9 (1).

### **IX.6.9 Safe operation of the NIMT**

Purpose: To ensure the safe operation of the North Island Main Trunk Line by providing for buildings on adjoining sites to be maintained within their site boundaries.

- (1) Buildings must be setback at least 2.5 metres from any boundary which adjoins the North Island Main Trunk Line.

### **IX.7 Assessment – controlled activities**

There are no controlled activities in this precinct.

### **IX.8 Assessment – restricted discretionary activities**

#### **IX.8.1 Matters of discretion**



(5) Development that does not comply with Standard IX.6.4 Maximum Impervious Area within Sub-precinct B:

(a) Matters of discretion in H6.8.1(4) apply.

(6) Infringements to standard IX.6.5 Stormwater Quality

(a) Matters of discretion E9.8.1(1) apply.

(7) Infringement of standard IX.6.6 Fences adjoining publicly accessible open space

(a) Effects on the amenity and safety of the open space.

(8) Infringement of standard IX.6.7 – Development within 60m of the rail corridor

(a) Effects on human health and residential amenity while indoors.

(9) Infringement of standard IX.6.8 – Development within 40m of an arterial road.

a. Effects on human health and residential amenity while people are indoors.

(10) Infringement of standard IX.6.9 Safe operation of the NIMT

(a) Effects on the safe operation of the North Island Main Trunk Line, by providing for buildings on adjoining sites to be maintained within their site boundaries.

### **IX.8.2 Assessment criteria**

The Council will consider the relevant assessment criteria below for restricted discretionary activities, in addition to the assessment criteria specified for the relevant restricted discretionary activities in the overlays, Auckland-wide or zones provisions:

(1) Subdivision, and new building prior to subdivision, including private roads:

#### *Location of roads*

(a) Whether the collector roads are provided generally in the locations shown on IX.10.1 Waihoehoe: Precinct Plan 1 to achieve a highly connected street layout that integrates with the surrounding transport network. An alternative alignment that provides an equal or better degree of connectivity and amenity within and beyond the precinct may be appropriate, having regard to the following functional matters:

(i) The presence of natural features, natural hazards or contours and how this impacts the placement of roads;

- (h) The effect of the timing and development of any other transport upgrades or transport innovations not anticipated by the Waihoehoe precinct.
  - (i) Whether the integrated transport assessment supporting the application documents the outcome of engagement with the road controlling authority.
  - (j) Whether the proposal demonstrates methods that promote the increased use of public transport, including details of how those methods would be implemented, monitored and reviewed so as to contribute to a reduction in vehicle trips.
  - (k) Whether the intersection of Great South Road / Quarry Road and the Drury South Precinct roads can operate safely and efficiently prior to the full upgrade of Waihoehoe Road between Fitzgerald Road and Great South Road.
- (3) Infringement of standard IX.6.2 Minimum cycle parking
- (a) Assessment criteria in E27.8.2(6) apply.
- (4) Infringement to standard IX.6.3 Riparian Planting
- (a) Whether the infringement is consistent with Policy IX.3(8).
- (5) Development that does not comply with Standard IX.6.4 Maximum Impervious Area within Sub-precinct B:
- (a) The assessment criteria within H6.8.2(10) apply.
- (6) Infringement to standard IX.6.5 Stormwater Quality
- (a) Assessment criteria E9.8.2(1) apply.
  - (b) Whether the proposal is in accordance with the approved Stormwater Management Plan and Policies E1.3(1) – (10) and (12) – (14).
  - (c) Whether a treatment train approach is implemented to treat runoff so that all contaminant generating surfaces are treated, including cumulative effects of lower contaminant generating surfaces.
- (7) Infringement of standard IX.6.6 Fences adjoining publicly accessible open space
- (a) Whether the proposal positively contributes to the visual quality and interest of the adjoining open space, while providing an adequate degree of privacy and security for the development.
- (8) Infringement of standard IX.6.7 – Development within 60m of the rail corridor
- (a) Whether Noise sensitive activities adjacent to the railway corridor are designed to protect people’s health and amenity while they are indoors.
- (9) Infringement of standard IX.6.8 – Development within 40m of an arterial road
- (a) Whether the building accommodating activities sensitive to noise adjacent to an arterial road is designed to protect people’s health and amenity while they are indoors

(10) Infringement of standard IX.6.9 Safe operation of the NIMT

- (a) Whether the proposal ensures that buildings can be maintained within their site boundaries while providing for the safe operation of the North Island Main Trunk.

**IX.9 Special information requirements**

(1) Riparian Planting

An application for land modification, development and subdivision which adjoins a permanent or intermittent stream must be accompanied by a riparian planting plan identifying the location, species, planter bag size and density of the plants. Plant species should be native. The riparian planting plan must be prepared in accordance with Appendix 16 - Guideline for native revegetation plantings.

(2) Permanent and intermittent streams and wetlands

All applications for land modification, development and subdivision must include a plan identifying all permanent and intermittent streams and wetlands on the application site.

(3) Archaeological assessment

An application for land modification within the area shown on IX.10.X Precinct Plan 3, must be accompanied by an archaeological assessment, including a survey. This also applies to any development providing riparian planting in accordance with IX.6.3. The purpose of this assessment is to evaluate the effects on archaeological values prior to any land disturbance, planting or demolition of a pre-1900 building, and to confirm whether the development will require an Authority to Modify under the Heritage New Zealand Pouhere Taonga Act 2014.

(4) Integrated transport assessment

An application to infringe standard IX.6.1 Staging of Development with Transport Upgrades must be accompanied by an integrated transport assessment prepared by suitably qualified transport planner or traffic engineer prepared in accordance with the Auckland Transport Integrated Transport Assessment Guidelines in force at the time of the application.

The integrated transport assessment must include a register of development and subdivision that has been previously approved under standard IX.6.1 Staging of Development with Transport Upgrades.

**IX.10 Precinct plans**

**IX.10.1: Waihoehoe: Precinct plan 1 – Indicative Road and Open Space Network**

**APPENDIX B – ORIGINAL SUBMISSION**

22 October 2020

Auckland Council  
Plans and Places  
Private Bag 92300  
Auckland 1142  
Attn: John Duguid

By email to: [unitaryplan@aucklandcouncil.govt.nz](mailto:unitaryplan@aucklandcouncil.govt.nz)

**SUBMISSION ON PUBLICLY NOTIFIED PROPOSAL FOR PLAN, CHANGE OR VARIATION (FORM 5)**  
**Plan Changes 48 and 50**

**NAME OF SUBMITTER:**  
KiwiRail Holdings Limited (KiwiRail)

**ADDRESS FOR SERVICE:**  
Level 1  
Wellington Railway Station  
Bunny Street  
PO Box 593  
WELLINGTON 6140  
Attention: Pam Butler

Ph: 0275 708 571  
Fax: 04 473 1460  
Email: [Pam.butler@kiwirail.co.nz](mailto:Pam.butler@kiwirail.co.nz)

**KiwiRail Submission on Auckland Unitary Plan Operative in Part Plan Changes 48 and 50**

KiwiRail is the State-Owned Enterprise responsible for the management and operation of the national railway network. This includes managing railway infrastructure and land, as well as rail freight and passenger services within New Zealand. KiwiRail is also the requiring authority for land designated "Railway Purposes" (or similar) in district plans throughout New Zealand.

KiwiRail is interested in Plan Changes 48 and 50 (Plan Changes) for several reasons;

1. Both Plan Change areas lie adjacent to the one of New Zealand's key main railway lines, the North Island Main Trunk line (**NIMT**), which carries both rail freight traffic and Metro passenger services and which forms part of the golden triangle network for rail freight between Auckland, Tauranga and Hamilton. KiwiRail seeks to protect the railway corridor to enable its ongoing use for operational purposes.
2. KiwiRail has commenced planning and design work for the Papakura to Pukekohe electrification (P2P) project as well as the platforms, signals and electric structures for three new Drury stations. The investment will extend the electrified rail network from Papakura to Pukekohe, and include a range of supporting network upgrades:
  - Electrification of 19km of track, including installation of overhead equipment (OLE), new traction power feed and signalling upgrades.
  - Potential lowering of tracks at a number of road overbridges (including SH1 Drury Interchange) to provide sufficient clearance for the OLE.



- Provision of two additional platform faces and stabling for twelve 3-car Electric Multiple Units at Pukekohe.
  - Passive provision for future construction of three new Drury stations and additional tracks.
  - Safety enhancements at level crossings.
3. The NZUP programme allocated \$247m to KiwiRail to build new Drury stations including station structures, access and parking, by 2024. KiwiRail is working closely with the Te Tupu Ngatahi Supporting Growth Programme in planning designations to enable the transport system to be protected and delivered over both the short and longer term. In particular, the Drury Central railway station is included in the New Zealand Upgrade Programme (NZUP), with work expected to start in 2023.
4. The scope of KiwiRail's submissions relate to the protection of the NIMT and efficiency of the railway works and stations to operate. KiwiRail shares the objectives of ensuring that the railway corridor and station facilities are fully integrated into both the urban landscape and local road, public transport, walking and cycling networks, and that appropriately located, well designed and multi-mode transport opportunities are enabled and encouraged.

KiwiRail's specific submissions on the Plan Changes are covered in the following submission sheets:

- Plan Change 48 (Private) Drury Centre Precinct: Applicant Kiwi Property
- Plan Change 50 (Private) Waihoehoe Precinct: Applicant: Oyster Capital

KiwiRail supports the Plan Changes, subject to the matters raised in this submission being appropriately addressed to ensure that any adverse effects of the proposal on the transport network can be adequately avoided or mitigated.

KiwiRail has coordinated its submissions with those of other local and government agencies.

KiwiRail could not gain an advantage in trade competition through this submission.

KiwiRail wishes to speak to our submission and will consider presenting a joint case at the hearing with other parties who have a similar submission.

If you have any queries, please don't hesitate to contact me.

Yours faithfully,



Pam Butler  
Senior RMA Advisor  
KiwiRail

22 October 2020



Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 48 Drury	Relief Sought (as stated or similar to achieve the requested relief)
<b>Plan Change 48 (Private) Drury Centre Precinct</b>			
IX.1 Project description	Seek amendment	<p><b>Does not allow for appropriate precinct specific controls to address adverse effects on the North Island Main Trunk railway line (NIMT)</b></p> <p>The Plan Change seeks to bring forward both a metropolitan centre zone, business mixed use and open space zones. The use of precincts in the AUP OP is to "enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling". This has not been achieved.</p> <p>While all the relevant overlay, Auckland-wide and zone policies apply to the precinct, the lack of any specific controls are an inadequate response to the intrinsic qualities and physical characteristics of the site and area, including the location of the existing NIMT, which runs through the north western portion of the Plan Change area</p> <p>The NIMT is one of New Zealand's key railway lines. This line is operated and maintained 24/7. There are no provisions, including objectives, seeking to ensure that development within the precinct addresses the operational effects of the adjacent railway corridor on receivers or reverse sensitivity effects on the NIMT. The railway can generate noise effects above what might be usually anticipated by residential receivers.</p> <p>It is noted that the Drury South Industrial and Mixed Use Precinct in Plan Change 46 included measures to manage the effects of quarrying activities on the precincts more sensitive receivers with policies and standards (14.10.6.4 Sub-Precinct C (Noise and Ventilation) which sought to protect activities sensitive to noise from unreasonable levels of land transport noise. This provides an example of precinct controls that provide provisions to address constraints for new development within their boundaries. It is not unreasonable that provisions be made to address potential adverse effects experienced in neighbouring land uses. Kiwirail has had recent success seeing a developer add similar controls with a development for residential activities in Te Kauwhata.</p>	<p>Amend IX.1 Precinct Description to add:  <u>The North Island Main Trunk railway line is protected from reverse sensitivity effects by ensuring that new buildings and activities will be designed and located to manage any adverse effects</u></p> <p>Add new Objective IX.2</p> <p><u>(B) The NIMT is protected from adverse effects, including reverse sensitivity effects, of subdivision, use and development by:</u></p> <ol style="list-style-type: none"> <li><u>1. setbacks within which incompatible activities will be managed;</u></li> <li><u>2. standards designed to protect noise sensitive receiver's health and amenity.</u></li> </ol>
IX.2 Objectives			
IX.3 Policies		<p><b>Inconsistent with other objectives and policies of the AUP OP</b></p> <p>The Plan Change does not address the Plan Change area's development with reference to its effects on the NIMT. Accordingly, it is inconsistent with the direction of Plan Policy B2.3.2 of the AUP OP which seeks to:</p> <p>"(2) Encourage subdivision, use and development to be designed to promote the health, safety and well-being of people and communities by all of the following."</p> <p>It is also inconsistent with the objective B2.4 Residential Growth B2.4.1. Objectives of the AUP OP:</p> <p>"(2) Residential areas are attractive, healthy and safe with quality development that is in keeping with the planned built character of the area"</p> <p>And B3.3 Transport B3.3.2 of the AUP OP which provides:</p> <p>"5 (f) requiring activities adjacent to transport infrastructure to avoid, remedy or mitigate effects which may compromise the efficient and safe operation of such infrastructure, and</p> <p>(6) Require activities sensitive to adverse effects from the operation of transport infrastructure to be located or designed to avoid, remedy or mitigate those potential adverse effects."</p> <p><b>Inconsistent with other provisions of the Plan Change</b></p> <p>Objective IX.2 of the Plan Change requires "Access to the precinct occurs in an effective, efficient, and safe manner and manages effects on State Highway 1 and the effectiveness and safety of the surrounding road network." This objective accordingly recognises the effects on the state highway network but there is no corresponding objective to recognise, and protect, the NIMT from adverse effects.</p>	<p>Add new policy IX.3</p> <p><u>(XX) Adverse effects on the operation of the regionally significant NIMT and on the health and safety of adjacent development and noise sensitive receivers are managed through setbacks and performance standards.</u></p>
IX.1 Precinct Description	Seek amendment	<p>The statement in the first paragraph that the "precinct also provides for the highest employment generating activities and retail and residential densities around the future Drury Central train station" does not recognise that the preferred location of the station is planned to be further to the north than that shown on Precinct Plan 2. The</p>	Delete "around" and replace with "in the vicinity of".





Submission/Comments/Reasons Plan Change 48 Drury

Proposed Amendment	Support/Oppose/ Seek Amendment	Relief Sought (as stated or similar to achieve the requested relief)												
		<p>Delete the bullet point relating to Sub-Precinct D.</p>												
Table IX.4.1 Activity	Seek amendment	<p>Insert new activity (A8) as set out below and renumber existing (A8) to (A20) accordingly</p> <p>New activity (A8):</p> <p><u>(A8) Development that does not comply with IX.6.9 Setback from NIMT and IX.6.10 Noise Sensitive Activities within 100m of a Rail Network Boundary RD</u></p>												
IX.6	Seek amendment	<p>Add to IX.6 Standards a new standard IX.6.9:</p> <p><b>IX.6.9 Setback from NIMT</b></p> <p><u>Buildings must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.</u></p>												
IX.6	Seek amendment	<p><b>Add to IX.6 Standards</b> a new standard IX.6.10 to manage potential human health effects from rail noise and vibration where buildings containing noise sensitive activities are located adjacent to the railway corridor as follows:</p> <p><b>IX.6.10 Noise Sensitive Activities within 100m of a Rail Network Boundary</b></p> <p><b>Indoor railway noise</b></p> <p>1. Any new building or alteration to an existing building that contains an activity sensitive to noise where the building or alteration:</p> <p>(a) Shall be designed, constructed and maintained to achieve indoor design noise levels resulting from the railway not exceeding the maximum values in the following table, or</p> <table border="1" data-bbox="1141 224 1396 683"> <thead> <tr> <th>Building type</th> <th>Occupancy/activity</th> <th>Maximum railway noise level LAeq(1h)</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>Sleeping spaces</td> <td>35 dB</td> </tr> <tr> <td></td> <td>All other habitable rooms</td> <td>40 dB</td> </tr> <tr> <td>Education</td> <td>Lectures rooms/theatres, music studios, assembly halls</td> <td>35 dB</td> </tr> </tbody> </table>	Building type	Occupancy/activity	Maximum railway noise level LAeq(1h)	Residential	Sleeping spaces	35 dB		All other habitable rooms	40 dB	Education	Lectures rooms/theatres, music studios, assembly halls	35 dB
Building type	Occupancy/activity	Maximum railway noise level LAeq(1h)												
Residential	Sleeping spaces	35 dB												
	All other habitable rooms	40 dB												
Education	Lectures rooms/theatres, music studios, assembly halls	35 dB												

retail and residential development may not necessarily be "around" the future Drury Central train station but will be in its vicinity.

Sub- Precinct D bullet point refers to the Sub-Precinct that "provides for the establishment of the Drury Central Train Station and associated Park-and-Ride and Transport Interchange. A public plaza is provided for that will integrate the train station with the centre and will provide a high quality pedestrian experience." As above, the train station is likely to be in a location further north. In addition, the land proposed by the applicant to be included within Sub-Precinct D is third-party land outside the ownership of the applicants. Accordingly, it is not certain what could be developed within this area and it may be that this land does not form part of the Plan Change area.

The reasons for setbacks and noise and vibration criteria are set out below. Activities that do not meet those standards should be classified as restricted discretionary activities to allow the effects of such non-compliances to be assessed on an application by application basis.

A key concern for KiwiRail is to ensure the safe and efficient operation of the rail network, in particular where neighbouring activities may come into conflict with adjacent land uses. Providing a physical setback for buildings adjoining the railway corridor boundary is a safety control which manages the interface between operations within the railway corridor and activities near the railway corridor i.e. it ensures that site occupants are able to carry out normal residential or business activities, including building maintenance with a reduced risk of coming into contact with the operational railway. A building setback is appropriate to reduce the potential conflict between the safe enjoyment and maintenance of buildings on adjacent properties and activities within the operational rail corridor.

The Plan Change does not adequately address noise and vibration effects from the railway corridor. KiwiRail acknowledges that developing and intensifying land near transport corridors is good planning practice. Initiatives to create sustainable and liveable urban development in accordance with national policy documents are fully supported. However, this can bring new occupants close to existing noise and vibration effects areas.

A key part of ensuring the safe and efficient operation of the Auckland railway network is ensuring that reverse sensitivity effects on the railway corridor are appropriately mitigated. These effects can arise from the impact of noise and vibration arising from railway operations on nearby residents. It is also widely accepted nationally and internationally that sound and vibration from road and rail networks has the potential to cause adverse health and amenity effects on people living nearby. Railways are generally an accepted part of the urban environment, but many do not appreciate the actual effects of living with rail sound and vibration when they choose to live near existing railway designations. Railway operations occur 24/7 and include maintenance activities.

For new buildings being constructed near the railway it is relatively straight-forward to control internal sound and vibration through the building location, design and provision of adequate ventilation systems. Likewise, acoustic screening can be used to achieve reasonable external sound levels. With careful design, future occupants can be protected from the most significant adverse effects associated with railway noise. It is not possible nor appropriate to expect that the railway corridor can mitigate new development, especially at height.

Rail noise effects will extend approximately 100m from the railway designation. The plan change process permits a full assessment of noise and vibration effects and given the future potential for rail within the region, it is reasonable that effects on this critical transport infrastructure are addressed under the plan change process in terms of effects on adjacent sites. The noise rules applying within the zone do not take into account railway noise specifically, rather the control is designed to address the noise from activities within the zone which tend to have different characteristics.

Regional Policy Statement (RPS) objectives and policies seek to protect infrastructure by setting out issues of regional significance which include urban growth and form and infrastructure, transport and energy. For example, RPS objectives in B2.3.1 relating to 'quality-built environment' and 'infrastructure' and policies in B3.2.2 are relevant to any plan change.

The Infrastructure and Noise chapters in the AUP OP build on the RPS with additional objectives:





Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 48 Drury	Relief Sought (as stated or similar to achieve the requested relief)									
		<p>"E26.2.1. Objectives</p> <p>(6) Infrastructure is appropriately protected from incompatible subdivision, use and development, and reverse sensitivity effects.</p> <p>E26.2.2. Policies</p> <p>(2) Avoid where practicable, or otherwise remedy or mitigate adverse effects on infrastructure from subdivision, use and development, including reverse sensitivity effects, which may compromise the operation and capacity of existing, consented and planned infrastructure.</p> <p>E25.3 Noise policies</p> <p>(7) Require activities to be appropriately located and/or designed to avoid where practicable or otherwise remedy or mitigate reverse sensitivity effects on, ..., existing or authorised infrastructure, ..."</p> <p>The inadequate assessment of onsite amenity (health and therefore of the well-being of people and communities) and reverse sensitivity effects is inconsistent with these objectives and policies. This issue is created by the proposed zone change in close proximity to the operational railway corridor.</p>	<table border="1"> <tr> <td data-bbox="188 571 316 689"></td> <td data-bbox="188 376 316 571">Teaching areas, conference rooms, drama studios, sleeping areas</td> <td data-bbox="188 226 316 376">40 dB</td> </tr> <tr> <td data-bbox="316 571 443 689">Health</td> <td data-bbox="316 376 443 571">Libraries Overnight medical care, wards Clinics, consulting rooms, theatres, nurses' stations</td> <td data-bbox="316 226 443 376">45 dB 40 dB 45 dB</td> </tr> <tr> <td data-bbox="443 571 518 689">Cultural</td> <td data-bbox="443 376 518 571">Places of worship, marae</td> <td data-bbox="443 226 518 376">35 dB</td> </tr> </table> <p>(b) is at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3 &amp; metres above railway tracks</p> <p>Mechanical ventilation</p> <p>2. If windows must be closed to achieve the design noise levels in clause 1(a), the building is designed, constructed and maintained with a mechanical ventilation system that</p> <p>(a) For habitable rooms for a residential activity, achieves the following requirements:</p> <ul style="list-style-type: none"> <li>i. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code, and</li> <li>ii. is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour, and</li> <li>iii. provides relief for equivalent volumes of spill air,</li> <li>iv. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18 °C and 25 °C, and</li> <li>v. does not generate more than 35 dB LAeq(30s) when measured 1 metre away from any grille or diffuser.</li> </ul> <p>(b) For other spaces, is as determined by a suitably qualified and experienced person.</p> <p>Indoor railway vibration</p> <p>3. Any new buildings or alterations to existing buildings containing an activity sensitive to noise, closer than 60 metres from the boundary of a railway network:</p> <p>(a) is designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3 mm/s v<sub>w</sub> 95 or</p> <p>(b) is a single-storey framed residential building with:</p> <ul style="list-style-type: none"> <li>i. a constant level floor slab on a full-surface vibration isolation bearing with natural frequency not exceeding 10 Hz, installed in accordance with the supplier's instructions and recommendations, and</li> <li>ii. vibration isolation separating the sides of the floor slab from the ground, and</li> <li>iii. no rigid connections between the building and the ground.</li> </ul>		Teaching areas, conference rooms, drama studios, sleeping areas	40 dB	Health	Libraries Overnight medical care, wards Clinics, consulting rooms, theatres, nurses' stations	45 dB 40 dB 45 dB	Cultural	Places of worship, marae	35 dB
	Teaching areas, conference rooms, drama studios, sleeping areas	40 dB										
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Cultural	Places of worship, marae	35 dB										





Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons	Relief Sought (as stated or similar to achieve the requested relief)
IX.8.1	Seek amendment	Consequential change to accommodate restricted discretionary status if the development does not meet IX6.9 Setback from NIMT and IX6.10 Noise Sensitive Activities within 100m of a Rail Network Boundary	<p>4. <u>A report is submitted to the council demonstrating compliance with clauses (1) to (3) above (as relevant) prior to the construction or alteration of any building containing an activity sensitive to noise. In the design:</u></p> <p>(a) <u>railway noise is assumed to be 70 LAeq(1h) at a distance of 12 metres from the track, and must be 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></p> <p>Insert new matters of discretion in IX.8.1 as follows:                      (12) <u>Setback from NIMT and Noise Sensitive Activities within 100m of a Rail Network Boundary</u>  <u>Effects from non-compliance with Standards IX.6.9 and IX.6.10</u></p>
IX.8.2	Seek amendment	Consequential change to accommodate restricted discretionary status if the development does not meet IX6.9 Setback from NIMT and IX6.10 Noise Sensitive Activities within 100m of a Rail Network Boundary. There are no specific assessment criteria included relating to the railway corridor. The assessment criteria proposed by KiwiRail reflects criteria developed by a Network Utilities industry working group. These include considerations for required mitigation based on how far removed from the rail corridor a building is. The ability to consider applications and the effects arising from reduced mitigation, along with the ability to require written approval from KiwiRail will enable specific circumstances to be taken into account as necessary for each application.	<p>Insert new assessment criteria in IX.8.2 as follows:                      (11) <u>Setback from NIMT</u>                      (a) <u>The size, nature and location of the buildings on the site.</u>                      (b) <u>The extent to which the safety and efficiency of railway operations will be adversely affected.</u>                      (c) <u>The outcome of any consultation with KiwiRail.</u>                      (d) <u>Any characteristics of the proposed use that will make compliance unnecessary.</u></p> <p>(12) <u>Noise Sensitive Activities within 100m of a Rail Network Boundary</u>                      (a) <u>Whether the activity sensitive to noise could be located further from the railway corridor</u>                      (b) <u>The extent to which the noise and vibration criteria are achieved and the effects of any non-compliance</u>                      (c) <u>The character of and degree of amenity provided by the existing environment and proposed activity.</u>                      (d) <u>The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures can enable their ongoing operation, maintenance and upgrade.</u>                      (e) <u>Special topographical, building features or ground conditions which will mitigate vibration impacts.</u>                      (f) <u>The outcome of any consultation with KiwiRail.</u></p>
Drury Centre Zoning Plan Drury Centre Precinct Plan Drury Centre Precinct Plan 1 - Building Height Drury Centre Precinct Plan 3 - Transport	Seek amendment	The land proposed by the applicant to be included within Sub-precinct D is third-party land outside the ownership of the applicants. Accordingly, it is not certain what could be developed within this area and it may be that this land does not form part of the Plan Change area. In that case the listed maps would need to be amended to remove this land from the Plan Change area.	<p>Remove the land within Sub-precinct D from the listed plans.                      In addition, remove the reference to Sub-precinct D from the legend in Precinct Plan 1.</p>



Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 48 Drury	Relief Sought (as stated or similar to achieve the requested relief)
Staging Boundary			
Precinct Plan 2 - Spatial features	Seek amendment	<p>The location and/or design of the train station should be determined by the designation process to be undertaken by KiwiRail. The 'train station' and 'Station Plaza' locations do not recognise that the preferred location of the station is further to the north.</p> <p>In addition, the land proposed by the applicant to be included within Sub-Precinct D is third-party land (outside the ownership of the applicants). Accordingly, it is not certain what could be developed within this area and it may be that this land does not form part of the Plan Change area.</p>	<p>Move the 'future train station' and 'Station Plaza' symbols to the preferred location further north.</p> <p>In addition, annotate Precinct Plan 2 to make it clear that the 'future train station' and 'Station Plaza' are shown as indicative only. For ease of readership it would be preferable to have two legends, one for indicative features and one for confirmed features on Precinct Plan 2.</p> <p>Remove the land within Sub-Precinct D from the Plan Change area.</p>
Plan Change provisions	Seek amendment	<p>The land proposed by the applicant to be included within Sub-precinct D is third-party land outside the ownership of the applicants. Accordingly, it is not certain what could be developed within this area and it may be that this land does not form part of the Plan Change area.</p>	<p>Any consequential changes to the Plan Change provisions to give effect to the relief sought above.</p>



Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 50 (Private) Waihoehoe	Relief Sought (as stated or similar to achieve the requested relief)
<b>Plan Change 50 (Private) Waihoehoe Precinct</b>			
IX.1 Precinct description	Seek amendment	<p><b>Does not allow for appropriate precinct specific controls to address adverse effects on the North Island Main Trunk railway line (NIMT)</b></p> <p>The Plan Change seeks to add a new Waihoehoe Precinct, with two sub precincts A and B within it to be zoned THAB. The use of precincts in the AUP OP is to "enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling". This has not been achieved.</p>	<p>Amend IX.1 Precinct Description to add:  <i>The North Island Main Trunk railway line, which runs the entire length of the Precinct's western boundary is protected from reverse sensitivity effects by ensuring new buildings and activities will be designed and located to manage any adverse effects</i></p>
IX.2 Objectives		<p>While all the relevant overlay, Auckland-wide and zone policies apply to the precinct the lack of any specific controls are an inadequate response to the intrinsic qualities and physical characteristics of the site and area, including the location of the existing NIMT, which runs the entire length of the Precinct's western boundary. The NIMT is one of New Zealand's key railway lines. This line is used 24/7. There are no provisions, including objectives, seeking to ensure that development within the Precinct addresses the operational effects of the adjacent railway corridor on receivers or reverse sensitivity effects on the NIMT. The railway can generate noise effects above what might be usually anticipated by residential receivers.</p>	<p><b>Add new Objective IX.2</b>  <i>(5) The NIMT is protected from adverse effects, including reverse sensitivity effects, of subdivision, use and development by:</i>  <i>1. setbacks within which incompatible activities will be managed;</i>  <i>2. standards designed to protect noise sensitive receiver's health and amenity</i></p>
IX.3 Policies		<p>It is noted that the Drury South Industrial and Mixed Use Precinct in Plan Change 46<sup>1</sup> included measures to manage the effects of quarrying activities on the precinct's more sensitive receivers through policies and standards (H10.6.4 Sub-Precinct C (Noise and Ventilation)) which sought to protect activities sensitive to noise from unreasonable levels of land transport noise. This provides an example of precinct controls that provide bespoke provisions to address constraints and adverse effects for new development within their boundaries. Kiwirail has had recent success seeing a developer add similar controls with a development for residential activities in Te Kauwhata (Waikato District).</p>	<p><b>Add new Policy IX.3</b>  <i>(12) Adverse effects on the operation of the regionally significant NIMT and on the health and safety of adjacent development and noise sensitive receivers are managed through setbacks and performance standards.</i></p>
		<p><b>Inconsistent with other objectives and policies of the AUP OP</b></p> <p>The Plan Change does not address the Plan Change area's development with reference to its effects on the NIMT. Accordingly, it is inconsistent with the direction of Plan Policy B2.3.2 of the AUP OP which seeks to:  <i>"(2) Encourage subdivision, use and development to be designed to promote the health, safety and well-being of people and communities by all of the following: ..."</i>                      It is also inconsistent with the objective B2.4 Residential Growth B2.4.1. Objectives of the AUP OP:  <i>"(2) Residential areas are attractive, healthy and safe with quality development that is in keeping with the planned built character of the area"</i>                      And B3.3 Transport B3.3.2 of the AUP OP which provides:  <i>"5 (f) requiring activities adjacent to transport infrastructure to avoid, remedy or mitigate effects which may compromise the efficient and safe operation of such infrastructure, and</i>  <i>(6) Require activities sensitive to adverse effects from the operation of transport infrastructure to be located or designed to avoid, remedy or mitigate those potential adverse effects."</i>  <b>Inconsistent with other provisions of the Plan Change</b>                      Objective IX.2 of the Plan Change requires "Access to the precinct occurs in an effective, efficient, and safe manner and manages effects on State Highway 1 and the effectiveness and safety of the surrounding road network." This objective accordingly recognises the effects on the state highway network but there is no corresponding objective to recognise, and protect, the NIMT from adverse effects.                 </p>	<p><b>Insert new activity (A5) as set out below and renumber current (A5) and (A6) to (A6) and (A7).</b>                      New activity (A5):</p>
Table IX.4.1 Activity	Seek amendment	<p>The reasons for setbacks and noise and vibration criteria are set out below. Activities that do not meet those standards should be classified as restricted discretionary activities to allow the effects of such non-compliances to be assessed on an application by application basis.</p>	<p>Insert new activity (A5) as set out below and renumber current (A5) and (A6) to (A6) and (A7).                      New activity (A5):</p>



Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 50 (Private) Waihoehoe	Relief Sought (as stated or similar to achieve the requested relief)																											
IX.6	Seek amendment	<p>A key concern for KiwiRail is to ensure the safe and efficient operation of the rail network, in particular where neighbouring activities may come into conflict with adjacent land uses. Providing a physical setback for buildings adjoining the railway corridor boundary is a safety control which manages the interface between operations within the railway corridor and activities near the railway corridor i.e. it ensures that site occupants are able to carry out normal residential or business activities, including building maintenance with a reduced risk of coming into contact with the operational railway. A building setback is appropriate to reduce the potential conflict between the safe enjoyment and maintenance of buildings on adjacent properties and activities within the operational rail corridor.</p> <p>The Plan Change does not adequately address noise and vibration effects from the railway corridor. KiwiRail acknowledges that developing and intensifying land near transport corridors is good planning practice. Initiatives to create sustainable and liveable urban development in accordance with national policy documents are fully supported. However, this can bring new occupants close to existing noise and vibration effects areas.</p> <p>A key part of ensuring the safe and efficient operation of the Auckland railway network is ensuring that reverse sensitivity effects on the railway corridor are appropriately mitigated. These effects can arise from the impact of noise and vibration arising from railway operations on nearby residents. It is also widely accepted nationally and internationally that sound and vibration from road and rail networks has the potential to cause adverse health and amenity effects on people living nearby. Railways are generally an accepted part of the urban environment, but many do not appreciate the actual effects of living with rail sound and vibration when they choose to live near existing railway designations. Railway operations occur 24/7 and include maintenance activities.</p> <p>For new buildings being constructed near the railway it is relatively straight-forward to control internal sound and vibration through the building location, design and provision of adequate ventilation systems. Likewise, acoustic screening can be used to achieve reasonable external sound levels. With careful design, future occupants can be protected from the most significant adverse effects associated with railway noise. It is not possible nor appropriate to expect that the railway corridor can mitigate new development, especially at height.</p> <p>Rail noise effects will extend approximately 100m from the railway designation. The plan change process permits a full assessment of noise and vibration effects and given the future potential for rail within the region, it is reasonable that effects on this critical transport infrastructure are addressed under the plan change process in terms of effects on adjacent sites. The noise rules applying within the zone do not take into account railway noise specifically, rather the control is designed to address the noise from activities within the zone which tend to have different characteristics.</p> <p>Regional Policy Statement (RPS) objectives and policies seek to protect infrastructure by setting out issues of regional significance which include urban growth and form and infrastructure, transport and energy. For example, RPS objectives in B2.3.1 relating to 'quality-built environment' and 'infrastructure' and policies in B3.2.2 are relevant to any plan change.</p> <p>The Infrastructure and Noise chapters in the AUP OP build on the RPS with additional objectives:</p> <p>"E26.2.1. Objectives</p> <p>(6) Infrastructure is appropriately protected from incompatible subdivision, use and development, and reverse sensitivity effects.</p> <p>E26.2.2. Policies</p> <p>(2) Avoid where practicable, or otherwise remedy or mitigate adverse effects on infrastructure from subdivision, use and development, including reverse sensitivity effects, which may compromise the operation and capacity of existing, consented and planned infrastructure.</p> <p>E26.3 Noise policies</p> <p>(7) Require activities to be appropriately located and/or designed to avoid where practicable or otherwise remedy or mitigate reverse sensitivity effects on: "...existing or authorised infrastructure...."</p>	<p>(A5) Development that does not comply with IX.6.7 Setback from NIMT and IX.6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary RD</p> <p>Add to IX.6 Standards a new standard IX.6.7:</p> <p><b>IX.6.7 Setback from NIMT</b></p> <p><i>Buildings must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.</i></p>																											
IX.6	Seek amendment	<p>Add to IX.6 Standards a new standard IX.6.8 to manage potential human health effects from rail noise and vibration where buildings containing noise sensitive activities are located adjacent to the railway corridor, as follows:</p> <p><b>IX.6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary</b></p> <p><b>Indoor railway noise</b></p> <p>1. Any new building or alteration to an existing building that contains an activity sensitive to noise where the building or alteration:</p> <p>(a) Shall be designed, constructed and maintained to achieve indoor noise levels resulting from the railway not exceeding the maximum values in the following table, or</p> <table border="1" data-bbox="829 224 1420 683"> <thead> <tr> <th>Building type</th> <th>Occupancy/activity</th> <th>Maximum railway noise level LAeq(1h)</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>Sleeping spaces</td> <td>35 dB</td> </tr> <tr> <td></td> <td>All other habitable rooms</td> <td>40 dB</td> </tr> <tr> <td>Education</td> <td>Lecture rooms/theatres, music studios, assembly halls</td> <td>35 dB</td> </tr> <tr> <td></td> <td>Teaching areas, conference rooms, drama studios, sleeping areas</td> <td>40 dB</td> </tr> <tr> <td></td> <td>Libraries</td> <td>45 dB</td> </tr> <tr> <td>Health</td> <td>Overnight medical care, wards</td> <td>40 dB</td> </tr> <tr> <td></td> <td>Clinics, consulting rooms, theatres, nurses' stations</td> <td>45 dB</td> </tr> <tr> <td>Cultural</td> <td>Places of worship, marae</td> <td>35 dB</td> </tr> </tbody> </table>	Building type	Occupancy/activity	Maximum railway noise level LAeq(1h)	Residential	Sleeping spaces	35 dB		All other habitable rooms	40 dB	Education	Lecture rooms/theatres, music studios, assembly halls	35 dB		Teaching areas, conference rooms, drama studios, sleeping areas	40 dB		Libraries	45 dB	Health	Overnight medical care, wards	40 dB		Clinics, consulting rooms, theatres, nurses' stations	45 dB	Cultural	Places of worship, marae	35 dB	<p>Add to IX.6 Standards a new standard IX.6.8 to manage potential human health effects from rail noise and vibration where buildings containing noise sensitive activities are located adjacent to the railway corridor, as follows:</p> <p><b>IX.6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary</b></p> <p><b>Indoor railway noise</b></p> <p>1. Any new building or alteration to an existing building that contains an activity sensitive to noise where the building or alteration:</p> <p>(a) Shall be designed, constructed and maintained to achieve indoor noise levels resulting from the railway not exceeding the maximum values in the following table, or</p>
Building type	Occupancy/activity	Maximum railway noise level LAeq(1h)																												
Residential	Sleeping spaces	35 dB																												
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Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 50 (Private) Waihoehoe	Relief Sought (as stated or similar to achieve the requested relief)
		<p>The inadequate assessment of onsite amenity (health and therefore of the well-being of people and communities) and reverse sensitivity effects is inconsistent with these objectives and policies. This issue is created by the proposed zone change in close proximity to the operational railway corridor.</p>	<p>(b) is at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks</p> <p><u>Mechanical ventilation</u></p> <p>2. if windows must be closed to achieve the design noise levels in clause 1(a), the building is designed, constructed and maintained with a mechanical ventilation system that</p> <p>(a) For habitable rooms for a residential activity, achieves the following requirements:</p> <p>i. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code, and</p> <p>ii. is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour, and</p> <p>iii. provides relief for equivalent volumes of spill air,</p> <p>iv. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C, and</p> <p>v. does not generate more than 35 dB LAeq(30s) when measured 1 metre away from any grille or diffuser.</p> <p>(b) For other spaces, is as determined by a suitably qualified and experienced person.</p> <p><u>Indoor railway vibration</u></p> <p>3. Any new buildings or alterations to existing buildings containing an activity sensitive to noise, closer than 60 metres from the boundary of a railway network,</p> <p>(a) is designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3 mm/s v.w.95 or</p> <p>(b) is a single-storey framed residential building with:</p> <p>i. a constant level floor slab on a full-surface vibration isolation bearing with natural frequency not exceeding 10 Hz, installed in accordance with the supplier's instructions and recommendations, and</p> <p>ii. vibration isolation separating the sides of the floor slab from the ground; and</p> <p>iii. no rigid connections between the building and the ground.</p> <p>4. A report is submitted to the council demonstrating compliance with clauses (1) to (3) above (as relevant) prior to the construction or alteration of any building containing an activity sensitive to noise. In the design,</p> <p>(a) railway noise is assumed to be 70 LAeq(1h) at a distance of 12 metres from the track, and must be 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.</p>
IX.8.1	Seek amendment	Consequential change to accommodate restricted discretionary status if the development does not meet IX.6.7 Setback from NIMT and IX.6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary	<p>Insert new matters of discretion in IX.8.1 as follows:</p> <p>(4) Setback from NIMT and Noise Sensitive Activities within 100m of a Rail Network Boundary</p> <p>Effects from non-compliance with Standards IX.6.7 and IX.6.8</p>
IX.8.2	Seek amendment	Consequential change to accommodate restricted discretionary status if the development does not meet IX.6.7 Setback from NIMT and IX.6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary. There are no specific assessment criteria included relating to the railway corridor. The assessment criteria proposed in the	<p>Insert new assessment criteria in IX.8.2 as follows:</p>

Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 50 (Private) Waihoehoe	Relief Sought (as stated or similar to achieve the requested relief)
		<p>relief sought reflect criteria developed by a Network Utilities industry working group. These include considerations for required mitigation based on how far removed from the rail corridor a building is. The ability to consider applications and the effects arising as a result of an application providing reduced mitigation, along with the ability to require written approval from KiwiRail will enable specific circumstances to be taken into account as necessary for each application.</p>	<p>(4) <u>Setback from NIMT</u></p> <p>(a) <u>The size, nature and location of the buildings on the site.</u></p> <p>(b) <u>The extent to which the safety and efficiency of railway operations will be adversely affected.</u></p> <p>(c) <u>The outcome of any consultation with KiwiRail.</u></p> <p>(d) <u>Any characteristics of the proposed use that will make compliance unnecessary.</u></p> <p>(5) <u>Noise Sensitive Activities within 100m of a Rail Network Boundary</u></p> <p>(a) <u>Whether the activity sensitive to noise could be located further from the railway corridor</u></p> <p>(b) <u>The extent to which the noise and vibration criteria are achieved and the effects of any non-compliance</u></p> <p>(c) <u>The character of and degree of amenity provided by the existing environment and proposed activity.</u></p> <p>(d) <u>The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures can enable their ongoing operation, maintenance and upgrade.</u></p> <p>(e) <u>Special topographical, building features or ground conditions which will mitigate vibration impacts.</u></p> <p>(f) <u>The outcome of any consultation with KiwiRail.</u></p>



## APPENDIX C – RELEVANT NAMES AND ADDRESSES OF SUBMITTERS

### Auckland Council

ADDRESS FOR SERVICE: [UNITARYPLAN@AUCKLANDCOUNCIL.GOVT.NZ](mailto:UNITARYPLAN@AUCKLANDCOUNCIL.GOVT.NZ)

### Submitters to be served:

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Wendy Hannah	<a href="mailto:hannahshouse87@gmail.com">hannahshouse87@gmail.com</a>
Brookfield Road Limited	<a href="mailto:ant.frith@g4group.co.nz">ant.frith@g4group.co.nz</a>
Oyster Capital	<a href="mailto:jeremy@brabant.co.nz">jeremy@brabant.co.nz</a>
Dong Leng	<a href="mailto:kgiffney@doddcivil.co.nz">kgiffney@doddcivil.co.nz</a>
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Chunfeng Wang and Xiaoling Liu	<a href="mailto:rogercann@wilsonmckay.co.nz">rogercann@wilsonmckay.co.nz</a>
Tony Chien and Zhenhao Tang	<a href="mailto:tchien2007@gmail.com">tchien2007@gmail.com</a>
Kiwi Property Holdings No.2 Limited	<a href="mailto:dallan@ellisgould.co.nz">dallan@ellisgould.co.nz</a>
Fulton Hogan Land Development Ltd	<a href="mailto:sue@berrysimons.co.nz">sue@berrysimons.co.nz</a>
Spark New Zealand Trading Limited	<a href="mailto:fiona.matthews@spark.co.nz">fiona.matthews@spark.co.nz</a>
Fletcher Residential Limited	<a href="mailto:mtweedie@frl.co.nz">mtweedie@frl.co.nz</a>
Britmatt Holdings Ltd	<a href="mailto:paulsousa@xtra.co.nz">paulsousa@xtra.co.nz</a>
Josephine Kleinsman	<a href="mailto:joanna@beresfordlaw.co.nz">joanna@beresfordlaw.co.nz</a>
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The Ministry of Housing and Urban Development (HUD), Te Puni Kōkiri and the Department of Corrections	<a href="mailto:Ernst.Zollner@hud.govt.nz">Ernst.Zollner@hud.govt.nz</a>
Ngāti Te Ata Waiohua	<a href="mailto:bill.loutit@simpsongrierson.com">bill.loutit@simpsongrierson.com</a>
Auckland Council	<a href="mailto:Christian.brown@aucklandcouncil.govt.nz">Christian.brown@aucklandcouncil.govt.nz</a>
Auckland Transport	<a href="mailto:Josephine.Tam@at.govt.nz">Josephine.Tam@at.govt.nz</a>
Counties Power Limited	<a href="mailto:jbrydon@align.net.nz">jbrydon@align.net.nz</a>



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Matthew Royston Kerr	<a href="mailto:Royston.Kerr@Hirepool.co.nz">Royston.Kerr@Hirepool.co.nz</a>
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Waka Kotahi - The New Zealand Transport Agency	<a href="mailto:Evan.keating@nzta.govt.nz">Evan.keating@nzta.govt.nz</a>
Karaka and Drury Limited	<a href="mailto:helen@berrysimons.co.nz">helen@berrysimons.co.nz</a>
Kāinga Ora	<a href="mailto:developmentplanning@kaingaora.govt.nz">developmentplanning@kaingaora.govt.nz</a>
Watercare	<a href="mailto:ilze.gotelli@water.co.nz">ilze.gotelli@water.co.nz</a>
Ngāti Tamaoho	<a href="mailto:rmaofficer@tamaoho.maori.nz">rmaofficer@tamaoho.maori.nz</a>
Tim John MacWhinney	<a href="mailto:a.t.macwhinney@gmail.com">a.t.macwhinney@gmail.com</a>
Watercare Counties Power Ltd	<a href="mailto:ilze.gotelli@water.co.nz">ilze.gotelli@water.co.nz</a>