Under the Resource Management Act 1991

In the matter of Hearing of Submissions and Further Submissions on the Proposed Porirua District Plan

Evidence of Karen Tracy Williams on behalf of Kāinga Ora – Homes and Communities

21 January 2022

Hearing Stream 4 – Infrastructure, Transport, Earthworks, Noise

11 February, 11am-12.30pm

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1 Introduction

1.1 My name is Karen Tracy Williams, and I am Principal Planner at The Property Group Limited, based in Wellington.

1.2 I am providing planning evidence on behalf of Kāinga Ora – Homes and Communities ("**Kāinga Ora**") in respect of submissions made on the Porirua Proposed District Plan ("**PDP**" or "**the Plan**"). Specifically, my evidence is in relation to the topic of Infrastructure, Transport, Earthworks, and Noise.

1.3 Within this brief, my planning evidence is separated in two tranches. Tranche 1 of my evidence addresses the topics of Infrastructure, Transport and Earthworks, and Tranche 2 addresses the topic of Noise. This approach reflects the different legal representation that is specific to Kāinga Ora's submissions on the respective tranches and topics. It is anticipated that these tranches will be heard as distinct topics.

1.4 I was involved with the preparation of primary and further submissions by Kāinga Ora in relation to the PDP. I am familiar with Kāinga Ora's corporate intent in respect of the provision of housing within Porirua. I am also familiar with the national, regional and district planning documents relevant to the PDP.

1.5 In preparing this evidence I have read the Section 42A reports prepared by Council staff and structured my evidence accordingly.

1.6 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to

consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

2 Expertise

2.1 I have a Master of Resource and Environmental Planning, (First Class Honours) from Massey University, and a Bachelor of Arts from the University of Otago. I have 15 years' experience in working with resource management and planning matters under the Resource Management Act 1991. I am an Intermediate member of the New Zealand Planning Institute.

2.2 I have worked for local government and in private consultancy. My experience includes the preparation and processing of applications for resource consent and the preparation of, and submissions to, District Plans. I have also prepared evidence for, and appeared in, the Environment Court.

2.3 For completeness I note:

(a) Between April 2017 - May 2019 I was a consultant to the Council's District Plan review team. I was primarily involved in the initial policy development for the commercial chapters, and the Hongoeka Special Purpose Zone.

(b) I was the Acting Manager of Resource Consents and Compliance at Porirua City Council between February 2019 - June 2019.

(c) I continue to process occasional resource consents on behalf of the resource consent team.

(d) Between September 2019 and December 2020, I was engaged as a consultant to provide planning services specific to the Eastern Porirua Regeneration Programme (a project-based team originally formed within HLC, and then Kāinga Ora – Homes and Communities).

TRANCHE 1 – INFRASTRUCTURE, TRANSPORT, AND EARTHWORKS

3 Executive Summary

3.1 In summary, I partially support the approach and recommendations outlined in the respective S 42A reports in respect of Infrastructure, Transport and Earthworks, but with modifications.

3.2 The key points addressed in Tranche 1 of my evidence are:

(a) Reverse sensitivity as addressed in provisions INF-O2 and INF-P5;

(b) National Grid provisions and spatial mapping with minor recommended amendments;

(c) Recommended minor amendments to INF-P10 and INF-P11;

(d) Transport network controls generally addressed within the INF chapter, and the relocation of onsite transport provisions;

(e) Setback from boundary of rail corridor as sought in the submission by KiwiRail Holdings Limited ("**KiwiRail**");

(f) Notification preclusion statements (for both public and limited notification) to Rules TR-R1, TR-R2, TR-R3, and TR-R4;

(g) Recommended amendments to the restriction on the number of vehicle crossings to one per site (submission related to INF-S26, which has been relocated to TR chapter as TR-S5);

(h) Recommended amendments to TR-S6 (revised to TR-S7 in the s 42A report) to accommodate vehicle manoeuvring within a site so that vehicles exit in a forward-facing direction;

(i) Recommended amendments to include a non-notification clause for EW-R1 to preclude public and limited notification;

(j) Recommended amendments to EW-S2 in relation to the maximum permitted cut height or fill depth; and

(k) I recommend some wording changes to the polices and rules as set out in **Appendix 1** of my evidence.

4 Scope of Evidence

4.1 Hearing Stream 4 addresses submission points relating to the following broad topics: Strategic Directions – Functioning City; Energy, Infrastructure and Transport; and General District Wide Matters. The corresponding s 42A reports split these matters into topic-based reports that reflect the structure of the PDP, as set out below:

(a) Strategic Objectives;

(b) Infrastructure;

(c) Renewable Energy Generation;

(d) Three Waters;

(e) Transport;

(f) Amateur Radio;

(g) Earthworks;

(h) Light;

(i) Noise;

(j) Signs;

(k) Temporary Activities.

4.2 Tranche 1 of my evidence addresses Kāinga Ora's submission points on the **Infrastructure, Transport, and Earthworks** chapters within the PDP, as they relate to the recommendations of the s 42A reports on these topics.

4.3 I acknowledge the Council recommendations that have been made in the other s 42A reports for the wider balance of topics noted in 4.1 above but present no further evidence in relation to these topics and recommendations, except where I address **Noise** within Tranche 2 of my evidence.

4.4 In preparing my evidence, I have reviewed and considered:

(a) The notified provisions of the PDP;

(b) The respective s 42A reports for Infrastructure, Transport and Earthworks and Noise prepared by PCC and the s 32 evaluation behind each topic;

(c) Transport evidence of Ms Harriet Fraser on behalf of PCC;

(d) Transport evidence of Ms Angie Crafer on behalf of Kāinga Ora;

(e) Geotechnical evidence of Mr Giannakogiorgos on behalf of PCC;

(f) The Wellington Regional Policy Statement (**"RPS"**);

(g) The National Policy Statement on Electricity Transmission 2008 ("**NPSET**"); and

(h) The National Policy Statement on Urban Development 2020 ("**NPSUD**")

5 Infrastructure

5.1 The submissions by Kāinga Ora were wide ranging across the Infrastructure section of the PDP. For the most part, Kāinga Ora either supports the recommendations of the s 42A report or does not choose to submit evidence in relation to the particular submission points.

5.2 My evidence acknowledges that there are many recommendations in the s 42A Report that are consistent with my opinion and conclusions. While I have largely focused my evidence on those matters where I disagree with the recommendations of the s 42A author, I have also addressed points where I agree with the s 42A report recommendations where I consider it helpful to the Panel.

5.3 For completeness, I support the following sections of the Infrastructure chapter of the PDP as recommended by the reporting planner[1]:

(a) Definitions;

(b) Objectives – INF-O1, INF-O3 to INF-O5

(c) Policies – INF-P1 to INF-P4, INF-P7 to INF-P9, and INF-P12 to INF-P27;

[1] Note, the following references reflect the consequential renumbering of provisions by the reporting planner in Appendix A of the Section 42A report.

(d) Mapping - Identification of the centre line of the National Grid transmission line.

5.4 I also support the relocation of transport related provisions relevant to site access, high trip generating activities, and onsite transport facilities to the Transport Chapter.

5.5 I turn now to focus on matters within the Infrastructure section of the PDP that have been raised in submissions by Kāinga Ora where specific amendments continue to be sought and/or further commentary is considered helpful, including:

(a) Reverse sensitivity as addressed in provisions INF-O2 and INF-P5;

(b) National Grid provisions and spatial mapping with minor recommended amendments;

(c) Recommended minor amendments to INF-P10 and INF-P11;

(d) Transport network controls generally, and the relocation of onsite transport provisions; and

(e) Setback from boundary of rail corridor as sought in the submission by KiwiRail Holdings Limited ("**KiwiRail**").

Reverse Sensitivity as addressed in Provisions – Objective INF-O2 and Policy INF-P5

5.6 Kāinga Ora (81.243) sought amendments to INF-O2 to replace 'protected' with 'not compromised' and delete 'including reverse sensitivity effects', noting that 'reverse sensitivity effects' are captured by the wider wording of the objective.

5.7 The s 42A analysis[2] of the submission notes that the use of the term "protect" is consistent with Policy 8 of the RPS, which states: *District and regional plans shall include policies and rules that protect regionally significant infrastructure from*

[2] Refer paragraphs 774-778 of Section 42A Report – Infrastructure.

incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure.

5.8 The s 42A report observes that the explanation to Policy 8 of the RPS notes: *Incompatible subdivisions, land uses or activities are those which adversely affect the efficient operation of infrastructure, its ability to give full effect to any consent or other authorisation, restrict its ability to be maintained, or restrict the ability to upgrade where the effects of the upgrade are the same or similar in character, intensity, and scale. It may also include new land uses that are sensitive to activities associated with infrastructure.*

5.9 The s 42A report also concludes that the wording of the explanation in relation to 'incompatible subdivision, uses or activities' generally reflects the definition of 'reverse sensitivity' as defined in the notified PDP and therefore finds the inclusion of the reference to reverse sensitivity within the objective is appropriate and provides additional benefits for interpretation of the objective. The Council reporting officer therefore recommended that the submission (81.243) by Kāinga Ora is rejected.

5.10 I agree with the findings of the s 42A Reporting Planner with regard to the use of the term 'protect' within INF-O2 instead of 'not compromised', as I agree the former is consistent with the language and direction of the RPS. However, I disagree with the conclusion reached with regard to the justification and need to specifically identify 'reverse sensitivity effects' within the objective. Policy 8 of the RPS notes that regionally significant infrastructure should be protected from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure. The explanatory text to Policy 8 of the RPS provides a range of scenarios in which subdivision, development and activities may be incompatible with infrastructure.

5.11 In my opinion, Policy 8 and the associated explanatory text do not explicitly elevate reverse sensitivity effects over other adverse effects that may render activities incompatible with infrastructure. For example, based on the explanatory text of Policy 8, other examples of inappropriate development, subdivision, and activities might include those that adversely affect the efficient operation of the network (I note this might include physically obstructing the network, or placing too much pressure on the operating capacity), or restrict the ability for upgrades and maintenance to occur (which I note may include physically constraining

access to the infrastructure). I acknowledge that reverse sensitivity effects are an adverse effect that should be appropriately managed in instances where they are likely to manifest to protect the ability of infrastructure to operate, and be maintained and upgraded, and that Policy 8 is clear that this is an effect that should be managed. However, I do not agree that this adverse effect, in and of itself, warrants explicit reference within INF-O2 over and above other examples of what constitutes inappropriate subdivision, use and development, and I do not consider this to be necessary to give effect to Policy 8 of the RPS.

5.12 Further to this, I disagree with the s 42A conclusion that the explanation of RPS Policy 8 reflects the proposed definition of 'reverse sensitivity' in the Plan. In my opinion, the explanation of Policy 8 is more encompassing of a range of potential adverse effects, whereas the definition for 'reverse sensitivity' in the Plan is specific to that effect.

5.13 For these reasons, I support the submission of Kāinga Ora and recommend a change to INF-O2 as follows (and set out in Appendix 1):

INF-O2	**The protection of Regionally Significant Infrastructure**
The function and operation of Regionally Significant Infrastructure is protected from the adverse effects~~, including reverse sensitivity effects,~~ of subdivision, use and development.	

5.14 Turning to INF-P5, Kāinga Ora opposed this policy in its entirety (81.251), in part due to provisions relating to the National Grid, and also the emphasis placed on reverse sensitivity, including reverse sensitivity effects of activities locating near transport and railway corridors, which are matters also addressed in my evidence on the Noise Chapter.

5.15 Reverse sensitivity relates to the potential for an incoming activity (e.g. residential) to be sensitive to effects generated by an existing activity (e.g. the network) and for that sensitivity to generate pressure on the existing activity to curtail or limit its operations. The presence of adverse effects on neighbours does not necessarily produce reverse sensitivity effects. It is the potential for new sensitive neighbours to encroach upon and compromise the operation of the existing lawfully established activity that generates the effects.

5.16 It is noted in the s 42A report that amendments have been recommended to INF-P5 (relating to INF-P5-1-c in the revised version set out in the s 42A report), in part

in response to the submission from Radio New Zealand (121.20)[3], which sought replacement of the word 'minimise' to 'avoid' in relation to reverse sensitivity effects, to place greater emphasis on the protection of infrastructure from this effect. The provision, as recommended for amendment in the s 42A report, requires *significant reverse sensitivity effects* to be avoided, and other reverse sensitivity effects be avoided, remedied or mitigated. The s 42A report notes that the recommended amendment recognises that not all reverse sensitivity effects will be able to be avoided but will ensure that appropriate mitigation will be in place to address these effects.

5.17 In my opinion, the proposed change suggested in the s 42A report introduces a greater degree of complexity than is required to appropriately manage such effects. I recommend that INF-P5-1-c be amended to instead require that subdivision design and consequential development appropriately avoids, remedies, or mitigates potential reverse sensitivity effects on and amenity and nuisance effects of the infrastructure. My suggested amendment provides Council with the opportunity to require significant reverse sensitivity effects to be avoided, and those of a lesser scale to be remedied or mitigated.

5.18 Related to this, and consistent with its nationwide response in relation to this matter, Kāinga Ora says that there is no evidence to demonstrate that there are reverse sensitivity effects occurring on the state highway and rail networks. As addressed in my evidence on the Noise chapter, determine that no evidence has been presented to-date that demonstrates the manifestation of reverse sensitivity effects on these networks. Accordingly, I consider specific reference to managing design and location of sensitive activities in proximity to the State Highways and Rail Corridor at Policy INF-P5-4 (as recommended in the s 42A report) to be redundant and unnecessary. In my opinion, the balance of INF-P5 provides adequate protection to these networks from the adverse effects of subdivision, use, or development within proximity of these regionally significant infrastructure networks, without requiring specific and additional reference within INF-P5. Beyond this, I also disagree with the drafting of INF-P5-4, which places the burden on the receiving environment to manage the effects of the state

[3] Refer paragraphs 850-866 of s 42A Report - Infrastructure

highway and rail networks, with no corresponding requirement for onsite management of operational effects within the network(s).

5.19 I therefore recommend changes to INF-P5-1-c and the deletion of INF-P5-4, with these changes reflected in my suggested amendments in Appendix 1.

National Grid provisions and spatial mapping with minor recommended amendments

5.20 The submissions by Kāinga Ora broadly opposed the notified provisions relating to the National Grid and associated spatial mapping. Notwithstanding this, Kāinga Ora's submission also acknowledged the need for the PDP to give effect to the requirements of the National Policy Statement on Electricity Transmission (2008) ('NPSET'), but in a manner in which the provisions that manage sensitive activities are not overly restrictive.

5.21 Broadly, I support the analysis and recommendations made by the s 42A officer[4] in relation to the National Grid provisions, including the creation of additional provisions specific to the National Grid; subject to some minor suggested modifications, which I discuss further in my evidence below and as set out at Appendix 1.

5.22 In my opinion, having separate provisions within the Plan specific to the National Grid reflects the unique distinction the National Grid has compared to other infrastructure in having a dedicated National Policy Statement. In my opinion, the recommended provisions within the s 42A, incorporating the amendments recommend in my evidence below, adequately give effect to the NPSET.

5.23 I support the change in definition from the 'National Grid Corridor' to the 'National Grid Subdivision Corridor', which reflects the control over which the related provisions manage. The remainder of my evidence references this updated definition term.

5.24 I also support the changes recommended by the s 42A report in regard to the revised mapping of the National Grid network. Underpinning its wider submission, Kāinga Ora sought a more nuanced approach to the identification of the spatial extent of the National Grid; this included how the National Grid Subdivision Corridor ('NGSC') was mapped. This was to ensure that the spatial extent

[4] Refer paragraphs 306-477 of the Section 42A Report - Infrastructure

(particularly the width) of the NGSC (and associated provisions managing potential adverse effects upon the National Grid) would better reflect the actual spatial extent of the potential effects. This could have included the application of a 'variable width corridor' that more accurately reflected the carrying capacity of the line and supporting infrastructure, rather than applying a 'default' NGSC of 64m, as shown in the notified PDP. In my opinion, the proposed revision to instead map the centre line appropriately responds to the concern held by Kāinga Ora in its wider submission.

National Grid Provisions - INF-P6, INF-P7, INF-P8, INF-P9, INF-P25

5.25 I generally support the proposed National Grid provisions as set out by the reporting planner in the s 42A report. Specifically, I support the evaluation and associated recommendations regarding submissions relevant to policies INF-P7, INF-P8, INF-P9, and INF-25. I also support the s 42A report conclusions that the remainder of the infrastructure provisions (including INF-O2 and FC-O2) adequately provide for the National Grid and reflect the outcomes of the NPSET and there is no need for any additional provisions in this regard.

5.26 I note that recommended Policy INF-P6 has been extracted from the notified version of INF-P5 and is a key mechanism for giving effect to NPSET Policy 10 and 11. I generally support this policy, subject to small, recommended changes discussed below.

5.27 One of the key points that I take from the recommended policy INF-P6 is that sensitive activities and buildings are to generally be avoided within the National Grid Yard, which I understand is deemed to be the most sensitive area of the National Grid. I consider this to be appropriate and in accordance with the NPSET. However, I consider a small amendment is appropriate to clearly demonstrate that this relates to new/intensified sensitive activities and buildings.

5.28 Importantly, I also note that policy INF-P6 does not preclude subdivision and resulting development from occurring within the NGSC, being the outer area of the National Grid, subject to successful assessment against INF-P6 occurring via a Restricted Discretionary Activity resource consent. Notwithstanding this, in my opinion a slight revision is appropriate to reflect a more positive framing statement to INF-P6(2), noting that any such proposal is anticipated in the PDP as a Restricted Discretionary Activity. This change would also more effectively

recognise that the policy and management of the NGSC is not intended to unreasonably limit development potential.

5.29 In addition, I also consider that it is appropriate to revise the wording of INF-P6(2) insofar as it relates to avoiding reverse sensitivity effects upon the National Grid. I acknowledge that Policy 10 of the NPSET requires decision makers, to the extent reasonably possible, to manage activities to avoid reverse sensitivity effects on the National Grid. However, as drafted I consider the recommended wording of INF-P6 extends beyond that which is required by the NPSET. In my opinion, INF-P6(1) provides a direct avoidance policy framework in recognition that the National Grid Yard is the most sensitive area of the National Grid, which I consider to be appropriate. However, recognising that the RMA is not a "no effects" statute, I consider the requirement to avoid *any* reverse sensitivity effects to be overly restrictive, noting there is typically a continuum experienced in relation to any particular effect. Effects in their entirety cannot always be avoided. I therefore recommend that the word 'any' is removed from INF-P6(2) and is replaced with 'unacceptable'.

5.30 This change recognises that effects in their entirety are often not completely avoidable, while also aligning with Policy 10 of the NPSET, which requires decision makers to manage such effects to an extent reasonably possible. It is my opinion that the proposed change achieves the same outcome sought by INF-P6 by requiring the avoidance of unacceptable reverse sensitivity effects, thereby achieving the intent of Policy 10 and continuing to give effect to the NPSET. In my opinion, the recommended changes to INF-P6(2), which manages subdivision within the NGSC and National Grid Pāuatahanui Substation Yard, more

appropriately strikes the balance in giving effect to the NPSET without unduly constraining development.

5.31 Based on the above, I propose that Policy INF-P6 is amended as shown in blue below. The recommended changes are also contained within Appendix 1.

INF-P6	**Adverse effects on the National Grid**

Protect the safe and efficient operation, maintenance and repair, upgrading,removal and development of the National Grid from being compromised by:

1. Avoiding the establishment or expansion of sensitive activities and building platforms located within the National Grid Yard;
2. ~~Only allowing~~ Providing for subdivision within the National Grid Subdivision Corridor or the National Grid Pāuatahanui Substation Yard where it can be demonstrated that ~~any~~ unacceptable reverse sensitivity effects will be avoided and any other adverse effects on and from the National Grid, including public health and safety, will be avoided, remedied or mitigated, taking into account:
    a. The impact of subdivision layout and design on the operation and maintenance, and potential upgrade and development of the National Grid, including reasonable access requirements;
    b. The ability of any potential future development to comply with NZECP 34:2001 New Zealand Electricity Code of Practice for Electricity Safe Distances;
    c. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform(s) for a principal building or dwelling can be provided outside of the National Grid Yard for each new lot;
    d. The risk to the structural integrity of the National Grid;
    e. The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from the National Grid and the potential reverse sensitivity on and amenity and nuisance effects of the National Grid assets;
    f. The nature and location of any proposed vegetation to be planted within the National Grid Yard; and
    g. The outcome of any consultation with, and technical advice from, Transpower.

5.32 I consider that the identified changes above and as noted in Appendix 1 will be efficient and effective in achieving the purpose of the RMA, the relevant objectives of the PDP and other relevant statutory documents including the NPSET.

Spatial Mapping of National Grid

5.33 As noted above, I support the s 42A recommended revision to map the centreline of the National Grid Transmission Line. It is acknowledged that this revision was made in response to the submission by Transpower [60.137], which sought that the centreline of the National Grid transmission line be mapped instead of the identified buffer area of the NGSC. It is my understanding that the proposed change will map the position of the transmission line centreline, from which a buffer can be calculated and applied relevant to the specific location context, based on the prescribed setbacks contained in the definitions of the National Grid

Yard and the National Grid Subdivision Corridor. This change to the mapping of the National Grid enables a tailored response to the spatial extent of the effects that may be generated by overhead lines, depending on the National Grid transmission line carrying capacity (e.g. 110kV) and associated support structure (e.g. single pole, pi-pole, or towers) in any specific location.

5.34 In my opinion, this change will more appropriately manage the effects of sensitive activities upon the National Grid network, in line with the outcomes required by the NPSET, without being unduly restrictive upon land that should not otherwise be limited in its development opportunity, thereby enabling outcomes expressed in the NPSUD. This amendment therefore addresses submissions by Kāinga Ora to ensure that any management framework incorporated within the PDP that imposes land use restrictions imposes no more restriction on the use and development of urban land than is absolutely necessary to manage potential risks or adverse effects to the National Grid infrastructure.

5.35 Therefore, within the context of Porirua City, I generally support the proposed changes as set out by the reporting planner regarding the spatial mapping of the National Grid. Importantly, I note that the location of the National Grid is at the outer edge of the Porirua urban area and that only approximately 140 residentially zoned sites are currently traversed by the National Grid transmission lines. In other circumstances, it might be appropriate for a further refinement of the approach; for example, applying a variable buffer that more specifically examines span lengths between poles/towers to account for variations in sway/swing of the lines in urban locations where there is greater prevalence of developed land traversed by the National Grid and heightened pressure for further intensification of these underbuilt areas.

Recommended minor amendments to INF-P8 [INF-P10] and INF-P9 [INF-P11]

5.36 I generally support the s 42A analysis and recommendations on submissions relating to INF-P8 and INF-P9[5] (subsequently renumbered to INF-P10 and INF-P11 in the s 42A report and accompanying Appendix A). Notwithstanding this, small changes are recommended to these policies to remain consistent with other

[5] Refer to paragraphs 867-899 of the Section 42A Report - Infrastructure

changes recommended within the s 42A report on similar provisions. These recommended changes are discussed below.

5.37 In regard to INF-P8, Kāinga Ora submitted (81.254) in general support for the policy, but sought deletion of clauses two and seven of the policy. The s 42A report rejected Kāinga Ora's submission. To maintain consistency with other changes recommended by the s 42A reporting officer to similar provisions/policy direction, I recommend including reference to the "planned urban built environment" to INF-P8(2) (now renumbered in the s 42A report as INF-P10). It is noted that this is consistent with similar changes recommended within the s 42A report for INF-O5 and INF-P4. This change is supplied in Appendix 1.

5.38 With regard to INF-P9 (renumbered to INF-P11), Kāinga Ora submitted in support of this policy (81.255). In light of the recommended changes within the s 42A report to create specific provisions for the National Grid I recommend a small amendment be made to clarify that this policy guidance is not relevant to the National Grid. This change is consistent with other changes recommended by the s 42A reporting officer within INF-P8 (renumbered to INF-P10 in the s 42A report. This change is supplied in Appendix 1.

Transport provisions and controls within the Infrastructure Chapter

5.39 The submissions by Kāinga Ora sought that the transport related provisions in the Infrastructure chapter be relocated to the Transport Chapter (addressed in multiple submission points by Kāinga Ora, including, but not limited to, 81.240 and 81.930). This matter was canvassed at a high level at Hearing Stream 1, where I expressed my support for this approach.

5.40 Subsequently, this matter has been further considered and is addressed in some detail in the s 42A report for Infrastructure[6]. In summary, it is noted that provisions relating to site land use development, including rules and standards relating to site access, high trip generating activities, and onsite transport facilities have been relocated to the Transport Chapter. The s 42A report notes this includes the relocation of the following to the Transport chapter: INF-P14, INF-

[6] Refer to paragraphs 90-111 of the Section 42A Report - Infrastructure

R23 and the relevant standards (INF-S25, INF-Figure 4, INF-Table 5, INF-S26, INF-Figure 5, INF-Table 6, and INF-Figure 6).

5.41 I support the relocation of transport provisions relating to site land use development, including rules and standards relating to site access, high trip generating activities, and onsite transport facilities to the Transport Chapter. The remainder of transport related provisions, rules and standards within the Infrastructure chapter are those that relate to the operation, upgrade, and expansion of the transport network. On balance, I consider the retention of these elements within the Infrastructure chapter to be acceptable. I note that this reflects an adjusted/compromised position from that stated in my evidence for Hearing Stream 1; noting I consider the revised position of the Council in the s 42A report for Infrastructure to strike an appropriate balance that now represents a logical division of transport related provisions.

5.42 Turning to more specific comments on transport provisions, I note that Kāinga Ora sought a complete review of the transport related provisions (81.930) so that they appropriately manage the safety and efficiency of the transport network, while recognising and providing for residential intensification. This has been addressed within the respective s 42A report(s) and reviewed in the expert evidence of Ms Angela Crafer. For the most-part, Kāinga Ora supports the reviewed provisions set out in the s 42A report, which were informed through further evidence of Ms Harriet Fraser. I too support many of the revisions.

5.43 I address below two outstanding areas in relation to transport controls where I disagree with the conclusions reached in the 42A Report – Infrastructure.

INF-S23 and INF-Table 1, INF-Table 2, and INF-Table 3 – Road Design Standards

5.44 INF-S23 Design of Roads prescribes design standards for the construction and upgrade of roads (including features within the road, such as street trees and retaining structures). The standard is accompanied by INF-Table 1, INF-Table 2 and INF-Table 3, which sets out minimum road design standards and street tree requirements.

5.45 The submissions by Kāinga Ora (81.340, 81.341, 81.342 and 81.343) opposed the proposed standard(s) and table on the basis that they should be relocated to the Transport chapter, and the standards within revised to be less complex and more

enabling of development, while providing for a safe and efficient transport network.

5.46 In the s 42A report, the reporting officer notes that a comprehensive review of this standard and related tables has been undertaken, informed by the advice and evidence of Ms Fraser. For the most-part, I agree with the evaluation undertaken within the s 42A report and proposed amendments, with the exception of some of the revised road design standards within INF-Table 1, which are discussed further below.

5.47 Ms Crafer has provided expert transport evidence on the revised road design standards within INF-S23 – INF-Table 1. Ms Crafer has concluded that revised road design standards recommended in the s 42A report prescribe speed environments, and resulting minimum road widths, that are too high, which will not adequately provide for the stated outcome of improved road safety. In relation to INF-S23 – INF-Table 1 Ms Crafer concludes, among other matters, that the prescribed minimum road widths are too prescriptive and could result in higher speed environments. In Ms Crafer's view revisions are required to INF-Table 1 to optimise road safety, while providing for design standards that are more aligned with industry standards, including NZS4404:2010. Ms Crafer has recommended revisions at Appendix A of her evidence.

5.48 I accept Ms Crafer's expert view on this matter. I consider the revisions recommended by Ms Crafer are more effective and efficient than those set out in the s 42A report, as they will align with industry standards, while enabling development in a manner that ensures road safety is optimised. I consider the standard/table should be amended as set out in Appendix 1 of my evidence.

INF-S26 and associated tables and figures – Vehicle Connections to Roads

5.49 With regard to INF-S26, Kāinga Ora sought that the standard (INF-S26-1) provide for more than one vehicle access crossing per site (81.352) and sought that the standard and related table and figure (INF-Table 6 and INF-Figure 5) relating to vehicle crossings be relocated to the Transport chapter (81.353, and 81.354).

5.50 The s 42A report partially agreed with the submissions and has recommended the relocation of these controls to the Transport chapter with the new reference of

TR-S5 with associated tables and figures. As stated in my evidence above, I support this recommended relocation.

5.51 I address the balance of this submission point, in relation to the restriction of one crossing per site, in my evidence relating to the Transport chapter in Section 6 below, as the revised controls are set out in the s 42A report – Transport.

Setback from boundary of rail corridor

5.52 KiwiRail Holdings Limited (KiwiRail) sought a 5m setback of structures and buildings (submission 86.70) from the boundary with the rail corridor to prevent ancillary equipment and activities associated with maintenance of buildings/structures on adjacent sites impinging on the rail network. The submission by KiwiRail sought the setback across multiple zones, however the s42A report appears to address this setback provision only in relation to the General Residential Zone[7]. Kāinga Ora's further submission (FS65.1) opposed this requested setback. The s 42A report concludes that a setback from the boundary with the rail corridor would be approriate in the General Residnetial Zone, but limits this to 1.5m, instead of the 5m sought by KiwiRail. The s 42A report recommends an amendment to GRZ-S4 to incorporate this setback.

5.53 Kāinga Ora would support a setback of buildings and structures from the boundary of the railway corridor of no more than 2m in residential zones, and 2.5m in mixed-use/commercial zones, which is consistent with the agreed position within the recently settled appeal(s) on relevant Plan Changes in Whangārei. I support the position of Kāinga Ora, noting that a setback of no more than 2m in residential zones and 2.5m in mixed-use/commercial zones from the railway corridor is a more efficient and effective option than the 5m sought by KiwiRail's submission. In this regard, I consider the reduced setback supported by Kāinga Ora would provide adequate space for maintenance activities within sites adjacent to the rail network. The reduced setback will ensure sufficient space for everyday activities to occur safely on a property (like vegetation clearance, painting or cleaning). In doing so, it will continue to protect the safe, efficient, and

[7] Refer to paragraphs 690-698 of the Section 42A Report - Infrastructure

effective operation of the rail infrastructure while balancing the cost on landowners (and associated restriction of development rights).

5.54 As noted above, the s 42A reporting officer recommends a smaller setback of 1.5m in the General Residential Zone, recommending a revision to GRZ-S4. I support this. For completeness, while this recommended setback has not been analysed in the s 42A report across multiple zones, as sought in the submission of KiwiRail, I acknowledge support for such a setback being appplied across mutliple zones that are located adjacent to the rail corridor. Alternatively, I would also support the identification and specifically mapped railway corridor setback reflecting the setback area.

5.55 In addition to the prescribed setback, I also consider it appropriate to introduce an additional matter of discretion to the recommended revised standard, which is consistent with what was agreed in the aforementioned Consent Order resolving the Whangārei KiwiRail Holding appeal(s). This will ensure any resulting assessment of a breach to the standard would be appropriately focused on the relevant effects that are intended to be managed by this rule. The inclusion will ensure greater consistency of plan interpretation both for the Council administering the plan, and Plan users.

5.56 Therefore, I recommend including the following matter of discretion to GRZ-S4.

GRZ-S4 Setback from boundary with a road or rail corridor	
1. Buildings and structures must not belocated within a 4m setback from a boundary with a road except: 1. On a site with two or more boundaries to a road, the building or structure must not belocated within a 2m setback from the boundary with one road; and 2. Where any garage and/or carport with a vehicle door or vehicle opening facing the road, it must not be located within a 5m setbackfrom the boundary with the road. 2. Buildings and structures must not belocated within a 1.5m setback from a boundary with a rail corridor. This standard does not apply to: ~~b.~~ a. Fences and standalone walls — see GRZ-R4; ~~c.~~ b. Buildings and structures that are no more	Matters of discretion are restricted to: 1. The streetscape and amenity ofthe area; 2. The design and siting of the building or structure; 3. Screening, planting and landscaping of the building or structure; 4. Pedestrian and cyclist safety (seeTR-P3); 5. The location, size and design of the building as it relates to the ability to safely use, access, and maintain buildings without requiring access on, above, or over the rail corridor;

than $2m^2$ in floor area and 2m in height above ground level; or ~~d.~~ c. Eaves up to a maximum of 600mm in width and external gutters or downpipes (including their brackets)up to an additional width of 150mm.	and 6. Whether topographical or othersite constraints that make compliance with the standard impractical.

Conclusion

5.57 In conclusion, I am of the opinion that the changes discussed above are appropriate and will assist in improving the consistency, usability and interpretation of provisions within the Proposed District Plan.

5.58 I consider that these amendments are necessary and the most appropriate (in terms of the requirements of section 32 of the RMA) because the amended objectives are the most appropriate way to meet the purpose of the Act, and the provisions will be efficient and effective in achieving the objectives. In addition, I consider the amendments will:

(a) give effect to the NPSET; and

(b) give effect to the relevant provisions of the RPS.

6 Transport

6.1 Kāinga Ora made a number of submission and further submission points, on the Transport chapter. Kāinga Ora's submission seeks to ensure that the Transport chapter provisions are efficient, effective and enabling of residential development.

6.2 In this regard, Kāinga Ora's submission (81.930) sought that the full package of transport provisions was reviewed and amended so that they appropriately manage the safety and efficiency of the transport network, while recognising and providing for residential intensification. It is acknowledged that the Council has subsequently undertaken a review of the proposed transport provisions, as informed by the advice of Ms Harriet Fraser. For the most part, Kāinga Ora either supports the recommendations of the s 42A report following this review or does not wish to submit evidence in relation to the particular submission point.

6.3 Of particular note, the submission of Kāinga Ora (81.386) opposed the residential thresholds and design requirements for accessway design (TR-S2 – TR-Table 1)

and submission points 81.387, 81.388, and 81.389 (relating to TR-S3 – TR-Table 2 and TR-Table 3) for the reason that the design standards were overengineered for residential development, and specified widths would require considerable landform modification and hard-sealing, resulting in poor urban design outcomes and compromised safety. It is noted that these controls have been subsequently reviewed by Ms Fraser and the s 42A report recommends several changes based on her expert advice. These changes have been reviewed by Ms Angela Crafer on behalf of Kāinga Ora, who supports these changes. I too support the changes.

6.4 My evidence covers the following issues and submissions:

(a) Overview of Kāinga Ora submission across transport provisions;

(b) Submission points 81.379, 81.380, 81.381, 81.382 which seek to introduce a notification preclusion statement (for both public and limited notification) to Rules TR-R1, TR-R2, TR-R3, and TR-R4;

(c) Submission 81.352 opposing the restriction on the number of vehicle crossings to one per site (submission related to INF-S26, which has been relocated to TR chapter as TR-S5);

(d) Submission point 81.396 which opposes the requirements of TR-S6 (revised to TR-S7 in the s 42A report) to accommodate vehicle manoeuvring within a site so that vehicles exit in a forward-facing direction.

Background / High Level Position

6.5 At a high level, Kāinga Ora is seeking that the PDP enables a range of housing typologies to be delivered in appropriate locations and contributes to the provision of quality, affordable housing choices that meet the diverse needs of the community.

6.6 The National Policy Statement on Urban Development 2020 (NPSUD) seeks to deliver well-functioning urban environments (Objective 1). Of particular relevance to Porirua, the NPSUD directs that planning decisions enable a variety of homes

that meet the needs of different households in terms of type, price, and location (Policy 1(a)(i)).

6.7 The NPSUD promotes accessibility for all people between housing, jobs, services and amenities, with a focus on public or active transport (Policy 1(d)). There is a focus on reducing greenhouse gas emissions with the setting of carparking minimum requirements now prohibited (Policies 1(e) and 11(a)).

6.8 Overall, while Kāinga Ora acknowledges and supports many of the revisions that have been undertaken to the Transport chapter provisions, rules and standards, (as set out in the s 42A report), Kāinga Ora considers some remaining aspects of the Transport chapter remain onerous and not enabling of residential development. Kāinga Ora is seeking that the final PDP provisions are more enabling of residential development. I generally support this position and have set out at 6.4 above the matters on which my evidence is focused. Such amendments will also ensure that the PDP appropriately responds to the NPSUD's requirements and achieves a balance between enabling residential development to cater for growth while ensuring certainty of outcomes in respect of accessible and safe transport networks.

Notification preclusion statements

6.9 The submission by Kāinga Ora sought the introduction of a notification preclusion statement (for both public and limited notification) for consent requirements associated with vehicle crossings, site accessways, parking, and manoeuvring non-compliances. These were sought in relation to TR-R1 (81.379), TR-R2-2 (81.380), TR-R3 (81.381), and TR-R4 (81.382). The reasons given for the requested notification preclusion was that the standards are technical in nature and notification would not add to the consideration of the effects resulting from the non-compliances, as this will be informed through expert advice.

6.10 In the s 42A report, the reporting officer rejects these submission points (in relation to precluding limited notification) on the basis that there is the potential for adverse effects and other parties may need to be consulted.

6.11 I support notification preclusion statements (for both public and limited notification) being placed on rules that relate to technical transport breaches. As noted in the evidence of Ms Crafer, an assessment of the effects of a non-compliance with the transport standards can be undertaken and informed by

expert assessments, and information from submitters is unlikely to add further technical information to assist in the assessment.

6.12 It is noted that conditions of consent can still be placed to manage any related adverse effects, where matters of control or discretion extend to such considerations. I further note that there would remain the ability to notify in special circumstances to address any case where despite the preclusion, it is still appropriate to notify a resource consent based on special circumstances (albeit recognising such situations would be rare).

6.13 For these reasons, I disagree with the reporting officer's recommendation, particularly in the context of residential development occurring in residential zones. Notification can assist the Council in forming a decision under section 104 of the RMA where submitters can provide additional information that may not otherwise be available, particularly where persons are directly affected. In assessing infringements to transport rules and rule requirements that relate to residential developments, the Council is unlikely to obtain any additional information through notification, as these activities are anticipated and there is clear policy guidance for these activities.

6.14 I acknowledge that transport infringements in other zones, such as commercial/ mixed use, and industrial locations, can involve more complex considerations (including more complex access arrangements servicing multiple commercial tenancies and leasehold properties for example) and more complex transport environments. However, in my opinion, non-notification of transport related infringements remains appropriate across the city, noting that a proposal with such an infringement (particularly within a complex transport environment) will be subject to specialist technical reviews as part of the process.

6.15 I note that there are several public notification preclusions recommended for these rules, which I support, and I consider that these could be extended to preclude limited notification as well. I consider it is appropriate for the following additional rules and rule requirements to be assessed on a non-notified basis:

(a) TR-R1 All activities with no on-site vehicle parking or loading spaces;

(b) TR-R2-2, TR-R2-3, and TR-R2-4 All activities with on-site vehicle parking or loading spaces or where a vehicle access is otherwise provided;

(c) TR-R3-2 All activities with on-site parking or loading spaces – dimensions and manoeuvring; and

(d) TR-R4-2 All activities - On-site loading, waste and bicycle facilities.

6.16 I consider it is appropriate for the normal notification tests to apply to infringements to the rules and rule requirements not listed above.

6.17 I note that I have also recommended changes to the matters of discretion within TR-S1 and TR-S4 to enable consideration be had to the outcome of any consultation undertaken with Fire and Emergency New Zealand (FENZ) in the assessment of breaches to these standards. In my opinion, this is consistent with the framing of other matters of discretion found throughout the Plan, and accounts for the changes recommended within the S 42A report with regard to directing consideration upon FENZ for breaches to these standards.

6.18 I consider the inclusion of notification preclusion rules improves the efficient administration of the PDP by providing certainty for applicants and decision makers and focusing the consideration of effects.

Section 32AA evaluation

6.19 In my opinion, the amendments to incorporate notification preclusions to Rules TR-R1, TR-R2-2, TR-R2-3, and TR-R2-4 are more appropriate in achieving the objectives of the PDP. In particular, I consider that:

(a) The effects of any such breaches will be adequately considered by qualified and experienced technical experts as part of the consent process. Appropriate conditions of consent can be placed to ensure adequate mitigation is provided, in situations where this is necessary. Therefore, there are no additional or unanticipated effects that would arise through this amendment.

(b) The recommended amendments will not have any greater environmental, economic, social, and cultural effects than the notified provisions or those recommended in the S 42A Report. However, there will be benefits from more efficient plan administration.

(c) The recommended amendments will reduce consenting timeframes and costs and increase project certainty for Plan users.

Number of Vehicle Crossings

6.20 As noted in my evidence above, Kāinga Ora opposed the limit of one vehicle crossing per site (81.352), which was originally controlled under INF-S26 in the notified PDP. The s 42A report rejected the requested relief to enable more than one crossing per site, although further revisions were recommended to the controls to reflect other submission points made by others as well as the overall submission by Kāinga Ora (81.930) to review the transport standards more holistically. INF-S26, along with the associated tables and figures, were also recommended by the s 42A reporting officer for relocation to the Transport Chapter under TR-S5.

6.21 The recommended revisions in the s 42A report to TR-S5 and the accompanying evaluation have been reviewed by Ms Crafer. Ms Crafer concurs with the submission of Kāinga Ora, agreeing that a limit of one site crossing per site is overly restrictive. Instead, Ms Crafer recommends a revision to TR-S5-1 to enable a greater degree of flexibility in the provision of site crossings, based on the width of the site frontage. In this regard, Ms Crafer recommends TR-S5-1 be revised to enable one crossing per 25m of site frontage, which she notes is consistent with similar standards in the Auckland Unitary Plan and the Christchurch District Plan. Ms Crafer notes that this revised standard would not compromise the safe and efficient operation of the network or users.

6.22 I accept Ms Crafer's expert view on this matter. I consider the revisions recommended by Ms Crafer are more effective and efficient than those set out in the s 42A report, as they will align with industry standards, while enabling development in a manner that ensures road safety is optimised. I consider the standard/table should be amended as set out in Appendix 1.

Onsite vehicle manoeuvring

6.23 Kāinga Ora opposed TR-S6-1 (revised to TR-S7 in the s 42A report), which requires vehicle manoeuvring to be undertaken within a site so that vehicles only exit in a forward-facing direction (81.396). The submission notes that there is no documented safety issue of on-road vehicle manoeuvring in Porirua, compliance would be difficult to achieve due to Porirua's topography given the additional land and gradients required to achieve onsite manoeuvring and undertaking land modification to achieve compliance with the standard would result in poor urban

design outcomes, visual effects, stormwater runoff, and disproportionate development costs. I support the submission of Kāinga Ora in this regard.

6.24 The s 42A report does not accept the submission in full, noting that to do-so would ignore potential adverse effects on the safety and efficiency of the transport network. Instead, the s 42A report recommends a partial revision to this standard, to enable reverse manoeuvring from sites that contain a single unit where they connect to a lower order road in the roading hierarchy, being an Access Road or Collector Road, based on the advice of Ms Fraser.

6.25 While I agree that reverse manoeuvring should be actively discouraged on busier roads, such as Arterial, Regional, or National roads, based on the advice of Ms Crafer I consider that there is a more progressive balance that can be struck with the threshold at which onsite manoeuvring is required on the lower order roads. In this regard, I support the recommended revisions suggested by Ms Crafer which would not require onsite manoeuvring for sites where the access serves three or fewer residential units, or four or fewer carparks.

6.26 I accept Ms Crafer's expert view on this matter. I consider the revisions recommended by Ms Crafer are more effective and efficient than those set out in the s 42A report, as they recognise site development constraints along with changing trends in relation to car ownership, while ensuring road safety is optimised. In my opinion, the revisions recommended by Ms Crafer adequately mitigate safety effects upon the road network (including upon pedestrians, cyclists, and motorists), while recognising that the provision of onsite manoeuvring on small and/or steep sites is not always practical or necessary. The recommended change also provides for a degree of flexibility, depending on how the access services the site (e.g. based on unit numbers or vehicle parks). I consider standard TR-S7-1 should be amended as set out in Appendix 1.

7 Earthworks

7.1 My evidence focuses on two discrete aspects of the earthworks topic. The first is the submission by Kāinga Ora (81.488) seeking a non-notification clause for EW-R1 to preclude public and limited notification. The second relates to the

submission by Kāinga Ora (81.493) in relation to EW-S2, where the maximum permitted cut height or fill depth was sought to be increased from 1.5m to 2.5m.

Notification preclusion statement in Rule EW-R1

7.2 Turning first to submission point (81.488), Rule EW-R1 is the general catch-all applying to earthworks across the city, where compliance cannot be achieved with the underlying standards relating to:

(a) Earthworks area (EW-S1)

(b) Earthworks – Height location and slope (EW-S2)

(c) Transport of cut or fill material (EW-S3)

(d) Site reinstatement (EW-S4)

(e) Silt and sediment retention (EW-S5)

7.3 The s 42A report rejects the relief sought in relation to this aspect of the submission, with regard to precluding both public and limited notification. The explanation in the s 42A report[8] notes that effects from earthworks have the potential to adversely affect the wider environment, citing the example of works where the cut height or fill depth exceeds standard EW-S2, which may adversely affect natural landforms that are visually prominent. Further, the assessment notes that earthworks occurring directly adjacent to a site may compromise the stability of the common boundary, and therefore preclusion of limited notification is not appropriate.

7.4 Having reviewed the s 42A analysis and the matters that are being controlled and managed by the relevant standards, I generally support the submission of Kāinga Ora to include a non-notification clause to preclude public and limited notification at EW-R1. However, in my opinion, it would be appropriate to refine such a preclusion to situations where breaches occur only in relation to EW-S1, EW-S3, EW-S4, and EW-S5. In my opinion, it is appropriate to exclude EW-S2 from the notification preclusion, which manages cut height and fill depth, proximity of works to a common boundary, and works occurring on steep slopes, all of which are more directly linked to managing stability and large-scale visibility effects. I accept that in some cases, assessment of breaches to EW-S2 may be more fully informed through further consideration of effects both more generally upon the

[8] Refer Paragraphs 247-248 of the s 42A report - Earthworks

environment, and also more directly upon neighbouring parties and the receipt of submissions on such matters.

7.5 My evidence for Hearing Stream 1 provided high-level consideration of non-notification clauses, and the merits for their inclusion within appropriate rules in the Plan. In that evidence, I noted that greater use of non-notification clauses could be appropriately utilised across the district-wide provisions, especially in relation to transport and earthworks rules. Without these, simple rule triggers could nullify notification preclusions for broader consents that would otherwise appropriately benefit from this tool.

7.6 In my opinion, non-notification clauses are appropriate in the context of EW-R1, despite there being situations where there may be effects, with the view that these effects can be understood, considered, and appropriately mitigated where necessary. While I accept that works that entail breaches to EW-S1, EW-S3, EW-S4, or EW-S5 can result in adverse effects on the environment and surrounding sites, in my opinion, such breaches can be readily managed by way of specific conditions of consent, which are commonly placed on applications that result in a breach to these sorts of controls. These conditions would typically require the consent holder to implement site/construction/earthworks management regimes and undertake physical works to ensure any potential adverse effects are appropriately avoided, remedied, or mitigated.

7.7 In my experience, the imposition of earthworks conditions are typically informed by expert advice. Where appropriate monitoring of such conditions is undertaken to ensure compliance, there can be certainty that effects will be managed.

7.8 I disagree with the statement made in the s 42A report[9] that case law has established "*that a consent authority may not impose conditions of consent to avoid, remedy or mitigate effects on an adjacent property so that no one would not be adversely affected, the latter being a section 95 assessment and the former a section 104 assessment, unless that condition is offered by the applicant in the first instance."* I certainly agree that the mitigation of effects that may occur through the imposition of conditions of consent through s108 and considered as part of the wider s104(1)(a) evaluation, cannot be considered when determining whether a party is affected for the purpose of s95, unless such a condition (and

[9] Refer paragraph 248 of the s 42A Report - Earthworks

resulting mitigation works) forms part of the application offered by the applicant. However, this is only applicable in the case of needing to determine whether a party is affected or not. Such principles do not apply in the case of notification being precluded, which is the relief that is being sought by Kāinga Ora.

7.9 In my opinion, there is little to be gained by requiring an assessment of potentially affected parties when considering such breaches, as the assessments required, and nature of conditions placed, are typically of a technical nature and appropriately considered by experts as part of the Council assessment process. I therefore consider preclusion of both public and limited notification to be appropriate in cases where a proposal breaches EW-S1, EW-S3, EW-S4, and EW-S5.

7.10 In forming this opinion, I note that under s 30 and s 31 of the RMA the enhancement of water quality and the control of contaminants are functions that fall to the Regional Council, while the control of amenity effects (e.g. visual effects, transport related effects, emissions like dust and silt/sediment and site stability) are District Council functions. In this regard, I note that large-scale earthworks, which have greater risk of discharging large loads of silt/sediment and dust into the receiving environment, will continue to be managed by the Regional Council controls within the pNRP. In my opinion, the earthworks standards within EW-S1, EW-S3, EW-S4, and EW-S5 (as revised by the s 42A report) are generally set at an appropriate threshold, which will enable appropriate consideration and management of broader cumulative effects on the receiving environment, as well as effects that are generated closer to the development site. The preclusion of notification would not negate the requirement to ensure effects are being adequately considered by the Council, but rather would assist in providing greater efficiencies to the process.

7.11 I also note, as a matter of completeness, that preclusion of notification does not obviate the Council's requirement under Step 1 of s 95B to consider whether there are certain affected parties/groups that are considered for customary rights (s95B(2)(A)), customary marine title groups (s95B(2)(B)) and statutory acknowledgment areas (s95B(3)). I consider this to be pertinent to note, particularly in regard to the Ngāti Toa Rangatira Claims Settlement Act 2014. I also

note that notification could also occur in cases where special circumstances apply, regardless of any preclusion clause applied to the rule.

7.12 In my opinion, including a non-notification clause for breaches to these standards within EW-R1 is appropriate. I set out the proposed wording below in blue, which is also included in my recommended revisions at Appendix 1.

Notification:

An application under this rule that results from non-compliance with EW-S1, EW-S3, EW-S4, and EW-S5 is precluded from being publicly or limited notified in accordance with sections 95A and 95B of the RMA.

Maximum height of permitted cut height/fill depth – EW-S2

7.13 The submission of Kāinga Ora sought to increase the permitted maximum cut height and fill depth within EW-S2 from 1.5m to 2.5m. The submission stated that this would strike the right balance between enabling site development works and ensuring stability related effects are adequately considered and managed. The s 42A report rejects this aspect of the submission, noting that this is not supported by geotechnical advice.

7.14 I agree with the outcome generally sought by Kāinga Ora; however, I support modifying the relief sought in the submission by placing additional control around the parameters in which the increased extent of earthworks would be appropriate as a Permitted Activity. In this regard, I support an approach where the Plan control is integrated with the building consent process. I note that my suggested amendment is aligned with the approach taken in the Wellington City operative District Plan (and also signalled to be carried through in the draft Wellington District Plan).

7.15 Earthworks are an essential part of land development and building in a hilly city such as Porirua. As well as enabling land development, earthworks are also part of the day-to-day maintenance and development of people's properties. Allowing minor earthworks where the risk of instability is relatively minor allows people to use and enhance their properties. It is my understanding that the Building Consent process does not give consent to earthworks; however, in instances where a retaining structure is to be constructed as part of a wider project requiring building consent, it is my understanding that the issue of stability will be considered. Therefore, in my opinion it is possible to provide for some permitted

activities within the District Plan in circumstances where the cut or fill will be retained by a structure authorised by a building consent.

7.16 Therefore, I recommend an amendment where the need for a resource consent can be avoided where minor cuts or fills exceed 1.5m but are no greater than 2.5 metres and are retained by structures authorised by a building consent, as the issue of stability can be addressed through the building consent process.

7.17 I suggest the following amendment (in blue) is made to EW-S2, to reflect this change:

1. Earthworks must not

a) Exceed a cut height or fill depth of 1.5m measured vertically; or

b) Be located within 1.0m of the site boundary, measured on a horizontal plane; or

c) Be undertaken on an existing slope with an angle of 34° or greater.

EXCEPT

In the case of EW-S2-1-a, the cut height or fill depth can be up to 2.5m measured vertically where it is retained by a building or structure authorised by a building consent (which must be obtained prior to any earthworks commencing).

7.18 In terms of the appropriateness of this suggested amendment, I note that this is similar to the standard that was specifically considered in the Miyamoto International New Zealand Limited (MINZ) geotechnical engineering advice (2019) to Porirua City Council[10] as part of the s 32 evaluation process. The advice provided by MINZ to Council at that time (15 October 2019) was that such a standard was appropriate, and *"was considered to represent the best balance of addressing appropriate stability controls at a permitted level while providing clear direction for plan users. The risks of instability were assessed around the area and were considered on a risk vs compliance basis. The standard provides clear guidance on identified permitted activities and where those permitted standards/thresholds where [sic] exceeded then it was appropriate to require a*

[10] Refer: Miyamoto_2019_Supplementary_Review_of_PCC_Proposed_Permitted_Activity_Standards.pdf (storage.googleapis.com)

resource consent to assess the effects and require site specific geotechnical recommendations".[11]

7.19 I note that the requested relief sought in the submission by Kāinga Ora was rejected by the s 42A report officer, in part based on geotechnical advice from Mr Giannakogiorgos. I accept that an unfettered relaxation of vertical cut height/fill depth to 2.5m without any further considerations may give rise to slope stability concerns, and therefore accept the general position taken by Mr Giannakogiorgos in his advice to the s 42A planner. However, in rejecting the specific relief sought, no consideration appears to have been given to how such an outcome could be accommodated in a slightly alternative manner that integrates building consent with resource consent, such as that which was considered and endorsed in the aforementioned 2019 geotechnical advice from MINZ.

7.20 In my opinion, my suggested modified approach allows the issue of stability to be addressed while avoiding the need for a resource consent along with its associated costs for relatively small-scale earthworks in a proposal that already requires building consent for such works. In circumstances where retaining structures are not proposed I accept that the threshold is appropriately set lower to enable the assessment of the stability of the proposed earthworks.

7.21 I consider the amended approach reaches a more acceptable balance between risk and resource consent processing complexity and costs. It provides a balance between allowing people to undertake earthworks activities and regulation and seeks to manage risk according to the degree and severity of that risk. In addition, it reduces (but does not completely avoid) the duplication of processes with the Building Act / consents process.

7.22 In conclusion, I am of the opinion that the proposed changes are appropriate and will assist in improving the efficiency, usability and interpretation of provisions

[11] Ibid.

within the Proposed District Plan. I consider that the amended provisions will be efficient and effective in achieving the purpose of the RMA.

8 Summary Of Proposed Changes Sought for topics addressed in Tranche 1 of my evidence

8.1 As discussed in my evidence, I consider that the following amendments to the PDP provisions relating to the Infrastructure Transport, and Earthworks chapters (as set out in the respective s 42A reports) should be made:

(a) I recommend amendments to provisions to remove unnecessary specific reference to reverse sensitivity effects, over and above other adverse effects that may be associated with subdivision, use and development in proximity to regionally significant infrastructure.

(b) I generally support the need for specific policies for the National Grid and the revised approach taken to mapping the National Grid, but I recommend changes to some policies to refine language.

(c) I recommend an additional matter of discretion be incorporated in the new setback required from the rail corridor, to ensure the focus of assessment is consistent with the issue being managed and is consistent with mediated outcomes arrived at between relevant parties in the Whangārei plan review process.

(d) I recommend amending the design standards for new and upgraded roads, particularly in relation to minimum road widths and gradients.

(e) I recommend the inclusion of non-notification preclusion clauses for limited notification for breaches to the transport standards.

(f) I recommend amending the controls relating to the number of vehicle access crossings and requirements for onsite vehicle manoeuvring.

(g) I recommend including a notification preclusion clause within Rule EW-R1 for public and limited notification where Standards EW-S1, EW-S3, EW-S4, and EW-S5 cannot be met.

(h) I recommend an integrated approach where the maximum permitted earthworks cut height and fill depth is increased where such works are retained by a structure authorised by a Building Consent.

(i) I recommend some wording changes to the polices and rules as set out in **Appendix 1** of my evidence.

9 Tranche 1 Conclusion

9.1 Overall, I generally support the revisions to the Infrastructure, Transport, and Earthworks chapters made in the respective s 42A reports.

9.2 I am of the opinion that the amendments sought by Kāinga Ora (as discussed in this evidence) are appropriate and will assist in striking the balance between competing outcomes of urban amenity and urban intensification. The amended provisions would also improve the certainty and usability of the Infrastructure, Transport, and Earthworks sections of the PDP and enable consistent implementation by both plan users and the Council alike.

9.3 I consider that the amended provisions outlined within my evidence, will be efficient and effective in achieving the purpose of the RMA, the relevant objectives of the PDP and other relevant statutory documents.

TRANCHE 2 – NOISE

10 Executive Summary of Noise Evidence

10.1 Tranche 2 of my evidence is focused on addressing Kāinga Ora's submissions on the topic relating to **Noise**, with a specific focus on the proposed controls in relation to reverse sensitivity (and health and amenity) effects on the rail and state highway networks.

10.2 In summary, the key points addressed in my evidence are:

(a) That the proposed noise effects area set out in NOISE-R5, which set out acoustic and vibration controls for a distance of 100 metres from the centre track of the North Island Main Trunkline ('NIMT') railway and 80m/50m from the outer extent of the state highway carriageway

("Controls") are an inappropriate and unjustified planning response to manage a reverse sensitivity issue.

(b) That the issue being managed through the proposed planning framework has been incorrectly identified as being one of reverse sensitivity effects upon the rail and road networks. High and sustained levels of noise can result in adverse health and amenity effects upon nearby noise sensitive activities; it is the management of adverse health and amenity effects arising from exposure to noise levels from the rail and road corridor that should instead be the primary focus of the provisions and any necessary Controls.

(c) The application of the proposed Controls will affect a large number of properties and given the scale of the area involved requires a careful and considered technical and planning analysis which has not been undertaken in sufficient detail.

(d) Any mitigation measures required to be undertaken by noise sensitive activities within surrounding environment to manage noise and vibration effects from the nearby rail and road network should be based on evidential modelling of the Porirua networks to determine likely noise levels (following the adoption of BPO at source). A stronger evidential base would assist in objectively and reliably identifying the appropriate spatial extent to which any necessary controls might reasonably apply to manage potential adverse health and amenity effects from road and rail noise affecting surrounding sensitive activities.

11 Scope of Evidence

11.1 My evidence addresses Kāinga Ora's submission points,[12] and further submission points[13] on the Noise matters within the PDP, as they relate to the recommendations of the s42A report on that topic.

11.2 With regard to the submission points listed below, I have reviewed the Council's s42A report and confirm my support for and/or agreement with the changes proposed by Council in the s42A report for the following matters:

(a) Retention of NOISE-O3.

(b) Retention of Policies NOISE-P1, NOISE-P3, and NOISE-P5 and amendments to NOISE-P2.

(c) The proposed change to Noise introduction to remove the words "hammerings and bangs".

(d) Retention of Rules NOISE-R1 to NOISE-R4.

(e) Deletion of Performance Standards NOISE-S4.

(f) Amendment to the definition of 'noise sensitive activity'.

11.3 My evidence will focus on the noise topic, which is of particular concern to Kāinga Ora, and relates to either its primary submission or further submissions in relation to the noise provisions, rules and standards. In particular, Kāinga Ora opposes the proposed provisions and controls managing reverse sensitivity on the State Highway and North Island Main Trunk ('NIMT') railway line.

11.4 In this regard, through further submissions, Kāinga Ora also opposes the submission by Waka Kotahi (82.172 and 82.173), which suggested alternative noise controls in relation to noise sensitive activities in proximity to the state highway (FS65.284 and FS65.285). I note that the Council's section 42A report[14] recommends rejecting the relief sought in the submission by Waka Kotahi. I concur with the Council planner on this matter. I note that Mr Styles addresses

[12] Primary Submissions – 81.115, 81.499, 81.937, 81.938, 81.498, 81.499, 81.500, 81.501, 81.502, 81.503, 81.504, 81.505, 81.506, 81.507, 81.508, 81.509, 81.510, 81.511, 81.512, 81.513, 81.514, 81.515, 81.516, 81.517, 81.518

[13] Further Submissions - FS65.49, FS65.50, FS65.51, FS65.52, FS65.53, FS65.281, FS65.282, FS65.283, FS65.284, FS65.285, FS65.286, FS65.287, FS65.288, FS65.289.

[14] Refer to paragraphs 69 and 81 of the section 42A report (Noise)

the relief sought by Waka Kotahi in further detail within his evidence, to which I defer.

12 Effects Being Managed

12.1 Kāinga Ora acknowledges that where significant adverse noise and vibration effects arise, they warrant management under the Resource Management Act (RMA). Where Kāinga Ora diverges with the position taken by both the Council and submitters (Waka Kotahi and KiwiRail) is with respect to:

(a) Whether the nature of the effect has been appropriate identified and whether there is any evidential basis for imposing such controls in the District in relation to managing reverse sensitivity effects;

(b) If controls are necessary to manage noise effects from the transport corridors on sensitive noise activities, the type of controls that are necessary and appropriate in this case, including the extent to which they apply.

12.2 Exposure to activities that create noise and vibration can give rise to adverse health and amenity effects for people living near noisy sources. As well as adverse health and amenity effects on sensitive receivers, noise and vibration effects can trigger annoyance in people, resulting in complaints and objections about the lawful operation of the activity. Reverse sensitivity effects will typically not arise if the noise levels are reasonable.

12.3 The proposed provisions managing effects on and from the State Highway and NIMT railway line primarily appear to be in response to the potential for the operation efficiency of the rail/road network to be compromised through reverse sensitivity effects manifesting themselves. For example, there is no mention of managing health and amenity effects for sensitive activities in proximity to the rail and road corridor within NOISE-P4, NOISE-R5, and NOISE-S1, NOISE-S2, and NOISE-S3. It is, however, noted that the submission of Waka Kotahi acknowledges that the noise generated by road and rail traffic can result in adverse health and amenity effects.

12.4 With a focus on managing reverse sensitivity effects, the PDP introduces rules and standards to require any new building, or alteration and addition to an existing building in excess of 50m², which: (a) accommodates activities sensitive to noise;

and (b) is located within specified distances of the centreline of the NIMT railway track or edge of the state highway carriageway, to achieve specified internal noise standards as well as vibration levels. The rules and standards apply to all zones, including the existing urban environment as well as any future urban development. While I do not take any issue with recognising the importance of these regionally significant infrastructure corridors, I have significant concerns as to:

(a) The primary planning justification for the imposition of the controls as determined by the Council and supported by submitters, being that noise sensitive activities within 80m/50m of the roads (depending on speed environment) and 100m of the railway give rise to reverse sensitivity effects that do or will compromise the operation of the transport corridors;

(b) The level of analysis and assessment which I consider should be required to be undertaken to make an evidence-based conclusion as to their appropriateness;

(c) The appropriateness of the controls in terms of sections 32 and 32AA (e.g.: their reasonableness, practicality and cost implications); and

(d) The alignment of the controls sought against higher order urban development policies contained within the NPS-UD2020.

12.5 Informed by the evidence of Mr Styles, I acknowledge that 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 by noise sensitive activities in the receiving environment following adopting of the Best Practicable Option ("BPO") to minimise and mitigate at source and in the vicinity of the corridor the off-site effects as far as possible. However, it is also important that those restrictions on neighbouring noise sensitive activities should be 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.

12.6 In my opinion, it is appropriate to ensure that practical measures are undertaken to reduce noise at source, while at the same time utilising the PDP to manage those significant actual or potential effects that cannot be controlled at source, if required. My understanding is that such measures to manage noise at source might include: modifications to road surfaces so that less noise is generated at source (e.g. by using smooth surfaces rather than chip seal); implementing monitoring and maintenance measures to ensure that any imperfections/potholes in road surfaces and sources of vibration and noise on rail are rectified as soon as possible; implementation of acoustically effective fences when appropriate (e.g.: alongside railways, particularly when travelling through urban areas); and having regard to the generation of noise when setting speed limits on both road and rail.

12.7 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 currently arise in the context of the Porirua rail or road corridors or are likely to arise to an extent that warrants the proposed provisions and I am not aware of any evidence that demonstrates circumstances in which the road or rail networks have had to constrain or cease operations in Porirua (or elsewhere) as a result of complaints.

12.8 Kāinga Ora is concerned that insufficient justification has been provided to warrant the controls that have been proposed, and the extent of sites that these controls will affect and resulting costs this will place on individual homeowners. I agree with that concern.

12.9 For completeness, I acknowledge that Policy 8 of the RPS requires that district plans include policies and rules that protect regionally significant infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure. However, in my opinion, the evidence to-date has not demonstrated that the provisions, as currently proposed, managing

reverse sensitivity effects upon the state highway and NIMT networks are necessary or appropriate.

12.10 I do note that it would be helpful if a nationwide approach was adopted to provide a consistent approach in dealing with potential health and safety effects generated by the road and rail network.

13 Proposed provisions, rules and standards for noise sensitive activities in proximity to state highways and the NIMT railway

13.1 There are no existing controls imposed under the Porirua Operative District Plan in relation to noise sensitive uses adjoining the NIMT railway and state highway networks and there is no indication that any issues have arisen on adjoining landowners in terms of reverse sensitivity. While Mr Styles expects that some health or amenity affects will have arisen, I have not seen any analysis of the extent of such effects on adjacent land.

13.2 The proposed notified provisions, and as amended in the s42A report, seek to introduce and apply noise controls to new or expanded noise sensitive activities in proximity to the state highway and NIMT railway line. The proposed noise rule (NOISE-R5) applicable to noise sensitive activities in proximity to the state highway applies a course setback buffer, which varies depending on the speed environment in recognition that speed is a factor in noise generation on the state highway. Noise sensitive activities in proximity to the NIMT railway line are also managed by this rule.

13.3 NOISE-R5 is applied in a two-tiered manner. Within a wide setback from the state highway carriageway (80m or 50m, depending on the speed environment) or 100m from the centre track of a railway line, development accommodating noise sensitive activities is permitted, subject to compliance with performance standards (NOISE-S1, NOISE-S2, and NOISE-S3[15]) requiring the construction and building design to meet minimum acoustic insulation and mechanical ventilation requirements. Certification from an Acoustic professional is required to confirm such standards are met. If the noise sensitive activity is located closer than 40m or 20m of the carriageway of a state highway (depending on the speed environment), or 30m of the centre of the track that is part of the NIMT railway

[15] Noting the s42A Report recommends the deletion of NOISE-S4.

line, then resource consent is automatically required (even where it meets the minimum acoustic insulation and mechanical ventilation requirements). These controls are applied across the city (including the existing urban environment as well as any future urban development).

13.4 It is acknowledged that the s42A report recommends a more streamlined consent pathway from that proposed in the notified PDP (notably development in the Residential Zones would be assessed as a Controlled Activity), subject to meeting design standards and development according with the policy framework. In principle, I support streamlining the consent pathway. However, I question the requirement to automatically require resource consent, in situations where compliance with acoustic design standards and mechanical ventilation will be met. I acknowledge and support the s42A recommendation, based on advice from Mr Lloyd, to remove the vibration standard (NOISE-S4) from the noise controls, and concur with the reasoning set out in those reports.

13.5 The PDP maps propose to refer to a Noise Corridor Overlay to indicate the areas where the noise standards "may apply". The s42A report confirms that the overlay is intended to be indicative only. The S42A Report notes the reliance on indicative areas, rather than mapped effects areas is to allow for *"potential for changes to State Highways and (to a lesser degree) the NIMT railway line in the future and therefore for an accurately mapped Noise Corridor overlay to become out-of-date"*.[16]

13.6 The evidence of Mr Styles analyses the proposed noise controls (as recommended to be amended in the s42A report), and those sought by submitters. Ultimately, Mr Styles concludes that the noise controls, as currently proposed, are inappropriate. I accept the expert advice of Mr Styles.

13.7 No information has been provided as to the nature of the use of the Railway land, particularly in terms of frequency, hours of operation, types of trains or future anticipated growth and resulting impact this use may have in relation to potential reverse sensitivity effects. Similarly, Waka Kotahi has not provided any evidence identifying those areas within the Porirua urban area that experience noise levels requiring mitigation in terms health effects, particularly in terms of more sensitive sleep times. While I acknowledge the importance of these regionally significant

[16] Refer to paragraph 49 of the S42A Report - Noise

infrastructure corridors, I have concerns as to scale of evidence provided, including from the road and railway authorities (at the time of writing) to support such provisions in the Plan, including:

(a) The planning justification for the extent of the proposed buffer controls proposed and resulting scale of affected properties and the suggestion that their absence will give rise to reverse sensitivity effects that will compromise the operation of these transport corridors;

(b) The absence of locally specific analysis as to the appropriateness of the proposed rules (i.e. evidence which demonstrates the actual or future level of noise likely to be generated beyond the transport corridors in Porirua after the BPO has been adopted to internalise effects), particularly in terms of managing the effects on health, if such effects arise;

(c) The consideration of alternatives, such as the degree to which such effects could or should be managed at source;

(d) The appropriateness of the controls in terms of sections 32 and 32AA (e.g. their reasonableness, practicality and cost implications); and

(e) The alignment of the controls sought against higher order urban development policies, such as those contained within the National Policy Statement : Urban Development 2020 (NPS-UD 2020).

Planning Justification – Reverse Sensitivity / Health Effects

13.8 Noting that the provisions are currently framed to manage reverse sensitivity effects, I am not aware of any evidence presented by the Council or the road and rail authorities that demonstrates a reverse sensitivity effect is manifesting itself (or has the potential to manifest itself) on these networks to the point where their efficiency and operational ability has been (or is at risk of being) compromised. With regard to managing the effects of reverse sensitivity, I am unable to conclude on the evidence available to me that there is a potential significant reverse sensitivity effect that is required to be managed to the physical extent proposed by the Council and sought by the submitters.

13.9 In considering the planning justification relative to the impact of the rules sought, I have reviewed the extent of the buffer areas and the number of properties and land area which would be affected by it. Initial analysis identifies that for the state

highway corridors alone, approximately 1,368 land parcels will be subject to controls require onsite noise mitigation for any future development accommodating noise sensitive activities, and the extent of the buffer applicable to managing effects from the state highway alone covers approximately 645.6ha. of land.

13.10 The obligations imposed on these landowners are potentially significant, with individual properties likely to bear the full costs of managing this.

13.11 The extent of the area over which the controls are intended to apply, including the alternative noise controls sought in the submission by Waka Kotahi, would signal that there is a significant actual, or potential effect manifesting itself and one that requires a large geographic area to be managed. I am currently not able to reconcile the magnitude of the potential reverse sensitivity effect against the geographic magnitude of the corridors that are being sought or the extent and detail set out in the controls sought. I therefore have concerns as to the planning justification for the introduction of the proposed controls to manage reverse sensitivity, at least to the extent that has been sought.

13.12 Similarly, there is currently a dearth of evidence to demonstrate whether the noise levels from the state highway and rail corridors are of a scale that will result in adverse health and amenity effects on the receiving environment, such that they warrant onsite mitigation by new and expanded noise sensitive activities.

13.13 As noted above, while I acknowledge that Policy 8 of the RPS requires that district plans include policies and rules that protect regionally significant infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure, in my opinion, the evidence to-date has not demonstrated that provisions managing reverse sensitivity effects upon the State Highway and NIMT rail line are warranted as proposed.

Adequacy of Information, Analysis and Assessment

13.14 In terms of the analysis and assessment of the appropriateness of the proposed provisions (and relief sought by submitters), I do not consider that, in the context of the significance of the controls within the corridor sought, the analysis has been completed to a level where a conclusion can reasonably be reached that these controls are appropriate. In my opinion, any consideration of such provisions must

be “evidence based”, and that evidence should be current and applicable to Porirua.

13.15 The proposed controls need to be considered through an examination of some quantifiable measures which could include such matters such as the frequency of instances where a reverse sensitivity issue has arisen or adverse health and amenity effects is being generated, a more robust consideration of potential costs to the community, and a consideration of options and alternatives available. In my opinion, this should be underpinned by a technical analysis of acoustic and vibration effects for the actual environment which can be used to inform the need for, or extent of, the proposed controls in regard to development occurring in proximity to the state highway and NIMT railway networks.

13.16 Only limited detailed analysis has been provided to date in the s32/s32AA assessments or similar evaluation. In my opinion, a more comprehensive assessment to support the proposed Controls would need to further consider:

(a) The appropriateness of the geographic extent of the corridor width sought (and in particular the appropriateness of determining that width through applying a specified measurement and carrying out an analysis of the current and anticipated noise levels having regard to traffic characteristics, noise generation by that traffic and the topography and character of the receiving environment); and

(b) The appropriate apportionment of the burden of these rules on the existing environment or future urban development areas as opposed to the generators of the noise and vibration source.

13.17 In the provisions currently under consideration, it is proposed that the burden to mitigate the effects of the road and rail network operations will be placed solely on the surrounding community and the territorial authority to manage. With the exception of the s42A recommendation to remove the vibration standard (NOISE-S4), a recommendation that is supported by Kāinga Ora, there does not appear to be a corresponding expectation that Waka Kotahi or KiwiRail will manage their impacts on the receiving environment. In that context, and having regard to the

maters noted above, I am unable to conclude that the proposed controls, or relief sought by submitters, is an appropriate planning response.

Section 32 / 32AA issues

13.18 In respect of reasonably practicable options, and based upon the evidence provided to date, I do not agree that a reverse sensitivity issue (or risk of one arising) is currently evident. I agree that controls are appropriate in theory to manage effects upon health and wellbeing, subject to evidence about the presence and scale of such effects. Controls might also be required to address the potential for reverse sensitivity where there is an established likelihood of this occurring. I have, however, seen no evidence of instances of reverse sensitivity effects being manifested (i.e. complaints leading to constraints on road or rail operations) to the extent that the controls could be considered warranted as proposed (particularly to the scale of the geographic extent currently provided for). As discussed in the evidence of Mr Styles, controls are appropriate where necessary to minimise adverse health and amenity effects arising from exposure to unreasonable levels of noise from the transport network. However, the controls as proposed, and the relief sought by Waka Kotahi and KiwiRail, do not, in my opinion, strike the correct balance.

13.19 In my opinion, the evaluation should also include the following considerations:

(a) Changes being made to any conditions upon designations and other methods requiring the network utility operators take reasonable steps to reduce the likelihood of effects arising beyond their corridor and adopt technologies and practices to reduce noise emissions at source. (e.g. by improving the quality of the road or rail surface, imposing speed limits and implementing maintenance and repair regimes that minimise noise and vibration and prevent them from increasing over time);

(b) An assessment of alternatives including different methods for achieving the same outcome (e.g. provisions based on a thorough noise modelling exercise by the roading and rail operators to provide a more nuanced or accurate corridor to which controls shall apply) or the application of rules only to future urban areas extending toward established infrastructure;

(c) Consideration of the anticipated changing traffic movements and carrying capacity of the state highway network through the most densely

populated area of Porirua (i.e. the area that was until recently State Highway 1, and is now State Highway 59, and the area of State Highway 58 that is subject to potential revocation);

(d) A focus on those urban areas that may be most severely impacted upon by noise/vibration and options for adopting a targeted approach to manage those localised effects. That might include tailored responses such as noise barriers or other methods to reduce noise and/or vibration that could be accommodated within an existing designated corridor.

13.20 I further note that the Government Policy Statement on Land Transport 2021[17] identifies reduction of noise pollution from the transport network as being a short-medium term priority (by 2031). In my opinion, this reinforces the appropriateness of first requiring transport authorities to more effectively manage the noise generated within their networks to support liveable/healthy communities, in the context of urban development surrounding their networks, before requiring mitigation to be undertaken within the receiving environment.

13.21 In terms of effectiveness and efficiency, I do not consider that the proposed controls (or those being sought in submissions by Waka Kotahi) are efficient or effective. The imposition of the additional controls would introduce another level of compliance (and cost) to be achieved where altering an existing building or constructing a new one. Further, the relief sought by Waka Kotahi not only extends the geographic extent of sites that may be subject to the controls, but also places the onus onto the landowner to determine whether compliance with the rules can be achieved, thus likely requiring an acoustic assessment and reliance on information that can only be obtained from an external third-party entity to determine compliance. On this basis, there is an additional layer of complexity and time for both the landowner and the territorial authority in implementing the relief sought. I agree with the conclusions reached by Mr Lloyd, the Council's noise expert that reliance on a third-party for information to determine compliance is not appropriate.

13.22 The evidence of Mr Styles suggests that while controls are appropriate in some form to avoid exposing people to unreasonable levels of noise from the operation of the transport infrastructure, the provisions proposed in the s42A report and in

[17] Government Policy Statement on land transport 2021/22-2030/31

the relief sought by submitters are not adequately evidence based. Mr Styles notes that where the burden of mitigating the noise and vibration effects of a significant noise source is shifted to the receiving environment, sufficient and robust evidence is required to demonstrate that the nature and extent of mitigation is efficient and effective, and no greater than necessary. In this regard, Mr Styles notes that that before any controls are applied to the surrounding environment, those adverse effects adverse effects that warrant a regulatory response should be identified and understood in context. This then informs the development of controls that are tailored and commensurate to the level of effect. Mr Styles notes that this degree of evidential analysis has not been undertaken, and therefore the proposed controls will not manage the potential adverse effects of land transport noise and vibration on people effectively or efficiently. I agree with the evidence of Mr Styles.

13.23 The s32 assessment acknowledges that there will be cost implications for sensitive land uses but does not attempt to quantify the full extent of what those cost implications will be (nor the extent of sensitive land uses that would be affected).

13.24 In this regard, I note that the s32 analysis on costs associated with the proposed controls is based on limited and dated (2013) construction cost evidence from Waka Kotahi[18]. This includes information on a study of indicative costs associated with the acoustic treatment of houses required by the increased design standards proposed. The document refers to acoustic treatment costs for 'typical single storey' and 'typical double storey' new build homes and is specific to houses within the buffer/effects areas of a road. The NZTA document concludes that the additional cost of acoustic treatment for new homes within 20m of the road would be $21,900 for single storey homes, or $27,250 for double storey homes, based on 2013 prices. This equates to an additional 8% to 9% of the build cost, and excludes any costs associated with mitigating the effects of vibration (which are not assessed by the document). When multiplied over the total number of properties affected by the proposed control, the potential future costs to landowners become significant.

13.25 The Section 32 Evaluation does not provide an assessment of costs that are more up to date, to reflect current-day construction costs. Nor does it consider the scale

[18] Refer Waka Kotahi New Zealand Transport Agency, 2015, State highway guide to acoustic treatment of buildings

and extent of such costs for development likely to be enabled in giving effect to the NPS-UD.

13.26 Further to the above, the extent of the area that will bear the "costs" is being proposed as a blanket (albeit tiered) corridor, within which the onus is to be placed upon existing landowners to ascertain whether they do, or do not comply with the standards, before they embark upon a development project. In this context, it is my view that, at the very least, a thorough noise modelling exercise should be undertaken on the part of the utility operator to provide a more nuanced and accurate corridor within which activities may then be assessed on the need for regulation, and conclusions reached on a more evidence-based planning approach.

13.27 In terms of the assessment on the "Risk of acting or not acting", at this stage, there is no evidence that the noise exposure would result in a situation where the operations of the rail and road network will be restricted (or indeed that the areas proposed to be included within the corridor are experiencing levels of noise which may necessitate mitigation).

13.28 As outlined in the evidence of Mr Styles, any controls applying to the receiving environment need to be drafted and applied based on a strong evidential basis of the effects. The mitigation should be no greater in spatial extent and degree of control than necessary. Currently, there is a considerable risk that the proposed provisions and controls extend beyond the necessary extent required.

13.29 The additional costs associated with complying with the controls will likely result in additional costs of construction and may make development (including intensification) within 100m of a railway corridor or 50m and 80m within a state highway less viable and could impact on the provision of affordable housing. Given the geographic extent of the corridors proposed through the District, an up-

to-date economic analysis of the potential costs should be required to assist in reaching a sound planning conclusion.

NPS-UD2020

13.30 I also consider that the appropriateness of adopting the relief sought must be considered in the context of the direction set out in higher order policy documents and in particular the NPS-UD 2020.

13.31 The NPS-UD2020 seeks to enable growth by requiring local authorities to provide development capacity to meet the diverse demands of communities, address overly restrictive rules, and encourage quality, liveable urban environments. It also aims to provide for growth that is strategically planned and results in vibrant cities.

13.32 Porirua City is identified as a 'Tier 1 Local Authority'. There are a number of Objectives set out in the NPS-UD2020 that must be considered in the context of the appropriateness of the proposed noise controls, namely:

> ***Objective 1:*** *New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.*
>
> ***Objective 2:*** *Planning decisions improve housing affordability by supporting competitive land and development markets.*
>
> ***Objective 3:*** *Regional policy statements and district plans enable more people to live in, and more businesses and community services to be*

located in, areas of an urban environment in which one or more of the following apply:

(a) the area is in or near a centre zone or other area with many employment opportunities

(b) the area is well-serviced by existing or planned public transport

(c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.

13.33 Therefore, the increase in urban development potential in areas where public transport and strategic transport corridors are situated (both road and rail) is an outcome that is envisaged by Objective 3.

13.34 Turning to implementation under Part 3 (Sub-part 3.11) of the NPS:UD 2020, I consider that 3.11(1) and (2) can appropriately be considered in the context of the proposed controls and how these will impact the development of urban environments and in particular, the need to clearly identify the resource management issues being managed (3.11(1)(a)).

13.35 I am of the opinion that this has not been adequately undertaken or quantified to date and that the relief sought will potentially erode the potential of the outcomes expressed in the NPS-UD 2020 to be realised.

13.36 Further, I note that it is expected that urban residential communities will be enabled for more intensive development as a result of the Resource Management (Enabling Housing Supply and other Matters) Amendment Act 2021 ("Amendment Act").

13.37 The introduction of new rules and standards in the Plan, which place greater regulation on residential development occurring in proximity to the transport network, has not been specifically considered in the context of how this aligns

with, and reflects, the outcomes intended within the NPS-UD and subsequent direction of the Amendment Act.

14 Alternative provisions

14.1 The S42A Report[19] suggests that the responsibility to put forward an alternative set of interface controls (that would address the concerns of Kāinga Ora), lies with Kāinga Ora.

14.2 In my opinion, any alternative interface controls will need to be based on detailed and accurate information relating to noise and vibration effects generated by the Porirua networks. In the absence of such information, it cannot be demonstrated proposed provisions are either necessary or the most appropriate for the relevant higher order provisions.

14.3 Ultimately, only the road and rail operators are able to provide data relating to the noise and vibration effects generated from their Porirua networks. Certainly, Kainga Ora has no access to such information and hence is not able to draft provisions that it can confidently assert are appropriate in terms of RMA. For this reason, alternative controls are not provided in this evidence.

14.4 In the absence of such supporting evidence, I consider that there is no established basis for incorporating the provisions proposed either in the S42A Report or by the transport authorities. In that context, I consider appropriate to delete these provisions on the basis that they do not warrant incorporation into the proposed plan pursuant to S32 RMA.

15 Comments on proposed s42A provisions

15.1 Paragraph 11.2 of my evidence affirms support for some of the proposed provisions, rules, and standards as recommended in the s42A report.

15.2 I support Kāinga Ora's opposition to the proposed framework to manage reverse sensitivity effects in proximity to the rail and state highway networks.

15.3 Notwithstanding this, I have provided general comments (set out in a table in **Appendix 2** of my evidence) on the wider provisions and controls of the Noise chapter, as set out in the s42A report. My comments and suggested refinements

[19] See paragraph 61, Section 42A Report - Noise

are not intended to function as alternative replacement provisions. Instead, the purpose of my comments within Appendix 2 is to provide high-level observations on the current drafting of the s42A PDP controls and make comments where I consider some changes would be warranted, should the package remain. I note that my comments and suggested changes have been informed by advice from Mr Styles.

16 Conclusion

16.1 In conclusion, I do not consider that the proposed noise controls (as set out in the s.42A report) are an appropriate planning response to the management of reverse sensitivity between network utility operators and the receiving environment. Nor have I seen evidence that supports incorporation such controls in order to address health and amenity effects, although I consider it likely that the noise from the existing road network will currently be generating some adverse health and amenity effects on adjacent residential areas. I consider that:

(a) The obligations on landowners introduced by any such provisions need to be balanced against the wider benefits that arise from achieving a compact and efficient urban form that integrates land use and infrastructure.

(b) The adverse effects that are of concern in this regard are generated by the transport network. It is most efficient to minimise or avoid those effects at source (e.g.: through factors such as the design or construction of the road/rail or the basis on which they are operated) or through the transport authorities mitigating their effects through walls or bunds.

(c) Mitigation measures can include methods of constructing or designing adjacent dwellings but a policy decision needs to be made regarding who should fund the additional cost of such steps (i.e.: the transport authority or the adversely affected receiver). At this stage, consideration has been given only two ways of imposing those costs on the adversely affected receivers.

16.2 As part of any plan development, the consideration of comprehensive alternatives is important to identify the efficiency and effectiveness of provisions and whether provisions are an appropriate means of achieving the purpose of the RMA. The

planning controls and extent of their coverage should align with the scale and magnitude of the effect which is purported to be needing addressing and be approached on an evidence-based planning approach. I do not consider that, based on the information presented to date, such an analysis has been undertaken to correspond with the magnitude of the controls sought as they relate to managing reverse sensitivity. I therefore am unable to concur with the recommendations in the s.42A report on these matters.

Date: 21 January 2022

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Karen Tracy Williams

Appendix 1. Consolidated Set of Recommended Amendments to the INF-Infrastructure, TR-Transport, GRZ-General Residential Zone, and EW-Earthworks chapters

Recommend changes shown as follows:

- Notified PDP text in black text
- S42A Report amendments in red text
- Amendments proposed on behalf of Kāinga Ora in blue text

INF – Infrastructure

…

Objectives

…

INF-O2 The protection of Regionally Significant Infrastructure

The function and operation of Regionally Significant Infrastructure is protected from the adverse effects~~, including reverse sensitivity effects,~~ of subdivision, use and development.

Policies

…

INF-P5 Adverse effects on Regionally Significant Infrastructure other than the National Grid

Protect the safe and efficient operation, maintenance and repair, upgrading, removal and development of Regionally Significant Infrastructure other than the National Grid from being unreasonably compromised by:

1. Considering any potential adverse effects of subdivision, use or development of a site that contains or is adjacent to any Regionally Significant Infrastructure, including:
    a. The impact of subdivision layout and design on the operation, maintenance and repair, and potential upgrade and development of the infrastructure;
    b. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform(s) for a dwelling can be provided;
    c. The extent to which the subdivision design and consequential development will ~~minimise~~ ~~avoid the potential for significant reverse~~ ~~sensitivity effects, and~~ avoid, remedy or mitigate ~~other~~ potential reverse sensitivity effects on and amenity and nuisance effects of the infrastructure; and
2. Requiring subdivision, use or development[30] of a site that contains or is adjacent to any Regionally Significant Infrastructure to be designed to avoid or mitigate any adverse effects on access to, and the safe and efficient operation and maintenance and repair of, that infrastructure;

~~1. Avoiding sensitive activities and building platforms located within the National Grid Yard;~~

~~2. Only allowing subdivision within the National Grid Corridor where it can be demonstrated that any adverse effects on and from the National Grid, including public health and safety, will be avoided, remedied or mitigated, taking into account:~~

~~a. The impact of subdivision layout and design on the operation and maintenance, and potential upgrade and development of the National Grid;~~

~~b. The ability of any potential future development to comply with NZECP 34:2001 New Zealand Electricity Code of Practice for Electricity Safe Distances;~~

~~c. The extent to which the design and layout of the subdivision~~

~~demonstrates that a suitable building platform(s) for a dwelling can be provided outside of the National Grid Yard for each new lot;~~

~~d. The risk to the structural integrity of the National Grid;~~

~~e. The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from the National Grid and the potential reverse sensitivity on and amenity and nuisance effects of the National Grid assets;~~

3. Only allowing sensitive activities within the Gas Transmission Pipeline Corridor where these are of a scale and nature that will not compromise the Gas Transmission Network;
4. ~~Requiring sensitive activities to be located and designed so that potential adverse effects of and on the Rail Corridor and State Highways are avoided, remedied or mitigated;~~
5. Requiring any buildings or structures to be of a nature and scale and to be located and designed to maintain safe distances ~~within~~from the ~~National Grid and~~ Gas Transmission Network;

~~6. Considering any potential adverse effects of subdivision of a site that contains or is adjacent to any Regionally Significant Infrastructure other than the National Grid, including:~~

~~a. The impact of subdivision layout and design on the operation, maintenance and repair, and potential upgrade and development of the infrastructure;~~

~~b. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform(s) for a dwelling can be provided;~~

~~c. The extent to which the subdivision design and consequential development will minimise the potential reverse sensitivity effects on and amenity and nuisance effects of the infrastructure; and~~

~~7. Requiring subdivision of a site that contains or is adjacent to any Regionally Significant Infrastructure other than the National Grid to be designed to avoid or mitigate any adverse effects on access to, and the safe and efficient operation and maintenance and repair of, that infrastructure.~~

INF-P6 Adverse effects on the National Grid

Protect the safe and efficient operation, maintenance and repair, upgrading, removal and development of the National Grid from being compromised by:

1. Avoiding the establishment or expansion of sensitive activities and building platforms located within the NationalGrid Yard;
2. ~~Only allowing~~ Providing for subdivision within the National Grid Subdivision Corridor or the National Grid Pāuatahanui Substation Yard where it can be demonstrated that ~~any~~ unacceptable reverse sensitivity effects will be avoided, and any other adverse effects on and from the National Grid, including public health and safety, will be avoided, remedied or mitigated, taking into account:
   a. The impact of subdivision layout and design on the operation and maintenance, and potential upgrade and development of the National Grid, including reasonable access requirements;
   b. The ability of any potential future development to comply with NZECP 34:2001 New Zealand Electricity Code of Practice for Electricity Safe Distances;
   c. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform(s) for a principal building or dwelling can be provided outside of the National Grid Yard for each new lot;
   d. The risk to the structural integrity of the National Grid;
   e. The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from the National Grid and the potential reverse sensitivity on and amenity and

nuisance effects of the National Grid assets;

f. The nature and location of any proposed vegetation to be planted within the National Grid Yard; and

g. The outcome of any consultation with, and technical advice from, Transpower.

…

INF-P~~8~~10	**~~Provide for Regionally Significant Infrastructure and other infrastructure outside of Overlays~~ Potentially acceptable infrastructure**

Provide for Regionally Significant Infrastructure and other infrastructure, other than the National Grid, where it can be demonstrated that the following matters can be achieved:

1. Compatibility with the site, existing built form and landform;
2. Compatibility with the anticipated planned urban built environment, character and amenity values of the zone it is located in;
3. Any adverse effects on amenity values are minimised, taking into account:
   a. The bulk, height, size, colour, reflectivity of the infrastructure;
   b. Any proposed associated earthworks;
   c. The time, duration or frequency of any adverse effects; and
   d. Any proposed mitigation measures;
4. Any adverse effects on the health, wellbeing and safety of people, communities and the environment, including nuisance from noise, dust, odour emissions, light spill and sedimentation are avoided, remedied or mitigated;
5. Any adverse effects on the natural character and amenity of water bodies, the coast and riparian margins and coastal margins are minimised;
6. Public access to and along the coastal marine area and water bodies is maintained or enhanced;
7. Any adverse effects on any values and qualities of any adjacent specified Overlays are minimised;
8. The safe and efficient operation of any other infrastructure, including the transport network, is not compromised; and
9. Any adverse cumulative effects are minimised.
10. Consistency with any relevant provisions of INF-P18 to INF-P24 where theinfrastructure is located within a specified overlay.

INF-P~~9~~11	**Recognise operational needs and functional needs of infrastructure**

Recognise the operational needs and functional needs of Regionally Significant Infrastructure and other infrastructure, other than the National Grid, by having regard to the following matters when making decisions on new infrastructure and the maintenance and repair and upgrading of existing infrastructure:

1. The extent to which;
    a. The infrastructure integrates with, and is necessary to support, planned urban development;
    b. The potential for significant adverse effects have been minimised through site, route or method selection; and
    c. Functional and operational needs constrain ~~T~~the ability to avoid, remedy or mitigate adverse effects of infrastructure ~~is constrained by functional and operational needs~~;
2. The time, duration or frequency of adverse effects;
3. The necessity of the infrastructure including;
    a. The need to quickly repair and restore disrupted services; and
    b. The impact of not operating, repairing, maintaining, upgrading, removing or developing infrastructure;
4. The location and operational needs and functional needs of existing infrastructure including:
    a. The complexity and connectedness of networks and services; and
    b. The potential for co-location and shared use of infrastructure corridors; and
5. Anticipated outcomes for the receiving environment and the purpose, character and amenity values of the zone in which it is located.

Standards

…

INF-S23	Design of roads	
All zones	1. ~~Access~~ Roads must not be permanent no-exit roads. except where: a. The anticipated AADT of the road is less than 200; b. The length of the road is less than 100m; and c. The no-exit road does not connect to a road that is itself a no-exit road.[171] … 7.The maximum gradient of roads must be ~~10%~~ in accordance with INF-Table 1 (Road design standards). …	There are no matters of discretion for this standard.

INF-S23 - INF-Table 1		Road design standards								
Classification		**Access Road**					**Collector Road**			
Classification criteria (must meet all criteria	**Typical daily traffic** (annual average daily traffic movements)	1-200	1-~~1~~2,000			1-1,000	2,000-8,000	~~1~~2,000-~~5~~8,000		1,000-2,500
	Residential units	20	200	-		150	800	-		250
	~~**Heavy commercial vehicles** (annual average daily traffic movements)~~		~~1-25~~	~~1-25~~				~~25-300~~		
	~~**Buses** (urban peak)~~		~~0~~	~~0~~				~~1-15 buses; or 1-750 people perhour~~		
	Maximum length	100m where the road is a no-exit road	-	-	-	-	-	-	-	-
Zone		**General Residential Zone, Medium Density Residential Zone**	**General Residential Zone, Medium Density Residential Zone**	**General Industrial Zone**	**All other Urban Zones**	**General Rural Zone, Rural Lifestyle Zone, Settlement Zone, Open Space Zone, Māori Purpose Zone (Hongoeka) and Special Purpose Zone (BRANZ)**	**General Residential Zone, Medium Density Residential Zone, General Industrial Zone**	All **other** zones ~~**except General Rural Zone and Rural Lifestyle Zone**~~	~~**General Rural Zoneand Rural Lifestyle Zone**~~	**General Rural Zone and Rural Lifestyle Zone**
~~**Design** **Target operating** speed (km/h)~~		20[1]	~~40[1]~~ 30	~~40[1]~~ 30	~~40[1]~~ 30	~~60~~ 50	50	50	~~80~~	~~60~~ 50
Maximum Gradient		16%	12.5%	10%	~~10% or~~	~~10% or 12.5%~~	10%	~~10% or~~	~~10% or~~	12.5%

					~~12.5% for maximum 85m in any one length~~ 12.5%	~~for maximum 85m in any one length~~ 12.5%			12.5% for maximum 85m in any one length 10%	~~12.5% for maximum 85m in any one length~~	
Minimum width (m)	**Parking**	1 x 2.1	1 x 2.1	2 x 2.1	1 x 2.1~~5~~	-		~~2 x 2.5~~ 1 x 2.5	~~2 x 2.5~~ 1 x 2.5	~~2 x 2.5~~	-
	Traffic (must provide unhindered vehicle access)	2 x 3.0[2]	2 x 3.0[2]	~~2 x 4.2~~ 2 x 3.5	2 x 3.0[2]	2 x 3.0 + 2 x 0.5 sealed shoulders		~~2 x 4.2~~ 2 x 3.5	~~2 x 4.2~~ 2 x 3.5	~~2 x 3.0~~	2 x 3.5 + 2 x 0.75 sealed shoulders
	Cycles	Shared in traffic lane	Shared in traffic lane	Shared in traffic lane	~~2 x 1. 5~~ Shared in traffic lane	~~2 x 1.5~~	1 x 2.5 Shared path	2 x 1.8	2 x 1.~~5~~8	~~1 x 3.0~~	1 x 3.0 Shared path
	Footpath	1 x 1.8	2 x 1.8	2 x 1.8	2 x ~~1~~2.5[3]	~~2 x 1.5~~		2 x 2.0	2 x 2.5	-	
	Infrastructure berm	1.0	1.0	1.0	1.0			1.0	1.0	~~1.0~~	1.0
	Street tree berm	2.0	2.5	2.5	2.5			-	3.0	-	
	Total berm width	1 x 2.5 1 x 2.8	1x 2.8 1 x 4.3	1 x 2.8 1 x 4.3	1 x 3.5 1 x 5.0	2 x 3.5		1 x 3.0 1 x 5.0	1 x 3.5 1 x 5.5		2 x 3.5
	Legal width	~~14.0~~ 13.4	~~16.0~~ 15.2	~~20.0~~ 18.3	2~~19.0~~ 16.6	~~215.0~~ 14.0		~~25.0~~ 21.1	~~26.0~~ 22.1	~~23.0~~	~~20.0~~ 15.5
Number of street trees		As per INF-Table 2	As per INF-Table 2	As per INF-Table 2	As per INF-Table 2	-		As per INF-Table 2	As per INF-Table 2	-	-

Notes:
[1] Speed management measures may be required to achieve the specified target operating speed
[2] The carriageway width must be widened to 6.7 metres for bends where the outer radius of the traffic lane is 50 metres or less
[3] The footpath width must be a minimum of 3.5 metres within Commercial and Mixed Use Zones identified with an Active Street Frontage control shown on the planning maps

GRZ – General Residential Zone

GRZ-S4 Setback from boundary with a road or rail corridor	
1. Buildings and structures must not be located within a 4m setback from a boundary with a road except: 1. On a site with two or more boundaries to a road, the building or structure must not belocated within a 2m setback from the boundary with one road; and 2. Where any garage and/or carport with a vehicle door or vehicle opening facing the road, it must not be located within a 5m setback from the boundary with the road. 2. Buildings and structures must not be located within a 1.5m setback from a boundary with a rail corridor. This standard does not apply to: ~~b~~. a. Fences and standalone walls — see GRZ-R4; ~~c.~~ b. Buildings and structures that are no more than 2m^2 in floor area and 2m in height above ground level; or ~~d.~~ c. Eaves up to a maximum of 600mm in width and external gutters or downpipes (including their brackets) up to an additional width of 150mm.	Matters of discretion are restricted to: 1. The streetscape and amenity ofthe area; 2. The design and siting of thebuilding or structure; 3. Screening, planting and landscaping of the building orstructure; 4. Pedestrian and cyclist safety (seeTR-P3); 5. The location, size and design of the building as it relates to the ability to safely use, access, and maintain buildings without requiring access on, above, or over the rail corridor; and 6. Whether topographical or othersite constraints that make compliance with the standard impractical.

TR - Transport

Rules	
Note: There may be a number of provisions that apply to an activity, building, structure or site. Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule, resource consent is required under each relevant rule. The steps to determine the status ofan activity are set out in the General Approach chapter. Rules relating to subdivision, including minimum allotment sizes for each zone, are found in the Subdivision chapter.	
TR-R1	**~~Site access for~~ All activities with no on-site vehicle parking or loading spaces**
All zones	1. Activity status: **Permitted** Where: a. Compliance is achieved with: ~~i.~~ TR-S1~~; and~~ ~~ii. TR-S4~~.
All zones	2. Activity status: **Restricted discretionary** Where: a. Compliance is not achieved with TR-S1 ~~or TR-S4~~. Matters of discretion are restricted to: 1. The matters of discretion of any infringed standard. **Notification:** • An application under this rule is precluded from being publicly notified or limited notified in accordance with sections 95A and 95B of the RMA. • ~~When deciding whether any person is affected in relation to this rule for the purposes of section 95E of the RMA, the Council will give specific consideration to any adverse effects on any road controlling authority and Fire and Emergency New Zealand.~~
TR-R2	**~~Vehicle access for~~ All activities with on-site vehicle parking or loading spaces or where a vehicle access is otherwise provided**
All zones	1. Activity status: **Permitted** Where: a. Vehicle access is provided to and within the site for movement of vehicles from the legal road, including to any vehicle parking and loading spaces on the site; b. The vehicle access is classified as a Vehicle Access Level 1, 2, or 3 ~~or 4~~ in accordance with TR-S2; and connects to a road that is classified as an Access Road, Collector Road or Arterial Road as identified in SCHED1 - Roads

		Classified According to One Network Road Classification; or[30] c. The vehicle access is classified as a Vehicle Access Level 4 in accordance with TR-S2 and connects to a road that is classified as an Access Road or Collector Road as identified in SCHED1 - Roads Classified According to One Network Road Classification; and ~~c~~d. Compliance is achieved with: i. TR-S3; and ii. TR-S4.; and iii. TR-S5. ~~Note: Connections to roads for vehicle access to sites are addressed by rule INF-R23 in the Infrastructure chapter.~~ Note: All new vehicle access points that intersect a state highway require the approval of Waka Kotahi NZ TransportAgency under the Government Roading Powers Act 1989. Waka Kotahi NZ Transport Agency may require a different vehicle access construction standard from TR-S3.
	All zones	2. Activity status: **Restricted discretionary** Where: a. Compliance is not achieved with TR-S3, ~~or~~ TR-S4 or TR-S5. Matters of discretion are restricted to: 1. The matters of discretion of any infringed standard.; and 2. The matters in TR-P4. ~~Section 88 information requirements for applications:~~ ~~1. Applications under this rule for a Vehicle Access Level 4 must provide, in addition to the standard information requirements:~~ ~~a. A road safety audit in accordance with the NZTA Road Safety Audit Procedures for Project Guidelines.~~ **Notification:** An application under this rule is precluded from being publicly notified or limited notified in accordance with sections 95A and 95B of the RMA.
	All zones	3. Activity status: **Restricted discretionary** Where: a. The connection is to a Regional or National road as identified in SCHED1 – Roads Classified According to One Network Road Classification; or b. For a Vehicle Access Level 4, the connection is to an Arterial road as identified in SCHED1 – Roads Classified According to One Network Road Classification. Matters of discretion are restricted to: 1. The matters in TR-P4. ~~Section 88 information requirements for applications:~~

		1. ~~Applications under this rule for a Vehicle Access Level 5 must provide, in addition to the standard information requirements:~~ ~~a) A road safety audit in accordance with the NZTA Road Safety Audit Procedures for Project Guidelines.~~
	All zones	~~3~~4. Activity status: **Restricted ~~D~~discretionary** Where: a. Compliance not achieved with TR-S2. Matters of discretion are restricted to: 1. The matters in TR-P4. Section 88 information requirements for applications: 1. Applications under this rule must provide, in addition to the standard information requirements: a. A detailed design road safety audit in accordance with the NZTA Road Safety Audit Procedures for Project Guidelines. **Notification:** An application under this rule is precluded from being publicly notified or limited notified in accordance with sections 95A and 95B of the RMA.
TR-R3		**~~Parking space dimensions and manoeuvring for~~ All activities with on-site parking or loading spaces – dimensions and manoeuvring**
	All zones	1. Activity status: **Permitted** Where: a. Compliance is achieved with: i. TR-S~~5~~6; and ii. TR-S~~6~~7;
	All zones	2. Activity status: **Restricted discretionary** Where: a. Compliance is not achieved with TR-S~~5~~6 or TR-S~~6~~7. Matters of discretion are restricted to: 1. The matters of discretion of any infringed standard. **Notification:** • An application under this rule is precluded from being publicly notified or limited notified in accordance with sections 95A and 95B of the RMA. • ~~When deciding whether any person is affected in relation to this rule for the purposes of section 95E of the RMA, the Council will give specific consideration to any adverse effects on any road controlling authority.~~
TR-R4		**~~On-site loading, waste and bicycle facilities for a~~All activities - On-site loading, waste and bicycle facilities**

	All zones	1. Activity status: **Permitted** Where: a. Compliance is achieved with: i. TR-S~~7~~8; ii. TR-S~~8~~9; and iii. TR-S~~9~~10.
	All zones	2~~3~~. Activity status: **Restricted discretionary** Where: a. Compliance is not achieved with TR-S~~7~~8, TR-S~~8~~9 or TR-S~~9~~10. Matters of discretion are restricted to: 1. The matters of discretion of any infringed standard. **Notification:** • An application under this rule is precluded from being publicly notified or limited notified in accordance with sections 95A and 95B of the RMA. • ~~When deciding whether any person is affected in relation to this rule for the purposes of section 95E of the RMA, the Council will give specific consideration to any adverse effects on any road controlling authority.~~

Standards		
TR-S1	**Pedestrian and cycling access**	
All zones	1. Access to a single site must have a direct legal road frontage width of at least 1.8m. 2. Access to two or more sites must have pedestrian and cycling access provided from legal road with a: v. Minimum legal width of 1.8m; vi. Minimum formed width of 1.5m; vii. Maximum average gradient of 1:20; and Maximum gradient of1:13 for any length as long as it does not exceed 9m. 3. A fully reticulated water supply system including hydrants must be available within the road corridor to which the access connects.	Matters of discretion are restricted to: 1. The safe, efficient and effective functioning of the access, including the safety of pedestrians and cyclists and people with disabilities[50]; 2. The safe, efficient and effective access to the site for firefighting purposes, including the outcome of any consultation with Fire and Emergency New Zealand (FENZ); ~~2~~3. Site and topographical constraints; and ~~3~~4. The suitability of any alternative design options.

	4.The pedestrian and cycling access must be no more than 75m in length measured from the road boundary to any existing building or proposed building platform on the site.	

TR-S4	Firefighting access	
All zones	1.[58] Any vehicle[59] access to a site located in an area where no fully reticulated water supply system is available, or having a length greater than 75m when connected to a road that has a fully reticulated water supply system including hydrants, must: ~~e.~~ ~~Be designed to achieve the vehicle access design standards in TR-Table 2 for:~~ ~~i. The relevant vehicle access classification level in accordance with TR-S2 for activities with vehicle parking or loading spaces provided on-site; or~~ ~~ii. Vehicle Access Level 1 for any other activities; and~~[60] a. Have a minimum unobstructed width of4m;[61] ~~f.~~ b. Have a minimum formed width of 3.5m; ~~g.~~ c. Have a minimum[62] height clearance of 4m;and ~~h.~~ d. Be designed to be freeof obstacles that couldhinder access for emergency service vehicles.	Matters of discretion are restricted to: 1. The safe, resilient, efficient and effective functioning of the transport network;[64] ~~1~~2.The safe, efficient and effective functioning of the vehicle access including firefighting access; 3. The outcome of any consultation with Fire and Emergency New Zealand (FENZ); and ~~2~~34. Site and topographical constraints.

	Note: When the circumstances set out in thisstandard are triggered, the width requirements in this standard override those for Vehicle Access Levels 1 and2 set out in TR-Table 2.	

TR-S5	**Vehicle Crossings**	
All zones	1. There must be no more than one vehicle crossing per 25m of road frontage. ~~site.~~ …[no further changes suggested to this standard]…	There are no matters of discretion for this standard.

TR-S~~6~~7	**On-site vehicle manoeuvring areas for sites with vehicle access**	
All zones	1. Where a site has vehicle access provided, on-site manoeuvring areas must be provided so that vehicles ~~to~~ can enter and exit the site in a forward direction, except where: a. The ~~site~~ access serves three or less ~~a single~~ residential units or three or less parking spaces; ~~and~~ b. The road is an Access Road or Collector Road; and c. The distance to or from the road frontage where a vehicle is required to reverse is no more than 30m. …[no further changes suggested to this standard]…	Matters of discretion are restricted to: 1. The number of vehicle trips generated by the activity on site; 2. Site and topographical constraints; 3. The classification and characteristics of the road in the vicinity of the site; 4. The safe, resilient, efficient and effective functioning of the transport network; and 5. The safety and movement of pedestrians,cyclists, public transport and general traffic.

EW – Earthworks

…

EW-R1	General Earthworks
All zones	1. Activity status: **Permitted** Where: ~~b.~~ a. Compliance is achieved with: i. EW-S1; ii. EW-S2; iii. EW-S3; iv. EW-S4; and v. EW-S5. Note: For the avoidance of doubt this rule applies to all earthworks, except EW-R2 ~~and EW-R3~~.[32]
	Where: ~~b.~~ a. Compliance is not achieved with EW-S1, EW-S2, EW-S3,~~or~~ EW-S4 or EW-S5[33]. Matters of discretion are restricted to: 2. The matters of discretion of any infringed standard. **Notification** • An application under this rule that results from non-compliance with EW-S1, EW-S3, EW-S4, and EW-S5 is precluded from being publicly or limited notified in accordance with sections 95A and 95B of the RMA.

…

Standards		
EW-S2	**Earthworks – Height, location and slope**	
All zones	1. Earthworks must not: ~~d.~~ a. Exceed a cut height or filldepth of 1.5m measured vertically; or ~~e.~~ b. Be located within 1.0m of the site boundary, measured on a horizontal plane; or ~~f.~~ c. Be undertaken on an existing slope with an angle of 34° or greater. **EXCEPT** In the case of EW-S2-1-a, the cut height or fill depth can be up to 2.5m measured vertically where it is retained by a building or structure	Matters of discretion are restricted to: ~~8.~~ 1. The stability of land or structures in or on the site or adjacent sites; ~~9.~~ 2. The visual amenity values and character of the surrounding area; ~~10.~~ 3. The natural landform and the extent to which the finished site will reflect and be sympathetic to the surrounding landform; ~~11.~~ 4. Dust and vibration beyond the site; ~~12.~~ 5. The retention of silt and sediment on the site;

	The following are exempt from the height, location and slope standard: • Earthworks for interments within existing cemeteries or urupā.; • Earthworks for the construction, alteration or decommissioning of bores, including geotechnical investigation and monitoring bores, undertaken in accordance with NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock; • Earthworks for sampling of soil permitted under Regulation 8(2) of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011; and • Earthworks for test pits where the depth of the test pit does not exceed the distance of the test pit hole at ground level to the nearest site boundary, and the test pit is backfilled and compacted, and the surfacereinstated upon completion of the sampling or investigative works.	~~13.~~ 6. The staging of earthworks; and ~~14.~~ 7. The total area of exposed soils at any point in time.

APPENDIX 2 – comments on s42a NOISE Provisions

This table sets out some high-level comments on the s42A provisions, rules and standards. However, it remains that Kāinga Ora continues to oppose the approach taken in the Plan to-date. The purpose of these comments is to suggest improvements to the proposed plan-set for the benefit of the Panel, based on technical advice received from Mr Styles, noting that these remain in dispute more generally.

Recommend changes shown as follows:

- Notified PDP text in black text
- S42A Report amendments in red text
- My comments in blue text

Recommended s42A amendments	My Comments	My Suggested Revisions
NOISE-O1 - Noise Generation The benefits of activities that generate noise are recognised while any adverse effects from the generation of noise are compatible with the anticipated purpose, character and amenity values of the relevant zone(s) and do not compromise ~~public~~ the health, ~~or~~ safety or wellbeing of people and communities.	I consider that O1 is generally helpful and appropriate, and that the general nature of the objective may be sufficiently open to apply to the state highway and rail networks in the Porirua district. I understand that the duty imposed by s16 of the RMA to avoid generating unreasonable noise applies at all times to the operators of the transport networks. I suggest including a statement to require the noise levels to be 'reasonable' in O1, to assist in aligning with s16 of the RMA.	**NOISE-O1 - Noise Generation** The benefits of activities that generate noise are recognised ~~while~~ where the noise levels are reasonable and any adverse effects from the generation of noise are compatible with the anticipated purpose, character and amenity values of the relevant zone(s) and donot compromise ~~public~~ the health, ~~or~~ safety or wellbeing of people and communities.
NOISE-O2 - Reverse Sensitivity The function and operation of existing and permitted noise generating activities are not compromised by ~~adverse effects, including~~ reverse sensitivity effects, from noise-sensitive activities.	Reverse sensitivity effects will not arise if the noise levels are reasonable. Therefore, if O1 is achieved, I expect that O2 should be achieved in most cases. I accept that NOISE-O2 has a focus that is broader than just managing reverse sensitivity effects on the State Highway and Rail networks. For this reason, I suggest that this objective is generally acceptable. Acceptance of this objective does not negate my view and opinion outlined in my evidence that the current approach to managing effects from the State Highway and Rail networks is inappropriate and in need of revision. I have suggested the addition of the statement that the emitted noise levels should, however, be reasonable, recognising that existing and permitted noise generating activities still must abide by s16 of the RMA.	**NOISE-O2 - Reverse Sensitivity** The function and operation of existing and permitted noise generating activities are not compromised by ~~adverse effects, including~~ reverse sensitivity effects, from noise-sensitive activities where emitted noise levels are reasonable.

NOISE-P4 - Reverse Sensitivity from State Highways and Rail Network Enable noise-sensitive activities and places of worship locating adjacent to existing State Highways and the Rail Network that are designed, constructed and maintained to achieve indoor design noise levels and provide for other habitable rooms when they minimise the potential for reverse sensitivity effects from noise, having regard to: 1. The outdoor amenity for occupants of the noise-sensitive activity; 2. The location of the noise-sensitive activity in relation to the State Highway orRail Network; 3. The ability to appropriately locate the activity within the site; 4. The ability to meet the appropriate levels of acoustic insulation throughscreening, alternative technologies or materials; 5. The ability to mitigate any effects on buildings from vibration generated by theState Highway or Rail Network; 6. Any topographical or other existing features on the site or surrounding area;	I disagree that the primary effect requiring management with noise sensitive activities locating in proximity to the state highway and rail networks is reverse sensitivity. I have not seen evidence to demonstrate that such an effect requires singular management. The evidence of Mr Styles is that the key issue to manage (where there is evidence of its existence) is instead adverse health and amenity effects. I therefore suggest a revised title and focus of the policy. I note that the suggested change would still manage reverse sensitivity effects, but the policy would be more broadly focused to also account for adverse health and amenity effects. The wording is also more consistent with NOISE-P5. I consider that such a revision would still ensure the Plan continues to give effect to the RPS. The S42A Report has recommended the inclusion of additional matters for consideration, including a vibration clause at point 5. The Policy also requires the applicant to provide the outcome of any consultation with the Transport Authorities. The Section 32AA evaluation in the s42A Report notes that the inclusion of the vibration clause is to *"allow consideration of these effects through the resource consent process, including if required proof of compliance with relevant standards"*[1]. The reference to vibration at point 5, together with consultation with the Transport Authorities at point 8, will invariably lead to the	**NOISE-P4 – ~~Reverse Sensitivity~~ Adverse effects from State Highways and Rail Network** Enable new and expanded noise-sensitive activities and places of worship locating adjacent to existing State Highways and the Rail Network that are designed, constructed and maintained to achieve indoor design noise levels and provide for other habitable rooms when they minimise adverse effects on the health and wellbeing of people from noise and the potential for reverse sensitivity effects from noise, having regard to: 1. The outdoor amenity for occupants of the noise-sensitive activity; 2. The location of the noise-sensitive activity in relation to the State Highway or Rail Network; 3. The ability to appropriately locate the activity within the site; 4. The ability to meet the appropriate levels of acoustic insulation throughscreening, alternative technologies or materials; ~~5. The ability to mitigate any effects on buildings from vibration generated by theState Highway or Rail Network;~~ 6. Any topographical or other existing features on the

[1] Page 5, Appendix C to s42A Report.

~~5~~7. Any adverse effects on the State Highway or Rail Network; and ~~6~~8. The outcome of any consultation with the Waka Kotahi New ZealandTransport Agency or KiwiRail Holdings Limited.	Transport Authorities seeking compliance with their own vibration standards set out in their respective reverse sensitivity policies. In my view, this becomes a hidden vibration standard by default. This will lead to requiring compliance with a vibration standard that is not published in the PDP, will not be clear or transparent, and no one will know what the requirement is until they consult with the Transport Authorities. This will require measurements and assessments that are not contemplated by the PDP provisions themselves. I further note that Mr Lloyd's evidence outlines the inefficiencies in requiring mitigation for vibration effects generated by the Transport Authorities. I consider that this is inappropriate for inclusion in the PDP and consider that vibration should be removed from the matters of consideration within NOISE-P4.	site or surrounding area; ~~5~~7. 6. Any adverse effects on the State Highway or Rail Network; and ~~6~~8.7. The outcome of any consultation with the Waka Kotahi New ZealandTransport Agency or KiwiRail Holdings Limited.
NOISE-R5 - New buildings, change of use of existing buildings, and additions to existing buildings over 50m², for use by a noise-sensitive activity or place of worship in proximity to State Highways and the North Island Main Trunk railway line See s42a report	NOISE-R5 identifies the effects areas subject to the proposed noise and vibration standards in NOISE S1-S4. The Standard Effects Areas are uncertain and do not accurately reflect the land that will in fact be affected by transport noise. These areas should be mapped to ensure that they accurately encompass the affected land and to avoid inefficiencies. Any eventual mapped areas that are required to implement noise insulation and mechanical ventilation should only be determined once the noise levels resulting from the operation of the transport networks, is clearly understood and BPO implemented at source where practicable. Any Standard Effects Area should only be applied once the scale of noise generated at source is adequately understood and appropriately managed within the Plan (for example, akin to how Airport and Port noise emissions are managed). Note that there is little point in automatically requiring RC at NOISE-R5-2 and NOISE-R5-3 even when compliance with noise insulation	No changes suggested, although NOISE-R5 remains unsupported.

	and mechanical ventilation standards is met. Consent should only be required if compliance with noise insulation and mechanical ventilation is not achieved.	
NOISE-S1 - New noise-sensitive activities and places of worship near State Highways – Indoor design noise level See s42a report	Standard NOISE-S1 applies if a noise sensitive activity is within the specified effects area for state highways in NOISE-R5. The 'matters of discretion' within this standard refer to both the state highway and rail network, and Waka Kotahi and KiwiRail Holdings Ltd. As this is a control that is specific to the state highways, it is suggested that reference to the rail network and KiwiRail Holdings is removed.	**NOISE-S1 – New noise-sensitive activities and places of worship near State Highways – Indoor design noise level** … Matters of Discretion 1. The distance of the noise-sensitive activity from the State Highway ~~or Rail Network~~; 2. The effects of any non- compliance; 3. The ability to meet the appropriate levels of insulation through screening, alternative technologies or materials; 4. Any topographical or other existing features on the site or surrounding area; ~~4~~5. The reverse sensitivity effects on the State Highway ~~or Rail Network~~; and ~~5~~6. The outcome of any consultation with Waka Kotahi NZ Transport Agency ~~(in relation to activities near a State Highway) or KiwiRail Holdings Limited (in relation to activities near the Rail Network~~
NOISE-S2 - New noise-sensitive activities and places of worship near the North Island Main Trunk railway line – Indoor design noise level	Standard NOISE-S2 applies if a noise sensitive activity is within the specified effects area for the North Island Main Trunk railway line in NOISE-R5.	**NOISE-S2 – New noise-sensitive activities and places of worship near the North Island Main Trunk railway line – Indoor design noise level**

See s42a report	The 'matters of discretion' within this Standard refer to both the state highway and rail network, and Waka Kotahi and KiwiRail Holdings Ltd. As this is a control that is specific to the railway, it is suggested that reference to the state highways and Waka Kotahi is removed.	… Matters of Discretion 1. The distance of the noise-sensitive activity from the State Highway ~~or Rail Network~~; 2. The effects of any non- compliance; 3. The ability to meet the appropriate levels of insulation through screening, alternative technologies or materials; 4. Any topographical or other existing features on the site or surrounding area; ~~4~~5. The reverse sensitivity effects on the ~~State Highway or~~ Rail Network; and ~~5~~6. The outcome of any consultation with ~~Waka Kotahi NZ Transport Agency (in relation to activities near a State Highway) or~~ KiwiRail Holdings Limited ~~(in relation to activities near the Rail Network~~
NOISE-S3 - New noise-sensitive activities and places of worship near a State Highway or North Island Main Trunk railway line – Mechanical Ventilation 1. Where windows of a habitable room must be closed to meet the requirements for NOISE-S1.1or NOISE-S2.1, the building must be designed, constructed and maintained with a mechanical ventilation system that achieves the following for habitable rooms: a) Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code(Schedule 1 of the Building Regulations 1992);	This standard prescribes mechanical ventilation requirements for noise sensitive spaces subject to the acoustic insulation standards. The standard simply requires a mechanical ventilation system to be provided that satisfies clause G4 of the New Zealand Building Code (NZBC). Compliance with clause G4 of the Building Code will supply a relatively low volume of fresh air but will not provide any appreciable cooling for occupants. This will lead to occupants opening windows and doors to achieve adequate thermal comfort, particularly in the warmer months. Open windows will negate any	**NOISE-S3 – New noise-sensitive activities and places of worship near a State Highway or North Island Main Trunk railway line – Mechanical Ventilation** 1. Where windows of a habitable room must be closed to meet the requirements for NOISE-S1.1 or NOISE-S2.1, the building must be designed, constructed and maintained with a mechanical ventilation system that achieves the following for habitable rooms: a) Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code ~~Code(Schedule 1 of the Building Regulations 1992)~~;

b) Achieves a minimum of 7.5 litres per second perperson; and c) c. Does not generate morethan 35 dB LAeq(30s) when measured 1m awayfrom any grille or diffuser. 2. A design certificate from a suitably qualified and experienced professional must be provided to Council. … Matters of Discretion… [refer s42a report]	benefits of the acoustic treatment and invalidate the cost and effort to meet the acoustic controls. Mr Styles has advised that for such a standard to achieve its intended purpose, it is critical that the occupants of noise sensitive spaces that are to be insulated from external noise should be able to remain comfortable without having to open windows or doors for fresh air and cooling. Mr Styles notes that this approach is consistent with the recommended provisions of Waka Kotahi, which require ventilation systems that provide for adequate thermal comfort. Requiring mechanical cooling (air conditioning) is also consistent with the Auckland Unitary Plan, the Whangarei District Plan and many other District Plans that have been reviewed recently. Waka Kotahi's submission seeks the following requirements for mechanical ventilation (in which I note Mr Styles recommend deleting item (ii)): *i. Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and* ~~*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*~~ *iii. provides relief for equivalent volumes of spill air; and provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18CC and 25CC; and* *v. does not generate more than 35 dB LAeq(30s) when measured 1 metre away from any grille or diffuser.* *b. For other spaces, is as determined by a suitably qualified and experienced person.*	b) ~~Achieves a minimum of 7.5 litres per second perperson; and~~ Provides relief for equivalent volumes of spill air; and provides cooling and heating that is controllable by the occupant and can maintain the inside temperature in habitable rooms between 18 degrees C and 25 degrees C; and c) Does not generate morethan 35 dB LAeq(30s) when measured 1m away from any grille or diffuser. 2. A design certificate from a suitably qualified and experienced professional must be provided to Council. … Matters of Discretion… [refer s42a report]

	Mr Styles recommends that part (ii) (requiring six air changes per hour) is deleted from the controls. In his experience of working with mechanical engineers on many dozens, and perhaps hundreds of projects where similar rules / standards have been applied, the mechanical engineers will say that achieving six air changes per hour is unnecessary, expensive and noisy, and does not make the indoor environment any better than it needs to be when achieving compliance with the other parts of the rule. I consider that the adoption of the Waka Kotahi provisions (as modified above) will provide a superior outcome to the PDP provisions.	
NOISE-S4 - New noise sensitive activities and places of worship near a State Highway or North Island Main Trunk railway line – Vibration **DELETED**	Informed by the advice of Mr Styles, and the analysis provided in Mr Lloyd's evidence, I support the deletion of Standard NOISE-S4.	Support deletion.
NOISE-S5~~6~~ – Residential units and visitor accommodation – Mechanical ventilation	The observations made in relation to NOISE-S3 above, and suggested amendments, are similarly recommended for this standard.	Recommend changes that are identical to those suggested in relation to NOISE-S3 above.