

UNDER the Resource Management Act 1991
IN THE MATTER of Proposed Waikato District Plan: Hearing 22 -
Infrastructure and Energy

**REBUTTAL EVIDENCE OF PHILIP JOHN STICKNEY ON BEHALF OF
KĀINGA ORA-HOMES AND COMMUNITIES**

PLANNING

6 October 2020

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1. SUMMARY

- 1.1 My full name is Philip John Stickney. I am providing this statement of rebuttal evidence (planning) on behalf of Kāinga Ora-Homes and Communities (“**Kāinga Ora**”) in relation to the evidence and attachments of Michael Wood (Planning and Corporate) for New Zealand Transport Agency Waka Kotahi (“**the Submitter**”) on Hearing 22 – Infrastructure and Energy of the Proposed Waikato District Plan (“**the Proposed District Plan**” or “**PDP**”) process.
- 1.2 This statement of rebuttal evidence responds to two new matters addressed in the evidence of Mr Wood, being:
- (a) The addition of a new Outdoor Noise Rule (x) which in my view has the potential to result in undesirable and adverse visual and amenity effects (as well as being an inequitable way in which to manage the issue, particularly in relation to alterations or additions to existing activities).
 - (b) That the assessment of costs of mitigation (prepared by Acoustic Engineering Services Limited) which forms part of the “section 32 report”¹ and which, amongst other things, does not clearly consider the matter of alterations or additions to existing noise sensitive activities vs new builds and the cost implications under an additions or alterations scenario.

2. INTRODUCTION

- 2.1 My name is Philip John Stickney. I am a Senior Associate - Planning at Beca Ltd. An outline of my qualifications and relevant experience is attached as Annexure One to my primary statement of evidence dated 29 September 2020.

Code of Conduct

- 2.2 I reconfirm 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

¹ Attached to Mr Wood’s primary statement of evidence.

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.

Scope of Rebuttal

2.3 My rebuttal evidence addresses the following matter(s):

- (a) The proposal by the Submitter to introduce controls related to outdoor noise; and
- (b) The conclusions reached in the report prepared by Acoustic Engineering Services relating to building costs and the use of barriers as an alternative to mitigate against noise.

3. NEW OUTDOOR NOISE RULES – ANNEXURE 1 TO THE PDP

3.1 Through Mr Wood's evidence², the Submitter seeks the addition of controls related to outdoor noise under Appendix 1- Acoustic Insulation. The new control reads as follows and would apply to new buildings or alterations to existing buildings for sensitive land uses within 100m of the state highway or rail corridor:

- 1. *Any new building or alteration to an existing building that contains an activity sensitive to noise where;*
 - a. *external road noise are less than 57dBL_{AEQ} (24hr) at all points 1.5 metres above ground level within the proposed notional boundary; or*
 - b. *There is a noise barrier at least 3 metres high which blocks the line-of-sight to the road surface from all points 1.5 metres above ground level within the proposed notional boundary.*

3.2 In my view, the proposal by the Submitter to introduce controls related to outdoor noise raises a number of issues which have not been appropriately considered or addressed in Mr Wood's evidence. I consider that these issues are particularly pronounced in the context of the existing urban environment where residential, community and business activities

² See Annexure 1 at "p. 87".

have co-existed with the road (or rail) corridor, often over many years and to that extent my concerns largely mirror those I have previously raised in my earlier statement of evidence on the wider suite of controls sought by the Submitters which I do not repeat here.

3.3 The use of acoustic barriers is not an uncommon mechanism to control noise, particularly in new greenfields development where it is often utilised in combination with greater setbacks and bunding/planting on the boundary with the existing designation corridor.

3.4 However I have concerns as to the clarity, suitability and feasibility of the application of this rule in the context of an existing urban environment. While I note that the noise barrier rule in (b) appears to provide an optional means of compliance, I do not consider that such a provision has been considered within an existing environment context as to its suitability and workability. For example:

(a) The rule references the utilisation of a “notional boundary”. From my reading of the rules, I am unable to ascertain what is meant by “notional boundary”. I am therefore if this term is meant to refer to the 100 metre corridor sought, the boundary with the edge of the State Highway carriageway or the individual property boundary within the corridor and accordingly I have concerns as to the clarity of the rule.

(b) It is not clear what is meant by the use of the term “alteration”. I have assumed that the provisions are only triggered by an external alteration which involves an external change to an existing façade of a building rather than internal alterations. There is an element of ambiguity generated by the rules as currently drafted.

(c) The construction of a 3 metre-high sound barrier within an existing environment will, in my opinion, potentially result in an adverse level of amenity for the occupants of the property arising from loss of sunlight, and outdoor amenity using the yard area adjoining the barrier. I consider this to be an effect more likely to manifest itself in the existing environment where the existing building is unlikely to have been designed or sited with regard to the future presence of a 3 metre-high barrier along a boundary.

- (d) Related to this is the potential for the height of such a barrier to have adverse implications for adjoining properties (e.g. shading and amenity concerns) and resulting complaints to the Council or property owners.

3.5 In addition, the evidence fails to consider or assess matters such as:

- (a) Additional consenting requirements which may be triggered as a result of the requirement to construct a 3 metre-high sound barrier (e.g. as a structure over height)
- (b) The lack of nuance in the rule which takes no account of how activities and structures are arranged on site (e.g. location of driveways and outdoor living areas) and/or how the noise experienced on site may change across the property (e.g. the only part of the site which experiences road noise of greater than 57 dBL_{AEQ} (24hr) is unused and/or largely inaccessible).
- (c) What happens where the only access to a property is via the frontage which requires construction of a noise barrier.
- (d) No assessment of the ongoing maintenance costs to be borne by the property owner is provided, nor of the practicalities of such maintenance. For example, if the onus is on the landowner to maintain the structure, how would the side of the sound barrier facing the State Highway will be accessed. If the location of the property relative to the state highway network is such that both faces of the structure have to be accessed from within the site, this would require the noise wall to be sited within the boundary resulting in an effective sterilisation of that person's land.

3.6 I note that the s.32 assessment considers the costs and benefits of Noise barriers under Option G. For the reasons discussed below I am unable to agree with the conclusions reached on the benefits as set out in that assessment. I consider that the benefits cited are outweighed by the costs, particularly within the context of an established residential property undertaking additions or alterations to an existing dwelling.³ The benefits

³ Evidence of Michael Wood, s.32 Assessment, Page 12, Option G

cited are a 5-10 dBA reduction so if a property experienced outdoor of 71 dBA, that on its face renders the option less appropriate than reliance upon rule (a) relating to a 57dBA limit (rule (a). external road noise)).

- 3.7 While I understand that the intent of the rule appears to provide an alternate means of compliance, my overriding issue is that for users of the Plan and the community residing within the 100 metres corridors, the combination of rules, options for compliance and technical skills required to assess matters renders the rules onerous and unduly complicated. When the construction costs and practical considerations such as amenity and maintenance are included, I have some concerns as to the appropriateness of the rule, notwithstanding that technically it may well reduce noise levels (particularly in the context of an existing sensitive activity).

4. COSTS OF TRAFFIC NOISE MITIGATION MEASURES – ATTACHMENT 1 TO THE “S32 ASSESSMENT”

- 4.1 I have reviewed the memorandum attached to the s.32 assessment prepared by Acoustic Engineering Services dated 12 June 2020. While the report provides some outcomes in respect of costs per units as a percentage increase, there are a number of factors which are not articulated clearly in the report such as whether the dwellings are single storey or more, the size of the dwellings and/or the build value contained in the Building Consent.
- 4.2 I am unclear from the small range of samples (23 in all) as to whether the results represent a clear cost analysis. I also am unaware if the estimated costs include professional fees by acoustic engineers to ascertain the degree of compliance with the rules within the 100 metre corridor and additional Council charges for consideration of proposals (including those which, following such an assessment, may not require any additional acoustic attenuation). It appears that the samples are based on a new-build scenario only and do not consider costs implications of a minor addition to an existing dwelling as a percentage. I am therefore unclear as to the cost implications arising from a minor addition within an established residential area are as a percentage cost to the owner.
- 4.3 The Acoustic Engineering Memorandum also assesses the possible costs of acoustic barriers in Part 2.0. The result of the analysis as a “costs per

dwelling” are set out in Table 2.1 of that report. I do not consider that these costs are insignificant, particularly noting that Part 2.1 of the memorandum document notes that some dwellings may still require upgrading (i.e. the upper storey of a dwelling). On this basis, there is potentially the cost of the barrier (to manage external noise) as well as additional building costs to provide noise attenuation on the upper façade of the building itself to meet internal noise levels. The costs are only set out however for the barrier on a per dwelling basis.

- 4.4 My concerns are raised in the context of the significant geographic extent of the controls sought and the reliance upon this memorandum to inform the s.32 assessment. While at face value the percentage costs may be relatively low, the issue I have is the extrapolation of those costs over the extent of the areas affected and therefore the cumulative costs to be borne by the community to achieve compliance with the rules sought.

5. CONCLUSION

- 5.1 In addition to those matters raised in my previous statement of evidence, I have concerns as to the amendments now being sought to Annexure 1 – Acoustic Insulation. In my opinion the amendments amplify my original concerns regarding the uncertainty of the application of the rules, their clarity and application in a practical manner.
- 5.2 While I have no fundamental disagreement with the benefits that will arise from a health and wellbeing perspective from acoustic attenuation, I remain of the view that the assessments undertaken and the conclusions reached are not of a sufficiently robust nature to conclude that the rules are justified as currently drafted.

Philip John Stickney

6 October 2020.