

**IN THE ENVIRONMENT COURT
AT WELLINGTON**

**I TE KŌTI TAIAO O AOTEAROA
KI TE WHANGANUI-A-TARA**

ENV -2022 - WLG - 000005

IN THE MATTER of the direct referral for applications for resource consents for activities associated with the Ōtaki to North Levin-Taitoko State Highway Project

BY **Waka Kotahi New Zealand Transport Authority**
Appellant/Requiring Authority

**STATEMENT OF PLANNING EVIDENCE OF ANNA CARTER IN RESPECT OF THE
ASHLEIGH HOMESTEAD AND LAND AT 1024 QUEEN STREET EAST, LEVIN-
TAITOKO**

15 September 2023

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Attachment 1: Relevant Planning Provision

Section A – Introduction

Name, qualifications, and experience

1. My full name is Anna Prue Sisarich Carter. I am a Principal Planner at Land Matters Limited based in the Kapiti Coast. Land Matters Ltd ('LML') is a planning, surveying, engineering, project management and property advisory consultancy. I have been with Land Matters since 2014.
2. I hold a Bachelor of Resource and Environmental Planning from Massey University, majoring in Ecology (1997).
3. I am a Full Member of the New Zealand Planning Institute. I have 24 years of experience as a planning and resource management professional in New Zealand.

Relevant experience and knowledge of the site and locality

4. I have worked in central and local government in my field, and for the last 17 years as a resource management consultant.
5. I have prepared and assessed resource consent applications for various projects for greenfield residential developments, commercial activities, and large-scale development projects. I have been involved in plan changes and plan development in several regions of New Zealand. I have appeared before the Environment Court and the High Court on resource management matters. I have also taken part in Environment Court mediations.
6. I have been involved in the commissioning of both preliminary and detailed design for development which requires a good understanding of minimum design principles and requirement documents including the New Zealand Standard NZS4404:2010; water sensitive urban design guides; Council's own minimum design guidelines; Crime Prevention Through Design (CPTD) requirements. I have commissioned and overseen erosion and sediment control planning, detailed engineering design, development of site-specific management plans, and other certification required under NZS4404:2010. My experience relevant to this proposal includes:

- a) Provision of planning evidence in support of Waikanae Christian Holiday Park Incorporated appeal on the NOR for the McKays to Peka Peka (“M2PP”) as it related to road traffic noise, groundwater, biodiversity and access matters; and; and
 - b) Preparation of assessment of effects for subdivisions and development including within land in the Horowhenua District; and
 - c) Review of mitigation measures for other section 274 parties impacted by notice of requirements for other roads of national significance.
7. I visited 1024 Queen Street East, Levin (**the Property**) with Karen and Stephen Prouse (**‘the Prouses’** or **‘Karen and Stephen Prouse’**) on Wednesday 26 July 2023. I am familiar with the Horowhenua District generally and appreciate the natural and built resource management issues in this locality.

Role in Project

8. I have been engaged by Karen and Stephen Prouse to provide expert planning advice and evidence in respect of their section 274 participation in the O2NL project. Mr and Mrs Prouse are the owners of Ashleigh Homestead and land at 1024 Queen Street East, Levin-Taitoko (**the Property or the Prouse Property**). While I was not involved in the preparation of the Prouses’ submission and section 274 appeal documents on the NOR, I have read these documents.
9. Karen and Stephen Prouse were also submitters and a section 274 party to appeals on Horowhenua District Council’s proposed change 4 (**‘PC4’**) in relation to Tara-Ika’s Growth Area (**‘Tara-Ika’**). I was not involved in preparation of the Prouse’s submission and appeal on PC4 but I have reviewed HDC’s PC4 section 42A report and submitter evidence where relevant, and attended the mediation on PC4 at the request of the Prouse’s counsel.
10. I have read and considered the assessment of effects, all relevant technical assessments and evidence prepared for Waka Kotahi to support the Ōtaki to North of Levin-Taitoko (**‘Ō2NL Project’**).

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11. I have read and considered the reports and associated evidence prepared by the local authorities and regional council required under sections 87G and 198E of the Resource Management Act 1991.
12. I attended the expert conferencing for planners and mediation at the request of the Prouse's Counsel; and read the joint statements of all experts.

Expert Code

13. I have read the Code of Conduct for expert witnesses issued as part of the Environment Court Practice Note 2023. I agree to comply with the Code of Conduct. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person; I confirm that the issues addressed in this statement of evidence are within my expertise. I am not aware of any material facts that have been omitted or might alter or detract from the opinions expressed in this statement of evidence.

Scope and purpose of Evidence

14. Having been involved in expert conferencing and mediation I have limited my evidence to matters that have not been fully resolved through proposed consent conditions as they relate to the following effects:
 - a) The appropriate mitigation of visual and landscape effects including on heritage values of the Prouse Property including Ashleigh;
 - b) The effects of road traffic noise to ensure it does not exceed a reasonable level;
 - c) The management of stormwater water to reduce significant risks from increased flood levels on the Prouse Property and adjacent areas;
 - d) Transport connections into the Prouse Property; and
 - e) Construction effects including from traffic, access, dust, noise and vibration.

15. My evidence considers the matters raised in the Prouse’s submission and appeal, from the NOR on the Prouse property. I have relied on other expert’s technical reports, assessment of effects and evidence as it is relevant to the Prouse’s site, as follows:

- i. Section 198D Report of Helen Anderson – Planning, prepared for Kāpiti Coast District Council and Horowhenua District Council dated 28 April 2023;
- ii. Section 87F Report of Mark St Clair – Planning on behalf of Manawatū-Whanganui Regional Council and Greater Wellington Regional Council, dated 28 April 2023.

iii. **Historic Heritage**

- Oral evidence from Karen and Stephen Prouse on the occupation of Ashleigh;
- Statement of Evidence of Ian Alexander Bowman on behalf of Waka Kotahi NZ Transport Agency – Built Heritage, dated 4 July 2023 and associated evidence

iv. **Amenity Effects (Road Noise):**

- Ōtaki to North of Levin-Taitoko: Technical Assessment A Transport prepared by Philip Peet dated 14 October 2022 and his associated evidence;
- Ōtaki to North of Levin-Taitoko: Technical Assessment B Noise and Vibration including the appendices by Michael Smith, Altissimo Consulting Ltd, dated 14 October 2022; and his associated evidence
- Ō2NL Noise overlay plan drawn by Altissimo Consulting dated 5 April 2023 in respect of HDC’s Plan Change 4 appeal;
- Section 198D Report of Siiri Wilkening – Noise and Vibration being Appendix 3 of Helen Anderson’s S198D Report, prepared on behalf of Kāpiti Coast District Council and Horowhenua District Council, dated 28 April 2023;

- Joint Witness Statement – Transport dated 24 July 2023

v. **Landscape & Visual Effects**

- Ōtaki to North Levin-Taitoko Highway Project - Technical Assessment –D: Landscape and Natural Character” prepared by Gavin Lister on behalf of Waka Kotahi and his associated evidence;
- NOR AEE, Vol. III, “*Otaki to North of Levin-Taitoko Highway Project. Cultural and Environmental Design Framework (‘CEDF’). Volume II, Appendix Three, Consent Version,*” dated October 2022.
- NOR AEE, Vol. III, “*Otaki to North of Levin-Taitoko Highway Project. Photo Simulations Volume III,*” prepared by Isthmus dated October 2022.
- Section 198D Report Julia Anne Williams – Landscape, Visual and Natural Character report, being Appendix 2 of Helen Anderson’s S198D Report, prepared on behalf of Kāpiti Coast District Council and Horowhenua District Council, dated 28 April 2023
- Isthmus Group “*Indicative Section-based on RMA Concept Design #49 Prouse Property (1024 Queen Street East) Draft for Discussion only*” dated 29 March 2023, Revision C. Provided to the Karen and Stephen Prouse and the Prouse Trust Partnership in a letter dated 22 May 2023 as an attachment.
- Joint Witness Statement – Landscape, Visual, Natural Character Experts dated 27 July 2023.

vi. **Stormwater and flood hazards**

- Ōtaki to North Levin-Taitoko Highway Project - Technical Assessment–F: Hydrology and Flooding Parts 1 - 4 prepared by Andrew Craig on behalf of Waka Kotahi in relation to the applications for resource consent and NOR, and his associated evidence;

- Ōtaki to North Levin-Taitoko Highway Project - Technical Assessment G: Hydrogeology and Groundwater prepared by Dr Jack McConchie on behalf of Waka Kotahi in relation to the applications for resource consent and NOR and his associated evidence;
- Section 87F Report of Mr Peter Kinley prepared on behalf of the Manawatū-Whanganui Regional Council and Greater Wellington Regional Council dated 28 April 2023 and
- Section 87F Report of Stuart Farrant prepared on behalf of the Manawatū-Whanganui Regional Council and Greater Wellington Regional Council - "*Operational Stormwater Management*" dated 28 April 2023.
- Joint Witness Statement of hydrology and flooding experts dated 9 August 2023
- Modelled flood projections with and without the project in the vicinity of the Prouse Property as provided to Karen and Stephen Prouse by Waka Kotahi dated 18 August 2023

vii. **Transportation effects**

- Evidence of Mr Jamie Poval – Design and Construction and including the road geometry plan "*Plan and Long Section Sheet 5*" Drawing NO 310203848-01-100-C-1505 Rev D for Consent," dated 10 October 2022.
- Section 198D Report of Tim Kelly – Transportation Issues report, being Appendix 9 of Helen Anderson's S198D Report, prepared on behalf of Kāpiti Coast District Council and Horowhenua District Council, dated 27 April 2023;
- Updated Prouse Property Access draft sketch for the Queen Street East overbridge and new local road provided by Waka Kotahi to Karen and Stephen Prouse on the 4 August 2023¹

¹ Refer to attachment in Karen Prouse's evidence

16. In preparing this evidence, I have also referenced and reviewed Horowhenua District Council's operative District Plan and the Council's "*Subdivision and Development Principles and requirements 2014*" document. I have also reviewed Horizon's One Plan and Horizon's maps relating to natural hazards, soils, and consented water takes and bores. I also reference the New Zealand Standards for Acoustics – Road-traffic noise – new and altered roads (NZS6806:2010); and the New Zealand Standard of land Development and Subdivision Infrastructure (NZS4404:2010).

Section B – Executive Summary

17. I have assessed the effects of the activities of this project against the planning provisions that I consider to be relevant to Karen and Stephen Prouse's property. In my opinion, the proposed activities, and the effects of them, are generally consistent with the outcomes sought by the relevant objectives and policies of Horowhenua District Plan and Horizon's Regional Plan and with the exception of the following matters:
- a) The appropriate mitigation of visual and landscape effects particularly as they affect heritage values of the Prouse Property including the Ashleigh Homestead;
 - b) The assessment to adopt the best practicable option to ensure the emission of noise from road traffic does not exceed a reasonable level;
 - c) The management to reduce significant risks from increased flood hazard risk both within the Property and what is currently Queen Street East;
 - d) Transport connections into the Prouse property; and
 - e) The management of Construction Noise and Vibration effects.
18. Waka Kotahi representatives have agreed to address some of these matters including to extend landscape planting along the entire length of the western boundary of the Prouse property within the designation; the design of a new local road that runs the full length of the northern boundary of the Prouse Property with three like-for-like

accesses to be constructed; and the installation of two additional culverts under the expressway. However, provision has not been made within the draft conditions of consent to ensure that these matters are appropriately addressed through the Outline Plan and regional council's general accordancy resource consent conditions.

19. I am of the view that site-specific provisions as they relate to the Property be provided for in the conditions of the NOR and the regional council consent to ensure any detailed design and subsequent construction and/or monitoring is undertaken to the satisfaction of the consenting authority. I suggest that the mitigation can best be given effect to through amendments to the following conditions:

- a) Condition DGA6 – the Outline Plan;
- b) Condition DNV4 – Site specific construction noise and vibration mitigation;
- c) Schedule 2 - Construction Noise and Vibration Management Plan;
- d) DRN4 – Post-construction review of noise mitigation measures;
- e) DRN6 – Building Modifications; and
- f) RSW1 – General Accordancy (Regional Council Consent)

Section C – Site Description

20. The Property is located at 1024 Queen Street East, Levin-Taitoko. Below is a summary of the legal description, land use capability class, and other land categories identified by Horizons Regional Council (**Horizons**) and Horowhenua District Council (**HDC**) for the site:

- a) It is 12.8945 hectares held on the certificate of title WN52C/745 being Lot 2 shown on deposited plan 86925. There are no encumbrances on this title other than a compensation certificate pursuant to section 19 of the Public Works Act 1981 registered in March 2021 and a notice pursuant to section 18 of the Public Works Act 1981 registered in June 2023;

- b) The northern boundary of the site has legal road frontage that is 25m wide and fronts Queen Street East which is identified as a collector road. The speed limit on this road increases from 80km directly adjacent the Property, to 100km/hr as it heads west before the road meets the new roundabout on State Highway 57 – Arapaepae Road².
- c) Horizon’s geographic information system (GIS) identifies the site as being within the Lake Horowhenua surface water management zone; and as having Kawhatau soils which have a drainage class of 5 which is identified as being “well-draining” (where class 1 is ‘very poor’ drainage, 2 is ‘poor drainage’, 3 is ‘imperfect drainage’, 4 is ‘moderately well-draining.’ The soils are stony silt loam;
- d) The entire site is zoned Residential and located in the Tara-Ika Multi-Zone Precinct of Horowhenua’s Operative District Plan. The Property contains the Ō2NL Noise Management Area that is measured 100m from the eastern edge of the Ō2NL carriageway. The site is included within the Tara-Ika Structure Plan which is contained as an appendix to the District Plan. The structure plan includes the following notations for this site:
- (i) A forest area of established non-indigenous and indigenous vegetation depicted as ‘culturally significant species - assessment required under [Rule] 15A.8.2.2(a)(xii) of [HDC’s District Plan]’; and
 - (ii) *Local road and laneways as secondary features* of the Structure Plan
- e) The Prouse homestead (referred to as ‘**Ashleigh**’) which was completed sometime after August 1891 has been identified in Mr Ian Bowman’s evidence as being of regional significance due to its relative high authenticity, intactness, and rarity as one of the earliest constructed dwellings in Levin-Taitoko. Ashleigh and its surrounds have not been

² HDC is currently consulting with its community on proposed safer speed limits through its Draft Speed Management Plan 2024 – 2034 which speed reductions proposed around schools in the first phase. As part of the second phase it is proposing to reduce speeds on rural roads including Queen Street East from the intersection with Gladstone Road to the intersection with SH57 to 80km/hr.

registered with Heritage New Zealand Pouhere Taonga under the New Zealand Heritage List Rārangi Kōrero under the Historic Places Act 1993, and it is not listed in Horowhenua's District Plan as an historic place. However, as a place that has been associated with human activity before 1900, the property and its buildings are deemed to be an archaeological site under Heritage New Zealand Pouhere Taonga Act 2014; and

- f) Ashleigh homestead is identified as a Protected Premise and Facility (PPF) in Mr Michael Smith's technical assessment for noise;
- g) According to the NOR AEE Technical Assessment F on stormwater and flooding, the Prouse's property contains one main overland flow path. This has been modelled as being present for a range of storm events including from a 10% AEP event (10 yr) through to a 1% AEP ('**annual exceedance probability**') event (100yr). The overflow path discharges north-west and partially through the forested area. Depths of inundation during a 1% AEP event are shown in the base model (i.e., before the Project is constructed) at depths of between 0.01m (10mm) and 0.05m (50mm).

Section D - Planning Issues and Review of Potential Environmental Effects

Overview

21. I accept that the NOR for Ō2PP contains a comprehensive assessment of the effects that the Project will have on the environment and the ways adverse effects will be avoided or mitigated as required by Part 2 and section 168A, and as set out in Form 18 of the of the Resource Management Act ('**the Act**') including having had regard to relevant national policy statements and plans or proposed plans, and any alternative sites, routes and methods considered.
22. However, I consider that the extent to which the NOR looks to mitigate potential adverse effects from the project on the Property has been unjustifiably limited in its extent; and that more could be done to achieve environmental outcomes anticipated by the relevant planning provisions, in the following areas:

- a) Suitable design and on-going management of landscape and visual effects along the western boundary of the Property;
 - b) further consideration of best practicable options to ensure that the emission of noise from vehicles on the expressway does not exceed a reasonable level within the western curtilage of the PPF and within Ashleigh itself;
 - c) appropriate mitigation of flooding effects;
 - d) appropriate design and construction of the new local roads and connections between Queen Street East over-pass and the Property; and
 - e) the management of construction effects, including those associated with establishment works as they relate to construction noise and vibration.
23. Importantly, Policies 1 and 6 of National Policy Statement on Urban Development 2020 (**'NPS-UD'**)³ seeks to ensure development capacity for housing, including within tier 3 local authorities⁴ contributes to well-functioning urban environments.
24. Similarly, objectives and policies of the now operative HDC's District Plan provisions seek connected and integrated development that represents good urban design and provides high levels of residential amenity (Objective 6.A.1 and Policies 6A.1.1, 6A.1.2, 6A.1.10).
25. Section 16 of the Resource Management Act places a duty on every occupier of land to adopt the best practicable option to ensure that the emission of noise from that land does not exceed a reasonable level. The best practical option has the same meaning as section 2(1) of the Resource Management Act:

"Best Practicable option, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things to –

³ Refer to Attachment a to this evidence for a copy of these policies

⁴ Horowhenua District is a tier 3 council

(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and

(b) the financial implications, and the effects on the environment, of that option when compared with other options; and

(c) the current state of technical knowledge and the likelihood that the option can be successfully applied.”

26. Section 6 of the Resource Management Act requires all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural resources to recognise and provide for, amongst other things, “*(h) the management of significant risks from natural hazards*” as a matter of national importance.

27. The following sections of my evidence address the five areas where I consider more could be achieved to address significant adverse effects and to achieve a well-functioning urban environment as they relate to the Property.

A. The Appropriate Mitigation of Visual and Landscape Effects

28. Mr. Ian Bowman in his technical report for the NOR on built heritage considers the heritage values of Ashleigh to be of regional significance. At paragraph 11 of Mr Bowman’s technical evidence describes the Property as having a cultural landscape - “*its site, buildings and items of machinery located within the boundaries of the property to create a cultural landscape.*” The description of a ‘cultural landscape’ is appropriate as it implies that the entire curtilage around the homestead contains heritage values.

29. The Project through its Cultural and Environmental Design Framework (CEDF) establishes design principles to protect and restore cultural and heritage values⁵ including those of the Property. The Design Framework identifies “opportunities to

⁵ These design principles are listed at section 3.1 of the CEDF

express heritage connections to be developed through detailed design, for example [the] Queen Street East connection.⁶

30. For this site and the Queen Street East area, the CEDF principles have been worked out into preliminary concepts including through planting and other design measures to provide for appropriate screening of the bridge structure and elevated views from vehicles, and the shared use path (SUP) for nearby residences including Ashleigh.
31. Technical Assessment D – Landscape, Visual and Natural Character assessed the degree of adverse *visual* effects using accepted seven-point scale ranging from very low to very high with moderate effects being fourth on the scale. The report identifies that mitigation is warranted for properties where the adverse effects would be moderate or greater. The inventory table contained within Assessment D identifies the visual effects at the Property (using unique identifier #479) as being moderate to high.
32. The project proposes tall tree *restoration planting* between the property and the highway and extending from the corner of Queen Street East to the south-western corner of the forested area within the Prouse property to reduce visual effects to *moderate*. The extent of this planting is shown in the Project's Planting Plans reproduced in **Figure 1** below. This shows tree avenues' extending from Queen Street East over-bridge to the southern edge of the forest located on the Property. Beyond that to the southern end of the Property low vegetation is proposed.

⁶ Page 119, CEDF – Consent Version.

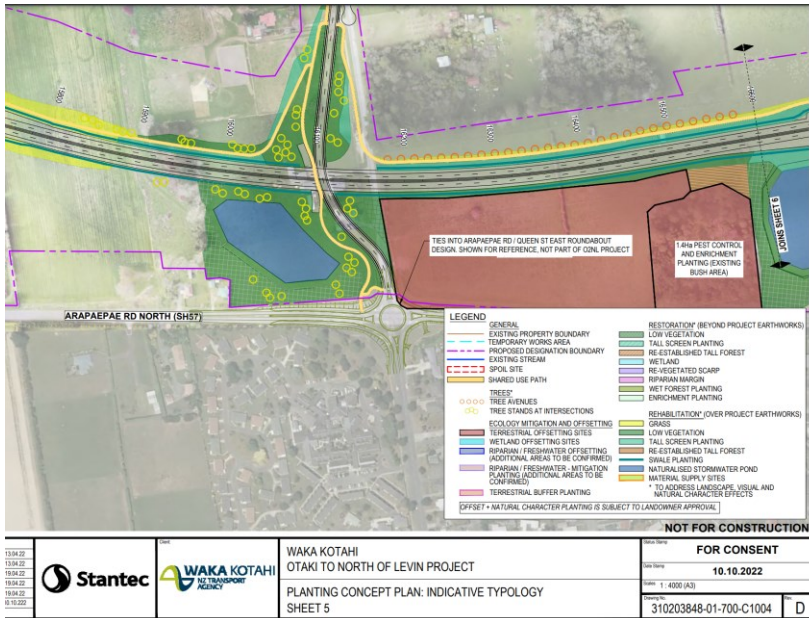


Figure 1: Planting concept plan for Queen Street East Overpass (source: NOR Vol III - Planting Plans)

33. The CEDF notes that they may be further mitigation opportunities for affected properties that would be subject to agreement between property owners and Waka Kotahi. Waka Kotahi representatives have been in discussions with the Prouses to extend planting both within their property and further along their western boundary within the designation. They have also offered to construct a solid 2m high timber fence along the western boundary. These works go some way to reduce the overall visual and landscape effects across the entire Property. Waka Kotahi representatives have also agreed to remove and replace the row of macrocarpa trees located alongside the haul road if it is determined that they are at risk of falling over during the construction phase.
34. While these proposals have been advanced, they have not yet been captured in the planting concept plan and/or in the Outline Plan requirements. Without the certainty these works being imposed through consent conditions, the mitigation of adverse visual and landscape effects remains unresolved.

B. Consideration of best practicable options to ensure emission of road traffic noise does not exceed a reasonable level⁷

35. According to the NOR's Technical Assessment A Transport prepared by Philip Peet at paragraph 222, the forecast daily traffic volumes on the Ō2NL will be 19,800 vehicles per day ('vpd'). According to paragraph 112 of Assessment A, current traffic volumes on Arapaepae Road at Queen Street is currently over 9,400 vpd and by 2039 without Ō2NL in place are likely to be 16,300 vpd. The Project represents an increase of 3,500 vehicles per day than what would otherwise be expected on Arapaepae Road without the project. Vehicles may also be travelling faster (up to 110km/hr) and carriageway of the new road will be 145 metres closer to the Property boundary than the current Arapaepae Road carriageway. To the north will be the Queen Street East overbridge that will be 7m high.
36. According to Michael Smith's Technical Assessment B, existing noise levels at the Ashleigh homestead (a PPF) have been modelled at 53dB $L_{Aeq(24hr)}$ and by 2039 (being the design year set by Waka Kotahi) are predicted to increase to 57dB $L_{Aeq(24hr)}$. By the same year and with the Ō2NL in place but without any (additional) noise mitigation, noise levels at Ashleigh are predicted to be 59 dB. This represents an increase of 3dB $L_{Aeq(24hr)}$ and classifies the Prouse homestead as a Category B PPF and under the New Zealand Noise Standard NZS6806:2010 which recommends the best practical option ('BPO') be adopted for the mitigation of this road noise.
37. Table 2 of NZS6806:2010 which is reproduced below in **Figure 2** sets out the noise criteria for PPFs for new roads:

⁷ Noise from construction effects are discussed in the section below

Category	Altered roads	New roads with a predicted traffic volume >75 000 AADT at the design year	New roads with a predicted traffic volume of 2000 to 75 000 AADT at the design year
	dB L _{Aeq} (24h)	dB L _{Aeq} (24h)	dB L _{Aeq} (24h)
A (primary free-field external noise criterion)	64	64	57
B (secondary free-field external noise criterion)	67	67	64
C (internal noise criterion)	40	40	40

The calculation of internal noise levels shall be in accordance with 5.2.3.

Figure 2: Table 2 Noise Criteria for PPFs for New Roads (Source: NZS6806:2010)

38. Clause 1.2.4 of NZS6806:2010 states, “where the application of sufficient mitigation measures to achieve the criteria set out in section 6 at the assessment positions of all PPFs is not consistent with adopting the best practical option, mitigation measures shall be implemented to achieve a target noise level as close to those criteria as is consistent with the adoption of best practice option (see table 2).”
39. Mitigation options dated 8 July 2021 and presented to a workshop on the 22 July 2021 at Buddle Finlay in Wellington (contained in appendices B and C of the Technical Assessment on noise) for Waka Kotahi, assessed four potential mitigation options for the Tara-Ika area (Area G) and Prouse/Redwood Close area (Area G1) and identified the following:
- a) Option 1 being a high-performance road surface (500mm): 2dB reduction
 - b) Option 2 being a high-performance road + 2m noise wall on top of cut: Negligible benefit over (a) above;
 - c) Option 3 being a high-performance road + 3m noise wall on top of cut: 2 – 4dB reduction; and
 - d) Option 4 being a high-performance road + 3m bund on top of cut: 4 – 6dB reduction (based on a 3H:1V slope)

40. A second workshop was held online on 11 February 2022. Table 14 in Altissimo's October 2022 reported on the outcome of this workshop and found that, "noise barriers [are] generally ineffective, and it was noted that bunds are undesirable in this location due to the significant extra fill required and this is a high-risk location and bunds would complicate the flow paths." It also noted that "building treatment at Prouse homestead [was] unlikely to be viable."
41. Some of the mitigation options were costed by Waka Kotahi as follows:
- a) High performance road surface: \$280/m (and Technical Report B – Appendix 3 Assessment Matrix assumed that only 585m of this surfacing would be required in Area G)
 - b) Noise wall 3m high: \$1,400/m; and
 - c) Earth Bund \$480/m
42. Since the two early design workshops, the geometry of the road changed, and the finished road surface which is now proposed to be between 320mm (at cross section 16200) and up to 460mm (at cross section 16440) above the existing ground level in the vicinity of the Prouse Property, resulted in a more constrained environment within which to manage stormwater, ruling out the option of an earth-bund.
43. Having had regard to the financial implications and the sensitivity of the receiving environment, the NOR's road noise mitigation design principles determined the best practical option in the vicinity of the Property, was the use of a high performance low-noise surface.
44. Noise levels experienced at the outside of the bedrooms of Ashleigh are predicted to be 57dB $L_{Aeq(24hr)}$ by 2039 with the proposed mitigation in place (high performing road surface). According to Michael Smith's Technical Assessment, at 57dB external noise level at the western curtilage of the PPF, the PPF is considered to meet the acceptable internal noise level for sleeping of 40dB $L_{Aeq(24hr)}$. This is on the assumption that cladding and insulation of the dwelling will provide an internal noise reduction of 17dB.

45. However, internal, and external noise measurements commissioned by the Prouses⁸ and undertaken by Neil Jepsen of Jepsen Electronics Ltd an acoustic engineer, has confirmed that there will not be this level of noise reduction. Mr Jepsen measured the difference between the external noise level and internal noise level with the windows open at 12dB; and with the windows closed at 15dB. He makes the comment in his report that because the dwelling is not a 'typical PPF' the level difference is unlikely to compare with that of a modern home.
46. The Altissimo assessment matrix identified that residual noise effects are likely to remain across Area G1 in the general vicinity of the Property with the high performance low-noise road surface in place. Even with this mitigation in place, noise levels within the habitable rooms of the PPF at this Property is not likely to achieve the target noise level of 40dB, or as close to that criteria as is consistent with the adoption of best practice option. . Nor has any evidence been presented by Waka Kotahi that supports its position that building modification of this PPF is 'unviable' and as justification to not adopt other best practice options.
47. I also note that the preferred design options were chosen using the 75 percentile growth rates instead of the 95 percentile growth rates used in the 'lodgement model' referenced in the final technical assessment A for transport. The higher growth rate and therefore higher vehicle volume may also contribute to higher road noise on this PPF and its western curtilage.
48. However, I do not consider that sufficient attention has been given to alternative methods for mitigating road noise in this location. The likely significant change in amenity within the Property has been reflected in a statement made by Mr. Michael Smith in his evidence where he discusses the Prouse Property and occupation of Ashleigh: *"noise levels inside the dwelling are likely to be intrusive at times. Much of the western curtilage will experience noise levels between 55-60dB. Road-traffic noise*

⁸ Refer to attachment in Karen Prouse evidence.

is likely expected to be either intrusive or disruptive to people using the outdoor spaces⁹."

49. The increase in noise levels will result in significant adverse effects on the amenity of the Ashleigh homestead and while its occupants move around the curtilage of the homestead when compared with current levels of amenity. In particular, the occupant's ventilation arrangements will be adversely affected in summer when they might sleep with windows open for ventilation; and when they may sit on their upstairs north-facing balcony. From my visit to the property, I identified that the master bedroom and opening windows face north towards Queen Street East; two of the bedrooms and their windows face west towards the Ō2NL project; and one bedroom faces and its windows face east. All bedrooms are located on the second floor of the homestead.
50. According to NZS6806:2010, a reduction of road noise on the PPF should look to achieve a minimum internal noise level as close to 40dB $L_{Aeq(24hr)}$ as possible. I have not been assured, based on the current evidence, that the best practicable option chosen will achieve this alone and consider other options should also be investigated given the sensitivity of the receiving environment and this PPF.
51. I note that elsewhere on the expressway and within this NOR there are a range of mitigation options including building modification and the construction of 1.1m high concrete safety barrier walls. In my opinion, it is not good enough to dismiss those options as being too difficult and expensive where the expressway is designed up against a residential zone as it is here.
52. Of the five separate locations where the 1.1m high concrete safety/acoustic barrier wall is proposed there are a number of PPFs within the same proximity as Ashleigh; and the five private properties¹⁰ selected for investigation of building modification are also within similar distances to the edge of the carriageway as the Prouse homestead is.

⁹ Smith, Michael. Final Technical Assessment B Noise and Vibration (para 356, page 113)

¹⁰ Refer Altissimo's report at Table 17

53. In determining the best practicable option, further consideration should reasonably be given to whether the construction of a 1.1m high concrete barrier safety wall or similar, at the carriageway along the Prouse's western boundary; and/or building modifications, including provision for ventilation that will achieve a target noise level for the western curtilage of the PPF and within the PPF itself, or as close to those criteria as is consistent with the adoption of best practice option.

C. Management of Stormwater and the Flood Hazard

54. In relation to natural hazards, policy 8.1.7 of Horowhenua's operative District Plan seeks to ensure that development undertaken in identified flood prone areas adopts specific measures to avoid or mitigate the hazard. The District Plan policy includes a range of measures that could be applied to mitigate this risk, including:

- a) occupied structures having a finished floor or ground level above the 0.5% AEP (1 in 200 years) flood level;
- b) ensuring the inundation of access between dwellings and a safe area does not exceed 0.5 metres in depth or maximum water velocities result in risk to human life, infrastructure or property;
- c) mitigation measures that protect against inundation, and avoid adverse effects on overland stormwater flow paths;
- d) adverse effects on existing structures and activities are avoided or mitigated;
- e) limits the risk of the proposed flood hazard mitigation measures failing;
- f) does not result in displacement of floodwaters onto adjoining properties; and
- g) ensures responsibility for maintenance of the flood hazard mitigation measures through an appropriate maintenance regime.

55. HDC's land development minimum guidelines document (the SDPR) also looks to appropriately manage flood hazard risks and adverse effects from the discharge of stormwater from developments through the following minimum requirements:

- a) maintain hydraulic neutrality so that peak stormwater flows into receiving bodies do not exceed pre-development peak flows for the same events. For urban areas, the stormwater system shall be designed to a 10% AEP (10 year) rainfall event shall be used with all other flows provided for through secondary overflow paths;
 - b) where secondary overflow paths are not available or through private property, a stormwater system within the site must be designed to accommodate the 1% AEP event;
 - c) roads may be inundated by up to a maximum height of 200mm at the centreline in a 1% AEP event; and
 - d) any changes to pre-development peak flood levels are not to be increased as a result of filling in floodable areas unless provision of storage can off-set or replace that volume lost to the footprint of the proposed works.
56. Parts of the Property are subject to surface water flows in a range of flood events according to Stantec's modelling baseline (without Ō2NL) for this section of the Project. Depths of inundation could be between 50mm – 100mm in a 10% AEP Event (10 yr); and 100mm to 0.5m in a 1% AEP event (100 yr). The latter scenario is shown in Stantec's base flood model at Figure F.9 in Waka Kotahi's technical assessment F and reproduced below in **Figures 3 and 4** on the following page.
57. Within this area of Levin surface water overland flow paths discharge west to north-west across the plains towards Lake Horowhenua. Near the Prouse property, a significant portion of these flows are directed down Queen Street East. Within the Prouse property, there is one main overland flow path that crosses through from the east of Redwood Grove and flows north-west through the forested area on the property and out across what is shown as the designation area for the Project.

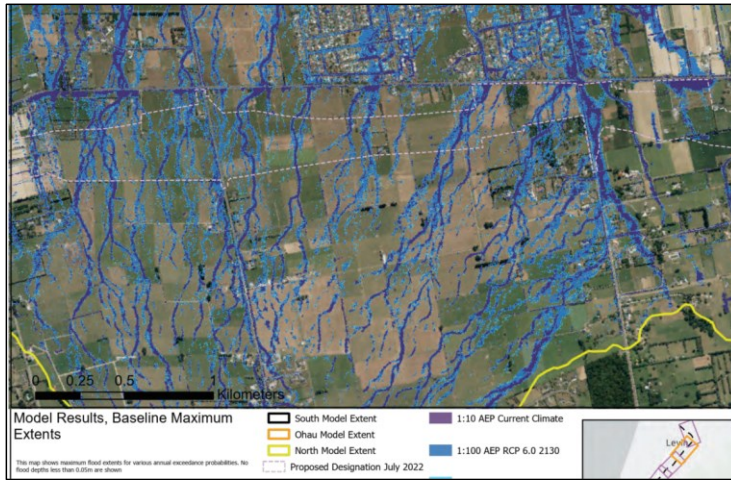


Figure 3: Figure F.9 showing existing baseline flooding in vicinity of Prouse Property. (source: Waka Kotahi Evidence - Technical Assessment F)

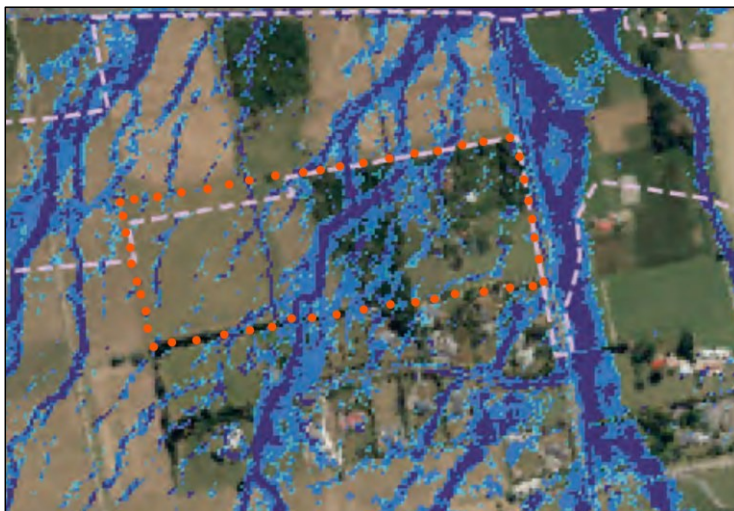


Figure 4: Close extent of Figure F.9 above, being Baseline Flooding, showing Prouse property outlined in orange (purple shows 10% AEP event; and blue shows 1% AEP event)

58. Stantec’s post Ō2NL ‘with-scheme’ modelling of the flood hazard of the Property shows an increase in depths over the baseline of at least 50mm (shown in yellow) on top of the existing 50mm of inundation already experienced; and up to an additional

0.5 to 1m¹¹ (orange and purple areas) as indicated in the modelling by Stantec reproduced in **Figures 5 and 6** below:



Figure 5: Stantec With Scheme Modelling (minus baseline) for North Model Extent

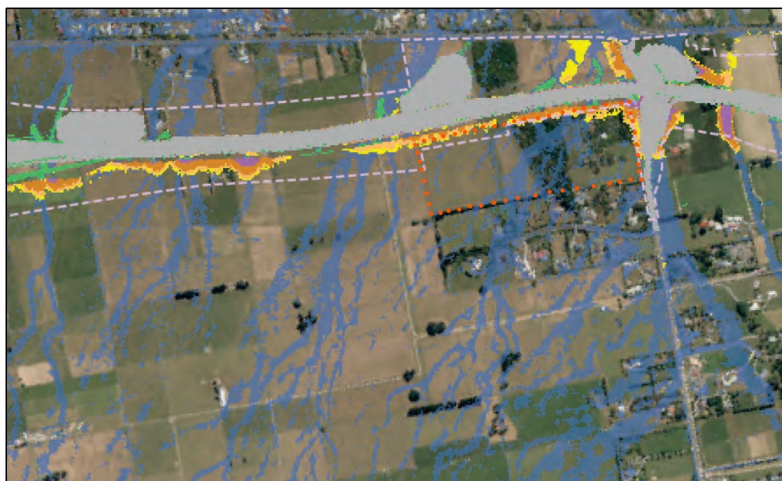


Figure 6: Close extent of Prouse property showing Stantec Model Results for 1:100 AEP, With Scheme

¹¹ Depths of inundation shown in Figure 0.05 to 0.1m (shown as yellow), 0.2m to 0.5m (shown as orange) and 0.5 to 1m (shown as purple in Figure 8 below)

59. The additional increase in inundation with the scheme in place, appears to be occurring in the location of the farm track and further south along the western boundary. This is within the temporary designation area of the Property to be used as a haul road, and which is mostly intended to be reinstated and returned to the Prouses following completion of the Project. This area of land is currently used as the main access to the rear paddock on the Property. The modelling also shows significant increases in inundation in the north-western corner of the Property in the location of the Queen Street East access to the farm track. The greatest increases in the depth of flooding appear to be occurring within the vicinity of the new access road between the Property and Queen Street East overbridge.
60. I note that the AEE Technical Assessment F at paragraph 10(a) quantified the effects on the flood hazard on the basis of informal advice from Greater Wellington Regional Council's flood protection department that, *"the flood protection department of GWRC uses an informal guideline of 0.1m for rural areas and 0.05m for urban areas,"* and the report does go on to state that, *"this does not imply that an impact above 0.05m will be unacceptable to a particular receptor."*
61. It is my experience in both the Manawatu-Horizons Region and in the Wellington Region where inundation occurs on adjoining properties because of a new development and where the increase in inundation is more than 10mm (0.01m), effects are typically determined by the local authority to be more than minor and would require mitigation. This, as I understand it, allows for the tolerance of the model used in these assessments.
62. A similar view was expressed by Peter Kinley in his Section 87F report on hydrology and flooding where he states at paragraph 38 of his report that, *"the threshold values for 'upstream at proposed designation, provided no buildings are impacted (confirmed by model) are <0.2m for the 10% AEP and <0.5m for the 1% AEP plus climate change flood event ... In my experience the threshold values relied on by Waka Kotahi are too high."* Mr Kinley goes on to say at paragraph 41 that, *"... I note Mr John McArthur has proposed a threshold depth of $\leq 0.01m$ which, in his view, reflects*

the computational accuracy expected in the type of model used for the Ō2NL project. I would also agree with this approach.”

63. Mr Peter Kinley in his section 87F report at paragraph 45 states, “... *Given the threshold depths relied on to assess effects are too high, I cannot support the statement in the application that the effects of the project will be less than minor.*”
64. Mr Kinley suggests that the absence of a 0.5% AEP modelled storm event (200 yr event), the full effects of the works, particularly as they relate to objectives and policies under the Manawatu-Whanganui One Plan, are not sufficiently quantified. I would agree with this opinion as the relevant flood hazard policy and development design requirements as set out in the One Plan and the Horowhenua District Plan and its SDPR document require assessments against a range of storm events including the 10% AEP (10-yr), the 1% AEP (100-yr) and the 0.5% AEP (200yr) plus climate change.
65. Based on Mr Kinley’s evidence, all increases identified by Stantec’s ‘with scheme’ model within the Prouse property are likely to pose an increase in significant flood risks. This increase in flood depths by up to and including 50mm to 0.5m, is likely to create further adverse impacts on the Prouse property including, on their ability to access their property; and their ability to reasonably develop the property in the future.
66. For example, an increase in inundation levels within and at the existing farm access will limit access to the south of the property in safe manner. It will also result in increases and new areas of inundation occurring within the curtilage and garden areas to the west of the historic homestead.
67. Effects on the Prouse property from this increase in flood hazard could also restrict the option to utilise existing secondary overflow paths for flows in excess of the 10% AEP (10-yr) flood event, when designing for new urban development within the site. Where secondary overflow paths are not available to accommodate stormwater flows in excess of the 10% AEP event within a proposed development or those overflow paths are at capacity, provision must be made on-site to attenuate the 1%

AEP (100-yr) flood events. If this was required, it could well reduce the amount of land available for residential development.

68. The increase in flood depths could also result in future development requiring fill (or additional fill) to create flood free building platforms and/or roads to ensure they that are not inundated by more than 200mm in a 1% AEP + CC flood event. This is likely to also lead to a requirement for compensatory on-site storage, removing further land for development. This would have a negative effect on future residential development within the Prouse property now zoned for residential development.
69. The NOR does not appear to contain an assessment of how future growth within the Tara-Ika Precinct will be impacted by the stormwater modelling and the hydrological modelling undertaken for the Ō2NL project particularly in the location of the Property which is at the down-stream end of the catchment for the Tara-Ika Precinct. Stantec's baseline flood report at section 5.9 notes that the sensitivity of the Ō2NL designs will be evaluated in the post-scheme modelling and through detailed design stage to test and/or confirm the exceedance runoff rates from the proposed Tara-Ika future growth.
70. While the NOR identifies two culverts under the expressway at the Queen Street East location a (refer culvert id. #36.6 as shown on the reproduced plan below in **Figure 9**) to an attenuation area on the western side of the expressway, the ability to discharge water from this area appears to be constrained due to the flat grade under the highway limiting discharge flows and velocities.

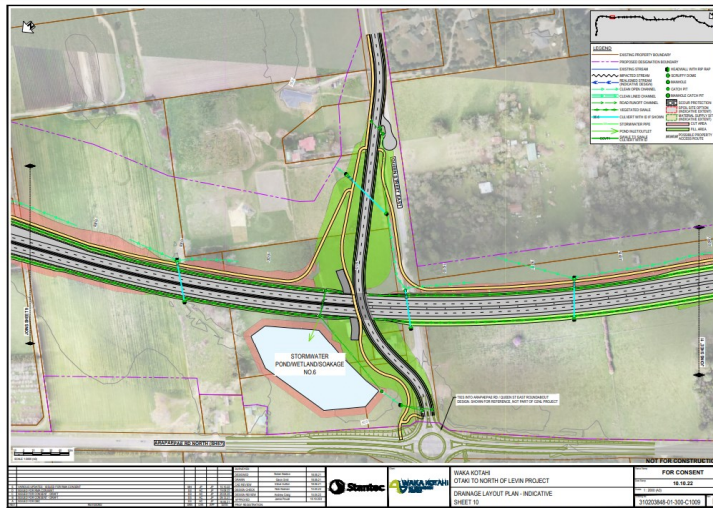


Figure 9: Drainage Layout in the vicinity of Queen Street East Over-pass (source: Vol. III Drainage Plans - Part 1)

71. Within this area of Queen Street East, it is difficult to see how the Project will maintain the existing overland flow paths across the expressway in this location as intended by the design as described at paragraph 13(b) of the Technical Assessment F - *“flows redistribute laterally to confirm to their original floodplain pattern within a very short distance downstream of the structures, and generally within the proposed designations.”*
72. If the existing secondary overland flow paths and any increase in surface water flows cannot discharge to the west under the expressway, Queen Street East in the location of access to the Property, and the Property itself will experience significant increased risk from inundation.
73. Mr Kinley in the Joint Witness Statement is seeking amendments to conditions that would require, *“... no increase of more than 50mm in flood level on land zoned urban...”* and *“that compliance with that condition be demonstrated through flood modelling of the existing environment with the project in place for the 10% AEP flood event and the 1% AEP + CC flood event or another large flood event that is consistent with the Horizons and Horowhenua District Planning Requirements.”*

74. The Prouses, their Counsel and I met with the Ō2NL project team and have raised these matters for the purpose of identifying how they may be resolved. Waka Kotahi representatives have subsequently proposed two additional culverts¹² to improve the current stormwater design. The Prouses were advised that Waka Kotahi anticipates some further improvement at the north-west corner of the Prouse Property may be possible by modifying approaches to culverts and their inlet and outlet structures which could be investigated at further design stages. This proposal is not yet reflected in conditions of consent and does not specifically address how significant increases in flooding within the Prouse Property and the access to the Property will be avoided and/or mitigated through the Outline Plan process.

D. Transportation Effects

75. The Prouse Property is one of 92 properties directly affected by the NOR Project and that will need to be acquired in part to enable the construction of the project. According to Phillip Peet the author of the NOR's Technical Assessment A on Transportation, the *"access onto the road network for these partially acquired properties have been worked through ... as existing connections remain unchanged, or the proposed access provides a like for like travel solution¹³."*
76. The NOR plan set does not specifically provide for local roading connections in the manner anticipated by the Tara-Ika structure plan in the vicinity of the Prouse Property. However, the technical assessment prepared by Mr Peet notes that the traffic modelling has considered the traffic generation forecasted by the development of the Tara-Ika precinct. Mr Peet notes at paragraph 65 of his report that, *"... Growth in Tara-Ika is predicted to be greater due to the advanced nature of Horowhenua District Council's proposed Plan Change ("PC4") where utilities infrastructure improvements are occurring and are planned to occur and its proximity to Levin."* Mr Peet states that he has considered the provisions set out in the Regional Land Transport Plan, the Regional and District Plans and the Wellington Regional Growth Strategy and that, *"the O2NL Project is consistent, from a transport*

¹² Refer to plan attached to Karen Prouse's evidence for the location of these culverts

¹³

perspective, with all these documents. Therefore, for reasons outlined below, I consider the Project has strong alignment with transport policy at a regional and national level.”

77. It is important that the new roading connections into the Property from Queen Street East overpass does not have unintended consequences on future roading connectivity due to the lack of an appropriate design at the Outline Plan stage. In my view, provision could be made for these new roads including the intersections in this location at the time of preparing the Outline Plan so that they can support future urban growth. Otherwise, there is the potential that these new roads could create severance issues.
78. Mr Peet discusses the effects of severance at paragraph 204 of his technical report when considering effects on community connectivity, *“severance will also increasingly become an issue under the Do-Minimum. Severance can be created when a road acts as, or feels like, a barrier to movement If people do not make a journey as they would like to, this has negative consequences at both social and economic levels.”* Mr Peet states this was an important matter that was investigated when identifying desired local road connections. Mr Peet concluded that the only impact of the Ō2NL Project on the performance of intersections on the existing road network that could experience adverse impacts was limited to the Tararua Road and State Highway 57 intersection; and the State Highway 1 and Tararua Road intersection due to the reassignment of traffic.
79. Graeme McIndoe who has prepared the section 198D Report on Urban Design on behalf of the Kāpiti Coast and Horowhenua District Councils also concluded that, *“the proposed street connections at the north and south boundaries of Tara Ika (HDC Plan Change 4 urban growth area) at Queen Street East and Tararua Road are well located and configured.”*
80. While the local roads serving the Prouse access are generally in the right location and configuration, the design and placement of them, and in particular any intersection should take into account future vehicle movements and ensure the main access that

will service future residential growth is located correctly. This is likely to require consultation with the Prouses and an assessment under Horowhenua District Council's planning provisions, and minimum design requirements.

81. Since the development of the NOR plan set, Waka Kotahi representatives have suggested amending the simple access off the Queen Street overpass and short cul-de-sac type arrangement to retain a new local road to the far western edge of the Property and ensure three like-for-like accesses into the Property are maintained off this new road. Waka Kotahi representatives have also agreed in principle to not relocate the public carpark currently located on the northern side of Queen Street East to the eastern side of Queen Street East between the Prouse Property and the Queen Street East over-bridge. However no specific provision has been made in the draft conditions to give effect to these proposed changes.
82. The Horowhenua District Plan contains specific provisions relating to new roads and intersections. Clause 21.1.2 of HDC's District Plan sets out minimum requirements for road intersections (other than State Highways) including minimum distances between local roads, design requirements for intersections and roads intersecting at T-intersections, minimum sight distances and intersections with arterial routes to be specifically designed to provide for busy and heavy vehicle use. To support safe roading connections and for all new roads that vest in a territorial authority New Zealand Standard NS4404:2010 recommends road safety audits be carried out during the design, construction, and post construction phase. There has been no documentation contained in the NOR that addresses this in respect of these local roads.
83. In the interest of creating strong alignment with transport policies set out in the District Plan, the Project would benefit from including the design and positioning of the intersection and new roads off the Queen Street East in its Outline Plan for the Queen Street East overbridge.

F. Construction Effects including from traffic, access, dust, noise and vibration

84. Construction effects have been identified by the NOR AEE as follows:

- a) Construction of a haul road within the western area of the Prouse Property;
 - b) According to Phillip Peet's Technical Assessment of transport, up to 90 heavy vehicle movements per day (180 return movements) along the haul road which will generate noise, dust and vibration effects. Michael Smith in his assessment states it is more likely to be in the vicinity of 130 heavy vehicles per day with 10 movements in 15 minutes at the peak;
 - c) According to Michael Smith's Technical Assessment of noise, construction noise levels are predicted as follows:
 - (i) Bridge: sheet piling: 68dB; bore piling: 60dB; compaction: 57dB
 - (ii) Hauler Road within 100m: 57dB
 - (iii) Bulk earthworks within 100m: 73dB
 - d) There will also be a period post construction of up to 18-months, where vehicles will be travelling on a rough chip seal surface before the high performing low noise road surface is applied.
85. Construction activities are likely to result in increased vibration and compaction in the vicinity of the haul road. Adjoining this haul road is a row of very old macrocarpa trees that may be at risk from falling over as a result of this activity. Waka Kotahi representatives have commissioned an arborist to report on the health of these trees to determine whether they need to remove them or not. The outcome of that report has not yet been finalised and no specific provision has been made in the conditions to require or respond to this reporting. The potential adverse effect of losing these trees, particularly on the landscape and visual effects of the Property are high. It seems reasonable to include a site-specific condition that requires the removal and replacement of these trees if they are assessed by a suitably qualified person as needing removal.
86. The Prouse's will experience very high noise levels and are likely to experience vibration while inside their dwelling. It is likely that these noise levels will affect

occupants' ability to enjoy rest and relaxation particularly given that one of the occupants is retired and spends most of their time on the property during the week.

87. Waka Kotahi have sought a waiver under section 176A(2) of the Resource Management Act ('the Act') to waive the requirement to submit outline plans for site establishment works. Site establishment works consist of activities required to be undertaken prior to the commencement of bulk earthworks. It has also been noted that 'establishment works' are excluded from the definition of 'construction works' and are not bound by the requirements of the Regional Council proposed condition RES1. I understand the construction of the haul road, including the removal of the macrocarpa trees within the Property if required would form part of the establishment works.

88. The establishment works where they adjoin this Property could generate adverse effects on the Property and the occupants of the Property. I consider that there should be some ability within the NOR and regional council consent to manage effects during this period. To this end, I agree with the recommendations set out in paragraph 108 of Helen Anderson's S198D Report that there be appropriate conditions or amendments to proposed conditions or updates to management plans for the establishment works, as described below:

- a) *"Include an adaptive management approach for erosion and sediment control;*
- b) *Provide a condition requiring site specific erosion and sediment control plans and control devices to be in place to accommodate "Establishment Works" as well as "Construction Works" to enable land disturbance associated with haul roads, site establishment, vegetation clearance and stripping to be included and managed appropriately;*
- c) *Amend RFE4 to clarify monitoring requirements for event-based monitoring and align timing of reporting with RES9;*

- d) *Include a minimum baseline monitoring period (eg. 2-3 years) prior to construction;*
- e) *Include a condition requiring Council certification (eg. engineering sign-off) of the design and Operation and Maintenance Plan; and*
- f) *Include management of contaminants resulting from spills on the expressway, and litter management in the Operation and Maintenance Plan.”*

Section E –Review of Proposed Conditions & Mitigation Sought

89. There are a number of changes that could be made to the conditions of the NOR and regional council consent that would address and mitigate potential adverse environmental effects that remain outstanding for the Prouse Property including Ashleigh homestead, and the accesses to the Property.
90. These proposed amendments are listed below with ~~strike-out~~ shown for proposed deletion and underline to show proposed inclusion in the conditions:

1. Amendment to condition DGA6: Outline Plan (c)(iv):

“...

c. An outline plan must include the following, where relevant to the particular design, construction or location matters being addressed:

...

iv. The outcomes, including any ~~recommended mitigation, of consultation,~~ recommendations from suitably qualified and experienced persons, regarding the design and layout of the new local roads and intersections into those roads servicing 1024 Queen Street East; the design and layout of accesses into 1024 Queen Street East; as well as any other potential heritage impacts including of the Queen Street East pedestrian and cycling connection ‘Ashleigh’, , regarding the potential heritage impacts in respect of 1024 Queen Street East. The outline plan required by clause (a) must demonstrate that: (i) the Project does not include public car parking within the designation between the property at 1024 Queen Street East and Queen Street East, as realigned; and (ii) Landscape and visual planting shown on the Planting Concept

Plan Sheet 5 submitted with the application documents and within the designation, shall extend for the full length of the western property boundary of 1024 Queen Street East, and shall include a solid 2 metre high timber fence constructed along the length of this boundary.

...”

2. Amendment to DNV4(a)(iii) – Site specific construction noise and vibration mitigation:

“a) In addition to the measures described in the Construction Noise and Vibration Management Plan required by Condition DNV3, the requiring authority must identify and adopt site specific mitigation for the management of construction noise or construction vibration where:

...

(iii) Construction activities being undertaken within 100 metres of the property boundary of:

A. 96/98 Arapaepae Road

B. 1024 Queen Street East, including the removal and replacement of the macrocarpa/pine hedge of trees located alongside the haul road as assessed by a suitably qualified and experienced person or persons;

C. 217 Kimberley Road/345 Arapaepae South Road ...”

3. Amendments to Schedule 2: Construction Environmental Management Plan clause (a)(x) to include:

“x. a description of site-specific mitigation, of the adverse effects of construction activities on the residents of 96/98 Arapaepae Road that is developed in consultation with the owner and site manager; and on the residents of 1024 Queen Street East in consultation with the owners, and includes, but is not limited to:

A. ...

B. ...

C. ...

D. ...

E. ...”

5. Amendment to DRN4 - Post construction review of noise mitigation to add a new (d):

“a) a post-construction reviews of the following noise mitigation measures must be undertaken:

....

(b) The reviews required by clause (a) must confirm that:

- i. the noise mitigation measures have been constructed or installed as described in the design report required by Condition DRN3; and*
- ii. the predicted sound levels at each identified PPF listed in Schedule 9 in 2039 set out in the report under Condition DRN3 will be achieved.*

c) ...

d) For the purpose of achieving condition DRN4(b)(ii) and recognising the heritage values and two-storey design of the PPF at 1024 Queen Street East, actual sound levels at, and within the habitable upstairs rooms shall be undertaken by a suitably qualified and experienced person or persons.”

6. Amendment to DRN6(b) – Building Modification so it reads:

“DRN6 Building Modifications

a) Prior to commencement of construction, those PPFs that are predicted to be in Category B and Category C in 2039 must be identified.

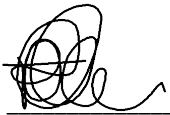
b) The requiring authority must write to the owner of the PPFs identified under clause (a) together with the owners of the PPF at 1024 Queen Street East, and request access to their properties for the purpose of investigating building modifications to reduce internal noise in habitable spaces to achieve 40 dB $L_{Aeq(24h)}$.

c)”

7. Amendments to RGA1 – General Accordance (Regional Council consent) with a new condition; or a similar condition as recommended by Mr Peter Kinley in the Joint Witness Statement that achieves the same or similar outcomes:

“(c) In respect of 1024 Queen Street East and its access points, the project be designed to achieve no increase of more than 50mm of flood level (based on 10% AEP flood event and the 1% AEP + CC flood event and any other large flood event that is consistent with the Horizons Regional Plan and Horowhenua District Plan requirements). Compliance with this condition will be demonstrated through flood modelling.”

Dated: 15 September 2023

A handwritten signature in black ink, appearing to be 'Anna Carter', written over a horizontal line.

Anna Carter

Attachment 1: Relevant Planning Provisions

National Policy Statement – Urban Development 2020

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

- (a) have or enable a variety of homes that:
 - (i) meet the needs, in terms of type, price, and location, of different households; and
 - (ii) enable Māori to express their cultural traditions and norms; and

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- (b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
- (c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and
- (d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and
- (e) support reductions in greenhouse gas emissions; and
- (f) are resilient to the likely current and future effects of climate change.

Policy 6: When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters:

- (a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement
- (b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes:

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- (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and
- (ii) are not, of themselves, an adverse effect
- (c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1)
- (d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity
- (e) the likely current and future effects of climate change.

Horowhenua District Plan – Relevant Objectives and Policies

Objectives & Policies

Objective 6A.1

To achieve an integrated, efficient, and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well-connected, safe and efficient transport network that supports a range of transport modes and has the facilities, social infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Design that reflects Muaūpoko cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design;

Horowhenua District Plan

3

6A OBJECTIVES/POLICIES: TARAİKA MULTI-ZONE PRECINCT

- Within the Arapaepae Road Special Treatment Overlay, development that is appropriate for the site in terms of scale, access, and compatibility with surrounding land uses
- Within the Arapaepae Road Special Treatment Overlay, the health and wellbeing of occupants is appropriately protected.

Policy 6A.1.1

Subdivision, infrastructure and land development in Tara-ika must be consistent with the outcomes sought by Structure Plan 013. Subdivision and land development that does not provide Primary Structure Plan Features in the manner shown on Structure Plan 013 will only be considered where an alternative is proposed that will achieve the following:

- The same or similar level of connectivity within Tara-ika;
- The same or similar level of connectivity between Tara-ika and the existing urban area of Levin/Taitoko;
- Protection of opportunities for land adjacent to Tara-ika to be connected to Tara-ika in the future;
- Public recreation space of an equivalent functionality as that shown on the Structure Plan and that is within walking distance of a similar number of properties as shown on the Structure Plan;
- A streetscape that maintains an appropriate expression of street hierarchy and consistency of treatment along any Arterial or Collector Road;

Policy 6A.1.2

Provide for a well-connected and integrated urban environment by specifying the manner in which Primary Structure Plan Features indicated on Structure Plan O13 need to be provided. The manner in which these features need to be provided is set out below:

North/South Arterial Roads

- Be provided in a location central to the Tara-Ika growth area and be generally straight.
- Be located to provide road frontage to the commercial zone and central open space (including education overlay).
- Be utilised for stormwater management as required.

East/West Arterial Roads

- Be provided in a location central to the Tara-Ika growth area and generally straight.
- Be oriented to provide views towards the Tararua Ranges.
- Be located to provide road frontage to the commercial area (on both sides of the road) and to the central open space (including education overlay) and make provision connect directly into Taikoko/Levin.
- Be utilised for stormwater management as required.

Collector Roads

- Be uniformly spaced from the arterial roads.

Horowhenua District Plan

4

6A OBJECTIVES/POLICIES: TARAIIKA MULTI-ZONE PRECINCT

- East/West collector roads should be oriented to provide views towards the Tararua Ranges.
- North/South collector roads should be located to provide direct connections to the East/West collector roads.
- Be utilised for stormwater management as required.

Strategic Cycleways

- Be located directly alongside arterial or collector roads.
- Be located so that they will (when completed) provide a connection from edge to edge of the Tara-Ika growth area in both a North/South and East/West direction.
- Be located to provide connections to and through the commercial zone.
- Be located to provide connections to the education overlay on two sides.
- The northern East/West cycleway should be located so that (when complete) it will provide a connection from Arapaepae Road to Waiopēhu Reserve.

Central Open Space

- The central open space area should be of the general size and shape indicated on the structure plan, located immediately adjacent to the commercial area, and include provision for a primary school.
- Be located directly opposite commercial area.

Maunu Wahine

- Should adjoin Waiopēhu Reserve.
- Be of a size and shape that enables Muaūpoko cultural values to be delivered.

Policy 6A.1.10

Require ecological areas, transport corridors, stormwater reserves and open space reserves to be designed and managed in a way that protects and enhances habitat for Muaūpoko taonga

Objective 6A.2

Efficient delivery of infrastructure within Tara-ika will enable development while protecting environmental and cultural values and achieving a high level of residential amenity.

Policy 6A2.1

Make provision within Tara-ika for housing yield of at least 3,500 houses.

Policy 6A2.2

Require subdivision and development to be managed, designed and staged to align with the coordinated provision and upgrading of the infrastructure network (including the transport network and stormwater network), public open space, streetscape and local service facilities

Horowhenua District Plan

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6A OBJECTIVES/POLICIES: TARAIIKA MULTI-ZONE PRECINCT

within Tara-ika, as illustrated on Structure Plan 013.

Policy 6A2.3

Avoid subdivision and development that compromises the ability to provide efficient and effective infrastructure networks including for the wider Tara-ika Growth Area

Objective 6A.3

Stormwater management in Tara-ika will be resilient, culturally sensitive, and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Incorporating Water -Sensitive Design;
- Minimise adverse effects on downstream environments and ecosystems by retaining all stormwater onsite in a 1 in 100 year annual return interval rainfall event (with allowance for climate change);
- Avoiding natural areas and ecosystems that are sensitive to modifications to changes in groundwater and surface water levels and flows

Policy 6A.3.1

Require an integrated approach to managing stormwater from Tara-ika to ensure the quality and quantity of runoff does not have an adverse effect on Punahau (Lake Horowhenua), the Koputaroa Stream, or other downstream environments.

Policy 6A.3.2

Require all stormwater to be retained and disposed of within the Tara-ika Growth Area for up to a 1 in 100 year annual return interval rainfall event (with allowance for climate change and allowance for catchment predevelopment flow continuity), and treated and managed utilising the best practicable option to mitigate the effects of stormwater by including the following:

- (i) limiting the extent of impervious areas;
- (ii) incorporating on-site treatment and disposal of stormwater into subdivision and development design;
- (iii) provision of catchment-wide facilities like wetlands and basins that are efficient and effective from both a construction and maintenance perspective;
- (iv) maintaining predevelopment flows to the natural downstream ecosystems

Policy 6A.3.3

Recognise and provide for the principles of te mana o te wai and the role of Muaūpoko as kaitiaki of the Tara-ika environment and its connection to Punahau (Lake Horowhenua) by working with Muaūpoko to protect the mauri of freshwater within Tara-ika and to manage stormwater quality and quantity.