Before an Independent Hearings Panel
appointed by the Waimakariri District Council

under: the Resource Management Act 1991 (*RMA*)

in the matter of: Submissions and further submissions in relation to the proposed Waimakariri District Plan, Variation 1 and Variation 2

and: Hearing Stream 7: Residential, Large Lot Residential, Ecosystems and Indigenous Biodiversity, Variation 1 and Variation 2

and: **Christchurch International Airport Limited**
Submitter 254

Supplementary Evidence of John Kyle (planning)

Dated: 30 September 2024

REFERENCE: JM Appleyard (jo.appleyard@chapmantripp.com)
ME Davidson (meg.davidson@chapmatripp.com)

chapmantripp.com
T +64 3 353 4130
F +64 3 365 4587

PO Box 2510
Christchurch 8140
New Zealand

Auckland
Wellington
Christchurch

chapman tripp

SUPPLEMENTARY EVIDENCE OF JOHN KYLE

INTRODUCTION

1 At Hearing Stream 7 on 17 September 2024 the Independent Hearings Panel (*the Panel*) requested additional information about the relevant Christchurch City Plan (*City Plan*) provisions that enable the operation of Christchurch International Airport (*Airport*) with respect to aircraft generated noise. In particular, the Panel requested details of the standards the Airport must comply with in order to operate as a permitted activity.

2 This information is provided in the context of the legal submissions for the Airport and my evidence in Hearing Stream 7 that the PC14 Panel's recommendation in paragraph 319 is wrong and "locked in time" because it interprets the protection of the Airport's "existing lawful activities" as being limited to protection of with its current operations at current levels of noise. The Christchurch District Plan in fact authorises the Airport to grow and operate well beyond current levels of noise for years into the future.

3 As one would expect, the relevant Plan provisions have been informed by the methodology for determining sound exposure contours (*Contours*) set out in New Zealand Standard *NZS6805:1992 Airport Noise Management and Land Use Planning* (*NZS6805*).

4 This supplementary evidence describes the following aspects of the relevant City Plan provisions:

4.1 the NZS6805 methodology for the development of contours, which are used to inform planning decisions;

4.2 the rules that apply to the Airport under Chapter 6 of the City Plan insofar as these relate to the management of aircraft generated noise; and

4.3 the designation that applies to the Airport.

NEW ZEALAND STANDARD NZS6805:1992 AIRPORT NOISE MANAGEMENT AND LAND USE PLANNING

5 NZS6805 is "… *intended to be applicable to all airport*[s]*…to ensure communities living close to the airport are properly protected from the effects of aircraft noise whilst recognizing the need to be able to operate an airport efficiently*." It provides *minimum* requirements to protect people from the effects of aircraft noise. A local

authority may determine that higher levels of protection than the Standard are necessary.

6 A key aspect of NZS6805 is the determination of contours identifying where aircraft noise effects are likely to be experienced and consequently, where the land use planning regulatory framework should control noise.

7 As was discussed at the hearing, the development of contours is based on the projected future state of air traffic at an airport. The evidence of Mr Hawken[1] (Hearing Stream 10A) described how noise contours are constructed at commercial airports like Christchurch.

8 NZS6805 clause 1.4.3.8 specifies that after contours are modelled based on airport growth projections, the final modelled extent of the contours must be incorporated into district plan maps. These mapped contours can then be used to manage land uses to protect community health and amenity, and safeguard efficient airport operations.

9 As discussed at the hearing, these contours are based on future forecasts of aircraft use and until such time as the Airport reaches the level of development the contour was modelled on, noise exposures will be lower than the permitted level of exposure.

CHRISTCHURCH CITY PLAN, AIRPORT DESIGNATION

10 Chapter 10 of the City Plan sets out designations. The designation that applies to the Airport is designation "D1 Christchurch International Airport". The spatial extent of the designation is shown in Diagram A, replicated below as **Figure 1**.

11 The airport operator, Christchurch International Airport Limited, is the Requiring Authority for the designation. The designation has no associated conditions.

12 The designation has three sub-areas. Their purposes are:

> *Area A1: Airport. Airport purposes.*
>
> *Areas A2 and B: Airport - Restriction in respect of land and associated airspace for the purposes of a Runway End Protection Area, for the safe and efficient functioning of the Airport…* [full text not shown here].

[1] Paragraphs 76 to 90 of the *Statement of evidence of Sebastian Hawken (Airport Safeguarding)* dated 2 February 2024.

13 Consequently, designation D1 provides broad scope for the ongoing operation of the Airport.

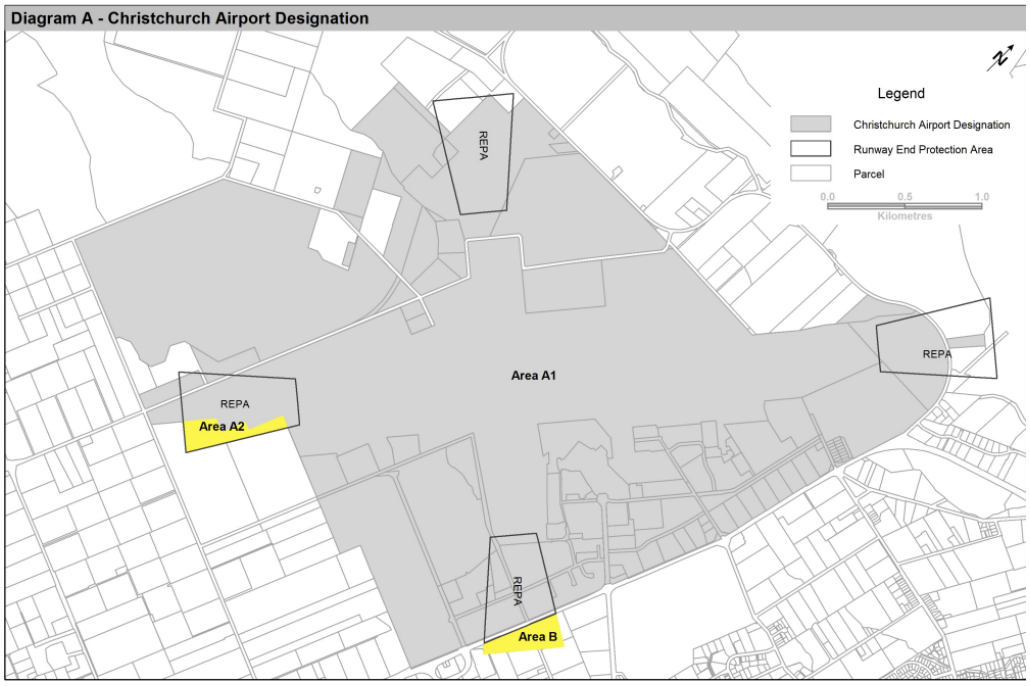

Figure 1: *City Plan Diagram A for designation D1.*

CHRISTCHURCH CITY PLAN, CHAPTER 6 (NOISE)

14 Noise generated by certain activities associated with the Airport are subject to a specific policy and must comply with activity-specific permitted noise limits. The provisions rely on mapped contours, which are replicated in the **Figure 2** and **Figure 3** below.

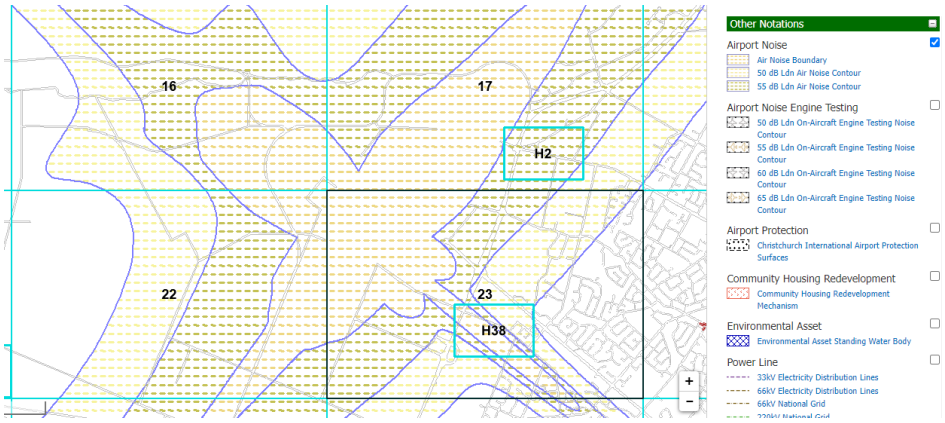

Figure 2: *Christchurch City Plan air noise contours*[2]*.*

[2] The City Plan online maps do not let the user to zoom out to the full extent of the air noise contours. Hence this figure only shows parts of the air noise contour extents (centred on the Airport).

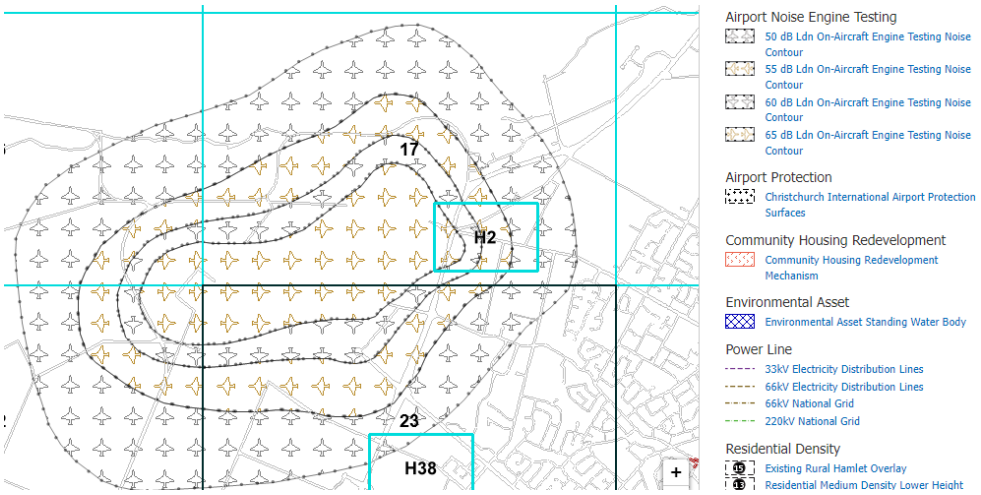

Figure 3: *Christchurch City Plan on-aircraft engine testing contours.*

15 Non-compliance with the noise limits specified for the Airport requires a resource consent, similar to any activity that exceeds a permitted noise limit.

16 The City Plan's airport noise-specific policy is:

> *6.1.2.1.5 Policy - Airport noise*
>
> *(a) Require the management of aircraft operations and engine testing at Christchurch International Airport, so that:*
>
> *(i) noise generated is limited to levels that minimise sleep disturbance and adverse effects on the amenity values of residential and other sensitive environments so far as is practicable;*
>
> *(ii) where practicable, adverse noise effects are reduced over time.*
>
> *(b) Mitigate adverse noise effects from the operations of the Christchurch International Airport on sensitive activities, by:*
>
> *(i) prohibiting new sensitive activities within the Air Noise Boundary and within the 65 dB L_{dn} engine testing contour; and*
>
> *(ii) requiring noise mitigation for new sensitive activities within the 55 dB L_{dn} air noise contour and within the 55 dB L_{dn} engine testing contour; and*
>
> *(iii) requiring Christchurch International Airport Limited (CIAL) to offer appropriate acoustic treatment in respect of residential units existing as at 6 March 2017 within the 65 dB L_{dn} Annual Airport Noise Contour, and within the 60 dB L_{dn} engine testing contour.*

17 Policy 6.1.2.1.5(a) is implemented by rules that manage noise associated with "aircraft operations" and noise associated with on-aircraft "engine testing".[3]

Managing noise from aircraft operations

18 Under rule 6.1.6.1.1(P1)(e) any activity listed under rule 6.1.6.2.5 (Aircraft operations at Christchurch International Airport) is a permitted activity if it complies with performance standards. The performance standards[4] are:

18.1 Noise from aircraft operations must not exceed 65 dB L_{dn} outside the "65 dB L_{dn} Air Noise Compliance Contour" (i.e. one of the contours developed under NZS6805) except in unplanned/emergency circumstances;

18.2 Noise monitoring and verification of the Airport's compliance with the noise limits must be reported annually to the Christchurch City Council;

18.3 An Airport Noise Management Plan showing how the Airport will comply with the City Plan noise limits must be maintained and updated biannually (this was referred to in Ms Hayman's evidence for Stream 10A and is available on CIAL's website);

18.4 The Airport operator must maintain and biannually update an Acoustic Treatment Programme. This obliges the Airport operator to make offers to pay for the retrofitting of acoustic insulation and/or mechanical ventilation of dwellings affected by the highest levels of aircraft operational noise[5]; and

18.5 An Airport Noise Liaison Committee must be established and operated by the Airport operator. The Committee must consider, and make recommendations to the Airport operator on, Airport-related noise matters. The Committee must report annually to the Christchurch City Council, with a summary of the Committee's composition and the matters it has considered.

19 These rules require the Airport operator to measure, monitor and regularly report on, the noise generated by aircraft operations, and to offer acoustic insulation and mechanical ventilation retrofits to the residents of existing dwellings affected by high levels noise aircraft operations.

---

[3] These terms are defined in the City Plan.

[4] The performance standards are spread among rules 6.1.6.1.1 and 6.1.6.2.7.

[5] Dwellings within the Annual Aircraft Noise Contour (AANC) described at rule 6.1.6.2.5(a)(iii)(B).

20 Noise from aircraft operations that does not meet these permitted activity performance standards requires resource consent as a discretionary activity under rule 6.1.6.1.4(D1)(a) of the City Plan.

Managing noise from on-aircraft engine testing

21 The City Plan manages noise from on-aircraft engine testing similarly to noise from aircraft operations. Permitted activity performance standards apply, and if they are exceeded, a discretionary resource consent requirement applies to the noise[6]. These measures are not particularly relevant in the context of Waimakariri District so for this reason I do not discuss them in detail here, and they are simply noted for completeness.

CONCLUSION

22 Airport noise contours are developed based on the methodology described in NZS6805. This forward-looking methodology requires consideration well beyond the current state of an airport, to take into account numerous factors indicating the projected future growth of airports.

23 In its current state, the Airport could undertake substantial expansion within the limits of the current contours that are mapped in and referenced in the City Plan. This is why I proffered the opinion that the PC14 Panel was wrong to interpret the phrase "existing lawful activities" as being limited to current operations and not allowing for legally authorised growth.

24 The Airport operates in accordance with a broadly framed "airport purposes" designation in the City Plan. The designation is unconditional.

25 To operate the Airport on a permitted basis under the City Plan, the Airport operator must comply with detailed permitted activity performance standards relating to noise. The rules require detailed noise monitoring and verification processes, regular review and publication of a Noise Management Plan, the maintenance and operation of an Airport Noise Liaison Committee and the provision of offers to retrofit dwellings affected by high levels of aircraft-related noise.

26 In the case of non-compliance with the permitted activity rules, the Airport could not operate on a permitted basis. The Airport operator would be obliged to procure

[6] See rule 6.1.6.1.1(P1)(f), rule 6.1.6.2.6 (On-aircraft engine testing at Christchurch International Airport), rule 6.1.6.2.7 (Additional activity standards for aircraft operations and on-aircraft engine testing at Christchurch International Airport) and rule 6.1.6.1.4(D1)(b).

discretionary resource consents to authorise the emissions of noise generated from aircraft operations and/or from on-aircraft engine testing.

Dated: 30 September 2024

John Kyle