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22 July 2022

Ruru Building Limited C/- Hans van der Wal Barrister

Hans@Hansvanderwal.co.nz

Dear Hans

Further Information Request for Resource Consent Application Nos. RM210785 & RM210786 - Motueka Airport Height Control

This is a replacement to my letter of 15 July 2022 with changes on page 3 to take account of relevant information found earlier this week.

Your written response dated 15 March 2022 to the further information request refers.

You raised several points relating to the Height Control provisions for Motueka Airport in Section 16.11 of the Tasman Resource Management Plan (TRMP) including the matters in Ben Smith's email dated 8 February 2022 that was attached with your letter. I was asked to consider and respond to those specific concerns. So you are aware, I have a BSurv degree (Otago 1978), I achieved registration as a land surveyor in 1982, and held a practising certificate until 2002 when the change to licensing for cadastral surveyors occurred. I have been working with maps, plans, the RMA and Plan rules for much of my career.

In summary, I have reviewed the situation with TRMP Schedules 16.11A & B for the Motueka and Takaka Airports, and I consider that these provisions are capable of being applied. They are not "void", but they need minor corrections to clarify and align them with the Section 16.11 rules. I will explain those minor amendments in this letter. I have requested that they be included with the next TRMP update that is scheduled to be notified next week.

My initial reaction was that I agreed with your point that having the statement "do not scale" on the diagrams in these two Schedules makes it uncertain as to how they are to be used because, as you say, there are no dimensions stated on the diagrams other than the 1500m distance shown and what is stated in the accompanying notes. That prompted me to try to discover why the statement "do not scale" is in the two Schedules.

What I thought would be a fairly straightforward review of the TRMP records relating to Section 16.11 evolved into a much wider search of Council and MWH archives for the Motueka Airport trying to find relevant information in the records – which took some time to do, also delayed by Covid illness.

I use the term "airport" only because that is the description used in the TRMP, although I am aware that "aerodrome" would be more applicable to Motueka in aviation terminology.

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The diagrams in Schedules 16.11A & B were added into the Proposed TRMP in August 1999, by adoption a staff report on submissions dated January 1999. That report included diagrams of the recommended height control surfaces or Obstacle Limitation Surfaces (OLs) that were prepared by MWH NZ Ltd [refer copy of *SAR 258 and Decision* attached]. While the engineering drawing template used by MWH for those January 1999 diagrams has the standard "do not scale" advice note in the margin, that note was not included in Schedules 16.11A & B when they were added into the TRMP in August 1999. That is what I would expect because the diagrams were drawn to scale, and although they had to be reduced in scale to fit the TRMP A4 document format, the 1500m distance shown on them provided a basic but usable scale reference.

However, several years later in January 2005, the advice note was added into the two Schedules as part of TRMP update No.14 [refer to *TRMP Schedule 16.11A History 1999-2005* attached]. Looking at the August 1999 version of Schedule 16.11A, it is evident is that the diagram for Motueka Airport was distorted when it was copied from the MWH drawing into the TRMP document, and that "error" was rectified in the 2005 version (which has remained unchanged in the TRMP since then). But I have not been able to find any records relating to the "refreshed" diagrams in that January 2005 update, that explain why it was thought necessary to add the "do not scale" advice note – and whether the reason for omitting it from the diagram in 1999 was properly understood.

My key finding is that the OLS diagrams in the TRMP were and are still drawn to scale. Therefore, the addition of the "do not scale" note in 2005 was an error. While I am aware that dimensions or distances have been scaled from the diagrams in past 17 years, including by Nikkel Surveying Ltd in 2017, you have raised valid points about it, so I have requested that the "do not scale" be deleted from Schedules 16.11A & B. That is to correct a minor error, so the Schedules can be used as they were intended to be when the two diagrams were first adopted into the Proposed TRMP in August 1999. I have also requested that a linear scale be added to both diagrams to remove any uncertainty – which, in my view, is what should have been done in January 2005.

You also refer to the use of the terms "runway" and "runway strip" in TRMP Section 16.11, particularly questioning how they can be applied for determining the ends of the runway and/or the runway strip at Motueka. To consider these points, I have referred back to the 1993 CAA Guidance for Aerodrome Design that was current at the time (1999), as well as the Motueka Aerodrome Certification Exposition plan 1856/2-C dated 30 July 1994, the CAA NZMK for Motueka published 6 November 1997, an aerodrome layout plan dated 20 May 1996 and a subsequent layout plan drawn by MWH in 2001-2, noting that the latter shows the height limitations that were in the Motueka Transitional District Plan at the time [copies of the 1996 and 2001-2 plans are attached].

What these records show is that at the time when the diagram in Schedule 16.11A was drawn, the ends of the "runway strip" for the sealed runway at the Motueka airport extended 30 metres beyond the ends of that runway – the sealed runway was 724 metres long and the runway strip was 784 metres long. That is the length shown in the original MWH drawing for Schedule 16.11A and it is the length as measured on Schedule 16.11A (using the 1500m distance as the reference for scale).

I consider it credible that the runway strip depicted on the MWH drawing (January 1999) was intended to be generally based on the layout shown on the 1996 plan, combining the sealed and grass runways strips, with the resulting "black strip" aligned on the runways and centred in the middle of the combined width (ie, offset 10.0 metres on the southeast side of the sealed runway centreline). The Transitional Side Surfaces commence from the outer edges of the combined runway strips.

This Council and the LINZ website have aerial photography taken over Motueka in 1989 and 2002, but not during the decade between the sealed runway being laid in 1991-92 and the Drag Pad extension being added in the summer of 1999-2000. However, on Council's archived file for the aerodrome, I have found a copy of an aerial photo taken during the mid-1990s which shows the sealed runway in place. This aerial photo was used for a submission on the draft aerodrome management plan in August 1995 [refer to *Motueka Aerodrome Aerial Photo Mid 1990s* attached]. It confirms the position of the northeast end of the sealed runway before the Drag Pad was added, and that the runway has not been extended at that end since (other than the addition of the Drag Pad). For completeness, I note that the runway has been extended by a few metres at the southwest end .

The plans I have referenced above show the end of the runway strip 30m out from the end of the sealed runway. A reliable reference point is the road boundary angle northeast from the runway. Scaling off the 1990s aerial photo puts that boundary angle at **82 metres** from the end of the runway, which would put the end of the runway strip 52 metres from the road boundary angle, compared to 85 and 55 metres scaled off the plans.

That brings me to the disparity between the Notes within TRMP Section 16.11 which state that the zero-height reference for the OLSs is at each end of the runway, whereas for Motueka the diagram and Note 1 in Schedule 16.11A suggest that the "inner edges" of the OLSs are positioned at the ends of the runway strip – a difference of 30 metres. If it was intended for the ends of the sealed runway strip to be the zero-height reference for the 1:50 OLSs, that is not clearly stated in the other Notes. And there is no clear priority given to the sealed runway because the transitional side surfaces need to apply for both sealed and grass runways. In this case I consider that the Notes should be given most weight for interpreting and applying these rules.

Therefore, I have requested that the diagram in Schedule 16.11A be corrected to be consistent with those Notes – as per the 1:50 OLS for the northern approach at the Takaka Airport. It follows that the "inner edge" (zero height reference line) for the northern OLS at Motueka is positioned **82 metres** from the road boundary angle, at the end of the sealed runway as per the 1990s aerial photo. I have also requested that a note be added to Schedule 16.11A to confirm this, as well as the OLS being centred on the middle line of the sealed and grass runways as per the 1996 layout plan.

These corrections to Schedule 16.11A are all minor corrections, having the purpose of ensuring that the content is clarified and aligns with what was intended when the provisions were added into the TRMP in August 1999. A copy of the corrected diagram for Schedule 16.11A is attached for your information.

In conclusion, I consider that request No. 8 in Mr Gibson's letter of 12 October 2021, for the applicant Ruru Homes Ltd to supply a plan that shows the specifics of the proposed breaches of the OLS (per the corrected OLS diagram) is a reasonable request, to assist with assessment of the application for land use consent.

Please feel free to contact me if you have any questions regarding this letter. My contact details are listed at the top of this letter.

Yours sincerely

Phil Doole

Principal Planner - Resource Consents