

**BEFORE INDEPENDENT HEARING COMMISSIONERS  
APPOINTED BY THE WAIKATO DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991 (**Act**)

**AND**

**IN THE MATTER** of hearing submissions and further submissions  
on the Proposed Waikato District Plan.

**SUBMITTER** NZTE Operations Limited

Submitter [No. 823]

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**EVIDENCE-IN-CHIEF OF JONATHAN BROEKHUYSEN ON BEHALF OF  
NZTE OPERATIONS LIMITED**

**(URBAN DESIGN)**

Dated: 15 February 2021

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## **INTRODUCTION**

- 1 My name is Jonathan Paul Broekhuysen. I am a New Zealand Institute of Landscape Architects Registered Landscape Architect and Director at Adapt Studio Limited (Adapt Studio), a firm I started as a sole practitioner in May 2017.

## **QUALIFICATIONS AND EXPERIENCE**

- 2 I have a Bachelor of Design degree (with Honours) majoring in Landscape Architecture from Victoria University of Wellington (2005). I have 15 years' experience working as a consulting landscape architect and urban designer.
- 3 Adapt Studio specialises in providing urban design and masterplanning input into large-scale development projects. Prior to my current role, I worked for nine years (March 2006 to May 2017) at Boffa Miskell Limited as a landscape architect as part of their Urban Design Team, reaching the level of Principal within the company. During that time, I also worked overseas for a Dutch company, Van der Tol, in garden design and maintenance.
- 4 I have been involved in several large-scale structure planning / masterplanning projects in and around the Auckland / Waikato Region, including the Ruakura Structure Plan in Hamilton, the Greenhill Park Masterplan in Hamilton, the Te Awa Lakes Plan Change (Private Plan Change 2, "PPC2") in Hamilton, the Sleepyhead Estate Plan Change in Ohinewai, the Ōrākei Papakāinga Masterplan in Auckland, the Rangitahi Peninsula Masterplan in Raglan and the Wesley College Special Housing Area in Pukekohe.

## **CODE OF CONDUCT FOR EXPERT WITNESSES**

- 5 I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014. I have complied with it in preparing this evidence and I agree to comply with it in presenting evidence at this hearing. The evidence that I give is within my area of expertise except where I state that my evidence is given in reliance on another person's evidence. I have considered all material facts that are known to me that might alter or detract from the opinions that I express in this evidence.

## **BACKGROUND**

- 6 The Te Kowhai Aerodrome (**Aerodrome**) is subject to the Te Kowhai Airpark Zone (**TKAZ**) as notified in the proposed Waikato District Plan (**pWDP**). As well as the operation of the Aerodrome, the TKAZ, allows for the establishment of a complimentary Airpark consisting of commercial and residential precincts (**Airpark**).
- 7 I was engaged by NZTE Operations Limited (**NZTE**) in 2016 to develop the masterplan (attached as **annexure A**) and framework Plan (attached as **annexure B**) for the Airpark project. As part of that process, I worked closely with the project team to develop the initial feasibility masterplan options and the subsequent revisions through to the production of the final concept masterplan which was used as a basis for the framework plan drawing and the TKAZ.
- 8 I confirm I have read the submission and further submission by NZTE, and the submissions that I refer to in this Evidence-in-Chief as they relate to my discipline.
- 9 I last visited the site on Thursday 03 December 2020.

## **PURPOSE OF EVIDENCE**

- 10 The purpose of my evidence is to explain the vision and thinking behind the masterplan and TKAZ, and respond to submissions on the effect of the Obstacle Limitation Surface (**OLS**) on the development potential and urban design outcomes of adjoining landholdings.

## **SITE AND SURROUNDING ENVIRONMENT**

- 11 The Aerodrome is located on the southern edge of the Te Kowhai township. Te Kowhai is a small rural town consisting of mainly dairy and cattle farms, a small dairy and takeaway shop, a greengrocer, Te Kowhai School (full primary), a community hall, and a collection of freestanding homes. The population of Te Kowhai was recorded as being 2,061 people across the 45 square kilometre area in the 2018 census.

- 12 The Aerodrome is located on a large flattish plain with Te Rapa in Hamilton approximately 4km to its east and the Hakarimata mountain range rising from the plains approximately 5km to the west.
- 13 Approximately 1.5km to the north west of the Aerodrome, and connected to the Te Kowhai township, lies the Te Otamanui Lagoon which feeds into the Waipa River. The Waipa River subsequently feeds into the Waikato River. There is a recent partially constructed walkway named Te Otamanui Walkway which will ultimately connect the town to the Waipa River.
- 14 Two thirds of the Aerodrome site's northern boundary is zoned Village Zone under the pWDP. The remaining third section of the northern boundary and the land to the east and west of the site retains a rural zoning in the pWDP. The land to the south of the site, and on the opposite side of State Highway 39 (Limmer Road) also remains as rural in the notified version of the pWDP.
- 15 The site is approximately 44.8 hectares in size and contains the existing Aerodrome, a collection of small-scale commercial buildings, a series of aeroplane hangars and an existing residential dwelling in the north eastern corner. Along the northern boundary is a grass runway with a length of approximately 983m. The balance of the site is paddocks used for cropping of corn, haymaking and some livestock.



***Figure 1 – Looking west from southern side of grass runway at existing hangers.***

- 16 The Aerodrome has been in operation since the early sixties when the then owner (Max Clear) turned farm paddocks into a runway. In the early eighties, Max Clear formed Micro Aviation Ltd and started producing the first

production built micro light Bantams in the Waikato. Around this time, Max formed training programmes for pilots. To this day, the Bantams play a large role in the training of pilots at the Aerodrome. Some 350 planes were ultimately built at the Aerodrome. The history of the Airpark and Aerodrome is set out in detail in paragraphs 4 to 23 in the evidence of Dan Readman.

- 17 The site is very flat with some limited hedgerows and is divided into a series of fenced paddocks. The four larger aeroplane hangars in the north west corner of the site are leased to individuals for plane storage. Two of these are newer and have been built in the last 10 years. There are three older half round barns to the east of these four larger hangars. The two smaller half round barns are used for general aviation related storage. The larger barn houses the NZTE offices, and a collection of small business operations. To the south of this barn there is an asphalt carpark area, an aeroplane fuelling station and a large, grassed area used for parking and manoeuvring aeroplanes.
- 18 There are two existing lifestyle blocks with homes between the southern boundary of the site and Limmer Road. Access to the site is off Limmer Road between these two lifestyle blocks via a skinny section of the site that heads north towards the runway. Along the western boundary there are three additional lifestyle blocks with homes. There is a large field to the east of the site on a larger farm and three further larger lifestyle blocks along the northern edge of the site.
- 19 There is a gas easement running north south through the site, to the east of the centreline of the site.
- 20 There is no significant vegetation to note on the site other than some sparse hedgerows and some larger standalone exotic trees.

#### **THE MASTERPLAN**

- 21 The Te Kowhai Airpark concept is a vision first conceived by the original owner, Max Clear, and subsequently in partnership with the Readman family, to have aviation enthusiasts live at the Aerodrome in a purpose-built community that allows residents and visitors to fly their planes directly to their doorstep and utilise the amenity benefits of such an aviation-based

community. This vision has been promoted by NZTE and advanced through the TKAZ under the pWDP. The Airpark proposal is a unique opportunity for Te Kowhai and the Waikato. It is unique in its scale; its mix of proposed land uses and the integrated approach to the overall concept of a residential airpark.

- 22 As I describe below, the masterplan has been a design led exercise which has incorporated the original vision while implementing lessons garnered through extensive international and domestic research into existing airparks.
- 23 The masterplanning process involved an investigations phase, a development and consultation phase and a masterplan finalisation phase.

***Investigations phase***

- 24 The investigations phase involved an airpark study tour both in the USA and in New Zealand. Key learnings from the investigation phase underpinned the masterplan development phase to ensure that the urban design outcomes built on best practice airpark design.
- 25 I attended an Airpark study tour to the United States of America together with the core NZTE team, in February 2017. We visited multiple existing airpark developments in Florida and Texas. Learnings from this site visit have been applied to the masterplan concept and adapted to the Waikato context. A further study of multiple New Zealand based airpark developments was conducted.



**Figure 2 – Spruce Creek Fly-In Community, Florida, USA.**

- 26 The key learnings from the study of domestic and international Airparks were:
- a) Safeguard the ongoing utilisation of the runway for the community use and ensure it meets current and future flight technologies.
  - b) Create clear and defined precincts including any operational, commercial, and residential areas to keep homes suitably separated from any commercial activities and areas required for operational activities.
  - c) Separate aeroplane movements from vehicular / people movements to improve safety.
  - d) Create a mix of lot sizes and potential house typologies to offer diversity of product and choice.
  - e) Allow and facilitate direct taxiway access to every home.
  - f) Create runway fronting lots as these are considered akin to premium “beach side” lots.
  - g) Create community gathering areas such as a café, community hall or public park.



- h) Ensure there is a critical mass of homes to create a sustainable community and encourage community spirit and activities.
- i) Include the ability for people living outside of the community to rent hanger space and contribute to the ongoing commercial aspects of the development.
- j) Include commercial activity area to offer aviation related services and create a more sustainable and activated community.

### ***Consultation phase***

- 27 The consultation phase ran in parallel with the masterplan development phase and both processes fed into the final masterplan concept.
- 28 Consultation relating to the masterplan involved various community and stakeholder consultation meetings including a public open day on 5 December 2017 at the Te Kowhai Community Hall, and multiple meetings with adjoining landholders.
- 29 During the last quarter of 2018 Adapt Studio was commissioned by NZTE to investigate the impacts on development potential of the adjoining landholdings due to proposed amendments to the OLS. The intent of this body of work was to inform consultation discussions with five key stakeholders. These stakeholders were, in no particular order:
  - (a) Donald Sam – owner of 669 Horotiu Road.
  - (b) Christine and Marshall Stead – owners of 703b Te Kowhai Road.
  - (c) Lloyd Davis – owner of 703a Te Kowhai Road.
  - (d) Stanley Ranby – owner of 621 Te Kowhai Road.
  - (e) Sandra Mckain (LS & NE Bell) – owners of 721 Horotiu Road.
- 30 Drawing packages for all five properties were prepared including a plan of the runway and proposed OLS contours as well as a cross section through the stakeholder's property showing the potential spatial impact of the proposed OLS on the development of their properties.

- 31 My findings were that the development potential of all five landholdings will not unduly be affected by the updated OLS. Although there would be some restriction on how close two-storey homes may be built against the boundary with the airpark, other contributing factors exist which would make it impractical to build so close to an active runway. Noise, risk of errant aircraft and the general preferred requirement of having a suitably sized backyard and good amenity outcomes are such practicalities. Further, there is a prevalence of single storey dwellings in Te Kowhai and it would be likely that any future development on the landholdings would be single storey. This is because:
- (a) there is a clear market preference for such dwellings;
  - (b) reduced construction cost of such dwellings; and
  - (c) the likelihood of larger lots in Te Kowhai (and thus providing sufficient room for single-storey dwellings) until a reticulated sewerage system may be installed in the future.
- 32 This would further negate the effects of the required setback from the boundary due solely to the OLS.
- 33 The Stead and Ranby properties are discussed in more detail below.

*Stead property*

- 34 The Stead property has a “kink” in the southern boundary, resulting in their most southern property boundary being closer to the runway centreline than the other properties along the northern boundary with the Airpark, shown in **Figure 3**. The property has more potential for impact on development potential resulting from the proposed OLS and an additional study was carried out. They are also actively seeking to develop their landholdings (which have been zoned Village Zone in the pWDP).
- 35 Assessing the impact on the development potential of the Stead property is multi-faceted. The proposed OLS will place a height restriction which begins at 0m in height, 4.9m horizontally into the most southern point of their landholding. It then climbs at a gradient of 1 in 5 until it reaches a height of 10m when it climbs vertically to a ceiling of 45m. Based on the assumption

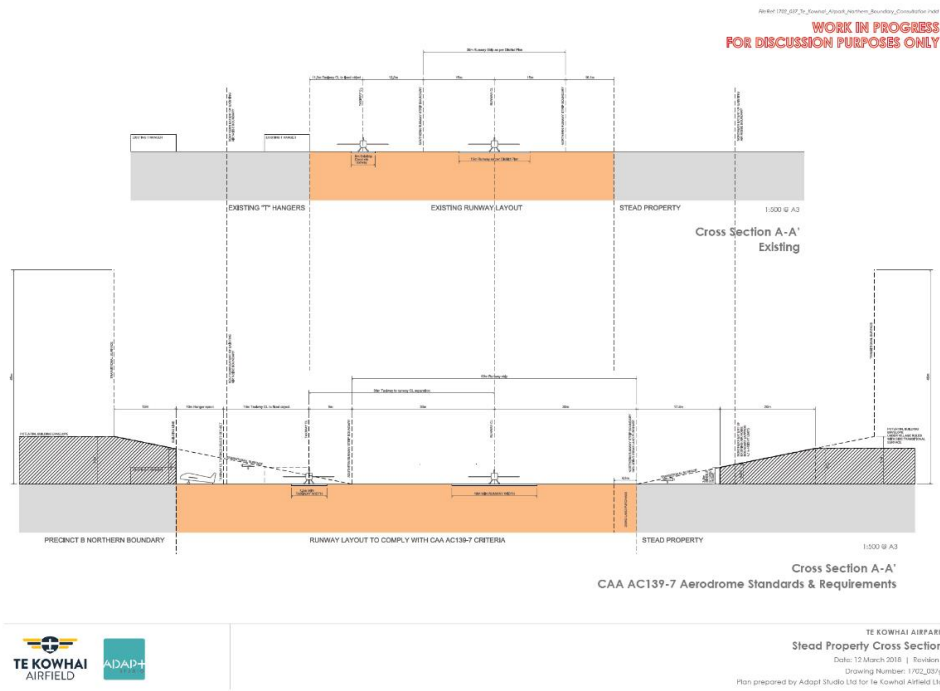
that the development form on the Stead property would be single-storey dwellings at an approximate height of 3.5m (in keeping with the other residential dwellings in Te Kowhai), the OLS would limit the ability to build a single storey home within 22.4m of the southern tip of their property. This setback reduces as you move either east or west from this most southern tip, as shown in **Figure 3** by the light blue dashed line. The OLS limitation also gains height at a rate of 1m vertically for every 5m horizontal travel so this constraint reduces as you move further north into the Stead property. This could mean that a home's roof line, for example, could rise at this gradient as it moves away from the runway centreline. An example of this is shown in the cross section at **Figure 4**.

- 36 Any lots along this boundary would most likely have a road along their northern boundary so their backyards would back onto the Airpark. The likely typical lot size which would be developed would be 3,000m<sup>2</sup> (to allow for on-site sewerage treatment and as per the notified pWDP). An efficient lot shape would be approximately 30m width by 100m in depth (comparable to adjoining lots on Willow Brook Lane, noting that these are approximately 2,500m<sup>2</sup> and not as deep as a 3,000m<sup>2</sup> lot would be, see **Figure 5**). It would not be a logical design outcome for the home to be set at the rear of the lot against an existing runway (regardless of the existence of an OLS), and it would be more likely that the house would be closer to the street on its northern end. In this case the proposed OLS would not limit this most likely development scenario.
- 37 If there were to be a reticulated sewerage treatment facility installed, the minimum lot size would be reduced to 1,000m<sup>2</sup> with the most likely lot shape in this instance being 20-25m in width and 40-50m in depth. It would be most likely that the lots at the southern tip of the landholding would be skinnier and deeper to improve overall yield and allow for a straight road along the northern boundary of these southern lots. It is my opinion that these would most likely be 20m in width and 50m deep. This would leave 27.6m of the northern end of the lot unaffected by the OLS (assuming once again that a single-storey dwelling was to be proposed) giving a sufficient area to build a home that is not on the boundary with an existing runway.

38 In my experience from masterplanning multiple subdivision layouts, the proposed OLS will not unduly affect the ability for the Stead property to be developed. When undertaking the subdivision design the setbacks required from the OLS can be worked around so that it does not hinder the potential yield of the landholding or the most likely development scenario.



**Figure 3 – Example of OLS study plan looking at potential spatial effects of the OLS changes on Stead property.**



**Figure 4 – Example of OLS study cross sections looking at potential spatial effects of the OLS changes on Stead property.**



**Figure 5 – Example of likely comparable lot sizing on the adjoining Willow Brook Lane development.**

*Ranby property*

- 39 The Ranby property off of the eastern end of the runway (noting that the Gatenby property is between the Ranby property and the end of the runway,) is not unduly affected in their ability to build structures which comply with their rural zone provisions. The rural zone requires a 25m boundary setback, which means the height of the OLS 25m from the Ranby's western boundary is approximately 8m. This 8m height is sufficient for the bulk of rural type buildings and I do not consider this to unduly restrict their ability to undertake rural activities. The OLS continues to climb at a gradient of 1 in 40 until it reaches the permitted 10m rural height limit, 103.5m into the site, at which point there is no additional limitation from the OLS over what is created from the rural zone height limit.

***Masterplan development phase***

- 40 Key learnings from the investigation phase underpinned the masterplan development phase to ensure that the urban design outcomes built on best practice airpark design.
- 41 Key urban design principles which the masterplan achieves and why these are important are outlined below.
- 42 *Integrate into the surrounding community so that the airpark is not an isolated element while remaining sensitive to the existing rural context.* The masterplan achieves this by having two independent road connections, a walkway to the existing Te Kowhai settlement and retaining the runway. A combination of larger peripheral lots, setbacks and screen planting creates a softer external edge to the existing rural properties and public roads.
- 43 *Create a benchmark for airpark development in New Zealand by offering a variety of aviation related land uses (including residential airpark homes) at a large enough scale to create a sustainable critical mass of activity.* The masterplan achieves this by creating both residential and commercial precincts and offering a variety of homes and commercial opportunities at a large enough scale to reach a critical mass of activity.

- 44 *Create a functional runway and associated operational area while creating liveable, healthy and safe residential areas.* The masterplan achieves this by creating distinct commercial and residential precincts, separating taxiways from roads and walkways and using the north – south finger in Precinct A as a buffer between the main residential area (Precinct D) and the main commercial area (Precinct B).
- 45 *Create a variety of residential homes to promote choice and offer homes for people at different stages of their lives and at different levels of affordability.* The masterplan achieves this by having multiple residential precincts and overlays (which the TKAZ zone provisions control) to promote varying lot sizes. Larger lots, smaller lots, runway fronting lots, central lots, and “tucked away” private lots are all included in the masterplan concept.
- 46 *Ensure all homes have direct runway or taxiway access.* The masterplan achieves this by having taxiways throughout Precincts B, C and D so that every lot has direct taxiway access to the runway.
- 47 *Promote the ongoing development of aviation related industries at Te Kowhai.* The masterplan achieves this by expanding the commercial area and the TKAZ zone provisions facilitating increased commercial activity. This will provide additional jobs for the Te Kowhai community and provide the opportunity for Te Kowhai Airpark residents to work on site in the aviation industry.
- 48 *Ensure ongoing public accessibility and engagement with the Airpark for the local and wider community.* The masterplan achieves this by having a publicly accessible node in the heart of the commercial precinct (precinct B). This node could consist of a café, open space, playground and / or a community building. Existing hangers available to rent by the wider public have been retained so that people who do not live on site can continue to enjoy the use of the aerodrome.
- 49 *Ensure the Airpark design can either be self-serving in terms of wastewater infrastructure or plug into any future reticulated network.* The masterplan achieves this by focusing smaller residential lots in close proximity to the commercial precinct at the western end of the TKAZ

boundary while keeping lot sizes larger in the eastern end. The western side can either be serviced by a private wastewater treatment facility or plug into any future reticulated network. Lots in the eastern side are large enough to deal with their own wastewater on site. This split reduces the need for larger treatment plants (if a private solution is built) while offering the desired mix of lot sizes.

- 50 *Futureproof the runway and its ongoing operations by meeting current Civil Aviation Authority (CAA) standards and the latest trends in aviation technology (i.e., Instrument Flight Rules (IFR)) while mitigating any impact on the future development potential of adjoining landholdings.* The masterplan achieves this by proposing an updated Obstacle Limitation Surface (OLS), a widened runway strip and additional taxiway and building setbacks while not unduly affecting the development potential of the adjoining landholdings.

#### ***Masterplan Finalisation***

- 51 The final masterplan concept (see annexure A) is a result of the investigations, consultation and development phases and represents the vision of the airpark concept. The masterplan concept incorporates the following design moves:
- a) Utilise the existing runway alignment to mitigate external effects which would result in a relocation of the runway.
  - b) Create defined precincts within the development including: Precinct A - Runway and Operations Precinct, Precinct B - Commercial Precinct, Precinct C – Medium Density Residential Precinct and Precinct D – Residential Precinct. These precincts are intended to control broad land use and operational outcomes and create clearly defined precincts within the Airpark.
  - c) Define the runway and operations area including the east-west runway and a north south “offline” finger for refuelling, servicing, aeroplane open days, aeroplane parking and general aviation activities away from the active runway. Widen the allocated runway area to meet current CAA setback requirements and bring the



aerodrome up to modern day standards and safety specifications (Precinct A).

- d) Build on the existing commercial activities in the north west corner of the site to create a more resilient community with additional employment possibilities and facilities to service the aeronautical needs of residents and visitors. Ensure public access is retained with clear publicly accessible areas including a public café and aviation themed public park / playground (Precinct B).
- e) Create a medium density precinct directly to the south of the commercial precinct to offer more variety of homes and create the opportunity for short-stay accommodation for visiting pilots (Precinct C).
- f) Create a more general residential area in the east of the site to serve as the main residential area. Create larger lots to minimise service requirements (being able to have onsite septic systems and rainwater collection), offer a variety of housing choice and allow for homes with large enough hangars to park a variety of aircraft (Precinct D).
- g) Separate roads (vehicle and pedestrian movements) from taxiways by creating a series of “dead end” roads and “dead end” taxiways to minimise the chance of conflicts between planes, people and cars to promote safety.
- h) Create an additional taxiway around the outside of the site to provide aeroplane taxiways to these outside lots and to efficiently use the proposed 25m building setback (the setback is designed to align with the existing rural setback requirement and aid with integration into the rural context). Include a 3m wide screen planting belt around the full periphery of the site (excluding Precinct A and along a select section of Precinct D where there is a proposed road along the boundary) to further screen any development from adjoining rural land and Limmer Road.

- i) Create a taxiway over the existing gas main easement to ensure unimpeded access to the gas main is retained and to improve efficiency.
  - j) Add an airside overlay with increased residential density around the north south finger in Precinct A to give more people the opportunity to live “airside” while being close enough to Precincts A and C to connect to the onsite service infrastructure and to create more of a critical mass of activity in this area.
  - k) Create a logical hierarchy of streets with a high level of amenity with footpaths, street trees and skinny carriageways to promote slow and safe vehicle speeds.
  - l) Create an east west link at the northern end of the three north-south dead-end roads to allow for walking, cycling and golf carts to easily move through the site to friends’ homes or to get to the commercial area from the eastern end of the site.
  - m) Identify a secondary vehicle access from the commercial centre to Te Kowhai township via Horotiu Road to improve the connectivity with the existing Te Kowhai settlement and offer the opportunity for a shared path connection through the rugby fields, to the existing shops and possibly connecting to the existing Te Otamanui Walkway.
- 52 Development of the Airpark in accordance with the masterplan vision will lead to the appropriate utilisation of an existing piece of infrastructure and further integrate the Aerodrome into the wider Te Kowhai community, making it an even greater asset for the region.
- 53 The masterplan was then used to develop the framework plan and TKAZ provisions. The framework plan and TKAZ provisions are critical to ensuring the masterplan intent is successfully translated into the regulatory framework and is ultimately delivered upon.
- 54 What is being proposed by NZTE aligns with the masterplan and enables the development of the masterplan concept.

## COMMENTS ON SUBMISSIONS

55 In this section, I address submissions raising issues relevant to my expertise.

### ***Waikato Regional Council (submitter number 81)***

56 The Waikato Regional Council (**WRC**) seeks further assessment of the Airpark to address alignment with Future Proof settlement pattern, an assessment of any precedent of alternative land release, availability of infrastructure, and impact of the proposal on the Te Kowhai settlement. It also seeks detail on how to improve connections between the Airpark and Te Kowhai, and better integrate the Airpark into Te Kowhai as a whole.

57 The TKAZ offers a unique opportunity which would have been very difficult to foresee in high level planning documents such as Future Proof. It is not a standard form of residential growth and is site specific to the Aerodrome. The masterplan (annexure A) includes a future road connection to Horotiu Road and proposed Village Zone to the east. It also shows a shared path connection heading north to the existing Te Kowhai settlement. These two pieces of infrastructure have not made it into the Te Kowhai Airpark framework plan as it was decided this plan should only relate to the project site. I would support the inclusion of this road alignment and walkway alignment in the framework plan.

### ***Linnet Watson – S W Ranby (submitter number 369)***

58 Linnet Watson / S W Ranby oppose the development primarily due to the revised OLS and other aircraft numbers and noise effect issues. I note that their property will remain as rural under the notified pWDP. I have outlined any potential impacts on the development potential of their land in para 39.

### ***Marshall Stead on behalf of Lloyd Davis, Jason Strangwick, Kylie Davis – Strangwick, Nicola Thompson, Kerry Thompson, Marshall Stead and Kristine Stead (submitter number 834)***

59 The above group of submitters have various interests in the adjoining properties to the Aerodrome. They have concerns over the ability to develop their land. The submission outlines specific concerns relating to the Stead

property at 703b Te Kowhai Road. Their concerns are primarily around the OLS, and an expansion of aircraft operations and noise effects. The submitters consider the effects have been burdened upon them from NZTE's lack of appetite to move the runway south further into their own landholding.

- 60 I have been involved in a study assessing the scenario of moving the runway south of its existing position. Moving the runway south would change the runway centreline from what is included in the operative Waikato District Plan (**ODP**). Providing for a movement of the runway would be difficult under both the Resource Management Act 1991 and CAA regulations and was not considered as a viable option for the Airpark.
- 61 A detailed overview of my opinion on the development potential of the Steads property and other properties along the northern end of the runway is outlined in paragraphs paras 34 – 50.

#### **COMMENTS ON SECTION 42A REPORT**

- 62 I have reviewed the Section 42A report prepared by Emma Ensor dated 29 January 2021. The report is generally in support of the TKAZ with some minor amendments to wording, commercial activities and land use provisions. The report recommends retaining the current OLS as per the ODP instead of the OLS as proposed through Variation 1 and the pWDP. This is on the basis of impact on the development potential of surrounding properties resulting from the new OLS, compliance costs such as the pruning of existing trees and managing heights of new trees which punch through the OLS and loss of existing stands of vegetation which would need to be removed to comply with the new OLS.
- 63 As discussed in paras 34 - 50 I have undertaken an in-depth analysis on the potential impact on development of the five properties in close proximity to the runway and have concluded that the development potential of these landholdings will not be unduly affected by the OLS in the pWDP and Variation 1.

#### **CONCLUSION**

- 64 It is my opinion that the rezoning of the Aerodrome as sought through the TKAZ will result in a positive outcome for Te Kowhai and the surrounding

area. The Aerodrome has a long-standing relationship with the Te Kowhai community and has been in operation since the early 1960's, as outlined in the evidence of Dan Readman.

- 65 The masterplan has been a design led exercise which has incorporated the original vision while implementing lessons garnered through extensive international and domestic research into existing airparks. The mix of land uses will deliver a resilient community of aviators and small to medium sized aeronautical businesses, creating a destination for the Te Kowhai community and wider region.
- 66 The potential impacts on the future development potential of adjoining landholdings resulting from the updated OLS can be managed and, if considered as part of the wider site constraints of these lots, does not prohibit the future development of these properties.
- 67 The implementation of the TKAZ and proposed OLS will protect the runway and future-proof this unique development concept.
- 68 In my opinion, the masterplan, framework plan and TKAZ create a framework which facilitates the development of a well-functioning airpark. Development of the Airpark in accordance with the masterplan vision will lead to the appropriate utilisation of an existing piece of infrastructure and further integrate the Aerodrome into the wider Te Kowhai community, making it an even greater asset for the region. This will provide urban design and amenity benefits to both the future residents of the Airpark and wider Te Kowhai community.

**Jonathan Broekhuysen**

**Dated 15 February 2021**

**ATTACHMENT A – Te Kowhai Concept Masterplan**

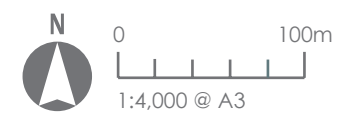




**Legend**

- Site Boundary
- Precinct Boundary
- - - Gas Line
- - - Taxiway
- Airpark Lot 450-550m<sup>2</sup>
- Airpark Lot 550-800m<sup>2</sup>
- Airpark Lot 800-1000m<sup>2</sup>
- Airpark Lot 1000-2500m<sup>2</sup>
- Airpark Lot 2500-3000m<sup>2</sup>
- Airpark Lot 3000-4000m<sup>2</sup>
- Airpark Lot 4000m<sup>2</sup> +
- Main Road Street Tree
- Local Road Street Tree
- Rural Shelter Belt Trees

- NOTES**
1. Potential shared path link to existing public reserve
  2. Potential connection to Horotiu Road and future connection to deferred residential area
  3. Airpark entry zone - Aeroplane and car shared space
  4. Public cafe and aeronautical themed public park
  5. Carpark for adjoining commercial buildings
  6. Relocated re-fuel station and aeroplane maintenance facilities
  7. Potential future sealing of runway
  8. Laneway streets with golf cart / cycle connections across taxiways
  9. Upgraded access onto Limmer Road
  10. Access to taxiway from existing homes with aeroplane hangers



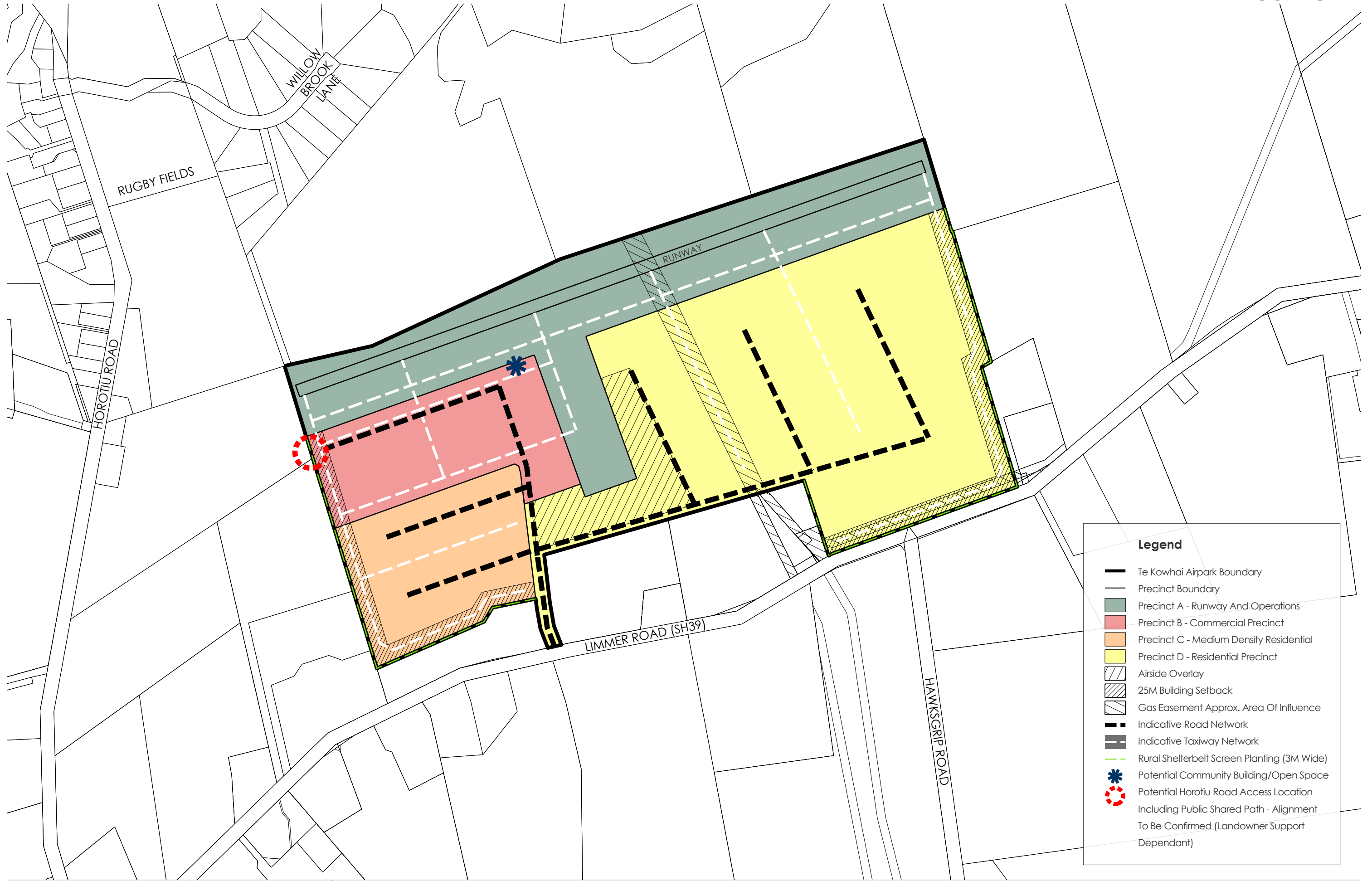
**TE KOWHAI AIRPARK**  
**Concept Masterplan**

Date: 20 February 2018 | Revision - A  
 Drawing Number: 1702\_019

Plan prepared by Adapt Studio Ltd for Te Kowhai Airfield Ltd

**ATTACHMENT B – Te Kowhai Framework Plan**





**Legend**

- Te Kowhai Airpark Boundary
- Precinct Boundary
- Precinct A - Runway And Operations
- Precinct B - Commercial Precinct
- Precinct C - Medium Density Residential
- Precinct D - Residential Precinct
- Airside Overlay
- 25M Building Setback
- Gas Easement Approx. Area Of Influence
- Indicative Road Network
- Indicative Taxiway Network
- Rural Shelterbelt Screen Planting (3M Wide)
- Potential Community Building/Open Space
- Potential Horotiu Road Access Location Including Public Shared Path - Alignment To Be Confirmed (Landowner Support Dependant)