

**BEFORE THE INDEPENDENT HEARING PANEL ON PROPOSED PRIVATE PLAN
CHANGE 13 TO THE OPERATIVE HAMILTON CITY DISTRICT PLAN**

IN THE MATTER of the Resource management Act 1991 (the Act)

AND

IN THE MATTER of proposed Private Plan Change 13 to the Hamilton City
District Plan

**Evidence of James Robert Hugh Bell-Booth on behalf of the Waikato Racing
Club Incorporated (26 July 2023)**

Amended 8 August 2023

MAY IT PLEASE THE INDEPENDENT HEARING PANEL

INTRODUCTION

1. My name is James Robert Hugh Bell-Booth. I am a consultant in the acoustical consulting practice of Marshall Day Acoustics (MDA) and manager of its Hamilton office. MDA were commissioned by Waikato Racing Club Incorporated (WRCI) to advise on acoustical matters for PPC13.
2. I hold the degree of Bachelor of Building Science from the University of Victoria, Wellington (2005). I am a Member of the Acoustical Society of New Zealand.
3. For the past 18 years I have worked in the field of acoustics, noise measurement and control in both New Zealand and Australia. My experience in acoustic advice in New Zealand has included assessment, prediction and modelling of sound and vibration for road and rail infrastructure, residential, commercial, and industrial developments; the recommendation of mitigation measures when appropriate; and the preparation of noise performance standards for district plans. I have provided expert evidence on acoustic matters to council hearings on several occasions.
4. My recent experience particularly relevant to this plan change includes preparing assessments for, and presenting evidence in support of:
 - (a) Private Plan Change 20 to the Operative Waipā District Plan to rezone land to the north of the Hamilton airport for Airport Business as part of the Northern Precinct Extension
 - (b) Private Plan change 2 to the Operative Hamilton City Council District Plan to rezone land at Te Rapa North for a mixed use recreational, commercial, and residential development known as Te Awa Lakes.

5. My evidence is given in support of the Proposed Plan Change 13 to the Hamilton City District Plan (PPC13).
6. I prepared the report "*Plan Change 13 – Acoustic Assessment*" dated 19 July 2022 incorporated within the PPC13 request as lodged as Appendix G (the Assessment Report) which considers the relevant acoustical performance standards of the existing site, recommends appropriate acoustical performance standards for Te Rapa Racecourse Medium-Density Residential Precinct and assesses the potential effects of noise (both within the proposed new zone and between new zone and its neighbours) including reverse sensitivity effects.
7. I have not repeated the content of the Assessment Report, however I refer to parts of the Assessment Report which are relevant to the key issues relating to noise and acoustic matters in the context of PPC13.
8. I am familiar with the application site and the surrounding locality. I have read the relevant parts of the application; submissions; further submissions and the Section 42A Report.

CODE OF CONDUCT

9. I confirm that I have read the Code of Conduct for Expert Witnesses set out in the Environment Court Practice Note (2023) and I agree to comply with it. In that regard, I confirm that this evidence is written within my expertise, except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SUMMARY OF EVIDENCE

10. PPC13 is a private plan change to rezone approximately 6.5ha of the racecourse site from Major Facilities Zone to Medium Density Residential Zone and a small portion to Industrial Zone. The plan change includes the

incorporation of a Precinct Plan which spatially allocates areas of the site to each key element (i.e., residential, transport network, stormwater infrastructure and open space areas). PPC13 proposes to insert the Te Rapa Racecourse Medium Density Precinct Plan ('Precinct Plan') into the Hamilton City District Plan (HCDP) which will show, at a high level, the key elements that will guide development of the site.

11. The PPC13 area is located within part of the existing Te Rapa Racecourse site in Hamilton City. PPC13 is generally bounded by land zoned Industrial to the north and east, a mixture of Industrial and Residential zones to the south and the existing Te Rapa Racecourse (The Waikato Racing Club building/grandstand and the racecourse itself) to the west, which as mentioned above is zoned Major Facilities Zone.
12. I have recommended amendments to the noise rules in Chapter 25 of the Hamilton City District Plan to accommodate the proposed zones. However, I have also proposed some variations to provide greater amenity and address potential reverse sensitivity noise issues where appropriate.
13. I have recommended:
 - (a) the existing HCDP zone specific noise performance standards for the proposed new zones.
 - (b) internal noise performance standards for noise sensitive activities subject to high levels of sound (from sources within the neighbouring Industrial Zone and from racetrack operation).
 - (c) An Industrial Zone standard - applied to industrial activities adjoining the site, to fill a current 'gap' in the District Plan provisions.
14. The proposed new zones will be subject to the existing HCDP noise rules outside the development site. The types of activities expected in the

proposed zones would typically have little problem complying with these limits.

15. My proposed changes to the District Plan noise rules are appropriate and consistent with other similar Hamilton City rules. The types of activities expected in PPC13 will have little difficulty in complying with my proposed noise limits.
16. Sound emissions from areas outside of the proposed new zones, received within the PPC13 area, are currently well below the permitted level (which is controlled by existing intra Industrial Zone noise limits). Regardless, future potential Sound emissions from areas outside of PPC13 received on the site (and their potential for reverse sensitivity noise effects) are mitigated by the proposed rule framework which includes, setbacks, internal noise criteria for noise sensitive activities (applied to the proposed Noise Sensitive Area), building form and outdoor area orientation requirements, thereby adequately addressing the potential for any reverse sensitivity effects on existing emitters.
17. In my opinion, with respect to the provisions of PPC13, any noise effects including reverse sensitivity noise effects, can be managed and are of no appreciable or material concern.

PURPOSE AND SCOPE OF EVIDENCE

18. The purpose of my evidence is to explain the key matters relating to noise relevant to the proposal to rezone part of the Te Rapa Racecourse site (currently Major Facilities Zone) to a Medium Density Residential Zone, with a small area of Industrial Zone in the northeastern corner. Accordingly, my evidence:
 - (a) Summarises the relevant context of PPC13 (current noise environment);
 - (b) Discusses the key acoustic matters in relation to PPC13;

- (c) Responds to submissions;
 - (d) Responds to the section 42A Report;
 - (e) Addresses the proposed amendments to PPC13 since notification;
and
 - (f) Provides a conclusion.
19. In preparing this evidence, I rely on the evidence prepared by the other witnesses for the WRCl.

CONTEXT AND CURRENT NOISE ENVIRONMENT

20. Te Rapa Racecourse is currently zoned Major Facilities Zone under the Hamilton City District Plan (HCDP).
21. PPC13 proposes to rezone approximately 6.5ha of the racecourse site from Major Facilities Zone to Medium Density Residential Zone and a small portion to Industrial Zone. The plan change includes a Precinct Plan which spatially allocates areas of the site to each key element (i.e., residential, transport network, stormwater infrastructure and open space areas).
22. The PPC13 area under consideration is bounded by land zoned Industrial to the north and east, a mixture of Industrial and Residential zones to the south and the existing Te Rapa Racecourse (The Waikato Racing Club building/grandstand and the racecourse itself) to the west. The activities on the Industrial zoned land adjacent the site is typically 'light industry' in nature.
23. I assessed the existing noise environment within the PPC13 area in 2018 taking a range of noise measurements and considering both "typical" days and "race days" to determine relative noise levels. Noise loggers were deployed in three locations for fourteen days to establish the ambient sound environment (refer to Appendix A figure 1). Over the

logging period two race day events were captured at each of the three locations. Based on the noise logging results, two situations were assessed:

- (a) Typical sound levels - on days where there is little activity at Te Rapa Racecourse and the predominant noise is from sources outside of the Major Facilities Zone.
- (b) Race Day Sound Levels – on the days where Te Rapa Racecourse held racing events.

Typical days have moderate noise levels

24. Tables 2 to 4, page 11 of the Assessment Report (reproduced in Appendix B) record the average ambient sound levels at each logger location, over a range of times during the day. These measured sound levels on demonstrate that:

- (a) The existing ambient sound levels are relatively moderate; and
- (b) The adjoining Industrial zones are generating a level of sound emissions that are:
 - (i) Around the level that is permitted for Residential zones in Hamilton City, if not marginally above (by around 1 to 3dB) in the morning and evening shoulder periods, and nighttime period;
 - (ii) Much lower than the HCDP permitted limit of 65 dB L_{Aeq} between Industrial zoned sites at any time, day or night; and
 - (iii) demonstrative of an appreciable reduction during the typical night-time period (23:00 to 06:00hrs), which shows there is little night activity.

25. Based on the 2018 noise surveys I consider the existing ambient sound levels on typical days to be relatively moderate. This demonstrates that the existing noise being generated by the activities within the adjacent Industrial Zone are moderate to low.

Race Days have slightly higher noise levels during race events

26. Tables 5 to 10 (reproduced in Appendix C) of the Assessment Report record average ambient sound level at each location, at a range of times, on two separate race days. During 'race' days the recorded sound levels at LP1 and LP2 demonstrate there is a minor variance relative to the typical daytime average. The differences between the typical daytime sound levels and the race day daytime levels range between -4 to +5 decibels.
27. The sound levels recorded during the race day events, which occurred between 1200 and 1700hrs ranged between 45-63 dB $L_{Aeq (15mins)}$ at LP1 and 42 - 57 dB $L_{Aeq (15mins)}$ at LP2. I note that the levels recorded at these locations would be influenced by race day activities that occur near the measurement position (within the plan change area) which would obviously not occur should PPC13 be approved.
28. At LP3, which is adjacent the racecourse itself, the recorded sound levels on race day were 9 to 10 dB L_{Aeq} above the typical daytime ambient level. The sound levels recorded between 1200 and 1700hrs ranged between 44 - 71 dB $L_{Aeq (15mins)}$ with an average level over the race activity period of 60 dB $L_{Aeq (1200-1700)}$.
29. However, I note that the nature of the racing activity noise is such that the high levels of sound are sporadic throughout the event and only occur in the daytime period. This is relevant because people are less sensitive to brief periods of higher noise levels that occur during the daytime.

Updated noise measurements confirm 2018 measurements

30. In preparing for the hearing of PPC13 I carried out further noise monitoring in June 2023 to confirm that there has been no significant

change in the sound environment since the original 2018 monitoring and no change to the outcomes.

31. Between 14 June and 22 June of 2023 (“2023 period”) two noise loggers were deployed to positions LP1 and LP2. The average ambient sound levels were generally the same as those recorded in 2018. A summary table is provided in Appendix D.
32. The 2023 period average L_{Aeq} noise levels are:
 - (a) between -2 dB and +1 dB of the 2018 LP1 measurements, and
 - (b) between -1 dB and +3 dB of the 2018 LP2 measurements.
33. This variance is within the typical margins of repeatability for sound measurements and indicates the typical day ambient noise measurements haven’t changed significantly from 2018.
34. Based upon the findings of the 2023 logging I consider my findings on Typical day sound levels in the assessment report stand. While measurements of Race Days have not been updated, I do not have any reason to expect the levels of sound generated on race days would be different from those surveyed in 2018.

DISTRICT PLAN NOISE PROVISIONS FOR EXISTING ZONING

35. Having assessed the existing noise environment of the PPC13 area, I reviewed the noise performance standards which presently apply to the Major Facilities Zone and its neighbours for the purpose of determining appropriate provisions for the PPC13 Site (the proposed new Medium Density Residential Zone). This included an assessment of the potential sound emissions from other sites received by the existing Te Rapa Racecourse (Major Facilities Zone).

36. I also considered the noise control standards relating to construction noise and sound emissions from Te Rapa Racecourse. That is:
- (a) the allowable sound emissions from any activity within the Major Facilities Zone; and
 - (b) the levels of sound that may be received within the site from permitted activities on adjacent sites.¹
37. For completeness, I have summarised these existing standards as follows.

Construction Noise

38. Construction Noise and Vibration is appropriately controlled via HCDP Rules 25.8.3.2 and 25.8.3.3. These rules specify the most recent version of the New Zealand Standard for construction noise (New Zealand Standard NZS 6803: 1999 “Acoustic– - Construction Noise”) and the German standard DIN 4150-3:1999 “Structural Vibration – Effects of Vibration on Structures” as the performance standards for assessment of construction noise and vibration.

Sound emissions from Te Rapa Racecourse (Major Facilities Zone)

39. Sound Emissions from the Major Facilities Zone are currently controlled via Rule 25.8.3.9 of the HCDP. The rule provides:
- (a) Day/Night/morning shoulder period noise limits for site sound emissions from the Major Facilities Zone to Residential Zone receivers that apply most of the time, and
 - (b) A “temporary event” noise limit for six days per calendar year with some particular provisions.

¹ The existing limits to site sound emissions are summarised in Section 3.0 of the Assessment Report.

40. I note that rule 25.8.3.9 does not apply in relation to noise generated by the Te Rapa Racecourse at some specified residential sites on Minogue Drive.
41. Sound emissions from the Major Facilities Zone do not have any nominated performance standard for sound received in an Industrial Zone.

Sound emissions from other sites received by the Te Rapa Racecourse (Major Facilities Zone)

42. The HCDP does not include rules to control noise which is received on a Major Facilities Zone site.
43. Relevantly, Rule 25.8.3.7e applies in the neighbouring Industrial Zones, between Industrial Zoned sites, limiting their sound emissions to 65 dB L_{Aeq} at any time, day, or night. This results in a practical restriction on how much noise the neighbouring Industrial properties could realistically generate, and therefore how much noise the Major Facilities Zone could receive.
44. I pick up this point later in my evidence where I discuss the proposed standards and provisions for noise which will apply to the proposed Medium Density Residential Zone and the interface between the proposed new Medium Density Residential Zone and the adjacent Industrial Zone.

Noise sensitive activities (within the Major Facilities Zone)

45. While Ancillary Residential activities are a Permitted activity in the Major Facilities Zone, the HCDP noise rules do not address the potential for

noise effects on receivers in such dwellings. As outlined earlier, there are no noise rules for sound received in the Major Facilities Zone.

46. However, Rule 25.8.3.10 of the HCDP provides for new and altered buildings to be used for noise-sensitive activities within:
- (a) The Central City Zone, Business 1 to 7 Zones, Industrial Zone, Te Rapa North Industrial Zone, the Te Rapa Dairy Manufacturing Site Noise Emission Boundary, Rototuna Town Centre Zone and the Te Awa Lakes Business 6 Zone and the Te Awa Lakes Major Facilities Zone.
 - (b) Sites near existing and proposed transport corridors that carry high traffic volumes.
 - (c) Sites near a railway line.
47. Where a noise sensitive activity is proposed to be located within these zones, or near to an existing corridor that carries high traffic volumes, Rule 25.8.3.10 requires that an indoor noise performance standard is met. The noise performance standards are:
- (a) 35 dB $L_{Aeq, 24 \text{ hour}}$ for bedrooms
 - (b) 40 dB $L_{Aeq, 24 \text{ hour}}$ for other habitable spaces.
48. Whilst the Te Rapa Racecourse, and other Major Facilities Zones (apart from Te Awa Lakes), are not referenced with respect to Rule 25.8.3.10, the site under consideration is adjacent an Industrial Zone – a zone which is referenced by that rule. In my opinion this rule and standard provides a relevant guide for noise sensitive residential activities and this guidance has been used to prepare appropriate provisions for the purpose of PPC13 which I discuss in the following section of my evidence.

PROPOSED ZONING AND NOISE PERFORMANCE STANDARDS

49. I have considered appropriate acoustic provisions to apply to the PPC13 proposed new Medium Density Residential Zone and whether simply

applying the existing Residential Zone limits in the HCDP (25.8.3.7a) may be appropriate based on the existing ambient noise levels. However, by simply applying Rule 25.8.3.7 to the proposed Medium Density Residential Zone, this would consequently mean a theoretical 15- 25 dB reduction in the level of sound which the adjacent industrial sites are presently allowed to generate (given the controlling intra Industrial Zone limit of 65 dB L_{Aeq}).

50. Having said that, and as noted above, the requirement to generate no more than 65 dB L_{Aeq} between Industrial zoned sites effectively means that is the controlling limit for the Industrial sites at their rear boundaries in any event. Furthermore, the current ambient sound environment, made up of sources not only in the Industrial Zone, but also on Te Rapa Road, more distant roads, and natural sounds, was measured at or around the noise limits in Rule 25.8.3.7. On that basis, the currently established activities in the Industrial zones neighbouring the site are anticipated to comply with the Rule 25.8.3.7 limits on Residential zones.
51. Nevertheless, I have also considered the issue of “reverse sensitivity” (should the current noise emissions from the Industrial Zone change in the future, given the current noise standards for that zone), the relevance or applicability of the HCDP “Amenity Protection Area” and, consequently, the approach of applying a “Noise Sensitive Area” overlay within the PPC13 Site. The latter including specific rules and criteria applying to noise sensitive activities within the overlay. I address each below.

Measures to address Reverse Sensitivity

52. In the Assessment Report I discussed the measures commonly used in the HCDP to address reverse sensitivity, namely:

- (a) The “Amenity Protection Area” in Industrial zones adjacent Residential zones; and
 - (b) Internal noise performance standards. (Which I have discussed in Para 46 through 48.)
53. While “Amenity Protection Areas” are described in the HCDP as *“a key mechanism to protect residential sites where they are adjacent land within the industrial zone”*, applying such an overlay in the context of PPC13 is beyond its scope. That is, to apply an Amenity Protection Area overlay to the Industrial zone properties adjacent to the site is not feasible.
54. To address this issue, I consider a combination of the following measures will appropriately avoid or mitigate potential reverse sensitivity effects:
- (a) Imposition of the revised application of noise standards in Rule 25.8.3.7 (exempting the Industrial Zone properties that share a boundary with Te Rapa Racecourse Medium Density Residential Precinct from these limits);
 - (b) Requirement for a 1.8m high solid barrier (fence) at the Industrial Zone boundary with the PPC13 Site;
 - (c) A planted buffer strip adjacent to the solid barrier; and
 - (d) An “inverse” equivalent of the “Amenity Protection Area” which is to be applied to the proposed Medium Density Residential Zone as an area requiring sound insulation to meet the internal noise performance standards. This is implemented through the proposed 60m “Noise Sensitive Area” and the 30-meter building setback from the Industrial Zone boundary.
55. I consider the proposed 60m “Noise Sensitive Area” overlay for the Te Rapa Racecourse Precinct is a reasonable and appropriate “effects area” within which specific noise or acoustic standards will apply via rules which trigger the requirement for a resource consent for noise sensitive

activities. This is based on the permitted 65 dB L_{Aeq} intra Industrial Zone limit; the moderate existing ambient sound environment which is less than 50 dB L_{Aeq} 24 hours; the typical depth of existing Amenity Protection Areas in the HCDP; and a building typology which creates further acoustical screening to the residential receivers deeper inside the proposed Medium Density Residential Zone.

56. In addition to this, to address potential impacts on outdoor amenity, PPC13 adopts spatial design measures (orientation of outdoor living areas) using buildings in proposed Medium Density Residential Zone as a screen between potentially noisy Industrial Zone activities and outdoor living areas. I consider this to be an effective and practical measure.
57. My recommended amendments to Chapter 25 for the purposes of establishing appropriate noise performance standards for PPC13 in relation to reverse sensitivity are summarised as follows:
 - (a) Exclude the Industrial Zones that share a boundary with the Te Rapa Racecourse Medium Density Residential Precinct from Rule 25.8.3.7. To address the potential for reverse sensitivity effects, the exclusion prevents the typical Residential Zone limits for industrial noise to residential receivers from applying.
 - (b) Introduce a 65 dB L_{Aeq} noise limit for the sound from industrial received within in the proposed Medium Density Residential Zone.
 - (c) Exempt the new Medium Density Residential Zone from Major Facilities Zone noise and six special events at Te Rapa racecourse controlled by 25.8.3.9, in a similar way to the Minogue Dr. properties (refer rule 25.8 .3.9 d ii)
 - (d) Include the Noise Sensitive Area of the new Medium Density Residential Zone in the noise sensitive activities rule 25.8.3.10. I discuss this further in the next section of my evidence.

58. The “Te Rapa Racecourse Precinct” overlay for the proposed new Medium Density Residential Zone provides a site-specific layout for land uses and infrastructure. In my opinion the appropriate acoustical performance standards for the Precinct, which I have summarized above, will complement the proposed zoning, and will complement the site-specific nature of the land use layout and infrastructure.

59. The Precinct Plan adopts a Noise Sensitive Area, which consists of a 60m wide overlay around the boundaries of the PPC13 site which adjoin the Industrial Zone. The Noise Sensitive Area means that resource consent requirements are triggered for any building within the Noise Sensitive Area. When assessing a resource consent application, particular regard must be had to the acoustic treatment of buildings and the location and orientation of indoor and outdoor living areas in relation to existing industrial zones.

60. The recommendations I made in the Assessment Report have effectively been incorporated into the Precinct Plan and rule framework for PPC13. While there have been some amendments to the wording of provisions and location of the proposed changes within the text, these are not material to the overall implementation of my recommendations. In summary, I consider the proposed rule framework captures my recommendations and appropriately addresses both the noise amenity of the receivers in the proposed new Medium Density Residential Zone and potential reverse sensitivity to noise from the neighbouring Industrial Zone.

30-meter internal setback

61. In addition to the measures to address reverse sensitivity to noise, a 30-meter setback is proposed between the Industrial Zone and any dwelling (or “Noise Sensitive Activity”) via Rule 4.8.2e as appended to the s42A

Report. Mr Olliver has explained the genesis of the proposed 30-meter setback in his evidence. This setback is consistent with the setback that currently applies to an industrial-zoned site between Maui Street and Eagle Way, Te Rapa, which provides for residential activities, being retirement villages, managed care facilities and rest homes.

62. While the measures to address reverse sensitivity to noise are adequate, a setback of 30 meters from the Industrial interface is advantageous with respect to noise as noise levels will decrease with increasing distance. A lower noise level incident upon the building envelope would be less onerous for the developer to build. A greater distance of shielded outdoor areas would provide spaces that are quieter relative to those which are closer.
63. I support the proposed 30-meter internal setback from the Industrial Zone boundary for Noise Sensitive Activities within the proposed Medium Density Residential Zone, alongside the other proposed noise performance standards discussed earlier. In my opinion this “package” of measures will ensure that potential noise and noise-related reverse sensitivity effects relating to the proposed Medium Density Residential Zone will be effectively managed.

RESPONSE TO SUBMISSIONS

64. Twenty-four submissions on PPC13 pertain to noise. Many submissions either replicate or are very similar in substance to others. In such instances I have grouped the submissions and responded accordingly.

Submissions from Kāinga Ora pertaining to noise

65. Kainga Ora raises four submission points which pertain to noise. Three of the four submission points (namely points 7, 15 and 19) refer to rules

4.5.4 uu, 4.8.5, 4.11 and 1.33 respectively. Whilst these matters are noise adjacent, they are primarily planning matters and therefore I defer to Mr. Olliver's evidence with respect to these submissions.

66. In its submission point 23 Kainga Ora opposes in part the introduction of 25.8.3.7.8 e. The submitter reasons that it is a duplication of rule 25.8.3.7 a, and "seeks to include the industrial zones that are joining the precinct and the existing controls of noise levels for these activities when measured at any point within the boundary of any other site in the residential zone". Kainga Ora seeks to delete the introduction of 25.8.3.7.8 e and rely upon the amended version of the existing standard 25.8.3.7 a.
67. I disagree. The introduction to Rule 25.8.3.7 e provides certainty on the permitted level of industrial noise received at the proposed new zone. Furthermore, it informs the extent to which the design of any new residential building must reduce noise levels to achieve the internal noise performance standards (now in proposed rule 1.3.3 P c.). Without the introduction of a limit for noise from the Industrial Zone received in the new zone there is ambiguity over the permitted level of noise from the Industrial Zone and an increased potential for reverse sensitivity noise effects upon the existing Industrial Zone.

Submissions from Stephen Lyons pertaining to noise

68. Stephen Lyons has made a submission opposing the development citing matters which include increased noise pollution. I do not agree with his concerns because any increase in (residential) noise would be limited to and controlled by the existing HCDP noise limits which I consider to be suitable.

Submissions from Fonterra pertaining to noise

69. Fonterra's submission raises concerns regarding reverse sensitivity effects from the proposed plan change on Fonterra's Canpac facility, Crawford Street Distribution Center, and the associated North Island Main Trunk rail line (NIMT) operated and managed by KiwiRail.
70. The Fonterra submission outlined that these facilities are within 400 meters of the PPC13 area and may generate noise that can be heard within the PPC13 area. Fonterra seeks relief in the form of further information on reverse sensitivity effects on these facilities, and recognition of these facilities in PPC13 policies and assessment criteria.
71. The relief sought by Fonterra regarding policies and assessment criteria as addressed in Mr. Oliver's evidence.
72. Regarding noise emissions from the facilities identified by Fonterra I do not agree with its position that this may generate reverse sensitivity effects at the PPC13 Site for the following reasons.
73. Noise from Canpac, the Crawford Street Distribution Centre and the NIMT line may be audible within the PPC13 area. However, audibility is not the noise limit in the existing Residential Zones of the HCDP nor the proposed limit for noise received within the PPC13 area.
74. The level of noise generated by the Fonterra sites and the NIMT are not anticipated to be at a level which exceeds the HCDP noise performance standards as evidenced by the typical days noise surveys discussed earlier in my evidence. From analysis of the spatial and zoning layout of the Fonterra facilities I can say that the Fonterra sites potential noise emissions are currently constrained by the existing zoning surrounding their site (including the Residential Zone across Mangaharakeke Drive)

and that in my opinion no noise-related reverse sensitivity effect would occur as a result of PPC13 residential.

75. The closest residential units in PPC13 are no closer to the Fonterra sites and NIMT than the existing residential area (Forest Lake Village), and are further from the Fonterra sites and NIMT than the Bupa Foxbridge retirement village and Residential Zone across Mangaharakeke Drive.
76. I understand from the Section 42A report (specifically Mr. McGregor's memo attached to the s42A report) that there have been “no complaints received from residents in the Forest Lake Village or the new Bupa Foxbridge Retirement Village in Minogue Drive indicating the Fonterra site does not currently emit a level of noise that creates adverse effects at these locations”.
77. Furthermore, the closest residential units to the Fonterra sites and the railway are covered by the proposed Noise Sensitive Area. The proposed rule framework requires that dwellings within the noise sensitive are designed to achieve low internal noise performance standards (via a Restricted Discretionary consent).
78. I therefore consider any reverse sensitivity effects from noise would not adversely affect Fonterra’s Canpac facility, Crawford Street Distribution Centre and the NIMT.

Submissions from Metlifecare Ltd pertaining to noise

79. The operators of the Forrest Lake Village, Metlifecare Ltd, are in support of the acoustic provisions of PPC13. I do not comment further.

Submissions from Murray Vereker-Bindon pertaining to noise

80. Murray Vereker-Bindon of 47 Empire Rose Drive, part of the Forest Lake Village has submitted that *“The process of development of roading, house construction etc., will be a major interference to the enjoyment of the Village residents whose properties will be immediately beside the new development.”*
81. I acknowledge that construction can generate high levels of sound. However, the noise from construction is temporary in nature and Construction noise is controlled in the HCDP. The standard for Construction noise New Zealand Standard NZS 6803: 1999 Acoustics - Construction Noise (referenced by the HCDP) accommodates higher levels of noise from construction than the general zone limits of the HCDP. The standard provides the accommodation because construction activities can be inherently noisy but are temporary in nature.
82. The type of construction works that would typically occur to establish the proposed development are likely to comply with the standards for construction noise and vibration at all nearby receivers with suitable management of construction noise provided via a construction management plan where necessary.
83. I do not consider there will be adverse effects in relation to construction noise.

Submissions from adjoining Industrial Zone submitters

84. Nineteen submissions pertaining to noise were received from submitters associated with Industrial Zone properties which neighbour the new zone. The submissions are broadly similar and are predicated on reverse

sensitivity, perceived additional restrictions upon the Industrial zone and future development within the Industrial zone.

85. Many of the submissions received are replicate and can be grouped into three:

(a) The McMac Submission – associated with 89 Garnet Avenue

(b) The CKL submissions – made by Bevan Houlbrooke of CKL Ltd on behalf of:

- i. Chartwell Investments Ltd at 11 Ken Browne Drive
- ii. Ecostream Irrigation Ltd at 423 Te Rapa Road, and
- iii. Takanini Rentors Ltd at 443 – 451 Te Rapa Road.

(c) The Te Rapa Road Submissions– associated with:

- iv. Shane Burnett Housley of 417 Te Rapa Road
- v. Denise Allen of 423 Te Rapa Road
- vi. Scott Brocket of 425 Te Rapa Road
- vii. Derek Fleet of 431a Te Rapa Road
- viii. Graham and Janice Lewis of 431a Te Rapa Road
- ix. Brent Shadbolt of 431b Te Rapa Road
- x. Gill Adshead of 431b Te Rapa Road
- xi. Angela Fisher of 431c Te Rapa Road
- xii. Neil Farnworth of 431c Te Rapa Road
- xiii. Greg Roberts of 431d Te Rapa Road
- xiv. Gordon Findlay of 431d Te Rapa Road
- xv. Jason and Melanie Trethowen of 5/431 Te Rapa Road
- xvi. Alan Day of 431 Te Rapa Road
- xvii. Mordie Myburgh of 443 Te Rapa Road, and
- xviii. Douglas Bruce John Hopkins of 443 Te Rapa Road

86. As an alternative to declining the plan change all three groups broadly seek:

(a) An increase in the setback from the existing Industrial zone of 60m,
or

- (b) Introducing an industrial zoning in the Noise Sensitive Area with associated amenity protection rules in lieu of the proposed new zone, and
- (c) A no complaints covenant on the record of title associated with any new residential unit.

87. I respond to the broad submission points as follows:

Increasing the setback

- 88. Whilst an increase in setback would potentially reduce the level of noise received at the residential lots within the new zone, it would sterilize a significant area of the proposed plan change area and have an adverse impact on the developable area within.
- 89. I consider the proposed 30-meter setback in combination with the proposed rule framework (including the post notification amendments) allows the Industrial zones to generate noise to a permissive level - much higher than they presently generate, whilst also providing low internal noise levels inside habitable spaces of any dwellings within the Noise Sensitive Area.
- 90. In addition, the contiguous built form (via 1.3.3 i) and the orientation of Outdoor Living Areas away from the Industrial zone (via 1.3.3 P ii and rule 4.8.5.e. c.) further mitigate potential noise emissions from Industrial zone to receivers in the new zone.
- 91. On this basis I do not think the additional set back is necessary.

Introducing an Industrial zone with Amenity Protection Area (APA)

92. I do not consider that introducing an industrial zoning in the Noise Sensitive Area with associated amenity protection rules (in lieu of the proposed new zone with 30-meter setback) would practically afford the existing industrial zone any greater protection than that which the proposed plan change currently provides.
93. The noise level the existing industrial zone is permitted to generate in the proposed rule framework would be the same if an Industrial zone were introduced in lieu of the proposal, i.e., 65 dB L_{Aeq} .

No Complaints Covenants

94. A covenant registered on the title preventing a landowner from complaining about a lawfully established activity is sometimes imposed as a condition of a resource consent where the effect of the consent is to bring noise sensitive activities (such as residential development) into the vicinity of noise generating activities (such as quarries or airports).
95. It may be possible to include a rule requiring a “no complaints” covenant or consent notice be registered on the title of future developed lots (in response to the location of the Industrial Zone). This is an additional “layer” of regulation to address potential noise effects. However, from an acoustic perspective the noise effects (amenity and reverse sensitivity) are suitably addressed by the proposed rule framework. Based on my experience with “no complaints” covenants, I appreciate they are not 100% effective as people may still complain irrespective of the covenant. Furthermore, I understand that they are difficult to enforce.

96. I consider the best approach is the one adopted by the proposed rule framework which includes assessment criteria specifically enabling consideration by Council of whether reserve sensitivity noise effects are likely to occur, and whether an appropriate noise environment can be achieved, on an application for development within the Noise Sensitive Area.

CKL submissions pertaining to light industry

97. The submitters raise concerns that my noise assessment refers to the adjoining Industrial land as being occupied by 'light industry in nature' and highlight it is important to consider what potential activities could reasonably establish.
98. I concur that it is important to consider what potential activities could reasonably establish. My recommendation to introduce a new limit via 25.8.3.7 e and its incorporation into the proposed rule framework acknowledges that the existing Industrial zone is permitted to make high levels of noise, albeit limited by an existing intra zone noise rule for Industrial sites (25.8.3.7 c). The proposed new limit applies the very same limit, i.e. 65 dB LAeq.
99. I reiterate that that this is a very permissive noise limit, and it is well above the level of noise presently generated by the Industrial zone.

McMac Submissions pertaining to noise

100. McMac Properties have submitted concerns with the proximity of dwellings, the proposed 30-meter setback and the effects upon the future residential receivers from industrial sites which include noise. The submitter considers that the plan change will limit the development

potential of their site and their business and interfere with their property rights.

101. The submitter seeks a greater setback and a no complaints covenant apply to the new residential area.
102. As an alternative the submitter seeks that Industrial zoning be provided along the existing industrial property boundary with a Noise Sensitive Area overlay.
103. In earlier comments on submissions I have addressed a greater setback, no complaints and Industrial zoning in lieu of the proposed setback.
104. I provide the following comments on the submission on the development potential of the McMac site, their business and property rights interference.
105. I note that the submitters property - 89 Garnet Avenue - is immediately adjacent 6 Ken Browne Drive a mixed-use development with residential dwellings above light industrial workshops/storage spaces. At 6 Ken Browne Drive the residential receivers are closer to the submitters site than the proposed residential areas within PPC13 and are subject to the same intra-zone noise performance standard of 65 dB L_{Aeq} that are proposed for PPC13.
106. On this basis, with respect to noise, the proposed noise performance standards will not limit the potential for the development of growth of or property rights belonging to the submitters site.

COMMENTS ON THE HEARING REPORT

107. I have read the s42A report dated 12 July 2023 prepared by Kylie O'Dwyer and the appended document 'Plan Change 13 – commentary on noise aspects of the proposed plan change' (the EHM report) prepared by Hamilton City Council Environmental Health Manager Peter McGregor.
108. I agree with the analysis and conclusions in the s42A report with respect to noise.
109. I respond to the matter of guidance on how to determine incident noise levels on buildings in the southern part of the site raised by Mr. McGregor and identified by Ms. O'Dwyer in para. 5.1.2 of the s42A where she states "Mr McGregor has not raised any concerns with the Acoustic Assessment or the proposed District Plan provisions. He has however queried how the incident noise level for the buildings in the southern part of the site would be determined which are more remote from the industrial area (and given there is no noise limit for racecourse activities) noting that noise measurements could be used".
110. I consider that the use of the Race Day measurements referred to by Mr. McGregor is one basis for determining the incident noise levels on the southern Noise Sensitive Area.
111. The Race Day measurements indicated that the western most end of the Noise Sensitive Area (at LP3) could receive 15-minute noise levels of between 44 and 71 dB L_{Aeq} during race day activities (which occur over a five hour period over the daytime between 1200 hrs and 1700hrs). The average noise level over the 5-hour period was approximately 60 dB L_{Aeq} .

112. The proposed internal noise performance standards are 24 hour based i.e. 35 dB $L_{Aeq\ 24\ hour}$ in bedrooms, and 40 dB $L_{Aeq\ 24\ hour}$ in other habitable rooms.
113. The 24-hour noise levels at LP3 would be around 55 dB $L_{Aeq\ 24\ hour}$. Therefore, if an incident level for determining the sound insulation for the southern Noise Sensitive Area is required, I suggest that 55 dB $L_{Aeq\ 24\ hour}$ is adopted as the incident noise level from this source.
114. I emphasise that this incident noise level is determined based on the current race day program of 18 daytime events per calendar year that last 5 hours per event.

PROPOSED AMENDMENTS TO PPC13

115. I understand that Mr. Olliver has, since the close of submissions, been working with representatives of several of the submitters to develop amendments to PPC13 that addressed their concerns, improve the plan change, and narrow down any areas of disagreement.
116. I understand that with respect to noise the latest version of plan change amendments is the same version as was attached to the s42A report.

CONCLUSION

117. PPC13 is a private plan change to rezone approximately 6.5ha of the racecourse site from Major Facilities Zone to Medium Density Residential Zone and a small portion to Industrial Zone.
118. I have recommended amendments to the noise rules in Chapter 25 of the Hamilton City District Plan to accommodate the proposed zones. However, I have also proposed some variations to provide greater

amenity and address potential reverse sensitivity noise issues where appropriate.

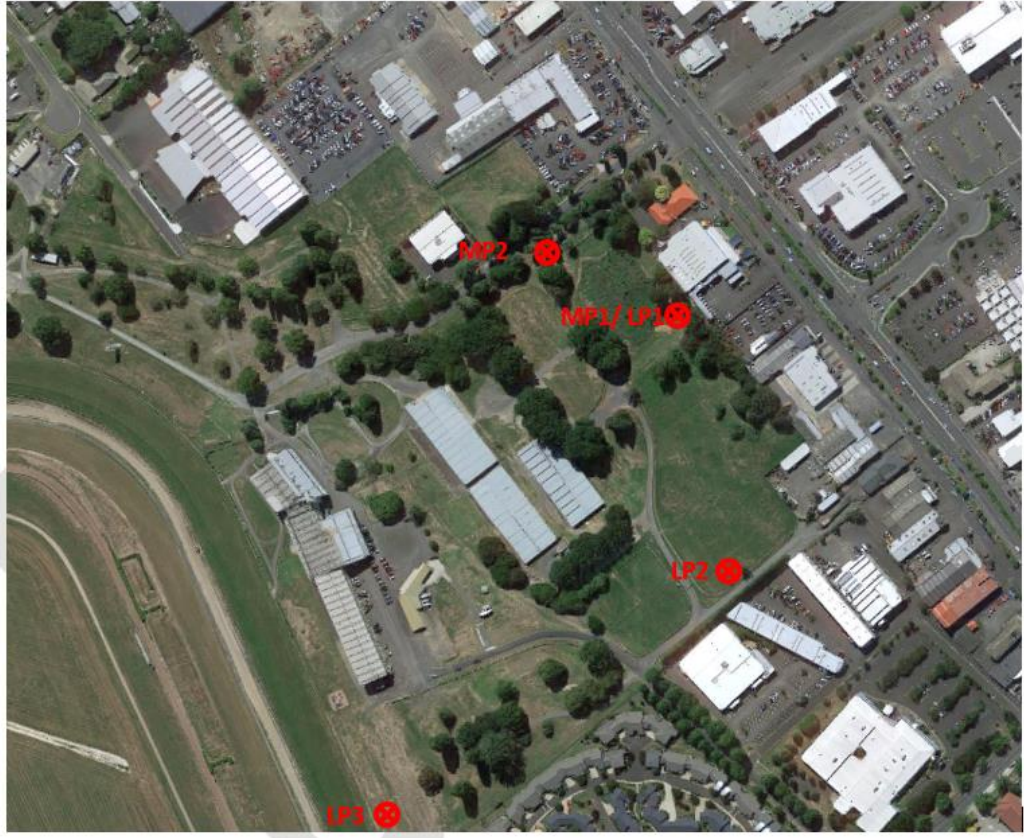
119. Sound emissions from areas outside of the proposed new zones, received on the site, are currently well below the permitted level. Future potential Sound emissions from areas outside of PPC13 received on the site (and their potential for reverse sensitivity noise effects) are mitigated by the proposed rule framework which includes, setbacks, internal noise criteria for noise sensitive activities (applied to the proposed Noise Sensitive Area), building form and outdoor area orientation, thereby adequately addressing the potential for any reverse sensitivity effects on existing emitters.
120. The proposed changes to the District Plan noise rules are appropriate and consistent with other similar Hamilton City rules. The types of development and activities expected in PPC13 will have little difficulty in complying with my proposed noise limits.
121. I have considered submissions on PPC13 pertaining to noise and provided comments in response, however, none of the submissions change my opinion on the noise effects including reverse sensitivity noise effects of the proposed plan change.
122. In my opinion, under the PPC13 any noise effects including reverse sensitivity noise effects are able to be managed and of no appreciable concern.



James RH Bell-Booth
8 August 2026

APPENDIX A; Summary of Ambient Noise measurement locations and results

Figure 1: Measurement positions



APPENDIX B; Reproduction of Assessment Report tables 2 to 4

Table 1: Summary of Average Ambient Sound Level on ‘typical’ days – Logger Measurements LP1

Measurement Position	Time Period	Measured Noise Levels (dB)			
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}
LP1	0600 – 0700	37	48	53	62
	0700 – 2000	40	51	56	79
	2000 – 2300	35	44	48	64
	2300 – 0600	32	43	50	67
	24 hour	33	49	55	79

Table 2: Summary of Average Ambient Sound Level on ‘typical’ days – Logger Measurements LP2

Measurement Position	Time Period	Measured Noise Levels (dB)			
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}
LP2	0600 – 0700	36	47	51	64
	0700 – 2000	39	48	52	74
	2000 – 2300	34	45	47	79
	2300 – 0600	30	43	48	74
	24 hour	32	47	51	79

Table 3: Summary of Average Ambient Sound Level on ‘typical’ days – Logger Measurements LP3

Measurement Position	Time Period	Measured Noise Levels (dB)			
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}
LP3	0600 – 0700	40	49	53	62
	0700 – 2000	40	51	56	79
	2000 – 2300	34	44	48	64
	2300 – 0600	33	43	49	65
	24 hour	33	49	54	79

APPENDIX C; Reproduction of Assessment Report tables 5 to 10

Table 4: Summary of Average Ambient Sound Level at LP1 on 'race' day – 28 April 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP1	0700 – 2000	47	56	59	75	Sound levels recorded during race events (1200-1700) ranged between 52-63 L _{Aeq} (15min)

Table 5: Summary of Average Ambient Sound Level at LP1 on 'race' day – 5 May 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP1	0700 – 2000	41	47	49	71	Sound levels recorded during race events (1200-1700) ranged between 45-50 L _{Aeq} (15min)

Table 6: Summary of Average Ambient Sound Level at LP2 on 'race' day – 28 April 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP2	0700 – 2000	45	52	55	69	Sound levels recorded during race events (1200-1700) ranged between 49-57 L _{Aeq} (15min)

Table 7: Summary of Average Ambient Sound Level at LP2 on 'race' day – 5 May 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP2	0700 – 2000	41	47	49	76	Sound levels recorded during race events (1200-1700) ranged between 42-54 L _{Aeq} (15min)

Table 8: Summary of Average Ambient Sound Level at LP3 on 'race' day – 28 April 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP3	0700 – 2000	45	60	56	88	Sound levels recorded during race events (1200-1700) ranged between 49-69 L _{Aeq} (15min)

Table 9: Summary of Average Ambient Sound Level at LP3 on 'race' day – 5 May 2017

Measurement Position	Time Period	Measured Noise Levels (dB)				Notes
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}	
LP3	0700 – 2000	41	61	55	87	Sound levels recorded during race events (1200-1700) ranged between 44-71 L _{Aeq} (15min)

APPENDIX D; 2023 noise survey

Summary of Average Ambient Sound Level on 'typical' days – Logger Measurements LP1

Measurement Position	Time Period	Measured Noise Levels (dB)			
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}
LP1	0600 – 0700		48	49	60
	0700 – 2000		49	51	63
	2000 – 2300		45	47	58
	2300 – 0600		43	50	63
	24 hour		48	50	63

Summary of Average Ambient Sound Level on 'typical' days – Logger Measurements LP2

Measurement Position	Time Period	Measured Noise Levels (dB)			
		L _{A90}	L _{Aeq}	L _{A10}	L _{Amax}
LP2	0600 – 0700		46	48	60
	0700 – 2000		51	53	66
	2000 – 2300		44	46	61
	2300 – 0600		42	44	56
	24 hour		49	51	66