Memorandum

To: Commissioners Robert Scott, Juliane Chetham, Gavin Lister and Councillor Chris Darby

From: Anne Bradbury, Principal Planner, North West and Islands, Plans and Places

Date: 3 May 2018

Subject: Proposed plan change 5 (Whenuapai Plan Change) – additional information and updated set of plan provisions

1. The reporting team has some additional information and updated text to the Whenuapai 3 Precinct in response to evidence received from submitters' experts. This was not prepared in time to be included in the Addendum Report that was circulated on 30 April 2018.

2. This memo contains that information which is as follows:

   i. update on Sinton Road to Kauri Road indicative collector road shown on Whenuapai 3 Precinct Plan 2
   ii. updated stormwater provisions
   iii. a note on infrastructure funding.

3. This memo contains the following attachments which supports the additional information:

   i. Memo from Flow Transportation Services dated 2 May 2018 - Appendix 1
   ii. Memo from Healthy Waters in response to submitters evidence dated 2 May 2018 – Appendix 2
   iii. Evidence from Mr Shields – Appendix 3
   iv. Updated set of plan provisions – Appendix 4.

4. I have included a complete set of the recommended changes to the plan provisions in Appendix 4. This includes the updated stormwater provisions in the Whenuapai 3 Precinct text and all the maps and precinct plans in PPC5. This appendix is the most up to date set of PPC5 provisions in response to submissions and evidence received from submitters.

<u>Sinton Road to Kauri Road indicative collector road shown on Whenuapai 3 Precinct Plan 2</u>

5. Max Robitzsch and Evita Key provided evidence on behalf of Sinton Development Limited, submitter 33. Submitter 33 has an interest in 18 Sinton Road. Mr Robitzsch's and Ms Key's evidence discusses the submitter's concerns with the indicative collector road from Sinton Road to Kauri Road shown on Whenuapai 3 Precinct Plan 2.

6. Liam Winter and Karen Bell also discuss this indicative collector road in their evidence provided on behalf of Auckland Transport (AT), submitter 42.

7. In paragraph 2.6 of his evidence Mr Robitzsch states that submitter 33 would not be able to construct the road as it has no powers to acquire the land from the other landowners. The developers at 18 Sinton Road are not required to construct the whole indicative collector road from Sinton Road to Kauri Road. Standard I616.6.1 requires compliance with Whenuapai 3 Precinct Plan 2 unless an alternative measure can be agreed. Standard I616.6.8 also applies and this standard requires a road to be built through to boundaries of a site to enable existing or future connections to be made with, and through neighbouring sites. This is the nature of greenfield development and is the same for all the collector roads on Whenuapai 3 Precinct Plan 2. Standards I616.6.1 and I616.6.8 and recommended changes in response to submissions (relevant submission points are in red) can be seen below.

I616.6.1 Compliance with Whenuapai 3 Precinct Plans

(1) *Activities must comply with Whenuapai 3 Precinct Plan 1 and Whenuapai 3 Precinct Plan 2.*

(2) *Activities not meeting Standard I616.6.1(1) must provide an alternative measure that will generally align with, and not compromise, the outcomes sought in Whenuapai 3 Precinct Plans 1 and 2.*

I616.6.8 Roads

(1) *Development and subdivision occurring adjacent to an existing road must upgrade the entire width of the road ~~adjacent to~~ from the property boundary of the site where subdivision and development is to occur, to the kerb on the opposite side of the road.* ***[46.11]***

(2) *Development and subdivision involving the establishment of new roads must:*

(a) provide the internal road network within the site where subdivision and development is to occur; ~~and~~

(a) be built through to the site boundaries to enable existing or future connections to be made with, and through, neighbouring sites; and

*(c) provide a full arterial road width along any proposed new arterial alignment shown on Whenuapai 3 Precinct Plan 2 if the development is proceeding ahead of the arterial road. [**42.12, 47.11 and 48.12**]*

8. Mr Robitzsch states in paragraph 3.7 of his evidence that if you assume half the road's width would be located on the land at 18 Sinton Road, the likely take from the submitter's land would be approximately 3,000 square metres. All collector roads on Whenuapai 3 Precinct Plan 2 will involve taking land from private sites that are being developed.

9. Mr Robitzsch states in paragraph 3.18 of his evidence that his modeller has confirmed that the alignments that Traffic Design Group were proposing in submission 33 would not work. However in paragraph 3.19 Mr Robitzsch questions the assumptions in the

modelling work done by Flow. I consider that Mr Robitzsch is correct in his statement in paragraph 4.41 that the there is a realistic possibility that a Sinton Road to Kauri Road connection might not be required for a long time. However as stated in paragraph 7 above, I note that the submitter at 18 Sinton Road can develop before the road is built.

10. In addition, in their further submission, the New Zealand Transport Agency (NZTA) (FS_9) states that the Brigham Creek interchange with State Highway 18 will have to be upgraded in the future to support growth in the area, and that NZTA do not support the continued connection of Sinton Road to the roundabout as this may compromise options for the future alignment. For this reason, and because I consider the connection might not be required for some time, I consider there is a need to treat the Kauri Road to Sinton Road connection differently from the other indicative collector roads shown on Whenuapai 3 Precinct Plan 2. The NZTA have sent a memo to say that while they did not request to appear at the hearing they will attend on the afternoon of the 7 May at the same time as AT. The memo states that staff from the NZTA will be available to answer any questions if necessary.

11. Mr Robitzsch states in section 6 of his evidence that he met with Mr Winter from AT to discuss the feasibility of the indicative collector road from Sinton Road to Kauri Road. Mr Winter and Ms Bell also discuss this indicative collector road in their evidence provided on behalf of AT. In paragraph 56 of Mr Winter's evidence he states that his preference is not to use triggers but that they may be necessary in some cases. He names this indicative collector road as being one of those cases. Ms Bell in paragraph 123(a)(v) of her evidence states that AT is of the view that a development threshold may be needed for the area.

12. Following receipt of evidence from submitter's experts, the reporting team has met with Mr Winter, Ms Bell and the council's transport experts, Flow Transportation Specialists (Flow) to discuss the indicative collector road from Sinton Road to Kauri Road. We determined that a trigger, or development threshold, could be a solution to for the area. However I note that submitter 33 sought the realignment of the connection or the deletion of the connection from Whenuapai 3 Precinct Plan 2 but did not specifically request a trigger in their submission. Ms Key suggests amendments to the provisions in Whenuapai 3 Precinct in paragraphs 16-18 of her evidence however she does not suggest the inclusion of a trigger, or development threshold.

13. I consider that the connection is necessary as shown on Whenuapai 3 Precinct Plan 2 and as I discussed in paragraph 365 of the Hearing Report. I note Mr Robitzsch states in paragraph 3.18 of his report that his modeller has confirmed that the alignments that TDG were proposing in submission 33 would not work. I am proposing to retain the connection on Whenuapai 3 Precinct Plan 2.

14. I consider that adding a trigger into Whenuapai 3 Precinct Plan 2 would be out of scope of submission 33 but, while not what the submitters are directly seeking, could be a solution for the transport network in the area. If the commissioners were minded to include a trigger, a new standard could be added to the Whenuapai 3 Precinct Plan 2. The standard would be a trigger for the number of houses that could be built in the Sinton Road area before the connection is required.

15. The Technical Note dated 2 May 2018 received from Flow that is attached in Appendix 1 of this memo states that they modelled three scenarios, 0%, 50% and 100% buildout of the full extent of the remainder of the PPC5 area to determine an appropriate trigger for the Sinton Road area. These can be seen in Table 1 of Appendix 1. Flow states,

and I agree, that it is reasonable to consider a 50% build out assessment of 550 dwellings as an appropriate trigger.

16. Suggested wording for this standard is as follows:

I616.2.x Sinton Road to Kauri Road connection

(1) Dwellings in the Sinton Road development area must not exceed 550 until such time that the Sinton Road to Kauri Road connection shown on Whenuapai 3 Precinct Plan 2 is constructed, or a realignment of that connection is constructed that will provide an equivalent transport function.
(2) The Sinton Road to Kauri Road connection, or a realignment of that connection that will provide an equivalent transport function, must be constructed before the dwelling trigger can be exceeded.

17. The inclusion of this standard would mean that there cannot be more than 550 dwellings in the Sinton Road development area before the connection between Sinton Road and Kauri Road is built. In the interim, the alignment and location of the collector road can still be provided by developers for individual sites through Standards I616.6.1 and I616.6.8 the same as all other indicative collector roads on Whenuapai 3 Precinct Plan 2. For this trigger to work there would need to be an amendment to Whenuapai 3 Precinct Plan 2 to add an area for development associated with the trigger.

18. I also note that the exact alignment of the connection will be worked through at the time of resource consent as enabled by Standard I616.6.1. Mr Winter in paragraphs 61 and 62 of his evidence outlines the council and AT's agreement for processing resource consents. AT are involved in assessing resource consents, including consents for subdivision. AT will be able to work through the exact location and alignment of this, and all indicative roads shown on Whenuapai 3 Precinct Plan 2, through the consent process.

19. I do not support changing the alignment and location of the Sinton Road to Kauri Road indicative collector road or removing it from Whenuapai 3 Precinct Plan 2. The inclusion of a trigger for the indicative collector road to be built by the time 550 dwellings in the Sinton Road area are built could address some of the submitter's concerns. It would enable development up to 550 dwellings without jeopardising any future plans for the Brigham Creek Road motorway interchange however I note that this may be out of scope of submission 33.

20. I do not recommend any changes in response to Mr Robitzsch and Ms Key's evidence. However I have suggested a standard that may be a solution for the transport network in this area but I do not consider that there is scope in submission 33 for the inclusion of a new standard of this type in the Whenuapai 3 Precinct.

Stormwater Management

21. Further information has been provided by the council's Healthy Waters Department in response to expert evidence from the New Zealand Defence Force (NZDF) (submitter 41), Auckland Transport (submitter 42) and CDL Land New Zealand Limited (submitter 36). I rely on the advice provided in their memo dated 2 May 2018 and support the amendments to Standards I616.6.3(3) and (5) for the reasons stated in the memo (see Appendix 2 of this memo).

22. In relation to the issue of bird strike risk raised by the NZDF, Philip Shaw provided evidence on bird strike and Alia Cedarman provided planning evidence on behalf of the NZDF. They suggest additional provisions in the Whenuapai 3 Precinct to address bird strike risk.

23. Bird strike is discussed in paragraphs 7.5 to 7.9 of Ms Cedarman's evidence. I note that at paragraph 7.9 of her evidence, she considers that the provisions put forward by Mr Shaw may need further refinements to "ensure they align with the existing provisions in PC5 and provide an efficient and effective framework for managing and minimising the risk of birdstrike". Healthy Waters have reviewed the provisions proposed by the New Zealand Defence Force's witnesses and suggest provisions relating to the design of stormwater ponds and wetlands within the Whenuapai 3 Precinct. However it is important to note that based on the requirements in Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003), the likelihood of the use of stormwater ponds and wetlands is low.

24. Upon hearing all evidence, if the commissioners were minded to include additional provisions to address bird strike risk, I support the suggested wording in Attachment 1 of the Healthy Waters memo dated 2 May 2018 subject to further refinement. In particular, I note that further information on the types of the appropriate planting in the Whenuapai environment that does not increase bird strike risk may be helpful.

25. In summary, I recommend amendments to Standards I616.6.3(3) and (5). These amendments can be seen below and also in Appendix 4 to this memo. Black text with ~~strikethrough~~ and underline show recommended changes in the Hearing Report. Green text with ~~strikethrough~~ and underline show recommended changes proposed in this memo.

Standard I616.6.3(3)

Stormwater runoff from impervious areas (excluding roofs, and excluding roads that are subject to Auckland-wide rules in E9) totalling more than 1,000m2 associated with any subdivision or development proposal must be:

(a) treated at-source by a stormwater management device or system that is sized and designed in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003); or

(b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance.

Standard I616.6.3(5)

Stormwater runoff from impervious areas not directed to an approved stormwater management device (achieving either quality treatment or ~~hydrology mitigation~~ retention (volume reduction) in accordance with Stormwater management area control – Flow 1) must:

(a) achieve quality treatment ~~on-site~~ at-source in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003) prior to disposal to the stormwater network; or

(b) use inert building materials.

Infrastructure funding

26. We received two statements of evidence from Auckland Transport, one from Mr Liam Winter and from Ms Karen Bell. These statements of evidence discuss infrastructure funding amongst other matters.

27. Eryn Shields has provided a statement of evidence to update the panel on infrastructure funding. This is attached in Appendix 3 of this memo.

Kind regards

Anne Bradbury

Principal Planner, North West and Islands Planning

Appendix 1

flow TRANSPORTATION SPECIALISTS

technical note

PROJECT	**WHENUAPAI PLAN CHANGE 5**
SUBJECT	**SINTON ROAD CONNECTION DEVELOPMENT TRIGGER ASSESSMENT**
TO	**ANNE BRADBURY (AUCKLAND COUNCIL)**
FROM	QING LI
REVIEWED BY	BRONWYN COOMER-SMIT
DATE	2 MAY 2018

1 INTRODUCTION

As background to this matter, it has been identified in the Whenuapai Plan Change (PC5) Transport Assessment[1] that to enable the capacity improvements at SH18/Brigham Creek Road interchange to be completed, the existing vehicle access between Brigham Creek Road and Sinton Road will need to be removed, and as such a new collector road between Sinton Road and Kauri Road will be required. It was also identified in the Transport Assessment that the timing of this new collector road connection will depend on how much development is likely to occur in the surrounding areas.

This technical note provides a summary of the high level transport assessment completed to inform the formulation of a landuse development trigger to provide guidance as to when the proposed new collector road between Sinton Road and Kauri Road should be implemented.

2 SINTON ROAD DEVELOPMENT TRIGGER ASSESSMENT

In order to understand what this development trigger may be, the SATURN[2] traffic model previously developed to assess the transport infrastructure required to support the proposed development of the PC5 area, has been used. In particular, the SATURN model includes most of the future development area in northwest Auckland including Hobsonville Point, Scott Point, Hobsonville Village, Redhills, Westgate, Kumeu/Huapai, Riverhead and Whenuapai. The model uses outputs of the Auckland Regional Transport (ART) model Scenario I11 and includes the latest land use assumptions for the Whenuapai Plan Change area.

The assessment methodology includes the use of the SATURN models (which include the 2021 background traffic) to obtain peak period traffic flows predicted at the SH18 Northbound ramps/ Brigham Creek Road/ Sinton Road roundabout. Background traffic demands in 2021 have been interpolated based on the predicted ART growth between 2016 and 2026, guided by the predicted Scenario I11 land use in 2021.

[1] Findings of the transport assessment has been provided in Flow Transportation Specialists (Flow) technical note: "Whenuapai Plan Change 5 – Transport Infrastructure Review (April 2018)"

[2] SATURN is a "meso" or middle tier traffic modelling software package and allows users to undertake a variety of area wide strategic through to more detailed local area assessments. Originally developed by Leeds University, UK.

Peak hour SIDRA models of the SH18 Northbound ramps/ Brigham Creek Road/ Sinton Road roundabout have then been used to determine the predicted Level of Service (LOS) at the intersection, under the traffic demands of the following development scenarios:

- Scenario A: assumes no development in PC5 Areas 1A, 1B, 1C, or 1E
- Scenario B: assumes 50% development of PC5 Areas 1A, 1B, 1C and 1E
- Scenario C: assumes 100% development of PC5 Area 1A, 1B, 1C and 1E.

Table 1 below provides for each of the above scenarios, the maximum level of the development that could be accommodated in Area 1D, before either the Brigham Creek Road west approach or the Sinton Road approach to the roundabout is predicted by the SIDRA models to exceed LOS D.

Table 1: Predicted Development Triggers for the proposed Sinton Road connection

Development Scenario	Maximum Dwellings Allowed in Area 1D	Percentage of Area 1D Allowed
Scenario A: 0% development in PC5 Areas 1A, 1B, 1C and 1E	750	44%
Scenario B: 50% development of PC5 Areas 1A, 1B, 1C and 1E	550	32%
Scenario C: 100% development of PC5 Areas 1A, 1B, 1C and 1E	200	12%

Recognising that Auckland Council has little influence over which areas within the PC5 extent may develop first and the rate of development, it is considered reasonable to use the results of the above Scenario B assessment of 550 dwellings in Area 1D, as the development trigger associated with the timing of the implementation of the new collector road between Sinton Road and Kauri Road.

Under this scenario and taking into account that Area 1D has a maximum development potential of 1,700 dwellings, it is noted that the proposed development trigger of 550 dwellings allows for 32% of Area 1A to be developed before the new collector road between Sinton Road and Kauri Road would be required.

Reference: P:\ACXX\334 Whenuapai\Reporting\TN2A180430_Sinton Trigger.docx - Qing Li

Appendix 2

Specialist Response to Evidence for Hearing - Stormwater

To:	Emily Ip and Anne Bradbury
From:	Paula Vincent, Senior Healthy Waters Specialist; Shaun Jones, Principal – Development Planning; and Chloe Trenouth, Planning Consultant
Date:	2 May 2018
Plan Change:	Proposed Plan Change 5 - Whenuapai 3 Precinct
Response:	Further Response to Submitters (NZDF, AT, CDL) Evidence and Suggested Wording Amendments

1. Introduction

1.1 This Memo is intended to provide Healthy Waters response to evidence from submitters (specifically the New Zealand Defence Force, Auckland Transport and CDL) suggesting wording changes to the stormwater and flooding components of the provisions proposed for Proposed Plan Change 5, Whenuapai 3 Precinct.

2. New Zealand Defence Force

2.1 In Section 10, pages 18 – 22, paragraphs 10.1 – 10.11 of his evidence for the New Zealand Defence Force (NZDF), Phillip Shaw suggests adding new objectives, policies, activity table rules, matters for discretion, assessment criteria, special information requirements and a new appendix to address the effects of development of the Whenuapai 3 Precinct on the safe and on-going operation of the Whenuapai Airbase. Some of the suggested amendments are specific to the issue of the design of stormwater ponds and wetlands to minimise the risk of birdstrike on the safe operation of the Whenuapai Airbase.

2.2 Healthy Waters has reviewed the amendments suggested by Mr Shaw for the NZDF and considers that the provisions are quite onerous. Healthy Waters note that no other airport, airfield or airbase covered in the Auckland Unitary Plan (i.e. Auckland Airport or Ardmore Airport etc) has similar provisions or requirements. Additionally, when considered in a consenting environment, there is no-one within Council with the relevant experience to assess the technical aspects of the design of stormwater structures with regard to birds roosting and settling which, according to Mr Shaw, when birds are disturbed, can further lead to birdstrike.

2.3 However, if commissioners were minded, Healthy Waters suggests revised wording for provisions to address the NZDF concerns regarding the design of stormwater ponds and wetlands. The suggested wording is considered consistent with current wording used in the proposed precinct provisions and wording in other parts of the Auckland Unitary Plan Operative in Part (AUP OP).

2.4 Healthy Waters suggests adding wording to the stormwater management objectives and policies i.e. a new sub-objective 8(g) and a new sub policy 12(d).

2.5 Healthy Waters also suggests new regional rules in the activity table for stormwater ponds and wetlands. The rules would replace those for stormwater ponds and wetlands as a controlled activity in Chapter 26 Infrastructure. The proposed rules are classed as a restricted discretionary activity where a new standard is complied with and, as a discretionary activity if the new standard is not complied with. It is considered these activity classifications are appropriate noting that, in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003) the likelihood of the use of stormwater ponds and wetlands is low. Correspondingly, the risk of birdstrike is likely to be low.

2.6 The associated new standard suggested by Healthy Waters to support the abovementioned rules, only applies two components of the list suggested by the NZDF i.e. timing for draw down and the slope of the sides of the pond/wetland as these are considered practical and not overly onerous matters that are able to controlled and considered.

2.7 Additionally, Healthy Waters suggests matters for discretion and assessment criteria.

2.8 The suggested amendments are provided as Attachment 1 to this Memo and shown in blue ~~strikethrough~~ and underline).

3. Auckland Transport

3.1 At pages 27 - 28, paragraphs 110 – 114 of her evidence for Auckland Transport (AT), Karen Bell suggests wording amendments to Stormwater Management Standard I616.6.3(3) to ensure that the standard does not apply to new roads or widened existing roads that are already subject to the Auckland-wide rules in E8 Stormwater - Discharge and diversion and E9 Stormwater quality – High contaminant generating car parks and high use roads. Ms Bell requests amendments to Standard I616.6.3(3) as follows:

> *(3) Stormwater runoff from impervious areas (excluding new or widened roads that are subject to Auckland –wide rules in E9) totalling more than 1,000m^2 associated with any subdivision or development proposal must be:*
>
> *(a) treated by a device or system that is sized and designed in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003); or*
>
> *(b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance.*

3.2 Healthy Waters agrees that Standard I616.6.3(3) is not intended to duplicate the rules in Chapters E8 and E9 and that reference to the exclusion of those rules appropriately clarifies this. However, Healthy Waters does not agree that the words *"excluding new or widened roads"* is appropriate. If roads are over 1,000m^2 and not a high use road, then the standard seeks to address the contaminants from these roads and the quality of stormwater runoff. Standard I616.6.3(3) addresses quality treatment of stormwater runoff, not the discharge of stormwater, which is addressed by Chapter E8. The amendment is not considered necessary to clarify this. Healthy Waters suggests the

following wording for Standard I616.6.3(3) in response to AT's concerns (amendments shown in blue ~~strikethrough~~ and underline):

(3) Stormwater runoff from impervious areas (excluding roads that are subject to Auckland –wide rules in E9) totalling more than 1,000m^2 associated with any subdivision or development proposal must be:

(a) treated by a device or system that is sized and designed in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003); or

(b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance.

4. CDL

4.1 The evidence of Kay Panther Knight, Planner for CDL Land New Zealand Ltd suggests changes to the wording of the Precinct provisions, with regard to (amongst other matters) stormwater and flooding, in order to avoid unnecessary restrictions, or repetition or confusion with Auckland-wide provisions and in recognition of CDL's land being located in a different sub-catchment for stormwater management.

4.2 For the reasons stated in section 4.1 of the Technical Memo dated 19 March 2018, Healthy Waters does not consider that the removal of standards I616.6.3(1) and (2) relating to flooding, as suggested by CDL, is appropriate and it recommends that these standards be retained.

4.3 CDL suggests adding words to reference the *Waiarohia Stream Catchment within the Whenuapai 3 Precinct* into Standard I616.6.3(3), (4) and (5). As outlined in paragraphs 3.1 – 3.9 of the Response to Submitters Evidence Memo dated 30 April 2018, Healthy Waters does not consider this is necessary.

4.4 Healthy Waters also reiterates again that it does not support the suggested amendments to the THAB zone standards suggested by CDL and that insufficient evidence has been provided by CDL on the stormwater effects of the proposed THAB provisions.

5. Minor Wording Amendments Suggested by Healthy Waters to Standards I616.6.3(3) and (5)

5.1 In reviewing the submitter's evidence, Healthy Waters has picked up some minor wording inconsistencies or omissions. It seeks to correct these as follows.

Standard I616.6.3(3)

5.2 For Standard I616.6.3(3) Healthy Waters seeks to exclude roofs from the standard, as well as roads subject to rules in E9 as suggested by AT. Healthy Waters seeks to exclude roofs from this standard because in the first instance the requirement for retention under the SMAF rules is considered to achieve adequate treatment. Where

SMAF does not apply or the retention requirement of SMAF is not achieved then quality treatment would be required in accordance with Standard I616.3(5).

5.3 Healthy Waters suggested amendment to Standard I616.6.3(3), in addition to that outlined to address AT concerns in paragraph 3.2 above, is as follows (amendments shown in blue ~~strikethrough~~ and underline):

(3) Stormwater runoff from impervious areas (excluding roofs, and excluding roads that are subject to Auckland –wide rules in E9) totalling more than 1,000m^2 associated with any subdivision or development proposal must be:

(a) treated by a device or system that is sized and designed in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003); or

(b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance.

Standard I616.6.3(5)

5.4 For Standard I616.6.3(5) Healthy Waters seeks to amend the reference to *"hydrological mitigation"* in (5) to *"retention (volume reduction)"*, in order that the wording better reflects the wording of the Stormwater management area control – Flow 1 provisions that the standard is referencing. It is the retention requirements of SMAF rules that is considered to adequately address quality treatment, in particular first flush diversion. The hydrological mitigation requirements in the SMAF controls allow for retention not to be provided in certain situations, and therefore the precinct standard needs to be specific about the need to achieve the retention requirements.

5.5 Additionally, Healthy Waters seeks to amend the wording of *"on-site"* in (a) to *"at-source*" to be consistent with the term/language used in I616.6.3(3) which is more technically correct.

5.6 Healthy Waters suggested amendments to Standard I616.6.3(5) are as follows (amendments shown in blue ~~strikethrough~~ and underline):

(5) Stormwater runoff from impervious areas not directed to an approved stormwater management device (achieving either quality treatment or ~~hydrology mitigation~~ retention (volume reduction) in accordance with Stormwater management area control – Flow 1) must:

(a) achieve quality treatment ~~on-site~~ at-source in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003) prior to disposal to the stormwater network; or

(b) use inert building materials.

Attachment 1 – Healthy Waters Suggested Provisions in Response to NZDF Evidence

New objective 8(g):

Stormwater Management

(8) Through subdivision, use and development, implement a stormwater management approach that:

(a) is integrated across developments;

(b) avoids new flood risk;

(c) mitigates existing flood risk;

(d) protects and enhances the ecological values of the receiving environment; ***[22.22]***

(e) seeks to mimic and protect natural processes; ~~and~~

(f) integrates with, but does not compromise the operation of, the public open space network~~.~~; and

(g) minimises the attraction of birds that could become a hazard to aircraft operating at Whenuapai Airbase.

New policy 12(d)

Stormwater Management

(12) Require subdivision and development within the Whenuapai 3 Precinct to:

(a) apply an integrated stormwater management approach;

(b) ~~manage stormwater diversions and discharges~~ treat stormwater runoff at-source to enhance the quality of freshwater systems and coastal waters~~; and~~ ***[8.5]***

(c) ~~be consistent with the requirements of the Whenuapai 3 Precinct Stormwater Management Plan (2017) and any relevant stormwater discharge consent~~. ***[19.25]*** and

(d) minimise the adverse effects of birdstrike through the design of stormwater ponds/wetlands.

Amendment to I616.4 Activity table introductory wording and addition of new rules into activity table

The activity tables in any relevant overlays, Auckland-wide and zones apply unless the activity is listed in Table I616.4.1 Activity table below.

Table I616.4.1 specifies the activity status of land use and subdivision activities in the Whenuapai 3 Precinct pursuant to sections 9(2) and 9(3) and section 11 of the Resource Management Act 1991.

Note: A blank cell in the activity status means the activity status of the activity in the relevant overlays, Auckland-wide or zones applies for that activity.

Table I616.4.1 Land use and subdivision activities in Whenuapai 3 Precinct

Activity		Activity status
Stormwater structures		
(AX7)	Stormwater ponds/wetlands complying with Standard I616.6.12	RD
AX8	Stormwater ponds/wetlands not complying with Standard I616.6.12	D

New standard

I616.6.12 Stormwater ponds/wetlands

(1) Stormwater ponds/wetlands must be designed to minimise bird settling or roosting by a suitably qualified and experienced person to:

(a) fully drain down within 48 hours of a 2 per cent Annual Exceedance Probability (AEP) storm event; and

(b) have side slopes at least as steep as 4 in 1 except for:

(i) any side slope treated with rock armouring; or

(ii) any area required for vehicle access, provided that such vehicle access has a gradient of at least 1 in 8.

New matters for discretion

(6) Stormwater ponds/wetlands

(a) the effects of the design of the stormwater ponds/wetlands on bird settling and roosting;

(b) the effects on the safe operation of the Whenuapai Airbase; and

(c) the effects of the proposed planting.

New assessment criteria

(6) Stormwater ponds/wetlands

(a) the extent to which the design of the stormwater ponds/wetlands and any proposed planting minimises risks of bird strike on the safe operation of Whenuapai Airbase.

Appendix 3

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of Auckland Unitary Plan (Operative in Part) Proposed Plan Change 5 Whenuapai 3 Precinct

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EVIDENCE BY ERYN JAMES SHIELDS
WHENUAPAI 3 PRECINCT

03 MAY 2018

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1. SUMMARY

1.1 The purpose of my evidence is to provide additional context for the consideration of the funding matter raised in the evidence that supports Auckland Transport's submission and further submissions to the Proposed Auckland Unitary Plan (Operative in Part) (AUP) in relation to the Whenuapai 3 Precinct (the Precinct).

1.2 In particular my evidence responds to matters raised in the evidence prepared by Mr Liam Hansell Winter and Ms Karen Anne Bell for Auckland Transport. Their evidence includes discussion of funding matters associated with the future development of the transport network that will support urban growth in the Precinct. I consider that it is appropriate that these matters be updated so that the Commissioners have additional context to assist their consideration of these matters.

1.3 Detailed amendments to the Precinct text arising from the evidence of Mr Winter and Ms Bell are addressed by Ms Anne Bradbury, in the Addendum Report which was circulated on 30 April 2018. I seek to update the Panel with timeframes for decisions (where they are known) for those mechanisms that may be applicable in Whenuapai, and brief discussion of those mechanisms that are unlikely to be available to be applied in Whenuapai.

PART A: OVERVIEW AND BACKGROUND

2. INTRODUCTION

2.1 My name is Eryn James Shields. I hold the position of Team Leader in the North West and Islands Planning Unit within the Plans and Places Department of Auckland Council. I have held this position since November 2010. I hold a Bachelor of Social Sciences from the University of Waikato and a Bachelor of Planning from the University of Auckland. I am a Member of the New Zealand Planning Institute. I have 22 years of resource management experience **Attachment A**.

2.2 The purpose of this evidence is to provide context about matters raised in evidence from Auckland Transport in relation to the Whenuapai 3 Precinct.

3. CODE OF CONDUCT

3.1 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or

detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

4. STATUTORY FRAMEWORK

4.1 The statutory framework is detailed in the Hearing Report, dated 12 April 2018, and has not been repeated here.

Section 32 and 32AA

4.2 The Council has focussed its section 32 assessment on provisions that are proposed to be inserted into the AUP that seek to implement various zones to support urban development in parts of Whenuapai. The Precinct provisions do not reflect a major policy shift from the AUP, and have been evaluated in accordance with s32 and s32AA.

5. EVIDENCE OF MR WINTER AND MS BELL

5.1 Mr Winter provides a useful summary of statutory and non statutory documents that support land use and planning in his sub paragraphs 12(a)-12(i). He then goes on to summarise matters associated with transport funding in Whenuapai in his paragraphs 34–41. He then details how each component of the transport network could be funded in his paragraphs 49-55.

5.2 Ms Bell's evidence on behalf of Auckland Transport provides explanation of the various amendments sought in Auckland Transport's submission on the Precinct's Objectives, Policies and Standards. This includes her view on the funding issues raised by Mr Winter. While not as extensive in her consideration of the funding routes available to Auckland Council, Ms Bell concludes in her paragraph 146 that if an appropriate mechanism(s) is not available before subdivision and development is able to proceed, then she considers that Auckland Council must delay making its decisions to rezone the Future Urban Zoned land with the Precinct.

5.3 Mr Winter briefly discusses the documents that provide the funding context in paragraphs 34–41. I will go through each of these documents to provide updated context in terms of timeframes for each, as best they are known at the time of writing of this evidence.

5.4 Mr Winter refers to Auckland Council's **Long Term Plan 2018-2028** (LTP) and Auckland Transport **Regional Land Transport Plan 2018-2028** (RLTP) in his paragraphs 34 and 35. The LTP is scheduled to be adopted on 27 June 2018.

5.5 The RLTP is currently in the public arena as a draft. Consultation with the public ends on 14 May 2018, and the draft indicates that Auckland Transport approval will occur in late June 2018 (refer page 62) (**Attachment B**). The approved RLTP will then be publicly available.

5.6 The RLTP identifies $275 million for Greenfields Transport Infrastructure Projects (refer pages 43, 44 and Appendix1 on page 63) (**Attachment B**). Aside from $25 million allocated to Wainui (refer page 44) (**Attachment B**), allocation of this funding to specific locations across Auckland is not detailed in the document. There is no criteria provided in the RLTP that explains the circumstances when and how that funding will be allocated.

5.7 Mr Winter refers to the **Local Residential Growth Fund** (LRGF) in his paragraph 36. This Fund is a component of the RLTP, and so follows the same timeframe I have identified in paragraph 5.5 above. The LRGF identifies $391 million to provide transport infrastructure to support housing. The LRGF provides Auckland Transport with the ability to respond to evolving growth and development needs across Auckland. The LRGF supports infrastructure cost sharing arrangements for residential growth with land developers, and is predominantly funded through development contributions. Currently committed projects utilising the LRGF include the replacement of the Lucas Creek Bridge and a new road connecting Gills Road to Oteha Valley Road (refer page 44)(**Attachment B**). Other projects that are to be supported by the LRGF have yet to be confirmed.

5.8 Mr Winter refers to the **Strategic Land Acquisition Fund** in his paragraph 36. This fund is usually assigned to acquisition of land associated with roads subject that may, in the future, be subject to a Notice of Requirement for a designation. There are no identified strategic land acquisition projects in the PPC5 area.

5.9 Mr Winter refers to the **Housing Infrastructure Fund** (HIF) in his paragraphs 37 and 38. Auckland Council's detailed business case will be provided to the Ministry of Business, Innovation and Employment (MBIE) on 4 May 2018. This responds to the government's allocation of $300 million (from the $1 billion that the government made available) to Auckland. It is expected that a decision in response to the Council's detailed business case will take four to six weeks. Once the decision from MBIE is

known, Council expects to commence preparing loan documents by the end of June 2018. The detailed business case includes funding for Trig Road south of State Highway 18, which is within the PPC5 area.

5.10 Mr Winter refers to **Infrastructure Funding Agreements** (IFAs). IFAs are provided for in the Whenuapai 3 Precinct (at I616.6.2) and may be entered into at the time of subdivision and development. IFAs are one method available to fund a subdivision or roading project (or part of a roading project) which may currently be unfunded and identified within the precinct,. Specific projects funded by IFAs' are not able to be confirmed as part of this statutory plan change process.

5.11 Mr Winter refers to proposals for **Regional Fuel Taxes**, which are proposed as part of the Council's LTP 2018-2028. The LTP (and presumably the regional fuel tax) will be adopted on 27 June 2018. Project number 14 (as listed in the Council' regional fuel tax consultation document) (**Attachment C**) identifies $300 million for "Growth related transport infrastructure" (and $25million of this is allocated to Wainui, leaving $275million available but unallocated). This amount comprises contributions from the regional fuel tax, development contributions and New Zealand Transport Agency subsides. It identifies Whenuapai as one of the areas where expected growth will be supported (in part) by the regional fuel tax.

5.12 Mr Winter refers to the **Crown Infrastructure Partners** in his paragraphs 21(d) and 41. Crown Infrastructure Partners is expected to fund and deliver $360 million of growth projects in Drury/Pukekohe/Paerata and in Wainui East/Silverdale/Dairy Flat areas. Information about this funding that is available at this time suggests that it is not available for Whenuapai.

6. CONCLUSION

6.1 I have considered the evidence of Mr Winter and Ms Bell received on the Whenuapai 3 Precinct. Ms Bell concludes that, subject to amendments, that the precinct provisions will appropriately manage subdivision and development. Ms Bell has set out her view about uncertainties associated with funding. Mr Winter outlines various funding mechanisms, and I have updated the Panel with timeframes for decisions (where the timeframes are known) for those mechanisms that may be applicable in Whenuapai, and those mechanisms that are unlikely to be applied in Whenuapai.

Eryn James Shields
3 May 2018

ATTACHMENT A: CV of Report Writer

November 2010-present

TEAM LEADER PLANNING – AUCKLAND COUNCIL
1999 - 2010

PLANNER / PRINCIPAL PLANNER - WAITĀKERE CITY COUNCIL

1996 - 1999

POLICY ANALYST – MINISTRY FOR THE ENVIRONMENT

Qualifications

Bachelor of Social Sciences (University of Waikato) 1988
Bachelor of Planning (University of Auckland) 1990

Affiliations

Member New Zealand Planning Institute

ATTACHMENT B

EXCERPTS FROM THE DRAFT REGIONAL LAND TRANSPORT PLAN 2018

The proposed transport programme also includes:

- Rollout of LED street lighting across the Auckland region to reduce energy use
- Tetratraps – installation of catchpit pollutant traps in the city centre, industrial areas, and marine sensitive areas to protect from road stormwater discharge
- Inclusion of water sensitive design as part of infrastructure development
- Tamaki Drive resilience – investigation to determine how to address the impacts of sea level rise
- Investigating how to reduce emissions from marine transport including ferries
- Ensuring maintenance and operational practices minimise impacts on the environment
- Improving waste practices across infrastructure construction and facilities management
- Facilitating the increased uptake of electric vehicles, including enabling the private sector to invest in and expand charging infrastructure.

Supporting Growth

Accommodating Auckland's rapid population growth requires accelerating the construction of housing and business development. Opening up rural land for development, or facilitating redevelopment of existing urban areas to higher densities, is frequently dependent upon the provision of new transport infrastructure and services.

Around two-thirds of Auckland's future growth is expected to occur through the redevelopment of existing urban areas to higher densities. About 15,000 hectares of greenfield (mainly rural) land has been identified for development in the Unitary Plan. This includes areas zoned Future Urban (rural land identified for future urban development), as well rural land that has been 'live zoned' (zoned for immediate urban development). Major new greenfield growth areas will occur in the south, northwest, north and Warkworth. Over the next decade, this growth will mostly occur around Wainui in the north, Red Hills and Whenuapai in the northwest, and Pukekohe/Paerata and Drury West in the south.

Auckland Council's Future Urban Land Supply Strategy (FULSS) identifies a programme to sequence when future urban land will be development ready. In the first decade the proposed development ready land will enable 53,000 new homes to be delivered.

Greenfield areas need substantial investment before significant development can occur. Some investment is needed to open up land for development, alongside larger scale improvements needed to connect these areas to the rest of Auckland,

and to address the impact of increased travel demands to and from these new urban areas. New construction and protecting routes for longer-term projects are required.

Also important is working closely with developers to ensure that greenfield developments and urban intensification projects are designed to reduce reliance on private vehicles, and encourages the use of public transport, walking and cycling. An appropriate balance between private and public transport investment for new development is also needed.

A transport network plan, known as the Supporting Growth Programme, has been developed to support these future urban areas. This identifies a preferred network which:

- Enables the sequence of land release specified in the FULSS
- Improves access to places where people live and work - now and in the future.

The proposed transport programme contained in this draft RLTP provides for:

- $275 million fund for high priority greenfield areas
- Wainui transport infrastructure.

It is anticipated that Crown Infrastructure Partners will assist in the delivery of transport infrastructure in greenfield areas. It is also expected that funding will be provided through the Housing Infrastructure Fund to support development in the North West.

In addition, the Local Residential Growth Fund (LRGF) provides funding for transport infrastructure for residential growth, including for Special Housing Areas. Current committed projects include the replacement of Lucas Creek Bridge, and a new road link connecting Gills Road to Oteha Valley Road. Other projects to be supported by the LRGF have yet to be confirmed.

Corridor Improvements

Auckland's arterial roads, together with State Highways, form the backbone of the road network. They provide for a wide variety of travel and the highest traffic volumes, link major parts of Auckland and the rest of New Zealand, carry the heaviest freight volumes and provide access to the Ports of Auckland, Auckland Airport and inter-regional connections. Efficient movement of people and goods is the primary consideration.

Congestion on the arterial network, at peak times and increasingly in inter-peak periods is a significant concern. It is important to limit the growth in congestion on the freight network, particularly in the interpeak, to support productivity and efficient connections to major freight hubs, including the Ports of Auckland and

How decisions will be made

All views and ideas expressed in submissions to Auckland Council or to AT, including at local consultation events, will be summarised and presented to the RTC.

Following consultation, the RTC will consider the feedback received and recommend the final RLTP to AT for approval.

Decisions will be publicly available via the AT website in late June 2018 and the final document will be made available as soon as possible after adoption.

Potential for Further Consultation

If the proposed Auckland RFT scheme does not proceed, or if the final GPS 2018 would result in significant changes being required to the final RLTP, further public consultation would be required.

Appendix 1 Table 1A– Auckland Transport Proposed Funded Capital Programme

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28.
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Committed, Ring-fenced, On-going Operational and Renewal Projects and Programmes (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Funds for Local Board priorities and to support housing growth	
Greenfield transport infrastructure projects	Infrastructure programme to support high priority greenfield areas, including upgrade of existing corridor on Trig Road and new Redhills connection to urban arterial standard with appropriate public transport and active mode provision	275
Local Board Initiatives	To allow Local Boards to fund transport projects in their communities. Projects to be funded will be worked through with Local Boards to meet their specific priorities.	242
Local Residential Growth Fund	To provide transport infrastructure to support housing	391
	Projects to be confirmed	
Projects deferred from 2017/18	List to be confirmed in the final RLTP	tbc
	Committed Projects and Programmes	
Albany Station P&R Extension stage 1	Phases 1 of the Albany park'n'ride extension to increase capacity and patronage on the Northern Busway.	1
EMU Rolling Stock	Purchase of new EMUs to allow electric rail services to be extended to Pukekohe and to provide additional capacity on the rail network.	113
Franklin Road	Improvements to the Franklin Road streetscape	6
Infrastructure works for Drury South (Ararimu)	Construction of spine road and ancillary works to unlock the Ararimu Precinct	10
Murphys Rd Upgrade Bridge Improvements	Part of the Flat Bush Road network upgrade package, focussing on Murphy's Road from south of Ormiston Road to north of Flat Bush School Rd to construct a four land urban arterial road.	11
Rosedale and Constellation Bus Stations	A new Rosedale bus station, and improvements to the existing Constellation bus station, associated with the extension of the Northern Busway to Albany.	117
Supporting Growth - Investigation for Growth Projects	To facilitate investigation for high priority projects in growth areas	81
Tamaki Drive/ Ngapipi Road safety improvements	To improve the pedestrian and cycle connection on Ngapipi Bridge adjacent to the Tamaki Drive/ Ngapipi Road intersection.	3
Wainui Improvements	Infrastructure programme to support Wainui growth area	25
Wynyard Quarter Integrated Road Programme	Providing road upgrades within the Wynyard Quarter precinct as per Plan Change 4.	77
	Ring-fenced Projects and Programmes	
LRGF Dairy Flat Highway Improvements	Widening of Dairy Flat Highway, replacement of Lucas Creek bridge and signalisation of The Avenue/Dairy Flat Highway Intersection	17
LRGF Gills to Oteha Valley	New link road connecting Gills Road to Oteha Valley Road / Appian Way Roundabout	24
LRGF Hingaia SHA	Projects supporting the Hingaia SHA	6
LRGF Huapai SHA	Station Road re-alignment and signalisation of SH16	37
LRGF Medallion Drive Link	A two-way link road between Fairview Avenue and the existing Medallion Drive with pedestrian and cycle facilities.	13
Seal Extensions	Programme of delivering seal extensions to the region's highest priority unsealed roads.	36
Tamaki Regeneration	Local road upgrades, improvements to Glen Innes town centre and enhanced linkages to public transport delivered in conjunction with the Tamaki Regeneration Project.	41
	On-going Operational Programmes	
Advanced Destination Signage	Installation of advanced directional signage and route numbering signage on the local road network to assist in customer wayfinding.	6
Bus Priority: Localised Improvements	Delivery of localised bus priority improvements across Auckland to support the roll out of the new bus networks.	53
Double Decker Network Mitigation Works	Mitigation works to safely allow the passage of double decker buses, addressing risks such as street signage, street furniture, low hanging power or phone lines, overhanging trees and low bridge structures.	14
Improvements Complementing Developments	Programme to allow Auckland Transport to proactively work with developers to improve transport outcomes associated with new developments.	11
Marae and Papakainga (turnout) Safety Programme	Toa Takitini (Transformational) Maori Outcome Programme seeks to improve the entry / exit from Marae, Papakainga and Urupa to main highways and or roads. This programme aims to reduce risk, by improving access through possible engineering and educational solutions to achieve the outcome.	12
Parking Programme	Programme of initiatives to support AT's parking activities, including residential parking permits, on-and off-street paid parking, and enforcement activities	44
PT Safety, Security and Amenity and other capital Improvements	Programme to enhance safety, security and amenities at Metro train stations and terminals region wide, as well as bus stops, minor improvements at stations, wharves and provision of PT information.	121
Regional Improvement Projects	Programme to respond to community requests for corridor improvements that focus on ensuring safe and efficient operation.	62
Regulatory Controls Infrastructure	Small capital works that arise from policy, regulatory and/or rule changes (e.g. changes to region-wide signage).	1
Resolution of Encroachments and Legacy Land Purchase	Programme to resolve of encroachments and legacy land purchase arrangements.	15
Transport Demand Forecasting Models Update	Build and calibrate new Land Use, Transport Demand Forecasting, and Traffic Model Network system following 2018 Census update. This is a joint project between the New Zealand Transport Agency	6

Appendix 1 Table 1A – Auckland Transport Proposed Funded Capital Programme

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28.
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	Renewals	
Renewals	Costs associated with renewing AT's transport network and corporate assets	3,073

Local Board Projects (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Orakei shared path	A cycling and pedestrian feeder link from the Gowing Drive area to the Glen Innes to Tamaki Drive Shared Path	5
Projects funded by Rodney Targeted Rate	Local targeted rate to support additional transport investment in the Rodney Local Board area	46

City Centre and Waterfront Projects supporting America's Cup (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Downtown bus Improvements	Delivery of new bus interchanges on Quay St East and Lower Albert St, in conjunction with CRL and Council Downtown projects	39
Downtown Ferry Basin Piers 3 & 4	The replacement of Piers 3 and 4 to Queens Wharf West	17
Seismic Strengthening Programme	Programme for seismic strengthening around the Auckland region, including Quay Street seawall.	117

Environmental Focus (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Electric Buses and Infrastructure	Infrastructure to support electric buses on the public transport network	9
Environmental sustainability infrastructure	Programme which seeks to address environmental sustainability issues from Transport. This includes installation of catch pit pollutant traps in CBD, Industrial areas, and marine sensitive areas within central area to protect sensitive receiving environment from road storm water discharge (including gross pollutants). The programme also includes infrastructure requirements to support uptake in Electric vehicles such as charging points.	18
Street Lighting Improvements	Programme to deliver improved street lighting throughout the Auckland Region where it has been identified as deficient, such as where there are safety concerns. This programme also includes rollout of LED street lighting on the local road network.	58
Tamaki Drive resilience Investigation	Investigation to determine the preferred response to improve resilience issues along Tamaki Drive due to sea level rise, for consideration in future LTPs	5

Safety-related Projects (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Minor Safety Improvements	A programme of targeted improvements to address safety and operational deficiencies across AT's road, motorcycle, pedestrian and cycle networks. Also provides funding to implement smaller improvements recommended in Fatal & Serious Crash Investigations.	180
Red Light Cameras	Progress the delivery of Red Light Cameras at high risk urban intersections within the Auckland Region.	8
Rural Road Safety Programme	A programme to address the highest risk rural roads and intersections that require larger scale improvements to address safety deficiencies.	122
Safer Communities and Speed Management	A programme of investment to address safety and operational deficiencies across Auckland's road, motorcycle, pedestrian and cycle networks and speed management interventions such as delivery of safety cameras at high risk urban intersections within the Auckland Region.	195
Urban Road Safety Programme	A programme to address the highest risk urban roads and intersections that require larger scale improvements to address safety deficiencies.	197

Appendix 1 Table 1A – Auckland Transport Proposed Funded Capital Programme

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28.
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Public Transport (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Rapid Transit Network (RTN)	
Eastern Busway: Botany Bus Station and Park'n'Ride	Investigation, design and construction of a new bus station and park and ride facility at Botany Town Centre.	75
Eastern Busway: Pakuranga Bus Station and Reeves Road Flyover	Investigation, design and construction of a new bus station at Pakuranga town centre and the new Reeves Road Flyover.	316
Eastern Busway: Panmure to Pakuranga	Construction of a signalised Panmure Roundabout accommodating bus priority, a new two-lane busway, pedestrian and cyclist facilities from the roundabout to Pakuranga Road/Ti Rakau Road intersection, a new one-lane each way Panmure Bridge and upgrades to the existing bridge.	170
Eastern Busway: Ti Rakau Busway	Investigation, design and construction of a new busway between Pakuranga town centre and Botany, new and improved walking and cycling facilities along Ti Rakau Drive, and upgrades to Pakuranga Creek Bridge to accommodate busway, pedestrian and cyclist facilities.	351
Improving Airport Access	Programme to improve airport access, including Puhinui bus-rail interchange upgrade and a range of other measures including localised bus priority and walking/cycling improvements.	79
	Active Transport	
New Footpaths Regional Programme	Programme to construct new and widened footpaths	45
Urban Cycleways Programme	Completion of the current Urban Cycleways Programme	153
Walking & Cycling Programme	Walking and cycling programme focuses on achieving maximum impact for short trips to the city centre, public transit interchanges, schools and local and metropolitan	338
	Other bus network improvements	
Albert and Vincent Street Bus Priority Improvements	Bus priority measures on Albert and Vincent Streets to improve journey time and reliability between Karangahape Road and Britomart.	7
Carrington Road Improvements	Provision of intersection improvements, bus lanes and a new bus station to support the UNITEC precinct redevelopment, which is expected to provide 1400 new homes in addition to servicing the current 19,000 students on campus.	22
City Centre Bus Improvements	Delivery of bus infrastructure in the CBD, including bus priority along Wellesley Street, a new learning Quarter bus interchange	117
Sylvia Park Bus Improvements	New bus link and bus station to Sylvia Park with walking and cycling improvements	15
Whole of Route Bus Priority Programme - Phase 1	Delivery of whole of route bus priority improvements across Auckland to support the roll out of the new bus networks.	215
	Rail improvements including bus-rail interchanges	
Additional EMU Rolling Stock	Purchase of new 3 car EMUs to provide increased train frequencies and provide additional capacity to respond to patronage growth.	258
EMU Stabling	Stabling, maintenance and cleaning facilities associated with the purchase of additional EMUs.	138
	Ferry terminal upgrades and other ferry improvements	
Downtown Ferry Basin Redevelopment	Construction of a new Downtown Ferry Terminal to accommodate future growth and expansion of services.	57
	Park and Ride Programme	
Matiatia P&R	Replace and expand existing Matiatia PnR to cater for projected increase in demand to and from Waiheke.	15
Papakura rail station P&R	Delivery of a new multi-storey facility on the site of the existing Papakura Park n Ride, to increase patronage on the rail network.	12
Park and Ride Programme	Delivery of new and extended park'n'ride facilities	51

Network Capacity and Performance Improvements (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Auckland Transport Operations Centres Amalgamation	The amalgamation of ATOC Smales and ATOC Central into a single Transport Operations Centre, to provide a new centre that has the capacity to co-locate external stakeholders involved in incident and emergency management, as well as allow temporary collaboration to deal with large-scale emergency situations.	6
Intelligent Transport Systems	A programme to take advantage of emerging technologies to manage congestion, improve safety and influence travel demand.	110
Network Performance	A package of small scale initiatives such as synchronisation of traffic signals, best-use road layout, first-and-final leg trials and implementation, dynamic lanes at highest congestion locations, targeted freight movement improvements, upgrades to traffic light management system to enable smarter intersections, BIG DATA real-time multi modal network performance and congestion monitoring system, ferry interpeak/weekend trials and implementation, and targeted local bus capacity and resilience enhancements.	180

Appendix 1 Table 1A – Auckland Transport Proposed Funded Capital Programme

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28.
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Technology (Alphabetical order)

Project Name	Project Description	Indicative Project Cost (nominal values, including inflation) $m
AT Metro Business Technology	Technology improvements supporting PT customer experience and operations. Includes items such as improvements to the real-time passenger information system.	38
Core Technology Upgrades and Replacements	Replacing and enhancing business technology (e.g. journey planner, commercial vehicle real time, web applications, external systems and signage) to improve performance, safety and customer experience. Programme also includes an asset management system and rail fibre corridor.	72
Customer Contact Centres, Channel Technology and Innovation	Customer Contact solutions systems are business and operational support systems to improve AT's customer experience.	23
Innovation and Customer Centric Applications	Programme to deliver digital technologies which will be critical to the development of new products and services for AT	40
Integrated Ticketing - Improvements, Replacement and National System	To extend, enhance and replace AT HOP equipment and systems - including the back-end system, retail and top-up devices and the tag-on/off devices for rail, ferry and bus.	119
One Network ITS System Integration	The integration of operational Intelligent Transport Systems (ITS) used by AT and NZTA who are responsible for operating the one transport network for Auckland.	8

Corridor Improvements (Alphabetical order)

Project Name	Project Description	Indicative Project Cost (nominal values, including inflation) $m
Additional Seal Extensions	An enhanced programme of seal extension projects across the Auckland Region.	85
Glenvar Road/East Coast Road intersection and corridor	Corridor improvements, including road widening and upgrading intersections to support the Long Bay development area	46
Lake Road/Esmonde Road Improvements	Improvements to both Lake and Esmonde Road to improve people moving capacity and reduce journey time unreliability.	47
Lincoln Road Corridor Improvements	Lincoln Road widening between Te Pai Place and the Northwestern Motorway to accommodate additional transit/bus lanes on both sides, as well as intersection improvements, footpath widening for both pedestrians and cyclists, and installing a solid median.	85
Matakana Link Road	A connection between State Highway 1 and Matakana Road.	89
Mill Road Corridor	Delivery of the proposed Mill Road Corridor (phase 1) providing additional strategic North-South corridor for South Auckland, connecting Manukau and Drury to the east of the Southern Motorway.	507
Penlink	A new connection between the Northern Motorway and the Whangaparāoa Peninsula, bypassing the constrained Silverdale interchange. This project is linked with a revenue stream from tolling and therefore includes an amount net of tolling revenue.	200
Smales Allens Road Widening & Intersection Upgrade	Widening Smales and Allens Roads near their intersection and upgrading the intersection with Springs and Harris Roads by providing more lanes to increase capacity.	14

Appendix 1 Table 1B – Auckland Transport Capital Programme - additional items currently unfunded

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Local Board Projects (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Browns Bay Ferry Terminal	New ferry terminals to enable the delivery of additional North Shore ferry services	21
Infrastructure supporting development in Whitford Road/ Jack Lachlan	Upgrade and widening of the intersection to manage projected growth in the Beachlands Area.	5
New footpaths on Ash Street	Renew existing footpaths on Ash Street	tbc
Ormiston Road (East of Murphy Road) road upgrade	Upgrade of Ormiston Road to provide for increased vehicles and/or public transport capacity and access (Local Board priority, 2nd decade project likely to be brought into first decade)	tbc
Te Whau Shared Path	Shared pathway connecting the North Western Cycleway at Te Atatu to Green Bay Beach.	94

Safety-related Projects (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Level Crossing Safety Improvements and Grade Separation	A programme of localised safety improvements at level crossings across the Auckland region.	424

Public Transport (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Rapid Transit Network (RTN)	
Airport to Botany RTN via Manukau and Airport Access Improvements (Investigation, Route Protection and CAPEX)	Progressing bus rapid transit from Botany to the Airport via Manukau and the Puhinui bus/rail interchange	259
Grand Drive (Orewa) bus station	Provision of a new bus station at Grand Drive (Orewa) as part of the Northern Busway extension to Grand Drive. The busway is included in the State Highway Programme.	30
	Other bus network improvements	
Akoranga Busway bus station improvements	Provides for northbound access to Akoranga Station from Esmonde Road	2
Bus Infrastructure Requirements	Provision for bus infrastructure to cater for growth	181
Bus priority improvements between Highland Park and Pakuranga, across Pakuranga Creek	Provisions for bus only bridges to re-route bus services between Highland Park and Pakuranga (across Pakuranga Creek) for a more effective network to access	39
Dominion Rd Bus Lane Improvements	Improvements to Dominion Road bus lanes	12
Ellerslie Panmure Highway bus priority improvements	Bus priority measures along Ellerslie Panmure Highway to improve journey time and reliability to and from East Auckland	78
Henderson Bus Interchange Upgrade	Upgrade of Henderson bus interchange to improve customer waiting and connection environment.	2
Henderson new bus station	Delivery of a new bus station facility at Henderson	11
Howick to Pakuranga bus priority improvements	Bus priority measures along Pakuranga Road to improve journey time and reliability from Howick.	76
Manurewa new bus station	Provision for a new Manurewa bus station to cater for projected growth	11
Massey University bus stops and bus circulation	Upgrade and expansion of bus stop facilities, bus circulation arrangements and bus priority at Massey University campus in Albany.	1
Neighbourhood Interchange Programme	Neighbourhood bus to bus interchanges across Auckland that provide high quality connections between frequent bus services.	78
Newmarket Bus Terminal/Layover	Land purchase and development of bus layover facilities on NZTA land underneath Newmarket viaduct.	8
Northern Busway Enhancements	Improvements to the existing Northern Busway to extend the lifespan and capacity, ahead of step change higher capacity mode.	120
Papakura new bus station	Provision for a new Papakura bus station to cater for projected growth	6
St Lukes Road Bus to Bus connection	Improving passenger interchange from bus to bus at St Lukes Mall and bus priority measures on Morningside Drive/St Lukes Road.	5
Taharoto/Wairau Corridor: Bus Priority Improvements	Widening Wairau Road between Forrest Hill and Shakespeare Road to provide better bus access to Smales Farm Bus Station and improve pedestrian/ cyclist facilities.	5
Takapuna Bus Interchange Improvements	Upgrade existing Takapuna bus station facilities	3
Westgate Interchange	Delivery of an operational bus interchange at Westgate consisting of 8 local bus stops with shelters and 10 layover spaces	18
Whole of Route Bus Priority Programme - Phase 2	Phase 2 delivery of whole of route bus priority improvements across Auckland to support the roll out of the new bus networks.	423

Appendix 1 Table 1B – Auckland Transport Capital Programme - additional items currently unfunded

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

	Rail improvements including bus-rail interchanges	
EMU Fleet Grade of Automation Upgrade	Enhancement to the existing EMU "on-board" signalling system	31
Glen Innes rail station	Grade separated access to Glen Innes station comprising footbridge integrated with cycle path and bus interchange, ticket controls, security fencing. This will allow two high risk pedestrian level crossings to be closed.	9
Grafton bus to rail station improvements	Improved interchange from bus to rail at Grafton rail station, including kerb realignments and potential land purchase.	6
Middlemore rail station upgrade	Upgrade of Middlemore rail station and provision of a bus-rail interchange improve customer waiting and connection environment.	5
Newmarket bus to rail station connection	Better bus to train interchange at Newmarket Train Station, through effective bus stops adjacent to Broadway entrance, and land purchase to open station out onto Broadway.	3
Parnell rail station underpass access	Underpass at northern end of platform to provide customer access to both platforms from Carlaw Park and Parnell.	3
Penrose rail station upgrade	Upgrade of Penrose rail station to improve customer waiting and connection environment.	2
Upgrade of Heritage Building for Pukekohe	Relocation and refurbishment of heritage station building to accommodate train crews and provide facilities for other AT service staff.	2
	Ferry terminal upgrades and other ferry improvements	
Bayswater Ferry Terminal Upgrade	Provision for new terminal (berth, gangway and pontoon)	14
Devonport Ferry Terminal upgrade	Provisions for retail development and continued refurbishment of the southern end of Devonport ferry terminal.	6
Ferry Strategy	Investment in ferry network	201
Gulf Harbour Ferry Terminal	Provision for new terminal outside the marina to accommodate larger and more frequent vessels	18
Half Moon Bay Vehicular Ferry Terminal Upgrade	Upgrade of the Half Moon Bay Vehicular Ferry Terminal for both passenger and vehicle transport to address the safety issues on water and land, improvements of parking facilities, traffic circulation and amenity.	29
Matiatia and Kennedy Point Ferry Terminal upgrades	Enhanced customer amenity and development of additional berths to accommodate the likely increase in size of vessel and frequency of service.	37
Northcote Point Ferry Terminal Upgrade	Provision for a new ferry terminal to mitigate existing adverse weather and marine condition impacts.	11
Pine Harbour Ferry Terminal	Provision for new terminal outside the marina to accommodate larger and more frequent vessels.	17
West Harbour Ferry Terminal	Provision for a new terminal outside West Harbour Marina to accommodate larger and more frequent vessels	17
	Park and Ride Programme	
Enhanced Park and Ride Programme	Additional funding to provide enhanced park'n'ride programme.	119
	Other PT programmes	
Enhanced PT Safety, Security and Amenity and other capital Improvements	Enhanced programme to improve safety, security and amenities at Metro train stations and terminals region wide.	57

Network Capacity and Performance Improvements (Alphabetical order)

Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Congestion Pricing Infrastructure	Infrastructure to support the implementation of congestion pricing	58
Enhanced Network Performance	Additional funding to provide an enhanced Network Performance programme.	230

Technology (Alphabetical order)

Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Enhanced AT Metro Business Technology	Additional funding to provide an enhanced AT Metro Business Technology programme	25
Technology, Mobility as a Service (MAAS) and PT Integration	Development of on-demand transport services	24

Appendix 1 Table 1B – Auckland Transport Capital Programme - additional items currently unfunded

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28.
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Growth-related Projects (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Supporting Growth South	
Bremner Road Ext West	Provision of a new road linking Bremner Road with Oira Road to support growth.	45
FTN/RTN Manukau to Drury, including Bremner and Opaheke Road Upgrade	High frequency bus corridor connecting Drury West, Drury, Hingaia, Papakura, Takanini and Manukau	65
Mill Road Southern (Alfriston to Drury South)	Upgrade of the Mill Road corridor from the Mill Road/Popes Road intersection to Papakura and Drury.	699
Paerata connections	Arterial road crossing rail corridor linking Paerata and Sims Roads (and also providing a link to the future Pukekohe Expressway)	27
Pukekohe Inner Link	New localised link around town centre to enable freight to access Mill Road (Pukekohe) and to remove heavy vehicle trips from the developing town centre.	59
Rangi Road Upgrade and Grade Separated Crossing	Provide new arterial link and crossing of railway to Mahia Road, including closing Spartan and Manuroa Road & grade separating Walters road and Taka Street to improve network connectivity and enable resolution of safety issues at existing level rail crossings.	171
Southern Rail Stations	Provision of new rail station at Drury, Drury West, and Paerata	78
	Supporting Growth North	
Argent-Curley Ave extension	Extension of Curley Avenue in Silverdale across SH1 to connect with Argent Lane to the west to provide an east-west link across SH1, to support the growth in the Wainui area.	103
Arterials Penlink to Bawden	Upgrading of Bawden Road between Postman Road Extension and the Penlink Redvale interchange on SH1.	40
Arterials Wilks to Penlink	Upgrading and/or re-alignment of Kahikatea and Wilks Roads between Pine Valley Road in the west and Penlink in the east, integrating with proposed south-facing ramps at Wilks Road SH1 interchange.	31
Postman Road East	New north-south road through business area of Dairy Flat from Pine Valley Road in the north to Dairy Flat in the south (near Bawden Road).	67
Wainui North South Connections	Upgrade and urbanisation of existing roads and provision of new roads to enable household growth in Wainui East and Upper Orewa.	159
	Supporting Growth North West	
Hobsonville Road Upgrade	Upgrading existing Hobsonville Road to increase capacity for vehicles and/or public transport to cater for projected growth.	16
New local road crossings(s) over SH18	New local road crossing over SH18 from Brigham Creek Road to Hobsonville Road to improve accessibility and enhance network resilience.	21
Northside Drive East	Eastward extension of Northside Drive through the Redhills area to provide for growth.	48
Redhills Fred Taylor Stage 2	Upgrade of north-south Fred Taylor Drive to provide for growth in the Redhills area.	135
Redhills Network Coates-Riverhead Highway	Delivery of a new Redhills north-south arterial (between Coatesville Riverhead Highway and Royal Road) and four east-west arterials.	314
Totara/Trig Rd Ext	North-south corridor via upgraded Totara and Trig Roads	43
Westgate to Greenhithe RTN Stations	Provision of two new bus stations along SH18 at Trig Road and Squadron Drive.	53
	Supporting Growth Warkworth	
Matakana Rd to Sandpit realignment	Road network improvements where SH1, Hill Street, Matakana Road and Sandspit Road meet.	51
Warkworth Park & Ride	Delivery of a new park'n'ride facility at Warkworth near the end of the Puhoi to Warkworth motorway.	15
Western Collector	New arterial connection through the western side of Warkworth.	68
	Other growth-related projects	
Albany Heights intersection improvements	Upgrades to intersections: - East Coast/ Glenvar/Lonely Track Road, Lonely Track/Gills Road/Albany Heights Road, Fairview/Oteha Valley Road.	35
Cross Boundary (Auckland - Waikato) Infrastructure	Supporting infrastructure for areas which are in close proximity to Auckland's southern boundary. This is a joint responsibility with Waikato Regional Council.	tbc
Housing NZ Projects	Transport infrastructure improvements to support Housing New Zealand / Hobsonville Land Company developments at Mount Roskill, Mangere and Northcote.	tbc
Infrastructure supporting development in Manukau Centre	Extension of Clist Crescent and Barrowcliffe Place to provide east west vehicle movement	3
Infrastructure supporting development around Orakei	Potential Orakei/Ngapipi Intersection and signalisation upgrade to provide new access point into potential development area.	6
Infrastructure supporting development around Puhinui corridor	Provision for new grade separated interchange and new bridge linking into McGlaughins Road to Price Road and associated bus priority improvements along Puhinui Road. May be provided in part by NZTA.	116
Infrastructure supporting development in Albany Centre	Signalisation of all intersections within Albany Centre study area and provision of cycle facilities on Don Mckinnon Road.	17
Infrastructure supporting development in Drury South	Provisions for supporting arterials required for the planned residential development in Drury South (currently under review to identify duplication with the Supporting Growth South initiatives).	103
Infrastructure supporting development in New Lynn	Memorial Drive extension to support the New Lynn development area.	8
Infrastructure supporting development in St Lukes Mall	Upgrading a number of intersections surrounding St Lukes mall to cater for projected growth in vehicle movements.	12
Infrastructure supporting development in Takanini	Corridor improvements, including road widening and signalisation of intersection to support the Takanini development area.	21
Infrastructure supporting development in the Takapuna centre	Programme of works to implement new bus stations, Upper Shoal Bay bridge and other upgrades around Takapuna centre.	175
Infrastructure to support development in Matakana	Streetscape improvements and potential upgrade of Matakana bridge, in Matakana	2
Lonely Track Road corridor improvements	Upgrading Lonely Track Road to support projected development along the corridor. This includes bringing the road to Urban standards and realignment/elevation improvements.	tbc

Appendix 1 Table 1B – Auckland Transport Capital Programme - additional items currently unfunded

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28
Indicative project costs represent the estimated cost of project/programme delivered by Auckland Transport, including any financial assistance from NZTA unless stated otherwise.

Corridor Improvements (Alphabetical order)

Project Name	Project Description	Indicative Project Cost (nominal values, including inflation) $m
Albany Highway (Sunset to SH18) corridor improvements	Extension of Albany Highway between Sunset Road and State Highway 18, to widen the road to two lanes in each direction, and provide on-road cycle lanes, etc	35
Anzac Street Improvements	Intersection and road improvements on the Anzac Street corridor.	32
Chapel Road Realignment & New Bridge	Upgrading the existing Chapel Road to an urban district arterial standard and alignment of bridge.	36
East West local road connections	Local road improvements in Onehunga to support wider NZTA's East West Connections. The East West Connections project is under review.	119
McClymonts Road improvements	Improvements to McClymonts Road between Don McKinnon Drive and Medallion Drive, including the upgrade of the existing 2 lane bridge and the intersection between McClymonts Road and Medallion Drive.	15
Morrin to Merton Road Connection	A new road connection between Merton and Morrin Road to increase network capacity and provide access to developable land in the Tamaki area.	188
Ormiston Rd to East Tamaki road connection	Reconfiguration of Ormiston/Preston/East Tamaki Road interchange to allow through traffic from Ormiston road onto East Tamaki Road.	17
Patterson Avenue intersection reconfiguration	Redesign intersection to enable buses to enter and exit onto Tamaki Drive from Patterson Avenue.	1
Porchester Road upgrade	Upgrade Porchester road to arterial standard to address congestion issues and provide access to employment areas.	tbc
Rosebank Road upgrade	Upgrading the existing Rosebank Road to improve vehicle and freight access to and from State Highway 16.	36
St Georges Bay Road street upgrade project	Renew existing footpaths, kerb & channel and carriageway on St Georges Bay Road	7
Whangaparaoa Road corridor protection	Ongoing corridor protection for widening of Whangaparaoa Road, including design and property purchase if required	13

Other Projects and Programmes (Alphabetical order)

Project Name	Project Description	Indicative Project Cost (nominal values, including inflation) $m
Capital Improvements Complementing Renewals	Planned renewals of footpaths, bridges and shelters brings opportunity to introduce improvement e.g. widening of an existing footpath width of 1.5 will be complimented with improvement by widening it up to 3m and upgraded to a shared pedestrian/cycle path where allowed.	39
Designation Property Acquisition	To cover the acquisition of land that has been designated for road widening	12
Emergency Works - New Infrastructure	Provision of new infrastructure following an unforeseen emergency event eg a new retaining wall following a slip.	23
Investigation and Route Protection for Future Priorities	To facilitate investigation and route protection for Henderson to Albany/Constellation, Panmure to Ellerslie Mass Transit, New Lynn - Onehunga - Sylvia Park, Onewa/Glenfield Road and high priority projects planned for implementation beyond 2028.	66
Pukekohe Outer ring freight route improvements	Waiuku and Stuart Road intersection improvements	1
Quay Street streetscapes	Upgrade Quay Street to provide enhanced pedestrian environment and reliable bus infrastructure. (AC & AT agreement on delivery)	66
Victoria St linear park streetscapes	Streetscape improvements to Wellesley and Victoria Streets in support of bus improvements.	23
Waiuku Rd / Stuart Rd intersection improvements	Investigation of an alternative route for freight through Pukekohe Township	10

Appendix 2 – New Zealand Transport Agency Investment Programme

The following list of initiatives has been provided by the NZ Transport Agency for the draft Regional Land Transport Plan 2018-28. Committed items and major initiatives from ATAP (April 2018) have been identified separately. Items are presented subject to further prioritisation

New Zealand Transport Agency Investment Programme - committed and major ATAP initiatives		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Committed	
Completion of the Western Ring Route	Completion of the Western Ring Route including SH16 widening from Lincoln Road to Westgate	26
Manukau Harbour Crossing (Walking & Cycling)	The replacement of the Old Mangere Bridge with a dedicated cycling and walking structure	16
Northern Corridor Improvements (NCI)	A package of capacity and safety improvement projects on the Northern Motorway between Upper Harbour Highway and Greville Road: - Widening of SH1 between Constellation Drive and Greville Road - Widening of SH18 between SH1 and Unsworth Drive - New motorway-to-motorway connection between SH18 and SH1 - Upgrade of Greville Road interchange	576
Northern Corridor Improvements (NCI) - Northern Busway	Extension of the existing Northern Busway from Constellation Drive to Albany	309
Puhoi to Wellsford RoNS Development	Investigation for delivery of the RoNS package associated with the Puhoi to Wellsford Motorway Extension	5
SH1 Puhoi to Warkworth	Extension of the Northern Motorway from the Johnstone's Hill Tunnel to north of Warkworth	773
Southern Corridor Improvements	Provision of additional motorway lanes, an upgraded Takanini Interchange and a shared use pedestrian / cycle path along SH1	68
Weigh Right Bombay	Installation of enhanced overweight enforcement sites on the main State Highway national routes as part of the Weigh Right National programme	8
Weigh Right Stanley Street	Improve Stanley Street weigh station with weigh in motion and inspection facilities	2
Committed projects with outstanding commercial arrangements	Victoria Park Tunnel, Warkworth Stage 1, Seismic Retrofit Auckland, Manukau Extension, ATMS IV	TBC
	Maintenance, Operations and Renewals	
Maintenance, Operations and Renewals	NZTA maintenance, operations and renewals for the 2018-28 period (includes low cost / low risk improvements)	1499
	Rapid Transit initiatives identified in ATAP (April 2018)	
Auckland Airport to City Rapid Transit	Investigation of rapid transit between Auckland Airport and Auckland City Centre	15
Light rail - City to Airport **Light rail - Northwest Corridor**	Provision of rapid transit along the City to Airport and Northwest corridors. Delivering light rail on these corridors will require significant investment, but also provides a substantial opportunity to explore third party funding and financing arrangements. An allocation of $1.8 billion is proposed as part of ATAP which will be used to leverage funding and financing to progress both corridors over the period of this RLTP.	1800
	Major State Highway initiatives identified in ATAP (April 2018)	
East West Link (revised)	Improved access to key freight destinations	800
SeaPath	Provision of a 3.4km shared path between Esmonde Road and Auckland Harbour Bridge/Northcote Point	31
Skypath	A new walking and cycling connection between North Shore and the Auckland city centre across the Auckland Harbour Bridge	67
SH1 North of Albany Improvements	Improvements to SH1, between Albany and Orewa to improve the travel time reliability along this corridor. Includes provision of bus shoulder lanes between Albany and	324
SH1 North of Albany Public Transport Reliability	Investigation of low cost options for improving bus reliability and upgrade of Silverdale Interchange to address current Northbound congestion	8
SH1 South, Papakura to Bombay	Improvements to SH1 between Papakura and Bombay	412
SH20 and SH20B Southern and Eastern Airport Access	Investigate and implement works including capacity improvements along SH20/SH20B.	459

Appendix 2 – New Zealand Transport Agency Investment Programme

The following list of initiatives has been provided by the NZ Transport Agency for the draft Regional Land Transport Plan 2018-28. Committed items and major initiatives from ATAP (April 2018) have been identified separately. Items are presented subject to further prioritisation.

New Zealand Transport Agency Investment Programme - other initiatives subject to prioritisation and funding		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
	Active Transport	
City Southern Cycle Link	Investigation of potential southern cycle link connecting Newmarket to Ellerslie/ Penrose	3
Northern Connections	Investigation of cycleway connections, following the NCI delivery and corresponding cycle infrastructure	3
SH16 Gladstone to Alten Road	Investigate options for missing link Grafton Cycle way to Gladstone. Connection of existing infrastructure. Gladstone Road/ SH16 intersection is likely to signalised with provision of cycle lanes to Quay Street (currently investigating options with AT/ Ports and AMA). Opportunity to connect to Grafton.	3
SH16 Stanley St Pedestrian Crossing	Upgrade of the SH16/Stanley St intersection to account for expected increase in pedestrian numbers through the interchange. This is recommended to be in the form of a separate pedestrian and cycle crossing facility	5
SH20 / Queenstown Road / Hendry Avenue	Investigate missing cycle links between Queenstown Road and Hillsborough Road, including the development of more direct and safe crossing of Queenstown Road roundabout to Hendry Avenue	3
	Corridor Improvements	
Auckland Harbour Bridge Barrier Upgrade	Upgrade of the existing edge barrier on the Auckland Harbour Bridge	3
Auckland Intelligent Transport Systems Improvement Programme	Development of a national Transport Operating System leading to the regional implementation of intelligent transport systems across the transport network. This will provide customers with safe and efficient journeys through provision of near real-time information. It will also allow proactive optimisation of the One Connected Transport System.	20
Auckland Transport System Optimisation	This activity will serve as the guideline for prioritising and operating and optimising the performance of the system. It will develop a prioritised programme with highest priority activities/corridors then developed and delivered.	20
Hill Street intersection improvements - Warkworth	Improvements to the Hill Street intersection in Warkworth to manage current and future demand	29
Improving short and medium term Airport Access	Improving short and medium term airport access, including investigation of the following activities: - Behaviour change campaign and associated initiatives - Mobility as a Service marketplace - improved PT services - frequency and geographic coverage - improved PT infrastructure and priority	43
LED Replacement Programme	LED upgrades to align with improvements being implemented on local roads by Auckland Transport	8
Network Optimisation(post/Western Ring Route)	Improvements along the Western Ring Route to deliver improved trip reliability	13
Noise Walls and Improvement Programme	Initiative to investigate noise effects on properties adjacent to the Auckland Motorway network, provision for mitigating works	130
Sea Level Rise North of Harbour Bridge	Implement interventions to increase the resilience of this portion of the road to future storm tide inundations and sea level rise	40
SH1 Dome Valley Safety Improvements	Installation of median barriers, wide centre lines and side barriers along SH1 in the Dome Valley to improve safety	30
SH1 Waitemata Harbour Crossing	Route protection and future proofing activities for a new integrated transport system crossing of the Waitemata Harbour	61
SH16-SH18 Connection and Squadron Drive Improvements	Investigate SH16/18 motorway connections and interchange upgrades at Brigham Creek and Northside Drive	5
SH16 Brigham Creek to Waimauku Safe System Enhancement	To improve safety and efficiency for road users on the stretch of SH16 between Brigham Creek and Waimauku in Auckland	66
SH16 Helensville to Wellsford Safety Improvements	Resilience improvements to SH16 to address flooding. Identified in the Twin Coast Discovery PBC due to high crash risk and resilience issues. Also Safety Gap Analysis work undertaken across the country identified that safety improvements would be necessary along this corridor.	14
SH16 Ingelton Rd to Port Albert Rd Safer Corridor	This project seeks to deliver Safer Corridor treatments such as median and side barrier, roundabouts or grade separation, or speed managed to within Safe System (Harm minimisation) limits. This project is within the Proposed New Safe Roads Alliance Corridor Projects	2
SH16/Joyce Adams Place intersection Improvement	Safer Intersection treatments such as splitter islands, right-turning bays, improved signage and markings and minor geomteric changes to improve the safety performance of the current intersection arrangement	1
SH16/Kahikatea Flat Rd intersection Improvement	Safe System Transformation works to convert the intersection to a safer arrangement (e.g. priority controlled to a roundabout)	2
SH16 Stoney Creek Rd to Helensville Safer Corridor	This project seeks to deliver Safer Corridor treatments such as median and side barrier, roundabouts or grade separation, or speed managed to within Safe System (Harm minimisation) limits. This project is within the 20 Year View Programme which aims to bring corridors up to a standard which is in line with its function and heirarchical (One Network Road) Classification.	7
SH22 Drury to Pukekohe Safe System Enhancement	Improvements along SH22 corridor from the SH1 Drury interchange to the posted speed limit change (to 70km/hr) at Paerata township to reduce the high severity crashes along this corridor	73
Supporting Growth Alliance	An AT/NZTA Alliance has been recently established to look at route protection for the preferred network in the North west, North and Southern growth areas. This also includes looking at specific NZTA activities such as alternative corridors to existing SH16, SH22, and capacity improvements North of Albany.	20

Appendix 3 – KiwiRail Capital Programme

The following programme has been developed for consultation as part of the draft Regional Land Transport Plan 2018-28

KiwiRail Group - Funded Programme (Alphabetical order)		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Additional traction feed (West)	Provision of an additional traction power feed at a location to be determined on the western line (New Lynn area identified).	25
Auckland Train Control and Rail Network Management Centre	A national rail network train control and network management centre and associated communication and control systems and equipment to accommodate up to 40 staff including parking	20
Britomart East End Remodelling	Reconfiguration of the Britomart Tunnel throat in conjunction with CRL opening to allow higher speeds and reconfigure platform access.	31
Pedestrian Crossing - Grade Separation	Programme of works to close at grade pedestrian crossings and replace with grade separated crossings	20
Pukekohe to Papakura Electrification	Electrification of the main rail line between Papakura and Pukekohe including traction power supply	202
Rail Network Resilience and Performance Programme	Programme of works to improve network resilience and performance to ensure investment in rail infrastructure and services is optimised. This includes additional Crossovers, Line Speed Increases (south and west), Infill Signals, Wiri Independent Feed, Infil Balises, Remuera Siding	42
Rail Network Resilience and Performance Programme - Catch-up Renewals	Funding for works to address historic formation, drainage and track issues to bring the network up to a modern metro standard. This includes acceleration of some renewal activity to ensure programme is optimised and ensure the network will perform reliably under increased traffic volumes. This work was identified within the track study undertaken by Network Rail Consulting, UK	125
Tranche 1 - Level Crossing Grade Separation	Programme of works to close roads where ever practical and in areas with the best immediate prospects for construction, building an initial tranche of grade separated road	185
Upgrade of Onehunga Rail Line to accommodate higher frequency service	Upgrade of the Onehunga Line to accommodate higher frequency, longer services (3tph/6-car)	69
Wiri to Quay Park	- Westfield to Wiri: Completion of a 3rd Main line between Wiri and Westfield, joining up existing sidings and relief lines to de-conflict passenger and freight moves - Westfield Junction: Creation of a 3rd Main connection from the NIMT east from Sylvia Park to the NIMT south to enable freight trains to be held clear of the main lines prior to Westfield Junction - Quay Park: In conjunction with Quay Park/ Strand development, provide longer arrival/departure road tracks at Ports of Auckland to allow longer trains to be formed to reduce train movements.	147

KiwiRail Group - Additional items currently unfunded		
Project Name	**Project Description**	**Indicative Project Cost (nominal values, including inflation) $m**
Southern Rail Lines Upgrade for Regional Services/express services	Infrastructure required to support regional/express services - Creation of a 3rd track between: - Wiri to Papakura, Papakura and Pukekohe Creation of a 4th track between: - Westfield to Wiri - Wiri to Papakura	800

ATTACHMENT C

AUCKLAND COUNCIL REGIONAL FUEL TAX CONSULTATION DOCUMENT

INTRODUCTION OF A REGIONAL FUEL TAX FOR AUCKLAND – OVERVIEW

We are proposing a Regional Fuel Tax of 10 cents per litre (plus GST).

Background

Transport continues to be one of the top concerns of Aucklanders. It is estimated congestion costs our economy between $1 and $2 billion per annum in lost productivity. Congestion impacts the entire community - commuters on their way to and from employment, students travelling to and from education, small businesses, tradespeople and the wider freight industry. All rely on an efficient transport system to keep Auckland productive.

As our population grows and housing and businesses expand, the demand for new transport infrastructure increases. The investment we have made in public transport and walking and cycling infrastructure, to give Aucklanders more choice, has resulted in record growth in public transport usage since 2013. Despite this, Auckland continues to add hundreds of extra cars to our roads every week.

Unless we address congestion we will see a significant increase in economic costs and a reduction in the liveability of Auckland.

In recent years the government has partnered with Auckland to align our transport investments through the Auckland Transport Alignment Project (ATAP). The new government has worked with Auckland Council to review the priorities of ATAP and we now have an agreed direction for both the government's and Auckland Council's investments in transport for the next 10 years.

A Regional Fuel Tax[1] is being proposed because current funding is not enough to deliver the level of investment in transport that Auckland needs. Without extra funding Auckland will suffer increasing congestion along with its negative social, environmental and safety impacts.

Why a Regional Fuel Tax

Recently we consulted you on our 10-year Budget including the options for funding more transport investment. At that stage we could not tell you what the priority projects would be as we were still in discussion with the government on those priorities through the ATAP process. However, it was clear that we needed to invest more than our current funding tools allowed.

We proposed a Regional Fuel Tax as the fairest option compared to the alternatives of:

1. The existing targeted rate – the Interim Transport Levy – which expires at 30 June 2018; or
2. Higher general rates.

A Regional Fuel Tax, unlike any rating option, ensures that those who use the transport system more will pay more for the additional transport investment.

[1] Excise duties are also charged on fuel. The Government is currently considering through the Draft GPS whether an increase to fuel excise duty is necessary. For more information go to transport.govt.nz/GPS2018.

The government has now started the legislative process to enable a Regional Fuel Tax and we have agreed with them the transport priorities through ATAP. Based on those priorities we have developed a transport programme which we would fund from a Regional Fuel Tax and drafted a proposal for government.

Summary of Proposal

A Regional Fuel Tax of 10 cents per litre (plus GST) is proposed to apply to sales of petrol and diesel within the boundaries of Auckland Council (excluding Great Barrier Island) starting on 1 July 2018 for a period of 10 years.

Great Barrier Island is proposed to be excluded because they rely on fuel for power generation, the price of fuel is already very high and they will not directly benefit from the proposed transport projects. At the moment the draft legislation does not allow us to exclude any geographic area so we have asked the government to amend the legislation accordingly.

We are also strongly advocating to the government that rebates be available for fuel purchased for off-road use (such as horticulture, power generation etc).

The transport programme that we are proposing:

- increases the capacity of the existing public transport network, with particular focus on the high growth areas of the south and east
- continues to encourage walking and cycling by expanding the network of walking and cycling tracks
- improves the overall performance of the existing road network
- increases the investment in road safety initiatives
- supports key growth areas by providing transport infrastructure.

The attached table sets out a summary of the projects in our proposal – showing the amount of the Regional Fuel Tax contributions and also which parts of Auckland benefit from the project. (The location of a project is not necessarily where the benefit lies e.g. upgrading the Downtown Ferry Terminal benefits ferry users from the north, east and central areas).

If you would like to see more detail on these individual projects, you can read the full proposal document at akhaveyoursay.nz.

How to have your say

We would like your feedback on this proposal and in particular on the projects that we are proposing to fund from the Regional Fuel Tax.

Visit akhaveyoursay.nz to give your feedback, or find out about our drop-in sessions, which will be held across the region from 1 May to 8pm 14 May.

Regional Land Transport Plan (RLTP)

We are also consulting the Regional Land Transport Plan (RLTP) which includes these projects as well as the full programme of transport projects for Auckland.

More information about the Regional Land Transport Plan visit akhaveyoursay.nz.

Summary of RFT Projects

Project	*Capital investment enabled	Indicative RFT funding	Where improvement will happen					Description
			North	West	South	East	Central	
1 **Bus priority improvements**	$266 million	$135 million	●		●		●	The Frequent Service Network is a core network of about 30 high frequency bus services. The bus priority improvements are essential components of this network, implementing further bus lanes, T2/T3 transit lanes and signal pre-emption to increase overall speed and reliability of buses.
2 **City centre bus infrastructure**	$163 million	$62 million	●	●	●	●	●	Major new bus projects such as AMETI Eastern busway and other bus improvements will add to the already increasing the number of buses into the city centre. This project provides additional bus interchanges in the Downtown area and improved provision along the Wellesley St corridor.
3 **Improving airport access**	$68 million	$26 million		●	●	●	●	A long, term programme of initiatives has been developed to address the unreliable journey times (all modes) to the airport. This project includes improved bus services from New, Lynn, Mt Roskill, Onehunga and Botany along with a new bus/rail interchange at Puhinui.
4 **AMETI Eastern Busway**	$753 million	$201 million				●	●	The AMETI project will deliver an integrated, multi-modal transport system to support the growth of east Auckland. Stages 2,3 and 4 will include an urban busway between Panmure and Botany, associated stations (including Park and Ride) at Pakuranga and Botany, improved walking and cycling facilities and the Reeves Road flyover at Pakuranga.
5 **Park and rides**	$63 million	$24 million	●	●	●		●	Demand for park and ride facilities significantly exceeds supply. This project will add approximately 1900 new parking spaces to the existing approximately 5500 spaces. The focus will be on areas that are less well served by feeder buses.
6 **Electric trains and stabling**	$396 million	$213 million		●	●		●	Once the City Rail Link is operational there will be increased demand on train services. 15 new electric trains have been ordered but growth and rail improvements such as electrification to Pukekohe will require a further 20 electric trains along with maintenance and stabling facilities.
7 **Downtown ferry redevelopment**	$73 million	$28 million	●	●		●	●	The Downtown Ferry Terminal is one of the busiest public transport hubs in Auckland. All berths are used during morning and evening peaks. This project will increase the capacity of the terminal as well as improving the customer experience.

AK Have Your Say
TUKUNA MAI Ō WHAKAARO

*Capital investment enabled is made up of the Regional Fuel Tax amount plus contributions from developers towards growth projects plus, subsidies from the New Zealand Transport Agency.

Project	*Capital investment enabled	Indicative RFT funding	Where improvement will happen					Description
			North	West	South	East	Central	
8 **Road safety**	$552 million	$225 million	●	●	●	●	●	This project is expected to reduce deaths and serious injuries by 60% over 10 years through a range of measures in both urban and rural areas e.g. red-light cameras, addressing high risk intersections, speed management, improved skid resistance and roadside barriers.
9 **Active transport**	$342 million	$112 million	●	●	●		●	There are a number of barriers to increasing walking and cycling as a mode of transport. This project addresses improvements and connectivity in the cycling network, and improved safety and amenity for walking focusing on short trips to city/town centres, schools and public transport hubs.
10 **Penlink**	$200 million	$66 million	●					Faster than expected growth and planned development requires the constraints around the Silverdale interchange to be addressed. Penlink is proposed as a toll road that will provide a new connection between the Northern Motorway Redvale and the Whangaparaoa Peninsula.
11 **Mill Road Corridor**	$508 million	$102 million			●	●		Mill Road corridor provides an additional north-south corridor for southern Auckland, connecting Manukau with Drury through a new and improved corridor to the east of the Southern Motorway. It provides for growth in both residential and business sectors.
12 **Road corridor improvements**	$302 million	$87 million	●	●		●		This project is a collection of initiatives to improve capacity, safety, amenity and connectivity of existing road corridors. It covers improvements to Lincoln Rd, Glenvar Rd, Matakana Link Rd, Lake Rd and intersection improvements to Smales/Allen Rd. Also included is progressing the sealing of currently unsealed roads.
13 **Network capacity and performance improvments**	$296 million	$99 million	●	●	●	●	●	This project is focused on maximising the efficiency of the existing transport network through initiatives such as traffic signal optimisation, improving key congestion points and using technology to monitor and actively manage the network in real time.
14 **Growth related transport infrastructure**	$300 million	$126 million	●	●	●			Provision has been made in the second half of the decade for transport infrastructure to support the expected growth in the south (Pukekohe, Paerata and Takanini), north (Silverdale, Dairy Flat, Wainui and Warkworth) and north-west (Kumeu, Redhills, and Whenuapai).
Total	$4,271 million	$1,506 million						

*Capital investment enabled is made up of the Regional Fuel Tax amount plus contributions from developers towards growth projects plus, subsidies from the New Zealand Transport Agency.

Auckland Council
Te Kaunihera o Tāmaki Makaurau

Appendix 4 – Recommended changes to PPC5 in response to evidence

3 May 2018

All recommended changes to PPC5 in response to submissions and evidence can be seen in this appendix. This appendix is the most up to date version of PPC5 as recommended by the reporting team.

Black text with ~~strikethrough~~ and underline show recommended changes in response to submissions received on PPC5.

Green text with ~~strikethrough~~ and underline show recommended changes proposed in this addendum report following a review of the evidence received from submitters.

Other recommended text changes to PPC5 are shown in red.

The text is annotated with submission points in red that provide scope for the recommended changes. However in some instances there may be other submission points that also provide scope.

Addition to Chapter I Precincts West

I616. Whenuapai 3 Precinct

I616.1. Precinct Description

The Whenuapai 3 Precinct is located approximately 23 kilometres northwest of central Auckland. Development in the Whenuapai 3 Precinct will enable an increase in housing capacity and provide employment opportunities through the efficient use of land and infrastructure.

The purpose of the precinct is for the area to be developed as a liveable, compact and accessible community with a mix of high quality residential and employment opportunities, while taking into account the natural environment and the proximity of Whenuapai Airbase.

Development of this precinct is directed by Whenuapai 3 Precinct Plans 1, 2 and 3.

Whenuapai 3 Precinct Plan 1 shows:

- indicative open space, esplanade reserves and coastal esplanade reserves;
- the permanent and intermittent stream network, including streams wider than three metres, and wetlands; and ***[22.11]***
- the Whenuapai 3 coastal erosion setback yard.

Whenuapai 3 Precinct Plan 2 shows:

- indicative new roads and intersections;
- proposed upgrades to existing roads and intersections~~; and~~
- ~~development areas for transport infrastructure~~. ***[consequential to amendments in response to 42.9 and 42.10]***

Whenuapai 3 Precinct Plan 3 shows:

- aircraft engine testing noise boundaries from engine testing activity at Whenuapai Airbase.

Integration of Subdivision and Development with Infrastructure

The comprehensive and coordinated approach to subdivision, use and development outlined in the precinct reflects the size and significant amount of infrastructure required to enable subdivision and development. Funding of all required infrastructure is critical to achieving the integrated management of the precinct. The primary responsibility for funding of local infrastructure lies with the applicant for subdivision and/or development. The council may work with developers to agree development funding agreements for the provision of infrastructure, known as Infrastructure Funding Agreements. These agreements define funding accountabilities, who delivers the works, timings and securities, amongst other matters.

Transport

~~Whenuapai 3 Precinct is split into five areas, 1A-1E, based on the local t~~Transport infrastructure upgrades required to enable the transport network to support development

in the precinct ~~areas. These upgrades~~ are identified in Table I616.6.2.1. ~~and~~ These upgrades are required to be in place prior to development going ahead. The cost of these transport infrastructure upgrades are to be proportionally shared across ~~each area~~ the precinct as development progresses. ***[Consequential to amendments in response to 42.9 and 42.10]*** If these upgrades are not in place prior to development occurring developers are able to provide an alternative measure for the provision of the upgrade works. This may include an agreement with the council to ensure that the local share of the upgrade works attributable to the development is provided for. This could include an Infrastructure Funding Agreement or some alternative funding mechanism.

Where there is an Auckland Transport project to provide the new or upgraded roads, developers may be required to contribute to it in part. Where a development proceeds ahead of an Auckland Transport project, the developer is required to work with Auckland Transport to ensure that the Auckland Transport project(s) is not precluded by the development.

Neighbourhood Centre

A neighbourhood centre is proposed on the corner of Hobsonville Road and the proposed realigned Trig Road. Service access and staff parking are provided at the rear of the development to encourage the continuity of retail frontages. Pedestrian linkage to the centre is provided at the intersection of Hobsonville Road and the realigned Trig Road.

Stormwater Management

~~Stormwater management within the precinct is guided by the Whenuapai 3 Precinct Stormwater Management Plan (2017). This assessment has identified that t~~The streams and coastal waters within the precinct are degraded and sensitive to changes in land use and stormwater flows. ***[19.25]*** As part of the stormwater management approach, stormwater treatment requirements and the stormwater management area control – Flow 1 have been applied to the precinct. Sedimentation effects from land disturbance during construction are addressed by Standard E11.6.2(2) requiring implementation of best practice erosion and sediment control measures for all permitted land disturbance activities. ***[22.10]***

Coastal Erosion Risk

The precinct area includes approximately 4.5 km of cliffed coastline. The precinct manages an identified local coastal erosion risk based on the area's geology and coastal characteristics. A coastal erosion setback yard is used to avoid locating new buildings in identified areas of risk.

Biodiversity

The North-West Wildlink aims to create safe, connected and healthy habitats for native wildlife to safety travel and breed in between the Waitakere Ranges and the Hauraki Gulf Islands. The precinct recognises that Whenuapai is a stepping stone in this link for native wildlife and provides an ability to enhance these connections through riparian planting.

Open Space

An indicative public open space network to support growth in the precinct is shown on Whenuapai 3 Precinct Plan 2. This will generally be acquired at the time of subdivision. A network of public open space, riparian margins and walking and cycling connections is proposed to be created as development proceeds. Development is encouraged to positively respond and interact with the proposed network of open space areas.

Reverse Sensitivity Effects on Whenuapai Airbase

The Whenuapai Airbase is located at the northern edge of the Whenuapai 3 Precinct boundary. While the airbase is outside of the precinct boundary it contributes to the precinct's existing environment and character. The airbase is a defence facility of national and strategic importance. Operations at the airbase include maritime patrol, search and rescue, and transport of personnel and equipment within New Zealand and on overseas deployments. Most of the flying activity conducted from the airbase is for training purposes and includes night flying and repetitive activity.

The precinct manages lighting to ensure safety risks and reverse sensitivity effects on the operation and activities of the airbase are avoided, remedied or mitigated.

Any future subdivision, use and development within the precinct will need to occur in a way that does not adversely effect on the ongoing operation of the airbase.

Aircraft Engine Testing Noise

The aircraft that operate out of Whenuapai Airbase are maintained at the airbase. Engine testing is an essential part of aircraft maintenance. Testing is normally undertaken between 7am and 10pm but, in circumstances where an aircraft must be prepared on an urgent basis, it can be conducted at any time and for extended periods.

Whenuapai 3 Precinct Plan 3 shows 57 dB L_{dn} and 65 dB L_{dn} noise boundaries for aircraft engine testing noise. The noise boundaries recognise that engine testing is an essential part of operations at Whenuapai Airbase and require acoustic treatment for activities sensitive to noise to address the potential reverse sensitivity effects that development within the precinct could have on those operations.

Zoning

The zoning of the land within this precinct is Residential – Single House, Residential – Mixed Housing Urban, Residential – Terrace Housing and Apartment Buildings, Business – Light Industry, Business – Neighbourhood Centre, Open Space – Informal Recreation, Open Space – Conservation and Special Purpose – Airports and Airfields zones.

The relevant overlays, Auckland-wide and zone provisions apply in this precinct unless otherwise specified in this precinct.

I616.2. Objectives

(1) Subdivision, use and development in the Whenuapai 3 Precinct is undertaken in a comprehensive and integrated way to provide for a compatible mix of residential living and employment opportunities while recognising the ongoing operation and strategic importance of Whenuapai Airbase. ***[41.11]***

(2) Subdivision, use and development achieves a well-connected, safe and healthy environment for living and working with an emphasis on the public realm including parks, roads, walkways and the natural environment.

Integration of Subdivision and Development with the Provision of Infrastructure

(3) Subdivision and development does not occur in advance of the availability of transport infrastructure, including regional and local transport infrastructure.

(4) The adverse effects, including cumulative effects, of subdivision and development on ~~existing and future~~ infrastructure are managed to meet the foreseeable needs of the Whenuapai 3 Precinct area, including through the provision of new and upgraded infrastructure. ***[42.4]***

(5) Subdivision and development does not occur in a way that compromises the ability to provide efficient and effective infrastructure networks ~~for~~ within the ~~wider~~ Whenuapai 3 Precinct area and the wider network. ***[42.5]***

Transport

(6) Subdivision and development implements the transport network connections and elements as shown on Whenuapai 3 Precinct Plan 2 and takes into account the regional and local transport network.

Development in the Neighbourhood Centre Zone

(7) Development in the Neighbourhood Centre Zone:

(a) is coordinated and comprehensive;

(b) has active frontages facing the street; and

(c) promotes pedestrian linkages.

Stormwater Management

(8) Through subdivision, use and development, implement a stormwater management approach that:

(a) is integrated across developments;

(b) avoids new flood risk;

(c) mitigates existing flood risk;

(d) protects and enhances the ecological values of the receiving environment; ***[22.22]***

(e) seeks to mimic and protect natural processes; and

(f) integrates with, but does not compromise the operation of, the public open space network.

Coastal Erosion Risk

(9) New development does not occur in areas identified as subject to coastal erosion, taking into account the likely long-term effects of climate change.

Biodiversity

(10) Subdivision, use and development enhance the coastal environment, biodiversity, water quality, and ecosystem services of the precinct, the Waiarohia and the Wallace Inlets, and their tributaries.

Open Space

(11) Subdivision, use and development enable the provision of a high quality and safe public open space network that integrates stormwater management, ecological, amenity, and recreation values.

~~*Reverse Sensitivity* *Effects on Whenuapai Airbase*~~

(12) The ~~lighting~~ effects of subdivision, use and development on the operation and activities of Whenuapai Airbase are avoided~~,~~ as far as practicable or otherwise remedied or mitigated. ***[41.13]***

Aircraft Engine Testing Noise

(13) The adverse effects of aircraft engine testing noise on activities sensitive to noise are avoided, remedied or mitigated at the receiving environment.

The overlay, Auckland-wide and zone objectives apply in this precinct in addition to those specified above.

I616.3. Policies

(1) Require subdivision, use and development to be integrated, coordinated and in general accordance with the Whenuapai 3 Precinct Plans 1 and 2.

(2) Encourage roads that provide for pedestrian and cycle connectivity alongside riparian margins and open spaces.

(3) Encourage high quality urban design outcomes by considering the location and orientation of buildings in relation to roads and public open space.

Integration of Subdivision and Development with the Provision of Infrastructure

(4) Require subdivision and development to be managed and designed to align with the coordinated provision and upgrading of the transport infrastructure network within the precinct, and with the wider transport network.

(5) Require subdivision and development to ~~A~~avoid~~, remedy~~ or mitigate the adverse effects, including cumulative effects, ~~of subdivision and development~~ on the

~~existing and future~~ infrastructure required to support the Whenuapai 3 Precinct through the provision of new and upgraded infrastructure. ***[42.8]***

(6) Require the provision of infrastructure to be proportionally shared across the precinct.

(7) ~~Require subdivision and development to provide the local transport network infrastructure necessary to support the development of the areas 1A-1E shown in Whenuapai 3 Precinct Plan 2.~~ ***[36.26]***

Transport

(8) Require the provision of new roads and upgrades of existing roads as shown on Whenuapai 3 Precinct Plan 2 through subdivision and development, with amendments to the location and alignment of collector roads ~~only~~ allowed where the realigned road will provide an equivalent transport function. ***[34.11]***

Development in the Neighbourhood Centre Zone

(9) Ensure development in the neighbourhood centre zone maximises building frontage along Hobsonville Road and the realigned Trig Road by:

(a) avoiding blank walls facing the roads;

(b) providing easily accessible pedestrian entrances on the road frontages;

(c) maximising outlook onto streets and public places;

(d) providing weather protection for pedestrians along the road frontages;

(e) providing service access and staff parking away from the frontages; and

(f) providing car parking and service access behind buildings, with the exception of kerbside parking.

(10) Ensure all development in the Neighbourhood Centre Zone is consistent with the layout of the Trig Road realignment as shown on Whenuapai 3 Precinct Plan 2.

(11) Limit the number of vehicle access points from the Neighbourhood Centre Zone onto Hobsonville Road and the Trig Road realignment to ensure safe and efficient movement of vehicles and pedestrians.

Stormwater Management

(12) Require subdivision and development within the Whenuapai 3 Precinct to:

(a) apply an integrated stormwater management approach;

(b) ~~manage stormwater diversions and discharges~~ treat stormwater runoff at-source to enhance the quality of freshwater systems and coastal waters~~; and~~ ***[8.5]***

(c) ~~be consistent with the requirements of the Whenuapai 3 Precinct Stormwater Management Plan (2017) and any relevant stormwater discharge consent~~. ***[19.25]***

(13) Require development to:

(a) avoid locating new buildings in the 1 per cent annual exceedance probability (AEP) floodplain;

(b) avoid increasing flood risk; and

(c) mitigate existing flood risk where practicable.

(14) Ensure stormwater outfalls are appropriately designed, located and managed to avoid or mitigate adverse effects on the environment, including:

(a) coastal or stream bank erosion;

(b) constraints on public access;

(c) amenity values; and

(d) constraints on fish passage into and along river tributaries.

Coastal Erosion Risk

(15) Avoid locating new buildings on land within the Whenuapai 3 coastal erosion setback yard.

(16) Avoid the use of hard protection structures to manage coastal erosion risk in the Whenuapai 3 coastal erosion setback yard.

Biodiversity

(17) Recognise the role of riparian planting in the precinct to support the ecosystem functions of the North-West Wildlink.

(18) Avoid stream and wetland crossings where practicable, and if avoidance is not practicable, ensure crossings take the shortest route ~~are constructed perpendicular to the channel~~ to minimise or mitigate freshwater habitat loss. ***[22.28]***

(19) Require, at the time of subdivision and development, riparian planting of appropriate native species along the edge of permanent and intermittent streams and wetlands to:

(a) provide for and encourage establishment and maintenance of ecological corridors through the Whenuapai area;

(b) maintain and enhance water quality and aquatic habitats;

(c) enhance existing native vegetation and wetland areas within the catchment; and

(d) reduce stream bank erosion.

Open Space

(20) Require the provision of open space as shown on Whenuapai 3 Precinct Plan 1 through subdivision and development, unless the council determines that the indicative open space is no longer required or fit for purpose.

(21) ~~Only a~~Allow amendments to the location and alignment of the open space where the amended open space can be demonstrated to achieve the same size and the equivalent functionality. ***[36.30]***

~~Reverse Sensitivity~~ Effects on Whenuapai Airbase ***[41.20]***

(22) Require subdivision, use and development within the Whenuapai 3 Precinct to avoid, remedy or mitigate any adverse effects, including reverse sensitivity effects and safety risks relating to lighting, glare and reflection, on the operation and activities of Whenuapai Airbase.

(23) Require the design of roads and associated lighting to be clearly differentiated from runway lights at Whenuapai Airbase to provide for the ongoing safe operation of the airbase.

Aircraft Engine Testing Noise

(24) Avoid the establishment of new activities sensitive to noise within the 65 dB L_{dn} aircraft engine testing noise boundary shown on Whenuapai 3 Precinct Plan 3.

(25) Avoid establishing residential and other activities sensitive to noise within the area between the 57 dB L_{dn} and 65 dB L_{dn} aircraft engine testing noise boundaries as shown on Whenuapai 3 Precinct Plan 3, unless the noise effects can be adequately remedied or mitigated at the receiving site through the acoustic treatment, including mechanical ventilation, of buildings containing activities sensitive to noise.

The overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above.

I616.4. Activity table

The activity tables in any relevant overlays, Auckland-wide and zones apply unless the activity is listed in Table I616.4.1 Activity table below.

Table I616.4.1 specifies the activity status of land use and subdivision activities in the Whenuapai 3 Precinct pursuant to sections 9(3) and section 11 of the Resource Management Act 1991.

Note: A blank cell in the activity status means the activity status of the activity in the relevant overlays, Auckland-wide or zones applies for that activity.

Table I616.4.1 Land use and subdivision activities in Whenuapai 3 Precinct

Activity		Activity status
Subdivision		
(A1)	Subdivision listed in Chapter E38 Subdivision – Urban	
(A2)	Subdivision that does not comply with Standard I616.6.2 Transport infrastructure requirements	NC
(A3)	Subdivision that complies with Standard I616.6.2 Transport infrastructure requirements, but not complying with any one or more of the other standards contained in Standards I616.6	D
Coastal protection structures		
(A4)	Hard protection structures	D
(A5)	Hard protection structures located within the Whenuapai 3 coastal erosion setback yard	NC
Stormwater outfalls		
(A6)	Stormwater outfalls and associated erosion and protection structures located within the Whenuapai 3 coastal erosion setback yard identified in Table I616.6.5.1	RD
Use and development		
(A7)	Activities listed as permitted or restricted discretionary activities in Table H3.4.1 Activity table in the Residential – Single House Zone	
(A8)	Activities listed as permitted or restricted discretionary activities in Table H5.4.1 Activity table in the Residential – Mixed Housing Urban Zone	
(A9)	Activities listed as permitted or restricted discretionary activities in Table H6.4.1 Activity table in the Residential – Terrace Housing and Apartment Buildings Zone	
(A10)	Activities listed as permitted or restricted discretionary activities in Table H12.4.1 Activity table in the Business – Neighbourhood Centre Zone	
(A11)	Activities listed as permitted or restricted discretionary activities in Table H17.4.1 Activity table in the Business – Light Industry Zone	

(A12)	Activities listed as permitted or restricted discretionary activities in Table H7.9.1 Activity table in the Open Space – Informal Recreation	
(A13)	Activities listed as permitted or restricted discretionary activities in Table H7.9.1 Activity table in the Open Space – Conservation	
(A14)	Any structure located on or abutting an indicative road identified in the Whenuapai 3 Precinct Plan 2, unless an alternative road alignment has been approved by a resource consent	RD
~~(A15)~~	~~Activities not otherwise provided for~~	~~D~~ ***[24.6 and 24.8]***
(A16)	Activities that comply with: • Standard I616.6.2 Transport infrastructure requirements; • Standard I616.6.5 New buildings within the Whenuapai 3 coastal erosion setback yard; and • Standard I616.6.10 Development within the aircraft engine testing noise boundaries; but do not comply with any one or more of the other standards contained in Standards I616.6	D
(A17)	Activities that do not comply with: • Standard I616.6.2 Transport infrastructure requirements; • Standard I616.6.5 New buildings within the Whenuapai 3 coastal erosion setback yard; and • Standard I616.6.10 Development within the aircraft engine testing noise boundaries	NC
(A18)	New activities sensitive to noise within the 65 dB L_{dn} noise boundary shown on Whenuapai 3 Precinct Plan 3	Pr

I616.5. Notification

(1) Any application for resource consent for an activity listed in Table I616.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

(2) When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the council will give specific consideration to those persons listed in Rule C1.13(4).

I616.6. Standards

(1) The standards in the overlays, Auckland-wide and zones apply to all activities listed in Table I616.4.1 Activity table in this precinct unless specified in Standard I616.6(2) below.

(2) The following overlay, Auckland-wide or zone standards do not apply to activity (A1) listed in Table I616.4.1 Activity table for land in the Whenuapai 3 coastal setback yard identified in Whenuapai 3 Precinct Plan 1:

(a) Standard E38.7.3.4 Subdivision of land in the coastal erosion hazard area

(3) Activities listed in Table I616.4.1 Activity table must comply with the specified standards in I616.6.1 – I616.6.11.

I616.6.1. Compliance with Whenuapai 3 Precinct Plans

(1) Activities must comply with Whenuapai 3 Precinct Plan 1 and Whenuapai 3 Precinct Plan 2.

(2) Activities not meeting Standard I616.6.1(1) must provide an alternative measure that will generally align with, and not compromise, the outcomes sought in Whenuapai 3 Precinct Plans 1 and 2.

I616.6.2. Transport infrastructure requirements

(1) All subdivision and development must meet its proportional share of ~~local~~ transport infrastructure works as identified in Table I616.6.2.1 below unless otherwise provided for by (2) and (3) below. ***[42.10]***

(2) Where the applicant, in applying for resource consent, cannot achieve or provide the required ~~local~~ transport infrastructure work identified in Table I616.6.2.1 below, alternative measure(s) to achieve the outcome required must be provided. ***[42.10]***

(3) The applicant and the council must agree the alternative measure(s) to be provided as part of the application and provide evidence of this agreement in writing as part of the application for resource consent.

Table I616.6.2.1 ~~Local t~~Transport infrastructure requirements ***[42.9]***

~~Areas~~	~~Local t~~Transport infrastructure required
~~1A~~	~~New collector roads extending west from Trig Road into the Stage 1A area as indicatively shown in Precinct Plan 2.~~
	~~New collector roads extending east from Trig Road into the Stage 1A area as indicatively shown in Precinct Plan 2.~~
	Signalisation at the new intersection of Trig Road, Luckens Road and Hobsonville Road.
	Formation and signalisation of the intersection at the location of the new collector road and Trig Road as indicatively shown on Precinct Plan 2.
	Upgrade of the intersection at Trig Road and the State Highway 18 off ramp.
~~1B~~	Upgrade and signalisation of the intersection of Brigham Creek Road and Kauri Road including: • dual right-turn lanes from Brigham Creek Road into Kauri Road; and • suitable bus and cycle priority provision.
	Formation and signalisation of the intersection at the location of the new collector road and Brigham Creek Road as indicatively shown on Precinct Plan 2.
~~1C~~	Addition of a fourth leg to the Brigham Creek Road and Kauri Road intersection.
	~~New collector road from the Brigham Creek Road and Kauri Road intersection westwards to the boundary of the Stage 1C area as indicatively shown on Precinct Plan 2.~~
~~1D~~	~~Road stopping of Sinton Road to the west of 18 Sinton Road, and replacement with a new collector road from Sinton Road to Kauri Road as~~

~~Areas~~	~~Local t~~Transport infrastructure required
	~~indicatively shown on Precinct Plan 2.~~ ***[48.18]***
	~~New collector road crossing State Highway 18 connecting Sinton Road to Sinton Road East as indicatively shown on Precinct Plan 2.~~ ***[48.18]***
	~~New collector roads as indicatively shown in Precinct Plan 2.~~ ***[48.18]***
~~1E~~	~~New collector roads from Brigham Creek Road extending south into the Stage 1E area as indicatively shown in Precinct Plan 2.~~
	Formation and signalisation of the intersections of Brigham Creek Road with the new collector roads required as part of the Stage 1E area.
	Upgrade and signalisation of the intersection of Trig Road and Brigham Creek Road.
	~~New collector roads from Trig Road extending east into the Stage 1E area as indicatively shown in Precinct Plan 2.~~

[21.3, 34.15, 35.4, and 42.9]

I616.6.3. Stormwater management

(1) Stormwater runoff from new development must not cause the 1 per cent annual exceedance probability (AEP) floodplain to rise above the floor level of an existing habitable room or increase flooding of an existing habitable room on any property.

(2) All new buildings must be located outside of the 1 per cent AEP floodplain and overland flow path.

(3) Stormwater runoff from impervious areas (excluding roofs, and excluding roads that are subject to Auckland-wide rules in E9) totalling more than 1,000m2 associated with any subdivision or development proposal must be:

(a) treated at-source by a stormwater management device or system that is sized and designed in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003); or ***[8.5]***

(b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance.

(4) All stormwater runoff from:

(a) commercial and industrial waste storage areas including loading and unloading areas; and

(b) communal waste storage areas in apartments and multi-unit developments

must be directed to a device that removes gross stormwater pollutants prior to entry to the stormwater network or discharge to water.

(5) Stormwater runoff from impervious areas not directed to an approved stormwater management device (achieving either quality

treatment or ~~hydrology mitigation~~ retention (volume reduction) in accordance with Stormwater management area control – Flow 1) must:

(a) achieve quality treatment ~~on-site~~ at-source in accordance with Technical Publication 10: Design Guideline Manual for Stormwater Treatment Devices (2003) prior to disposal to the stormwater network; or

(b) use inert building materials. ***[19.30]***

I616.6.4. Riparian planting

(1) The riparian margins of a permanent or intermittent stream or a wetland must be planted to a minimum width of 10m measured from the top of the stream bank and/or the wetland's fullest extent.

(2) Riparian margins must be offered to the council for vesting.

(3) The riparian planting proposal must:

(a) include a plan identifying the location, species, planting bag size and density of the plants;

(b) use eco-sourced native vegetation where available;

(c) be consistent with local biodiversity;

(d) be planted at a density of 10,000 plants per hectare, unless a different density has been approved on the basis of plant requirements.

(4) Where pedestrian and/or cycle paths are proposed, they must be located adjacent to, and not within, the 10m planted riparian area.

(5) The riparian planting required in Standard I616.6.4(1) above must be incorporated into a landscape plan. This plan must be prepared by a suitably qualified and experienced person and be approved by the council.

(6) The riparian planting required by Standard I616.6.4(1) cannot form part of any environmental compensation or offset mitigation package where such mitigation is required in relation to works and/or structures within a stream.

I616.6.5. New buildings within the Whenuapai 3 coastal erosion setback yard

(1) New buildings must not be located within the Whenuapai 3 coastal erosion setback yard shown in Whenuapai 3 Precinct Plan 1. The widths of the yard are specified in Table I616.6.5.1 and is to be

measured from mean high water springs. This is to be determined when the topographical survey of the site is completed.

(2) Alterations to existing buildings within the Whenuapai 3 coastal erosion setback yard must not increase the existing gross floor area.

Table I616.6.5.1 Whenuapai 3 coastal erosion setback yard

Area	Coastal erosion setback yard
A	41m
B	40m
C	26m
D	35m

I616.6.6. External alterations to buildings within the Whenuapai 3 coastal erosion setback yard

(1) External alterations to buildings within the Whenuapai 3 coastal erosion setback yard identified in Standard I616.6.5 and Whenuapai 3 Precinct Plan 1 must not increase the existing gross floor area.

I616.6.7. Subdivision of land in the Whenuapai 3 coastal erosion setback yard

(1) Each proposed site on land in the Whenuapai 3 coastal erosion setback yard must demonstrate that all of the relevant areas/features below are located outside of the Whenuapai 3 coastal erosion setback yard:

(a) in residential zones and business zones - a shape factor that meets the requirements of Standard E38.8.1.1 Site shape factor in residential zones or Standard E38.9.1.1 Site shape factor in business zones;

(b) access to all proposed building platforms or areas; and

(c) on-site private infrastructure required to service the intended use of the site.

I616.6.8. Roads

(1) Development and subdivision occurring adjacent to an existing road must upgrade the entire width of the road ~~adjacent to~~ from the property boundary of the site where subdivision and development is to occur, to the kerb on the opposite side of the road. ***[46.11]***

(2) Development and subdivision involving the establishment of new roads must:

(a) provide the internal road network within the site where subdivision and development is to occur; ~~and~~

(b) be built through to the site boundaries to enable existing or future connections to be made with, and through, neighbouring sites; and

(c) provide a full arterial road width along any proposed new arterial alignment shown on Whenuapai 3 Precinct Plan 2 if the development is proceeding ahead of the arterial road. ***[42.12, 47.11 and 48.12]***

I616.6.9. Development in the Neighbourhood Centre Zone

I616.6.9.1. Access

(1) Vehicle accesses must not be located on that part of a site boundary located within 30m of the intersection of Hobsonville Road and the realigned Trig Road.

(2) All development must provide pedestrian access that connects to the intersection of Hobsonville Road and the realigned Trig Road.

I616.6.9.2. Building frontage

(1) Any new building must:

(a) front onto Hobsonville Road or the realigned Trig Road identified in Precinct Plan 2; and

(b) have a building frontage along the entire length of the site excluding vehicle and pedestrian access.

I616.6.9.3. Verandas

(1) The ground floor of any building fronting Hobsonville Road and the realigned Trig Road must provide a veranda over the adjacent footpath along the full extent of the frontage, excluding vehicle access.

(2) The veranda must:

(a) be contiguous with any adjoining building;

(b) have a minimum height of 3m and a maximum height of 4.5m above the footpath;

(c) have a minimum width of 2.5m; and

(d) be set back at least 600mm from the kerb.

I616.6.10. Development within the aircraft engine testing noise boundaries

(1) Between the 57 dB L_{dn} and 65 dB L_{dn} noise boundaries as shown on Whenuapai 3 Precinct Plan 3, new activities sensitive to noise and alterations and additions to existing buildings accommodating activities sensitive to noise must provide sound attenuation and related ventilation and/or air conditioning measures:

(a) to ensure the internal environment of habitable rooms does not exceed a maximum noise level of 40 dB L_{dn}; and

(b) that are certified to the council's satisfaction as being able to meet Standard I616.6.10(1~~2~~)(a) by a person suitably qualified and experienced in acoustics prior to its construction; and ***[error]***

(c) so that the related ventilation and/or air conditioning system(s) satisfies the requirements of New Zealand Building Code Rule G4, or any equivalent standard which replaces it, with all external doors of the building and all windows of the habitable rooms closed.

I616.6.11. Lighting

(1) No person may illuminate or display the following outdoor lighting between 11:00pm and 6:30am:

(a) searchlights; or

(b) outside illumination of any structure or feature by floodlight that shines above the horizontal plane. ***[34.20 and 41.28]***

I616.7. Assessment – controlled activities

There are no controlled activities in this precinct.

I616.8. Assessment – restricted discretionary activities

I616.8.1. Matters of discretion

The council will restrict its discretion to all the following matters when assessing a restricted discretionary activity resource consent application, in addition to the matters specified for the relevant restricted discretionary activities in the overlay, Auckland-wide and zone provisions.

(1) Subdivision and development:

(a) safety, connectivity, walkability, public access to the coast and a sense of place;

(b) location of roads and connections with neighbouring sites;

(c) functional requirements of the transport network, roads and different transport modes;

(d) site and vehicle access, including roads, rights of way and vehicle crossings;

(e) location of buildings and structures;

(f) provision of open space; and

(g) provision of the required local transport infrastructure or an appropriate alternative measure.

(2) Use and development in the Neighbourhood Centre Zone:

(a) the design and location of onsite parking and loading bays; and

(b) building setbacks from Hobsonville Road and the realigned Trig Road.

(3) Subdivision of land in the Whenuapai 3 coastal erosion setback yard:

(a) the effects of the erosion on the intended use of the sites created by the subdivision and the vulnerability of these uses to coastal erosion.

(4) Stormwater outfalls and associated erosion and protection structures within the Whenuapai 3 coastal erosion setback yard:

(a) the effects on landscape values, ecosystem values, coastal processes, associated earthworks and landform modifications;

(b) the effects on land stability including any exacerbation of an existing natural hazard, or creation of a new natural hazard, as a result of the structure;

(c) the resilience of the structure to natural hazard events;

(d) the use of green infrastructure instead of hard engineering solutions;

(e) the effects on public access and amenity, including nuisance from odour;

(f) the ability to maintain or enhance fish passage; and

(g) risk to public health and safety.

(5) Lighting associated with development, structures, infrastructure and construction.

I616.8.2. Assessment criteria

The council will consider the relevant assessment criteria below for restricted discretionary activities, in addition to the assessment criteria specified for the

relevant restricted discretionary activities in the overlay, Auckland-wide and zone provisions.

(1) Subdivision and development:

(a) the extent to which any subdivision or development layout is consistent with and provides for the upgraded roads and new indicative roads shown on the Whenuapai 3 Precinct Plan 2;

(b) the extent to which any subdivision or development provides for public access to the coast;

(c) the extent to which any subdivision or development layout achieves a safe, connected and walkable urban form with a sense of place;

(d) the extent to which any subdivision or development layout is consistent with and provides for the indicative open space shown within Whenuapai 3 Precinct Plan 1;

(e) the extent to which any subdivision or development layout complies with the Auckland Transport Code of Practice or any equivalent standard that replaces it;

(f) the extent to which any subdivision or development layout provides for the functional requirements of the existing or proposed transport network, roads and relevant transport modes;

(g) the extent to which access to an existing or planned arterial road, or road with bus or cycle lane, minimises vehicle crossings by providing access from a side road, rear lane, or slip lane;

(h) the extent to which subdivision and development provides for roads to the site boundaries to enable connections with neighbouring sites; and

(i) whether an appropriate ~~public~~ funding mechanism is in place to ensure the provision of all required infrastructure. ***[42.15]***

(2) Use and development in the Neighbourhood Centre Zone:

(a) the extent to which staff car parking, loading spaces and any parking associated with residential uses is:

(i) located to the rear of the building; and

(ii) maximises the opportunity for provision of communal parking areas.

(b) the extent to which building setbacks are minimised to ensure buildings relate to Hobsonville Road and the realigned Trig Road.

(3) Subdivision of land in the Whenuapai 3 coastal erosion setback yard:

(a) the effects of the hazard on the intended use of the sites created by the subdivision and the vulnerability of these uses to coastal erosion:

(i) whether public access to the coast is affected;

(ii) the extent to which the installation of hard protection structures to be utilised to protect the site or its uses from coastal erosion hazards over at least a 100 year timeframe are necessary; and

(iii) refer to Policy E38.3(2).

(4) Stormwater outfalls and associated erosion and protection structures within the Whenuapai 3 coastal erosion setback yard:

(a) the extent to which landscape values, ecological values and coastal processes are affected or enhanced by any works proposed in association with the structure(s);

(b) the extent to which site specific analysis, such as engineering, stability or flooding reports have been undertaken and any other information about the site, the surrounding land and the coastal marine area;

(c) the extent to which the structure(s) is located and designed to be resilient to natural hazards;

(d) the extent to which the proposal includes green infrastructure and solutions instead of hard engineering solutions;

(e) the extent to which public access and / or amenity values, including nuisance from odour, are affected by the proposed structure(s);

(f) the extent to which fish passage is maintained or enhanced by the proposed structure(s); and

(g) the extent to which adverse effects on people, property and the environment are avoided, remedied or mitigated by the proposal.

(5) Lighting associated with development, structures, infrastructure and construction:

(a) The effects of lighting on the safe and efficient operation of Whenuapai Airbase, to the extent that the lighting:

(i) avoids simulating approach and departure path runway lighting;

(ii) ensures that clear visibility of approach and departure path runway lighting is maintained; and

(iii) avoids glare or light spill that could affect aircraft operations.

I616.9. Special information requirements

(1) Riparian planting plan

An application for land modification, development and subdivision which adjoins a permanent or intermittent stream must be accompanied by a riparian planting plan identifying the location, species, planter bag size and density of the plants.

(2) Permanent and intermittent streams and wetlands

All applications for land modification, development and subdivision must include a plan identifying all permanent and intermittent streams and wetlands on the application site.

(3) Stormwater management

All applications for development and subdivision must include a plan demonstrating how stormwater management requirements will be met including:

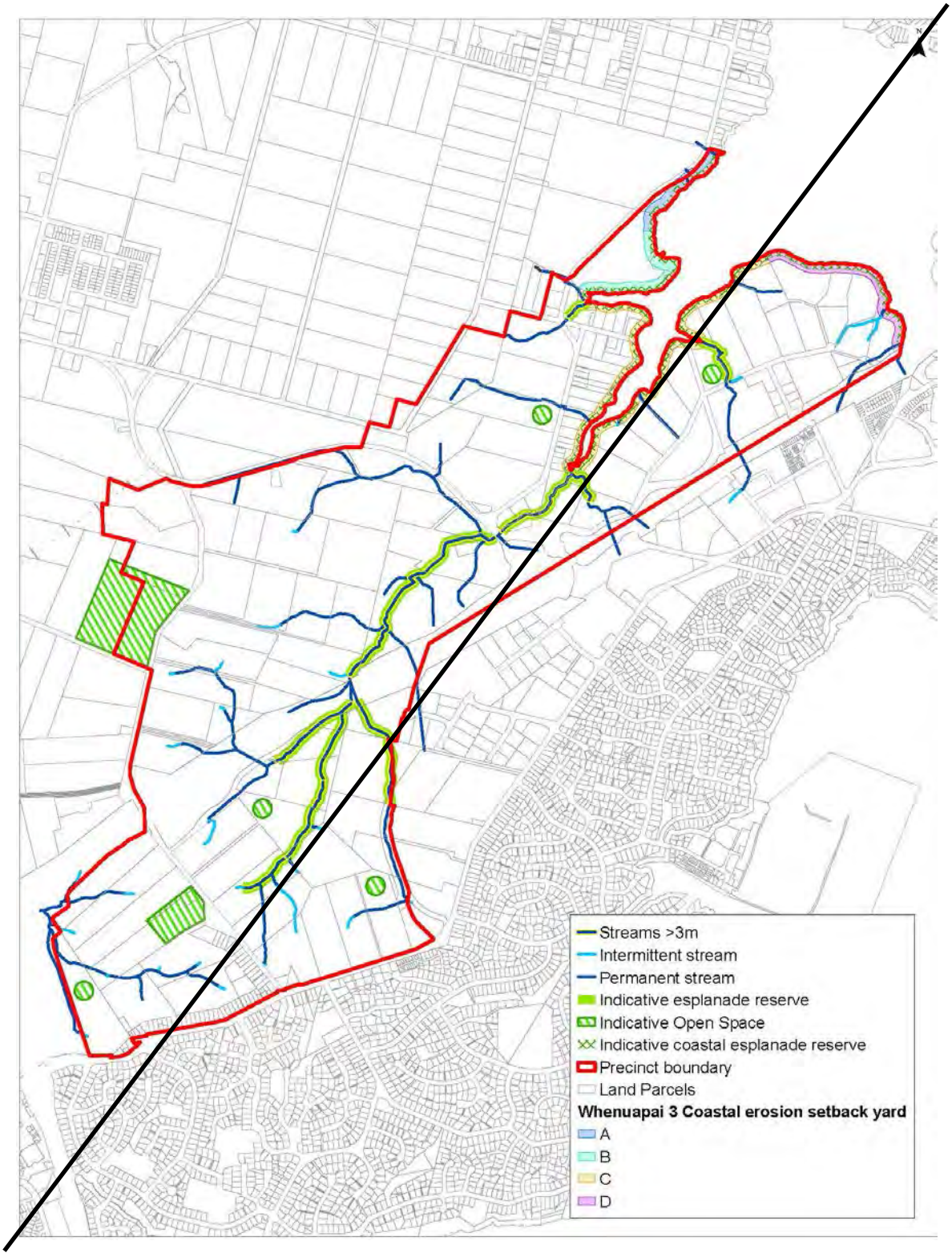
(a) areas where stormwater management requirements are to be met on-site and where they will be met through communal infrastructure;

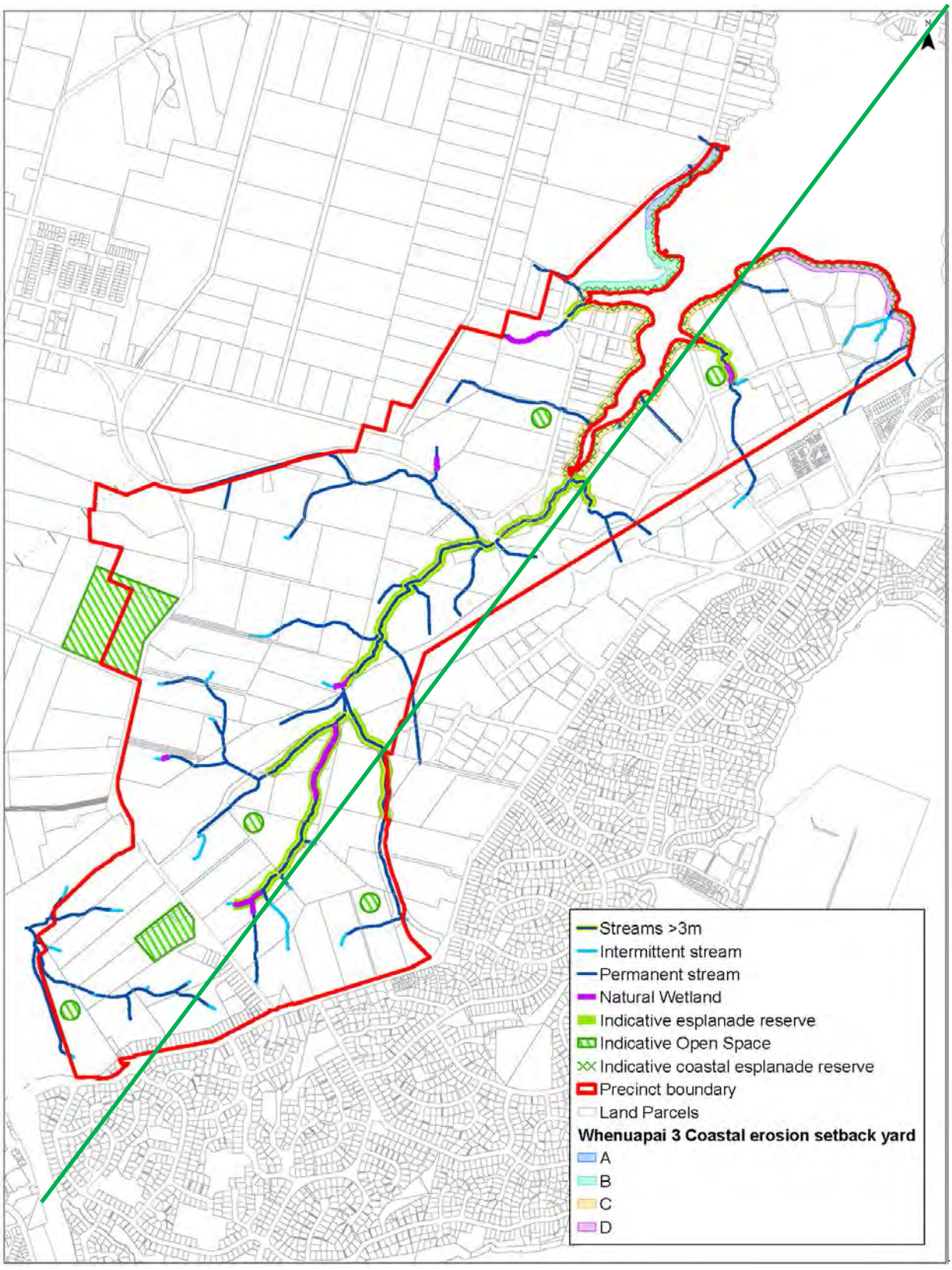
(b) the type and location of all public stormwater network assets that are proposed to be vested in council;

(c) consideration of the interface with, and cumulative effects of, stormwater infrastructure in the precinct.

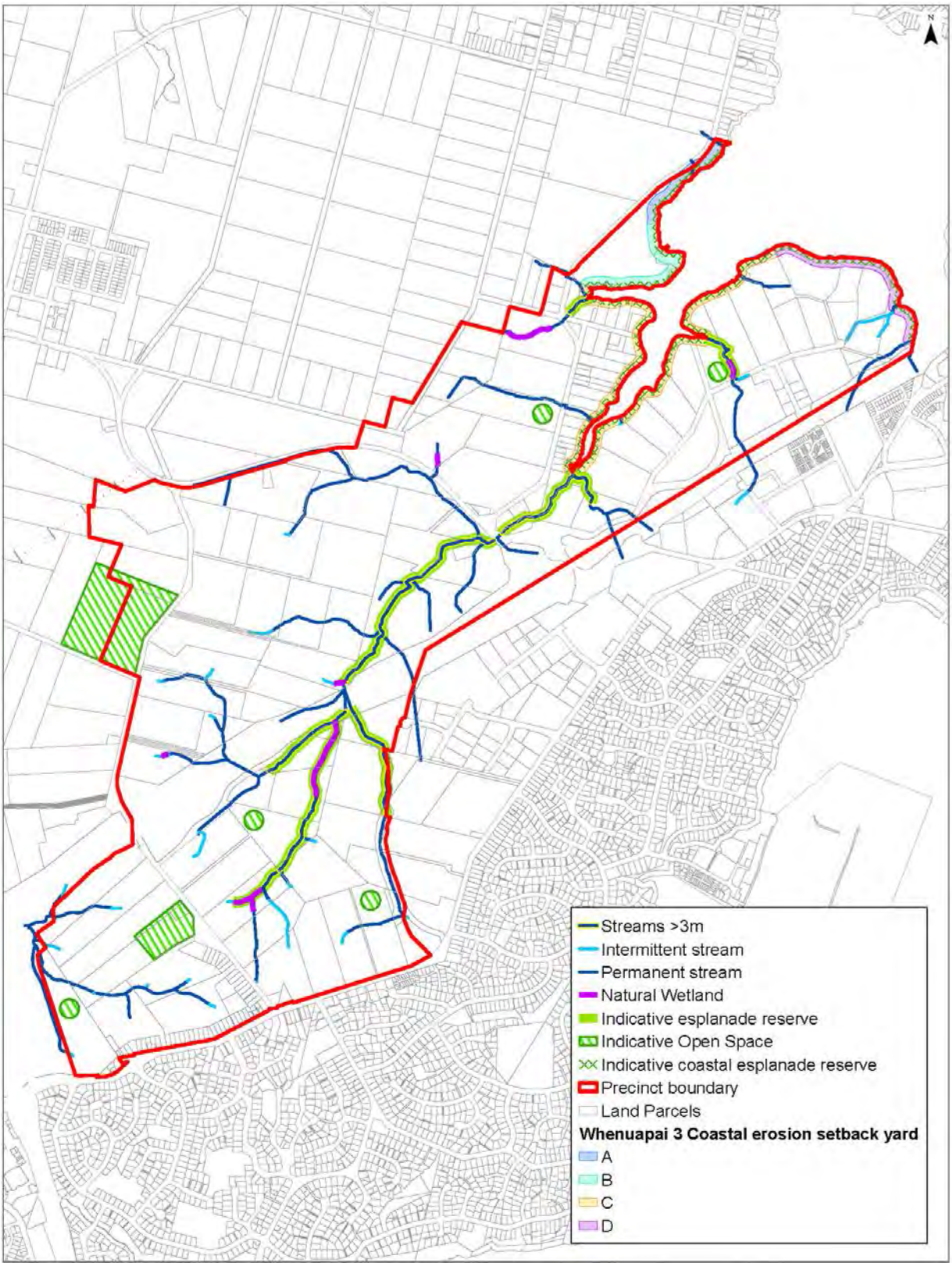
I616.10. Precinct plans

I616.10.1. Whenuapai 3 Precinct Pan 1

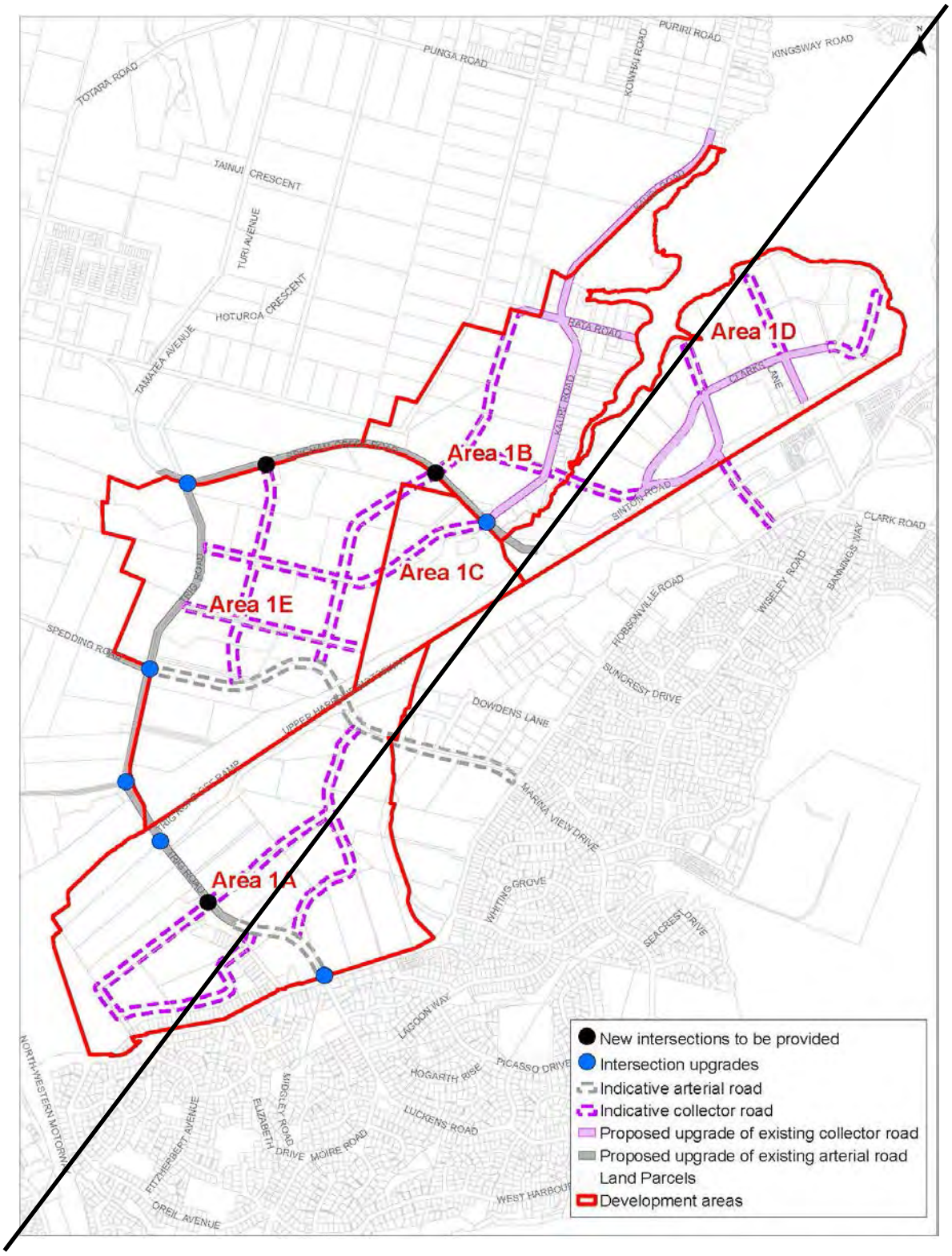


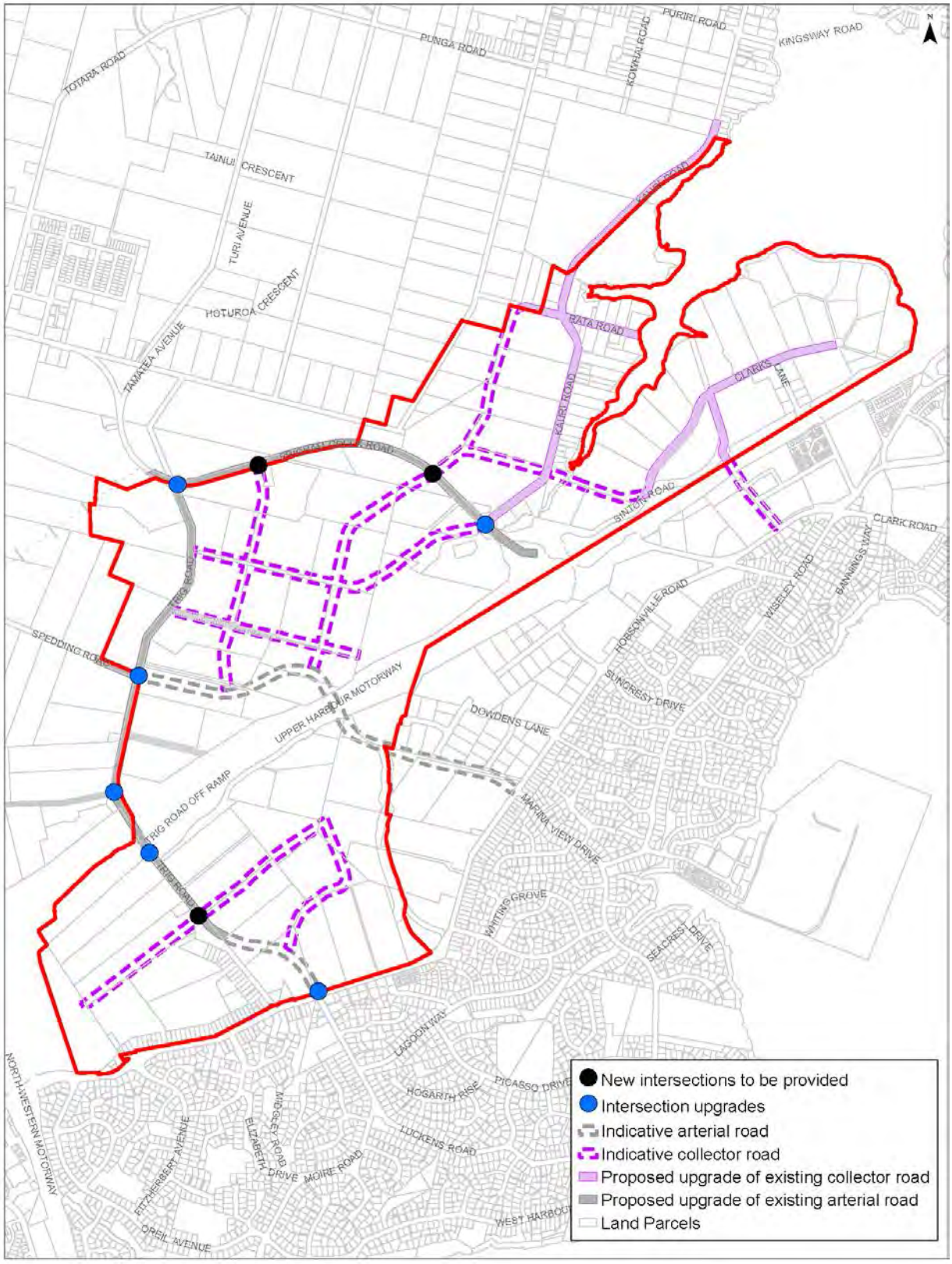


[22.11, 22.12, 22.43]


N
Streams >3m
Intermittent stream
Permanent stream
Natural Wetland
Indicative esplanade reserve
Indicative Open Space
Indicative coastal esplanade reserve
Precinct boundary
Land Parcels
Whenuapai 3 Coastal erosion setback yard
A
B
C
D

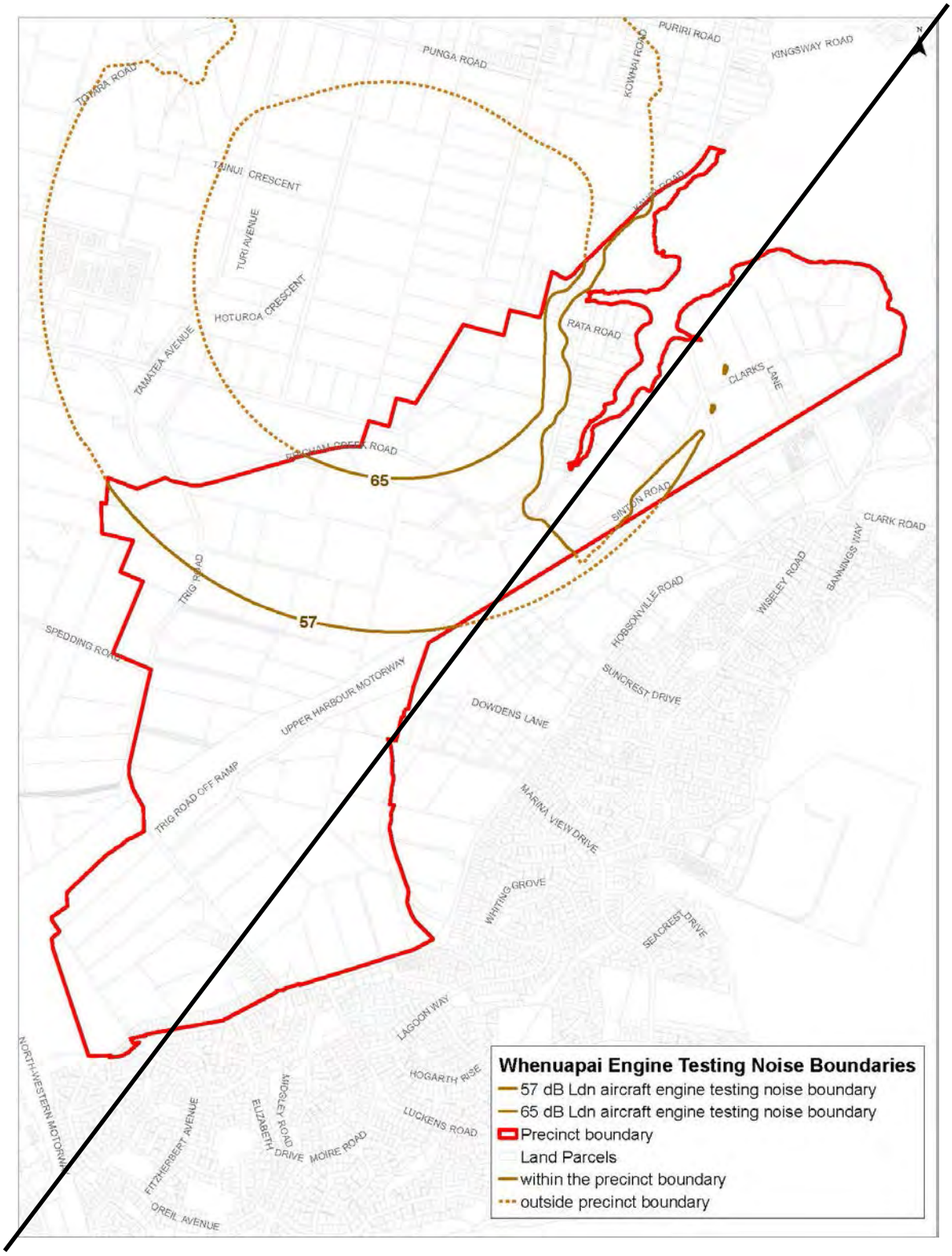
I616.10.2. Whenuapai 3 Precinct Plan 2

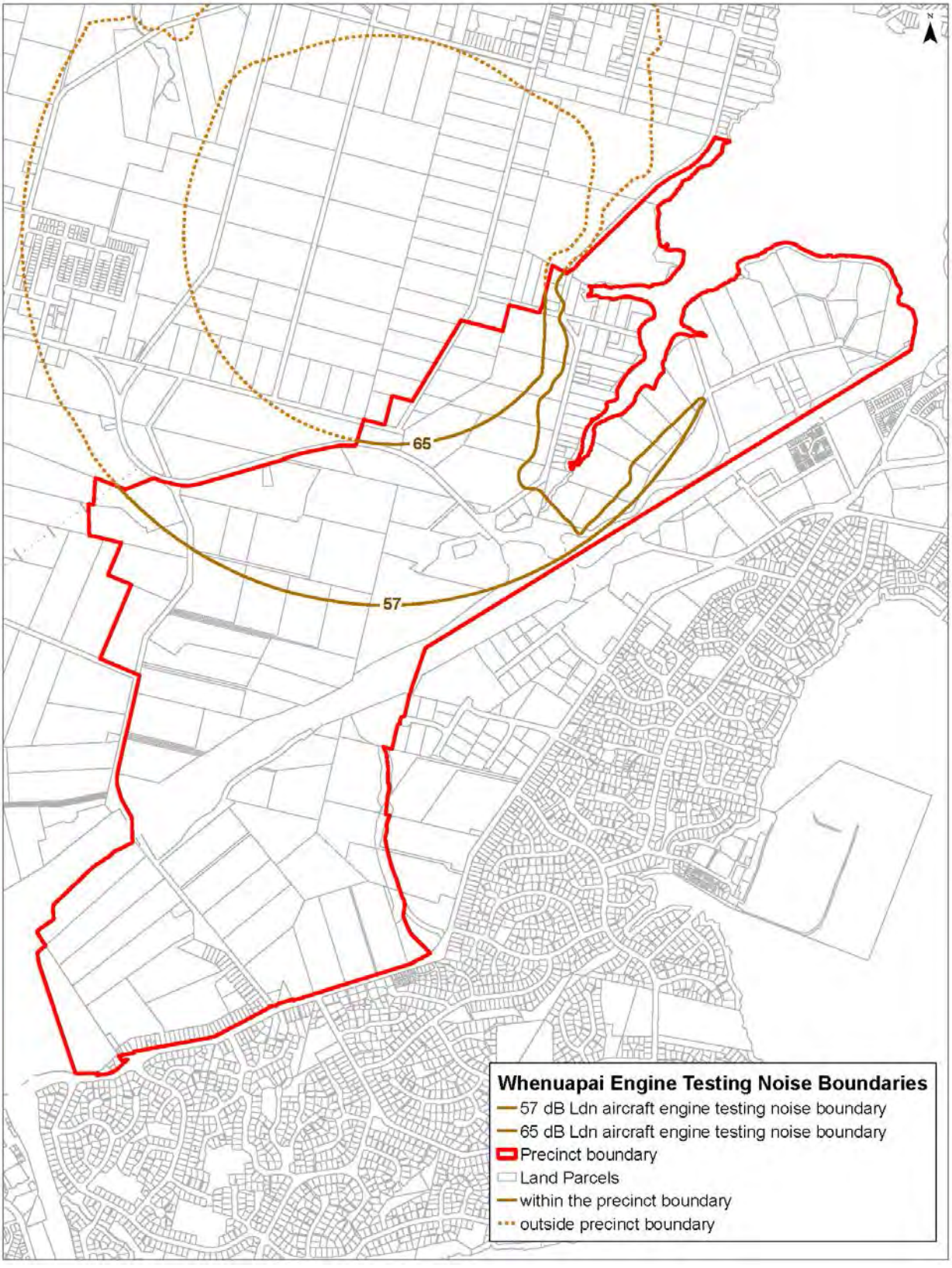




[21.5, 21.6, 26.4, 26.5, 26.6, 29.3, 29.4, 29.5, 29.6, 32.4, 32.5, 32.6, 33.4, 33.5, 33.6, 35.2, 48.8, 48.9]

I616.10.3. Whenuapai 3 Precinct Plan 3




65
57
Whenuapai Engine Testing Noise Boundaries
57 dB Ldn aircraft engine testing noise boundary
65 dB Ldn aircraft engine testing noise boundary
Precinct boundary
Land Parcels
within the precinct boundary
outside precinct boundary

[41.9]

Addition to Schedule 14.1 Table 1 Places

ID	Place Name and/or Description	Verified Location	Verified Legal Description	Category	Primary Feature	Heritage Values	Extent of Place	Exclusions	Additional Rules for Archaeological Sites or Features	Place of Maori Interest or Significance
02784	Whenuapai heavy anti-aircraft battery	4 Spedding Road and 92 Trig Road, Whenuapai	Lot 17 DP 62344; Lot 16 DP62344	B	Gun emplacements and command post	A,H	Refer to planning maps			

Deletion of existing schedule entries from 14.1 Table 1 Places

ID	Place Name and/or Description	Verified Location	Verified Legal Description	Category	Primary Feature	Heritage Values	Extent of Place	Exclusions	Additional Rules for Archaeological Sites or Features	Place of Maori Interest or Significance
~~00135~~	~~Worker's Dwelling~~	~~9 Clarks Lane, Hobsonville~~	~~LOT 1 DP 411781~~	~~B~~		~~A,F~~	~~Refer to planning maps~~	~~Interior of building(s)~~		
~~00246~~	~~Worker's Residence~~	~~5 Clarks Lane, Hobsonville~~		~~B~~		~~A,F~~	~~Refer to planning maps~~	~~Interior of building(s)~~		
~~00247~~	~~Worker's Residence~~	~~4 Clarks Lane, Hobsonville~~		~~B~~		~~A,F~~	~~Refer to planning maps~~	~~Interior of building(s)~~		
~~00248~~	~~Worker's Residence~~	~~6 Clarks Lane, Hobsonville~~		~~B~~		~~A,F~~	~~Refer to planning maps~~	~~Interior of building(s)~~		
~~00249~~	~~Worker's Residence~~	~~10 Clarks Lane, Hobsonville~~		~~B~~		~~A,B,F,H~~	~~Refer to planning maps~~	~~Interior of building(s)~~		

Addition to Schedule 14.1 Schedule of Historic Heritage – Table 2 Areas

ID	Area Name and/or Description	Verified Location	Known Heritage Values	Extent of Place	Exclusions	Additional Rules for Archaeological Sites or Features	Place of Maori Interest or Significance	Contributing Sites/ Features	Non-contributing Sites/ Features
02783	Clarks Lane Historic Heritage Area	Clarks Lane, Hobsonville	A,F,H	Refer to planning maps	Interiors of all buildings contained within the extent of place unless otherwise identified in another scheduled historic heritage place			Refer to Schedule 14.2.13	Stand-alone accessory buildings or garages built after 1940; former church 7 Clarks Lane (Lot 5 DP 411781)

Addition to Schedule 14.2

14.2.13 Clarks Lane Historic Heritage Area

Statement of significance

The dwellings at 3 to 10 Clarks Lane are located in Hobsonville, an area to the north-west of the Auckland Central Business District. Clarks Lane is situated on the north-western edge of the suburb, close to the adjacent district of Whenuapai and the Waiarohia Inlet. Clarks Lane runs in a north-south orientation and prior to 2008 had access southwards via Ockleston Road to connect with Hobsonville Road. Following the construction of State Highway 18 the lane became a cul-de-sac. The lane is narrow, with road markings only to denote the edge of the carriageway; it has a wide road reserve and no footpath, all of which contribute to its rural amenity and aesthetic. These physical attributes of the road are important to the understanding of its history as a rural lane servicing a small grouping of residences. The position of the cottages on either side of the road creates a balance of housing through the lane. The carriageway, road reserve and building positions are therefore contributing features of the Clarks Lane Historic Heritage Area and are important aspects of the Historic Heritage Area's context.

The group of workers' residences on Clarks Lane have considerable historical value as they reflect an important aspect of local and regional history, the private construction of accommodation for pottery and brickworks industry employees. The remaining cottages and foreman's villa represent some of the first privately established workers' accommodation still extant in the region. The cottages are also some of the earliest remaining examples of their type in the locality, representing an early period of development in the area. The Clarks Lane Historic Heritage Area has further significance for its association with the Clark family, specifically R.O. Clark II, R.O. Clark III and his brother, T.E. Clark. The Clark family were some of the first European settlers to the area and made a significant contribution to the history of the locality. The Clarks donated land for the erection of a number of community buildings including the first church and school in Hobsonville.

The dwellings play an important role in defining the distinctiveness of the Hobsonville community by representing the area's early history and as a legacy of the Clark family. The Historic Heritage Area is an important grouping of buildings that demonstrates a way of life that is now less common by representing the locality's reliance upon local employment and effort of a local company to provide affordable and convenient housing. As a group of dwellings of a similar design and style, they have considerable value as a remnant of the early settlement period and architectural development of Hobsonville. The type and style of the Clarks Lane cottages and villa are a good representative example of the pattern of development, street layout, building height, massing and scale that is demonstrative of purpose-built workers' housing. Based on those physical attributes visible from the public realm, the dwellings have considerable value for their existing physical qualities and as representative examples of their type and period within the locality.

The cottages and villa all exemplify a past aesthetic taste that is distinctive in the Hobsonville locality. The Clarks Lane dwellings have moderate aesthetic value for the widespread emotional response they evoke as a group for their picturesque qualities. Further aesthetic appeal is derived from the relationship of the places to their setting, which reinforces the quality of both.

The former Brighams Creek church at 7 Clarks Lane (relocated to the lane in circa 2009) does not detract from the overall aesthetic of the lane. It is attributable to a similar architectural and historical period as the cottages, and the original portion is an example of an attractive, modest structure evocative of the small late nineteenth/early twentieth century church buildings that express the vernacular style of New Zealand's ecclesiastical architecture. The former church has a limited contribution to, and association with, the values for which the Historic Heritage Area is significant. For this reason, it is identified as a non-contributor within the Historic Heritage Area and will remain individually scheduled.

The dwellings have considerable contextual value as a group of workers' residences along Clarks Lane, that when taken together, have coherence due to their history, age, street-fronting orientation and scale; forming part of the historical and cultural complex of the locality. The cottages at 3, 4, 5, 6 and 10 Clarks Lane are characterised by their compact size and single storey height. From a social lens, this is reflective of their original use as accommodation for workers. The roof form of the cottages at 3, 4, 5, 6 and 10 Clarks Lane is an asymmetrical side-gable with a subservient, lower pitched lean-to at the rear. The foreman's villa at 9 Clarks Lane is the largest of the workers' residences and is an example of the common villa typology prevalent at the beginning of the twentieth century. The villa's setback, size, square plan, hipped roof and central gutter differentiate it from the other workers' cottages. The larger size and distinct form of the villa reflects the higher professional standing of the pottery foreman.

The dwellings originally had corbelled brick chimneys, and open verandahs along the front (street-facing) elevation. Several dwellings retain either, or both of these attributes that are important physical and aesthetic features. The front elevations are also characterised by a central entrance door, framed on either side by four-pane sash windows. Paint-finished timber cladding and fenestration, and iron or steel roofing are key material characteristics that illustrate the traditional qualities of the dwellings. Some dwellings have replaced the original timber fenestration with aluminium joinery.

The immediate setting of the dwellings is an important aspect to the understanding of their context, demonstrated by the layout and amenity of the lane. The sites have large open sections with little front boundary fencing (i.e.: no more than 1.2 metres in height and visually permeable) and consistent (approximately 10 metres) setbacks which are intact key features of their rural setting. These are tangible reminders of the coherence of the workers' housing legibility.

Map 14.2.13.1: Clarks Lane Historic Heritage Area

Addition to Appendix 17

~~**I616 Whenuapai 3 Precinct**~~

~~Whenuapai 3 Precinct Stormwater Management Plan (2017)~~