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# **PALMERSTON NORTH CITY COUNCIL**

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AGENDA

**ATTACHMENTS**

## **STRATEGY & FINANCE COMMITTEE UNDER SEPARATE COVER**

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**9AM, WEDNESDAY 15 NOVEMBER 2023**

**COUNCIL CHAMBER, FIRST FLOOR  
CIVIC ADMINISTRATION BUILDING  
32 THE SQUARE, PALMERSTON NORTH**

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## **STRATEGY & FINANCE COMMITTEE MEETING**

15 November 2023

**Under Separate Cover**

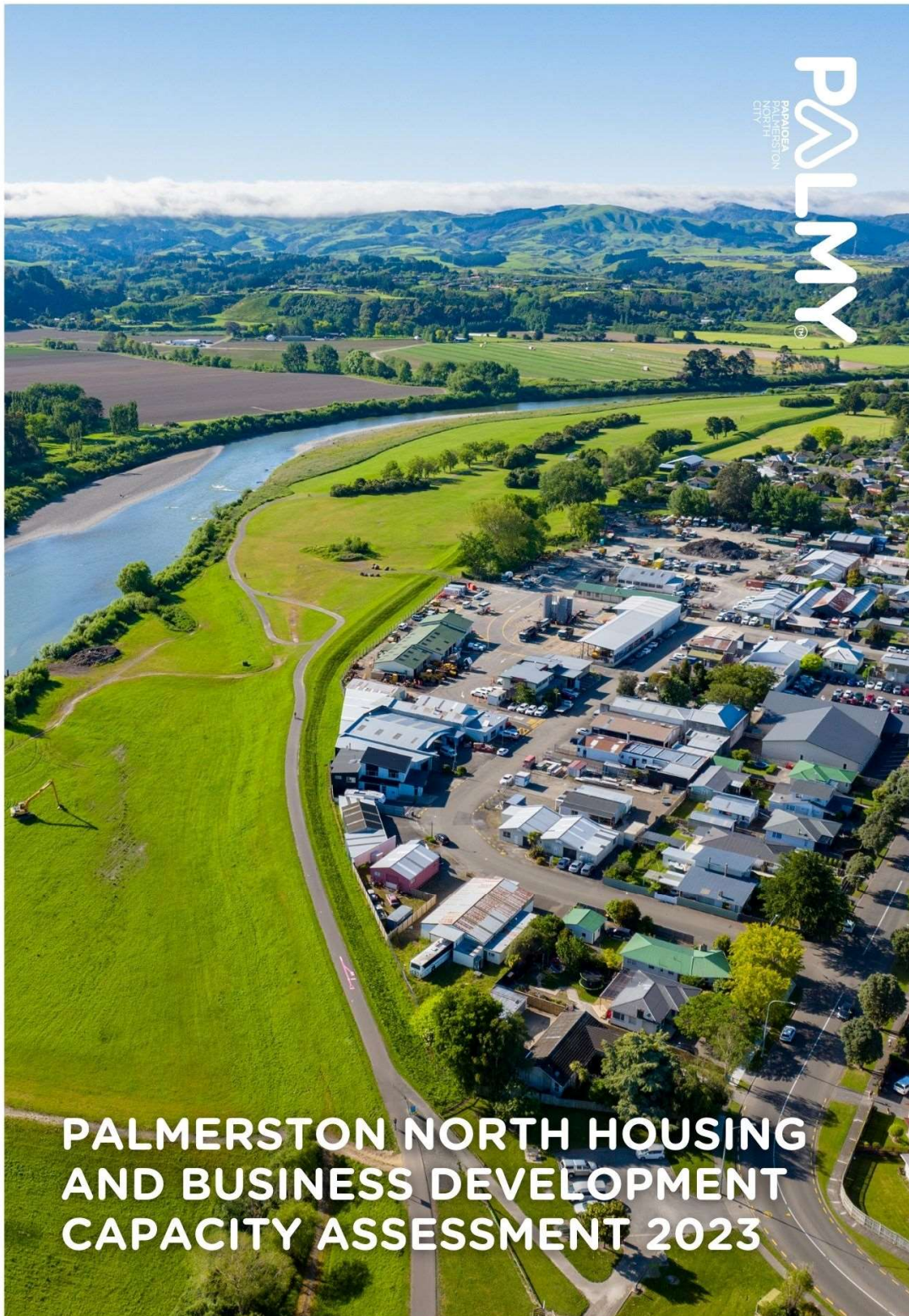
### **11. 2023 Housing and Business Development Capacity Assessment**

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2. HBA Appendix 1 - Our Economic Overview Page 163
3. HBA Appendix 2 - Palmerston North Commercial Land Assessment 2023 Page 181
4. HBA Appendix 3 - Palmerston North Commercial Market Survey 2022 Page 251

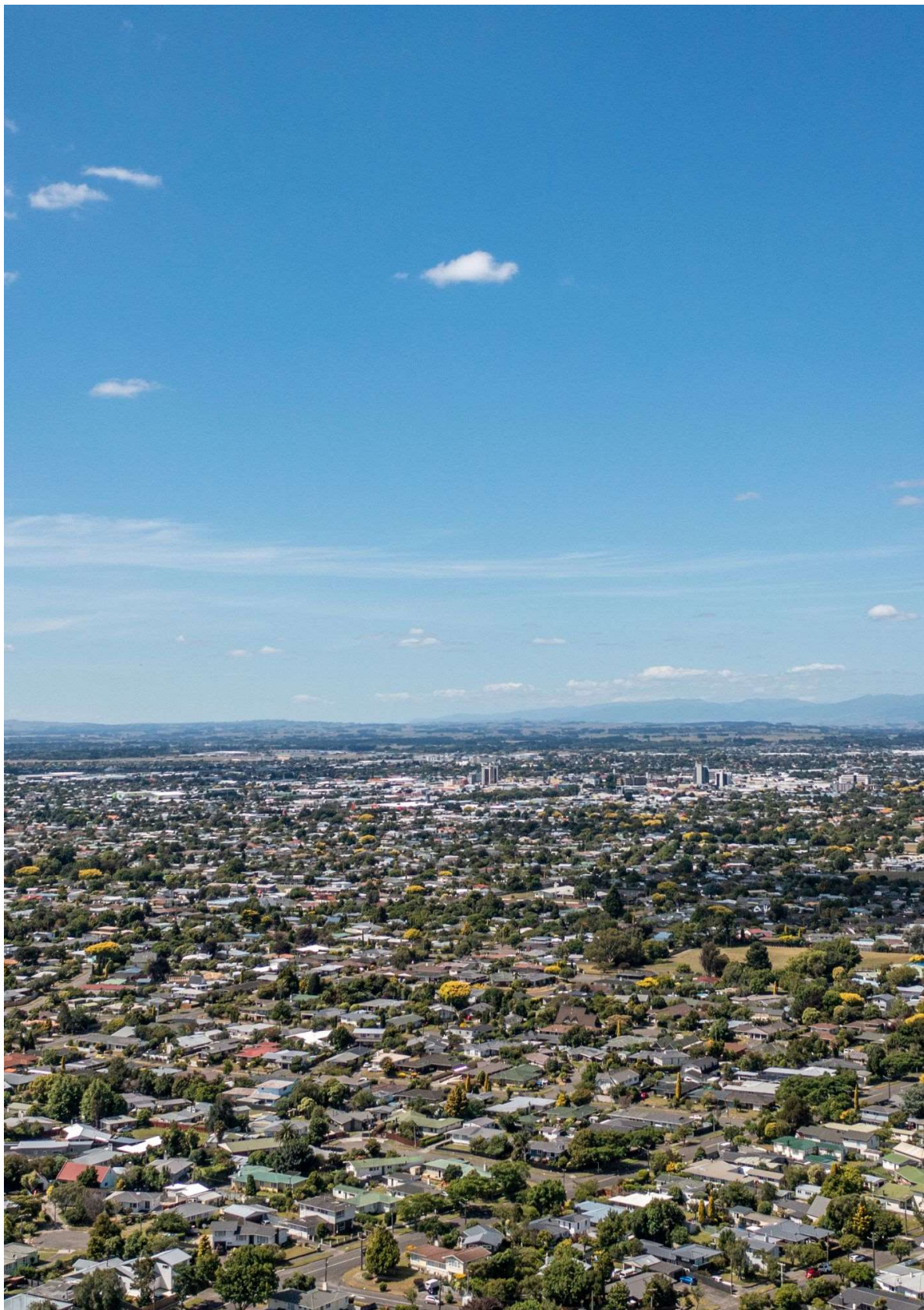
### **22. Deliberations on submissions - draft Interim Speed Management Plan (School Speed Limits)**

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## Executive Summary

Prepared in accordance with the National Policy Statement on Urban Development 2020, the purpose of this Housing and Business Development Capacity Assessment is to provide information on the demand and supply of housing and business land in Palmerston North. A further purpose of the Assessment is to inform planning documents under the Resource Management Act 1991 and our Future Development Strategy and 2024 Long Term Plan.

The National Policy Statement on Urban Development requires us to provide sufficient development capacity for housing and business land. The land is considered to have sufficient development capacity when it is zoned for housing or business use, has development infrastructure to support housing and business, and is commercially feasible and likely to be developed.

The Assessment forecasts how many houses and the amount of business land needed for the next 30 years to meet demand in Palmerston North plus competitiveness margins – something the National Policy Statement on Urban Development requires us to add. It looks at whether we have enough zone-enabled, infrastructure-ready housing and business land and whether it is:

- commercially feasible and reasonably expected to be realised for housing
- suitable in terms of location and site size for business sectors

## Housing

For housing, Palmerston North is projected to need 9,883 homes over the next 30 years, including competitiveness margins. The projected demand for homes in the short, medium, and long term is:

- 983 homes in the short term (within the next 3 years)
- 3,010 homes in the medium term (between 3 – 10 years from now)
- 5,891 homes in the long term (between 10 – 30 years from now)

We have looked at where homes have been built in the city and household size projections over the next 30 years to estimate where demand will be located and the types of homes – standalone or attached – our residents may want. We have estimated over the short, medium and long term the following demand:

	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	30 year total
<b>Housing location</b>				
<b>Greenfield</b>	393	1,505	3,240	5,138
<b>Infill</b>	541	1,354	2,357	4,251
<b>Rural/ rural-residential</b>	49	150	295	494
<b>Housing type</b>				
<b>Standalone dwelling</b>	865	2,588	4,595	8,048
<b>Attached dwelling</b>	118	421	1,296	1,835

We must examine our housing land and whether it is plan-enabled, infrastructure-ready, commercially feasible, and reasonably expected to be realised. We did so and found the following:

In the following short term, we have 2,053 homes that meet these criteria, and they are in the following locations:

- Infill – 1,408
- Greenfield – 528
- Rural/Rural-Residential - 117

In the medium term, we have 5,757 homes that meet these criteria, and they are in the following locations:

- Infill – 3,238
- Greenfield – 2,246
- Rural/Rural-Residential - 273

In the long term, we have 10,883 homes that meet these criteria, and they are in the following locations:

- Infill – 3,238
- Greenfield – 6,865
- Rural/Rural-Residential – 780

When comparing our housing demand and our supply that is plan-enabled, infrastructure-ready, and feasible and reasonably expected to be realised housing land, we have enough development capacity in the short, medium and long term to meet demand.

We must progress District Plan changes to rezone land for residential use and intensification to ensure we have enough housing to meet demand. Delivering development infrastructure will be critical to bringing our greenfield residential areas online.

Finally, the National Policy Statement requires us to insert housing bottom lines into our District Plan as soon as practicable after this Housing and Business Development Capacity Assessment is publicly available. Horizons Regional Council must also insert them into their regional policy statement. Our housing bottom lines are:

Short-medium term <i>within the next 10 years</i>	Long term <i>between 10 and 30 years</i>
<b>3,993</b>	<b>5,891</b>
includes an additional margin of 20%	includes an additional margin of 15%

## Business Land

For business land, we have projected there will be demand for a total of 279.6 hectares of business land over the next 30 years. This figure includes competitiveness margins. When broken down into the short, medium and long term, this means there will be demand for:

- 24.5 hectares in the short term
- 71.2 hectares in the medium term
- 184.0 hectares in the long term

When broken down into demand from the different business sectors. The projected demand for floor area and land from each sector is as follows:

Business Sector	Short term		Medium term		Long term		30 Year Total	
	Floor area (m <sup>2</sup> )	Land area (ha)	Floor Area (m <sup>2</sup> )	Land area (ha)	Floor area (m <sup>2</sup> )	Land area (ha)	Floor area (m <sup>2</sup> )	Land area (ha)
Small & medium industrial	34,264	9.1	95,527	24.5	216,481	50.8	346,271	84.4
Large floor plate industrial	59,688	13.9	177,430	40.7	515,959	114.7	753,077	169.3
Accommodation	-	0.0	4,566	0.4	15,984	1.2	20,550	1.5
Small & medium retail (pedestrian-oriented retail)	-	0.0	-	0.0	43,856	3.8	43,856	3.8
Large format retail (vehicle-oriented retail)	3,540	0.6	13,427	2.4	33,030	5.5	49,997	8.5
Commercial office	-	0.0	71	0.0	32,984	0.7	33,055	0.7
Commercial services	4,181	0.8	16,079	3.2	39,672	7.4	59,931	11.4
<b>Total</b>	<b>101,672</b>	<b>24.5</b>	<b>307,099</b>	<b>71.2</b>	<b>897,966</b>	<b>184.0</b>	<b>1,306,738</b>	<b>279.6</b>

We looked at our plan-enabled business land and infrastructure-ready business land, and found we have:

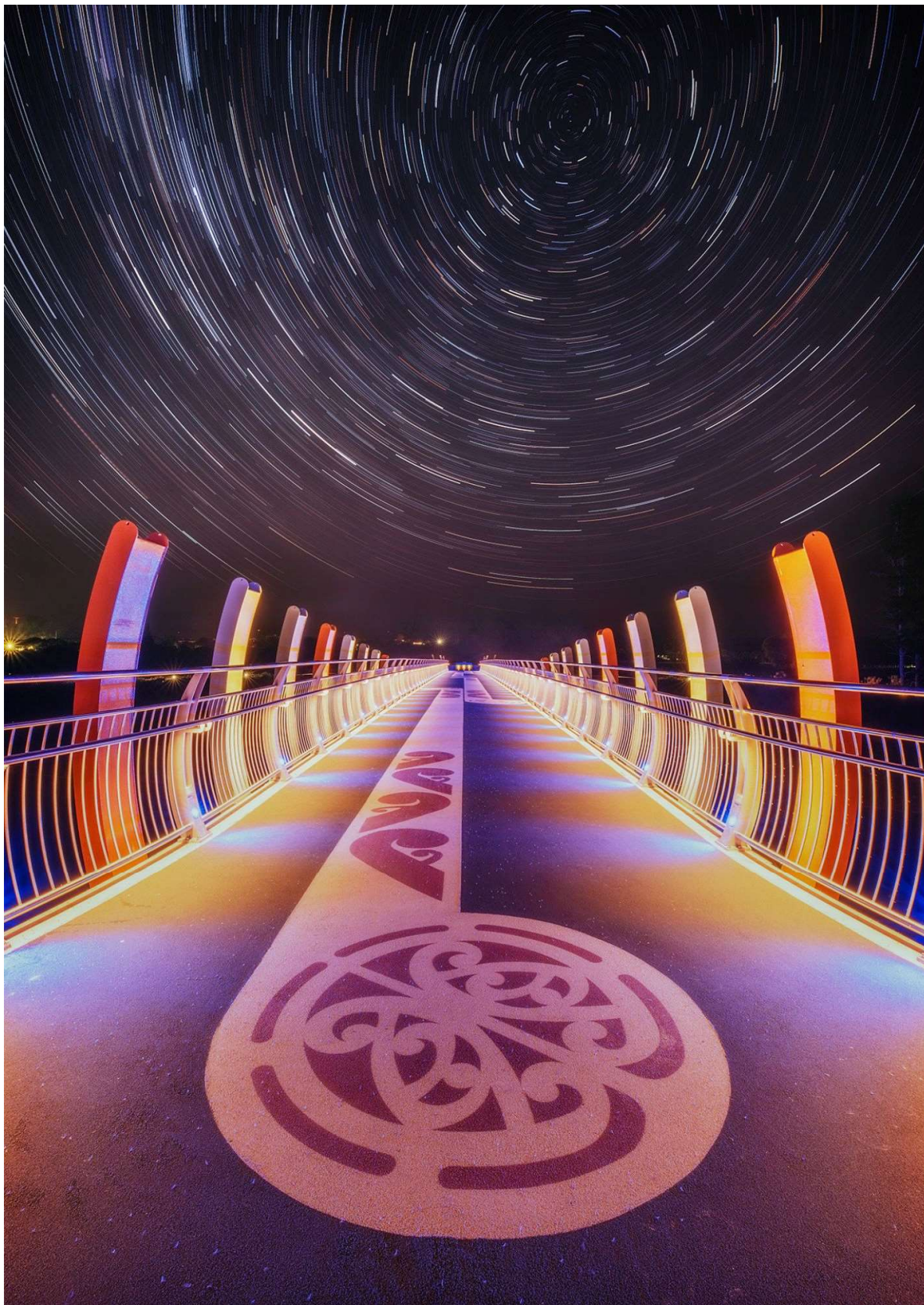
- 631.1 hectares of plan-enabled and infrastructure-ready business land in the short term
- 94.4 hectares in the medium term
- 288 hectares in the long term

To determine suitability, we looked at where business sectors are currently located in our business and industrial zones and vacant land across the zones. We found that the business land we have identified across the short, medium and long term is suitable in terms of site size and location.

Based on our demand projections and our plan-enabled business land, infrastructure readiness and suitability, we have found that Palmerston North has sufficient development capacity to meet the projected demand for business land over the next 30 years.

We will need to monitor land ownership rates, the effect of residential rezonings, and how business land is being developed and redeveloped as they present risks to meeting demand. We will also need to progress with Te Utanganui to increase industrial land supply to meet demand and support further business land choices in the district.





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## Appendices

Appendix 1 – Our Economic Overview

Appendix 2 – Fresh Info Palmerston North Commercial Land Assessment - August 2023

Appendix 3 – Telfer Young Palmerston North Commercial Market Survey 2022 – December 2022

# Terms and Abbreviations

Terms and abbreviations used in this report are:

Additional infrastructure	<p>Has the same meaning in the National Policy Statement on Urban Development 2020, which is:</p> <ul style="list-style-type: none"> <li>(a) public open space</li> <li>(b) community infrastructure as defined in section 197 of the Local Government Act 2002</li> <li>(c) land transport (as defined in the Land Transport Management Act 2003) that is not controlled by local authorities</li> <li>(d) social infrastructure, such as schools and healthcare facilities</li> <li>(e) a network operated for the purpose of telecommunications (as defined in section 5 of the Telecommunications Act 2001)</li> <li>(f) a network operated for the purpose of transmitting or distributing electricity or gas</li> </ul>
Business land	<p>Has the same meaning in the National Policy Statement on Urban Development 2020, which is:</p> <p>land that is zoned, or identified in a Future Development Strategy or similar strategy or plan, for business uses in urban environments, including but not limited to land in the following:</p> <ul style="list-style-type: none"> <li>• any industrial zone</li> <li>• the commercial zone</li> <li>• the large format retail zone</li> <li>• any centre zone, to the extent it allows business uses</li> <li>• the mixed use zone, to the extent it allows business uses</li> <li>• any special purpose zone, to the extent it allows business uses</li> </ul> <p>For Palmerston North, our business land is:</p> <ul style="list-style-type: none"> <li>• Airport Zone</li> <li>• Industrial Zone</li> <li>• North East Industrial Zone</li> <li>• Inner Business Zone</li> <li>• Outer Business Zone</li> <li>• Fringe Business Zone</li> <li>• Local Business Zone</li> </ul>

Competitiveness margins	<p>The competitiveness margins as required by the National Policy Statement on Urban Development:</p> <ul style="list-style-type: none"> <li>• 20% in the short term</li> <li>• 20% in the medium term</li> <li>• 15% in the long term</li> </ul>
Development capacity	<p>the capacity of land to be developed for housing or for business use, based on: the zoning, objectives, policies, rules, and overlays that apply in the relevant proposed and operative RMA planning documents; and the provision of adequate development infrastructure to support the development of land for housing or business use</p>
Development infrastructure	<p>to the extent they are controlled by a local authority or council-controlled organisation (as defined in section 6 of the Local Government Act 2002):</p> <ul style="list-style-type: none"> <li>• network infrastructure for water supply, wastewater, or stormwater</li> <li>• land transport (as defined in section 5 of the Land Transport Management Act 2003)</li> </ul>
Feasible	<ul style="list-style-type: none"> <li>• for the short term or medium term, commercially viable to a developer based on the current relationship between costs and revenue</li> <li>• for the long term, commercially viable to a developer based on the current relationship between costs and revenue, or on any reasonable adjustment to that relationship</li> </ul>
Greenfield	<p>Refers to housing areas on the edges of the City on land that has been rezoned or is identified for future rezoning to residential.</p>
GDP	Gross Domestic Product
Ha	Hectares
HBA	Housing and Business Development Capacity Assessment
Housing Capacity Assessment	Our Housing Capacity Assessment published in 2021
Infill	<p>Refers to housing within our existing urban environments, and when referring to infill dwellings, it includes dwellings, multi-unit and minor dwellings within our existing urban environments.</p>
Infrastructure-ready	<p>Has the same meaning in clause 3.4 of the National Policy Statement on Urban Development 2020, which is:</p> <ul style="list-style-type: none"> <li>(d) in relation to the short term, there is adequate existing development infrastructure to support the development of the land</li> <li>(e) in relation to the medium term, either paragraph (a) applies, or funding for adequate development infrastructure to support development of the land is identified in a Long Term Plan</li> </ul>

	(f) in relation to the long term, either paragraph (b) applies, or the development infrastructure to support the development capacity is identified in the local authority's infrastructure strategy (as required as part of its Long Term Plan).
Long term	Between 10 and 30 years
Medium term	Between 3 and 10 years
Plan-enabled	<p>Has the same meaning in clause 3.4 of the National Policy Statement on Urban Development 2020, which is:</p> <p>(a) in relation to the short term, it is on land that is zoned for housing or for business use (as applicable) in an operative District Plan</p> <p>(b) in relation to the medium term, either paragraph (a) applies, or it is on land that is zoned for housing or for business use (as applicable) in a proposed District Plan</p> <p>(c) in relation to the long term, either paragraph (b) applies, or it is on land identified by the local authority for future urban use or urban intensification in an FDS or, if the local authority is not required to have an FDS, any other relevant plan or strategy.</p> <p>Land is zoned for housing or for business use (as applicable) only if the housing or business use is a permitted, controlled, or restricted discretionary activity on that land.</p>
Planning decision	<p>a decision on any of the following:</p> <ul style="list-style-type: none"> <li>• a regional policy statement or proposed regional policy statement</li> <li>• a regional plan or proposed regional plan</li> <li>• a District Plan or proposed District Plan</li> <li>• a resource consent</li> <li>• a designation</li> <li>• a heritage order</li> <li>• a water conservation order</li> <li>• a change to a plan requested under Part 2 of Schedule 1 of the Act</li> </ul>
RMA planning document	<ul style="list-style-type: none"> <li>• a regional policy statement</li> <li>• a regional plan</li> <li>• a District Plan</li> </ul> <p>In our case, our planning document is the Operative Palmerston North District Plan</p>
Rural/rural-residential	Refers to land in our Rural Zone and Rural-Residential Overlay, which consists of lifestyle blocks and rural land.
Short term	Within the next 3 years
Short-medium term	Within the next 10 years

StatsNZ	Statistics New Zealand Tatauranga Aotearoa
The 2024 Long Term Plan	Our upcoming 10-Year Plan
The Act	The Resource Management Act 1991
The Assessment	This 2023 Housing and Business Development Capacity Assessment
The Long Term Plan	Palmerston North City Council's 10-Year Plan 2021-2031
The Policy Statement	National Policy Statement on Urban Development (2020)





# Introduction

Under the National Policy Statement on Urban Development 2020 (The Policy Statement), Palmerston North City Council is identified as a tier 2 local authority. The Policy Statement identifies the city of Palmerston North as a tier 2 urban environment. Tier 2 local authorities such as us must prepare a Housing and Business Development Capacity Assessment (The Assessment) for their tier 2 urban environment every three years. This is our three-yearly Housing and Business Development Capacity Assessment.

The purpose of a Housing and Business Development Capacity Assessment is to provide information on the demand and supply of housing and business land in Palmerston North. A further purpose of the Assessment is to inform planning documents under the Resource Management Act 1991 (The Act), our Future Development Strategy (The Strategy) and 2024 Long Term Plan.

The Assessment quantifies the development capacity that is sufficient to meet expected housing and business demand over the short term (within the next 3 years), medium term (between 3-10 years), and long term (between 10 – 30 years).

Our assessment is in two parts –Housing and Business – the housing part includes:

- Information about our current housing context, including construction trends, households in the district and our district planning context
- Our analysis of our housing market
- Our estimate of housing demand over the short, medium and long terms
- Our assessment of our housing development capacity over the short, medium and long terms, including what is plan-enabled, infrastructure-ready, commercially feasible and reasonably expected to be realised
- Our assessment of whether we have sufficient development capacity for housing

The business part includes:

- Information about our current business land, including construction trends, vacancy rates, district planning context and projects and strategies that will influence our business land demand and supply
- Our estimate of business land demand over the short, medium and long terms
- Our assessment of our business land development capacity over the short, medium and long terms, including what is plan-enabled, infrastructure-ready and suitable for our business sectors
- Our assessment of whether we have sufficient development capacity to meet the estimated demand for business land.

Before Part 1, we give an overview of our obligations under the Policy Statement as part of preparing this Assessment and our methodology, inputs and assumptions to meet those requirements. Following this, we give an overview of Palmerston North district's relevant economic indicators and projected population growth. We then describe the engagement we have undertaken as part of preparing the Assessment.

Following these upfront sections, the Assessment breaks into Parts 1 and 2.



# Methodology, Inputs and Assumptions

The Policy Statement contains several different requirements that our Assessment needs to meet. This section outlines these requirements and how we have produced the Assessment in line with them. It also states where each requirement is dealt with in the Assessment.

## **Our obligations when preparing a Housing and Business Development Capacity Assessment**

Clause 3.19(1) of the Policy Statement says we must prepare and make publicly available a Housing and Business Development Capacity Assessment every three years in time to inform the next Long Term Plan. We last released our assessment in 2019. This Assessment has been three years since then, and our next Long Term Plan is being drafted for consultation in 2024.

Clause 3.19(2) says our assessment must apply at a minimum to the relevant tier 2 urban environment (Palmerston North City in our case). This requires us to assess demand and capacity within the boundaries of Palmerston North City. The clause states that the Assessment may apply to any wider area. Our assessment applies to the entire Palmerston North District, including Longburn, Ashhurst, Linton and Bunnythorpe and our rural environment rather than just Palmerston North City. We have done this because these villages and rural areas are near Palmerston North City; hence, the housing and business markets are considered to be closely related.

## **The purpose of a Housing and Business Development Capacity Assessment and where in our assessment this information is**

Clause 3.20 of the Policy Statement outlines the purpose of Housing and Business Development Capacity Assessments. The purpose is threefold and includes:

- Providing information on the demand and supply of housing and business land in the urban environment and the impact of councils' planning and infrastructure decisions on that demand and supply.
- Informing district and regional planning documents, Future Development Strategies and Long Term Plans
- Finally, quantifying the sufficient development capacity is to meet the expected demand for housing and business land in the short, medium and long terms.

Information on the demand and supply of housing and business land are found in Parts 1 and 2, respectively. The impact of planning and infrastructure decisions on housing and business land demand and supply are found in Parts 1 and 2 of this assessment.

The sufficient development capacity assessments for housing and business land are found in section 6 of Part 1 for housing and section 5 of Part 2 for business land.

#### **Involving development sectors and others in the preparation of the Housing and Business Development Capacity Assessment and how we have done this**

The Policy Statement requires us to seek information and comments from the following people and organisations:

- Expert or experienced people in the development sector
- Providers of development infrastructure and additional infrastructure
- Anyone else with information that may materially affect the calculation of the development capacity.

We have engaged with these people and organisations, and this is detailed in our Engagement section.

#### **When we have included the competitiveness margins**

The Policy Statement requires us to add competitiveness margins over and above the expected housing and business land demand. This is to support choice and competitiveness in housing and business land markets. The competitiveness margins required by the Policy Statement are:

- 20% in the short term (within the next 3 years. Our short term period will begin in 2024, in line with our projections' start date.
- 20% in the medium term (between 3 and 10 years)
- 15% in the long term (between 10 and 30 years)

In our Assessment, we have made it clear where we are talking about demand only and where we are talking about demand plus the competitiveness margins.

### **Housing Assessment Methodology, Inputs and Assumptions**

The following sections set out our methodology, inputs and assumptions to meet the requirements in the Policy Statement for the housing portion of the Assessment. The housing portion of the Assessment is found in part 1.

#### **1.1 Analysing the housing market and the impact of planning on housing**

Clause 3.23 of the Policy Statement sets out several requirements relating to analysing the housing market and the impact of planning when preparing the Assessment. These requirements require us to:

- Analyse how planning decisions and the provision of infrastructure affect the affordability and competitiveness of the local housing market

- Analyse how well the current and likely future demands for housing by Māori and different groups in the community (such as older people, renters, homeowners, low-income households, visitors, and seasonal workers) are met, including the demand for different types and forms of housing (such as for lower-cost housing, papakāinga)

The Policy Statement says the analysis required must be informed by market indicators, including:

- Indicators of housing affordability, housing demand, and housing supply
- Information about household incomes, housing prices, and rents
- Price efficiency indicators

Section 3 of Part 1 of the Assessment analyses how planning decisions and infrastructure provision affect affordability and competitiveness. We looked at national and local data relating to house prices, rental prices, household incomes, and price efficiency indicators to determine whether our planning decisions and infrastructure provision affect housing affordability and the competitiveness of the local housing market.

To determine how well the current and likely future demands for housing by Māori and other groups are met, we talked to Rangitāne o Manawatū and Te Tihi about their housing needs. We looked at population and household projections for Māori and other groups, our current housing stock, and historical building consent trends to determine whether their needs would be met.

### 1.2 Assessing housing demand

Clause 3.24 requires our Assessment to include a housing demand assessment that meets several requirements. The table below sets out these requirements, our method for meeting them, and where it can be found in the Assessment.

**Table 1 National Policy Statement on Urban Development Clause 3.24 requirements and our method**

<p>(1) Every HBA must estimate, for the short term, medium term, and long term, the demand for additional housing in the region and each constituent district of the tier 1 or tier 2 urban environment:</p> <p>(a) in different locations; and</p> <p>(b) in terms of dwelling types.</p>	<p>Our demand estimates are found in section 4 of this assessment. The locations and dwelling types are also included in this section.</p> <p>We have estimated demand for dwellings based on population and household projections for the next 30 years.</p> <p>We have considered projected age, ethnicity, household size and type, and historic building and resource consent data to estimate where demand will be and for what type of housing.</p>
<p>(2) Local authorities may identify locations in any way they choose</p>	<p>We have identified locations as 'greenfield', 'infill', and 'rural/rural-residential':</p>

	<p>Infill is within our existing urban environment, and when we talk about infill housing types, this includes multi-unit and minor dwellings.</p> <p>Greenfield is on the city's edges on land that has been rezoned or planned for residential use.</p> <p>Rural/rural residential is land in our Rural Zone and Rural-Residential Overlay.</p> <p>We have done this because our resource and building consent data can be spatially defined into these categories, and we can see demand trends in these locations over time.</p>
(3) Local authorities may identify the types of dwellings in any way they choose but must, at a minimum, distinguish between standalone dwellings and attached dwellings.	<p>We have identified types as standalone and attached. To estimate the demand for each, we looked at the number of standalone and multi-unit dwellings. Multi-unit dwellings have been used as a proxy for attached demand as they are attached 80% of the time. We have not been able to capture the number of attached housing built outside of multi-unit developments, so our demand estimates for attached housing could be understated.</p>
(4) The demand for housing must be expressed in terms of numbers of dwellings.	<p>Our demand assessment expresses demand in terms of the number of dwellings.</p>
<p>(5) Every Housing and Business Development Capacity Assessment must:</p> <p>(a) set out a range of projections of demand for housing in the short term, medium term, and long term; and</p> <p>(b) identify which of the projections are the most likely in each of the short term, medium term, and long term; and</p> <p>(c) set out the assumptions underpinning the different projections and the reason for selecting the most likely; and</p> <p>(d) if those assumptions involve a high level of uncertainty, the nature and potential effects of that uncertainty.</p>	<p>Our range of projections for the short, medium, and long term are discussed in section 4.1 of Part 1 of this Assessment. They involve projecting demand for houses based on low, base, and high growth population and household scenarios with our Hybrid Model.</p> <p>We have identified our Hybrid Model projections as the most likely demand projection. The model has been prepared by Palmerston North City Council and is based on the Statistics New Zealand population projections released in April 2023 and the Infometrics medium growth scenario for 2024-2054. The reason why a Hybrid Model has been used is because of the conservative view applied by Infometrics on both net international migration and labour force growth. The outcomes for 2022 and 2023 indicate a much higher growth scenario than that envisaged by Infometrics. Therefore, the Statistics NZ high population projection has been employed as a starting point, with the Infometrics medium growth scenario (annual percentage growth) applied over the 30-year planning period.</p>

	<p>Assumptions underpinning the model are found in section 4.1.</p> <p>None of our assumptions involve high levels of uncertainty. Nonetheless, we have flagged our assumptions throughout the Assessment.</p>
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### 1.3 Assessing housing development capacity

We are also required, under clause 3.25 of the Policy Statement, to quantify the housing development capacity for housing in the district that is:

- plan-enabled; and
- plan-enabled and infrastructure-ready; and
- plan-enabled, infrastructure-ready, commercially feasible and reasonably expected to be realised.

It is worth noting that ‘plan-enabled’, ‘infrastructure-ready’ and ‘feasible and reasonably expected to be realised’ are all defined in the Policy Statement. More details on the definitions are found in the terms and abbreviations section at the start of this Assessment.

Clause 3.25(2) requires the ‘development capacity’ to be stated as the number of dwellings in different locations, including in new and existing areas, and of different types, including standalone dwellings and attached dwellings. We have quantified it following this: locations are greenfield, infill or rural/rural residential. For types, our District Plan enables a wide variety of housing types as permitted up to restricted discretionary activities, so we have not distinguished types in our development capacity assessments.

Our housing development capacity assessment is in section 5 of Part 1 of this Assessment.

### 1.4 Estimating what is commercially feasible and reasonably expected to be realised

Our Assessment is required by the Policy Statement to estimate what is commercially feasible and reasonably expected to be realised as part of our development capacity assessment. Clause 3.26 of the Policy Statement states that we may use any appropriate method but must outline and justify the methods, inputs, and assumptions used to arrive at the estimates.

Our commercially feasible and reasonably expected to be realised assessment is contained in section 5.4.5 of Part 1 of this Assessment.

### 1.5 Assessing sufficient development capacity for housing

Finally, for the last part of the housing-based requirements for a Housing and Business Development Capacity Assessment, clause 3.27 of the Policy Statement requires us to assess whether we have enough development capacity to meet housing demand. The requirements for doing so are set out in the table below, along with how we have met them and where they can be found in the Assessment.

Table 2 National Policy Statement on Urban Development Clause 3.27 requirements and our method

(1) Every HBA must clearly identify, for the short term, medium term, and long term, where there is sufficient development capacity to meet demand for housing in the region and each constituent district of the tier 1 or tier 2 urban environment.	Whether we have sufficient development capacity to meet demand from the short to the long term is stated in section 6 of Part 1 of the Assessment. We have only assessed the development capacity and demand in the district.
(2) The requirements of subclause (1) must be based on a comparison of:  (a) the demand for housing referred to in clause 3.24 plus the appropriate competitiveness margin; and  (b) the development capacity identified under clause 3.25.	The comparison is found in section 6 of the Assessment. Points (a) and (b) can be found in sections 8 and 9.
(3) If there is any insufficiency, the HBA must identify where and when this will occur and analyse the extent to which RMA planning documents, a lack of development infrastructure, or both, cause or contribute to the insufficiency.	<p>Our sufficiency assessment is found in section 6 of this Assessment.</p> <p>Our analysis of the RMA planning documents has included a look at our operative zoned areas, future residential growth areas, and demand to determine whether the areas available for housing are sufficient. We have also looked at feedback from our development community to determine whether any anecdotal suggestions of planning documents in the district restrict our housing supply.</p> <p>For development infrastructure, we have looked at what infrastructure is required to bring residential growth areas online and whether the timing of infrastructure provision meets the housing need from demand in the short, medium, and long term.</p>

## Business Land Assessment Methodology, Inputs and Assumptions

The following sections set out our methodology, inputs and assumptions to meet the requirements in the Policy Statement for the business land portion of a Housing and Business Development Capacity Assessment.

### 1.6 Assessing business land demand

Clause 3.28 of the Policy Statement requires us to estimate for the short, medium and long term the demand, in hectares or floor areas, from each business sector for additional business land in the region and tier 2 urban environment (Palmerston North City).

We have estimated demand in floor areas and then converted it to hectares based on observable and assumed floor area to land requirements for each business sector. We have estimated demand across the entire Palmerston North district and have not done so for the Manawatu-Whanganui region, as Palmerston North City is the only tier 2 urban environment within it.

Our demand assessment for business land can be found in section 3 of Part 2 of this Assessment.

The Policy Statement says we can identify business sectors in any way we choose but must, at a minimum, distinguish between sectors that would use land zoned for commercial, retail, or industrial uses. We've identified business sectors as follows:

- Small & medium industrial
- Large floor plate industrial
- Accommodation
- Small & medium retail (pedestrian-orientated retail)
- Large format (vehicle-oriented) retail
- Commercial office
- Commercial services (combination of light industrial and services for businesses)

Definitions for each sector can be found in section 1 of part 2.

Clause 3.28(5) of the Policy Statement sets out the requirements for our projections. They are replicated in the table below, along with how our projections have responded to these requirements and where they can be found in this Assessment.

**Table 3 National Policy Statement on Urban Development Clause 3.28 requirements and our method**

(a) set out the most likely projection of demand for business land by business sector in the short term, medium term, and long term	We have projected demand based on the relationship between population growth and commercial floor area. In short, as our population grows, we have projected what this will mean for commercial floor area requirements.  We projected three different scenarios – a low, base, and high population growth and land demand scenario. The most likely projection is the base scenario, using the population growth projections that Palmerston North City Council adopted in 2023.
(b) set out the assumptions underpinning that projection	Our assumptions underpinning the projection can be found in our Projections Report attached to this Assessment as Appendix 2.
(c) if those assumptions involve a high level of uncertainty, the nature and potential effects of that uncertainty	We do not consider our assumptions to involve a high level of uncertainty. They are based on observable trends in our district and New Zealand's

	business land development market. Nonetheless, the Projections Report sets out the standard uncertainty that projections involve.
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### 1.7 Assessing business land development capacity

The Policy Statement, in clause 3.29, requires our Assessment to include a business land development capacity assessment. We must estimate the following, for the short term, medium term, and long term, for the district:

- the development capacity (in terms of hectares or floor areas) to meet expected demand for business land for each business sector, plus the appropriate competitiveness margin; and
- of that development capacity, the development capacity that is:
  - plan-enabled; and
  - plan-enabled and infrastructure-ready; and
  - plan-enabled, infrastructure-ready, and suitable for each business sector.

Our business land development capacity assessment is in section 4 of Part 2 of this Assessment. We have estimated development capacity across the Palmerston North district but not the region, as Palmerston North is the only tier 2 urban environment in the Manawatū-Whanganui region. We have expressed this in floor area and converted it to hectares to add the competitiveness margins.

Clause 3.29(2) says we may define what it means for development capacity to be “suitable” in any way we choose. Still, suitability must, at a minimum, include suitability in terms of location and site size. We have determined suitability by looking at where business sectors are currently located in zones of the city and their floor area requirements compared to our Commercial Growth Strategy and District Plan, which directs particular business sectors to different zones in the City.

### 1.8 Assessing sufficient development capacity for business land

Finally, for the business land portion of Housing and Business Development Capacity Assessments, clause 3.30 of the Policy Statement requires us to include an assessment of sufficient development capacity for business land.

It requires us to clearly identify whether there is sufficient development capacity to meet the demand for business land in the district for the short, medium, and long term. This assessment must be based on comparing the demand for business land plus the appropriate competitiveness margins (see section 3) and the development capacity identified through clause 3.29 of the Policy Statement (see section 4).

The sufficient development capacity assessment is contained in section 5 of this Assessment. If there is any insufficiency found from the development capacity assessment required under clause 3.30, clause 3.30(3) requires us to identify where and when this will occur and analyse



the extent to which RMA planning documents, a lack of development infrastructure, or both, cause or contribute to the insufficiency. We have not identified an insufficiency, so we have not completed this analysis.

# Our Population

As of June 2022, we had a population of 90,400 people. The distribution of Palmerston North’s population by geographic area is shown in **Table 4** below.

**Table 4 Estimated Palmerston North population by geographic area with the district (2022) <sup>1</sup>**

	Annual population estimate			
	1996	2012	2018	2022
Main urban area	70,800	75,300	79,600	81,200
Minor urban area (Ashhurst)	2,530	2,710	3,030	3,240
Rural settlements (Bunnythorpe & Longburn)	830	1,090	1,070	1,110
Other rural	2,960	4,230	4,560	4,770
Palmerston North District - Total	77,100	83,300	88,300	90,400
Main urban area share of population	91.8%	90.4%	90.1%	89.8%
Urban area (main and minor) share of population	95.1%	93.6%	93.6%	93.4%

<sup>1</sup> Source: Stats NZ Tatauranga Aotearoa

Palmerston North district's key economic statistics are summarised in **Table 5**. More detail can be found in our Economic Overview attached to this Assessment as Appendix 1.

**Table 5 Key population and economic statistics for Palmerston North.**

	Key statistics	Annual % change
Population estimate (as at 30 June 2022)	90,400	0
GDP (current prices) – year ended December 2022	\$6.32 billion	+2.6%
Number of employees (as at February 2022)	56,956	+2.2%
Annual earnings (salaries, wages, and self-employment) – year ending March 2022	\$3,508 million	7.5%
Electronic card retail spending – year ended December 2022	\$1,451 million	7.3%
Tourism expenditure – year ending December 2022	\$273 million from domestic visitors \$18 million from international visitors	4.2% 75.6%
City land area	39,500 hectares	0

### 1.1 Population projections

**Table 6** shows Palmerston North's long-term population projections from 2023 until 2054. These projections have been selected as the most likely in the short, medium and long term. Further information on why these projections have been selected can be found in section 4.1 of Part 1.

**Table 6 Long term population projections for Palmerston North (2023 - 2054)**

	2023	2024	2029	2034	2039	2044	2049	2054
<b>Palmerston North</b>	94,400	95,139	99,383	103,980	107,977	111,605	114,701	117,280
<b>Annual change</b>		+739	+831	+884	+859	+762	+672	+567

The 2023 population growth model projects a slightly lower long term growth scenario than the previous model. A comparison of the two models is shown in Figure 1 below. By 2053, the 2021 model projected a population of 118,124. This compares with a population of 116,789 in 2053 by the 2023 model. This change will affect how many houses will be required to meet demand compared to our previous 2021 Housing Capacity Assessment.

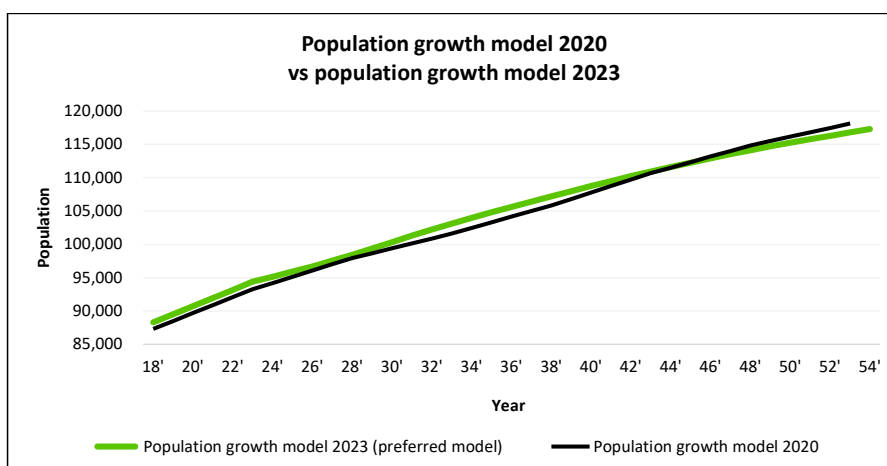


Figure 1 Population projection comparisons between 2020 and 2023 models

There are underlying assumptions that have changed between 2020 and 2023 that have impacted the city's population and household growth projections over the short, medium and long term.

The main changes to the assumptions underlying the population projections are:

- National net international migration will fall from the highs of the 2010s due to elevated global competition for labour, stabilising at long term averages of 30,000 per year.
- The regions will pick up a more significant share of international and internal migration due to the ability to work remotely.
- Unemployment is expected to increase due to falling economic activity and demand across New Zealand. This is expected to reduce the number of filled jobs in the city in the short term.
- Population growth from natural increase (births minus deaths) will reduce due to our ageing population.
- The ageing population will increase the number of one-person households in the city.
- A more significant number of Māori and Pasifika families will increase the number of multi-generational and larger households in the city.

### 1.2 Ethnicity projections

The increasing diversity of the Palmerston North population is reflected in the ethnicity projections for 2054:

- Māori populations will increase by 3.6% by 2054.
- Pasifika populations will increase by 1.2% by 2054.
- Asian populations will increase by 5.4% by 2054.

- European will decrease by 10.2% by 2054.

The projected change in the broad ethnicity in Palmerston North to 2054 is illustrated in Figure 2 below.

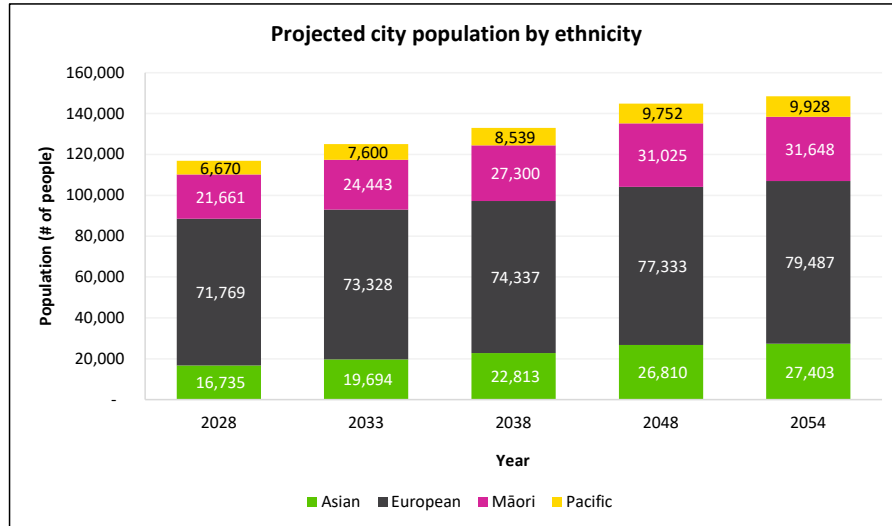


Figure 2 Projected city population by ethnicity

### 1.3 Household size projections

The combined changes in ethnicity and age influence the average household size of dwellings in the city. Figure 3 below compares the average household size from the 2020 projections (our previous population projection model) with the 2023 projections of average household size.

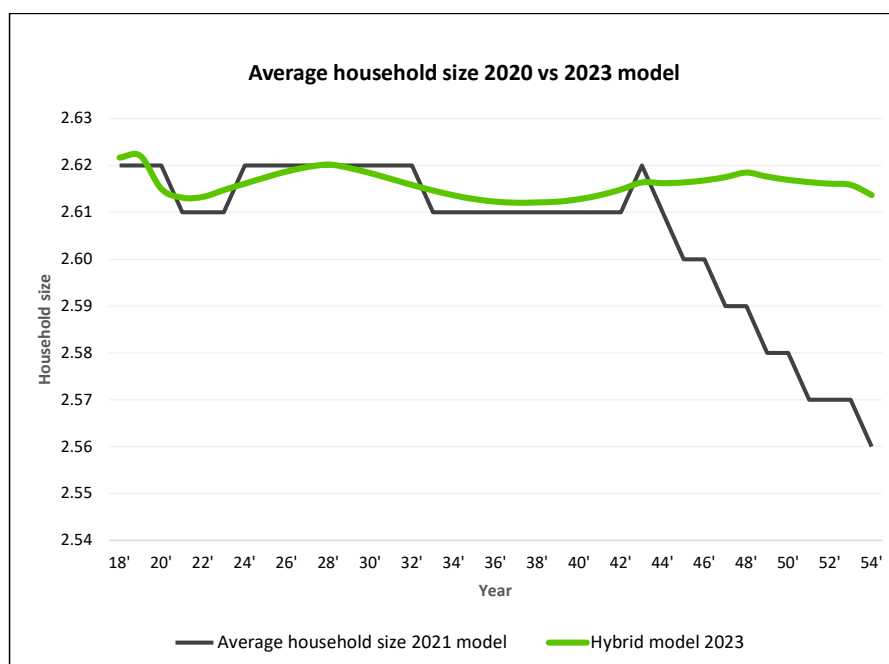


Figure 3 Average projected household size under the 2020 and 2023 model

The increase in the average household size projected over time has driven a slight reduction in the city's overall number of dwellings projected to be developed by 2054 (see Figure 4 below). Specifically, the 2020 household growth model projected a total of 45,750 dwellings in the city in 2053, compared to 43,289 in the 2023 household growth model.

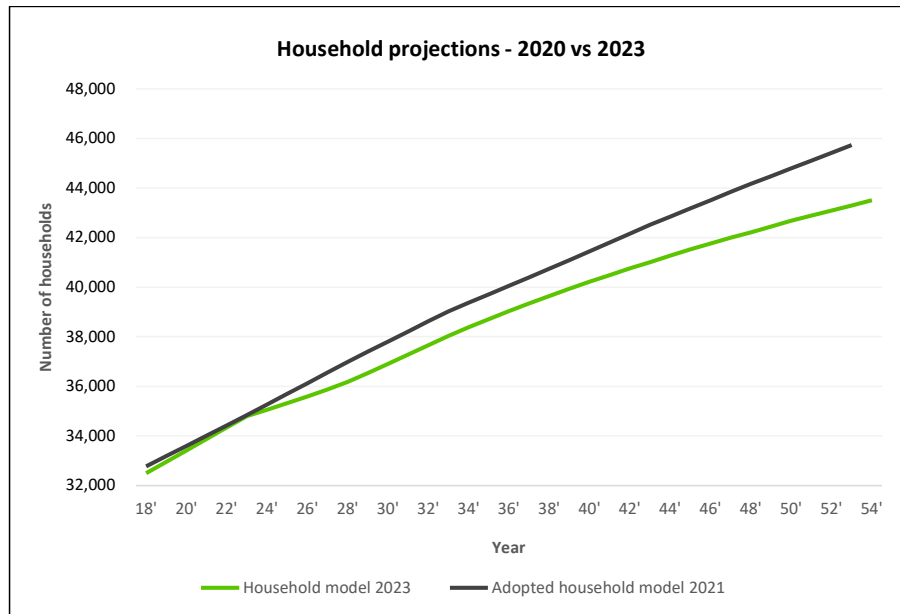


Figure 4 Household Projections 2020 vs 2023 model

The average household size is 2.61 persons. This differs because the 2021 projections assumed a decline in average household hold size to 2.56 by 2053 due to the impacts of an ageing population.

#### 1.4 Family type

The number of families in the city is projected to increase by 27.8% (+7,028) from 2024-2054. Regarding family types and growth over the next 30 years – Two-parent families are projected to increase by 31.1% (+3,294) over the next 30 years. Couples without children are also projected to increase by 23.8% (+2,425) over the next 30 years. One-parent families are expected to increase by 28.7% (+1,309) over the same period.

The number of households is also projected to grow over the next 30 years by 24.1% (+8,451). The projected growth in multi-generational households is reflected in household growth modelling for the city. Family households are the most significant growth component, up 27.8% (+6,823) over the 30 years to 2054. One-person households are expected to increase by 19.1% (+1,551). Other multi-person households are expected to experience some growth to 2054, rising by 3.2% (+77) compared with 2024. Table 7 below shows the projected family type and household type, total households, and average household size out to 2053.

Table 7 Projections for families and households by types

	Family type				Household type				Average household size
Year	Couple without children	Two parents	One parent	Total	Family	Other multi-person	One person	Total households	
<b>2018</b>	9,283	9,536	4,373	<b>23,192</b>	22,516	2,391	7,593	<b>32,500</b>	2.6
<b>2023p</b>	10,118	10,458	4,523	<b>25,099</b>	24,368	2,372	8,061	<b>34,800</b>	2.6
<b>2028p</b>	10,449	11,061	4,712	<b>26,222</b>	25,458	2,383	8,344	<b>36,186</b>	2.6
<b>2033p</b>	10,996	11,722	5,009	<b>27,727</b>	26,920	2,432	8,682	<b>38,034</b>	2.6
<b>2038p</b>	11,446	12,348	5,276	<b>29,070</b>	28,224	2,461	8,958	<b>39,643</b>	2.6
<b>2043p</b>	11,776	13,010	5,519	<b>30,305</b>	29,422	2,423	9,161	<b>41,005</b>	2.6
<b>2048p</b>	12,101	13,507	5,709	<b>31,316</b>	30,404	2,427	9,382	<b>42,213</b>	2.6
<b>2053p</b>	12,510	13,823	5,844	<b>32,176</b>	31,239	2,442	9,607	<b>43,289</b>	2.6

### 1.5 Age projections

With people living longer and easing fertility and birth rates, the proportion of city residents aged over 65 years old is expected to continue to increase to 2054. We project the city's population over 65 years old to increase from 15,179 (16% of the population) in 2023 to 26,638 (22.7% of the city's population) in 2054.

This represents a 75.5% increase in residents aged over 65 years old. This ageing population is defined by the 'baby boom' generation, which started to reach 65 years old in 2011 and is expected to continue to pass 65 years old until 2030.

The projected change in the population of the city over 65 years is shown in Figure 5 below.



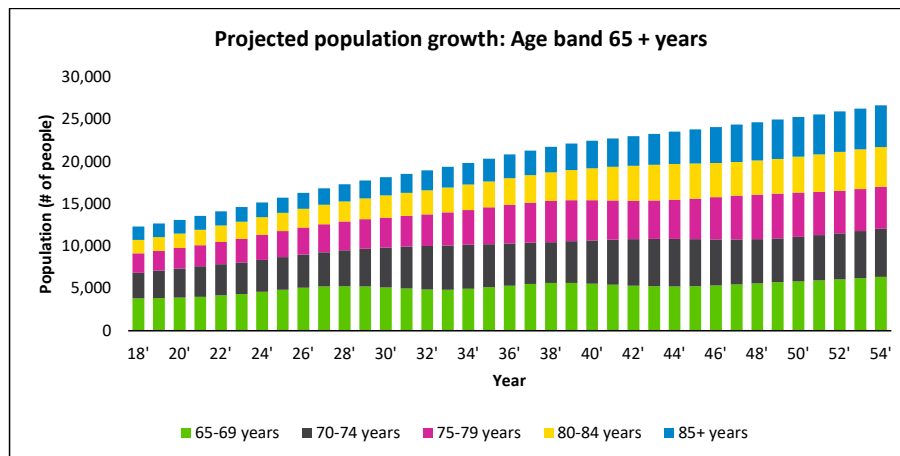


Figure 5 Projected population growth by age

The second largest age group we expect to grow in the city over the next 30 years is the 40-64 age group, projected to grow by 25.5% between 2024 and 2054. This is followed by a 9% increase in people aged 15-39 years and a 4% increase in children aged 0-14.

Table 8 below shows the projected population of each age group until 2054.

Table 8 Projected population by age

	Age 0-14	Age 15-39	Age 40-64	Age 65 and over	All ages
<b>2018</b>	17,218	33,666	25,067	12,349	88,300
<b>2023</b>	18,180	34,978	26,639	14,603	94,400
<b>2024</b>	18,130	35,160	26,669	15,179	95,139
<b>2029</b>	18,007	35,970	27,654	17,753	99,383
<b>2034</b>	18,156	36,046	29,924	19,855	103,980
<b>2039</b>	18,467	36,325	31,056	22,129	107,977
<b>2044</b>	18,604	37,986	31,488	23,527	111,605
<b>2049</b>	18,721	38,466	32,563	24,951	114,701
<b>2054</b>	18,852	38,333	33,457	26,638	117,280

While there are different growth trends, all age groups are expected to increase between 2024 and 2054. Reflecting the relative youth of the city's population, we estimate that people aged 20-24 will still make up the most significant proportion of residents compared to

other 5-year age groups, followed closely by those aged 15-19 years and 35-39 years. This is demonstrated in Figure 6 below.

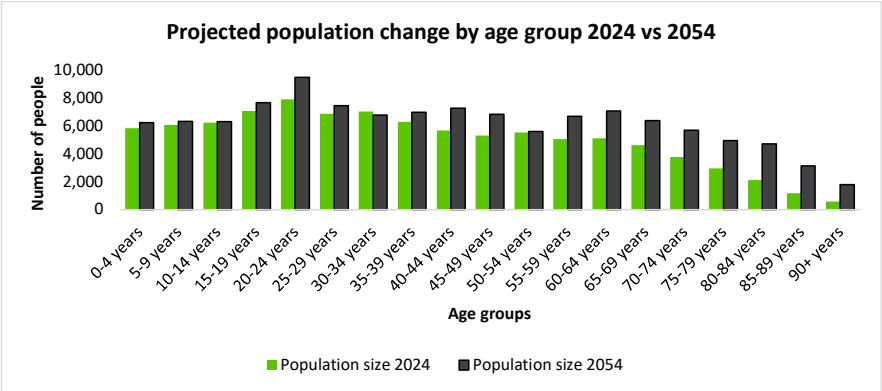


Figure 6 Projected population change by age group (2024 vs 2054)

1.6 Summary – Our population

This projected population growth, increasing diversity, changes in our district’s average household size, and the number of residents in particular age groups mean that demand for the number of houses will increase. It will also change the types of housing our residents want over the next 30 years. As for business land, our commercial footprint is projected to increase with a growing population. We have used these population projections as part of our housing and business land demand assessments.

# Engagement

The Policy Statement requires us to seek information and comments from specific people when preparing a Housing and Business Development Capacity Assessment. This means we need to engage with expert and experienced people in the development sector, providers of development infrastructure and additional infrastructure, and anyone else with information that would affect the calculation of housing and business land supply and demand<sup>2</sup>.

This section explains what engagement work was undertaken to obtain key information and comments from these parties. We have also engaged with Rangitāne o Manawātū and Te Tihi o Ruahine Alliance to understand Māori housing needs and aspirations, including what papakāinga looks like in a Papaioea context.

## 1.1 Engagement with expert and experienced people

We regularly engage with the Palmerston North development community through ‘Build Palmy’, which consists of forums four times a year to present and discuss development-related topics.

We send monthly newsletters to over 250 Build Palmy subscribers with news from the Palmerston North building sector and council-related updates. The purpose of Build Palmy is to keep the development community up to date with Government requirements and issues being observed.

Over May-June 2023, a survey was sent to Build Palmy subscribers. The questions aimed to understand their issues and needs related to housing and business land within the district. The responses showed:

- The industry currently faces challenges meeting stormwater requirements and council processes.
- Rising construction and material costs across all aspects of the industry were also a key challenge.
- They are seeing increasing demand for smaller homes/multi-unit housing and standard family homes.
- There is some emerging demand for housing in the business zones and industry retailers/suppliers in the industrial zone.
- They want to see more land provided for housing within the city, greenfield land, and partnerships with the council, and they would like to see increased resource consent guidance.

<sup>2</sup> Under s3.21 of the National Policy Statement on Urban Development 2020

We know from feedback from our development community that the resource consenting process for multi-unit housing has been difficult to navigate for some. We have heard from them that the consenting process is uncertain, so some avoid it. We are working on a District Plan change to make medium-density housing rules more permissive and prescriptive to address this issue. As developers go through the consenting process and more multi-unit housing is built in the city, we also anticipate a level of familiarity will arise.

Overall, engagement with the development community indicated constraints in housing and business land development rather than any information or comment on future development plans or demand.

#### 1.1.1 Observations from the housing development sector

Through previous engagement with housing development companies, we are observing:

- An increased mix of housing types is being offered for turnkey builds. These opportunities are around larger corner sites with multiple access options or conversion of larger non-residential sites in the Residential Zone.
- Emerging players in the development sector that have a high interest in multi-unit development as land values have made higher yields more attractive. These parties are typically interested in developing around locations close to business zones.
- Some smaller landowners in the Inner and Outer Business Zones have had an interest in previous years in redeveloping their aging commercial properties into mixed-use developments with apartments above their commercial premises. A lot of these opportunities have not yet been commercially viable to proceed with. However, we may see this change as building conditions and land values change to meet the right conditions for development.
- Some large developers in our planned greenfield growth areas are sceptical of the viability of new Local Business Zone areas and whether demand exists for medium-density housing in greenfield growth areas.
- We have had interest from developers who own or are speculating ownership in our western and eastern growth areas, particularly given that these areas host less fragmented blocks of land that can be more readily developed at scale.
- We have had interest from agents representing rural and industrial land owners wanting to explore private plan change requests for standalone housing or multi-unit development.

#### 1.1.2 Observations from the commercial development sector

Through previous engagement with commercial development companies, we are observing:

- Larger development and construction companies, locally and outside the region, are investing in commercial property in the City Centre, particularly heritage-listed property along Church and Main Streets.
- Keen interest in redeveloping large landholdings in the City Centre to provide more high-quality accommodation to support the regional conference and function sector.

- High interest in speculative investment around the Te Utanganui Central New Zealand Distribution Hub to develop land for distribution centres and warehouses.

### 1.2 Engagement with infrastructure providers

We have contacted development and additional infrastructure providers to understand plans and constraints that may impact housing and business land.

These providers were asked for the following information:

- If they could identify any infrastructure issues in the city relating to residential growth or industrial and business development.
- What major infrastructure projects they have planned in the next 1-30 years.
- If they had any District Plan needs, for instance, designations.
- Any other feedback about residential, business, and industrial growth they would like us to know.

We received feedback from the following parties:

**Table 9 Feedback from Infrastructure Providers**

Party	Information received
Powerco	<p>Powerco let us know about their significant projects planned for the Manawātū region, including:</p> <p>A new second Feilding zone substation and 33kV supply are scheduled for 2025.</p> <p>Turitea substation's second 33kV line and transformer upgrade are planned for 2025.</p> <p>A new 11kV Express feeder to the Palmerston North Hospital is scheduled for 2026.</p> <p>The new North East Industrial Zone substation and 33kV supply are planned for 2027.</p> <p>Rebuild Longburn substation scheduled for 2027.</p> <p>Kairanga substation transformer upgrade scheduled for 2027.</p> <p>The new Ashhurst zone substation and 33kV supply are planned for 2030.</p>
KiwiRail	<p>KiwiRail has resolved all appeals for the Regional Freight Hub designation.</p> <p>KiwiRail wishes to retain its existing designations and has no further plans to expand or alter current railway designations within the Palmerston North boundary.</p> <p>KiwiRail seeks that any plan changes involving residential growth near the rail corridor recognise the corridors' regional and national significance. When considering the rezoning of areas, consideration should be given to the health and safety of new lineside residents:</p>

	<p>That new development is set back from rail infrastructure.</p> <p>There are also rules providing for new noise-sensitive activities to be adequately mitigated for noise and vibration effects from railway corridor operations.</p>
Horizons Regional Council	Horizons Regional Council is reviewing its flood modelling for the region, considering heightened concerns regarding the impacts of Cyclone Gabrielle.
Waka Kotahi NZ Transport Agency	<p>Waka Kotahi is highly interested in the Palmerston North Integrated Transport Initiative, a key strategic document that informs growth. Community severance risk is a key concern of Waka Kotahi in relation to the Regional Freight Ring Road.</p> <p>They have a keen interest in how Palmerston North is growing in a way that enables well-functioning urban environments and has an intensification-first preference for growth to manage vehicle emissions.</p> <p>Waka Kotahi notes that stormwater and infrastructure constraints are a particular issue on the city's western side.</p>
Ministry of Education	<p>Whakarongo School is constrained from developing any larger due to infrastructure constraints with three waters.</p> <p>There is existing capacity and expansion opportunity within the schools along the city's western side to adequately service the Kākātangiata Urban Growth Area.</p> <p>The Aokautere Urban Growth Area would provide the necessary local population to warrant investment in a new primary school in the south of the City.</p> <p>Possible future housing demand at Bunnythorpe because Te Utanganui could be serviced through spare capacity at Bunnythorpe School.</p>
Te Whatu Ora – Health New Zealand MidCentral District	Significant investment is planned to construct additional regional health facilities and supporting infrastructure at the Palmerston North Hospital.

### 1.3 Other information holders

There are a range of other information holders within Palmerston North who have information that may affect the calculation of development capacity. Through regular engagements, Build Palmy forums, or feedback on specific housing and business-related District Plan changes with these information holders, we are aware of the following:

- New Zealand Defence Force:
  - Replacement of all accommodation onsite at Linton Army Base is expected to start in 2026 (subject to funding).
  - Investment planned for a large logistics warehouse and high-density accommodation campus on the Ohakea Air Base.
  - Likely to invest in relocatable dwellings to provide 50 new dwellings at Waiouru.
- Retirement village operators:

- We typically expect retirement village operators to show high interest in greenfield growth areas. For instance, private plan change requests in the Napier Road Residential Extension Area, Whakarongo, Kikiwhenua, and Aokautere Residential Areas.
- Kāinga Ora Homes and Communities (Kāinga Ora):
  - Kāinga Ora aims to build 300 dwellings in the City, with 219 of these delivered, in progress or planned for delivery by 2024/25. These developments are primarily a redevelopment of their existing landholdings, clustered mainly in Roslyn, Hokowhitu, Takaro, and Highbury.
  - Redevelopment of their existing landholdings usually occurs at a 1:3 ratio – 3 homes replacing one dwelling on a site. However, some of their landholdings include more significant sites where agglomeration is possible, and more dwellings can be built.
  - Beyond redevelopment of their sites, Kāinga Ora has expressed an interest in acquiring new landholdings for development in other parts of the City. An example is development currently underway in the Fringe Business Zone in North Street.
- Manawātū District Council
  - Demand for industrial land is outstripping serviced land supply.
  - They are comfortable that their commercially zoned land is sufficient to meet demand.
  - Their rural land has significant highly productive land constraints, limiting their ability to fulfil demand for rural residential dwellings.

#### 1.4 Māori

We need to analyse how well Māori are provided for in the current and future housing market and the impact that future planning for housing demand will have on Māori in the city<sup>3</sup>.

We ran a workshop with Rangitāne o Manawātū and Māori housing provider Te Tihi o Ruahine Alliance to discuss challenges iwi and Māori are facing with housing and aspirations for the future. Table 10 details the outcomes of this workshop.

**Table 10 Rangitāne o Manawātū workshop questions and responses**

What we asked	Key Themes
“It’s 2053. Describe your ideal housing and urban development situation for iwi and Māori.”	<p>To have a city grounded in values</p> <p>Te Ao Māori principles and practices are reflected in all areas of the City, and no damage to the environment.</p> <p>Partnership and Commitment</p>

<sup>3</sup> Under s3.23(2) of the National Policy Statement on Urban Development 2020



	<p>Writing the rules as Te Tiriti partners</p> <p>Iwi is leading for Iwi.</p> <p>Tangata whenua has a role to awhi maata waka who chose to make Papaioea their home.</p> <p>Identity is woven through</p> <p>Rangitānenuiarawa (Rangitāne practices and mātauranga knowledge) becomes a seamless part of the city's identity with a strong identity grounded in the landscape.</p> <p>Affordable and accessible</p> <p>Whānau live in homes that meet their needs, are affordable, and have mixed and holistic pathways to homeownership are provided.</p> <p>Places to connect</p> <p>Homes with community spaces for gatherings and to be able to express culture pathways recognising the communal benefits of neighbours and the broader concepts of whanau.</p>
“It's 2053. Describe the worst-case scenario for urban development for iwi and Māori.”	<p>Increased segregation/marginalisation</p> <p>Concentrated areas of marginalised communities, increased homelessness, cultures unable to express themselves, and disconnected communities with no connection to whānau.</p> <p>Homes and neighbourhood environments being less fit for purpose</p> <p>Cookie-cutter homes are not responding to the needs of whānau and other communities, displacement and continued statistical trends of negativity for Māori at a greater level of disparity.</p> <p>Whānau not being able to realise their moemoea of home ownership.</p> <p>Reduced connection and wellbeing</p> <p>Reduction of greenspaces, total loss of whenua awa taio, 'concrete jungle', small homes for large families, unaffordability, low homeownership, increased mental unwellness, ongoing destruction of Wahi tapu and significant sites.</p>
<p>“What does Papakāinga look like to iwi? Draw your ideal Papakāinga.”<sup>4</sup></p> <p>“Who does it serve?”</p> <p>“What does it provide”</p> <p>“Where is it located”</p>	<p>A kaupapa that is supported under the korowai of Rangitāne, particularly for Māori. A recognition that there are other successful communal models for non-Māori as well (e.g. Papaioea Place).</p> <p>Health-supporting, with access to wellbeing services and provides an uplifting wellbeing environment.</p> <p>Whānau achieving their moemoea in housing.</p> <p>Shared spaces and services that homes are oriented towards, with a collective kawa and tikanga that protects these shared spaces.</p> <p>An ara for belonging. Papakāinga have the places to bring people back to their turangawaewae, whether you are a whānau, on your own, or are a visitor. Mahi toi and other expressions of cultural identity feature and reinforce people's belonging.</p>

<sup>4</sup> It is important to note, Papakāinga can differ between different iwi and their needs and is not a one size fits all.

	<p>Sustainability grounded. Connection to natural water, rongoa, maara and a responsible environmental approach secures independence and resilience.</p> <p>Understanding the history of the whenua when building.</p> <p>Leaving as small a footprint on the environment as possible in terms of house design and building.</p>
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Papakāinga principles in a Papaioea context are being incorporated into communities by Rangitāne and Te Tihi. Examples currently include:

- Kāinga Whānau Ora, introducing service support for healthy homes and development independence through maara kai.
- Kāinga Ora undertaking developments through an agreed framework with Rangitāne.
- Tū Ara Ake, an urban papakāinga that supported five whānau to home ownership under shared tikanga. The lessons from that are set to inform their second build.
- Further building of homes under their developed frameworks.

#### 1.4.1 Barriers to providing for Māori housing demand

Some contributors to the risks raised in Table 10 include the rising costs of compliance, the costs for affordable housing providers being equal for private development, and the low awareness of levers for development.

Rangitāne o Manawatū and Te Tihi noted the risks of relying too heavily on average household sizes when describing housing demand. The average household size is currently 2.6 persons per household; however, this does not reflect the observed household sizes for Māori and Pasifika.

Smaller homes are unlikely to provide for whānau who need housing security the most. A breakdown of household data by ethnicity will be achieved once we receive the 2023 New Zealand Census results, which will be after this assessment has been produced.

Papakāinga is provided in the Residential Zone as a discretionary activity. This consenting category could represent a barrier to papakāinga housing being delivered. Māori could develop papakāinga using the multi-unit housing consenting pathway in the District Plan, but this will also be a discretionary activity if not within the areas.

#### 1.5 Other groups in the community

The Policy Statement also requires us to analyse how well other groups in the community are provided for in the current and future housing market and the impact that future planning for housing demand will have on them.

From engaging with our Pasifika Reference Group<sup>5</sup>:

<sup>5</sup> [Community Reference Groups | Palmerston North City Council \(pncc.govt.nz\)](https://pncc.govt.nz/community-reference-groups/)

- They have expressed that they want housing for multi-generational living and larger families as their communities are at risk of overcrowding.
- They have expressed an aspiration to see their community in homes across the city rather than just in one or two neighbourhoods.

From engaging with our Disability Reference Group<sup>5</sup>:

- We understand that existing housing often does not meet disabled people's needs, which can include the need for accessibility features.
- Those suffering from affordability issues struggle to find accessible homes as there is not enough stock of accessible social housing. They are often placed in emergency accommodation for long periods.

From engaging with our Seniors Reference Group<sup>5</sup>:

- They have expressed that homes need to include accessibility features so that seniors can age in place.
- They have observed a common trend with seniors wanting to downsize and age in place. However, they have also identified others wanting an affordable village environment with access to buses and libraries.
- In the migrant community, refugees find home ownership difficult, and it takes a long time to save for a house deposit. They tend to be renters or live in social housing.

#### 1.6 Summary – Engagement

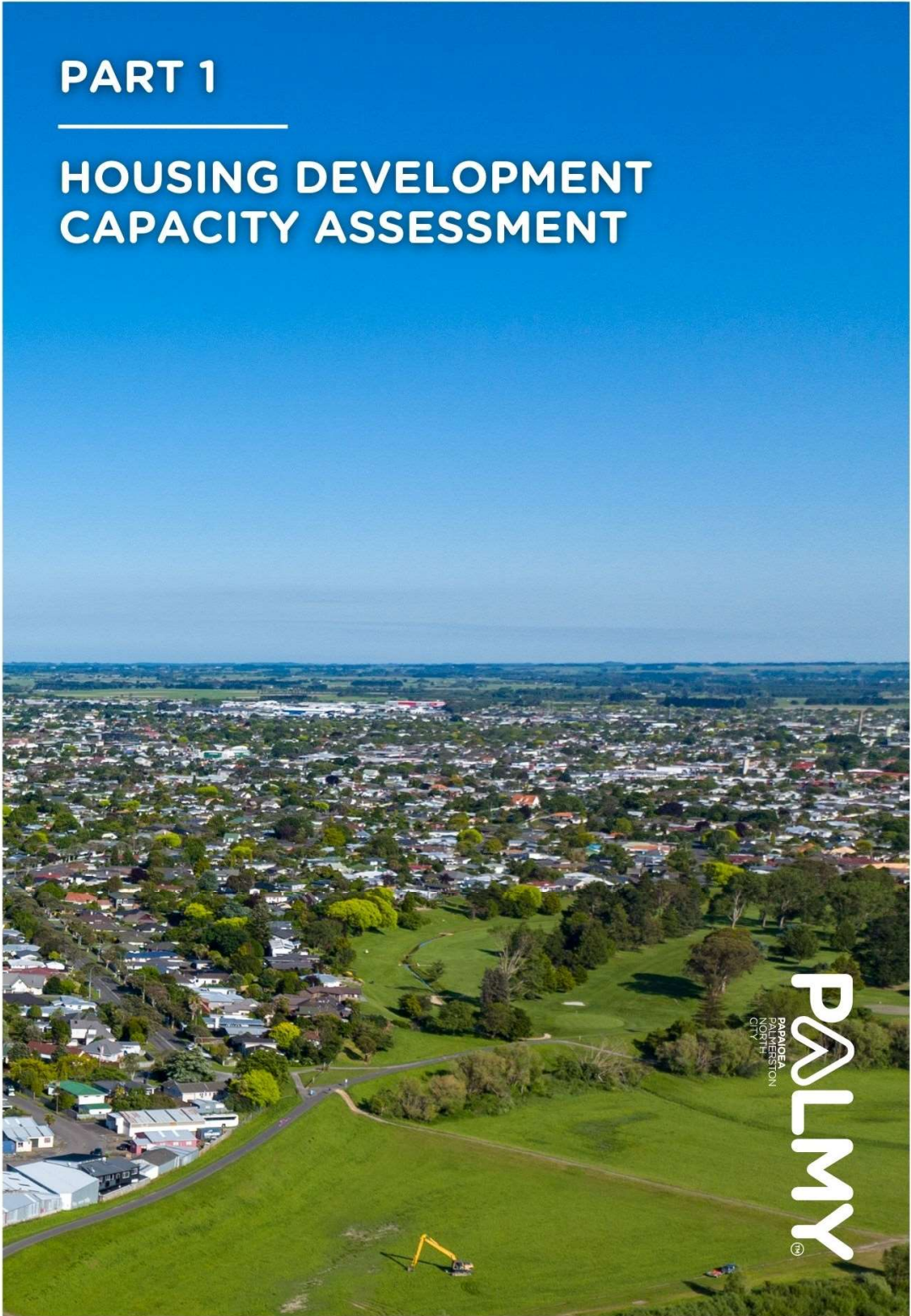
Key considerations that we can draw from recent engagement on housing and business needs are:

- We expect to see an increasing demand for smaller dwellings in the market and an increasing market response from existing and emerging developers.
- The trends experienced by those in the sector are unlikely to satisfy the household needs of Māori, Pasifika, and other communities with multi-generational living needs. We may see an increase in investment for papakāinga and cohousing to fill this need.
- If market demand is met, we expect seniors will have greater housing choice between downsizing to a 1-2 bedroom home or greater choice in retirement village options.
- Large public and private investment projects in the City and the surrounding region could compete with the labour market needed for housing and other business development capacity but are also likely to sustain demand for housing growth in the City.
- We may expect to see a conflict in our growth areas between the provision for schooling locally within our residential growth areas being uncertain and the interest from Waka Kotahi to reduce the need for local vehicle trips.

- We could expect to provide for more of a share of Manawātū District’s industrial and rural-residential dwelling demand if their current constraints persist.
- Defence Force investment in relocatable dwellings may provide an opportunity for growth in building consents for relocatable dwellings in this District due to our development community’s economies of scale for that housing type

# PART 1

## HOUSING DEVELOPMENT CAPACITY ASSESSMENT



**PALMY**  
PAPAŌEA  
PALMERSTON  
NORTH  
CITY

# 1. Introduction

This Housing Development Capacity Assessment ('The Assessment') outlines a three-yearly review of projected land demand and supply to meet housing needs in Palmerston North. The National Policy Statement on Urban Development Capacity 2020 ('The Policy Statement') guides our Assessment to:

- Analyse the housing market and impacts of planning (section 3);
- Assess housing demand for the short, medium and long term (section 4);
- Assess development capacity (land supply) for housing for the short, medium and long term (section 5); and
- Assess whether we have sufficient capacity for housing (section 6).

In summary, we need 9,884 homes over the next 30 years, with 983 in the short term, 3,010 in the medium term, and 5,891 in the long term.

We estimate this demand will be spread over greenfield, infill and rural/rural-residential locations over the next 30 years as:

- 5,138 greenfield dwellings
- 4,251 infill dwellings
- 494 rural/rural-residential dwellings

Of the 9,884 homes we estimate we will need, 88% are expected to be standalone dwellings, and 12% are attached. We consider our attached dwelling projections to be overly conservative.

We have looked at our housing land supply and determined what is plan-enabled, infrastructure-ready, commercially feasible, and expected to be realised. We found:

- In the short term, there are 2,053 that meet these requirements, and of that, 1,408 are infill, 528 greenfield, and 117 rural/rural-residential
- In the medium term, there are 5,757, and of that, 3,238 are infill, 2,246 greenfield and 273 rural/rural-residential
- In the long term, there are 10,883, and of that number, 3,238 are infill, 6,865 greenfield and 780 rural/rural-residential

We have looked at our estimated demand and housing supply across the short, medium and long term and found sufficient capacity to meet the estimated demand. However, we will need to deliver on our development infrastructure in the greenfield growth areas as scheduled.



## 2. Our Housing Overview

This section gives an overview of our residential construction growth trends and the impacts of population projections on housing and looks at data that shows where and what type of housing is being built through the district. It also sets out our district planning context as it applies to housing. This information is used in our housing demand assessment in section 4.

### 2.1 Residential construction trends

For the year ending December 2022, 396 new dwellings were granted building consent, compared to the peak for the year ending December 2021 of 557.

The city has been experiencing a period of rapid economic growth over the previous five years. Before the COVID-19 pandemic, strong population growth accompanied this economic growth. Residential investment levels also increased over the same period, with investment in new dwellings peaking at 572 over the year to July 2020. Influenced by the historic undersupply of dwellings in the city alongside favourable investment conditions, elevated investment in new dwellings continued throughout 2021 despite a lack of population growth from the impact of border restrictions on net international migration.

Rising interest rates and high construction costs have impacted the level of residential investment since 2021, with the value of new residential buildings falling to \$172.4 million over the year to December 2022. This compares with \$227.8 million in building consents in 2021. The value of residential building consents in the city peaked at \$228.2 million over the 12 months ending Nov 2021.

#### 2.1.1 The types of dwellings being built

For a while now, houses have been the primary type of dwelling being built in Palmerston North; however, townhouses, flats and other dwellings are emerging as another typology in the city.

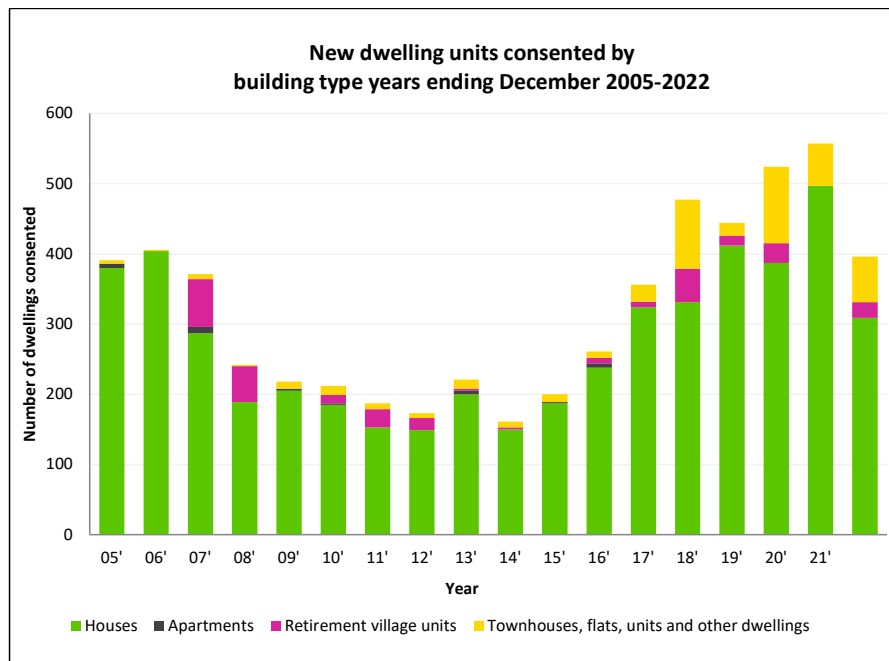


Figure 7 New residential dwelling units consented by building type 2005-2022

The annual number of dwellings consented from 2017 to 2022 are shown in Figure 8 below.

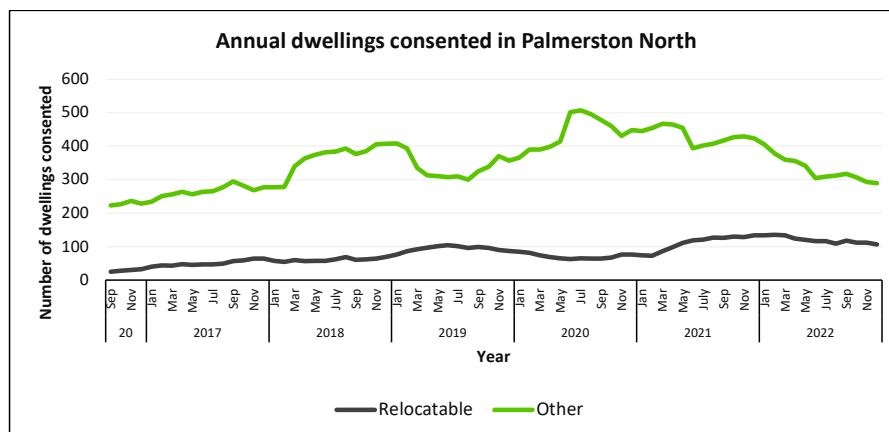


Figure 8 Annual Dwelling Consents

### 2.1.2 Where new dwellings are being built

Of the 396 new dwellings consented in 2022, 309 were houses, of which 107 were “relocatable”, as shown in Figure 9 below. Measuring how much these houses added to the

housing stock in the city is challenging because there is a delay between the approval of the building consent and the completion of the approved houses. Based on available information compiled for the 2021/2022 financial year, at least 8% of relocatable homes will be destined for Palmerston North. Many of these houses are being constructed in the city for relocation to sites across the lower North Island.

Ten area units in Palmerston North accounted for 70% of new dwellings (non-relocatable) approved in the year to December (out of 40 area units). Although Tremaine has 101 new dwellings consented, four of the companies building relocatable houses (making up 97 units) are located in this area.

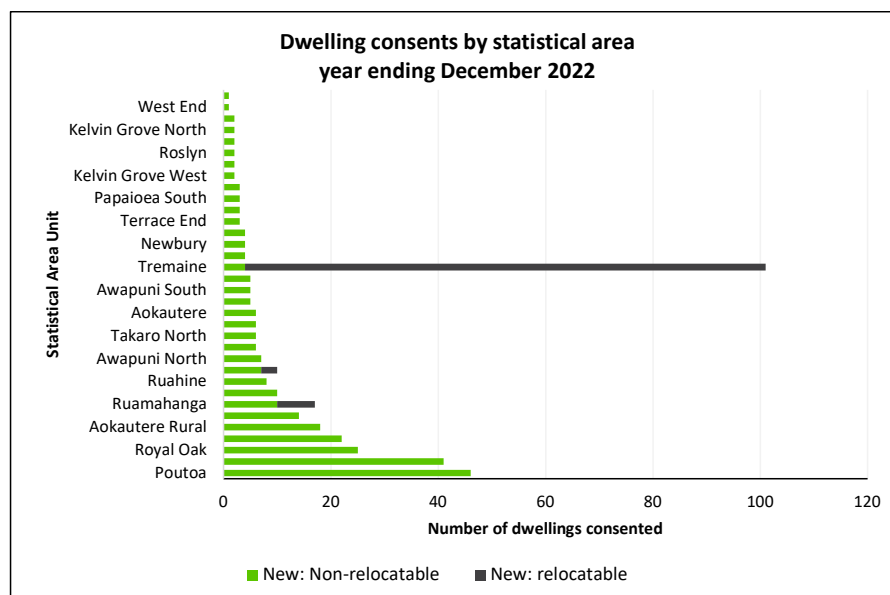


Figure 9 New Dwellings by Area By 2018 Statistical Area 2 (including relocatable)<sup>6</sup>

### 2.1.3 The size of new dwellings

The average floor area of new dwellings has been declining since 2010. The average floor area for standalone houses has reduced from 222 m<sup>2</sup> in 2010 to 172 m<sup>2</sup> in 2022. For all dwellings in the City, the average floor area is 157 m<sup>2</sup>. The decline in average floor areas is influenced by smaller-sized dwelling units such as apartments, townhouses and retirement village units. Figure 10 below demonstrates this.

<sup>6</sup> Source: Stats NZ

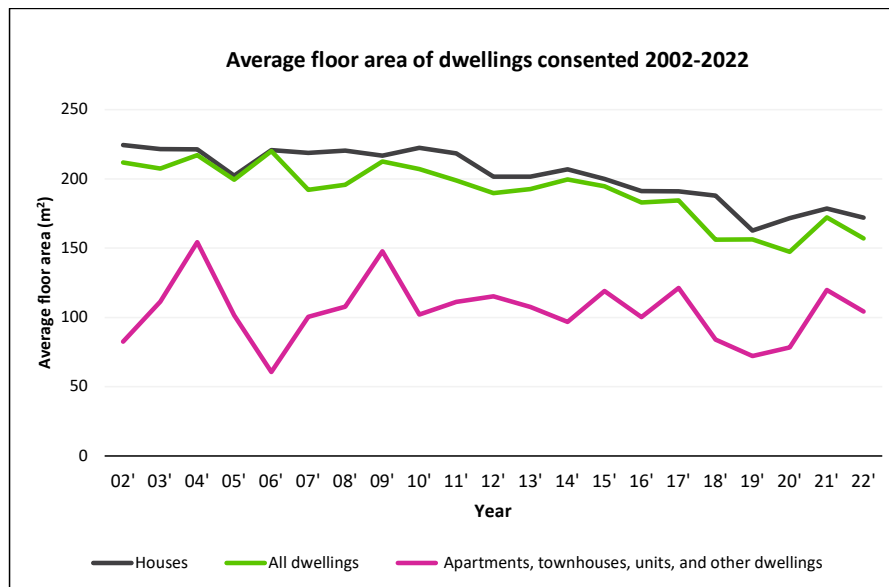


Figure 10 Average floor area of dwellings consented 2002-2022

#### 2.1.4 Our housing development types over time

Looking at previous building consents issued between 1999 and 2022 shows where and what types of dwellings have been built in the city.

Table 11 below provides an overview of past building consents issued to show housing growth by housing type, which has fluctuated over time. The table shows that historically, dwellings in greenfield growth areas accounted for the highest proportion of new dwellings consented, and the infill share has been lower.

The decline in dwellings from 2008 onwards was due to the 2008 Global Financial Crisis.

Table 11 Historical building consent breakdown by housing development type

Year	Total building consents issued	Estimated net dwelling change	Housing development type (number and % share)							
			Greenfield		Apartments /retirement village/multi-unit/other		Infill		Rural/rural-residential	
	number	number	number	%	number	%	number	%	number	%
1999	263	244	111	45%	0	0%	96	39%	37	15%
2000	227	215	123	57%	0	0%	58	27%	34	16%
2001	249	242	138	57%	0	0%	71	29%	33	14%
2002	305	281	151	54%	0	0%	84	30%	46	16%
2003	361	352	168	48%	34	10%	100	28%	50	14%
2004	412	409	241	59%	12	3%	107	26%	49	12%
2005	377	347	221	64%	0	0%	95	27%	31	9%
2006	445	426	239	56%	60	14%	84	20%	43	10%
2007	346	325	151	46%	68	21%	92	28%	14	4%
2008	234	231	96	42%	51	22%	56	24%	28	12%
2009	209	187	115	61%	0	0%	49	26%	23	12%
2010	207	172	69	40%	12	7%	61	35%	30	17%
2011	183	161	57	35%	28	17%	63	39%	13	8%
2012	171	150	44	29%	17	11%	68	45%	21	14%
2013	221	211	70	33%	16	8%	101	48%	24	11%
2014	161	145	55	38%	11	8%	57	39%	22	15%
2015	200	130	43	33%	13	10%	55	42%	19	15%
2016	261	210	99	47%	14	7%	73	35%	24	11%
2017	356	268	133	50%	6	2%	89	33%	40	15%
2018	477	350	125	36%	50	14%	151	43%	24	7%
2019	444	335	130	39%	87	26%	94	28%	24	7%

2020	524	411	121	29%	126	31%	121	29%	43	10%
2021	376	370	130	35%	35	10%	145	39%	60	16%
2022	339	232	67	29%	46	20%	76	33%	43	18%
Average 1999-2022	306	267	121	44%	29	10%	85	33%	32	12%
<p>Note: the difference between total consents authorised and net dwelling stock change includes the replacement of existing dwellings and the movement of new relocatable houses to other areas</p> <p>Dwellings approved before July 2012 in the boundary change area with Manawātū District are not included in the dwelling counts.</p> <p>Source: Palmerston North City Council</p>										

## 2.2 Households in Palmerston North District

There are an estimated 34,800 households in the city as of June 2023. This is an increase of 2,300 households compared with June 2018, equalling an annual average growth rate of 1.3% per year.

Households are a theoretical indicator that reflects a grouping of individuals or families that live in a single dwelling. A household does not reflect the number of dwellings by place but is often used as a proxy for dwellings or the number of residential units.

The number of households is affected by a range of factors, such as a change in the composition of households from an increase or decrease in multi-generational households, overcrowding, fertility rates, age structure of the population, and an undersupply of housing. The housing crisis in New Zealand has influenced the formation rate of larger households as access to and affordability of housing has prevented some families from accessing individual housing.

Another factor that may have recently contributed to an increase in household size is the housing shortage impacting Palmerston North. Anecdotal data suggests that families are opting to move in with other family members due to a lack of access to and affordability of independent housing. The 2023 Census will provide a greater understanding of the housing shortage's impact on overcrowding levels in our city from 2018-2023.

## 2.3 Family and household types in our district

There are various family types in the district as of June 2023. Table 12 shows the family type and household type in 2018 and 2023.

Table 12 Family and household types

	Family type				Household type				Average household size
	Couple without children	Two parents	One parent	Total	Family	Other multi-person	One person	Total households	
2018	9,283	9,536	4,373	23,192	22,516	2,391	7,593	32,500	2.6
2023p	10,118	10,458	4,523	25,099	24,368	2,372	8,061	34,800	2.6

## 2.4 The District planning context

Housing is provided for across the district through our District Plan. Primarily, housing is enabled in our residential zone, particular residential areas (such as our brownfield and greenfield residential areas and the multi-unit housing areas), rural-residential overlay, rural zone, and business zones (when above ground floor level and if it does not restrict business use or growth).

### 2.4.1 The residential zone

Our residential zone provides conventional standalone housing and minor dwelling units as permitted activities. Our District Plan allows up to two dwelling units, or one dwelling and a minor dwelling unit, or one dwelling unit and one sleep-out as a permitted activity. Permitted activity standards relating to setbacks from other dwellings on the same site require that if attached housing is proposed, it is joined by a garage or set 3 metres apart.

Our multi-unit housing areas provide for multi-unit housing as a restricted discretionary activity. This type of housing development outside the areas is provided for as a discretionary activity. Papakāinga is provided in the Residential Zone as a discretionary activity.

### 2.4.2 Residential areas within the residential zone

Over time, we have rezoned particular areas of the city and applied area-specific objectives, policies and rules to manage housing within them. This has included both greenfield areas and brownfield sites. Our residential areas are:

- Hokowhitu Lagoon Residential Area
- Kikiwhenua Residential Area
- Whakarongo Residential Area
- Napier Road Residential Area and Extension Area
- Mātangi Residential Area

These areas permit conventional standalone houses, but in some instances, like the Mātangi and Hokowhitu Lagoon residentials, they provide for more intensive housing types, including multi-unit.

#### 2.4.3 Subdivision rules

Our District Plan subdivision rules enable subdivision in the district as a controlled activity in most cases so long as standards are met. Minimum lot sizes throughout the district are:

- 350m<sup>2</sup> in the Palmerston North urban area
- 500m<sup>2</sup> minimum lot size in Ashhurst, Napier Road Extension Area, and Longburn and Bunnythorpe village areas.
- 400m<sup>2</sup> of developable land in the Aokautere Development Area and an average area requirement for the lots of 600m<sup>2</sup>
- 20 hectares in the Rural Zone
- 1 hectare in the Rural Residential Overlay

#### 2.4.4 Housing in the business zones

Our business zones enable housing above the ground floor as a restricted discretionary activity and subject to the housing not affecting the supply of business floor space to meet demand.

### 2.5 Summary – Our housing overview

There are lots of moving parts in our housing markets. Construction trends show that investment in new homes across the district has been high in recent years. Different housing types are also emerging, and trends in where homes are being built and their floor area. The number and types of households in the district are diverse and have been driving the number of homes and types built. Finally, our District Plan enables different types of housing at various locations throughout the district.



### 3. Analysis of the Housing Market and Impacts of Planning

Clause 3.23 of the Policy Statement requires our Assessment to include an analysis of the housing market and the impacts of planning. The Policy Statement requires our analysis to include an analysis of how our planning decisions and infrastructure provision affect the affordability and competitiveness of the local housing market.

It must also include an assessment of how well current and future demand for housing by Māori and different groups in the community are met, particularly the demand for different housing types and forms of housing from other groups.

To inform this analysis, we must look at:

- Market indicators, including indicators of housing affordability, demand and supply;
- Information about household incomes, housing prices, and rents; and
- Price efficiency indicators.

#### 3.1 Market indicators for housing affordability

##### 3.1.1 House values

The average house value in Palmerston North in December 2022 was \$659,450, down 12.1% compared with December 2021.

Average house values in Palmerston North peaked in January 2022 at \$754,212, with the national average house price peaking at \$1,043,261 in March 2022. As shown in Figure 11 below, values have declined since early 2022, with signs of stabilisation in early 2023.

Rising interest rates, alongside tightening financial market settings since December 2021, have affected the ability of buyers to secure finance and service mortgage payments. This is reflected in affordability indicators, which show an improvement in the ability of home buyers to save for a house deposit, alongside a deterioration in the ability to secure finance and afford mortgage repayments.

House prices rose sharply in 2020 and 2021 as low mortgage interest rates and access to finance increased housing demand. Median house prices in the city peaked at \$746,000 in

December 2021, up 42.1% on pre-pandemic prices compared to 45.7% nationally. Higher interest rates and the tightening of credit conditions in 2022 were effective in reducing housing demand. House prices in the city fell by more than the national fall of 17.1%, down 21.3% from the market peak to December 2022. The first four months of 2023 suggest stabilising house prices in Palmerston North and nationally.

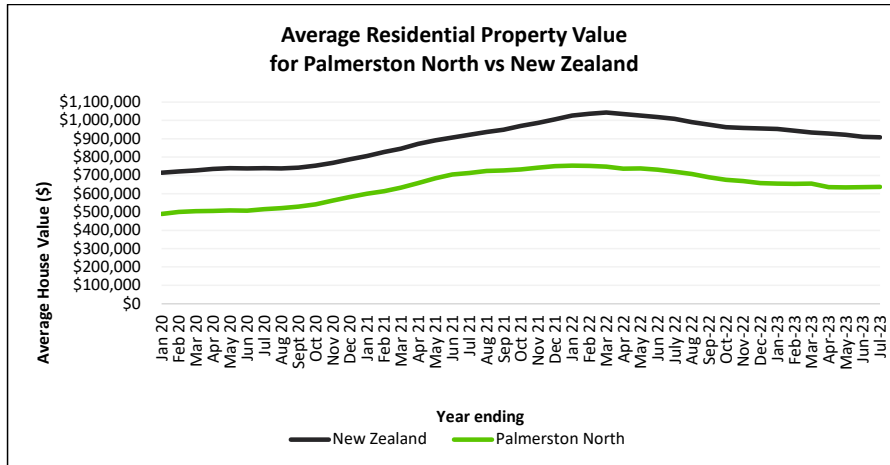


Figure 11 Average Residential Property Value for Palmerston North vs New Zealand<sup>7</sup>

The average value of \$659,450 in Palmerston North in December 2022 was on the low end of comparable-sized urban areas, as shown in Figure 12 below.

<sup>7</sup> Source: CoreLogic House Price Index

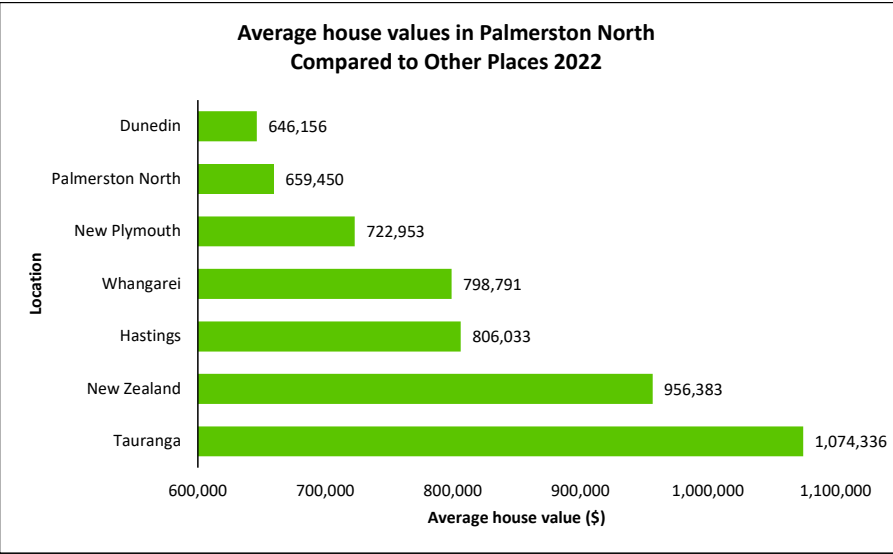


Figure 12 Average house values in December 2022<sup>8</sup>

3.1.2 House sales and prices

1,140 houses sold in Palmerston North over the year to December 2022. This is a decline of 19.9% in the city over the year. This compares with a 30.2% fall in house sales nationally over the same period. The average median sales price for December 2022 was \$615,000 compared with a median sales price of \$657,667 for the year ending December 2022. This suggests that house prices are stabilising in the city, with monthly median sales prices exceeding the 12-month average. Signs of market stabilisation have continued in the first half of 2023. The annual trend in house sales and median house prices in the city is reflected in Figure 13.

<sup>8</sup> Source: CoreLogic House Price Index

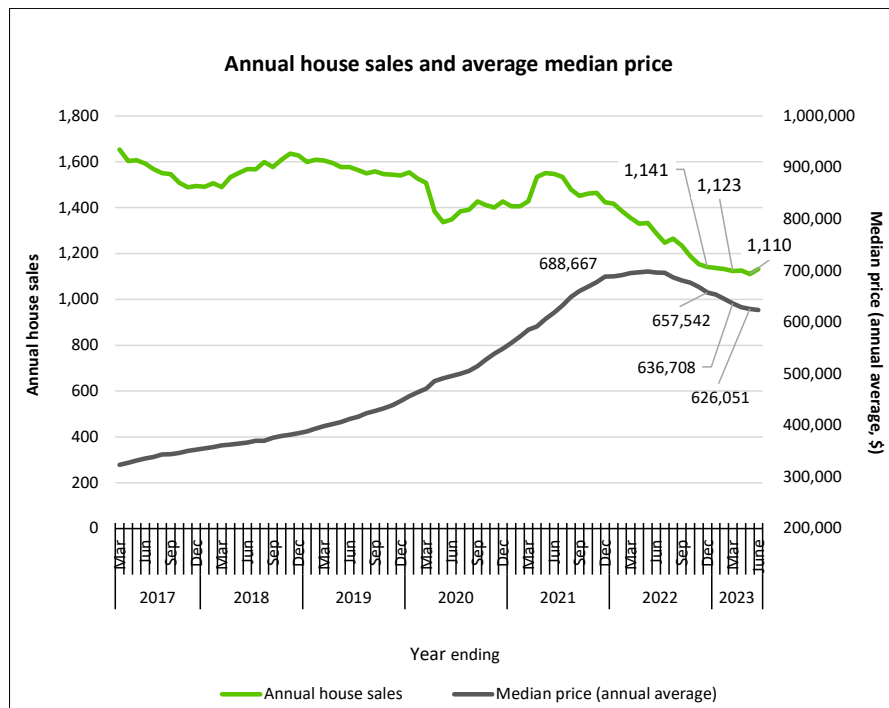


Figure 13 Annual House Sales and Average Median Price for Palmerston North 2017-2023

### 3.1.3 Home ownership affordability

Comparing house values and average household incomes can be used as a proxy for housing affordability. A lower ratio means it is more affordable to own a home. A higher ratio means housing is less affordable. The graph below shows the ratio of average house value to estimated annual average household income in Palmerston North and New Zealand.

Falling house prices and rising incomes have supported housing affordability in the city, with the ratio of average house price to average income falling to 5.8 in the December quarter of 2022. This is an improvement in housing affordability from 7.2 times the average income in December 2021. The ratio of average house price to average income nationally was 7.7 in December 2022, reflecting the relative affordability of home ownership in Palmerston North. This is mainly due to relatively lower house prices. However, rising interest rates and households coming off lower interest rate fixed term mortgages may start to see homeownership affordability decrease.

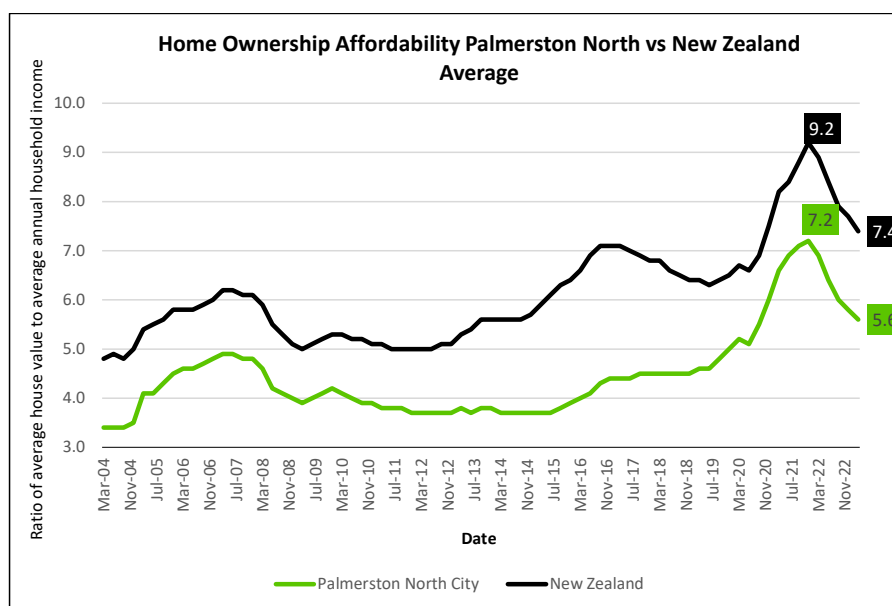


Figure 14 Home Ownership Affordability Palmerston North vs New Zealand Average

Figure 15 shows that Palmerston North has remained more affordable than comparable New Zealand places.

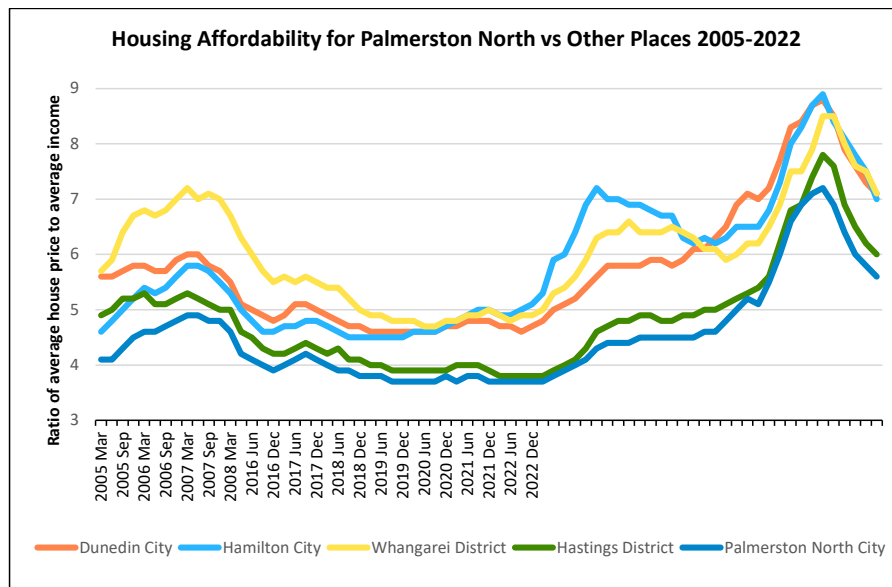


Figure 15 Housing Affordability for Palmerston North vs Other Places 2005-2022

The following two housing affordability indicators show that home ownership affordability has changed over time in Palmerston North compared to the New Zealand average.

#### 3.1.4 Change in housing affordability indicators

The Change in Housing Affordability Indicators<sup>9</sup> show the affordability of people entering the market in terms of:

- Servicing a mortgage
- Saving for a deposit, and
- Renting a home

This indicator compares changes in house sales prices with the growth in median household disposable (after tax) income. Factors that can affect deposit affordability are:

- House sales prices
- Household disposable income

Based on this indicator, relative deposit affordability has declined in Palmerston North since about mid-2016, much later than the New Zealand average. Deposit affordability has improved since the end of 2021, when house prices began to decline.

<sup>9</sup> [About the Indicators - Te Tūāpapa Kura Kōinga - Ministry of Housing and Urban Development](https://www.hud.govt.nz/about-the-indicators/)

### 3.1.5 Change in mortgage serviceability indicator

This indicator compares changes in the purchasing power of mortgage interest payments for new home loans with the growth in median household disposable (after tax) income. Factors that can affect mortgage serviceability are:

- Mortgage interest rates
- House sales prices
- Household disposable income.

Based on this indicator, serviceability improved from 2019 until the end of 2020 due to a decline in interest prices, after which mortgage serviceability decreased as interest prices increased.

### 3.1.6 Affordability for typical first-home buyers

Interest.co.nz has used the measure of the proportion of take-home pay needed to make the mortgage payment for a typical household. If that is less than 40%, then a mortgage is generally considered 'affordable'. The table below compares home loan affordability for typical first-home buyers in 5 cities in New Zealand in terms of mortgage payment as a percentage of after-tax-pay. The table presents calculations based on the following:

- 10% deposit for a home purchased at the Real Estate Institute of New Zealand's lower quartile selling price.
- weekly income is based on the combined median after-tax pay for couples aged 25-29 if both work full-time

Among the five cities, Palmerston North has the lowest mortgage payments as a percentage of after-tax pay due to a combination of median income and lower quartile house prices, and affordability has started to improve in 2022 for most cities.

**Table 13 Home loan affordability for typical first home buyers: mortgage payments as a % of after-tax pay<sup>10</sup>**

City	May 2020	Nov 2020	Feb 2021	Nov 2021	Apr 2022	Nov 2022	May 2023
Hamilton	32.5%	32.2%	33.1%	49.8%	52.0%	51.1%	48.9%
Whangarei	22.2%	26.8%	26.8%	40.3%	42.8%	42.0%	44.1%
Hastings	27.8%	31.3%	32.8%	45.3%	48.9%	46.8%	43.5%
Dunedin	27.5%	30.4%	30.8%	40.9%	40.7%	43.4%	39.2%
Palmerston North	24.1%	27.6%	29.5%	39.9%	39.8%	41.3%	36.9%

### 3.2 Market indicators for rental affordability

#### 3.2.1 Rental market demand

The figure below shows the number of active rental bonds from 1993 to 2022 and its percentage share of New Zealand's active bonds. There were 7,665 active rental bonds in December 2022, an increase from 7,539 active bonds in December 2021. The active bonds in Palmerston North were 1.9% of total active bonds in New Zealand, a slight decrease from 2.0% in 2021. Whilst the number of active bonds more than doubled since 1993, its percentage share of New Zealand's has declined from 3% in 1993 to 1.9% in 2022, indicating that the supply of rental properties in Palmerston North has not been growing as fast as the rest of New Zealand.

<sup>10</sup> Source: Interest.co.nz



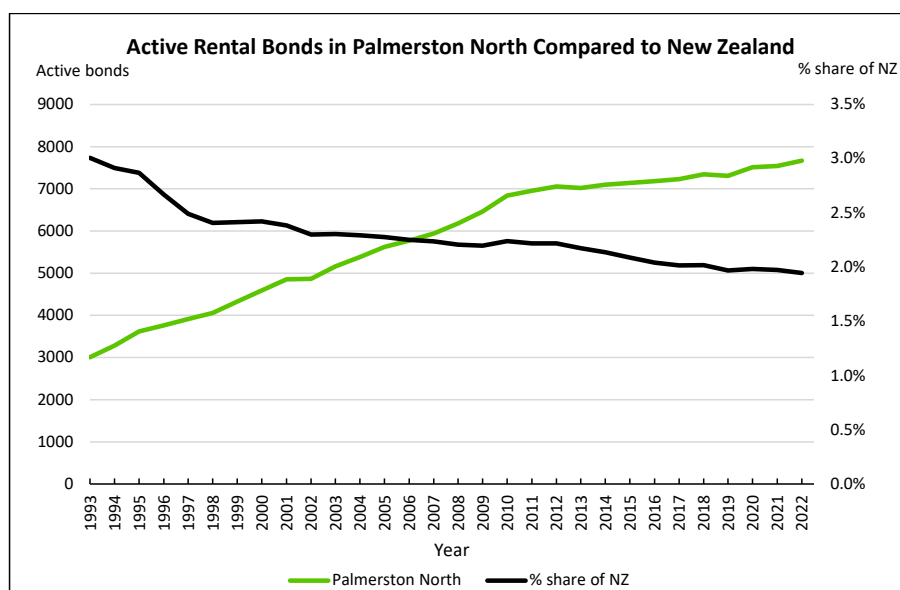


Figure 16 Palmerston North active rental bonds

### 3.2.2 Rental homes and prices

The number of properties in the formal rental market<sup>11</sup> is increasing nationally and in Palmerston North. Properties rented in the City increased by 126, up 1.7% from December 2022. This compares with 3.2% growth nationally over the same period. The latest data indicates further strengthening, with the number of rental properties in Palmerston North increasing by 174 over the first three months of 2023.

Rental prices continue to rise but at a slower rate than the New Zealand average (see Figure 17). Rental prices were up 6.7% in the City over the year to December 2022. Weekly rents across the country increased by 5.8% over the same period. The average weekly rent in Palmerston North in December 2022 was \$445 compared with \$520 nationally.

<sup>11</sup> The formal rental market is where a bond has been lodged with tenancy services. The informal rental market (where a bond has not been formally lodged) can only be estimated through the five-year national Census.

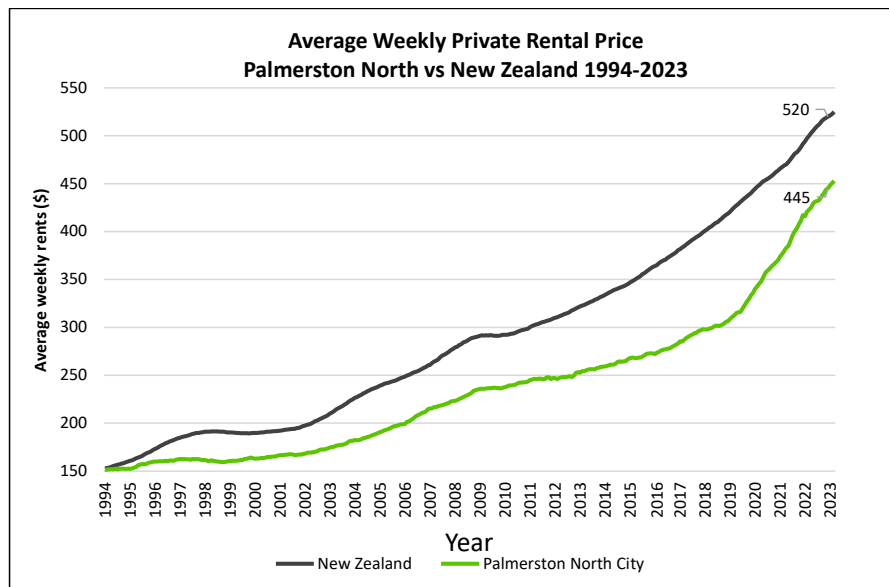


Figure 17 Average Weekly Private Rental Price Palmerston North vs New Zealand 1994-2023

### 3.2.3 Rental affordability

The rental affordability measure compares changes in rental prices for new tenancies with the growth in median household disposable (after tax) income. Factors that can affect rental affordability are:

- Rental prices
- Household disposable income

Based on this indicator, there has been a decline in rental affordability from 2017 in Palmerston North. Average rental affordability has somewhat improved. This is due to a relatively higher increase in rental prices in Palmerston North, especially since the latter part of 2018.

The graph below shows the percentage of average annualised rent to estimated annual average household income. A higher percentage means it is less affordable to rent.

In December 2022, the average annual rent in Palmerston North was 20.6% of the estimated average yearly household income compared to New Zealand's average of 21.9%.

In March 2023, the gap narrowed slightly - average annual rent in Palmerston North increased somewhat to 20.8% of the estimated average yearly household income compared to New Zealand's average of 21.8%.

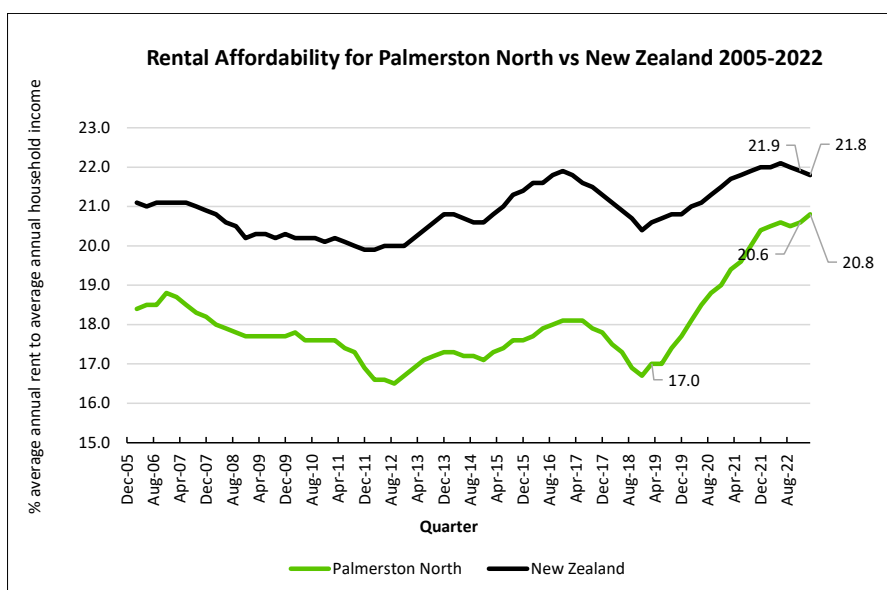


Figure 18 Rental Affordability for Palmerston North vs New Zealand 2005-2022

Rents are still affordable in Palmerston North compared to other similar-sized cities. The rental affordability measure indicates that the affordability of renting in Palmerston North has deteriorated over the last year, with the ratio of annual rents to household income increasing above Hastings and Hamilton. While this deterioration is observed over a short period and is not necessarily an indication of a longer-term trend, this is highlighted as an indicator to watch.

For the period ending December 2022, the average weekly rent (over 12 months) in Palmerston North increased from \$445 to \$453 (1.8% increase). The national average weekly rent increased from \$519 to \$525 (1.2% increase).

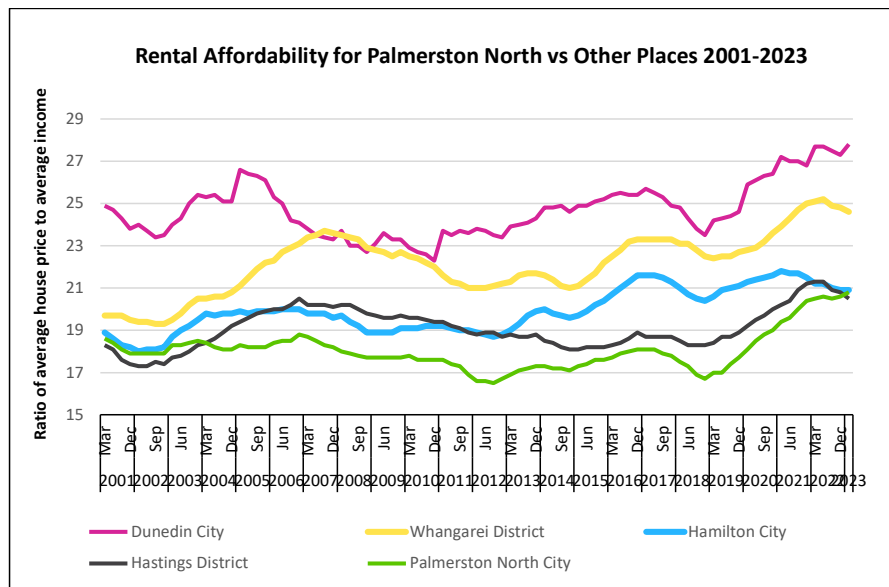


Figure 19 Rental Affordability for Palmerston North vs Other Places 2001-2023

### 3.2.4 Public housing demand

The number of households on the public housing register is declining nationally and in Palmerston North. Numbers in the city fell from a peak of 792 in March 2022 to 630 in December 2022, a decline of 12.1% over the year. This compares with a 9.4% fall nationally. A review of the register impacts numbers, as households that have found alternative accommodation are removed from the register. Anecdotal evidence from social agencies in the city reflects a range of drivers for the fall in numbers, including overcrowding, as vulnerable households opt to move in with other family members to manage cost pressures.

### 3.3 Price efficiency indicators

Price-to-cost ratios and average construction costs have been favourable for housing development in Palmerston North compared to other cities and the national average. See below for a detailed explanation.

#### 3.3.1 Price-to-cost ratio analysis

To indicate whether land supply constraints exist in the local market, we have used the cost of land relative to construction costs. The price-to-cost ratio<sup>12</sup> looks at the ratio of construction costs to the cost of land in a property's price to indicate whether there is a shortage of land relative to demand, as illustrated in Figure 20 below.

<sup>12</sup> [National Policy Statement on Urban Development Capacity - Price efficiency indicators technical report: Price-cost ratios \(hud.govt.nz\)](#)

If the land cost is a significant portion of a property's price, this could indicate a land shortage relative to demand. The guidance provided by the Ministry for the Environment and Ministry for Business, Innovation and Employment suggests that if the cost-price ratio is between 1 (where price is the same as costs) and 1.5 (where land is one-third of house price), then land supply is responsive to demand. If the price-cost ratio is 2, land costs will be the same as construction costs.

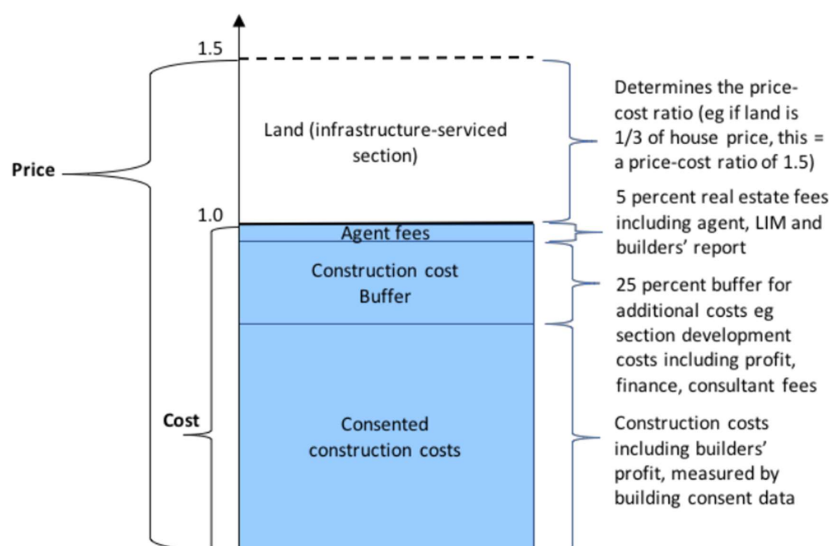


Figure 20 The components of price-cost ratio<sup>1</sup>

The Ministry of Housing and Urban Development monitors the price-to-cost ratio nationwide<sup>13</sup>. The price-to-cost ratio for Palmerston North peaked at 1.6 in 2021 and declined to 1.1 in 2023. The peak in 2021 is similar to that of other cities. Palmerston North has remained below the favourable 1.5 price-cost ratio over 30 years except for the 2021 peak.

We have remained relatively affordable to construct and similar to comparable cities such as Dunedin and Hamilton. The rise and fall of the price-to-cost ratio in most cities resulted from a limited land supply and the surge in demand for land for housing from 2020 until the end of 2022 due to low mortgage rates.

<sup>13</sup> [Urban Development \(shinyapps.io\)](https://shinyapps.io/urban-development/)

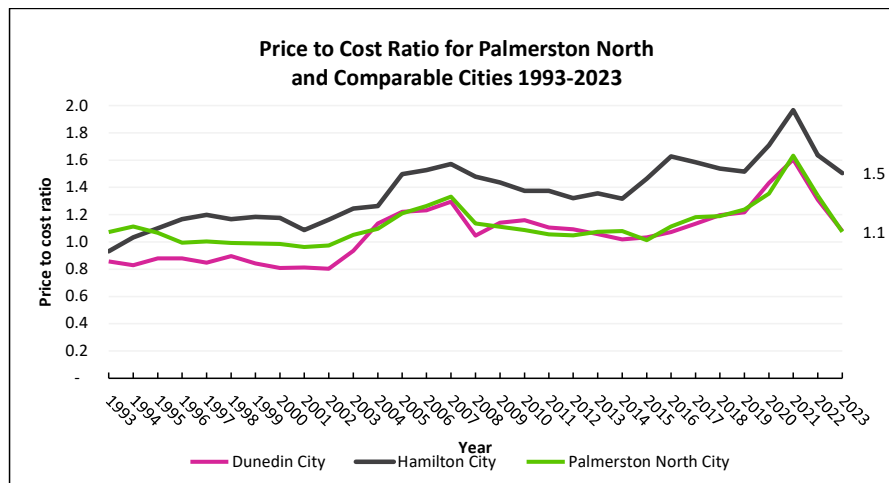


Figure 21 Price-Cost Ratio for Palmerston North and Comparable Cities 1993-2023

### 3.3.2 The estimated cost of construction

The average estimated construction cost for new dwellings (excluding apartments, townhouses and retirement village units) consented in Palmerston North in 2022 was \$2,762 per m<sup>2</sup>. This annual increase in construction costs is 17.4% over the year. The average for New Zealand was \$2,789 per m<sup>2</sup>, an increase of 14.7%. Palmerston North remains similar in average construction costs for dwellings to other cities, as shown in Figure 22 below.

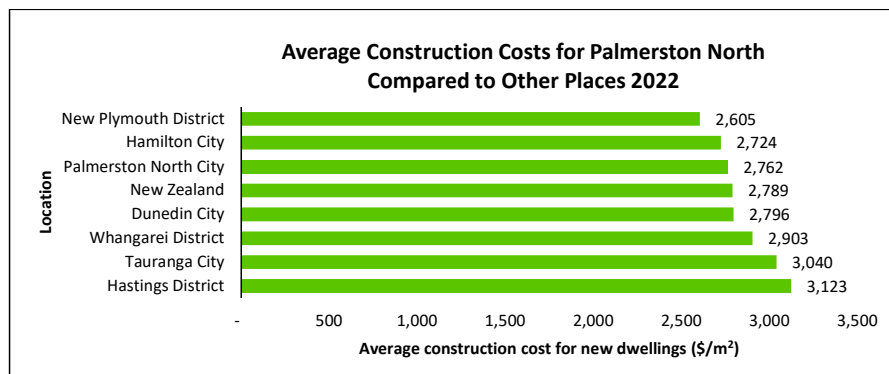


Figure 22 Average Construction Costs for Palmerston North Compared to Other Places 2022

Historically, Palmerston North has experienced lower average construction costs compared to the New Zealand average since 2010. However, this gap has been narrowing over recent years, as shown in Figure 23 below. This chart also highlights that the cost of developing alternatives to our typical housing stock and retirement villages had increased considerably closer to the pandemic but has since levelled back out to either similar or cheaper than national averages.

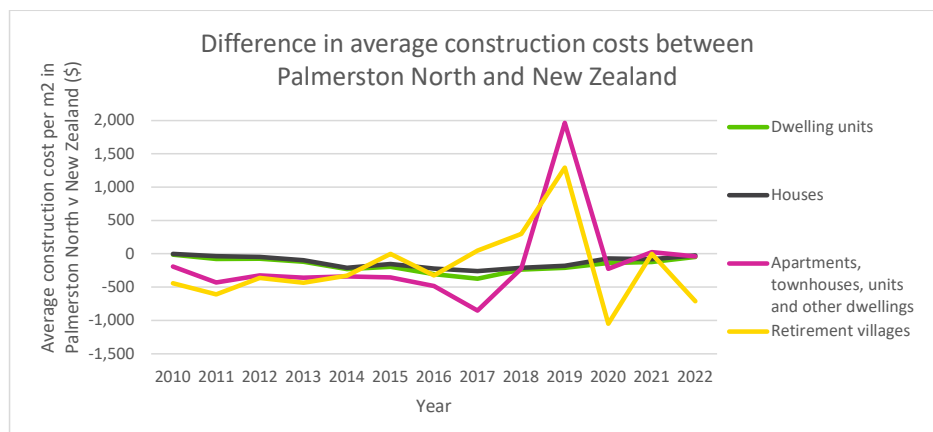


Figure 23 Difference in Average Construction Costs Between Palmerston North and New Zealand<sup>14</sup>

Increasing costs in both materials and labour in the construction sector have been a feature of the post-pandemic New Zealand economy, as shown when we compare the average construction costs for Palmerston North against other places (Figure 24 below). With the recovery of supply chains and falling construction investment, cost pressures in the construction sector are expected to ease from 2023.

<sup>14</sup> Source: Stats NZ 2023

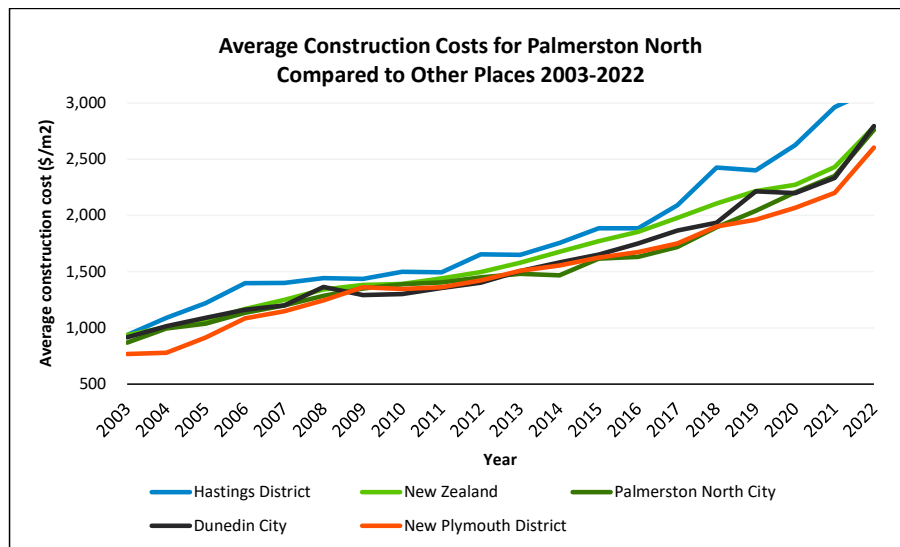


Figure 24 Average Construction Costs for Palmerston North Compared to Other Places 2003-2022

### 3.4 Housing need by Māori and different groups in our community

The Policy Statement requires us to assess how well the current and likely future demands for housing by Māori and different groups in our community are met. These groups within the Palmerston North community have specific needs, such as multigenerational living or smaller homes for ageing or single people.

We have spoken about the issues and aspirations Maori and different groups in our community have raised in our Engagement Section.

Along with a growing Māori and Pasifika population, there will be an increase in large families and multi-generational living, creating demand for larger homes or co-living arrangements. The City's existing supply has more 5+ bedroom homes than 1-2 bedrooms. We can expect that these existing homes can support larger families. However, there is still a cost barrier to access these homes due to high rents or house prices. The 2023 Census data will provide further detail on the proportion of larger households by ethnicity to determine the extent of housing need and unaffordability by ethnicity once this becomes available. We know from the 2018 Census that 16% of Māori in the City live in crowded housing conditions<sup>15</sup>, and 29% of Māori in the City are homeowners.

Single-person households comprise 23% of the total population and are expected to increase by 19.1% (+1,551) over the next 30 years. However, one-bedroom homes only comprise 5.2% of the existing housing stock (based on the 2018 census). Other single households struggle to find affordable one and two-bedroom homes that meet their housing needs. This is reflected

<sup>15</sup> Where generally the number of people per bedroom should not exceed two people.



in building consent data, showing that social housing providers mainly build one and two-bedroom homes – perhaps to meet this demand for affordable smaller homes.

Based on household make-up, one-person households make up 23% of the total household projections, and couples without children make up 40% of total family households. Couples without children are also projected to increase by 23.8% (+2,425) over the next 30 years, indicating demand over the past and need for 1-2 bedroom homes in the city will remain. This is also reflected in the social housing register, with 80% of those in need requesting a one or two-bedroom home. However, Palmerston North's current development model consists of larger homes with 3-4 bedrooms.

The Ministry of Social Development's Housing Register includes those eligible for public housing and need to be matched to a suitable property. There are two categories that people are placed in:

- Priority A: Persistent housing needs to be addressed immediately.
- Priority B: Significant persistent housing need.

Figure 25 shows a trending increase in those on the public housing register in Palmerston North over the past five years.

In the last nine months, this number has started to decline. As of December 2022, there were 630 people on the public housing register for Palmerston North (618 Priority A and 15 Priority B), down by 54 since December 2020. As mentioned, some drivers of this fall include overcrowding through households moving in with other family members to manage cost pressures. The Ministry of Social Development has also audited the public housing register, removing those who have found alternative accommodation or appear on the register in more than one area. This has decreased the number of households on the register without necessarily representing improved housing access and affordability.

80% of those on the Ministry of Social Development's Housing Register require a one to two-bedroom home, compared with only 4% requiring a four or larger-bedroom home. Since the 2021 Assessment, the number of people on the register increased briefly in March 2022 but has returned below the September 2020 numbers. A similar peak has been observed nationally<sup>16</sup>. Our public housing waitlist is not included in these figures.

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<sup>16</sup> There is a total of 23,127 on the national social housing register as at 31 December 2022

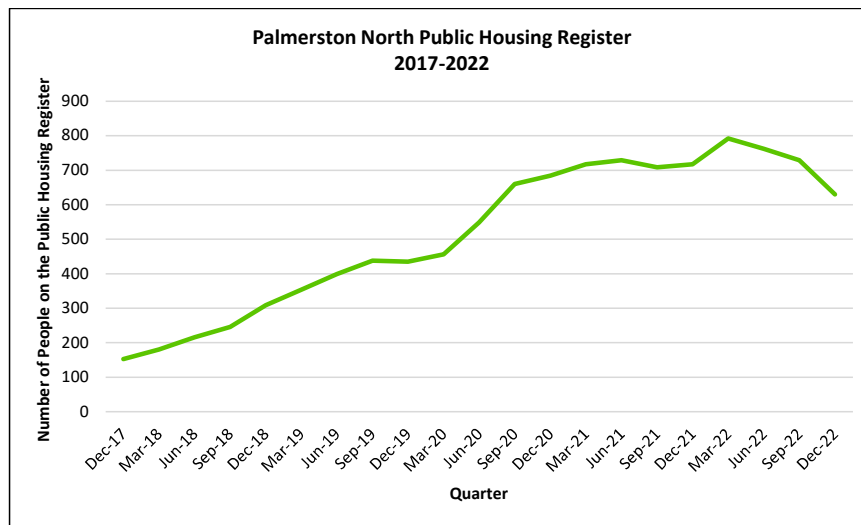


Figure 25 Palmerston North Public Housing Register 2017-2022<sup>17</sup>

Based on the above, smaller homes required by different groups in our community are a challenge to be provided for in our housing market. Larger homes for intergenerational living exist in our district, but these are likely unaffordable.

### 3.5 Summary – Analysis of the housing market and impacts of planning

House values, house sales and prices, home affordability, and mortgage serviceability indicate that Palmerston North is affordable compared to similarly sized cities and the New Zealand average. Nonetheless, our housing remains unaffordable for most. However, this primarily reflects broader economic conditions in recent years.

Rental homes and affordability, along with public housing demand indicators, show that there is demand for rental homes, and they are affordable compared with other sized cities and the national average. Nonetheless, rental affordability is declining. There is demand for public housing, representing a need for housing for those whose circumstances do not enable them to rent or buy their own home.

Price efficiency indicators show favourable price-to-cost ratios in Palmerston North, and the construction cost is comparable to other-sized cities and below the national average.

Our existing housing stock, construction trends, and affordability will likely affect Maori and other groups in our community who have different housing needs than what is currently being delivered through our existing housing stock and recent residential construction.

<sup>17</sup> [Housing Register - Ministry of Social Development \(msd.govt.nz\)](https://www.msd.govt.nz/housing-register/)



## 4. Housing Demand Assessment

Clause 3.24 of the Policy Statement requires us to undertake a housing demand assessment. We must estimate the demand for additional housing in Palmerston North in different locations and dwelling types for the short, medium, and long term. We have identified the types of dwellings as standalone and attached and identified locations as greenfield, infill and rural/rural-residential.

We considered a range of projections for our demand assessments and have described this in the following section. Following this, we analyse our observed housing demand as part of estimating our housing demand for the future. Finally, the demand assessment for homes, locations and types is estimated.

### 4.1 Our range of projections

Under Clause 3.24 (5) of the Policy Statement, we must set out a range of projections for our housing demand assessment and identify the most likely projections. We must set out the assumptions underpinning each of the projections. If any of them involve a high level of uncertainty, we must describe the nature and potential effects of the uncertainty.

As part of our 2024 Long Term Plan preparations, we produced a Hybrid Model, which adjusts the Infometrics 2018-2054 model built for us in 2018. Our Population section describes the modelled population and households under our Hybrid Model. This model is considered the most likely as the Infometrics model has assumptions considered overly conservative and inconsistent with what happened between 2018 and 2023.

The assumptions for the Hybrid Model are:

- High net international migration during the 2022, 2023 and 2024 years
- Net international migration will ease to a long term trend from 2025 onwards due to global competition for limited labour supplies
- Increasing internal migration to the regions due to the ability to work remotely and lifestyle opportunities, including relative housing affordability
- Elevated demand for labour due to large-scale investments, including:
  - Te Utanganui
  - New Zealand Defence Force consolidation
  - Kāinga Ora developments
  - Roading infrastructure projects

- Energy infrastructure projects
- Expansion of services at Te Whatu Ora Midcentral
- Natural increase will ease but will stay positive over the 30-year planning horizon due to the younger population
- A growing proportion of Māori and Pasifika families will drive demand for larger homes to provide for multigenerational families alongside the need for small dwellings suitable for the ageing population.

We used low, base, and high population and household growth scenarios in our Hybrid Model to produce a range of dwelling demand assessments. We believe the base scenario is the most likely population and household projection because it follows the trajectory of population and household growth trends we have observed. Plus, it accounts for the factors we believe will drive population and household growth.

We did not consider a range of demand projections for dwelling location and type as we have used trends in our historic building consent data and what we know about when different residential locations will become available to the market to make these demand estimates.

## 4.2 Observed housing demand and analysis

### 4.2.1 Demand trends

There has been a decrease in annual residential buildings consented over the past five years, from a net increase of 350 dwellings in 2018 to a net increase of 232 dwellings in 2022. Infill dwellings have been the most common housing typology consented since 2020. The most common type of housing in Palmerston North is detached single-storey housing consisting of 3-4 bedrooms. Assessing past building consents by type and location helps us to project likely future demand for dwellings across the District. Table 14 below shows the demand for greenfield, infill and rural/rural-residential housing from 2020 to 2022 and an average across this period.

Table 14 Summary of demand from January 2020 to December 2022

	2020	2021	2022	Average
Greenfield	29%	35%	29%	<b>31%</b>
Infill	61%	49%	53%	<b>54%</b>
Rural/Rural-residential	10%	16%	18%	<b>15%</b>

The table below outlines the number, type and location of housing built between 2021 and 2022.

Table 15 Housing Types Provided in Palmerston North 2021-2022

	2021		2022	
	Number of dwellings	Proportion of total dwellings for the year	Number of dwellings	Proportion of total dwellings for the year
Greenfield	130	35%	67	29%
Rural	60	16%	43	19%
Infill	145	39%	76	33%
Multi-unit (infill)	25	7%	36	16%
Minor dwelling (infill)	10	3%	10	4%
<b>Total</b>	<b>370</b>		<b>232</b>	

The following figures show where these new dwellings are being built in 2021 and 2022. Clustering has typically occurred in Aokautere, Whakarongo and around the Hokowhitu Lagoon, where active larger-scale developers exist.

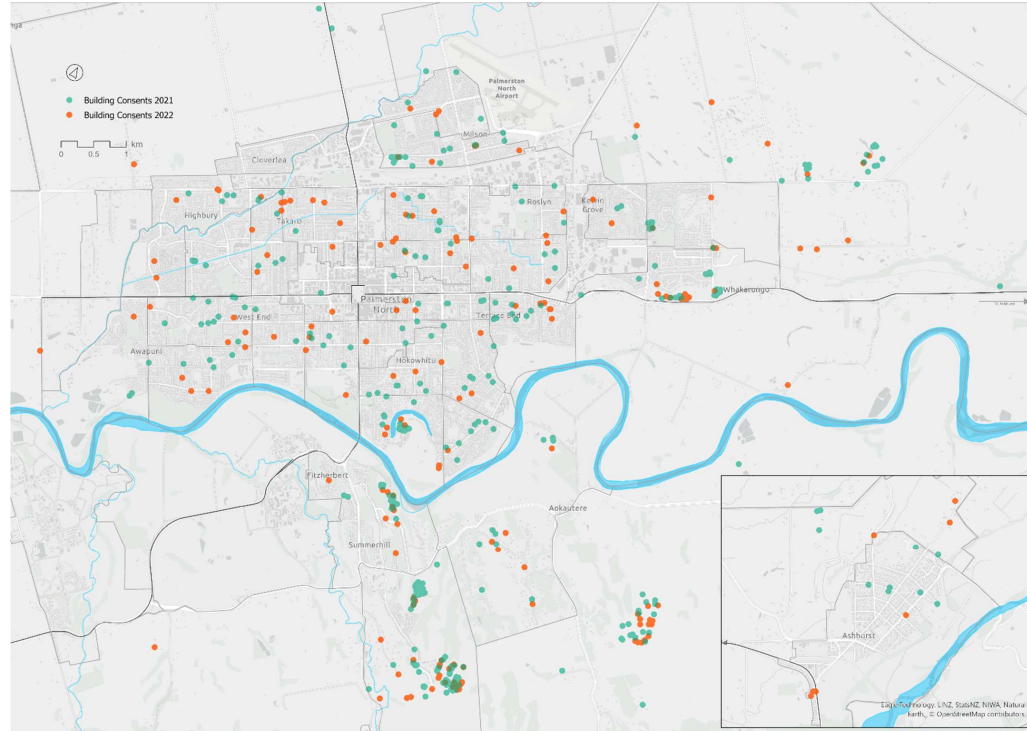
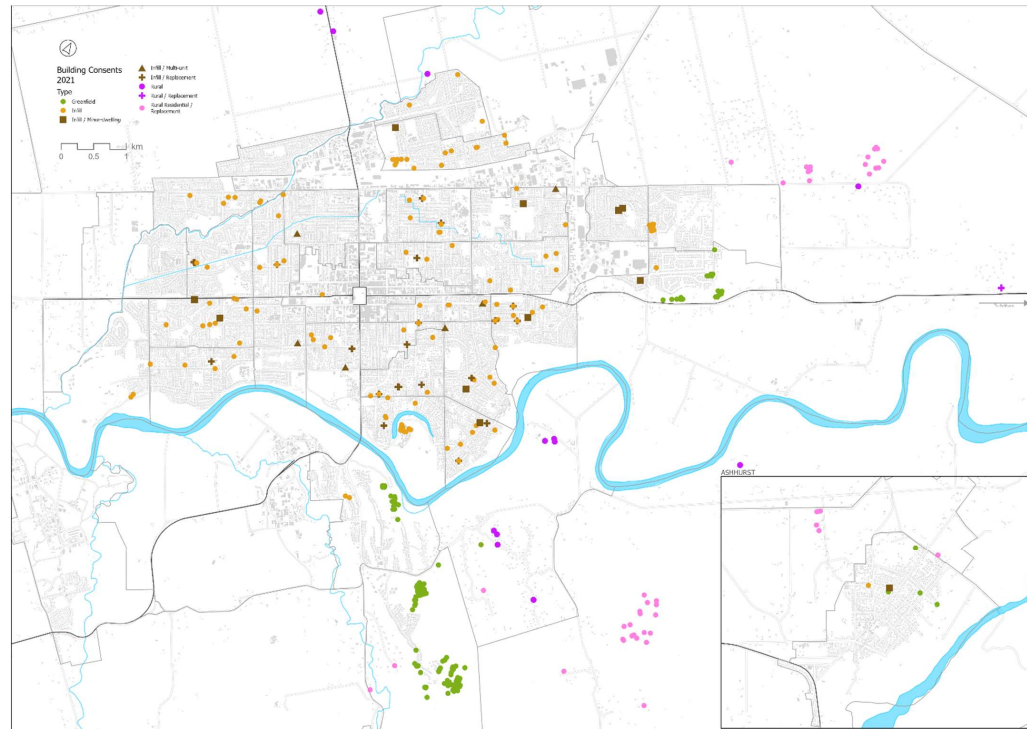


Figure 26 Building consents by location 2021 – 2022





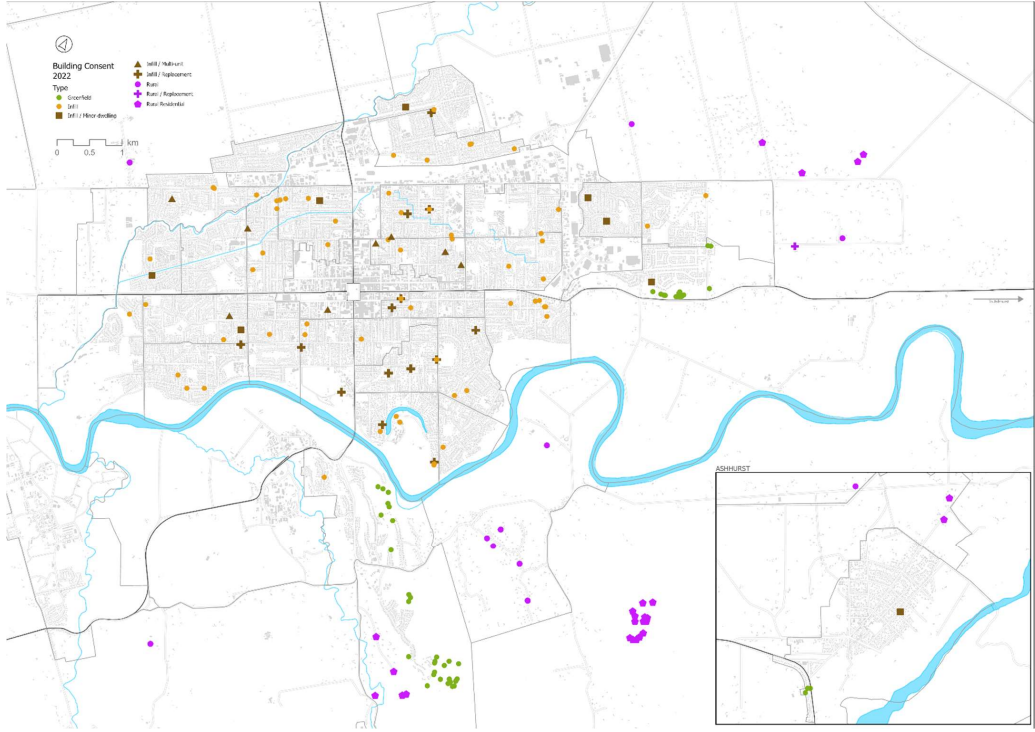


Figure 28 Demand by location and type 2022

#### 4.2.2 Infill housing demand

The infill housing category includes multi-unit development, retirement villages, apartments, minor dwellings, and stand-alone houses on properties that have been subdivided. The proportion of new infill dwelling supply has remained steady over the past years, comprising approximately a third of all new dwellings.

Given a lack of greenfield options in the short term, we expect infill housing demand to continue to be 50% of housing provision. Resource consent data and feedback from the development sector indicate that smaller (less than 350m<sup>2</sup>) subdivision opportunities are being actively considered and applied for.

#### 4.2.3 Multi-unit development demand

Multi-unit housing is a development consisting of 3 or more dwellings on one site that are higher density than conventional housing developments. Multi-unit developments have increased significantly since multi-unit housing was enabled in the District Plan in 2018 but have recently dropped by more than half in the last two years combined. Significant multi-unit developments tend to be done by retirement and community housing providers such as Metlifecare and Kāinga Ora. Private, smaller-scale multi-unit developments are less common but have occurred in the city. Recent multi-unit retirement development includes the expansion of the Metlifecare Retirement Village on Carroll Street with 22 new units.

Kāinga Ora has been developing multi-unit housing in Palmerston North<sup>18</sup>. Their general approach is to replace one dwelling with at least three new dwellings. Kāinga Ora plans to develop 300 homes in Palmerston North. Of those, we expect most to be multi-unit housing and attached rather than standalone. The Council has taken a similar approach as a social housing provider, recently beginning development on Stage 3 of Papaioea Place, which provides one-bedroom multi-unit pensioner housing. Stage 3 brings the development's total to 85 new units, replacing the 44 pre-existing units.

Table 16 Multi-unit dwellings consented between Jan 2018 and December 2022

	2018	2019	2020	2021	2022
Multi-unit dwellings	56	100	137	25	36
Percentage of new dwellings	14%	25%	39%	7%	15%

Multi-unit housing is where we see attached housing being delivered the most. Through the resource consenting process, we observe that 80% of multi-unit developments are attached dwellings versus standalone.

#### 4.2.4 Minor dwelling demand

Minor dwellings are defined as any self-contained unit with a floor area no larger than 80m<sup>2</sup> on the same site. These are separate from sleepouts, which are not counted as dwellings as

<sup>18</sup> [Palmerston North | Social Pinpoint \(kiangaora.govt.nz\)](https://www.kiangaora.govt.nz/palmerston-north-social-pinpoint)

they are not typically self-contained. They represent an affordable housing option to meet demand. Uptake on minor dwellings was slow in the first two years following a District Plan change to enable minor dwellings as a permitted activity in 2018. In 2021 and 2022, they only make up closer to 3% of new dwellings consented (see Table 17).

Table 17 Minor-dwellings consented between Jan 2018 and December 2022

	2018	2019	2020	2021	2022
Minor dwellings	3	2	8	10	10
Percentage of new dwellings (excluding relocatable and dependent dwellings)	0.8%	0.5%	2%	2.5%	3.6%

#### 4.2.5 Greenfield housing demand

Greenfield development contributes to the expansion of the residential urban boundary. This predominantly occurs in Kelvin Grove, Aokautere, Ashhurst, Turitea and Whakarongo, where land has been rezoned from rural to residential.

New greenfield development remained steady between 2017 and 2021, ranging between 120 and 135 new greenfield dwellings. In 2022, new greenfield development dropped by nearly half to 67 new dwellings. This drop in greenfield development is consistent with the available greenfield supply becoming fully developed before future greenfield land is released.

We are preparing District Plan changes to rezone further greenfield areas at Aokautere and Kākātangiata. In recent times, Mātangi was rezoned through a private plan change.

#### 4.2.6 Rural-residential demand

Rural areas can be identified by being zoned as rural and may be within the rural-residential overlay in the District Plan. New dwellings built in the Rural Zone increased in 2021 and remained relatively high in 2022. Historically, development rates have fluctuated in the Rural Zone. This is due to strong rural-residential growth in the nearby Manawātū District and a lack of large-scale rural-residential areas for ready market uptake.

Rural-residential areas have been limited to Kingsdale Park Drive, Hartwell Drive and the recent opening of the Valley Views extension area. While there is capacity for significant rural-residential development within Palmerston North (2,000ha), the District Plan and the National Policy Statement on Highly Productive Land have largely contained this within the rural-residential areas.

#### 4.2.7 Standalone dwellings and attached dwellings

We used data from multi-unit building and resource consents to determine the projected rate of demand for standalone and attached dwellings over the next 30 years. This is because multi-unit housing types are most associated with attached typologies. Over the past five

years, multi-unit development typologies have averaged 16% of all new dwellings. An estimated 80% of multi-unit developments are attached or a part of a development consisting of several duplexes. Based on the multi-unit resource consent data, 12% of new homes were attached, while 88% were standalone housing in the past five years. We expect this number to increase as the development sector becomes more experienced in building attached housing, and our projected increase in smaller households occurs over time. Our average growth rate for multi-unit housing has been 19% in the past five years.

#### 4.2.8 House size demand

Over the past two years, 3-4 bedroom houses comprised the majority (77%) of new residential builds. This is broadly consistent with most of the City's total housing stock consisting of 3-4 bedrooms (68.8%). However, there has been a growth in 1-2 bedroom houses since 2021 (as shown in Figure 29 below).

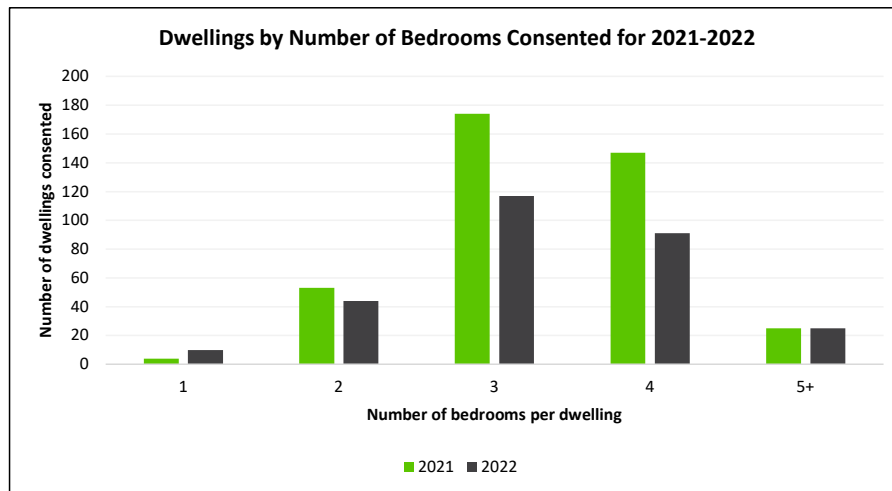


Figure 29 Bedroom Number Breakdown Per Dwellings – 2021 and 2022<sup>19</sup>

The building consents issued in 2021 and 2022 showed that greenfield development usually consisted of 4-bedroom houses. The average floor area for new residential houses in greenfield areas during this period was 210m<sup>2</sup>, compared to new standalone infill builds, which had, on average, a 164m<sup>2</sup> floor area and three bedrooms. Over the past two years, 10% of new multi-unit and minor dwellings had one bedroom compared to the majority of 2-3 bedrooms (81%). Table 18 demonstrates these trends.

<sup>19</sup> The number of dwellings recorded here includes replacement dwellings as these contribute to a change in the composition of bedroom sizes in the housing stock

Table 18 Average Bedroom Number and Floor Area per Housing Type – 2021 and 2022

	2021		2022	
	Average Number of Bedrooms	Average Floor area (m <sup>2</sup> )	Average Number of Bedrooms	Average Floor area (m <sup>2</sup> )
Greenfield	3.7	212.5	3.8	207.3
Rural	3.8	287.3	3.9	277.4
Infill (standalone)	3.1	165.9	3.2	161.8
Multi-unit (infill)	2.5	115.6	2.4	117.5
Minor dwelling (infill)	2.3	67	2.2	73.8
All	3.4	193.3	3.2	178.3

Figure 30 below shows a breakdown of the number of bedrooms by occupied dwellings (private) counted during the 2018 Census year.

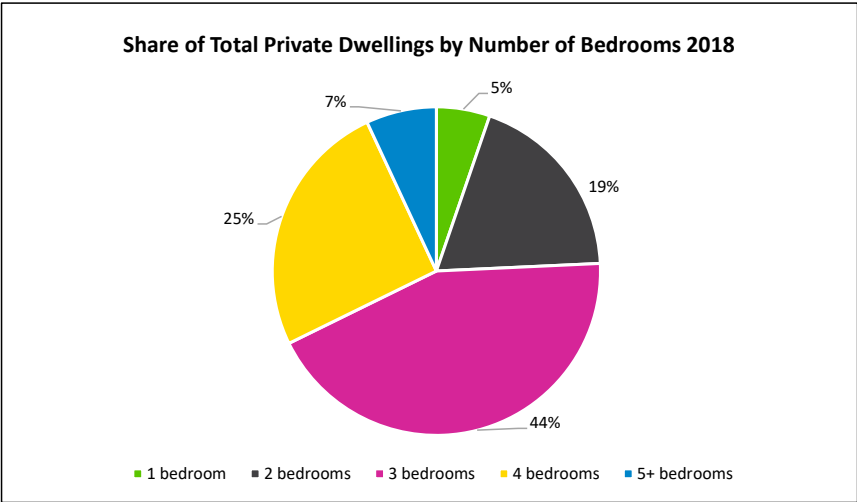


Figure 30 Distribution of Bedrooms by Occupied Private Dwellings<sup>20</sup>

<sup>20</sup> Statistics New Zealand. (2018). Number of bedrooms by occupied dwelling type for occupied private dwellings, 2006, 2013, and 2018 Censuses (RC, TA, SA2, DHB). Retrieved May 2023 from [https://nzdotstat.stats.govt.nz/wbos/index.aspx?\\_ga=2.40650146.1002118083.1684096738-808760407.1660612098#](https://nzdotstat.stats.govt.nz/wbos/index.aspx?_ga=2.40650146.1002118083.1684096738-808760407.1660612098#)

### 4.3 Demand assessment

This section estimates our 30-year housing demand based on our projected population, household projections in the Hybrid Model, and the City's historical housing demand. We have estimated the demand for dwellings by location and type<sup>21</sup> in the short, medium, and long term.

The Policy Statement requires us to apply competitiveness margins to the estimated demand to support choice and competitiveness in the housing market. The required margins are 20% in the short and medium terms and 15% in the long term and have been applied to the demand assessments.

#### 4.3.1 Dwelling demand

To estimate the demand for the number of dwellings over the next 30 years, we have used the number of households projected in the short, medium, and long term periods in the Hybrid Model.

Table 19 Estimated demand for dwellings in the short, medium, and long term

Short term	Medium term	Long term	30 year total
<i>within the next 3 years</i>	<i>between 3 - 10 years</i>	<i>between 10 – 30 years</i>	
<b>Projected number of dwellings</b>			
983	3,010	5,891	9,884

#### 4.3.2 Dwelling demand by location

In terms of the locations we estimate demand will be, we estimate demand at the following percentages for greenfield, infill and rural/rural-residential:

Table 20 Estimated demand by location over the short, medium, and long term

	Short term	Medium term	Long term	30 year total
<b>Location</b>	<i>within the next 3 years</i>	<i>between 3 - 10 years</i>	<i>between 10 – 30 years</i>	
<b>Projected demand location</b>				
Greenfield	40%	50%	55%	
	393	1,505	3,240	5,138

<sup>21</sup> Not including competitive margins

Infill	55%	45%	40%	
	541	1,354	2,357	4,251
Rural/rural-residential	5%	5%	5%	
	49	150	295	494
				9,884

These percentages have been estimated based on the following assumptions:

- For greenfield, projected demand in the short term of 40% accounts for infrastructure servicing to be completed in plan-enabled locations such as the Kikiwhenua and Whakarongo Residential Areas. In the medium term, the greenfield projected preference will increase to 50%, and in the long term, it will increase to 55%. Both increases reflect an increased supply of greenfield through rezoning at Ashhurst, Aokautere and Kākātangiata.
- For infill, a projected demand of 55% reflects that greenfield areas will be limited in the short term. The percentage for infill drops to 45% in the medium term and 40% in the long term to reflect that significant greenfield capacity will be enabled through upcoming District Plan changes, such as 7,200 dwellings at Kākātangiata and around 1,000 at Aokautere.
- For Rural/Rural-Residential, projected demand for rural-residential is 5% across all periods to reflect the shrinking supply of rural-residential land across the rural-residential areas and capacity for additional dwellings and dependent dwelling units in the Rural Zone.

#### 4.3.3 Dwelling demand by type

Regarding demand for standalone and attached dwellings, we estimate the demand for standalone and attached dwellings<sup>22</sup> will be:

Table 21 Projected standalone and attached dwelling types over the short, medium, and long term

	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	30 year total
Projected dwelling type demand				
	88%	86%	78%	8,048

<sup>22</sup> Multi-unit is defined as 3 or more dwellings on a site; therefore, this number does not include two attached dwellings that could be delivered through projected infill dwelling numbers.

Standalone dwellings	865	2,588	4,595	
Attached dwellings	12% 118	14% 421	22% 1,296	1,835
				9,884

The housing type projections have been estimated based on looking back five years in our building and resource consent data. Looking back shows that of the 16% of multi-unit homes built, approximately 80% are attached and based on this, 12% of all new homes built are attached dwellings. This does not account for housing built attached that did not require resource consent for multi-unit housing.

Our percentage growth rate of multi-unit homes built over the past five years is 19%, so we have applied this over the 30 year period to project demand. We have not been able to quantify how many homes built that did not require a multi-unit resource consent were attached. Our demand estimate for attached dwellings is, therefore, considered conservative, particularly in the context of projected increases in household types that need smaller homes, which attached housing will likely cater for.

#### 4.4 Summary – housing demand assessment

In summary, we need 9,884 homes over the next 30 years, with 983 in the short term, 3,010 in the medium term, and 5,891 in the long term. This is less than the 2021 assessment. However, the average household size has increased from 2.1 to 2.6 persons, which has resulted in a reduced number of homes.

We estimate this demand will be spread over greenfield, infill and rural/rural-residential locations and that over the next 30 years, we will need:

- 5,138 greenfield dwellings
- 4,251 infill dwellings
- 494 rural/rural-residential dwellings

In terms of housing type – standalone versus attached dwellings – we estimate that over the next 30 years, we will need:

- 8,048 standalone dwellings
- 1,835 attached dwellings



We consider our estimate for attached dwellings to be overly conservative and expect increased demand for attached over time as household types that attached housing would cater to increase.

We have estimated this demand based on our Hybrid Model, historic building and resource consent trends, and what we know about our residential areas throughout the city.

## 5. Housing Development Capacity Assessment

Clause 3.25 of the Policy Statement requires us to undertake a housing development capacity assessment. It must state in the short, medium, and long terms, the housing development capacity in the region and Palmerston North City that is:

- Plan-enabled<sup>23</sup>
- Plan-enabled and infrastructure-ready<sup>23</sup>
- Plan-enabled, infrastructure-ready, and feasible and reasonably expected to be realised<sup>24</sup>

This section contains this assessment and analysis.

### 5.1 Infill development capacity

Within Palmerston North,<sup>25</sup> there is capacity for an additional 12,789 dwellings:

- 1,196 dwellings based on existing lots being subdivided to the District Plan's 350m<sup>2</sup> minimum lot size without the need for existing buildings to be removed. This estimate is based on a spatial analysis where we identified properties within the Residential Zone that comply with controlled performance standards in the District Plan for subdivision.
- 11,593 dwellings based on residential lots over 700m<sup>2</sup> or more – i.e. sections that could be subdivided as a controlled activity and would need the existing house and structures removed to accommodate more homes.

As the current housing stock ages, we expect replacement stock to be at a higher density through the 350m<sup>2</sup> minimum lot size in the District Plan or multi-unit development. Private developers and Kāinga Ora are increasingly taking up increased density, often leading to one dwelling being replaced with three. Even greater yields are being achieved through site agglomeration and multi-unit development. Significant opportunity exists with the potential capacity available in the multi-unit housing areas and the proposed Medium Density Residential Zone.

<sup>23</sup> See clause 3.4 of the Policy Statement for the meaning of plan-enabled and infrastructure-ready

<sup>24</sup> See clause 3.26 of the Policy Statement for our requirements when defining what is reasonably expected to be realised and our Methodology, Inputs and Assumptions section for our methods and justification

<sup>25</sup> Excluding Ashhurst and Bunnythorpe Villages

The Hokowhitu Lagoon Residential Area was rezoned in 2017 to provide 136 dwellings, 26 of which have been delivered. Stage 1 is currently in construction, and stage 2 has been consented with the majority of lots sold. Stage 3 is expected to be developed in the medium term for 52 dwellings.

We expect 25 dwellings to be delivered off Fairs Road (Milson) and 30 in Kingsgate Grove (Cloverlea).

We are currently preparing plan changes to rezone parts of the existing urban area:

- The Roxburgh Crescent Residential Area<sup>26</sup> will propose to replace a pocket of industrial-zoned land in Hokowhitu with approximately 105 dwellings in the Residential Zone. The plan change is expected to be notified in early 2024.
- The Medium Density Residential Area<sup>27</sup> is reviewing our existing multi-unit housing areas and parts of the City that meet our definition of a walkable neighbourhood. This new zone would replace parts of the residential zone and provide greater housing choices through increased density. The initial extent has suggested the zone could extend across 12,305 existing lots but is subject to an assessment of stormwater constraints. Because of the current uncertainty around those constraints, we have not added the potential capacity that could be available in this zone to our assessment.

## 5.2 Greenfield development capacity

Previous residential plan changes have provided plan-enabled development capacity in the short term:

- The Whakarongo Residential Area was rezoned to provide 550 dwellings east of the City. We expect these to consist of 500-550m<sup>2</sup> lots delivered in the short and medium term. Twenty-six lots have sold or are on hold in the 114-lot Tamakuku Terrace section of this residential area, with a further 21 lots already developed privately.
- The Napier Road Residential Area (Freedom Drive) was rezoned to provide 100 dwellings. Fifty lots have been subdivided, with approximately 50 more to be provided in the short term.
- The Napier Road Residential Extension Area was rezoned to provide 50 dwellings in the short to medium term.
- The Kikiwhenua Residential Area was rezoned in 2021 to provide 280 dwellings in the short term. The average residential lot size will be between 500m<sup>2</sup> and 550m<sup>2</sup>. Before development can occur, roading and three waters infrastructure upgrades for Kikiwhenua are required. These have been programmed for in the 2021-2031 Long Term Plan, with the option of a developer agreement to deliver infrastructure faster.

<sup>26</sup> <https://www.pncc.govt.nz/roxburgh>

<sup>27</sup> <https://www.pncc.govt.nz/Participate-Palmy/Have-your-say/Proposed-Plan-Change-I>

- The Mātangi Residential Area (formerly known as Whiskey Creek) was a private plan change that rezoned 13 hectares of Rural Zone land to residential and 10 hectares to Recreation Zone in 2023. The area will provide capacity for an additional 160 dwellings. The structure plan provides for different housing types with conventional lots between 450m<sup>2</sup> and 550m<sup>2</sup> and a multi-unit housing area overlay along the reserve edge.

Our proposed plan change G: Aokautere Urban Growth will provide for 300 dwellings in the medium term and 700 in the long term:

- The Aokautere Residential Area proposes 1,000 dwellings in the south of the City. Plan Change G has been notified and is currently being considered. Transport and stormwater upgrades are required before any development begins, and these are not anticipated to occur until 2026. This development is expected to become infrastructure-ready in the medium term. However, there is a small number of available lots for development in the existing Aokautere area.

Plan changes are currently being prepared to rezone additional land to increase housing supply over the medium and long terms:

- The Kākātangiata Urban Growth Area (formerly City West) was identified as a future growth area in 2009. We expect 842 hectares to be rezoned for 7,200 dwellings in the medium and long term, supported by multifunctional stormwater/ecological/recreation corridors and four local business areas. We expect to plan for a mix of standard-sized lots, medium-density dwellings, and mixed-used housing in commercial areas. We expect to notify this plan change formally in late 2024.
- The Ashurst Growth Areas are four areas of greenfield growth identified in 2017 to provide capacity for 400 dwellings in the medium term. We expect to plan these as standard dwellings. This plan change is currently subject to an assessment of flood and stormwater constraints.

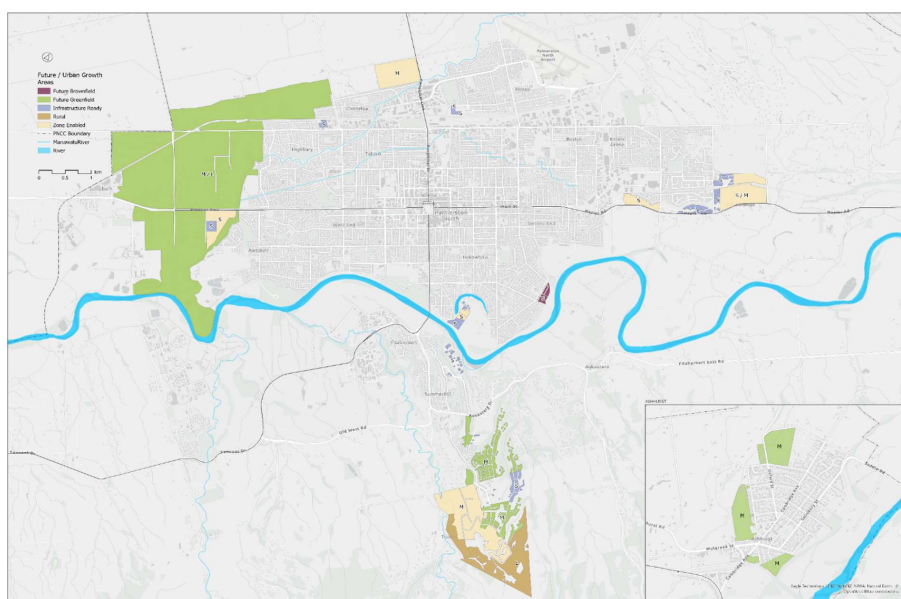


Figure 31 Plan-enabled, infrastructure-ready residential areas and future growth areas, status, and timing

### 5.3 Rural and rural-residential development capacity

An estimated 1,964 dwellings could be accommodated in the Rural-Residential Overlay areas (see Figure 32 for areas). The rural-residential development capacity was estimated based on dividing the total area of the rural residential overlay area by 1 hectare (the minimum lot size in the overlay area). All properties with building consents recently issued or houses on them as of 31<sup>st</sup> December 2022 were subtracted from this figure. Our rural-residential overlay is mainly comprised of class 3 soils.

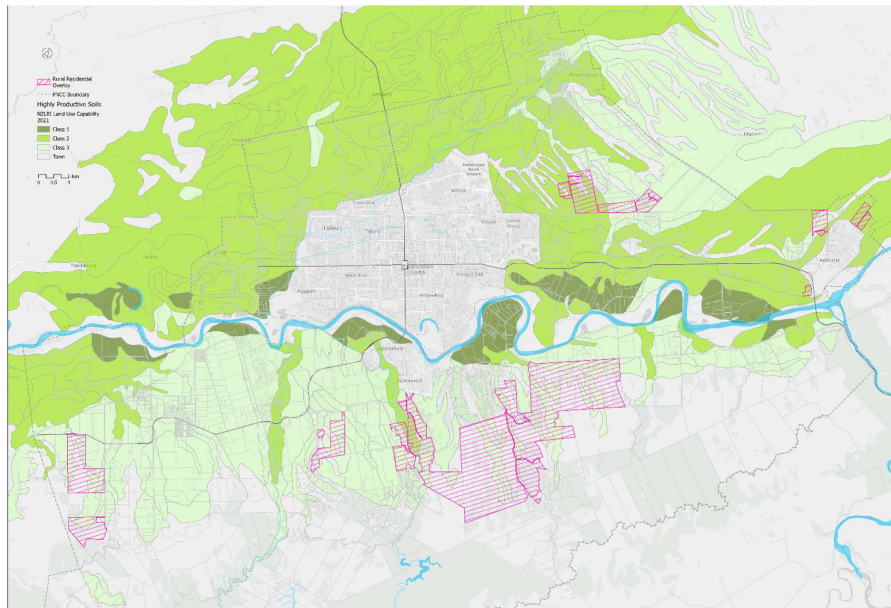


Figure 32 Soil class 1 – 3 and District Plan Rural Residential Overlay

#### 5.4 Development capacity assessment

To assess if we have sufficient housing land to meet future demand, we need to identify land supply for housing in the short, medium, and long terms, that is:

- Plan-enabled
- Infrastructure-ready
- Feasible and reasonably expected to be realised

##### 5.4.1 Plan-enabled capacity

We have assessed the current Residential Zone capacity within the district and planned residential growth areas and have determined that:

- In the short term, we have 15,939 dwellings that are plan-enabled
- In the medium term, 1,000 dwellings that are plan-enabled
- In the long term, 7,705 dwellings that are plan-enabled.

See below for our plan-enabled development capacity in the short, medium and long term.

Table 22 Short, medium, and long term plan-enabled housing

			Short term plan-enabled <i>The land is zoned for housing in the operative District Plan</i>	Medium term plan-enabled <i>The land is zoned for housing in a proposed District Plan change</i>	Long term plan-enabled <i>The land is identified in a Future Development Strategy</i>
	Housing location	Dwellings			
Infill	Residential Zone	12,789			
	Milson	25			
	Hokowhitu Lagoon Residential Area	110			
	Kingsgate Grove	30			
	Roxburgh Crescent (Draft)	105		Notify early-2024	
Greenfield	Kikiwhenua Residential Area	280			
	Whakarongo Residential Area	499			
	Napier Road Residential Area	50			
	Napier Road Residential Extension Area	50			
	Mātangi Residential Area	160			
	Aokautere Residential Area (Proposed)	1,000			
	Ashhurst Growth Areas (Draft)	400		Notify mid-2024	

	Kākātangiata Urban Growth Area (Draft)	7,200		Notify late-2024	
Rural	Rural Residential Overlay	1,964			
	<b>Total</b>	<b>24,662</b>	<b>15,939</b>	<b>1,000</b>	<b>7,705</b>

The Aokautere Residential Area is scheduled for a hearing in December of this year. If approved, this would make 1,000 homes short term plan-enabled.

Based on expected notification dates for the Roxburgh Crescent, Ashhurst, and Kākātangiata residential plan changes, we would expect that the 7,705 dwellings that are plan-enabled in the long term, if approved, would become plan-enabled in the medium term.

We have not quantified the plan-enabled capacity of our multi-unit housing areas throughout the city, which would offer further plan-enabled dwellings in the Residential Zone.

#### 5.4.2 Infrastructure-ready capacity

Development infrastructure includes network infrastructure for water supply, wastewater, stormwater, and transport that we control. We have assessed plan-enabled development capacity, the Long Term Plan and have determined that the City has the following infrastructure-ready housing development capacity:

- Short term: 15,021 dwellings.
- Medium term: 936 dwellings.
- Long term: 8,705 dwellings.



Table 23 Infrastructure-ready development capacity in the short, medium, and long term

	Housing Location	Dwellings	Short term Infrastructure- ready  <i>There is adequate existing development infrastructure to support the development of the land.</i>	Medium term Infrastructure- ready  <i>Meets short term requirement or funding for adequate development infrastructure is in the Long Term Plan</i>	Long term Infrastructure- ready  <i>Meets medium term requirement or adequate development infrastructure is in the Infrastructure Strategy</i>
Infill	Residential Zone	12,789	12,789		
	Milson	25	25		
	Hokowhitu Lagoon Residential Area	110	110		
	Kingsgate Grove	30	30		
	Roxburgh Crescent (Draft)	105			105
Greenfield	Kikiwhenua Residential Area	280		280	
	Whakarongo Residential Area	499	53	446	
	Napier Road Residential Area	50	50		
	Napier Road Residential Extension Area	50		50	
	Mātangi Residential Area	160		160	
	Aokautere Residential Area (Proposed)	1,000			1,000
	Ashhurst Growth Areas (Draft)	400			400
	Kākātangiata Urban Growth Area (Draft)	7,200			7,200
Rural	Rural Residential Overlay	1,964	1,964		

Total	24,662	15,021	936	8,705
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We are currently preparing our draft 2024-34 Long Term Plan. Infrastructure programmes to deliver development infrastructure for the Aokautere Residential Area, Ashhurst Growth Areas, Kākātangiata Urban Growth Area, and Roxburgh Crescent have been drafted. If approved, these areas would be 'infrastructure-ready' in the medium term.

Based on programmes proposed in the 2024-34 Long Term Plan and Infrastructure Strategy, development infrastructure will be delivered as follows:

In the short to medium term for:

- Whakarongo Residential Area: 499 dwellings
- Napier Road Residential Area: 50 dwellings
- Roxburgh Crescent Residential Area: 105 dwellings
- Kikiwhenua Residential Area: 280 dwellings
- Mātangi Residential Area: 160 dwellings

In the medium term for:

- Kākātangiata Urban Growth Area: 1,035 dwellings
- Ashhurst Growth Areas: 400 dwellings
- Aokautere Urban Growth Area: 300 dwellings

In the medium to long term for:

- Kākātangiata Urban Growth Area: 6,165 dwellings
- Aokautere Urban Growth Area: 700 dwellings

#### 5.4.3 Commercially feasible and likely to be realised development capacity

We must estimate the plan-enabled and infrastructure-ready housing land, which is commercially feasible and reasonably expected to be realised.

We have used the methods demonstrated in the figure and described below to determine commercial feasibility.

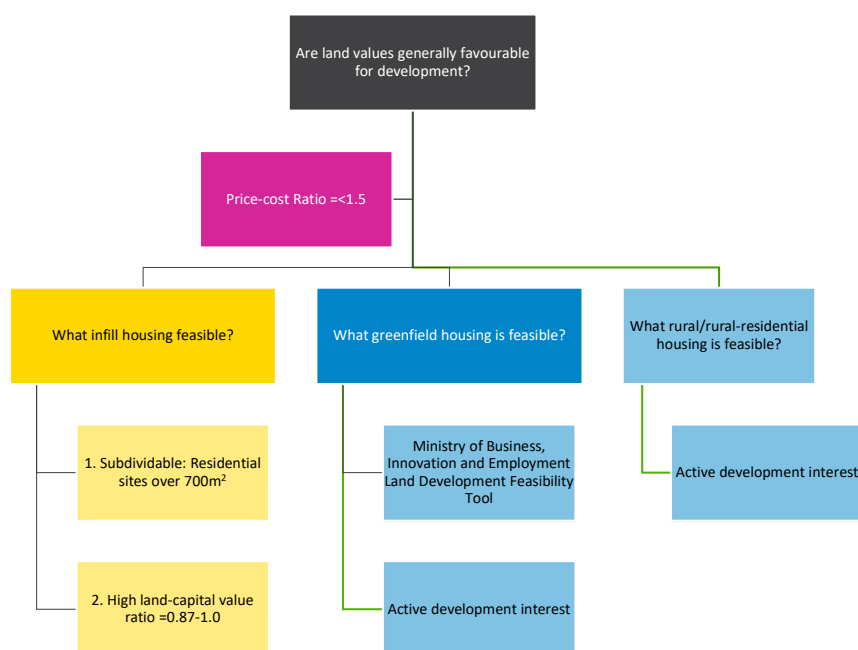


Figure 33 Method for determining commercially feasible housing land

#### For existing residential areas

- Map what is subdividable as a controlled activity under the District Plan in the Residential Zone: 700m<sup>2</sup> or larger.
- Mapping land-to-capital value ratios and determining how many properties have high redevelopment potential (land value to capital value ratio between 0.87 and 1.0) and potential redevelopment potential (land value to capital value ratio between 0.73-0.87).
- For properties with a desirable land-to-capital value ratio, apply the projected demand percentage for infill over the short, medium, and long term.

We have used the land value to capital value ratio because it can be used to signal whether a property has redevelopment potential. Properties with a higher ratio of land value to capital value (0.87 - 1.0) are likely to be more attractive to redevelop because the opportunity cost of removing existing buildings is low compared to the value of the land.

Newly subdivided land or land with older buildings typically has a high land-capital value ratio; properties with high land values or relatively newer buildings typically have lower land-capital value ratios and are less attractive to redevelop.

We have used rating data from 2021 to derive land values and capital values across the Residential Zone and have mapped high redevelopment potential (land-capital value ratios = 0.87-1.0) and potential redevelopment potential (0.73-0.87).

Based on the land value to capital ratio as of September 2021<sup>28</sup>, market incentives for residential redevelopment and intensification existed in over 60% of the city. Based on this, 60% of the plan-enabled dwellings have an optimal land-to-capital value ratio for redevelopment; we have estimated that 7,673 dwellings are commercially feasible.

Since 2021, land values have fallen at a greater rate than capital values, implying a slight weakening in the proportion of commercially feasible properties to redevelop or intensify. While this will be the case under the current market and financial conditions, the expectation is that land values will rise again relative to capital values. This will improve the incentive for redevelopment and intensification in the City. Increased market demand due to migration to the City and easing financial market settings are expected to increase land values and improve the commercial feasibility of redevelopment and intensification as economic conditions improve.

#### For plan-enabled greenfield

Our previous housing capacity assessments have applied the Ministry for Business, Innovation, and Employment Land Development Feasibility Tool<sup>29</sup> to test the feasibility of our residential growth areas. All major growth areas were assessed, and showed that these areas were feasible to develop, and most were profit maximising.

At the citywide level, we know that the cost of land reflected in the price of a property has been favourable for development outside of pandemic-affected years.

The high interest from the development community in our planned greenfield growth areas supports this:

- Aokautere has existing development within the existing residentially-zoned part of the proposed Aokautere Urban Growth Area, and developers' submissions support enabling housing in this area.
- The Kākātangiata Urban Growth Area has attracted high interest from developers purchasing land in anticipation of the plan change being notified. A range of property owners are interested in preparing private plan changes to expedite the provision of housing for their parts of the growth area.
- There is active development occurring in the eastern growth areas, with a further private plan change request being prepared by a landowner seeking to take advantage of infrastructure changes in the area<sup>30</sup>.
- There is active interest from real estate agents on behalf of developers for the Ashhurst Growth Areas.

<sup>28</sup> Council completed its up to date land valuation in 2021, therefore the extent of this drop is difficult to measure.

<sup>29</sup> <https://www.hud.govt.nz/documents/nps-udc-development-feasibility-tool/>

<sup>30</sup> This private plan change request has not been formally lodged with Council yet so we have not considered it in our development capacity assessment.



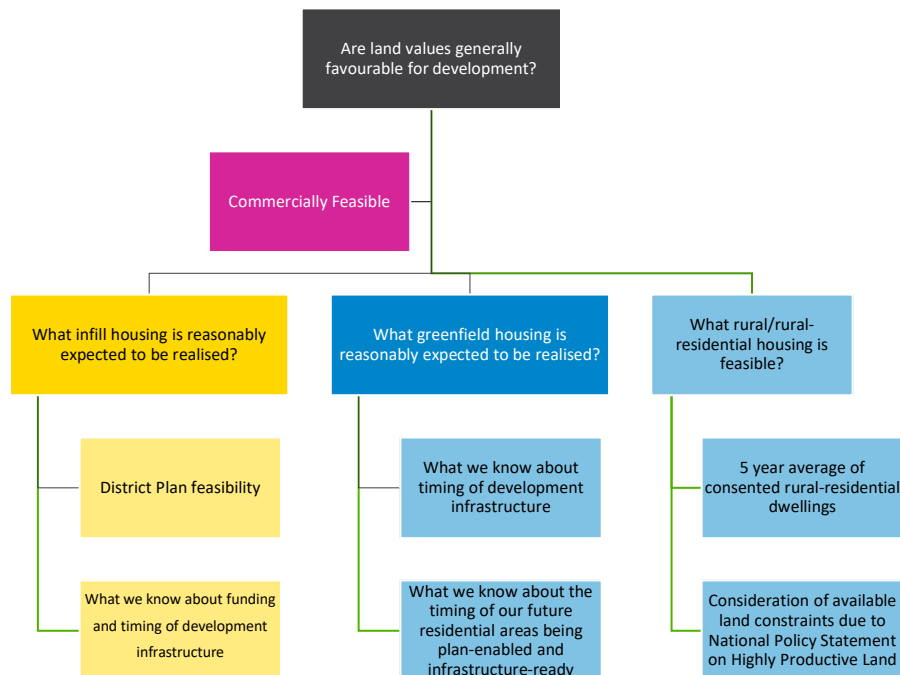


Figure 35 Method for determining housing land that is reasonably expected to be realised

#### For existing residential areas

In the Residential Zone, we have looked at what has the higher likelihood of redevelopment in the short term. To do so, we have looked at District Plan feasibility by identifying properties in the Residential Zone that are easiest to subdivide. We have looked at properties that:

- Are 700m<sup>2</sup> or over in site area reflective of a minimum lot size of 350m<sup>2</sup>.
- Has sufficient 'bare' land that could accommodate a 350m<sup>2</sup> lot or lots without requiring the removal of existing dwellings.
- Has adequate access onsite to accommodate driveways to service subdivided lots.
- Has relatively flat topography suitable for constructing dwellings without significant earthworks.

1,196 dwellings were found to meet the above criteria. To determine what has a likelihood of redevelopment in the medium-long term, we have identified the balance of properties 700m<sup>2</sup> or over in the Residential Zone with favourable land-capital value ratios. These properties are likely to incur higher redevelopment costs for demolition, access, and

earthworks. Therefore, we expect them to have a higher likelihood of developers seeking to maximise yield with multi-unit attached dwellings to offset higher land development costs.

Based on this District Plan feasibility assessment, we estimated that the following development capacity in the existing residential zone is commercially feasible and likely to be realised:

**Table 24 Commercially feasible and likely to be realised development capacity in existing Residential Zone**

Short term <i>Within the next 3 years</i>	Medium-Long term <i>Between 3 and 30 years</i>
1,196	6,477

#### **For rural-residential areas**

Of the estimated 1,964 dwellings that the rural residential areas could yield, we would reasonably expect that recent trends would continue. We have taken the 5-year average of consented dwellings in the Rural Zone (39 dwellings per year) and extended this across the short, medium and long term.

We then looked at the constraints on rural/rural-residential land and dwellings within these areas based on the National Policy Statement on Highly Productive Land to ensure that the 5-year average would not outstrip the land supply available in light of the restrictive approach taken by the policy statement.

#### **What we know about infrastructure servicing and the timing of our future residential growth areas**

To further define what is reasonably expected to be realised, we considered what we know about funding and timing of development infrastructure and the timing of our draft residential plan changes and funding for their infrastructure readiness.

We have assumed that any infrastructure requirements for infill development in the existing Residential Zone will be funded through development contributions paid at the subdivision or building consent stage. Thus, it is assumed that the commercially feasible residential zone development capacity is reasonably expected to be realised.

We know that our draft residential plan changes will be plan-enabled and infrastructure-ready sooner than we have indicated in our plan-enabled and infrastructure-ready assessments. We know that based on notification dates and draft programmes included for funding consideration in the 2024 Long Term Plan, some of our housing supply will be realised sooner. Therefore, we have adjusted these areas' timing based on this in our reasonably expected to be realised assessment.

#### **5.4.5 Commercially feasible and reasonably expected to be realised development capacity assessment**

Based on our commercially feasible and reasonably expected to be realised tests, we have determined the following:

Table 25 Commercially feasible and reasonably expected to be realised development capacity in the short, medium, and long terms.

			Short term	Medium term	Long term
	Housing Location	Dwellings	Feasible and reasonably expected to be realised	Feasible and reasonably expected to be realised	Feasible and reasonably expected to be realised
Infill	Residential Zone	12,789	11,96	3,238	3,238
	Milson	25	25		
	Hokowhitu Lagoon Residential Area	110	52		
	Kingsgate Grove	30	30		
	Roxburgh Crescent (Draft)	105	105		
Greenfield	Kikiwhenua Residential Area	280	280		
	Whakarongo Residential Area	499	88	411	
	Napier Road Residential Area	50	50		
	Napier Road Residential Extension Area	50	50		
	Mātangi Residential Area	160	60	100	
	Aokautere Residential Area (Proposed)	1,000		300	700
	Ashhurst Growth Areas (Draft)	400		400	
	Kākātangiata Urban Growth Area (Draft)	7,200		1,035	6,165
Rural	Rural Residential Overlay	1,964	117	273	780
	<b>Total</b>	<b>24,662</b>	<b>2,053</b>	<b>5,757</b>	<b>10,883</b>



### 5.5 Summary - Development capacity assessment

We have assessed our plan-enabled, infrastructure-ready housing in Palmerston North. Of that plan-enabled and infrastructure-ready housing, we have assessed what is commercially feasible and have determined that we have:

- 2,053 homes in the short term
- 5,757 homes in the medium term
- 10,883 homes in the long term

Of those homes, they are in the following locations:

- Infill – 1,408 in the short term, 3,238 in the medium term and 3,238 in the long term
- Greenfield – 528 in the short term, 2,246 in the medium term and 6,865 in the long term

Rural/rural-residential – 117 in the short term, 273 in the medium term and 780 in the long term.

## 6. Housing Sufficient Development Capacity Assessment

Clause 3.27 of The Policy Statement requires our housing development capacity assessment to identify whether there is sufficient development capacity to meet estimated demand for the short, medium, and long term.

This must be based on comparing the demand for housing (with competitiveness margins added) and the development capacity we identified in the housing development capacity assessment. If we find an insufficiency, we must identify where and when this will occur and analyse the extent to which our planning documents, a lack of development infrastructure, or both cause and contribute to the insufficiency.

In section 4, we assessed our housing demand and estimated that Palmerston North district needs an additional 9,884 homes over the next 30 years with:

- 982 homes required in the short term.
- 3,010 homes in the medium term.
- 5,891 homes in the long term.

We estimated this demand for dwellings would be divided across the following locations and housing types.

Table 26 Estimated demand location and housing type

	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	30 year total
<b>Housing location</b>				
<b>Greenfield</b>	393	1,505	3,240	5,138
<b>Infill</b>	541	1,354	2,357	4,251
<b>Rural/Rural-Residential</b>	49	150	295	494
<b>Housing type</b>				
<b>Standalone dwelling</b>	865	2,588	4,595	8,048
<b>Attached dwelling</b>	118	421	1,296	1,835

In section 5, we assessed our housing development capacity and found we have the following:

- 2,053 homes in the short term
- 5,757 homes in the medium term
- 10,883 homes in the long term

Of those homes, they are in the following locations:

- For infill – 1,408 in the short term, 3,238 in the medium term and 3,238 in the long term
- Greenfield – 528 in the short term, 2,246 in the medium term and 6,865 in the long term
- Rural/rural-residential – 117 in the short term, 273 in the medium term and 780 in the long term.

Based on comparing our demand and housing development capacity (as shown in Figure 36 below) over the short, medium and long term, we found that we have sufficient housing development capacity to meet demand across all periods.

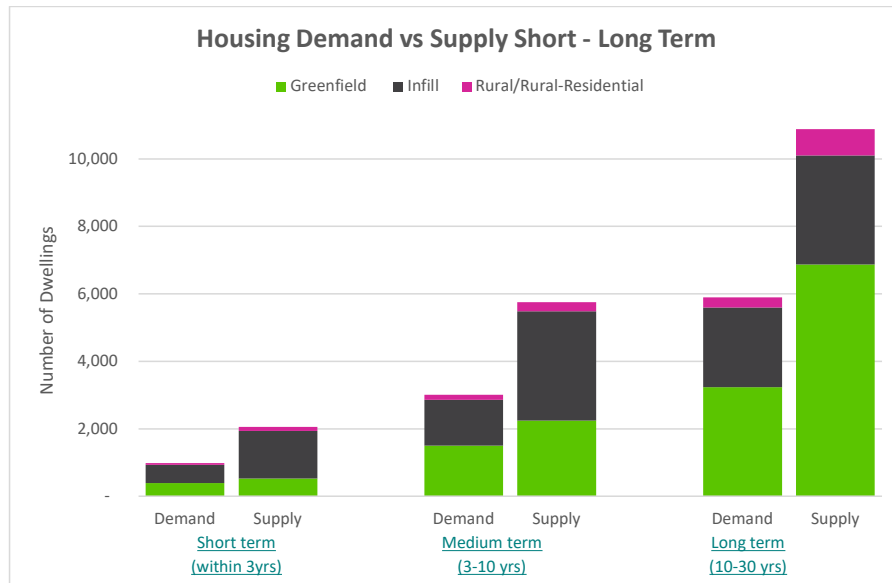


Figure 36 Housing demand compared with supply in the short, medium, and long term

Sufficiency in the short and medium term will rely on the delivery of development infrastructure in some of our greenfield areas. We have funding through the Long Term Plan, and delivery will be critical.

Table 27 Short term greenfield housing land infrastructure servicing requirements

Location	Dwellings	Availability	Infrastructure-ready timing
Kikiwhenua Residential Area	280	Plan-enabled and feasible	Water supply for the first stage is planned for delivery in 2024/25.  Water supply, wastewater, and transport infrastructure for the balance is planned for delivery in 2025/26.  An intersection speed zone is planned for the 2025/26 year to enable full development.
Whakarongo Residential Area	499	Plan-enabled and feasible	Stormwater infrastructure is planned for delivery in 2024/25.  Water supply and wastewater infrastructure is planned for delivery from 2027/28.  Approval of safe access onto Napier Road.
Napier Road Residential Area and Extension Area	100	Plan-enabled and feasible	Stormwater infrastructure is planned for delivery in 2025/26.  Approval of safe access onto Napier Road is required for the Napier Road Residential Extension Area.
Mātangi Residential Area	160	Plan-enabled and feasible	Approval of intersection improvements and safe access via Benmore Avenue and Rangitikei Line.
Roxburgh Crescent Residential Area	105	Plan-enabled <sup>31</sup> likely to be realised.	Stormwater infrastructure is planned for delivery in 2025/26.
<b>Total</b>	<b>1,144</b>		

The Policy Statement states that we need to be satisfied that the additional infrastructure to service the development capacity is likely to be available. The State Highway network – which is defined as additional infrastructure – is in proximity to all the residential areas apart from the Roxburgh Crescent Residential Area. Speed limit reductions and some other interventions on the State Highway network are required to bring these areas to market as follows:

- Kikiwhenua Residential Area - A reduced speed limit on State Highway 56 is needed to enable us to upgrade the intersection of Te Wanaka Road and the state highway.

<sup>31</sup> We expect that the draft plan change for Roxburgh Crescent will be notified in early 2024.

- Whakarongo Residential Area, Napier Road Residential Area and Extension Area, and the Mātangi Residential Area - These all require the approval of Waka Kotahi for safe access onto State Highway 3.

We expect a reduced speed limit to be proposed for State Highway 56 in the 2024/25 Waka Kotahi speed management plan. The safe accesses required for each of the above growth areas will be led by developers as these areas are staged over time.

#### **6.1 Summary – sufficient development capacity assessment**

When comparing our estimated demand for homes and our housing supply that is plan-enabled, infrastructure-ready, commercially feasible and likely to be realised, we have found that we have sufficient development capacity across all terms to meet estimated demand. Having sufficient development capacity in the medium and long term will rely on District Plan changes to rezone land at Kākātangiata, Aokautere and Ashhurst. Across all terms, delivery of programmed infrastructure in the Long Term Plan to residential areas will also be critical.

## 7. Risks to Housing Supply

There are a few risks worth noting in relation to the supply of housing and meeting estimated demand.

### **Residential rezonings in our future growth areas and within the city**

We are currently preparing several District Plan changes to rezone land for housing. This includes the Kākātangiata, Aokautere, and Ashhurst urban growth areas, Roxburgh Crescent, and the Medium Density Residential Zone.

The homes enabled through these plan changes will be key to meeting demand over the short, medium, and long term. The Medium Density Residential Zone will also be key to enabling different housing types to meet demand. If they are not approved for rezoning, or if rezoning is delayed, there is potential that demand will outstrip supply.

We recommend that these growth areas be identified in the Future Development Strategy as locations for meeting housing demand in the district. We also recommend that the District Plan changes be notified as scheduled so they become plan-enabled and infrastructure-ready in time to meet demand.

### **Funding, providing, and identifying development infrastructure on time**

Development infrastructure, which includes roading and three waters controlled by us, is required to enable housing at Kākātangiata, Aokautere, Ashhurst, Roxburgh Crescent and, to an extent, the Medium Density Residential Zone (through infrastructure upgrades). If not delivered in time, we will not have enough infrastructure-ready housing supply to meet demand.

We recommend that the development infrastructure for Kākātangiata, Aokautere, Ashhurst, Roxburgh Crescent and the Medium Density Residential Zone be funded as a priority in the 2024 Long Term Plan.

Further to this, the Kikiwhenua, Whakarongo and Mātangi Residential Areas, along with the Napier Road Residential Area and Extension Area, all require some development infrastructure. We have identified the development infrastructure required for these residential areas in **Table 27**, and it is scheduled for delivery in our current long-term plan. If not delivered, we will not have enough greenfield land to meet demand in the short term. We recommend that the delivery of the required development infrastructure continue to be a key priority for us in the coming years.

On another note, in recent residential rezonings, technical reporting has identified roading, stormwater and other public infrastructure requirements to support the growth. However, these have been identified in structure plans rather than being designated using the Council's powers as a requiring authority. This has resulted in the Council waiting for landowners to

develop their land and vest public infrastructure with the Council, which requires significant investment by the landowner and delays the infrastructure readiness of zone-enabled land until development occurs.

It is considered that designating land within future residential growth areas upon the plan change being approved would assist in speeding up infrastructure readiness and potentially lessen the price-to-cost ratio of greenfield sections.

We recommend that once development infrastructure corridors are identified in the plan change process and once approved, consideration be given to designating them through the Notice of Requirement process. This will be particularly important for large greenfield growth areas such as Aokautere and Kākātangiata.

#### **Ensuring additional infrastructure is likely to be available**

When providing development capacity for housing and business land, we must be satisfied that the additional infrastructure is likely to be available. Additional infrastructure includes:

- public open space
- community infrastructure
- land transport not controlled by us, such as bus routes, state highways and rail
- schools, healthcare facilities, and other social infrastructure
- telecommunications networks
- electricity and gas transmission networks.

We recommend continuing engagement with additional infrastructure providers and ensuring there is a consistent understanding of the additional development infrastructure required to support housing demand.

One of our most influential pieces of additional development infrastructure is the relationship between the current and future State Highway and future housing areas. Almost all of the District's greenfield growth areas have a State Highway interface to manage. Community severance in these growth areas will create disjointed communities if these sections of state highway are not adapted to manage safe access and a quality urban environment.

The Palmerston North Integrated Transport Initiative<sup>32</sup> was prepared in 2021 to align land use and the transport network better. As discussed in our engagement section, Waka Kotahi is not supportive of residential areas that result in the severance of communities or where heavy vehicle movements are not managed appropriately.

Key interventions under the Initiative that will support housing growth include:

- Consolidation of industrial land use around the Te Utanganui Central North Island Distribution Hub and larger segments of the city. This will free up pockets of industrial land in residential areas for housing.

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<sup>32</sup> <https://www.pncc.govt.nz/files/assets/public/documents/have-your-say/closed/kiwirail-freight-hub/pncc-technical-evidence/key-docs-referred-to-in-the-technical-reports/pniti-1.pdf>



- Changes to the urban state highway system and creation of the Regional Freight Ring Road. This will create opportunities for safer walking, cycling, and public transport routes within the city to improve the conditions for medium density and multi-unit housing.
- Investment in key active and public transport corridors will give greater access for all modes and improve the conditions for medium density and multi-unit housing.

We recommend continuing to implement the programmes identified in the Palmerston North Integrated Transport Initiative.

#### **Providing for standalone and attached dwellings and papakāinga**

We are seeing and estimating demand for attached dwellings in the future. Rangitāne o Manawātū has expressed a desire to develop papakāinga. Ensuring that different housing types, including attached housing and papakāinga, are provided for is key to meeting this demand.

Attached housing is typically delivered through multi-unit housing developments, which require resource consent as either a restricted discretionary or discretionary activity, depending on where it is proposed. Papakāinga is a discretionary activity in the District Plan.

We recommend continuing and improved support through the consenting process be given to those who wish to develop multi-unit housing, attached housing, and papakāinga, as the activity statuses are more onerous than developing conventional standalone housing. We also recommend that the activity statuses for multi-unit housing papakāinga be considered in future District Plan changes – the Medium Density Residential Zone being a good opportunity.

#### **Supporting the residential construction sector**

The residential construction sector will be constructing and altering homes to meet demand. At present, a large proportion of our new homes being built are large standalone 4 – 5 bedroom homes. With our projected population change and the need for smaller homes, we need to ensure we support the construction sector to deliver housing and different housing types to meet demand.

We recommend continuing support through pre-application and resource consenting support to the sector. We also recommend raising awareness of what our District Plan enables and the outcomes it seeks so the construction sector is aware of what types of housing can be delivered through our District Plan provisions.

#### **Encouraging housing intensification and different housing types**

In our existing residential zone, there is a significant opportunity to develop land more efficiently for housing through more intensive housing types and by building more houses on properties. Our District Plan is set up to support this, and the Medium Density Residential Zone plan change, if approved, will further support it. In our greenfield growth areas, there is also an opportunity to enable a variety of housing options, including those that use land more efficiently, such as medium-density housing. The Business Zones provide a further

opportunity for different and more efficient housing types with housing above ground floor level.

Intensification and different housing types will be a part of meeting demand as there will be demand for smaller and attached housing. More efficiently using land for housing will mean our growth areas last longer before we have to explore more growth options in the future.

We recommend that the Council raises property owners', developers', and the construction sectors' awareness of the intensification enabled through the operative District Plan. We also recommend that all future greenfield growth areas include provision for medium-density housing.

#### **Planning reform**

The Government is reforming the resource management system. The transition from the old to the new planning system is expected to occur over ten years. The new system will shift planning to a more regional level and require us with Horizons Regional Council and Ruapehu, Wanganui, Manawatu, Horowhenua, and Tararua District Councils to prepare a Regional Spatial Strategy and Natural and Built Environment Plan.

We need to continue with our growth plan to ensure we have enough housing land to meet estimated demand. If the growth plan is not included in the new strategy and plan under the new planning system, this might result in us failing to meet demand. Ensuring our growth planning is captured through the new planning instruments will be crucial. The Future Development Strategy and progressing residential plan changes will be key to doing so.

We recommend that our existing growth plan is captured in the Future Development Strategy and that residential rezoning to enable more housing continues to progress. This will ensure that our housing demand can be met as we transition to the new planning system.

#### **Land banking**

Our current rating policy does not discourage landowners with large residential-zoned landholdings from slowly releasing land for development. A discounted rate is applied to developable land that is greater than 5 hectares. For example, a 10-hectare block only has to pay full residential rates for 5 of the 10 hectares. Applying a full residential rating to land that is zoned and serviceable may encourage land to be released faster. The rating policy should be reconfigured in its next review to encourage faster release of land and reduce land banking of serviced land.

## 8. Conclusion – Housing Development Capacity Assessment

We have looked at our housing market trends and indicators, household and population projections, our District Planning context and likely housing needs from Māori and other groups in our community.

Construction trends show that investment in new homes across the district has been high in recent years. Different housing types are emerging, too, as well as trends in where homes are being built and their size. Our operative District Plan enables different types of housing at various locations throughout the district. Price efficiency indicators show that we have favourable price-to-cost ratios, and the cost of construction is comparable to other-sized cities and below the national average.

There is demand for our rental, housing and social housing markets, with indicators showing Palmerston North is comparable and, in most cases, below similar-sized cities and the New Zealand average. Nonetheless, our housing remains unaffordable for most. This is mostly a reflection of wider economic conditions in recent years.

Our population is growing, and our household sizes and make-ups are projected to change, too. Our existing housing stock, construction trends and affordability are all likely to affect Māori and other groups in our community who have different housing needs to what is currently being delivered through our existing housing stock and recent residential construction.

We have looked at where and what type of homes have been built in the district and household size projections to estimate demand for housing over the next 30 years. For housing, we estimate that Palmerston North district will need 9,884 homes over the next 30 years. This number includes competitiveness margins. The projected demand for homes in the short, medium, and long term is:

- 983 homes in the short term
- 3,010 homes in the medium term
- 5,891 homes in the long term

Looking at where and what types of homes have been built in the district and household size projections over the next 30 years, we have estimated over the short, medium, and long term the following demand for housing by location and type:

Table 28 Housing demand estimates by location and type

	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	30 year total
<b>Housing location</b>				
Greenfield	<b>40%</b> 393	<b>50%</b> 1,505	<b>55%</b> 3,240	5,138
Infill	<b>55%</b> 541	<b>45%</b> 1,354	<b>40%</b> 2,357	4,251
Rural/Rural-Residential	<b>5%</b> 49	<b>5%</b> 150	<b>5%</b> 295	494
<b>Housing type</b>				
Standalone dwelling	<b>88%</b> 865	<b>86%</b> 2,588	<b>78%</b> 4,595	8,048
Attached dwelling	<b>12%</b> 118	<b>14%</b> 421	<b>22%</b> 1,296	1,835

We have looked at our housing land and whether it is plan-enabled, infrastructure-ready, and commercially feasible and reasonably expected to be realised. We found:

- In the short term, we have 2,053 homes that meet these criteria, and they are in the following locations:
  - Infill – 1,408
  - Greenfield – 528
  - Rural/Rural-Residential - 117
- In the medium term, we have 5,757 homes that meet these criteria, and they are in the following locations:
  - Infill – 3,238
  - Greenfield – 2,246
  - Rural/Rural-Residential - 273
- In the long term, we have 10,883 homes that meet these criteria, and they are in the following locations:
  - Infill – 3,238

- Greenfield – 6,865
- Rural/Rural-Residential – 780

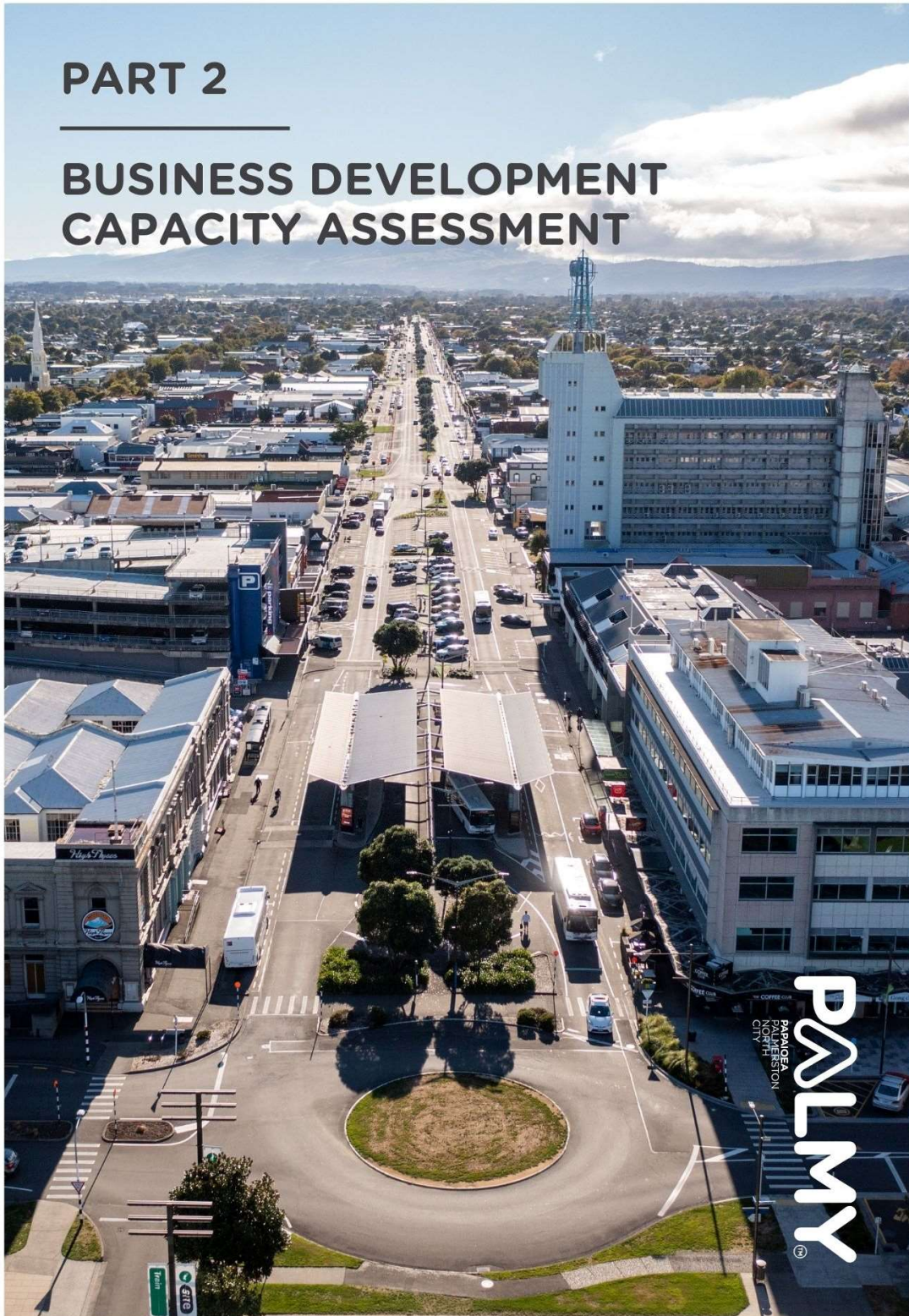
When comparing our housing demand and our plan-enabled, infrastructure-ready, commercially feasible, and reasonably expected to be realised housing land, we have enough development capacity in the short, medium, and long term to meet demand.

There are a few risks to meeting demand, which we have identified and made recommendations on. These include:

- Ensuring future residential rezonings to meet demand in the short, medium, and long term are progressed on time. If not, we will not have enough housing to meet demand.
- Ensuring development infrastructure is provided on time to meet demand, particularly in the short term. If not, we will not have enough greenfield housing supply to meet demand.
- Ensuring additional development infrastructure is likely to be available to meet demand over the next 30 years.
- Ensuring that different housing types, including attached housing and papakāinga, are provided so that different housing needs are catered for. The District Plan enables these housing types, but further support through the consenting process and the activity statuses for multi-unit housing papakāinga should be considered.
- Ensuring the residential construction sector is supported by us to deliver housing and different housing types to meet demand, including through pre-application and resource consenting support and raising awareness of what our District Plan enables and the outcomes it seeks.
- Ensuring intensification is supported to make efficient use of our housing land and to ensure our greenfield residential areas last longer.
- Ensuring our growth planning is captured in new planning instruments introduced through planning reform.

## PART 2

# BUSINESS DEVELOPMENT CAPACITY ASSESSMENT



**PALMY**  
PAPAŌEA  
PALMERSTON  
CITY

# 1. Introduction

Like housing, the National Policy Statement on Urban Development 2020 ('the Policy Statement') requires us to estimate the demand for additional business land from business sectors in the region and Palmerston North City over the short, medium, and long terms.

We also need to assess what business land is plan-enabled, infrastructure-ready, and suitable for each business sector. We then need to assess whether we have enough land to meet demand. If we do not have enough land, the Assessment must identify where and when the insufficiency will occur and look at whether planning documents, a lack of development infrastructure, or both cause and contribute to the insufficiency.

This part of the Assessment contains this information in accordance with the requirements of the Policy Statement.

The first section sets out the business land demand assessment. The second sets out our development capacity assessment, including how much business land we have. The next section contains the sufficient development capacity assessment, which compares our business land demand with supply to determine if we will have enough land to meet demand.

We have found we have sufficient business land to meet projected demand over the next 30 years.

## 2. Our Business Overview

This section gives an overview of trends in non-residential building consents and construction activities. It also gives an overview of our business land planning framework and projects that will affect business land growth over the next 30 years. **Non-residential building trends**

In 2022, 128 non-residential building consents were issued. Education buildings accounted for the largest number of consents, followed by factories, industrial and storage, and office administration and public transport buildings.

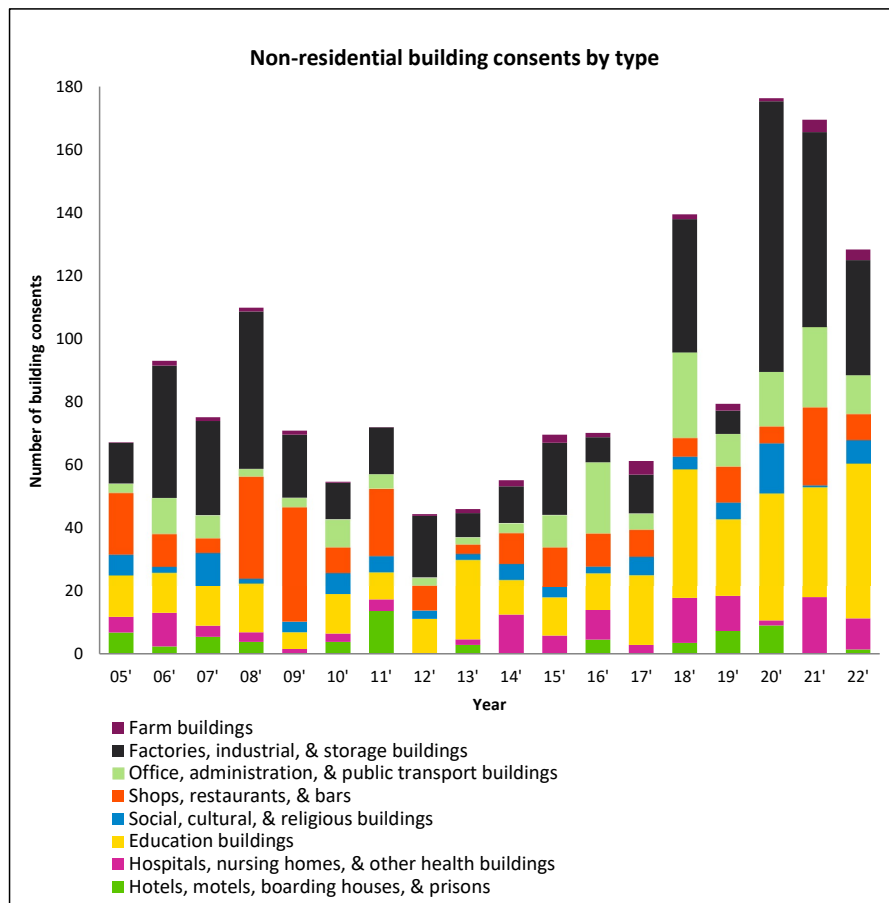


Figure 37 Non-residential building consents by type (2005 - 2022)

Major building consents approved during 2022 were:



- Construction of a new Manukura School campus – Hokowhitu
- Construction of a new 28-bed mental health facility- Te Whatu Ora Midcentral – Palmerston North Hospital
- Factory and industrial buildings, including for storage and distribution - Palmerston North Airport
- MetLife Care Palmerston North Villas retirement village development -
- Seismic strengthening, renovation, and refit of commercial buildings

The value of non-residential building consents (new and alterations) issued for the year ending December 2022 was \$128 million, a decrease of 24% from 2021. The annual value of consents for the construction of new non-residential buildings was \$92 million (69% of total value) compared to \$118 million in 2021 (72% of total value). The average annual value for new non-residential building consent for the past ten years is \$65 million.

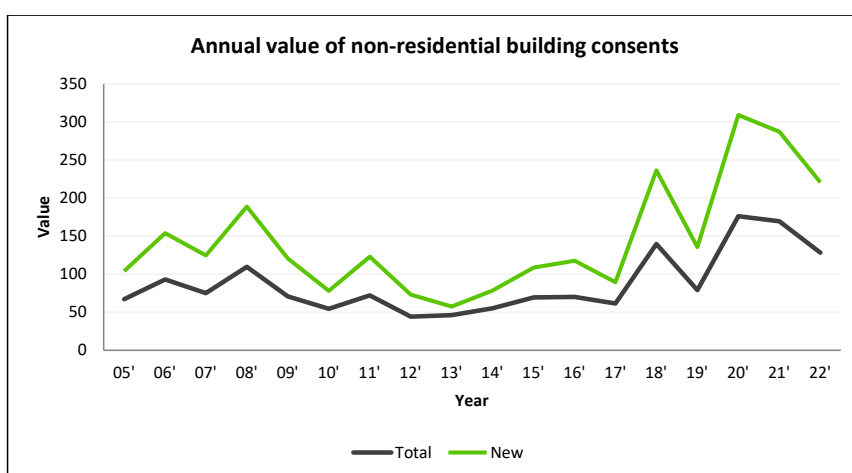


Figure 38 Annual value of non-residential building consents in Palmerston North (new construction vs additions and alternations)

The figure below shows the distribution of cumulative non-residential consents from 2003 to 2022 by statistical area. Representing more than two-thirds of the value of non-residential consents, the top four statistical areas with well over \$150 million each are as follows:

- Palmerston North Airport (where the Airport and North East Industrial Zones are located) - accounted for 19% of non-residential building consents by value.
- Palmerston North Central (where business zones are located) – accounted for 17% of non-residential building consents by value
- Tremaine (covering most of the Industrial zone and North-East Industrial Zone) – accounted for 16% of non-residential building consents by value
- Turitea (where Massey University and adjacent research institutes are located) – accounted for 15% of non-residential building consents by value.

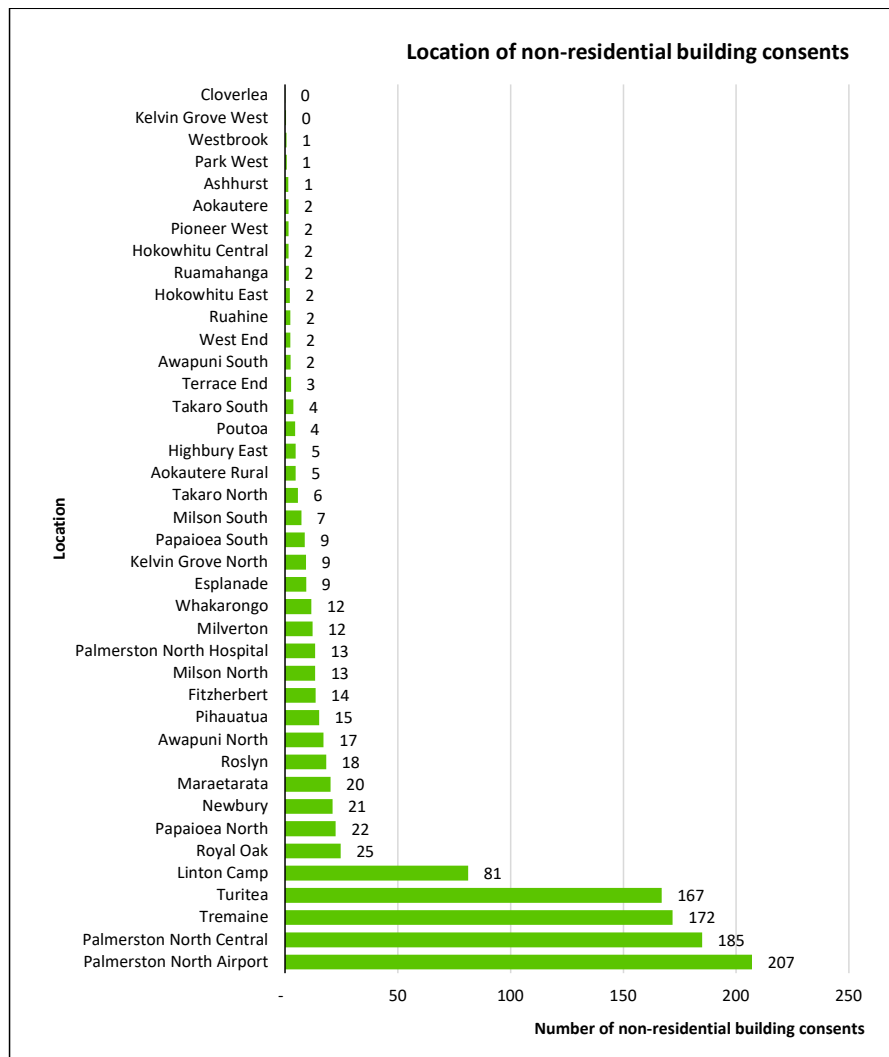


Figure 39 Distribution of non-residential consents (2003 – 2022 December) by SA2 (\$ million)

Non-residential construction activity has been impacted by capacity constraints in the construction sector, with activity being dominated by demand for residential construction throughout 2020 and 2021. Residential investment has weakened as expected in 2022 in response to tight monetary and financial conditions and the high cost of living. Weaker demand for residential construction activity is expected to help meet capacity for an increase in non-residential construction. Consent values in 2023 indicate an increase in non-residential consent activity in the city, alongside weaker residential construction activity, as expected.

## 2.2 Business District Plan zones, floor area and vacancy rates

Business activity is concentrated within four distinct business zones, which have a hierarchy and total of 152.6 hectares and offer 839,129m<sup>2</sup> of developed floor space<sup>33</sup>. We have undertaken a vacancy survey of the business zones, which has found some vacancies and trends associated with it.

### **The Inner Business Zone is intended to serve as a primary commercial and business centre of the city**

The Inner Business Zone is 31.6 hectares with 329,210m<sup>2</sup> total developed floor area<sup>33</sup>.

The zone is commonly referred to as the city centre and lies at the hub of the City. The specific function of the zone is to accommodate a range of business activities such as entertainment, cultural uses, offices and retail outlets within a highly walkable and accessible urban environment.

### **The Outer Business Zone caters for a range of businesses that need larger areas for their activities**

The Outer Business Zone is 80 hectares with 390,503m<sup>2</sup> total developed floor area<sup>33</sup>. It is located around the Inner Business Zone and extends out along Main Street, Fitzherbert Avenue and Rangitikei Street, which are our main entrances to the City. The zone is a less intensive and more vehicle-oriented commercial environment than the Inner Business Zone.

The zone caters for businesses that need larger areas, such as manufacturing, large supermarkets, and distribution facilities. The Zone is also intended to accommodate businesses that need access to major transport routes such as our arterial roads or highways.

### **The Fringe Business Zone provides for space extensive retail activities and large-scale activities**

The Fringe Business Zone is 19.6 hectares with 59,184m<sup>2</sup> total developed floor area<sup>33</sup>. It is located on the Rangitikei Street and Church Street edges of the Outer Business Zone. It caters for business activities that require a location on the fringe of the city and accommodates a range of business activities that may not be appropriate within the city centre or in residential areas. The zone must be developed in such a way that it does not adversely affect the function of the Inner and Outer Business zones.

### **The Local Business Zone serves the day-to-day needs of residents in their neighbourhoods**

The Local Business Zone is 21.4 hectares with 60,232m<sup>2</sup> total developed floor area<sup>33</sup>. The zone is in various residential areas of the city. It caters for a range of local business activities, such as in large and small neighbourhood shopping centres, including small-scale service and retail businesses.

The zone is designed to support the day-to-day needs of residents by providing convenient access to services and goods in their neighbourhoods as well as reducing the need to travel further afield.

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<sup>33</sup> As at December 2021 based on the TelferYoung from CBRE Palmerston North Commercial Market Survey 2022 Palmerston North City

Proposed District Plan Change G: Aokautere Urban Growth, which has early legal effect, proposes the rezoning of 0.79 hectares of land to Local Business Zone.

#### **There is vacancy in our existing business zone's buildings and land**

We have undertaken a vacancy survey (attached as Appendix 3). There are some vacant buildings and land in the business zones. The overall vacancy rate across all business zone buildings is 65,603m<sup>2</sup> representing 8.36% of total floor space<sup>33</sup>. There appears to be a correlation between building age and vacancy. Buildings built before 1960 have the highest vacancy rates of 19.75% (31,890m<sup>2</sup>), followed by buildings built between the 1960s and 1990s at 5.02% (21,315m<sup>2</sup>) and then buildings built post-year 2000 at 6.24% (12,398m<sup>2</sup>).

Building vacancy rates in the different business zones in the city were found to be:

- 13.3% in the Inner Business Zone
- 5.13% in the Outer Business Zone
- 1.11% in the Fringe Business Zone
- 4.9% in the Local Business Zone

For floor areas located on the ground floor and upper floors, there is a difference in vacancy rates as well; Upper floor vacancy rates across all business zones were 15.11%, while ground floor vacancy rates across all business zones were 5.63%.

There is also vacant land<sup>34</sup> in the business zones. In the Inner Business Zone, 1.6 hectares of land is vacant. In the Outer Business Zone, 10.4 hectares of land is vacant. The Fringe Business Zone contains 4.0 hectares of vacant land, and in the Local Business Zone, 3.1 hectares is vacant.

### **2.3 Strategies and projects related to business activities**

**Our business activities have evolved in a particular land use pattern, and our District Plan and Commercial Land Use Strategy reinforce this**

The function and business activities that are encouraged in each of the four business zones have been described above. In summary, outside of the local convenience-based services and retail located throughout the City's suburban areas. Retailing and associated commercial activities have focused around the historical city centre and gradually expanded from the

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<sup>34</sup> Vacant commercial zoned land is defined as any commercially zoned land parcel containing no significant occupied or vacant commercial buildings. Vacant commercial zoned land parcels include:

- Vacant land parcels used as car parks within business zones
- Occupied land in industrial and business zones used for storage that is not associated with a business such as a car yard or car rental agency
- Residential or rural rated properties within commercial zones
- Land under construction, including completed properties without floor areas in the DVR
- Vacant land within commercial zones

core to form a naturally evolving hierarchy of business areas radiating from the centre of the City. The District Plan approach reinforces this pattern of development in the business zones.

We have a Commercial Land Use Strategy, which seeks to maintain retail and office activity in the core of the city and discourage the dispersal of these activities to the industrial fringes of the city. The District Plan's business zones' objective, policy and rule framework reinforce this strategy.

#### **City Centre Streets project may drive interest in leased space and redevelopment**

The City Centre Framework coordinates public and private investment and identifies strategic development sites within the city centre. The council's vision for the city centre is to make it a place where people want to visit and live, meet up with their friends and family, be entertained, stay longer, and support local retailers.

Ten key directions and projects in the City Centre Framework aim to deliver this vision. The most notable is Streets for People, now known as the City Centre Streets project. The project is a multi-million dollar project to transform the city centre streets to create wider footpaths, narrower roads, more vegetation, better streetlights, more spots for outdoor dining and seating, and more attractive streets.

Feedback from Cuba Street building owners, where the street has been similarly transformed, indicates the upgrades have assisted with increased interest in leased space and redevelopment opportunities in the area. We expect the same would occur in the city centre as the streets are progressively transformed.

#### **We have several earthquake-prone buildings in the city centre, and Council funding supports their strengthening and redevelopment**

Several buildings within the city centre are heritage-listed and have been identified as earthquake-prone. The council has seen ongoing investment by building owners to strengthen these. The Council's Natural and Cultural Heritage Fund provides funding to heritage building owners for strengthening investigations, and the strengthening work itself further supports this. It is expected that investment to strengthen buildings will continue, and this will support redevelopment and lower vacancy rates of these buildings in the city centre over time.

#### **2.4 Industrial District Plan zones, floor area and vacancy rates**

As for existing industrial land supply, it is located within several industrial areas across the district within the Industrial (and our associated 'subzones') and Airport Zones with a combined area of 840.6 hectares.

#### **The Industrial Zone provides for a wide range of industrial activities**

The Industrial Zone covers 403.5 hectares of the city and offers 1,015,531m<sup>2</sup> of total floor space<sup>35</sup>. The zone permits a wide range of industrial activities. It has a subsidiary function in providing for other activities essential to the operation of industry, such as industrial services and convenience shops for workers. Other non-industrial activities, such as community and leisure facilities and semi-industrial retailers, including building suppliers and home renovation firms, which cannot be as readily accommodated for economic and operational reasons, within other zones are also contained in the zone.

**The Industrial Zone has a few subzones**

Within the Industrial Zone, there are various 'subzones' – the Braeburn Industrial Area, Railway Road Industrial Enclave, and Midhurst Street Industrial Area – which have different objectives, policies and rule frameworks than industrial-zoned land outside of these areas, which in some instances restrict how the land can be used.

Major dairy manufacturing and processing activities are located at the Longburn Dairy Manufacturing Site. The 33.5-hectare Braeburn Industrial Area provides additional land for the future expansion of these activities. When rezoned, it was envisaged that the Braeburn Industrial Area would remain in the single ownership of Fonterra and would not be for the purpose of meeting the wider industrial land needs of the City. In this regard, subdivision has been made a non-complying activity and planning provisions have been developed to provide for dairy-related activities only.

The Railway Road Industrial Enclave generally enables any industrial and ancillary activity; however, it includes access and landscaping requirements to recognise its position as a key entry point into the city.

The Midhurst Street Industrial Area was specifically developed to meet the demand for small to medium-sized industrial sites in the City. Development within the Midhurst Street Industrial Area is managed by reference to a Structure Plan to achieve the desired environmental results and the integrated provision of infrastructure.

**The North East Industrial Zone provides for larger industrial sites and those industrial activities requiring 24/7 operations**

The North East Industrial Zone covers 223.6 hectares and offers 146,302m<sup>2</sup> of total floor area<sup>35</sup>. The North East Industrial Zone is a greenfield industrial area, rezoned in three different stages – 2004, 2010 and 2015. The zone responds to specific market requirements for large industrial sites of 5 hectares and above and sites that can be accessed on a 24-hour basis. It responds to projected growth, particularly in the distribution and communication industries in the City.

Part of the zone (78.2 hectares) still needs roading or three waters infrastructure. This is to be funded through Long Term Plan programmes and development contributions as development occurs.

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<sup>35</sup> As at December 2021 based on the TelferYoung from CBRE Palmerston North Commercial Market Survey 2022 Palmerston North City (attached to this Assessment as Appendix 3)

50 hectares of the zone is designated by KiwiRail for the Regional Freight Hub. 15 hectares will be available for industrial use, but 35 hectares will be used exclusively for the freight hub operations.

#### **The Airport Zone provides for some industrial activities too**

The Airport Zone covers 213.5 hectares and offers 23,361m<sup>2</sup> of total floor area<sup>35</sup>. The Airport Zone is comprised of two distinct precincts:

- The Core Airport Precinct – land within the Airport Zone encompassing the Palmerston North Airport’s airfield, hangars, apron, terminal, public parking, and other core airside activities, which is not available for business use; and
- The Airport Environs Precinct – land on the southern half of Airport Drive and McGregor Street, which has no airside access, which is 12.9 hectares and is considered part of the district’s business land.

The District Plan provides for most industrial and commercial activities as permitted activities in the Airport Environs Precinct, but there are restrictions on floor area for some commercial developments. For example, stand-alone office activities and retail activities over 100m<sup>2</sup> are classified as Discretionary Activities. This is to reinforce that this type of activity should occur in the business zones.

#### **Vacancy rates in industrial buildings are low, but there is some vacant land**

The total vacancy rate of buildings across the zones mentioned above is 1.11% (13,251 m<sup>2</sup> vacant)<sup>35</sup>. There are no vacant buildings in the Airport and North East Industrial Zones, indicating high demand for industrial floor area in the city.

Trends in vacancy rates in older buildings in the zones are similar to those in the business zones, with buildings built pre-1960s displaying higher vacancy rates than those built post-2000s. However, this difference in vacancy is more marginal than in the business zones.

- Buildings built post year 2000 had a vacancy rate of 0.86% (1,876m<sup>2</sup>)
- Buildings built between 1960s to 1990s had a vacancy rate of 1.17% (7,896m<sup>2</sup>)
- Buildings built pre-1960s had a vacancy rate of 1.56% (1,876m<sup>2</sup>)

Despite low building vacancy rates, there is some vacant land<sup>36</sup> in the industrial areas:

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<sup>36</sup> Vacant commercial zoned land is defined as any commercially zoned land parcel containing no significant occupied or vacant commercial buildings. For industrial land parcels, this means less than 50 sqm of floor area or only a small percentage of the land parcel being occupied by commercial buildings. It also included:

- Occupied land in industrial and business zones used for storage that is not associated with a business such as a car yard or car rental agency
- Residential or rural rated properties within commercial zones
- Land under construction, including completed properties without floor areas in the District Valuation Roll

- For the Industrial Zone, there is 87 hectares vacant; however, this includes 33.5 hectares of Braeburn Industrial Area, which is restricted to dairy-related use only through our District Plan. This means 53.5 hectares is vacant for industrial use.
- For the Airport Zone, there is 12.9 hectares.
- For the North East Industrial Zone, there is 180.9 hectares, but this includes 35 hectares of land designated by KiwiRail for their Regional Freight Hub, which will not be available for industrial use. This means 145.9 hectares is vacant for industrial use.

## 2.5 Planned developments, projects and strategies that will influence the demand and supply of industrial land

The KiwiRail Regional Freight Hub will be a catalyst for a multi-modal freight distribution hub in Palmerston North

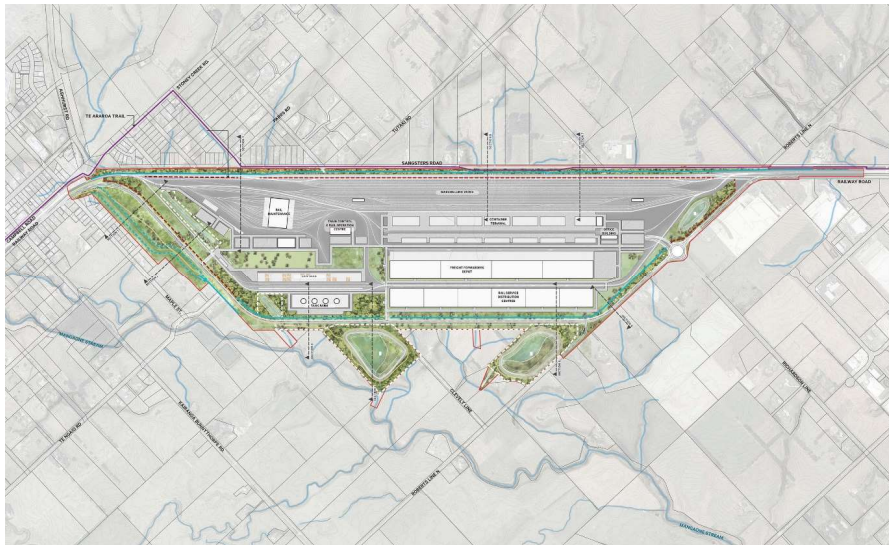


Figure 40 KiwiRail Regional Freight Hub

In late 2020, KiwiRail lodged a Notice of Requirement for 50 hectares of land between Palmerston North and Bunnythorpe. The designation is for the construction and operation of a new intermodal rail and freight hub. In 2022, a decision to recommend the Notice of Requirement was reached, and by mid-2023, all appeals were resolved and land purchases underway.

The KiwiRail Regional Freight Hub site will combine a container terminal, warehousing, and bulk goods, and forestry loading operations with KiwiRail's train operations and maintenance facilities. It will allow distribution companies to co-locate on the site, ensuring access to rail.

KiwiRail has indicated that the freight hub will commence operation in approximately 2032, with the site fully developed by 2051. Once operational, KiwiRail's yards on Tremaine Avenue



will become disused. This is approximately 24 hectares of land, which is zoned Industrial. In initial discussions with KiwiRail, they have indicated a desire to masterplan the disused area for industrial use and increase connectivity between the nearby residential areas. Early indications suggest that the topography of the site could be suitable for additional stormwater resilience in the city.

It is anticipated that the KiwiRail Regional Freight Hub will spur the growth of freight and logistics industries in Palmerston North, particularly near the hub. The Te Utanganui masterplan will support this growth.

**Te Utanganui – the Central New Zealand Distribution Hub is being master planned and will drive demand for land from freight distribution activities**

Te Utanganui – The Central New Zealand Distribution Hub is a project to create a multi-modal freight distribution hub connecting air, road, rail, and sea in the lower North Island. Te Utanganui is intended to act as the third node in New Zealand’s national transport and freight network. The catalyst for Te Utanganui is the development of the KiwiRail Regional Freight Hub and the subsequent opportunity for multi-modal freight distribution, given the concentration of road, rail, and air transport options in the vicinity.

Te Utanganui covers the area between Bunnythorpe and the northeastern industrial edge of Palmerston North. A masterplan has been developed for Te Utanganui and includes the rezoning of land in three stages; the first, 26 hectares will be available in 2025/26, the next 150 hectares in 2032 and the final to coincide with the opening of the KiwiRail Regional Freight Hub, a further 112 hectares in 2052. The Masterplan provides for ~288 hectares of industrial land, excluding the stormwater reserves required.

Initial engagement with affected landowners is beginning at the time of writing this Assessment. Following the engagement, the Council expects to initiate the first plan change to rezone the first stage of land in 2024.

**The Braeburn Industrial Area might no longer be needed for just dairy-related industrial use**

During engagement for the Kākātangiata urban growth area, Fonterra has indicated the Braeburn Industrial Area, which they own, is surplus to their needs and are interested in changing the District Plan to enable non-dairy related industries to establish there. The council is supportive of this. Hence, in the medium to long term, subject to a plan change, this area could represent an industrial growth area of 33.5 hectares.

**The Palmerston North Integrated Transport Initiative will reinforce the district as a freight and distribution hub**

We prepared the Palmerston North Integrated Transport Initiative (‘the Initiative’) with Waka Kotahi in response to Palmerston North and the Manawātū Region’s emergence as a distribution hub for New Zealand and transport network problems resulting from past land use planning.

The overall intent of the initiative is to manage population and freight and distribution industry growth whilst maintaining efficient freight movements to and from existing and future industrial areas within the city.

It sets out a list of safety and access improvement programmes to better integrate land uses in Palmerston North with the transport network. It also includes longer-term interventions such as a future second bridge across the Manawatū River and Regional Freight Ring Road.

The Initiative will reinforce the freight and logistics hub at Te Utanganui through efficient access to the Regional Freight Ring Road. It will also reinforce the idea that businesses and industries associated with heavy vehicle movements should be located along particular roading corridors such as Tremaine Avenue.

**We have pockets of industrial-zoned land in the City that are being looked at for rezoning to residential**

We have pockets of industrial land zoned scattered throughout the city, which are surrounded by residential areas. Rezoning these pockets of industrial to residential makes sense because it gives us more land to meet housing demand, removes industrial traffic from our residential areas, and avoids reverse sensitivity effects in the future. Still, it removes capacity from our industrial zones. For example, if the Roxburgh Crescent rezoning is approved, then around 3.9 hectares of land will be removed from our industrial zone. Engagement with the development sector has identified more sites like Roxburgh Crescent where rezonings could be proposed by the landowners, such as 4.46 hectares on Botanical Road and a landlocked Fringe Business zoned area on North Street. We need to ensure that any industrial or business land rezoned for residential use does not result in a commercial-zoned land shortage.

**2.6 Summary – Our business land**

There are lots of moving parts in our business land markets. We have a number of different District Plan zones where our business and industrial sectors are located, and our District Plan reinforces this. Within the zones, we have taken a stocktake of floor area and vacancy rates. There are some vacancy trends in buildings that are older, and we have some vacant land within the zones. There are a number of planned developments, projects and strategies that will affect our business and industrial land supply. In particular, KiwiRail's Regional Freight Hub, Te Utanganui and the Palmerston North Integrated Transport Initiative and strategic planning responses will reinforce the northeast edge of Palmerston North City as a freight and logistics hub across the next 30 years.

### 3. Business Land Demand Assessment

Clause 3.28 of the Policy Statement requires us to undertake a business land demand assessment. The requirements for the demand assessment are as follows:

- We must estimate, for the short term, medium term, and long term, the demand from each business sector for additional business land in Palmerston North City. We have estimated demand for business land throughout the district, not just Palmerston North City.
- We must express the demand in either hectares or floor areas. We have projected demand for both.
- We must:
  - set out the most likely projection of demand for business land by business sector in the short term, medium term, and long term; and
  - set out the assumptions underpinning that projection; and
  - if those assumptions involve a high level of uncertainty, the nature and potential effects of that uncertainty.

As for information on our most likely demand projection and the assumptions underpinning it, information on this can be found in our Methodology, Inputs and Assumptions section and the Projections Report. The nature and effects of any uncertainty involved in those assumptions are contained in our methodology and Projections Report as well.

The Policy Statement says we may identify business sectors in any way we choose but must, as a minimum, distinguish between sectors that would use land zoned for commercial, retail, or industrial uses. We have defined business sectors as follows:

Table 29 Business sectors used and definitions

Business sector	Defined as
Small & medium industrial	Floor area of up to 11,000m <sup>2</sup> , located in an industrial zone, and assigned as “industrial” in best use category. <sup>37</sup>
Large floor plate industrial	Floor area of more than 11,000m <sup>2</sup> , located in an industrial zone and assigned as “industrial” in the best use category.
Accommodation	Assigned as “commercial accommodation” in best use category
Small & medium retail (pedestrian-oriented retail)	Floor area of up to 3,900m <sup>2</sup> of floor area and assigned in best use category as: <ul style="list-style-type: none"> <li>• Commercial retail</li> <li>• Commercial liquor</li> <li>• Commercial cinema/hall</li> <li>• Commercial health operations</li> </ul>
Large format retail (vehicle-oriented retail)	Area of more than 3,900m <sup>2</sup> of floor area, and assigned in best use category as: <ul style="list-style-type: none"> <li>• Commercial retail</li> <li>• Commercial liquor</li> <li>• Commercial cinema/hall</li> <li>• Commercial health operations</li> </ul>
Commercial office	Assigned as “commercial office” in best use category
Commercial services	Located within industrial and business zones and assigned in best use category as: <ul style="list-style-type: none"> <li>• Commercial service station</li> <li>• Commercial motor vehicle</li> <li>• Commercial education uses (e.g. early childhood centres)</li> <li>• Various “Industrial” categories located in business zones</li> </ul>

<sup>37</sup> ‘Best use category’ generally reflects the current or main use of the property and is in the District Valuation Roll.

### 3.1 Projecting demand

Fresh Info prepared our projections estimating the demand for business land over the short, medium and long term from each business and industrial sector. Detailed projections can be found in the Palmerston North City Commercial Land Assessment ('Projections Report') in Appendix 2. Underlying assumptions can also be found in the Projections Report and our Methodology, Inputs and Assumptions section.

We estimated demand by using population projections along with current and predicted changes in sectors' commercial floor areas and land requirements. These were used to project demand because:

- As the population expands, the demand for goods, services, and employment opportunities increases. Businesses need adequate commercial space to satisfy this demand, driving growth in the commercial footprint.
- Growth in demand for local goods and services creates more business and employment opportunities, which is a catalyst for population growth.

### 3.2 Floor area demand assessment

The results of the floor area demand assessment estimate demand for:

- 84,727m<sup>2</sup> in the short term (within the next 3 years)
- 255,916m<sup>2</sup> in the medium term (between 3 and 10 years)
- 780,840m<sup>2</sup> in the long term (between 10 and 30 years)

The table below shows the projected floor area demand for each business sector across the short, medium and long terms. Note that competitiveness margins<sup>38</sup> are not included in the floor area demand figures below.

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<sup>38</sup> The competitiveness margins under clause 3.22(2) of the Policy Statement are:

- For the short term, 20%
- For the medium term, 20%
- For the long term, 15%

Table 30 Estimated floor area demand over the short, medium, and long term from each business sector (in m<sup>2</sup>)

Business Sector	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	Total 30 Year Demand
Small & medium industrial	28,553	79,606	188,244	296,403
Large floor plate industrial	49,740	147,858	448,660	646,258
Accommodation	0	3,805	13,899	17,704
Small & medium retail (pedestrian-oriented retail)	0	0	38,136	38,136
Large format retail (vehicle-oriented retail)	2,950	11,189	28,722	42,861
Commercial office	0	59	28,682	28,741
Commercial services	3,484	13,399	34,497	51,380
Total	84,727	255,916	780,840	1,121,483

### 3.3 Land area demand assessment

A land area assessment was undertaken based on the projected demand for floor area. The demand for business land was projected based on calculating the floor area per hectare <sup>39</sup>for each business sector in 2023 and applying assumptions around how these figures would change in the short, medium, and long terms. For some business sectors, floor areas per hectare are assumed to increase over time as we expect land to be more intensively used in the future.

These assumptions are found in our Methodology, Inputs and Assumptions section and further detail in the Projections Report.

The table below shows the demand for land (in hectares) from each business sector over the short, medium, and long terms to support the demand for floor space set out above. Note that competitiveness margins have not been added to this figure.

<sup>39</sup> Note that the floor area per hectare does not take into account each business sectors land requirements to meet District Plan requirements such as landscaping areas and stormwater attenuation nor setback requirements.

Table 31 Estimated demand for land for the short, medium, and long term from each business sector (in hectares)

Business Sector	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>	Total 30 Year Demand
Small & medium industrial	7.6	20.4	44.2	72.2
Large floor plate industrial	11.6	33.9	99.7	145.2
Accommodation	0.0	0.3	1.0	1.3
Small & medium retail (pedestrian-oriented retail)	0.0	0.0	3.3	3.3
Large format retail (vehicle-oriented retail)	0.5	2.0	4.8	7.3
Commercial office	0.0	0.0	0.6	0.6
Commercial services	0.7	2.7	6.4	9.8
Total	20.4	59.3	160.0	239.7

### 3.4 Summary – business land demand assessment

Based on the demand projections, we estimate a total demand:

- In the short term, for 84,727m<sup>2</sup> of floor area and 20.4 hectares of land
- In the medium term for 255,916m<sup>2</sup> and 59.3 hectares of land
- In the long term, 780,840m<sup>2</sup> of floor area and 160 hectares of land

The table below shows the projected demand for floor and land area from each business sector across the short, medium, and long terms.

Table 32 Estimated demand for floor area and land from each business sector over the short, medium, and long terms

Business Sector	Short term <i>within the next 3 years</i>		Medium term <i>between 3 - 10 years</i>		Long term <i>between 10 – 30 years</i>	
	Floor area	Land demand	Floor area	Land demand	Floor area	Land demand
	(m <sup>2</sup> )	(hectares)	(m <sup>2</sup> )	(hectares)	(m <sup>2</sup> )	(hectares)
Small & medium industrial	28,553	7.6	79,606	20.4	188,244	44.2
Large floor plate industrial	49,740	11.6	147,858	33.9	448,660	99.7
Accommodation	0	0.0	3,805	0.3	13,899	1.0
Small & medium retail (pedestrian-oriented retail)	0	0.0	0	0.0	38,136	3.3
Large format retail (vehicle-oriented retail)	2,950	0.5	11,189	2.0	28,722	4.8
Commercial office	0	0.0	59	0.0	28,682	0.6
Commercial services	3,484	0.7	13,399	2.7	34,497	6.4
<b>Total</b>	<b>84,727</b>	<b>20.4</b>	<b>255,916</b>	<b>59.3</b>	<b>780,840</b>	<b>160.0</b>



## 4. Business Land Development Capacity Assessment

Clause 3.29 of the Policy Statement requires us to undertake a business land development capacity assessment. We must estimate the following, for the short term, medium term, and long term, for the region and Palmerston North City:

- the land supply to meet the expected demand for business land for each business sector, plus the appropriate competitiveness margin; and
- of that development capacity, the development capacity that is:
  - plan-enabled<sup>40</sup>; and
  - plan-enabled and infrastructure-ready; and <sup>40</sup>
  - plan-enabled, infrastructure-ready, and suitable for each business sector.

The Policy Statement says we may define what it means for development capacity to be “suitable” in any way we choose. Still, suitability must, at a minimum, include suitability in terms of location and site size. We have determined suitability by looking at trends in site size and location associated with each business sector and what District Plan zones they are primarily located in.

### 4.1 Development capacity to meet expected demand

We have added the demand (in hectares) for business land discussed in the previous section and the competitiveness margins, which are:

- 20% for the short term
- 20% for the medium term
- 15% for the long term

The competitiveness margins (in hectares) for each sector are:

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<sup>40</sup> See clause 3.4 of the Policy Statement for the meaning of plan-enabled and infrastructure-ready.

Table 33 Competitiveness margins for each business sector in the short, medium, and long term

Business Sector	Short term 20% competitiveness margin	Medium term 20% competitiveness margin	Long term 15% competitiveness margin
Small & medium industrial	1.5	4.1	6.6
Large floor plate industrial	2.3	6.8	15.0
Accommodation	0.0	0.1	0.2
Small & medium retail (pedestrian-oriented retail)	0.0	0.0	0.5
Large format retail (vehicle-oriented retail)	0.1	0.4	0.7
Commercial office	0.0	0.0	0.1
Commercial services	0.1	0.5	1.0
<b>Total</b>	<b>4.1</b>	<b>11.9</b>	<b>24.0</b>

The resulting development capacity to meet expected demand, which is the projected demand plus the above competitiveness margins, is therefore:

**Table 34 The development capacity, in hectares, to meet expected demand for business land - the projected demand plus competitiveness margins**

Business Sector	Short term <i>within the next 3 years</i>	Medium term <i>between 3 - 10 years</i>	Long term <i>between 10 – 30 years</i>
Small & medium industrial	9.1	24.5	50.8
Large floor plate industrial	13.9	40.7	114.7
Accommodation	0.0	0.4	1.2
Small & medium retail (pedestrian-oriented retail)	0.0	0.0	3.8
Large format retail (vehicle-oriented retail)	0.6	2.4	5.5
Commercial office	0.0	0.0	0.7
Commercial services	0.8	3.2	7.4
<b>Total</b>	<b>24.5</b>	<b>71.2</b>	<b>184.0</b>

#### 4.2 Plan-enabled, infrastructure-ready and suitable business land

The following sections look at, of that development capacity, the development capacity that is:

- plan-enabled<sup>40</sup>; and
- plan-enabled and infrastructure-ready; and <sup>41</sup>
- plan-enabled, infrastructure-ready, and suitable for each business sector.

Plan-enabled business land has different meanings across the short, medium, and long terms in the Policy Statement. Business land in the short term is plan-enabled if it is zoned for business use in an operative district plan. In the medium term, business land is plan-enabled if it is either zoned in an operative plan or a proposed district plan. In the long term, business land is plan-enabled if the land is identified for future use in a Future Development Strategy.

To be considered zoned for business land, it must be a permitted, controlled, or restricted discretionary activity on that land.

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<sup>41</sup> See clause 3.4 of the Policy Statement for the meaning of plan-enabled and infrastructure-ready.

Infrastructure-ready has different meanings across the short, medium, and long terms under the Policy Statement. To be infrastructure-ready in the short term, there must be adequate existing development infrastructure <sup>42</sup>to support the development of the land. To be infrastructure-ready in the medium term, it must either have adequate existing development infrastructure to support development or funding for adequate development infrastructure is identified in a Long Term Plan. To be infrastructure-ready in the long term, it must either meet the medium term requirement, or the development infrastructure must be identified in our infrastructure strategy (required as part of its Long Term Plan).

#### 4.2.1 Plan-enabled development capacity

We have reviewed our District Plan and current strategic growth direction to determine plan-enabled development capacity in the short, medium and long terms. The table below shows our plan-enabled development capacity.

Table 35 Plan-enabled business land development capacity

Business land location	Hectares	Short term plan-enabled <i>The land is zoned for business use in the operative District Plan</i>	Medium term plan-enabled <i>The land is zoned for business use in a proposed District Plan change</i>	Long Term Plan-enabled <i>The land is identified in a Future Development Strategy</i>
Inner Business Zone	31.6	31.6		
Outer Business Zone	80	80		
Fringe Business Zone	19.6	19.6		
Local Business Zone	22.8	21.3	1.5	
Airport Zone	12.9	12.9		
Industrial Zone	370	370		
North East Industrial Zone	188.6	188.6		
Te Utanganui	288			288
<b>Total</b>	<b>1,013.5</b>	<b>724</b>	<b>1.5</b>	<b>288</b>

<sup>42</sup> Development infrastructure is roading, water supply, wastewater and stormwater infrastructure that is controlled by us.

As part of Proposed Plan Change G: Aokautere Urban Growth Area, 0.79 hectares of Local Business Zone is proposed, hence why there is a Local Business Zone identified in the medium term in Tabel 35 above.

The Airport Zone totals 213.5 hectares; however, the majority of this is exclusively used for airport operations or designated for runway protection and expansion, hence why 12.9 hectares is identified as plan-enabled rather than 213.5 hectares in Table 35 above.

For the industrial-zoned land in the city, there is a further 33.5 hectares of industrial-zoned land – the Braeburn Industrial Area. However, in the District Plan, this land is restricted to dairy-related industries only. Any other industrial or business use is classified in our District Plan as a non-complying activity; hence, we have removed this land from our plan-enabled, infrastructure-ready, and suitable for business sector assessments.

On a similar note, there is a further 35 hectares of land zoned North East Industrial Zone; however, it is designated by KiwiRail for the Regional Freight Hub and will not be available for commercial use. We have removed this land from our plan-enabled, infrastructure-ready, and suitable for business sector assessments on this basis.

Although Te Utanganui is Long Term Plan-enabled, the rezoning will occur in three stages, with the first 26 hectares to begin the rezoning process in 2024, the next 150 hectares will be plan-enabled in 2032, and the final 112 hectares to coincide with the opening of the KiwiRail Regional Freight Hub, in 2052.

#### 4.2.2 Infrastructure-ready development capacity

Table 36 Infrastructure-ready development capacity

Business Land Location	Hectares	Short term Infrastructure-ready <i>There is adequate existing development infrastructure to support the development of the land.</i>	Medium term Infrastructure-ready <i>Meets short term requirement or funding for adequate development infrastructure is in the Long Term Plan</i>	Long term Infrastructure-ready <i>Meets medium term requirement or adequate development infrastructure is in the Infrastructure Strategy</i>
Inner Business Zone	31.6	31.6		
Outer Business Zone	80	80		
Fringe Business Zone	19.6	19.6		
Local Business Zone	22.8	21.3	1.5	
Airport Zone	12.9	12.9		
Industrial Zone	370	355.3	14.7	
North East Industrial Zone	188.6	110.4	78.2	
Te Utanganui	288			288
<b>Total</b>	<b>1,013.5</b>	<b>631.1</b>	<b>94.4</b>	<b>288</b>

Given that the North East Industrial Zone is a greenfield industrial zone area, infrastructure readiness varies across the zone. 52.7 hectares is infrastructure-ready in the short term, i.e. there is adequate existing development infrastructure to support the development of the land. The remaining 78.2 hectares is infrastructure-ready in the medium term, i.e. funding for adequate development infrastructure to support the development of the land is identified in a Long Term Plan. Development infrastructure will be delivered when subdivision or development occurs on these sites.

Although Te Utanganui is long term infrastructure-ready, the rezoning will occur in three stages, with the first 26 hectares to begin the rezoning process in 2024 and infrastructure readiness expected by 2025/26. The next 150 hectares will be infrastructure-ready in 2032, and the final 112 hectares will coincide with the opening of the KiwiRail Regional Freight Hub in 2052.

#### 4.2.3 Suitable land for each business sector development capacity

To determine suitability, we have looked at the locations where business sectors are currently located within our District Plan zones. We have done this because we can observe a clear relationship between where the business sectors are located and the different District Plan zones in the city. For example, 94% of small & medium industrial businesses are located in the Airport and Industrial zones and 6% in the North East Industrial Zone. For commercial office sector businesses, 90% are in the business zones, and 10% are in the airport and industrial zones.

To project where the demand from each sector is likely to be taken up in each zone, we have taken the projected allocation of sectors to commercial zones and broken these allocations across each District Plan zone using the observed uptake of each zone currently. For instance, we expect 95% of future demand for small and medium industrial businesses to be taken up in the Airport and Industrial Zone, and of this 95%, 1% is likely to be located in the Airport Zone, 94% in the Industrial Zone and 5% in the North East Industrial Zone (and Te Utanganui, which when rezoned will be zoned North East Industrial Zone).

Further, our strategic land use planning and existing (and signalled future) land use patterns reinforce these relationships. For example, the North East Industrial Zone (and Te Utanganui, when rezoned) reinforce that large floor plate industrial sector businesses are well suited to locate in these zones due to both land use patterns – the proximity of the zone to the Palmerston North Airport, future KiwiRail Freight Hub and Regional Freight Ring Road – and the District Plan approach to enable large sites within the zone.

Hence, of the plan-enabled and infrastructure-ready land that we identified in the sections above, we have assessed suitability for each business sector to District Plan zones as follows:

**Table 37 Zones suitability for each business sector**

	Inner Business Zone	Outer Business Zone	Fringe Business Zone	Local Business Zone	Airport Zone	Industrial Zone	North East Industrial Zone/Te Utanganui
Small & medium industrial					1%	94%	5%
Large floor plate industrial							100%
Accommodation	45%	50%		5%			
Small & medium retail (pedestrian-oriented retail)	38%	38%	2%	12%		10%	
Large format retail (vehicle-oriented retail)	34%	36%	11%	9%		10%	
Commercial office	37%	51%	1%	1%		10%	
Commercial services	2%	48%	21%	5%		25%	

#### 4.3 Summary – business land development capacity assessment

Based on our plan-enabled, infrastructure-ready and suitability assessments of the 1,012.8 hectares of plan-enabled business land, we have:

- A total of 631.1 hectares of plan-enabled and infrastructure-ready business land in the short term
- A total of 93.7 hectares of plan-enabled and infrastructure-ready business land in the medium term
- A total of 288 hectares of plan-enabled and infrastructure-ready business land in the long term

The above land is considered suitable for business sectors in all terms, but in certain percentage allocations to District Plan zones due to the relationship between zones and particular business sectors.



## 5. Business Land Sufficient Development Capacity Assessment

Finally, for the business portion of our Housing and Business Development Capacity Assessment, clause 3.30 of the Policy Statement requires us to assess whether we have sufficient development capacity for business land. The requirements for this assessment are:

- Clearly identifying, for the short term, medium term, and long term, whether there is sufficient development capacity to meet the demand for business land based on a comparison of:
  - the projected demand for business land plus the appropriate competitiveness margin (estimated in section 3); and
  - the identified land supply (assessed in section 4).

If there is any insufficiency, the Policy Statement requires us to identify where and when this will occur and analyse the extent to which planning documents made under the Act, a lack of development infrastructure, or both cause or contribute to the insufficiency.

### 5.1 Sufficient development capacity assessment

To determine sufficient development capacity, the additional business sector demand, with competitiveness margins added, and the amount of plan-enabled, infrastructure-ready, and suitable business land were compared. This comparison was done across the short, medium and long term, as shown in Figures 41 – 43 below.

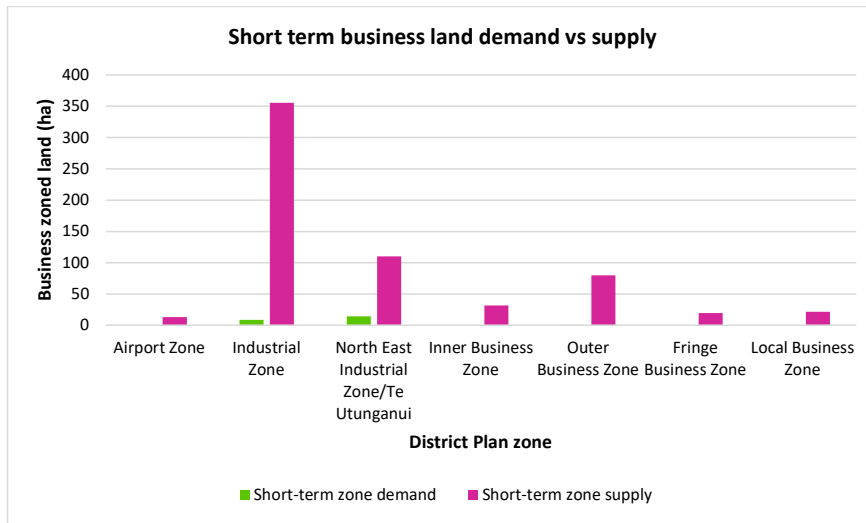


Figure 41 Short term sufficiency assessment

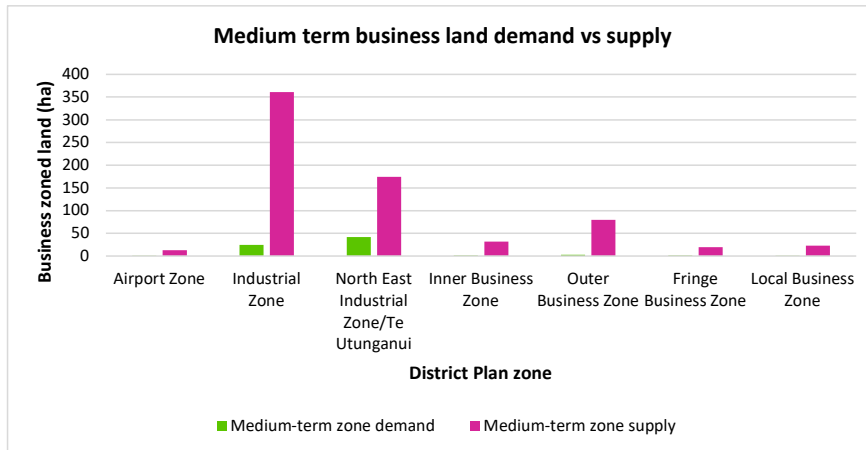


Figure 42 Medium term sufficiency assessment

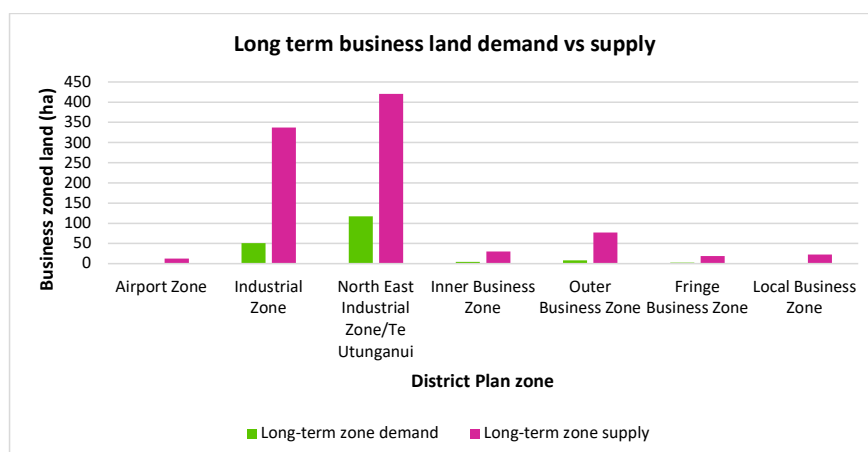


Figure 43 Long term sufficiency assessment

Based on the comparison above, we have sufficient development capacity.

We have also calculated our vacant land<sup>43</sup> in the business and industrial zones and allocated the demand (plus competitiveness margins) from each sector (at a percentage rate given there's a relationship between where business sectors are located) to the zones to see whether our existing vacant land supply would meet demand.

We assumed the following percentage rates of business sector demand for the zones as follows:

<sup>43</sup> Vacant commercial zoned land is defined as any commercially zoned land parcel containing no significant occupied or vacant commercial buildings.

Vacant commercial zoned land parcels include:

- Vacant land parcels used as car parks within business zones
- Occupied land in industrial and business zones used for storage that is not associated with a business such as a car yard or car rental agency
- Residential or rural rated properties within commercial zones
- Land under construction, including completed properties without floor areas in the DVR
- Vacant land within commercial zones

**Table 38 Estimated business sector demand rate across our District Plan zones**

Property type	Airport & industrial zones	North East Industrial Zone	Business zones
Small & medium industrial	95%	5%	0%
Large floor plate industrial	0%	100%	0%
Accommodation	0%	0%	100%
Small & medium retail (pedestrian-oriented retail)	10%	0%	90%
Large format retail (vehicle-oriented retail)	10%	0%	90%
Commercial office	10%	0%	90%
Commercial services	25%	0%	75%

In doing so, we found:

- The 66.4 hectares of airport and industrial land that is zoned and available for development will be sufficient to accommodate future demand from small and medium industrial and retail, large format retail, commercial office and commercial service business sectors in the short, medium and long term.
- The 145.9 hectares of North East Industrial Zone land that is zoned and available for development will be sufficient to accommodate future demand from small and medium industrial and large floor plate industrial demand in the short, medium, and long term.
- The 19 hectares of business-zoned land (Inner Business, Outer Business, Fringe, and Local) that is available for development will be sufficient to accommodate future demand from accommodation, small and medium retail, large format retail, commercial office and commercial services business sectors in the short, medium and long term.

However, this relies on more intensive development and the vacant sites being of suitable size to meet the projected demand of the business sector.

## 5.2 Summary – business land sufficient development capacity assessment

Based on comparing our demand from business sectors and business land available across the short, medium and long terms. We have sufficient development capacity to meet demand over the next 30 years.

## 6. Risks to Business Land Supply

There are a couple of issues worth noting in relation to the supply of our business and industrial land and meeting demand.

### Land ownership rates

A few landowners own a large proportion of business land in the district. In 2019, when we looked at the Council's rates database, it showed two landowners holding a 57% share of vacant commercial and industrial land in the district. This may affect the availability of land for development and may have an impact on the cost of land if developers delay the release of land to the market. It may also result in a perception of scarcity.

We recommend that this be further investigated in any rating reviews.

### Rezoning of industrial use for housing

Rezoning of pockets of industrial land within the city to residential will remove industrial land supply, which will either drive intensification in the industrial zones or result in scarcity of supply. This will need to be monitored over time and assessed as part of our District Plan changes to rezone land to residential, given that we have obligations to have sufficient development capacity not only for housing but also for business land.

The 33.5 hectares Braeburn Industrial Area presents an opportunity for general industrial land use if the undeveloped land is not required for dairy factory expansion. Changing the District Plan rules to permit this may be an option if further land supply is needed because of residential rezonings in the city. The land available at KiwiRail's Tremaine Avenue rail yards, following the departure of the yards to the KiwiRail Freight Hub by 2032, also presents another opportunity for increasing industrial land in the city and maybe another option.

### Developing and redeveloping business land at the same or lower intensities

There are several Grade B and C buildings in our business and industrial zones, which demonstrate higher vacancy rates than their counterpart Grade A buildings, which we built post-2000s. Grade B buildings' ages are between 23 and 63 years old. Grade C buildings were built before the 1960s, so they are now 63 years and over. These will likely be redeveloped over the next 30 years, and if not redeveloped more intensively, this will be a lost opportunity to meet demand with less land.

We have seen this occur in the Inner Business Zone, where redevelopments have either resulted in the same or lesser commercial footprint than before the building was redeveloped.

In a similar vein, land that is currently vacant will likely be developed to meet the demand of the business sectors over the next 30 years. If not developed at a more intensive rate than we have seen in the past, this will be a lost opportunity to meet demand but use less land to do so.

However, we expect business sectors to develop and redevelop their land more intensively than they have done in the past due to higher land prices and better building methods; we recommend we support this by offering urban design support to developers and landowners whose sites are yet to be developed or where the building grade signals the need to redevelop.

When we review the business and industrial sections of the District Plan, we should also look at whether our planning rules are fit for supporting more intensive development and redevelopment.

## 7. Conclusion – Business Development Capacity Assessment

This part of the Assessment contains our business land development capacity assessment. We have estimated demand from business sectors over the next 30 years, looked at our business land supply over the next 30 years and compared these to determine whether we will have enough land to meet demand.

To estimate demand, we have assumed that business sectors' floor area and population are linked. We have projected demand for floor area from business sectors in the district across the short, medium and long terms based on projected population growth. We converted this floor area demand into a land area based on current and future floor area to land requirements. Based on these demand estimates, and when competitiveness margins are added, we estimate demand for business floor area and land from each sector as follows:

**Table 39 Estimated demand for business floor area and land over the short, medium and long term**

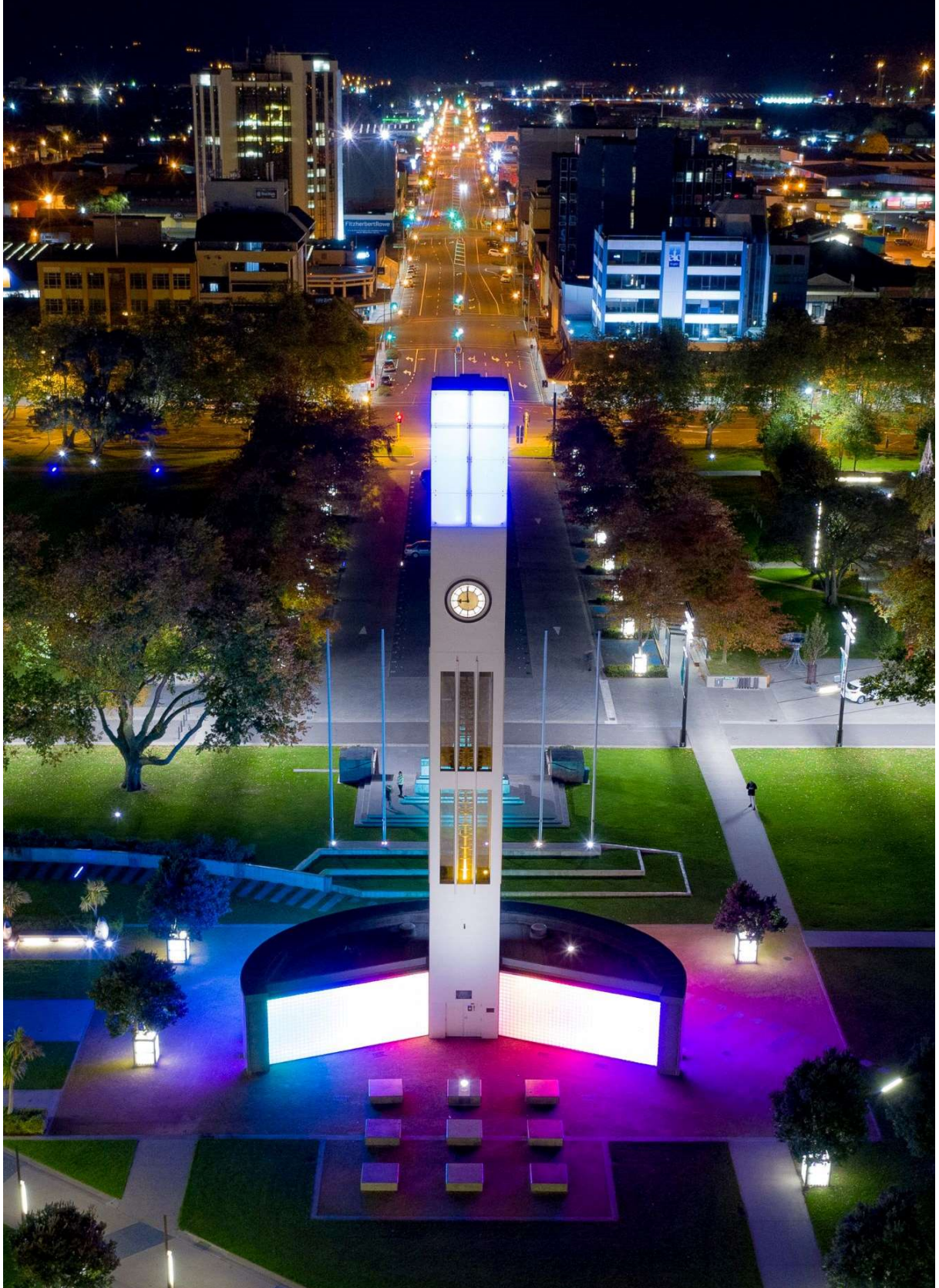
Business Sector	Short term		Medium term		Long term		30 Year Total	
	Floor area (m <sup>2</sup> )	Land area (ha)	Floor Area (m <sup>2</sup> )	Land area (ha)	Floor area (m <sup>2</sup> )	Land area (ha)	Floor area (m <sup>2</sup> )	Land area (ha)
Small & medium industrial	34,264	9.1	95,527	24.5	216,481	50.8	346,271	84.4
Large floor plate industrial	59,688	13.9	177,430	40.7	515,959	114.7	753,077	169.3
Accommodation	0	0.0	4,566	0.4	15,984	1.2	20,550	1.5
Small & medium retail (pedestrian-oriented retail)	0	0.0	-	0.0	43,856	3.8	43,856	3.8
Large format retail (vehicle-oriented retail)	3,540	0.6	13,427	2.4	33,030	5.5	49,997	8.5
Commercial office	0	0.0	71	0.0	32,984	0.7	33,055	0.7
Commercial services	4,181	0.8	16,079	3.2	39,672	7.4	59,931	11.4
<b>Total</b>	<b>101,672</b>	<b>24.5</b>	<b>307,099</b>	<b>71.2</b>	<b>897,966</b>	<b>184.0</b>	<b>1,306,738</b>	<b>279.6</b>

We have looked at our business land supply in the district. Of that land supply, we determined what is plan-enabled, infrastructure-ready, and suitable for each business sector across the short, medium, and long term. We have a total of 1,103.5 hectares of plan-enabled business land in the district. Of that plan-enabled land, 631.1 hectares in the short term, 94.4 hectares in the medium term, and 288 hectares in the long term is plan-enabled and infrastructure-ready. In terms of suitability of this land, particular District Plan zones are suitable for different business sectors. We have therefore described suitability as certain percentages across zones for different business sectors.

Based on comparing our demand assessment and looking at our business land supply that is plan-enabled, infrastructure-ready and suitable for each business sector, we have undertaken a sufficiency assessment to see whether our business land supply can meet estimated demand. Based on this comparison, we have found we have sufficient business land across all terms.

There are a few risks to our business land supply, including high ownership rates, rezoning of industrial land to residential use, and redevelopment of sites and development of vacant sites occurring at low intensity, which we have made recommendations on. For high ownership rates, we recommend that in any future rating reviews, we investigate how slow release of land can be discouraged. For industrial land being rezoned, we will need to assess the risk as part of the plan change process and, if needed, investigate industrial land opportunities that are present in the district. For redevelopment and development not occurring at greater intensities, we recommend offering support to achieve greater development and redevelopment intensities. When we come to review our industrial and business zone sections of the District Plan, we should also ensure our planning rules are allowing intensification.





## Conclusion

This Assessment is our three-yearly Housing and Business Development Capacity Assessment. It is a requirement under the Policy Statement and has information about our housing and business land demand across the next 30 years within our district. This Assessment can be used to inform our planning documents (made under the Act), Future Development Strategy and Long Term Plans.

We have estimated the demand for housing and business land, plus competitiveness margins, required to support choice and competitiveness in housing and business land markets. We have also identified whether our existing and future housing and business development capacity is sufficient to meet this demand.

### We have found for housing

- Over the short, medium, and long terms, we estimate we will need 983, 3,010 and 5,891 homes to meet demand.
- Over the short, medium, and long terms, we estimate there will be demand for houses in infill, greenfield and rural/rural-residential locations and for both standalone and attached housing.
- We have sufficient housing land that is plan-enabled, infrastructure-ready, commercially feasible and likely to be realised. In the short term, delivering development infrastructure will be critical and residential rezonings of greenfield areas will be too.

### We recommend the following for housing

- That future residential growth areas and rezoning of them to meet demand in the short, medium, and long term are identified in the Future Development Strategy and progressed on time. If not, we will not have enough housing to meet demand.
- That development infrastructure is signalled (where appropriate) and provided on time to meet demand, particularly in identified areas in the short term. If not, we will not have enough greenfield housing supply to meet demand.
- That we are satisfied that additional development infrastructure is likely to be available to meet demand over the next 30 years through continuing engagement with additional infrastructure providers.
- That different housing types, including attached housing and papakāinga, are provided for through further consenting process support and the activity statuses for multi-unit housing papakāinga being reconsidered.

- We support and encourage the residential construction sector to deliver housing and different housing types to meet demand, including through pre-application and resource consenting support and raising awareness of what our District Plan enables and the outcomes it seeks.
- That residential intensification is supported to make efficient use of our housing land and to ensure our greenfield residential areas last longer.
- Our existing growth planning is captured in our Future Development Strategy, so it is not lost as a result of new planning instruments introduced through planning reform.

#### **For business land, we have found**

- Over the short, medium, and long terms, we estimate that we will need 24.5, 71.2 and 184 hectares of business land to meet demand (this includes competitiveness margins). The small and medium industrial and large floor plate industrial are the sectors where demand will grow the most.
- We have 231.3 hectares of plan-enabled, infrastructure-ready and suitable business land in the short term and 288 additional hectares identified in the long term.
- We have sufficient business land to meet estimated demand, particularly because land is projected to be developed more intensively over time, and our District Plan zones cater for the full range of business sector types.
- When we looked at our vacant land within our business and industrial zones and the projected demand, we found that demand can be accommodated in the zones, but this assumes the vacant sites are suitable for the projected demand of the business sector.

#### **We recommend the following for our business land supply**

- A few landowners own a large proportion of business land in the district. This is a risk for land banking, which may affect the availability and cost of land for development. It may also result in a perception of scarcity.

We recommend that this be further investigated in any rating reviews.

- Rezoning pockets of industrial land within the city to residential will remove industrial land supply, which will either drive intensification in the industrial zones or risk a scarcity of supply.

The impact of removing business land for other land use, such as housing, will need to be assessed when proposing a District Plan Change. The 33.5 hectares Braeburn Industrial Area presents an opportunity for general industrial land use if the undeveloped land is not required for dairy factory expansion. Changing the District Plan rules to permit this may be an option for other industrial land use if further land supply is needed because of residential rezonings in the city.

- We are expecting business sectors to develop and redevelop their land more intensively than they have been in the past due to higher land prices and better building methods.

We recommend that we support this by offering urban design support to developers and landowners whose sites are yet to be developed or where the building grade signals the need to redevelop. When we review the business and industrial sections of the District Plan, we should assess whether our planning rules are fit for supporting more intensive development and redevelopment.



## Our Economic Overview

Our local economy has proven resilient throughout the disruption created by COVID-19 and restrictions on economic activity. While economic growth has exceeded all expectations compared to the rest of New Zealand, the population growth needed to drive future economic activity has weakened. We anticipate that the population will grow in response to strong labour demand over the next decade due to the \$8 billion of investment planned for the city and wider region out to 2035. This labour demand will be supported by net international migration rebounding to pre-pandemic levels.

### **High investment into the region has offset the population impacts of border closures**

While population growth has been suppressed due to border closures in place in response to COVID-19, high demand for labour in Palmerston North is expected to drive population growth to 2035, as unprecedented investment flows into the city and wider region.

Population growth has been less robust due to the impact of border closures from 2020-22. While Palmerston North was less exposed to the impacts on international tourism, the city's international education, health and professional services sectors suffered from the inability to attract foreign nationals. The flow of new residents was also impacted as border closures prevented the resettlement of refugees into the city.

### **The city has had stronger economic growth than the national average**

Palmerston North has experienced a period of strong economic growth over the five years to December 2022, with Gross Domestic Product increasing by 21.5%, compared with 17.8% nationally. Strong public sector activity, elevated construction investment and substantial growth in high-value services have driven economic activity over the period.

### **The city has had high wage and employment growth**

High inflation, tight labour market conditions and strong wage growth have been prominent features of the New Zealand economy since late 2020. Labour market conditions in the city mirror this trend, with the number of jobs in Palmerston North up by 1,071 over the year to December 2022. This is a 2.3% increase compared with the previous year. Earnings increased by 5.5% over the same period, with provisional data for the March quarter of 2023 indicating a strengthening of annual earnings growth of 8.5% over the year. High employment and earnings growth have supported the core spending of households in this time of rapidly rising costs.

### **Unemployment levels remain the same as national levels**

Unemployment figures and jobseeker benefit trends for the city reflect the tight labour market conditions. The unemployment rate for Palmerston North has remained equal to or below the national unemployment rate since the September quarter of 2020. Jobseeker benefit numbers in Palmerston North are bucking the national trend, falling below pre-pandemic numbers in March 2023, compared with an 11% increase in job seekers nationally. The unemployment rate for the city in December 2022 was 3.2% compared with 3.3% nationally.



**Household spending is on par with the rest of the country**

Growth in retail spending in the city kept pace with inflation over the year to December 2022, with spending increasing by 7.3% compared to an annual inflation rate of 7.2%. While spending on essential household items has increased, discretionary spending on big-ticket and discretionary items such as cars and motorbikes and home and recreation have pulled back sharply as rising costs and increasing mortgage interest rates flow through to household disposable incomes.

**City tourism is growing**

A rebound in tourism activity is supporting economic activity in the city, with spending up 7% over the year to December 2022. This compares with an 18.9% increase nationally. Greater percentage growth at the national level is expected as areas with greater dependence on international tourism rebound from border closures in 2021. The latest data indicates continued strengthening of tourism activity in the city, with spending up 13.1% in Palmerston North over the year to March 2023.

**Palmerston North has had strong GDP growth post-pandemic**

The annual Gross Domestic Product<sup>1</sup> (GDP) of Palmerston North (Infometrics provisional estimate) for December 2022 was \$6,321. This represents an increase of 2.6%, exceeding national growth of 2.4% over the same year. Figure 1 illustrates economic growth in Palmerston North compared with national economic growth<sup>2</sup> to December 2022.

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<sup>1</sup> Gross Domestic Product (GDP) is an estimate of the final value of goods and services produced in an area. To avoid double counting, GDP excludes the value of intermediate goods used within the production process and is indexed for inflation to reflect the real value of economic activity.

<sup>2</sup> Infometrics estimate for New Zealand GDP

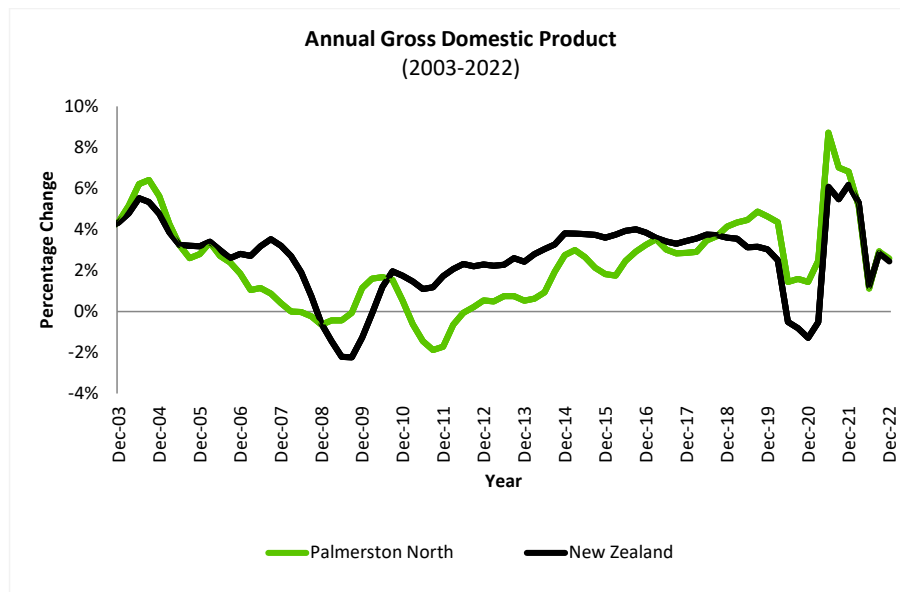


Figure 1 Annual GDP of Palmerston North and New Zealand <sup>3</sup>

The Palmerston North economy has benefited from the mix of public and private sector activity over the COVID-19 period. This mix of industries has buffered the city from the impacts observed in areas of the country with greater exposure to border closures and lockdown restrictions. The structure of the economy has supported economic activity in the city, with Gross Domestic Product growing by 21.5% over the five years to December 2022, compared with 17.8% nationally.

#### Our economic sectors

The local economy is dominated by service sector activity, which contributed 59.4% of Gross Domestic Product in 2022. This is followed by a large and diverse government, education and health sector at 32.5%. The manufacturing sector and primary production sector contributed 5.9% and 2.2%, respectively. Figure 2 below shows this economic structure, and Figure 3 shows the proportion of GDP growth by sector.

<sup>3</sup> Source: Infometrics, QEM March 2022



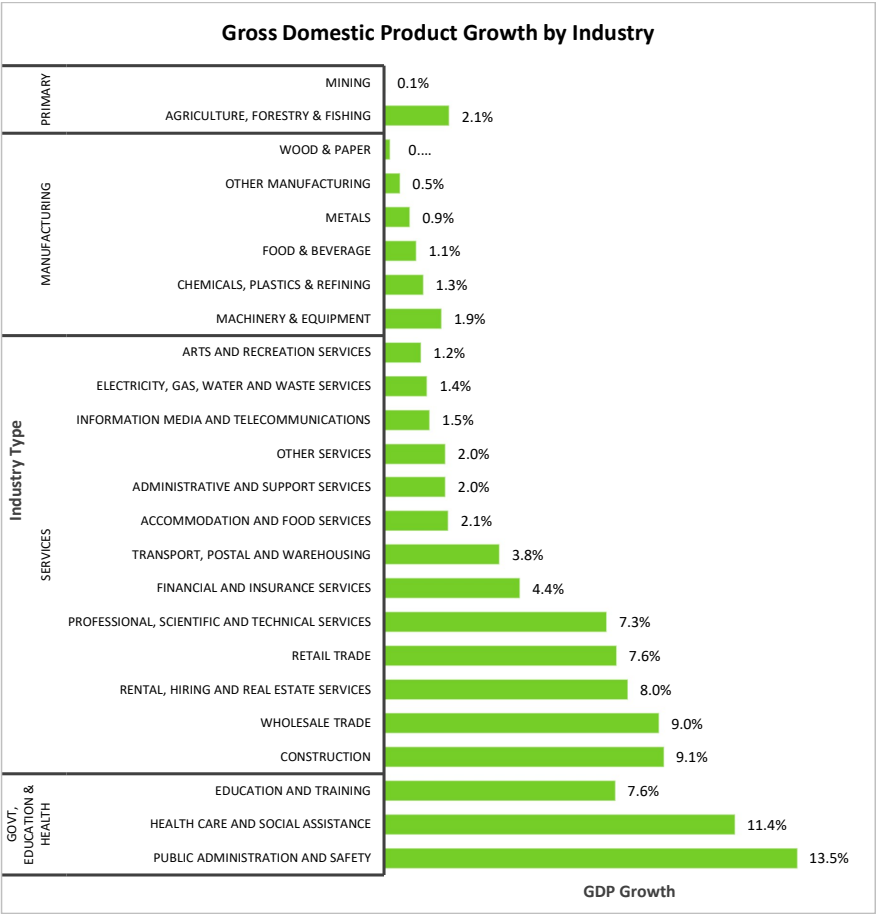


Figure 2 Economic structure by GDP (year ended March 2022)

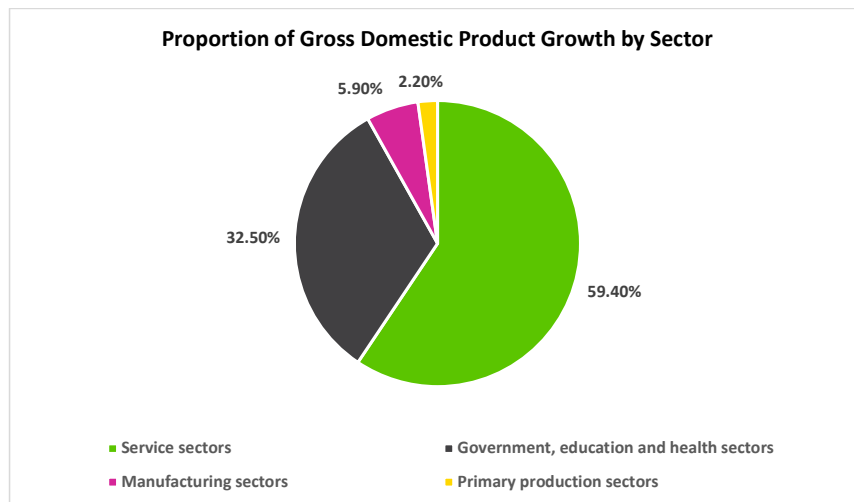


Figure 3 Proportion of GDP by sector (year ended March 2022)

#### Professional services and construction sectors have contributed the most to growth

The Palmerston North economy grew by \$300.2 million (5.1%) over the year to March 2022. Some of our largest sectors saw a dip in economic activity due to factors outside of the city's control. Public administration and safety sector Gross Domestic Product contracted by \$7 million, driven by a fall in central government administration activity and a reduction in employment in the defence force. GDP in education and training fell by \$4 million due to reduced international student enrolments. Figure 4 below provides the breakdown by sector of the change in annual GDP for the period ending March 2022.

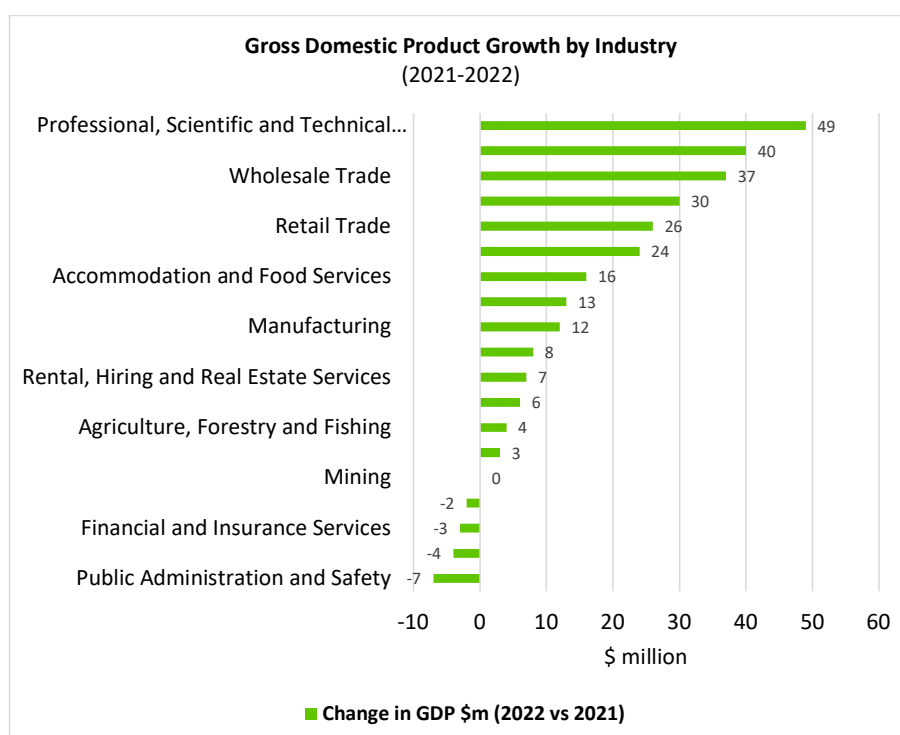


Figure 4 Growth in Gross Domestic Product for Industry 2021 to 2022

Table 1 below provides details of the top five growth sectors in the city in 2022.

Table 1 Top-five growth industries by GDP

	Industry	One-year growth	10-year growth	20-year growth
1	<b>Professional, scientific &amp; technical services</b>	+\$49.3m +14.9%	+\$102m +36.8%	+\$133m +54.0%
	Professional, scientific & technical services contributed \$379.4m to the Palmerston North economy in the March year 2022. Scientific research services were the highest growth subsector, up by \$14.3m (+17.0%) annually and \$23.5m (+31.4%) over the 20 years to 2022.			
2	<b>Construction</b>	+\$40.0m +9.2%	+\$170.7m +55.8%	+\$253.8m +113.8%
	The construction sector contributed \$263.3m to the local economy in March 2022. The construction services subsector (which includes construction trades) was the highest-growing subsector, expanding by \$27.9m (+14.7%) over the year			
3	<b>Wholesale trade</b>	+\$37.5m +8.7%	+\$131.4m +39.0%	+\$213.4m +83.7%
	Wholesale trade generated \$468.4m in GDP for the city in 2022. The grocery, car, electronic and electrical goods, hardware goods, and professional and scientific goods wholesaling were the largest growth subsectors, contributing \$23.1m (61.6%) of GDP growth over the year.			

4	<b>Health care and social assistance</b>	+\$29.8m +5.3%	+\$169.5m +39.6%	+\$293.6m +96.7%
	Health care and social assistance contributed \$597.2m to GDP in the March year 2022. Hospitals were the highest growth subsector, expanding by \$14.2m (+8.7%). It contributed \$177.1m to GDP.			
5	<b>Retail trade</b>	+26.1m +7.1%	+115.1m +40.9%	+\$194.6m +96.5%
	Retail trade contributed \$396.2m to the city's GDP over the March year. Supermarkets and grocery stores are the largest subsectors, adding \$83.5m to the city's GDP. They were the second largest growth sector in 2022, expanding by \$3.6m (+4.5%). The hardware and building supply retail sector posted the highest growth, up by \$5.2m (+14.6%).			

As for the Palmerston North Labour Market, employment in the city and nationally continues to sit near record highs

The total employee count in Palmerston North in March 2022 was 56,955, an increase of 3.7% compared to pre-pandemic March 2020. This compares to a national increase of 3% over the same period. Over the year to March 2022, the number of jobs nationally grew at a very strong 3.3% due to the recovery of areas of New Zealand hit harder by the impacts of COVID-19. Over the same period, the number of employees in Palmerston North increased by 1,215 (+2.2%). Employment levels, both nationally and in Palmerston North, continue to sit near record highs.

The employment structure across the city is largely consistent with the GDP structure. The proportion of employment by sector area is as follows:

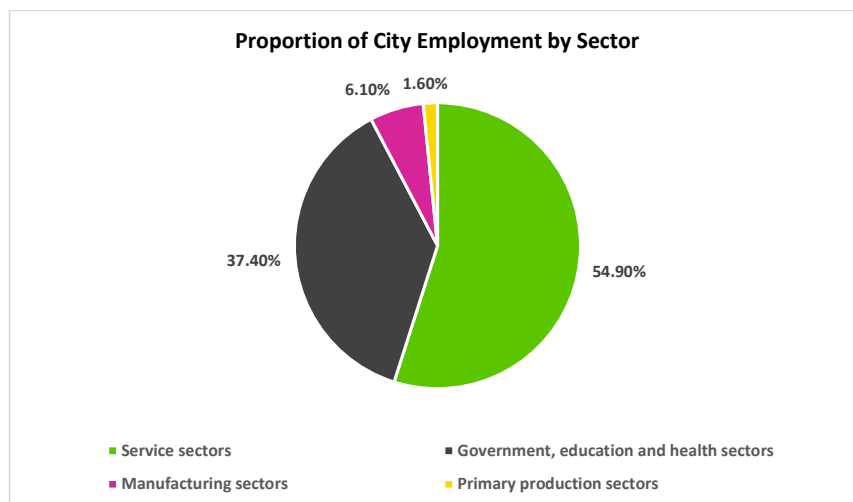


Figure 5 Proportion of city employment by sector by 2022

Figure 6 illustrates the structure of the Palmerston North economy by employment over the year to March 2022.

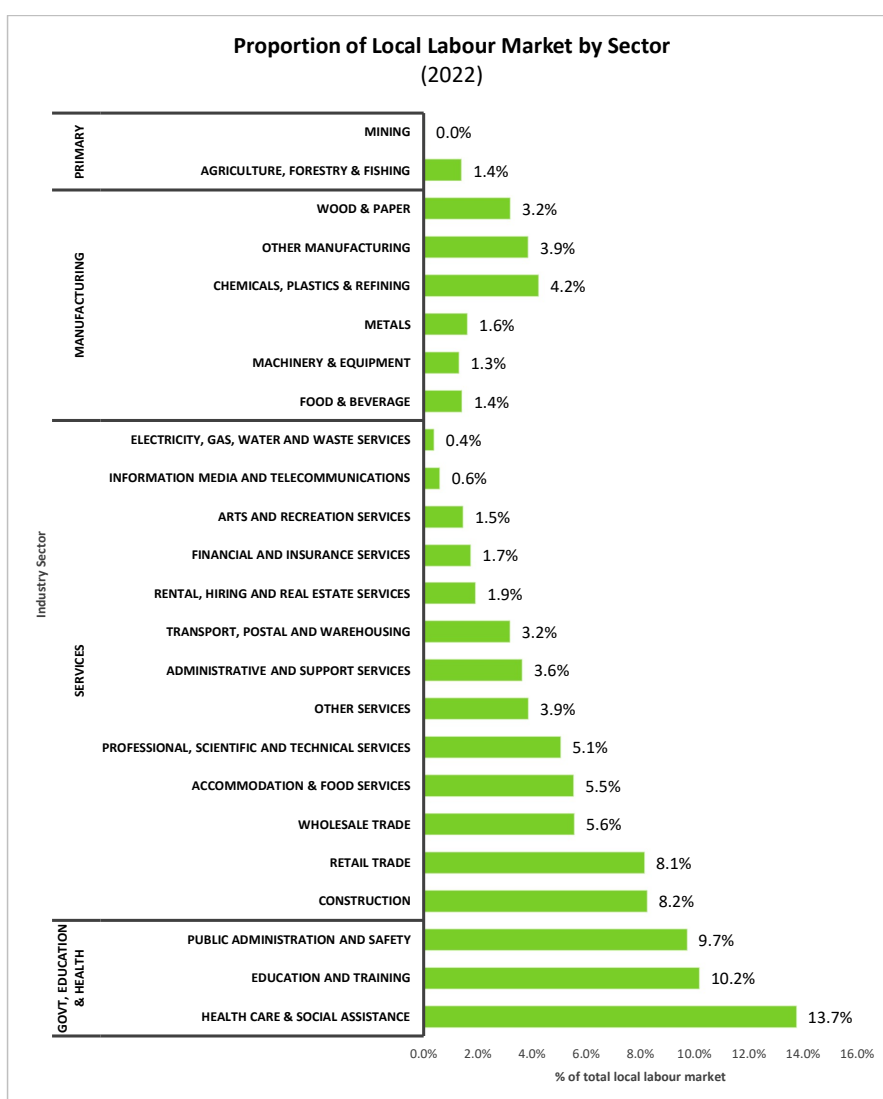


Figure 6 Palmerston North employment structure by sector (year ended March 2022)

### Employment trends

The construction sector recorded the largest increase in jobs between 2021 and 2022 at 7.5% growth, followed by the electricity, gas, water and waste services sector (6.5%) and the accommodation and food services (6.0%). The construction sector recorded the largest increase in jobs between 2020 and 2022 at 15.6% growth, followed by the financial and insurance services sector (11.4%) and the accommodation and food services (11.1%). Job growth by sector between 2000 and 2022 is detailed in Table 2 below.

The biggest contributor to job growth between 2000 and 2022 was the healthcare and social assistance sector, with an additional 3,849 jobs between 2000 and 2022. The second largest growth came from the public administration and safety sector as the result of the expansion of the Linton Army Base.

**Table 2 Change in employee counts: Palmerston North statistical areas (2000-2022)**

Industry Sector <sup>4</sup>	Palmerston North			New Zealand		
	Employee count	2000-2022 change		Employee count	2000-2022 change	
	2022	Number	%	2022	Number	%
Accommodation and Food Services	3,509	1,049	43%	169,340	67,102	66%
Administrative and Support Services	2,307	469	26%	130,578	49,345	61%
Agriculture, Forestry and Fishing	887	-674	-43%	146,644	2,308	2%
Arts and Recreation Services	923	149	19%	48,742	20,765	74%
Construction	5,225	2,620	101%	279,966	161,201	136%
Education and Training	6,444	710	12%	204,398	70,150	52%
Electricity, Gas, Water and Waste Services	246	-15	-6%	19,926	10,445	110%
Financial and Insurance Services	1,104	261	31%	72,235	27,184	60%
Health Care and Social Assistance	8,716	3,849	79%	278,766	127,714	85%
Information Media and Telecommunications	380	-336	-47%	41,673	783	2%
Manufacturing	3,457	-566	-14%	246,367	5,610	2%
Mining	19	10	111%	5,942	2,550	75%
Other Services	2,448	759	45%	107,041	41,018	62%
Professional, Scientific and Technical Services	3,206	604	23%	262,459	130,432	99%
Public Administration and Safety	6,159	2,876	88%	145,096	74,478	105%
Rental, Hiring and Real Estate Services	1,213	264	28%	63,764	16,893	36%
Retail Trade	5,164	730	16%	239,299	60,357	34%
Transport, Postal and Warehousing	2,022	719	55%	104,272	22,904	28%
Wholesale Trade	3,526	1,195	51%	126,793	26,163	26%
<b>Total</b>	<b>56,955</b>	<b>14,673</b>	<b>35%</b>	<b>2,693,30</b>	<b>917,40</b>	<b>52%</b>

The Palmerston North Central statistical area is the largest area for employment, with 16,400 (30% of the city) employees counted in February 2022. Palmerston North Central was also the largest contributor to employment growth between 2000 and 2022, with an additional 4,400 employees, an increase of 36%. The strongest increase was in the Palmerston North Airport area unit, where the number of employees increased from 160 in the year 2000 to 2,150 in 2022. This includes the high-growth industrial zone to the northeast of the city - the North East Industrial Zone.

### Unemployment

Elevated demand for labour in Palmerston North is reflected in increasing job numbers, rising incomes, and falling Jobseeker benefit numbers.

<sup>4</sup> Consistent with the Australian and New Zealand Standard Industrial Classification 2006 [Industrial Classification \(ANZSIC06\) - Dataset - data.govt.nz - discover and use data](https://data.govt.nz/discover-and-use-data/)

Tight labour market conditions are also reflected in unemployment figures, with the unemployment rate for the city in December 2022 below the regional and national unemployment rate at 3.2%. The unemployment trends <sup>5</sup>are shown in Figure 7 below.

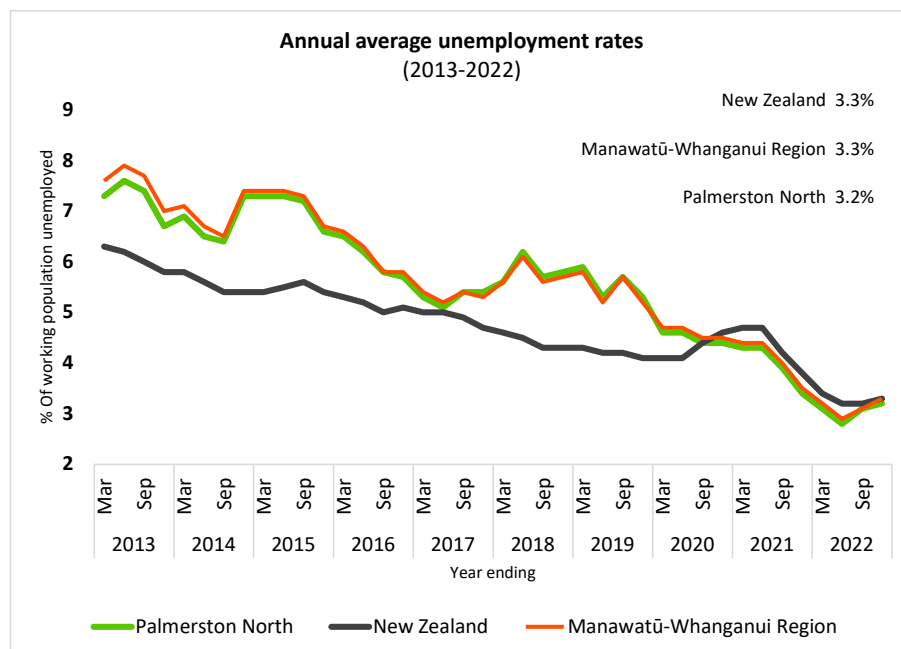


Figure 7 Annual average unemployment rate

### Annual earnings

Strong labour force conditions in the city are reflected in earnings growth. Total annual earnings (salaries, wages and self-employment) in Palmerston North for the year ending March 2021 increased by 7.5% to reach a total of \$3,508 billion, higher than the 5.3% national increase.

### Electronic card retail spending

The annual total electronic card retail spending in Palmerston North was \$1,451m for the period ending December 2022. This is an increase of 7.3% compared to 10.8% growth across the country. The growth rate for the period ending April 2023 increased slightly to 7.6% in Palmerston North, compared to 12% nationally.

Since the pandemic, Palmerston North's annual growth rate has been higher than the national average until October 2022 as parts of the country have been catching up from higher pandemic restrictions (including Upper Northland, Auckland, Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City and surrounding areas) while other parts of New Zealand were in

<sup>5</sup> Source: Infometrics, QEM, December 2022

Alert Level 2. Figure 8 below shows the annual change in electronic card spending (December 2017 – April 2023) in Palmerston North and New Zealand.

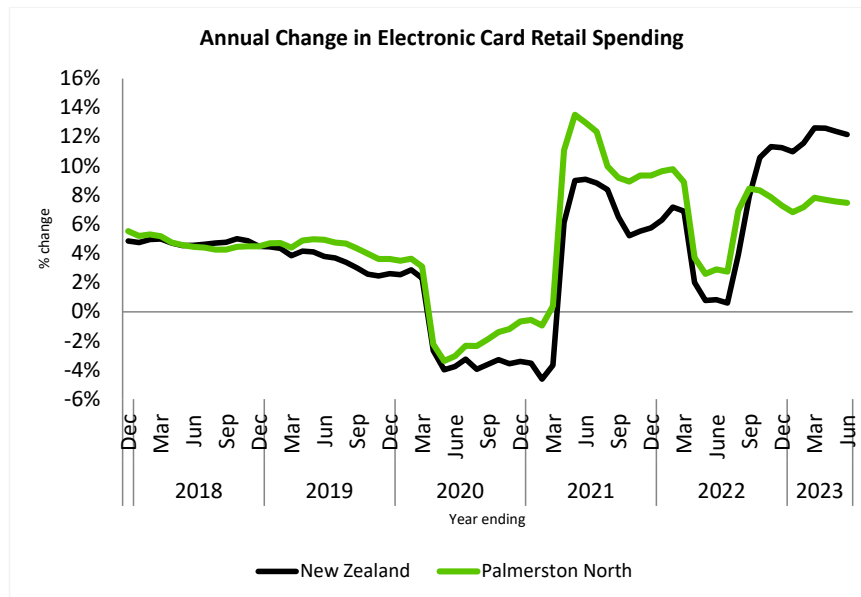


Figure 8 Annual change in electronic card retail spending

Electronic card spending by retail precincts over time (shown in Figure 9 below) shows that spending generally continued to grow after the recovery from the dips during the pandemic period. Our retail precincts are:

- Inner Central Business District (CBD)
- Outer CBD
- Terrace End
- The rest of Palmerston North

The “local” Terrace End precinct appears to be least affected by the pandemic.



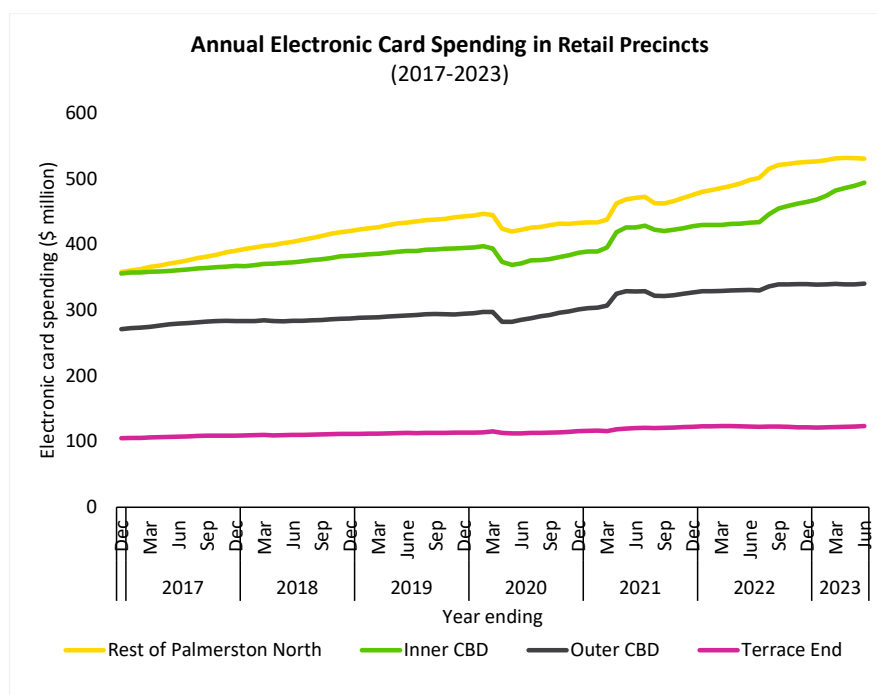


Figure 9 Retail precincts' annual electronic card spending (2017 - 2022)

The loyalty rate (percentage of spending by residents at local retailers) for Palmerston North remained high at 81.2% in the year ending December 2022.

For Palmerston North, visitor spending was \$511 million for the year ending December 2022, accounting for 35.2% of total electronic card retail spending, compared to 34.5% the year before.

Groceries and liquor accounted for 33% of total electronic card spending in the year to December 2022. During this period, the highest growth sector was "Arts, recreation & visitor transport" at 27.8%. Figure 10 below shows the growth rate of spending categories:

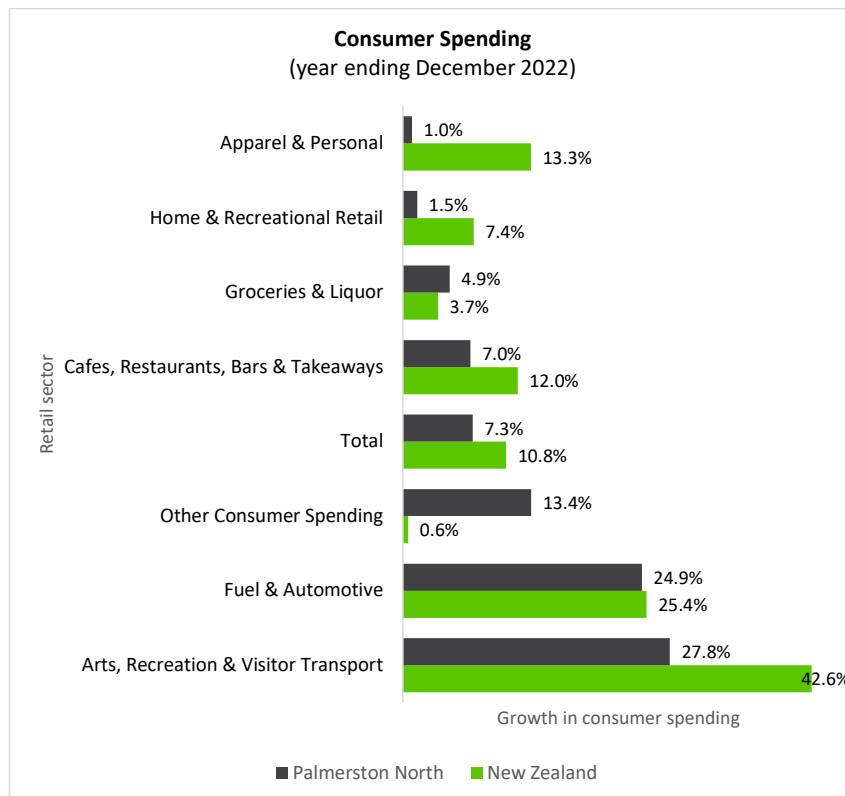


Figure 10 Change in Palmerston North electronic card retail spending by sector

### Tourism Electronic Card Spending

Tourism electronic card transactions from visitors were recorded as \$291.7 million for the year ending December 2022. This consisted of spending of \$273 million from domestic visitors (4.2% increase compared to 8.4% nationally) and \$18 million from international visitors (75.6% increase compared to 167.3% nationally).

Palmerston North was ranked 12th out of 67 local authorities for domestic visitor spending and was ranked 20th out of 67 for international visitor spending for the year ending December 2022. Table 3 below shows these rankings.

Table 3 Ranking of domestic and international tourism spending by territorial authority (year ending December 2022)

Rank	Territorial Authority	Domestic (\$ mil)	Rank	Territorial Authority	International (\$ mil)
1	Auckland	2,346	1	Auckland	663
2	Christchurch City	773	2	Queenstown-Lakes District	330
3	Queenstown-Lakes District	712	3	Christchurch City	163
4	Western Bay of Plenty District	586	4	Western Bay of Plenty District	117
5	Tauranga City	503	5	Rotorua District	56

Rank	Territorial Authority	Domestic (\$ mil)	Rank	Territorial Authority	International (\$ mil)
6	Dunedin City	376	6	Tauranga City	49
7	Hamilton City	371	7	Hamilton City	42
8	Taupo District	367	8	Dunedin City	41
9	Rotorua District	303	9	Taupo District	35
10	Whangarei District	297	10	Far North District	31
11	Thames-Coromandel District	286	11	Napier City	25
12	<b>Palmerston North City</b>	<b>273</b>	12	Marlborough District	23
13	New Plymouth District	204	13	Nelson City	22
14	Napier City	195	14	Mackenzie District	21
15	Far North District	185	15	New Plymouth District	21
16	Marlborough District	178	16	Whangarei District	21
17	Timaru District	172	17	Whakatane District	21
18	Hastings District	164	18	Southland District	20
19	Waipa District	151	19	Tasman District	19
20	Tasman District	133	20	<b>Palmerston North City</b>	<b>18</b>
21	Invercargill City	126	21	Lower Hutt City	18
22	Nelson City	125	22	Thames-Coromandel District	18
23	Central Otago District	123	23	Hastings District	16
24	Lower Hutt City	116	24	Invercargill City	12
25	Waitaki District	104	25	Ruapehu District	11
26	Ashburton District	103	26	Waipa District	10
27	Wellington City	102	27	Kaikoura District	9
28	Kapiti Coast District	102	28	Gisborne District	9
29	Whanganui District	100	29	Porirua City	9
30	Masterton District	92	30	Central Otago District	9
31	Hauraki District	90	31	Kapiti Coast District	9
32	Hurunui District	85	32	Timaru District	9
33	Gore District	84	33	Ashburton District	9
34	Matamata-Piako District	84	34	Wellington City	8
35	Waikato District	81	35	Selwyn District	7
36	Kaipara District	80	36	Hurunui District	7
37	Horowhenua District	80	37	Whanganui District	7
38	Ruapehu District	79	38	Matamata-Piako District	7
39	Gisborne District	77	39	Waitaki District	7
40	Mackenzie District	71	40	Waikato District	7
41	South Waikato District	68	41	Waimakariri District	7
42	Selwyn District	68	42	Grey District	5
43	Southland District	64	43	Masterton District	5
44	South Wairarapa District	55	44	South Wairarapa District	4
45	Westland District	54	45	Upper Hutt City	4
46	Grey District	52	46	Westland District	4
47	Kaikoura District	50	47	Buller District	4
48	Whakatane District	48	48	Horowhenua District	4

Rank	Territorial Authority	Domestic (\$ mil)	Rank	Territorial Authority	International (\$ mil)
49	Rangitikei District	47	49	Kaipara District	4
50	Porirua City	46	50	Waitomo District	3
51	Buller District	44	51	South Waikato District	3
52	Clutha District	42	52	Hauraki District	3
53	Taranua District	41	53	South Taranaki District	2
54	Waimakariri District	41	54	Kawerau District	2
55	South Taranaki District	41	55	Clutha District	2
56	Manawatu District	37	56	<b>Manawatu District</b>	2
57	Waitomo District	35	57	Gore District	2
58	Kawerau District	30	58	Rangitikei District	2
59	Upper Hutt City	26	59	Otorohanga District	2
60	Opotiki District	24	60	Taranua District	1
61	Central Hawke's Bay District	22	61	Opotiki District	1
62	Otorohanga District	17	62	Central Hawke's Bay District	1
63	Wairoa District	15	63	Stratford District	1
64	Stratford District	15	64	Wairoa District	1
65	Carterton District	11	65	Carterton District	1
66	Waimate District	10	66	Waimate District	0
67	Chatham Islands	4	67	Chatham Islands	0

Major development and construction projects announced for Palmerston North and the Manawātū region amount to close to \$8 billion of construction activity over the period to 2035. Some projects under development do not have final values. The construction investment estimates are included in Table 4 below. The values of the projects below are deemed conservative, as in many cases, project costs have not been updated to reflect the increase in labour and material costs in the construction sector since 2020.

The total proposed capital expenditure by Palmerston North City Council over the 2021-2031 period is \$1.3 billion. Manawātū District's proposed capital budget is \$308 million.

**Table 4 Table Manawātū Region: Major construction projects (2020-2035) as of June 2023**

Major construction projects	Value (\$ million)	Timing
Te Ahu A Turanga (Manawātū Gorge Replacement Road)	650	Started Jan 2020
Linton and Ohakea Regeneration Plan 2019	660	2019-2035
Mercury Energy - Turitea Windfarm	450	2019-2022 Commissioned 2023
Massey University's capital plan	230	2020-2030
Powerco growth and security projects	245	2017-2024

Te Whatu Ora MidCentral surgical and mental health	57	2022-2023
Te Whatu Ora MidCentral Acute Services block	370	timing uncertain
Private hospital, Milson Line	700	2023-2027
Palmerston North Airport Terminal Building	30	
Manukura School	38	Building consent issued October 2022
Palmerston North Integrated Transport Investment	335 - 370	Timing uncertain
KiwiRail Regional Freight Hub	1,016	Subject to consent
<b>Palmerston North City Council capital investment</b>	<b>1,350</b>	<b>2021-2031</b>
Manawatū District capital investment	308	2021-2031
Waka Kotahi Otaki to North of Levin	1,500	2024-2029
Massey Solar Farm	10	2023-2024
Summerset Retirement Village - Whakarongo	Value not confirmed	Timing not confirmed
Te Rere Hau Windfarm replacement	Value not confirmed	Timing not confirmed
Kāinga Ora – Homes and Communities 250-300 unit development	Value not confirmed	Timing not confirmed
Former Post Office Hotel	Value not confirmed	Timing not confirmed
<b>Total Value</b>	<b>\$7,949 - \$7,984 million</b>	

#### In summary

The structure of the Palmerston North economy and elevated public and private investment have supported economic activity and stimulated investment in new dwellings and non-residential construction in the city since 2015.

The population of the city grew strongly between 2015 and 2020 as businesses and organisations sought labour and opportunities for business growth. While strong economic activity continued, population growth stalled between 2020 and 2022 as border closures and economic restrictions impacted the flow of labour into the city. It halted the migration of international students and refugees to Palmerston North.

Strong public and private construction investment continued into 2021 as house prices peaked at record levels and low-interest rates increased demand for new dwellings. Supply shortages in the construction sector alongside elevated demand combined to drive up the cost of

construction in 2021. As mortgage costs increased and inflation reduced the disposable incomes of businesses and households, house prices began to fall in early 2022, limiting the return to residential investment and reducing the demand for new dwellings. Non-residential construction in the city also weakened over this period. However, elevated public investment alongside the pipeline of work generated has helped to sustain demand in the construction sector.

Overall, the Palmerston North economy continued to perform well into 2022 and 2023 amidst rising costs for households and businesses. Job growth helped to sustain spending across the economy, and the resilience of households was supported by rising incomes and increased employment opportunities, alongside investment flowing through to economic activity.

The Palmerston North economy will continue to be supported by the city's large public sector, as well as a substantial professional services sector that supports the city's strengths in healthcare, education, research and government services. As a central location in the lower North Island, Palmerston North is also a centre for distribution. This industry is growing rapidly, with substantial investment as well as improved roading networks between Palmerston North and Wellington and Hawke's Bay, setting the scene for further growth in the sector to 2054.

Population growth in the city is expected to be supported by continued demand for labour as well as rising migration from other parts of New Zealand, as remote working enables people to seek higher living standards in the regions. An increase in net international migration is also anticipated as the number of overseas workers in the country increases back toward pre-COVID and long-term average levels.

The growth outlook for Palmerston North remains positive due to the expectation that private investment will increase due to easing inflation and lower interest rates in 2024 and that large-scale investment planned for the region will positively influence labour demand and earnings in the city to 2054. These factors are expected to support new housing and business development in Palmerston North over the short, medium and long term.



# Palmerston North City Commercial Land Assessment

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August 2023

**FRESH INFO**





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# 1 Executive summary

## Background

The NPS-UD requires Palmerston North City Council (PNCC) to assess the short-term, medium-term, and long-term demand for commercial land in Palmerston North City to ensure there is sufficient development capacity to accommodate it. The resulting projections are a critical input into PNCC’s three yearly Housing and Business Development Capacity Assessment (HBA). For the purposes of the NPS-UD ‘short-term’ is defined as 3 years, ‘medium-term’ as 10 years, and ‘long-term’ as 30-years.

The main objectives of this report are to:

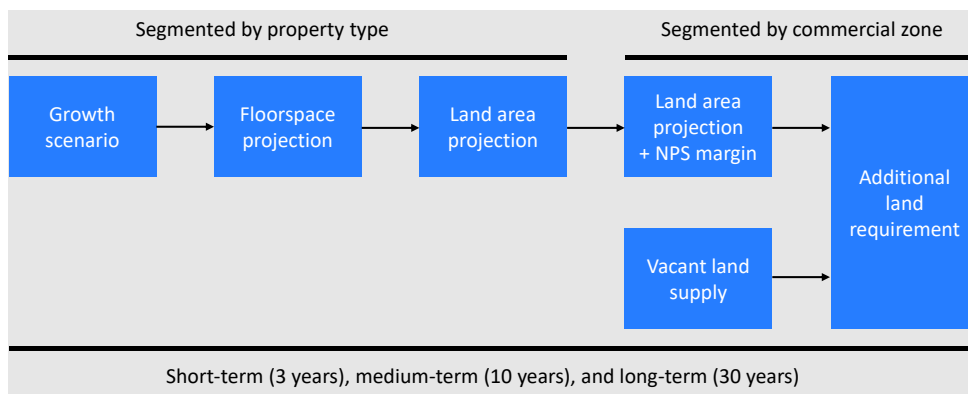
1. Project future commercial land demand in Palmerston North City, segmented by property type.
2. Compare the demand projections with the current supply of vacant commercial zoned land to determine if/when additional land and supporting infrastructure may be required.
3. Understand the impact of uncertainty on the projections by conducting sensitivity analysis. This requires the development of demand projections for low and high growth scenarios, in addition to the base scenario.

The projections provide an objective assessment of the amount of land required to meet future commercial needs. They do not consider the development implications of factors such as land banking and high ownership concentration nor availability of supporting infrastructure in zoned land.

## Methodology

The methodology used to meet the project objectives involved five sequential stages which are summarised in the diagram below. A sensitivity analysis was also conducted to provide feasible lower (low land demand scenario) and upper (high land demand scenario) bounds around the base scenario. We would expect future commercial land requirements to lie within this range, and to generally follow the trend of the base scenario over time.

**Figure 1 Methodology used to meet the project objectives**





### Property type outputs

The results of the floorspace assessment indicate the need for:

- 84,700 sqm of additional floorspace in the short-term
- 225,900 sqm of additional floorspace in the medium-term
- 780,800 sqm of additional floorspace in the long-term

The majority of the additional floorspace would be required by industrial businesses.

**Table 1 Additional floorspace requirement segmented by property type (sqm)**

	3 years	10 years	30 years
Small & medium industrial	28,553	79,606	188,244
Large industrial	49,740	147,858	448,660
Accommodation	0	3,805	13,899
Small & medium retail	0	0	38,136
Large retail	2,950	11,189	28,722
Commercial office	0	59	28,682
Commercial services	3,484	13,399	34,497
TOTAL	84,727	255,916	780,840

The results of the land requirement assessment indicate the need for:

- 20.4 ha of additional land in the short-term to support the floorspace projections
- 59.3 ha of additional land in the medium-term to support the floorspace projections
- 159.9 ha of additional land in the long-term to support the floorspace projections

Most of the additional land would be required by industrial businesses.

**Table 2 Additional land requirement segmented by property type (hectares)**

	3 years	10 years	30 years
Small & medium industrial	7.6	20.4	44.2
Large industrial	11.6	33.9	99.7
Accommodation	0.0	0.3	1.0
Small & medium retail	0.0	0.0	3.3
Large retail	0.5	2.0	4.8
Commercial office	0.0	0.0	0.6
Commercial services	0.7	2.7	6.4
TOTAL	20.4	59.3	159.9

### Commercial zone outputs

The results of the capacity assessment indicate that:

- The 66.4 hectares of airport and industrial land that is zoned and available for development will be sufficient to accommodate future requirements in all periods considered.



- The 145.9 hectares of NEIZ land that is zoned and available for development will be sufficient to accommodate future requirements in all periods considered.
- The 19 hectares of business zoned land (inner business, outer business, fringe, and local zones) that is available for development will be sufficient to accommodate future requirements in all periods considered.

**Table 3 Capacity assessment for land in airport & industrial zones (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	8.9	24.3	51.1
Commercial zoned land available in 2023	66.4	66.4	66.4
Commercial zoned land remaining	57.5	42.1	15.3
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Table 4 Capacity assessment for land in NEIZ (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	14.4	42.0	117.2
Commercial zoned land available in 2023	145.9	145.9	145.9
Commercial zoned land remaining	131.6	104.0	28.7
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Table 5 Capacity assessment for land in business zones (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	1.2	4.9	15.6
Commercial zoned land available in 2023	19.0	19.0	19.0
Commercial zoned land remaining	17.9	14.1	3.4
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

### Sensitivity analysis

The results of the sensitivity analysis indicate that:

- There is sufficient land in all zones to meet 30-year planning requirements under the low land demand and base scenarios.
- There is sufficient land in all zones to meet short and medium-term planning requirements under the high land demand scenario, but more land would be required in each zone to meet long-term (30 year) requirements.

**Table 6 Projected gross land deficit for airport & industrial zones**

Scenario	3 years	10 years	30 years
Low	0.0	0.0	0.0
Base	0.0	0.0	0.0
High	0.0	0.0	77.1

**Table 7 Projected gross land deficit for NEIZ**

	3 years	10 years	30 years
Low scenario	0.0	0.0	0.0
Base scenario	0.0	0.0	0.0
High scenario	0.0	0.0	86.4

**Table 8 Projected gross land deficit for business zones**

	3 years	10 years	30 years
Low scenario	0.0	0.0	0.0
Base scenario	0.0	0.0	0.0
High scenario	0.0	0.0	40.3

### Comparison with previous NPS-UD projections

It is difficult to compare the current projections with those produced by Property Economics in 2018 due to material differences in modelling and reporting approaches. However, the Property Economics report predicted the need for more industrial and business zoned land within the forecasting horizon, while the current projections indicate that there is sufficient industrial and business zoned land to meet all commercial requirements for the next 30 years. These opposing conclusions are driven by the following factors which result in materially different floorspace and land projections when extended across 30 years:

- Property Economics assumed that existing floorspace was operating at maximum productivity for retail and commercial service properties such that any extra demand would require new floorspace. The current projections assume that (a) vacant properties will absorb additional demand until the optimal vacancy rate is achieved. This may require the redevelopment of B and C grade buildings that are currently difficult to tenant; and (b) businesses will use floorspace more efficiently over time due to scale economies and higher occupancy costs. The cumulative outcome of these effects is an additional floorspace requirement that sits comfortably below the projected change in demand in percentage terms.
- Property Economics assumed that current land use intensity (floorspace per hectare) will persist for the next 30 years. The current projections assume that (a) the land use intensity of developed land parcels will gradually increase as infill/redevelopment occurs; and (b) new developments will be built at a higher density than existing developments due to higher land and building costs. The cumulative outcome of these effects is an additional land requirement that sits comfortably below the projected additional floorspace requirement in percentage terms.

### Conclusions

The overarching conclusion is that Palmerston North City has enough zoned land to meet its business and industrial requirements for the next 30 years. Even the high land demand scenario, which is based on an unlikely combination of high population growth, high optimal vacancy rate, and low floorspace productivity, indicates that there is enough zoned land to meet all commercial needs for at least 20 years.

However, factors such as land banking and high ownership concentration could create the perception of scarcity even though there is enough available land to meet long-term commercial requirements. This is something PNCC will need to monitor and respond to if it becomes an issue.



## 2 Introduction

### 2.1 Background

The National Policy Statement on Urban Development (NPS-UD) sets forth a comprehensive framework for guiding sustainable and inclusive urban development in New Zealand. Within this framework, commercial land projections play a vital role in ensuring that the objectives and requirements of the NPS-UD are met effectively. These projections provide valuable insights into future demand for commercial and industrial spaces, helping local authorities and stakeholders make informed decisions that align with the goals of the policy.

The NPS-UD recognises the importance of commercial land development in driving economic growth, promoting employment opportunities, and creating vibrant urban environments. It emphasises the need for well-designed, accessible, and sustainable commercial areas that accommodate the evolving needs of businesses and residents alike. By projecting the requirements for commercial land development, stakeholders can identify suitable locations, plan infrastructure investments, and foster economic prosperity while preserving the cultural and environmental fabric of urban areas.

Commercial land projections allow for a comprehensive assessment of the demand for commercial spaces, enabling local authorities to strategically allocate land resources, plan for necessary infrastructure, and support the growth of key industries. By incorporating design considerations and environmental sustainability principles, commercial land projections contribute to the creation of resilient and liveable urban environments that align with the NPS-UD's objectives.

Commercial land projections also serve as a valuable tool for achieving the density and intensification goals outlined in the NPS-UD. By identifying opportunities for higher-density commercial developments and mixed-use areas, these projections help optimise land use, reduce urban sprawl, and support efficient public transportation systems. This, in turn, contributes to reduced carbon emissions, improved energy efficiency, and enhanced overall urban functionality.

Overall, commercial land projections are essential for meeting the requirements of the NPS-UD by providing a forward-looking perspective on the demand for commercial spaces. By integrating these projections into urban planning processes, local authorities and stakeholders can make well-informed decisions that align with the policy's objectives, foster economic growth, promote social well-being, and ensure the sustainable development of urban areas for generations to come.

### 2.2 Objectives

The NPS-UD requires Palmerston North City Council (PNCC), a tier 2 authority under the NPS-UD, to assess the short-term, medium-term, and long-term demand for commercial land in Palmerston North City and assess whether there is sufficient development capacity within commercial zones to accommodate it. More specifically, the NPS-UD requires:

- Development of the 'most likely' demand projection for commercial land, segmented by business sector (base scenario); and
- Clear articulation of the assumptions that underpin the commercial land projections; and
- Understanding and appropriate management of the nature and potential effects of uncertainty on the commercial land projections.



The resulting projections are a critical input into PNCC's three yearly Housing and Business Development Capacity Assessment (HBA). For the purposes of the NPS-UD 'short-term' is defined as 3 years, 'medium-term' as 10 years, and 'long-term' as 30-years.

The main objectives of this report are to:

1. Project future commercial land demand in Palmerston North City for the following property types:

- Small & medium industrial (up to 11,000 sqm of floorspace)
- Large floor plate industrial (more than 11,000 sqm of floorspace)
- Accommodation
- Small & medium (pedestrian-oriented) retail (up to 3,900 sqm of floorspace)
- Large format (vehicle-oriented) retail (more than 3,900 sqm of floorspace)
- Commercial office
- Commercial services

The NPS-UD requires a 'competitiveness margin' to be added to the demand projections. A competitiveness margin is a margin of development capacity over and above expected demand that facilitates choice and competitiveness in commercial land markets. The competitiveness margins for commercial land are 20% for the short-term and medium-term projections, and 15% for the long-term projections.

2. Compare the demand projections with the current supply of vacant commercial zoned land to determine if/when additional land and supporting infrastructure may be required.
3. Understand the impact of uncertainty on the projections by conducting sensitivity analysis. This requires the development of demand projections for low and high land demand scenarios, in addition to the base scenario.

## 2.3 Limitations

Urban development patterns are influenced by a wide range of factors that are difficult to predict with certainty. This presents significant challenges when trying to project commercial land requirements over long periods of time. The following limitations should be considered when using and interpreting the projections:

- The projections have been developed at a city-wide level and therefore assume that all locations are equally attractive for development. Additional work may be required to ensure that the right amount of land is available in the right places at the right times.
- The projections are informed by long-term trends and relationships that may not persist in the future. For example, structural changes may occur in business practices or commercial land use patterns that can't be predicted.
- Not all relevant factors that influence demand can be modelled e.g. relative land prices and/or construction costs which could influence the rate of commercial development, economic conditions which could influence the demand for goods and services. The modelling process is a simplification of reality that attempts to include as much as it can within the relevant data, time, and budget constraints. This introduces an error margin associated with the model itself.



- Models of this nature rely heavily on the assumptions pushed through them. There is an error margin associated with each assumption which is additional to the model-related error margin. The compound effect of multiple error margins within a single model can be significant and generally expands for forecasts further into the future.
- The projections do not consider the development implications of factors such as land banking and high ownership concentration.

We have tried to manage the nature and potential effects of these limitations by putting realistic error margins around the base forecasts to provide a feasible range of outcomes bounded by the low and high land demand scenarios. We expect future commercial land requirements to lie within this range, and to generally follow the trend of the base scenario over time. Despite this we still recommend using and interpreting the projections with these limitations in mind.





## 3 Methodology

### 3.1 Data

Palmerston North City Council provided the following data to inform the analysis:

- Total floorspace segmented by property type (sqm).
- Occupied floorspace segmented by property type (sqm).
- Area of developed land parcels segmented by property type (ha). Developed land parcels are defined as land parcels that are used for commercial purposes with or without buildings.
- Area of vacant commercial zoned land segmented by commercial zone (ha).

A summary of the source data is provided in Appendix 1.

#### 3.1.1 Property type definitions

Each commercially zoned and “developed” land parcel within Palmerston North city was assigned to one of the eight property types in the table below based on its main commercial use. PNCC considered a land parcel to be developed if it contained an occupied or vacant commercial building.

Main use was determined by PNCC based on the “best use” category in the Palmerston North City District Valuation Roll (DVR) prepared by QV, and commercial QV worksheets where necessary. The best use category generally reflects the current or main use of the property and can be easily adapted to determine the property types for this assessment. Property types were assigned to properties categorised as “industrial – other/mixed” and “commercial – multiple/other” based on dominant floor areas obtained from QV commercial worksheets. For example, if accommodation had the largest floor area within a mixed or multiple use property, the entire property was assigned to the accommodation property type.

The non-commercial property type has been excluded from the analysis.

**Table 9 Property type definitions**

Property type	Basis (description in best use category in DVR)
Small & medium industrial	Floorspace of up to 11,000 sqm, located in an industrial zone, and assigned as “industrial” in best use category
Large floor plate industrial	Floorspace of more than 11,000 sqm, located in an industrial zone, and assigned as “industrial” in best use category
Accommodation	Assigned as “commercial accommodation” in best use category
Small & medium (pedestrian-oriented) retail	Floorspace of up to 3,900 sqm of floorspace and assigned in best use category as: <ul style="list-style-type: none"> <li>- Commercial-retail</li> <li>- Commercial-liquor</li> <li>- Commercial-cinema/hall</li> <li>- Commercial-health operations</li> </ul>
Large format (vehicle-oriented) retail	Area of more than 3,900 sqm of floorspace, and assigned in best use category as: <ul style="list-style-type: none"> <li>- Commercial-retail</li> <li>- Commercial-liquor</li> </ul>

	<ul style="list-style-type: none"> <li>- Commercial-cinema/hall</li> <li>- Commercial-health operations</li> </ul>
Commercial office	Assigned as “commercial office” in best use category
Commercial services (combination of light industrial and services for businesses)	Located within industrial and business zones and assigned in best use category as: <ul style="list-style-type: none"> <li>- Commercial-service station</li> <li>- Commercial-motor vehicle</li> <li>- Commercial-education uses (e.g. early childhood centres)</li> <li>- Various “Industrial” categories located in business zones</li> </ul>
Other (non-commercial)	All property types not included above including: <ul style="list-style-type: none"> <li>- Commercial-elderly - aged care facilities, which are considered to be residential</li> <li>- Commercial-educational uses - schools and institutions of higher learning e.g. Te Pukenga</li> <li>- Other property types including airports, art galleries, assemblies, education facilities, religious facilities, sports facilities, residential, recreation facilities, and road reserves.</li> </ul>

### 3.1.2 Commercial zone definitions

In addition to being assigned to a property type, each land parcel was assigned to one of the four commercial zones in the table below based on its location.

**Table 10 Commercial zone definitions**

Commercial zone	Definition
Airport and industrial zone	Combined airport and industrial zones
North East Industrial Zone (NEIZ)	NEIZ including 35ha designated for KiwiRail’s freight hub <sup>1</sup>
Business zone	Combined inner, outer, fringe, and local business zones
Out of zone	Outside the commercial zones above

### 3.1.3 Total floorspace

Once each land parcel had been assigned to a property type in the DVR, total floorspace was estimated for each property type by summing the relevant floorspaces. For example, accommodation floorspace was derived by summing the floorspaces of all land parcels assigned to the accommodation property type. A summary of the source data is provided in Appendix 1.

<sup>1</sup> The KiwiRail freight hub is expected to have a total land area of around 178ha based on the Notice of Requirement field by KiwiRail in 2020. This includes 50ha of NEIZ land (the remaining 128ha is currently rural land), but it is assumed that 15ha would be allocated to freight and logistics floorspace, so the net loss of commercial land would only be 35ha.

**Table 11 Total floorspace segmented by property type and commercial zone (sqm)**

	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	706,792	33,333	0	0	740,125
Large industrial	228,998	112,969	0	0	341,967
Accommodation	0	0	43,831	1,170	45,001
Small & medium retail	21,374	0	282,070	1,469	304,913
Large retail	13,987	0	107,116	0	121,103
Commercial office	11,720	0	204,201	0	215,921
Commercial services	26,177	0	119,620	0	145,797
Non-commercial	29,844	0	82,291	0	112,135
TOTAL	1,038,892	146,302	839,129	2,639	2,026,962

### 3.1.4 Occupied floorspace

Occupied floorspace for each property type was estimated by combining assessed vacancy rates with the total floorspaces described above. The vacancy rate data was sourced from:

- Business vacancy data from the Palmerston North Commercial Market Survey 2022 conducted by TelferYoung in December 2022 which covered industrial zoned land (airport zone, industrial zone, and NEIZ) and most of the business zoned land (inner, outer, fringe and the Terrace End component of the local business zone). PNCC has revised the data from this report to reflect vacant commercially occupied land as non-vacant.
- Supplementary business vacancy data collected by PNCC in May 2023 for commercial properties in Ashhurst, Bunnythorpe, Longburn, and local business zones not included in the TelferYoung survey.

A summary of the source data is provided in Appendix 1.

**Table 12 Occupied floorspace segmented by property type and commercial zone (sqm)**

	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	694,554	33,333	0	0	727,887
Large industrial	228,998	112,969	0	0	341,967
Accommodation	0	0	42,111	1,170	43,281
Small & medium retail	20,362	0	247,136	1,469	268,967
Large retail	13,987	0	107,116	0	121,103
Commercial office	11,720	0	180,061	0	191,781
Commercial services	26,177	0	115,182	0	141,359
Non-commercial	29,844	0	80,546	0	110,390
TOTAL	1,025,642	146,302	772,151	2,639	1,946,734

### 3.1.5 Area of developed land parcels

A developed land parcel is defined as a land parcel containing an occupied or vacant commercial building and/or land serving an essential purpose within a commercial business e.g. car yard, car rental agency, truck stop. Once each land parcel had been assigned to a property type in the DVR, the area of developed land parcels for each property type was estimated by summing the relevant land parcel areas in the DVR. A summary of the source data is provided in Appendix 1.

**Table 13 Area of developed land parcels segmented by property type and commercial zone (ha)**

	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	223.1	15.4	0.0	0.0	238.4
Large industrial	59.8	27.3	0.0	0.0	87.1
Accommodation	0.0	0.0	4.7	0.3	5.0
Small & medium retail	7.2	0.0	40.1	0.5	47.8
Large retail	3.8	0.0	24.6	0.0	28.4
Commercial office	2.5	0.0	21.8	0.0	24.3
Commercial services	9.1	0.0	28.8	0.0	37.9
Non-commercial	211.5	0.0	13.5	0.0	225.0
TOTAL	517.0	42.6	133.5	0.8	693.9

### 3.1.6 Area of vacant commercial zoned land

Vacant commercial zoned land is defined as any commercially zoned land parcel containing no significant occupied or vacant commercial buildings. For industrial land parcels, this means less than 50 sqm of floorspace or only a small percentage of the land parcel being occupied by commercial buildings. Vacant commercial zoned land parcels include:

- Vacant land parcels used as car parks within business zones
- Occupied land in industrial and business zones used for storage that is not associated with a business such as a car yard or car rental agency
- Residential or rural rated properties within commercial zones
- Land under construction, including completed properties without floor areas in the DVR
- Vacant land within commercial zones

Vacant commercial zoned land parcels are further segmented into:

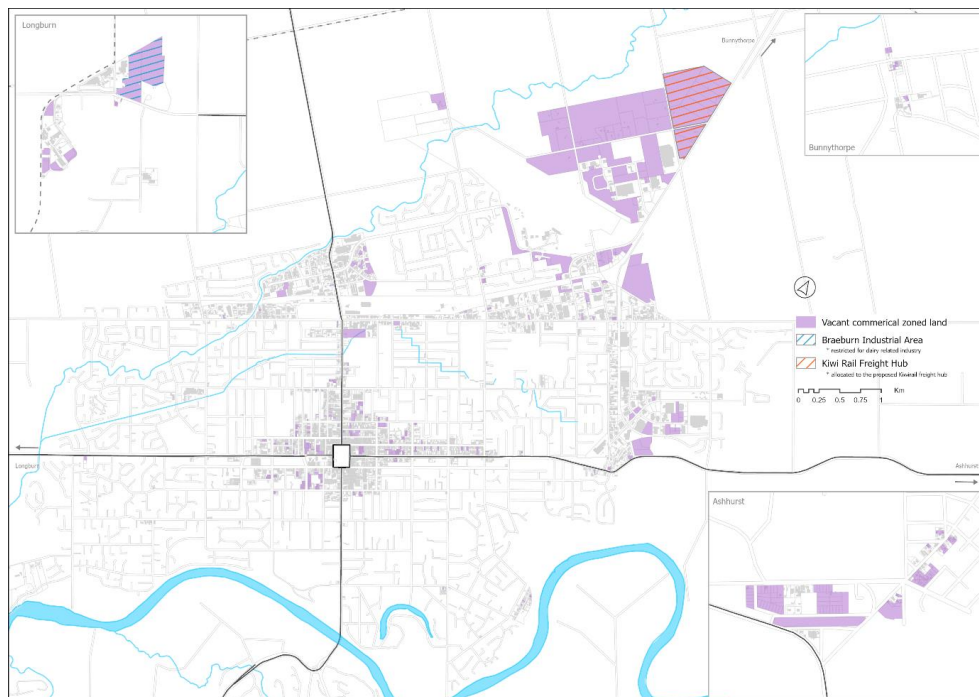
- Commercially zoned land parcels not requiring public infrastructure i.e. land parcels that have already been subdivided and are available for private ownership
- Commercially zoned land parcels requiring public infrastructure i.e. land parcels that have not yet been subdivided and are likely to require a percentage to be set aside for public infrastructure such as roads and water management.

This segmentation is necessary to ensure that an appropriate amount of available zoned land is allocated to public infrastructure to support future development. This area of land must be subtracted from the amount of



vacant commercial zoned land available to support private development. A summary of the source data is provided in Appendix 1.

**Figure 2 Location of vacant commercial zoned land parcels**



**Table 14 Area of developed and vacant commercial zoned land parcels segmented by commercial zone**

	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Area of developed land parcels	516.4	42.6	132.9	0.8	692.7
Area of vacant commercial zoned land	99.9	180.9	19.0	5.9	305.9
Parcels not requiring infrastructure	51.7	52.7	19.0	5.9	129.4
Parcels requiring infrastructure	14.7	78.2	0.0	0.0	92.9
KiwiRail hub allocation - commercial*	0.0	15.0	0.0	0.0	15.0
KiwiRail hub allocation - non-commercial*	0.0	35.0	0.0	0.0	35.0
Dairy industry allocation - commercial**	33.5	0.0	0.0	0.0	33.5
Total available land	616.3	223.6	152.0	6.7	998.6

\* See section 3.2.6 regarding allocation of NEIZ land to the proposed KiwiRail freight hub.

\*\* This land is zoned Braeburn Industrial Area which is restricted through the District Plan to dairy-related industries only. Any other industrial use would require a non-complying resource consent, which would be difficult to obtain.

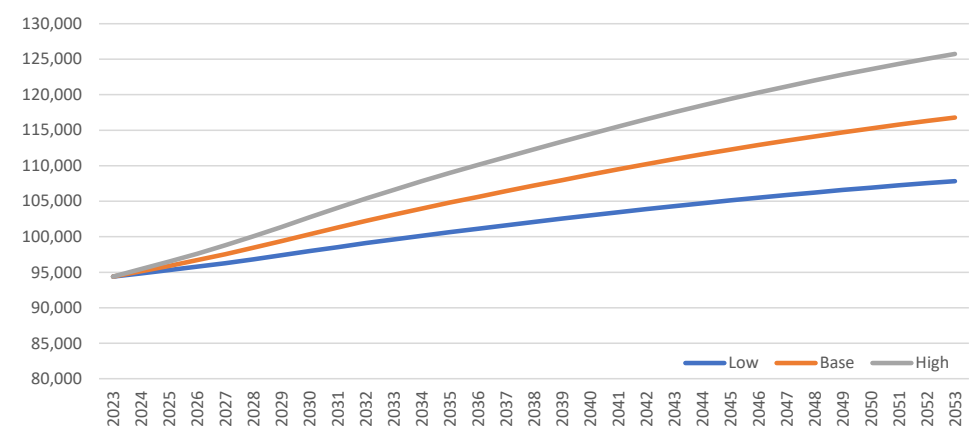
### 3.1.7 Population projections

Population projections for Palmerston North are used to define low, medium, and high growth scenarios for the city and are therefore an important input to the modelling process. The base population projections were the adopted population projections provided to Fresh Info by Palmerston North City Council. The low and high projections were produced by Fresh Info using the following assumptions:

- Low scenario – annual growth is equivalent to 60% of the base projection.
- High scenario - annual growth is equivalent to 140% of the base projection.

These values have been chosen to (a) reflect the uncertainty involved in long-term population forecasting; and (b) provide a range that we are confident the future population will fall within, which is important for the sensitivity analysis.

**Figure 3 Population projections for Palmerston North City**



**Table 15 Summary of population projections for Palmerston North City**

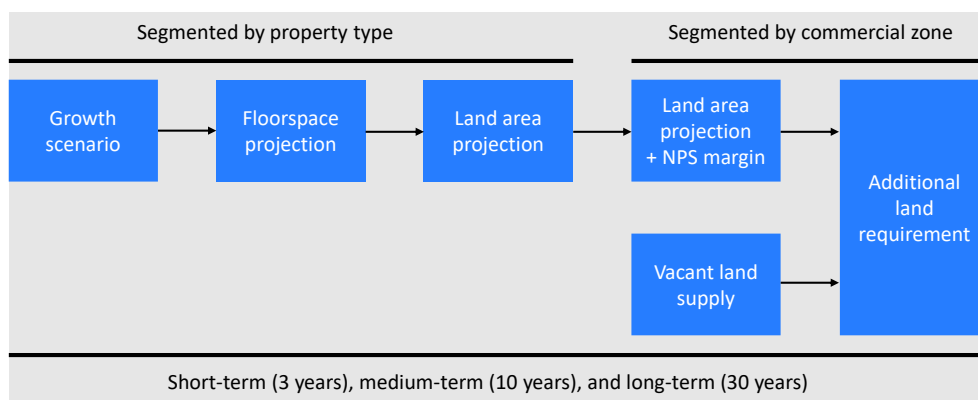
	Low	Base	High
<b>Population</b>			
2023	94,400	94,400	94,400
2026	95,780	96,700	97,619
2033	99,633	103,122	106,611
2053	107,833	116,789	125,744
<b>Growth relative to 2023</b>			
2026	1.5%	2.4%	3.4%
2033	5.5%	9.2%	12.9%
2053	14.2%	23.7%	33.2%
<b>Compounded annual growth rate (CAGR) relative to 2023</b>			
2026	0.5%	0.8%	1.1%
2033	0.5%	0.9%	1.2%
2053	0.4%	0.7%	1.0%



## 3.2 Modelling

The methodology used to meet the project objectives involved five sequential stages which are summarised in the diagram below.

**Figure 4 Methodology used to meet the project objectives**



### 3.2.1 Define the growth scenario the demand projections are responding to

The term ‘growth scenario’ refers to the changes Palmerston North City expects to see in its overall commercial footprint over time. The specific drivers of these changes will be diverse and impossible to predict with accuracy, and any attempt to model at this level of granularity would introduce unreasonable levels of subjectivity and error into the demand projections.

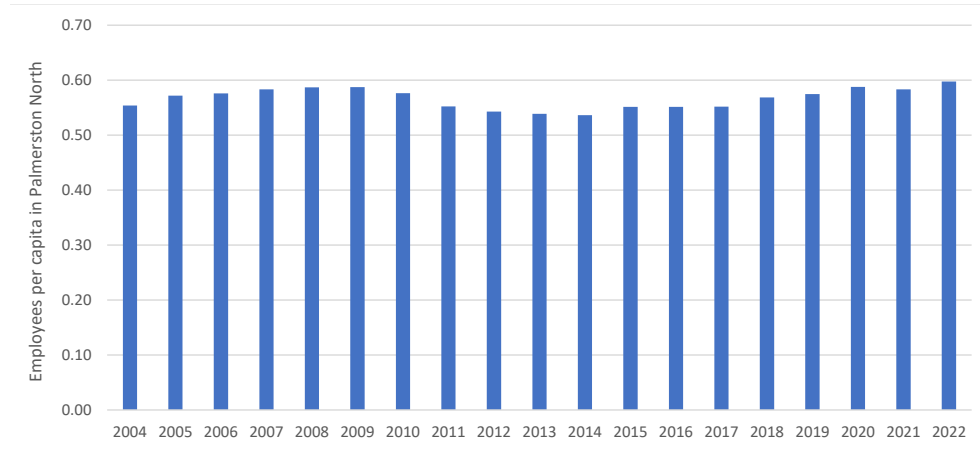
The most objective and internally consistent predictor of Palmerston North’s future commercial footprint is its expected population growth. There are two broad reasons for this:

- As the population expands, the demand for goods, services, and employment opportunities increases. Businesses need adequate commercial spaces to satisfy this demand, driving growth in the commercial footprint.
- Growth in demand for local goods and services (internally or externally generated) creates more business and employment opportunities, which is a catalyst for population growth.

In either case, the long-term relationship between population and commercial footprint is inextricably linked, and it is difficult to imagine a situation in which a city’s population could grow at a materially different rate to its commercial footprint, or vice versa.

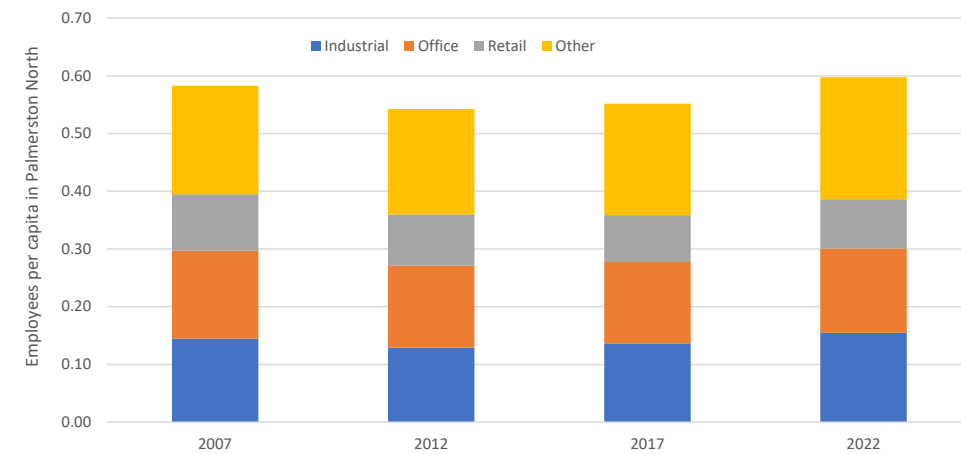
The graph below demonstrates the strength of the relationship between population and employment in Palmerston North over the past 19 years and provides strong support for using population projections to define growth scenarios for the city’s commercial footprint.

**Figure 5 Employees per capita in Palmerston North**



Further analysis shows that the stable long-term relationship between population and employment is also observed at a more disaggregated industry level. This is unsurprising given the interlinkages that exist within the Palmerston North economy i.e. growth in one sector of the economy will generally stimulate growth in other sectors of the economy.

**Figure 6 Employees per capita in Palmerston North segmented by industry**



This analysis gives us confidence that it is reasonable to use population growth scenarios as a key driver of future commercial footprint scenarios for Palmerston North.

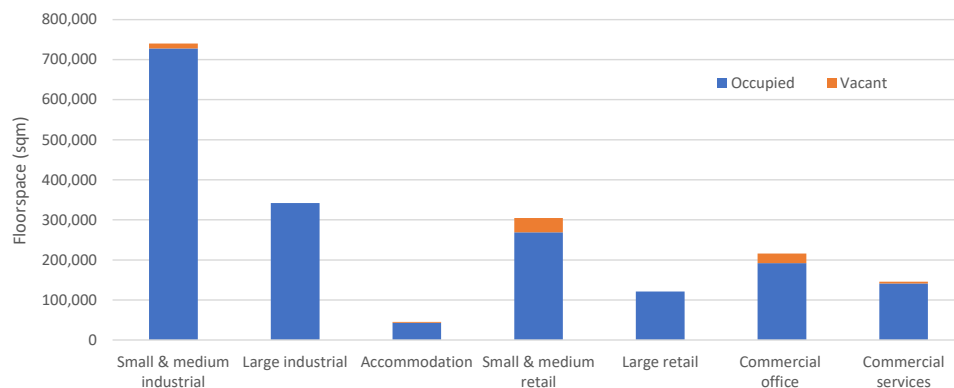




### 3.2.2 Floorspace projection by property type

This stage estimates the quantum and timing of additional floorspace required by each property type under each growth scenario. The starting points are the 2023 estimates of total floorspace and occupied floorspace segmented by property type, based on data collected in December 2022 and May 2023. These have been provided by PNCC and are shown in the graph below.

**Figure 7 Estimated floorspace in 2023 segmented by property type**



The following steps are applied to each property type, except large industrial (see explanation in Section 3.2.6), to estimate future floorspace requirements for each growth scenario.

**Step 1:** Calculate occupied floorspace per capita to determine how much productive floorspace is required to serve the current resident population. It is important to note that this does not assume that the floorspace is exclusively serving Palmerston North residents. As discussed above, the model leverages the long-term relationship between Palmerston North's population and its commercial footprint, while acknowledging that some of the commercial footprint is sustained by demand originating outside Palmerston North. The table below contains estimates of occupied floorspace per capita in 2023 i.e. the amount of commercial floorspace required to serve both internal and external demand, divided by Palmerston North's resident population.

**Table 16 Occupied floorspace per capita in 2023**

Property type	Occupied floorspace per capita (sqm)
Small & medium industrial	7.71
Large industrial	3.62
Accommodation	0.46
Small & medium retail	2.85
Large retail	1.28
Commercial office	2.03
Commercial services	1.50
TOTAL	19.45



**Step 2:** Develop annual projections of occupied floorspace per capita. This is achieved in two stages:

1. Establish baseline assumptions regarding occupied floorspace in year 30 relative to current (2023) levels.
2. Convert the assumed 30-year changes into uniform annual growth rates.

The baseline assumptions for each property type are shown in the table below. The default assumption is that the relationship between occupied floorspace and population does not change over the next 30 years (represented by 100% in the table below), which is consistent with the discussion in Section 3.2.1. The two exceptions are the 'large industrial' and 'accommodation' property types. The treatment of large industrial is discussed in Section 3.2.6, and demand for accommodation floorspace is assumed to grow 10% faster than population over the next 30 years as Palmerston North's tourism offering continues to develop. It is worth noting that guest nights in commercial accommodation in Palmerston North city have grown at a similar rate to population over the past 20 years.

**Table 17 Occupied floorspace per capita in year 30 relative to 2023**

	Base scenario
Small & medium industrial	100%
Large industrial	n/a
Accommodation	110%
Small & medium retail	100%
Large retail	100%
Commercial office	100%
Commercial services	100%

**Step 3:** Combine the projections of occupied floorspace per capita with the population projections to estimate the total amount of floorspace required each year to meet the needs of the growth scenario. A vacancy buffer is included in this calculation to build a small amount of commercial flexibility into the market. The assumed vacancy buffers for each property type and growth scenario are shown in the table below. These are based on desktop research which suggests that a 3% occupancy rate represents a healthy leasing market for most small/medium property types.

**Table 18 Vacant floorspace buffer by property type**

	Base scenario
Small & medium industrial	3.00%
Large industrial	n/a
Accommodation	0.00%
Small & medium retail	3.00%
Large retail	0.00%
Office	3.00%
Commercial services	3.00%

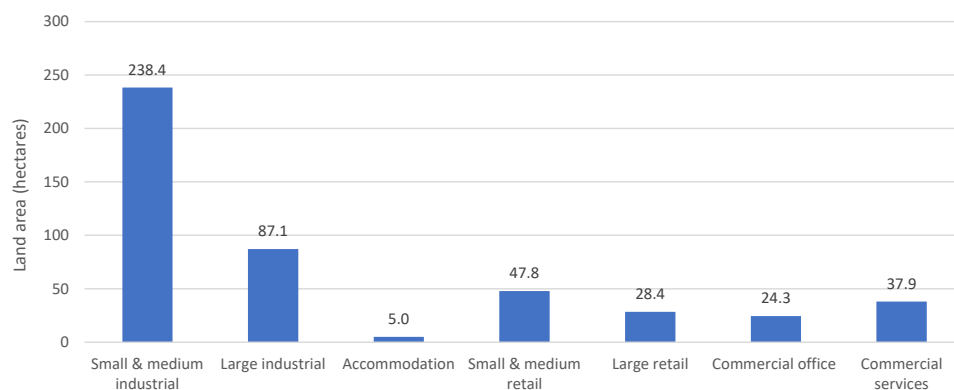
**Step 4:** Calculate the change in total floorspace required for each property type relative to current (2023) levels. This is achieved by subtracting the current (2023) floorspace from the projected floorspace in each year.



### 3.2.3 Land area projection by property type

This stage estimates the quantum and timing of additional land required by each property type to accommodate the estimated floorspace from the previous stage. The starting points are the 2023 estimates of total developed<sup>2</sup> land area segmented by property type. These have been provided by PNCC and are shown in the graph below.

**Figure 8 Estimated developed land area in 2023 segmented by property type**



The following steps are applied to each property type, except large industrial (see explanation in Section 3.2.6), to estimate future floorspace requirements for each growth scenario.

**Step 1:** Calculate floorspace per hectare of developed land to determine how intensively existing commercial zoned land is being used. The table below contains estimates of floorspace per hectare in 2023.

**Table 19 Floorspace per hectare in 2023**

Property type	Floorspace per hectare (sqm)
Small & medium industrial	3,106
Large industrial	3,926
Accommodation	9,034
Small & medium retail	6,373
Large retail	4,263
Commercial office	8,886
Commercial services	3,849
TOTAL	4,033

**Step 2:** Build projections of floorspace per hectare on land that is already developed to consider the impact of redevelopment on land use densities. This is achieved in two stages:

1. Establish baseline assumptions regarding the amount of floorspace per hectare on land that is already developed in year 30 relative to current (2023) levels.

<sup>2</sup> 'Developed' means the land parcel contains one or more commercial buildings.

2. Convert the assumed 30-year changes into uniform annual growth rates.

The baseline assumptions for each property type are shown in the table below. The default assumption is that floorspace per hectare on land that is already developed will be 5% higher in 30 years than it is now. This is based on the belief that some developed land parcels will be used more intensively in the future than they are now, driven mainly by infill and redevelopment of lower grade buildings. The only exception is the 'commercial office' property type, which is assumed to be redeveloped more intensively than the other property types due to the multi-level nature of such buildings (10% higher in 30 years than it is now).

**Table 20 Floorspace per hectare of developed land in year 30 relative to 2023**

	Base scenario
Small & medium industrial	105%
Large industrial	105%
Accommodation	105%
Small & medium retail	105%
Large retail	105%
Commercial office	110%
Commercial services	105%

**Step 3:** Combine the floorspace projections from the previous stage with the floorspace per hectare projections from Step 2 to estimate how much of the additional floorspace can be accommodated within developed land parcels through more intensive use of the land.

**Step 4:** Calculate the amount of land that would need to be developed to accommodate the surplus floorspace from Step 3. The following assumptions are made about the land use intensity of newly developed land parcels relative to land parcels that are already developed. The default assumption is that floorspace per hectare will be 5% higher on newly developed land parcels relative to land parcels that are already developed. This is based on the belief that newly developed land parcels will be developed more intensively than they have been in the past due to higher land prices and better building methods. The only exceptions are the 'accommodation' and 'commercial office' property types, which are assumed to be developed 25% more intensively in the future. The rationale for this is that these property types are more well-suited to multi-level developments than the other property types.

**Table 21 Floorspace per hectare on newly developed land relative to land that is already developed**

	Base scenario
Small & medium industrial	105%
Large industrial	105%
Accommodation	125%
Small & medium retail	105%
Large retail	105%
Commercial office	125%
Commercial services	105%

**Step 5:** Calculate the total developed land area required as the existing developed land area plus the new land requirement from Step 4.



**Step 6:** Calculate the change in total developed land area required for each property type relative to current (2023) levels. This is achieved by subtracting the current (2023) developed land area from the projected land area requirement in each year.

### 3.2.4 Land area projection by commercial zone

This stage converts the additional property type land requirements from the previous stage into additional commercial zone land requirements.

This stage is required because the relationship between property types and commercial zones is not one-to-one. For example, in 2023 around 10% of commercial offices were located on land zoned as airport or industrial, and the remaining 90% were located on land zoned as business. Additional land for commercial offices is therefore likely to impact more than one commercial zone. The table below shows the relationship between property types and commercial zones in 2023.

**Table 22 Relationship between property type land parcels and commercial zones in 2023**

Property type	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	94%	6%	0%	0%	100%
Large industrial	69%	31%	0%	0%	100%
Accommodation	0%	0%	95%	5%	100%
Small & medium retail	15%	0%	84%	1%	100%
Large retail	13%	0%	87%	0%	100%
Commercial office	10%	0%	90%	0%	100%
Commercial services	24%	0%	76%	0%	100%
TOTAL	65%	9%	26%	0%	100%

The conversion of property type land to commercial zone land is based on the assumptions in the table below about which commercial zone(s) the additional property type land will be located in. These assumptions have been informed by the current relationships in Table 22 and discussions with the PNCC planning team. They are applied uniformly to all future years.

**Table 23 Allocation of additional property type land to commercial zones**

Property type	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	95%	5%	0%	0%	100%
Large industrial	0%	100%	0%	0%	100%
Accommodation	0%	0%	100%	0%	100%
Small & medium retail	10%	0%	90%	0%	100%
Large retail	10%	0%	90%	0%	100%
Commercial office	10%	0%	90%	0%	100%
Commercial services	25%	0%	75%	0%	100%

### 3.2.5 Additional land requirement by commercial zone

This stage determines if/when future commercial zone land requirements will exceed the zoned land that is currently available. The future assessment periods are 3 years, 10 years, and 30 years as per NPS-UD requirements. The following steps are applied to each commercial zone to estimate future land requirements:

#### Determining the amount of land required (demand)

- Start with the additional land requirement calculated in the previous stage. This represents the amount of land that would need to be developed to accommodate the projected commercial footprint. This is referred to as the “commercial requirement”.
- Add the NPS competitiveness margin which is 20% of the commercial requirement in year 3 and year 10, and 15% in year 30.
- Add the commercial requirements and NPS margins together to determine the additional land requirements in year 3, year 10, and year 30.

#### Determining the amount of land available (supply)

- Start with the amount of zoned land that is currently vacant commercial /undeveloped land (“gross land available”).
- Divide the gross land available into two components:
  - Private land parcels - vacant zoned land that could be 100% owned by businesses.
  - Land parcels allocated to public infrastructure – vacant zoned land that would need to be used to provide public infrastructure such as roading, storm water, etc. This would generally only be required in areas that had not been fully subdivided. This land needs to be identified and separated from private land parcels because it is not able to accommodate commercial floorspace.

#### Calculating the difference between projected demand and supply (deficit)

- Calculate the private land parcel deficit as private land parcels available less the additional land requirement. This represents the amount of additional land that would need to be made available to accommodate the projected commercial footprint, beyond what is currently zoned for use.
- Estimate the amount of land that would need to be provisioned for public infrastructure to support the newly zoned private land parcels. This is assumed to be equivalent to 20% of the area of the private land parcels based on previous work conducted for the NEIZ. The actual percentage would depend on the nature of the land and the desired level of social amenity - higher levels of social amenity generally require more land to be assigned to non-productive uses e.g. walking and cycling, open spaces.
- Add the private land parcels and public infrastructure allocations together to determine the gross land deficit in year 3, year 10, and year 30.



Table 24 Definitions for reporting of capacity assessment results

Measure (hectares)	Definition
Additional land requirement	Area of vacant land required to meet NPS requirements
Commercial requirement	Area of vacant land required by businesses
NPS margin	NPS competitiveness margin
Gross land available	Area of vacant land currently zoned for use
Private land parcels	Area of vacant land that could be used by businesses
Public infrastructure allocation	Area of vacant land required for public infrastructure
Gross land deficit	Shortage of vacant land to accommodate projected growth
Private land parcels	Shortage of vacant land that could be used by businesses
Public infrastructure allocation	Shortage of vacant land required for public infrastructure

### 3.2.6 Large floor plate industrial modelling

Detailed land demand forecasts were recently produced for the NEIZ as part of the Te Utanganui project. Most, if not all large industrial developments are expected to be located within the NEIZ over the next 30 years, so the recent NEIZ modelling provides valuable insight into potential development scenarios for large floor plate industrial businesses. The decision was therefore made to integrate the results of the Te Utanganui project modelling into this NPS-UD forecasting model, rather than reproducing a forecast for large format industrial businesses. A description of the methodology used to produce the Te Utanganui projections is provided in Appendix 2.

The proposed KiwiRail freight hub, which is a core component of the Te Utanganui project, is expected to have a total land area of around 178ha based on the Notice of Requirement filed by KiwiRail in 2020. This includes 50ha of NEIZ land (the remaining 128ha is rural zoned land so does not affect industrial zoned land), but it is assumed that 15ha would be leased to large industrial tenants to support rail-dependent freight and logistics operations. The net reduction in commercial land for large industrial tenants is therefore estimated to be 35ha.

### 3.2.7 Sensitivity analysis

Sensitivity analysis has been conducted to manage uncertainty and understand the potential range of outcomes Palmerston North city could expect over the next 30 years.

The low land demand scenario is based on the following conditions:

- Low population growth; and
- No vacant floorspace buffers; and
- Less floorspace required per capita over time relative to the base scenario; and
- More intensive development of existing land parcels over time (redevelopment); and
- New land parcels being developed at a higher density than existing land parcels (new developments)

The high land demand scenario is based on the following conditions:

- High population growth; and
- Relatively high vacancy buffers; and
- More floorspace required per capita over time relative to the base scenario; and
- No change in intensity of existing land parcels over time (redevelopment); and

- New land parcels being developed at the same density as existing land parcels (new developments)

The assumptions driving the low land demand scenario result in a commercial footprint that is smaller than the base scenario, while the assumptions driving the high land demand scenario result in a commercial footprint that is larger than the base scenario.

The sensitivity analysis provides feasible lower and upper bounds around the base scenario. We would expect future commercial land requirements to lie within this range, and to generally follow the trend of the base scenario over time.

The assumptions that drive the low and high land demand scenarios are shown in the tables below.

**Table 25 Occupied floorspace per capita in year 30 relative to 2023**

	Low land demand scenario	Base scenario	High land demand scenario
Small & medium industrial	95%	100%	105%
Large industrial	n/a	n/a	n/a
Accommodation	100%	110%	120%
Small & medium retail	95%	100%	105%
Large retail	95%	100%	105%
Commercial office	90%	100%	105%
Commercial services	95%	100%	105%

**Table 26 Vacant floorspace buffer by property type**

	Low land demand scenario	Base scenario	High land demand scenario
Small & medium industrial	0.00%	3.00%	5.00%
Large industrial	n/a	n/a	n/a
Accommodation	0.00%	0.00%	0.00%
Small & medium retail	0.00%	3.00%	5.00%
Large retail	0.00%	0.00%	0.00%
Commercial office	0.00%	3.00%	5.00%
Commercial services	0.00%	3.00%	5.00%

**Table 27 Floorspace per hectare of developed land in year 30 relative to 2023**

	Low land demand scenario	Base scenario	High land demand scenario
Small & medium industrial	110%	105%	100%
Large industrial	110%	105%	100%
Accommodation	110%	105%	100%
Small & medium retail	110%	105%	100%
Large retail	110%	105%	100%
Commercial office	120%	110%	100%
Commercial services	110%	105%	100%





Table 28 Floorspace per hectare on newly developed land relative to land that is already developed

	Low land demand scenario	Base scenario	High land demand scenario
Small & medium industrial	110%	105%	100%
Large industrial	110%	105%	100%
Accommodation	150%	125%	100%
Small & medium retail	110%	105%	100%
Large retail	110%	105%	100%
Commercial office	150%	125%	100%
Commercial services	110%	105%	100%



## 4 Property type outputs

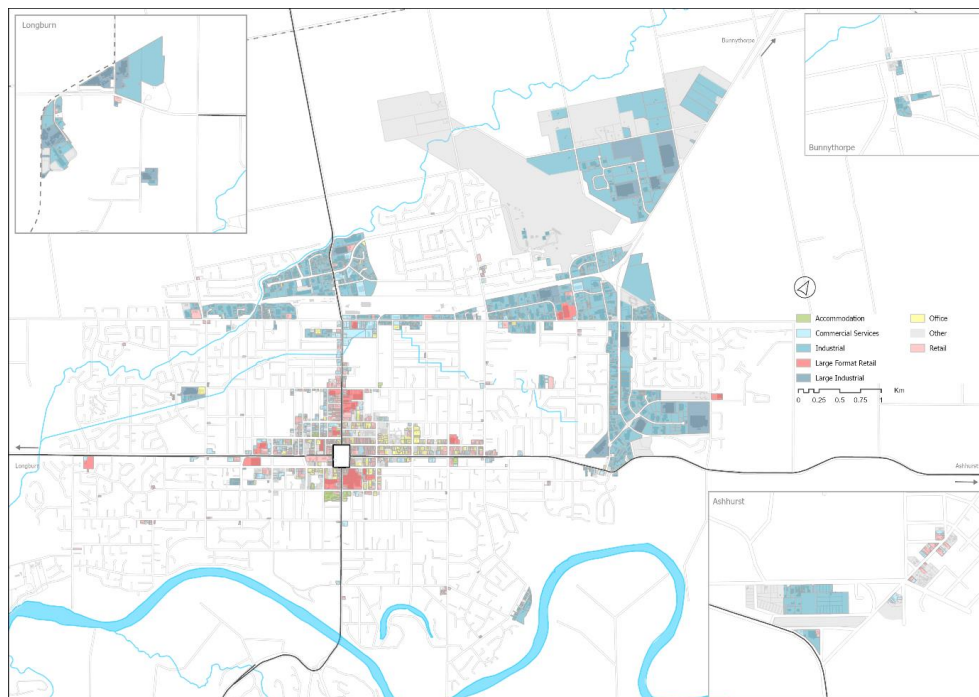
This section provides floorspace and land area projections for Palmerston North city segmented by the following property types:

- Small & medium industrial (up to 11,000 sqm of floorspace)
- Large floor plate industrial (more than 11,000 sqm of floorspace)
- Accommodation
- Small & medium retail (up to 3,900 sqm of floorspace)
- Large format retail (more than 3,900 sqm of floorspace)
- Commercial office
- Commercial services

The base (2023) floorspace and developed land area values have been provided by Palmerston North City Council.

The map below shows the locations of the land parcels occupied by each property type in 2023.

**Figure 9 Land parcels by property type in 2023**

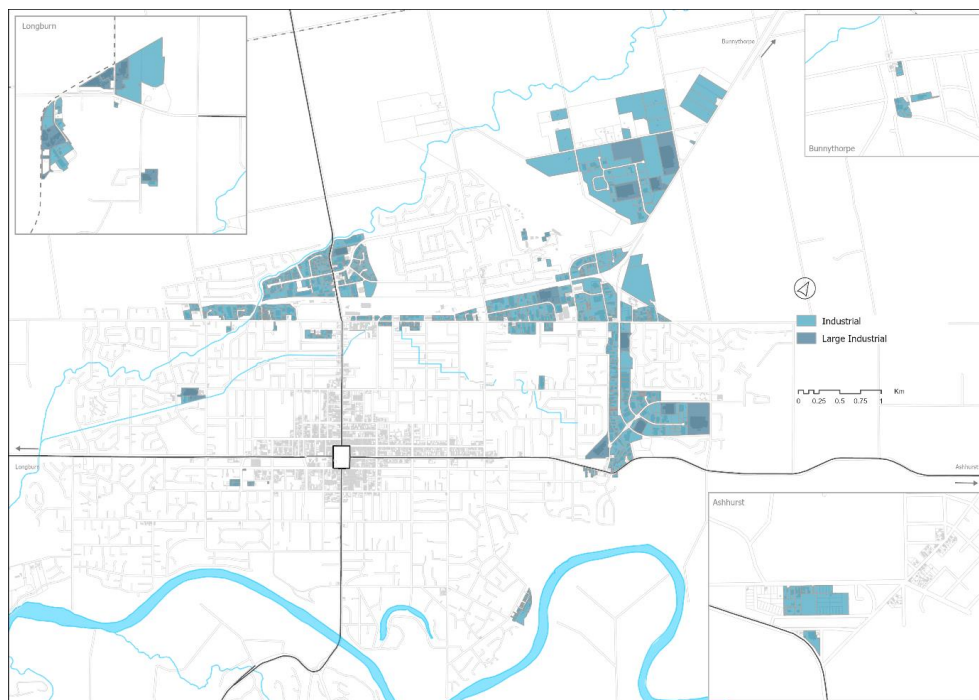




#### 4.1 Small & medium industrial businesses

The map below shows the locations of the land parcels occupied by small & medium industrial businesses in 2023 (described as “Industrial” in the legend). Land parcels occupied by large industrial businesses are also shown for context.

**Figure 10 Small & medium industrial business land parcels in 2023**



The table below shows floorspace and land areas for small & medium industrial businesses in 2023 segmented by the commercial zones they are located within.

**Table 29 Location of existing small & medium industrial businesses in 2023**

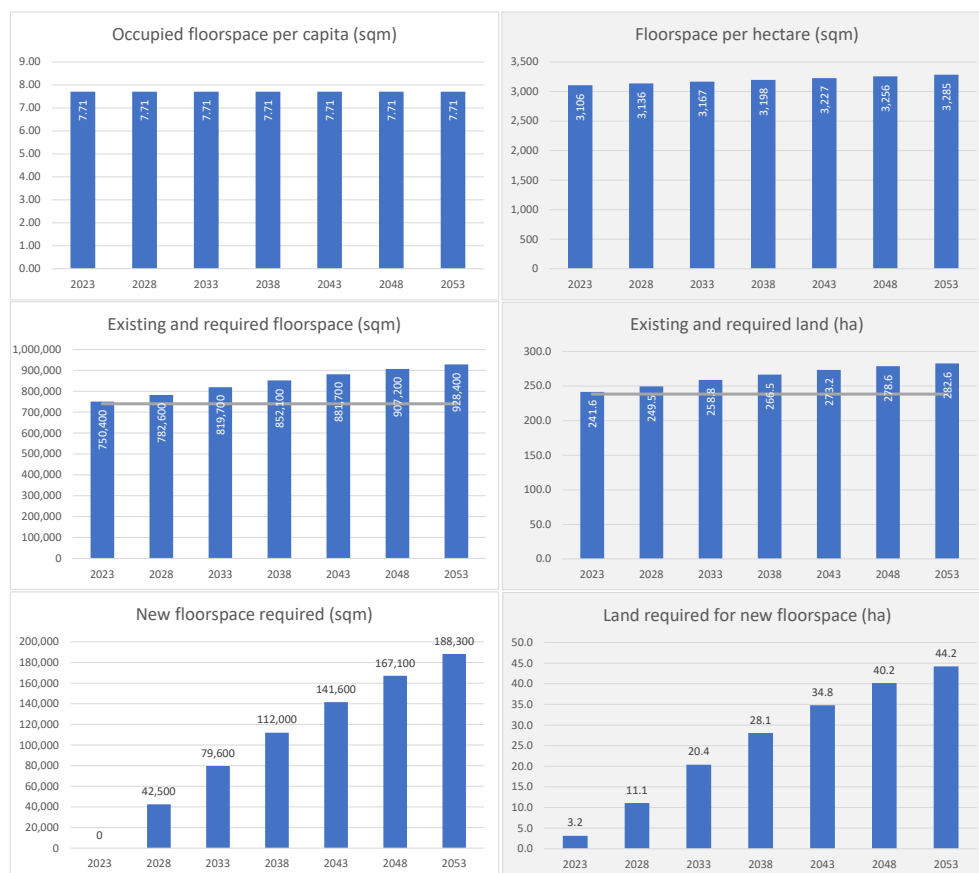
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	706,792	33,333	0	0	740,125
Occupied floorspace (sqm)	694,554	33,333	0	0	727,887
Developed land area (ha)	223.1	15.4	0.0	0.0	238.4

#### 4.1.1 Key results for small & medium industrial businesses

The key results for the base scenario are:

- Required floorspace per capita projected to remain unchanged at 7.71 sqm across the forecast period.
- Required floorspace projected to increase from 750,400 sqm in 2023 to 928,400 sqm in 2053 (+24%).
- 188,300 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 3,106 sqm in 2023 to 3,285 sqm in 2053 (+6%).
- Required land projected to increase from 241.6 ha in 2023 to 282.6 ha in 2053 (+17%).
- 44.2 ha of land required for new floorspace by 2053.

**Figure 11 Summary of modelled results for small & medium industrial businesses**

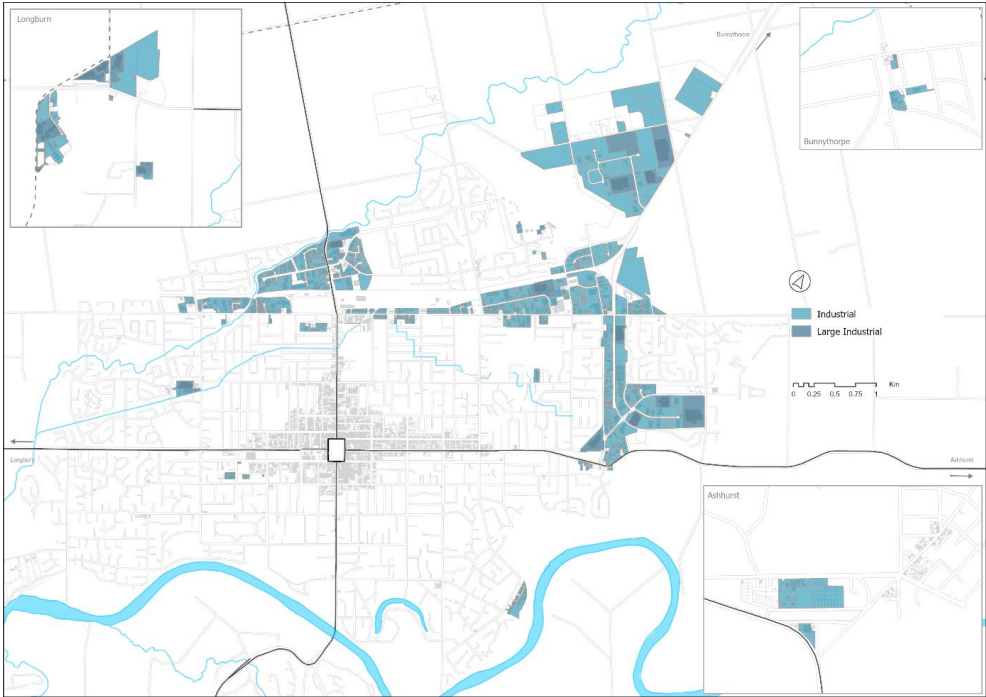




4.2 Large industrial businesses

The map below shows the locations of the land parcels occupied by large industrial businesses in 2023 (described as “Large industrial” in the legend). Land parcels occupied by small & medium industrial businesses (described as “Industrial in the legend) are also shown for context.

Figure 12 Large industrial business land parcels in 2023



The table below shows floorspace and land areas for large industrial businesses in 2023 segmented by the commercial zones they are located within.

Table 30 Location of existing large industrial businesses in 2023

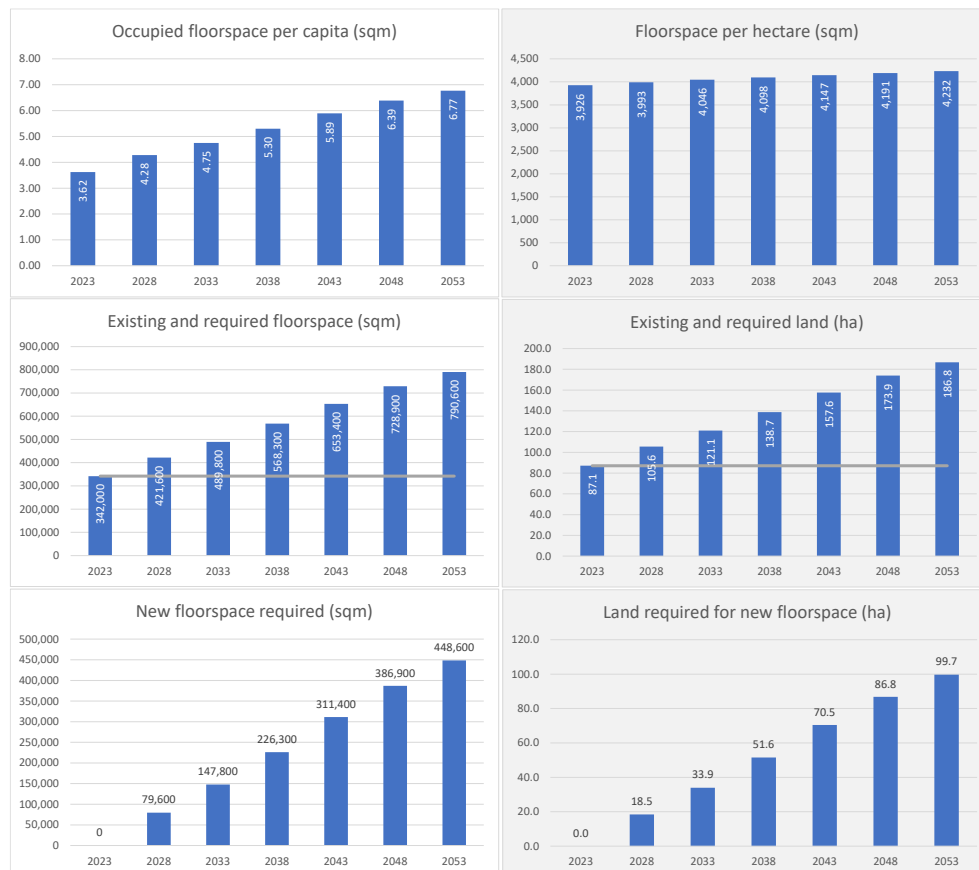
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	228,998	112,969	0	0	341,967
Occupied floorspace (sqm)	228,998	112,969	0	0	341,967
Developed land area (ha)	59.8	27.3	0.0	0.0	87.1

#### 4.2.1 Key results for large industrial businesses

The key results for the base scenario are:

- Required floorspace per capita projected to increase from 3.62 sqm in 2023 to 6.77 sqm in 2053 (+87%). This is driven by the Te Utanganui modelling which assumes that Palmerston North will become a nationally significant distribution hub for the lower North Island.
- Required floorspace projected to increase from 342,000 sqm in 2023 to 790,600 sqm in 2053 (+131%).
- 448,600 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 3,926 sqm in 2023 to 4,232 sqm in 2053 (+8%).
- Required land projected to increase from 87.1 ha in 2023 to 186.8 ha in 2053 (+100%).
- 99.7 ha of land required for new floorspace by 2053.

**Figure 13 Summary of modelled results for large industrial businesses**

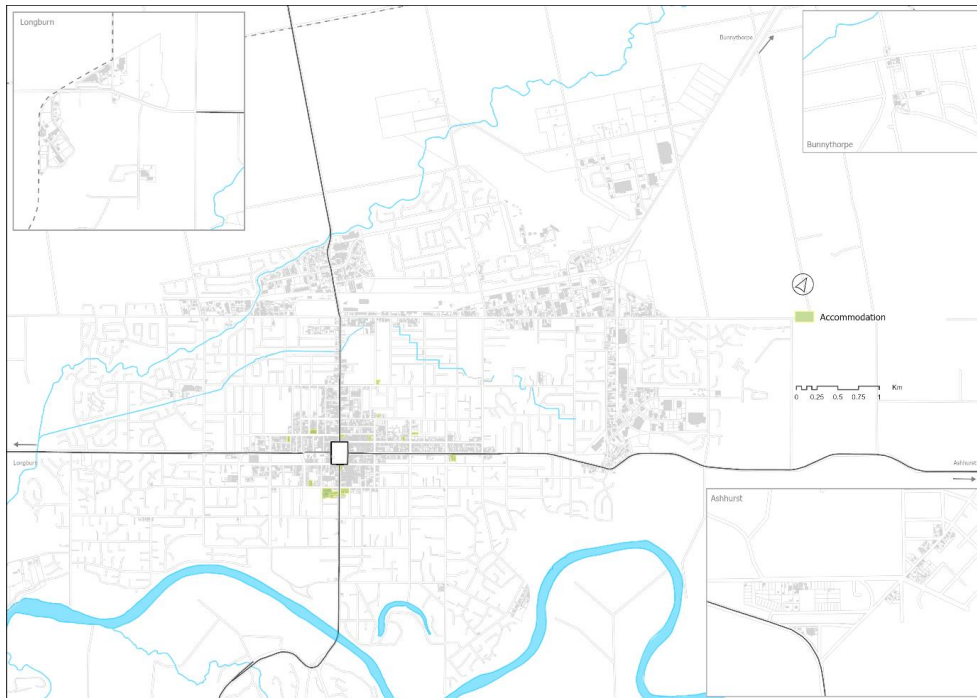




### 4.3 Accommodation businesses

The map below shows the locations of the land parcels occupied by accommodation businesses in 2023 within the three commercial zones considered in this study.

**Figure 14 Accommodation business land parcels in 2023**



The table below shows floorspace and land areas for accommodation businesses in 2023 segmented by the commercial zones they are located within.

**Table 31 Location of existing accommodation businesses in 2023**

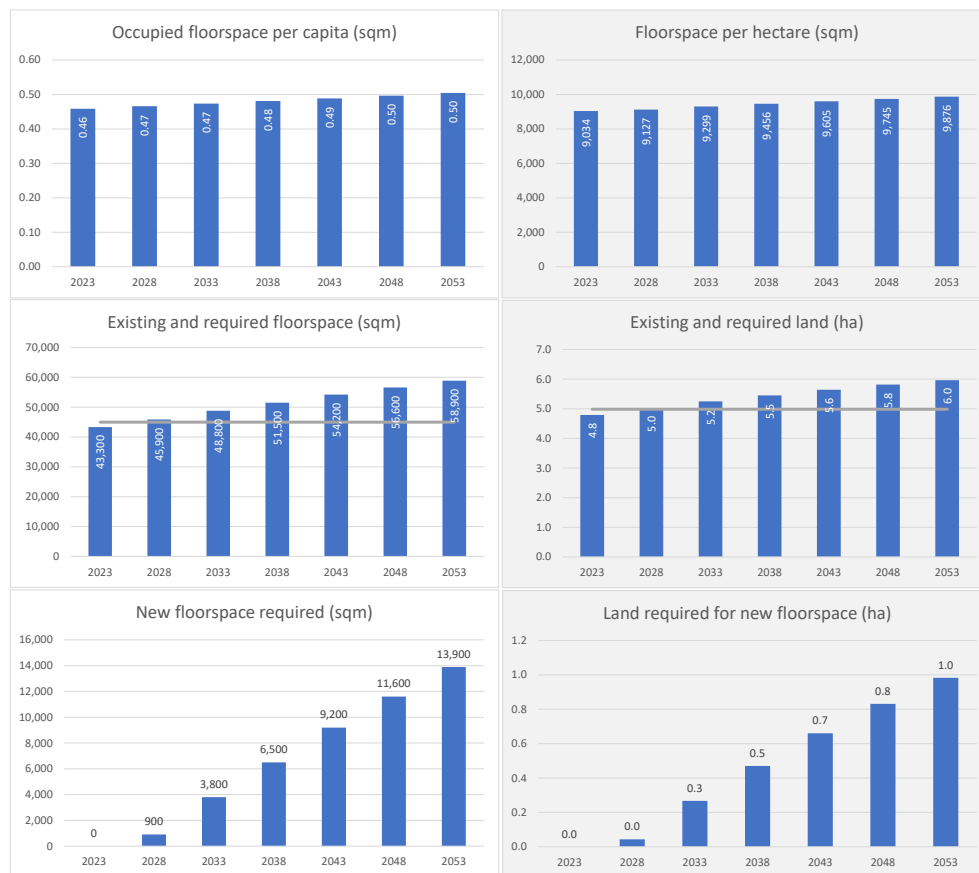
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	0	0	43,831	1,170	45,001
Occupied floorspace (sqm)	0	0	42,111	1,170	43,281
Developed land area (ha)	0.0	0.0	4.7	0.3	5.0

#### 4.3.1 Key results for accommodation businesses

The key results for the base scenario are:

- Required floorspace per capita projected to increase from 0.46 sqm in 2023 to 0.50 sqm in 2053 (+10%).
- Required floorspace projected to increase from 43,300 sqm in 2023 to 58,900 sqm in 2053 (+36%).
- 13,900 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 9,034 sqm in 2023 to 9,876 sqm in 2053 (+9%).
- Required land projected to increase from 4.8 ha in 2023 to 6.0 ha in 2053 (+24%).
- 1 ha of land required for new floorspace by 2053.

**Figure 15 Summary of modelled results for accommodation businesses**



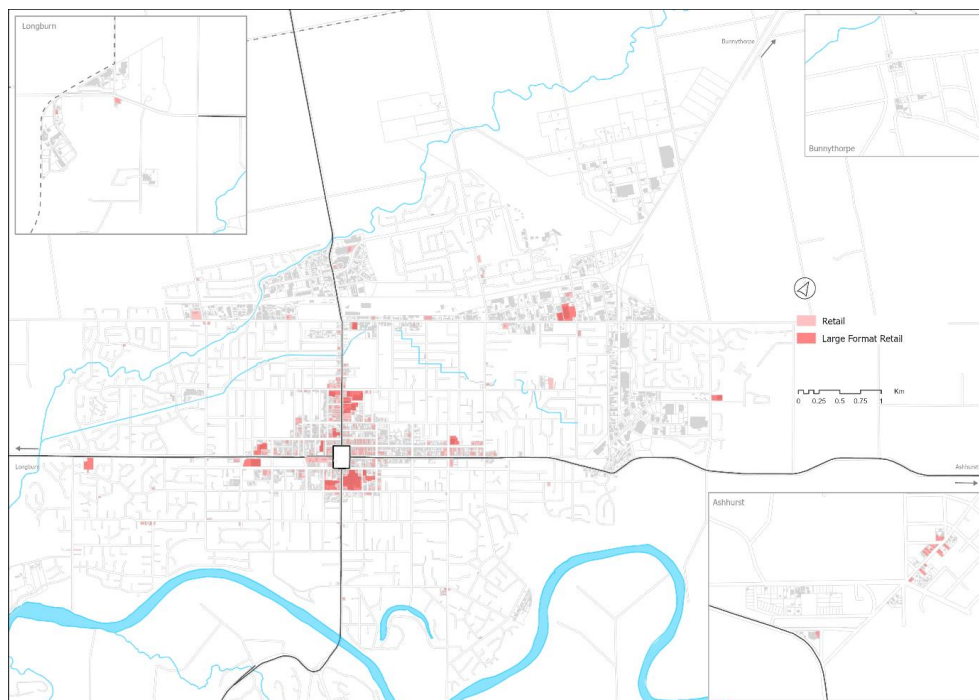




#### 4.4 Small & medium retail businesses

The map below shows the locations of the land parcels occupied by small & medium retail businesses in 2023 (described as “Retail” in the legend). Land parcels occupied by large format retail businesses are also shown for context.

**Figure 16 Small & medium retail business land parcels in 2023**



The table below shows floorspace and land areas for small & medium retail businesses in 2023 segmented by the commercial zones they are located within.

**Table 32 Location of existing small and medium retail businesses in 2023**

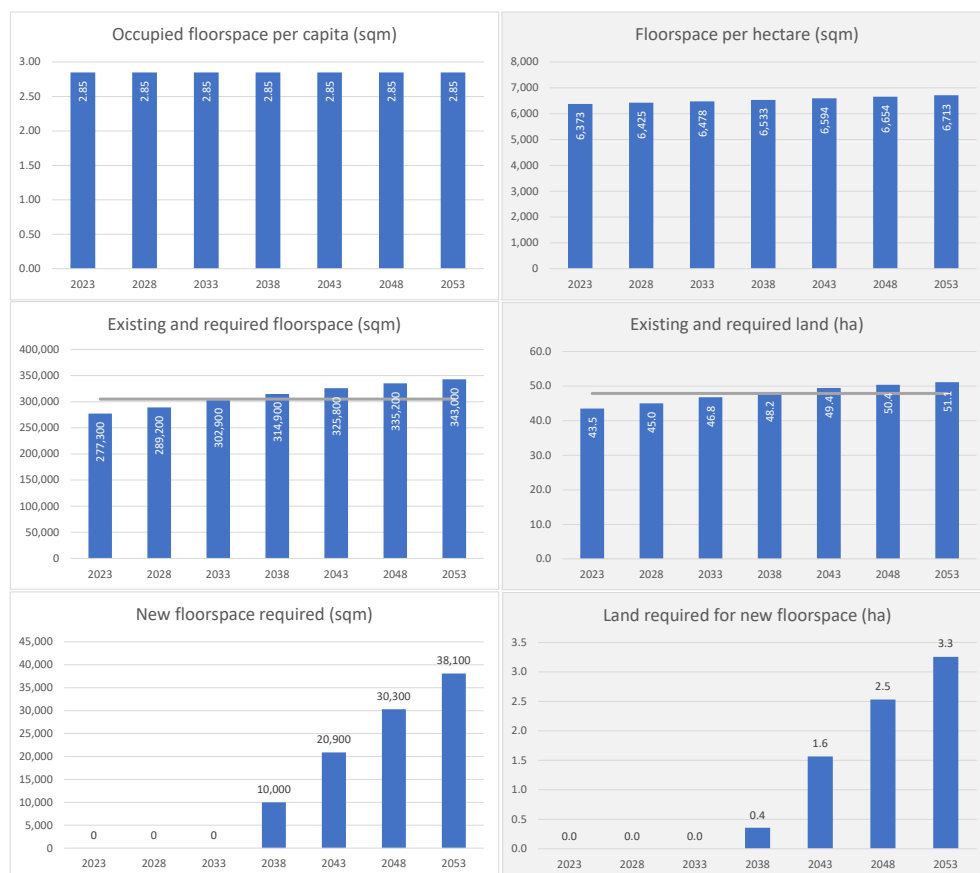
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	21,374	0	282,070	1,469	304,913
Occupied floorspace (sqm)	20,362	0	247,136	1,469	268,967
Developed land area (ha)	7.2	0.0	40.1	0.5	47.8

#### 4.4.1 Key results for small & medium retail businesses

The key results for the base scenario are:

- Required floorspace per capita projected to remain unchanged at 2.85 sqm across the forecast period.
- Required floorspace projected to increase from 277,300 sqm in 2023 to 343,000 sqm in 2053 (+24%).
- 38,100 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 6,373 sqm in 2023 to 6,713 sqm in 2053 (+5%).
- Required land projected to increase from 43.5 ha in 2023 to 51.1 ha in 2053 (+17%).
- 3.3 ha of land required for new floorspace by 2053.

**Figure 17 Summary of modelled results for small & medium retail businesses**

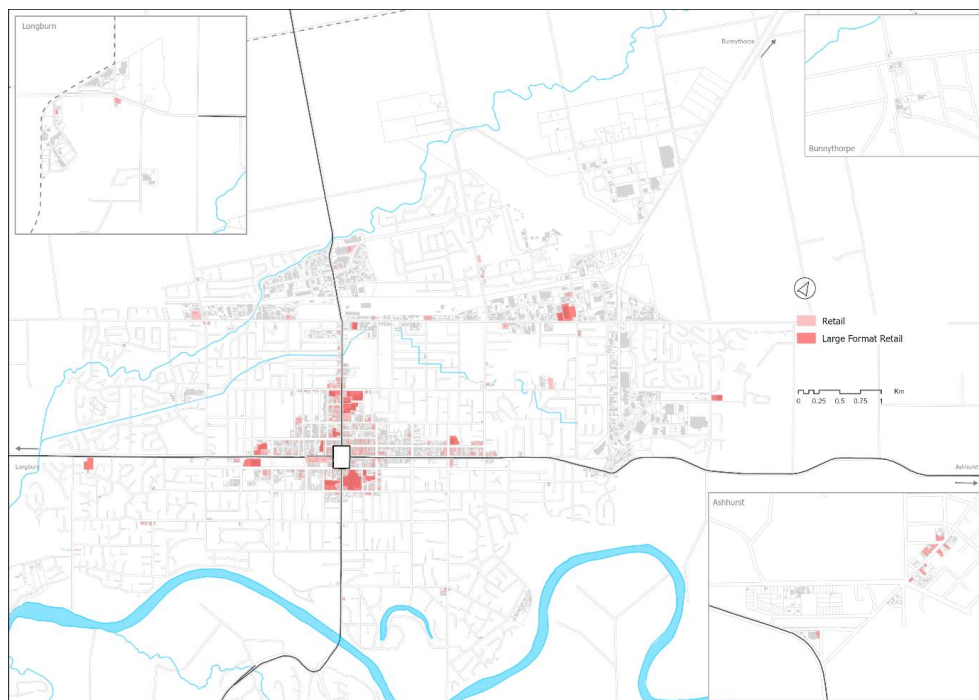




## 4.5 Large retail businesses

The map below shows the locations of the land parcels occupied by large retail businesses in 2023 (described as “Large format retail” in the legend). Land parcels occupied by small & medium format retail businesses (described as “Retail” in the legend) are also shown for context.

**Figure 18 Large retail business land parcels in 2023**



The table below shows floorspace and land areas for large retail businesses in 2023 segmented by the commercial zones they are located within.

**Table 33 Location of existing large retail businesses in 2023**

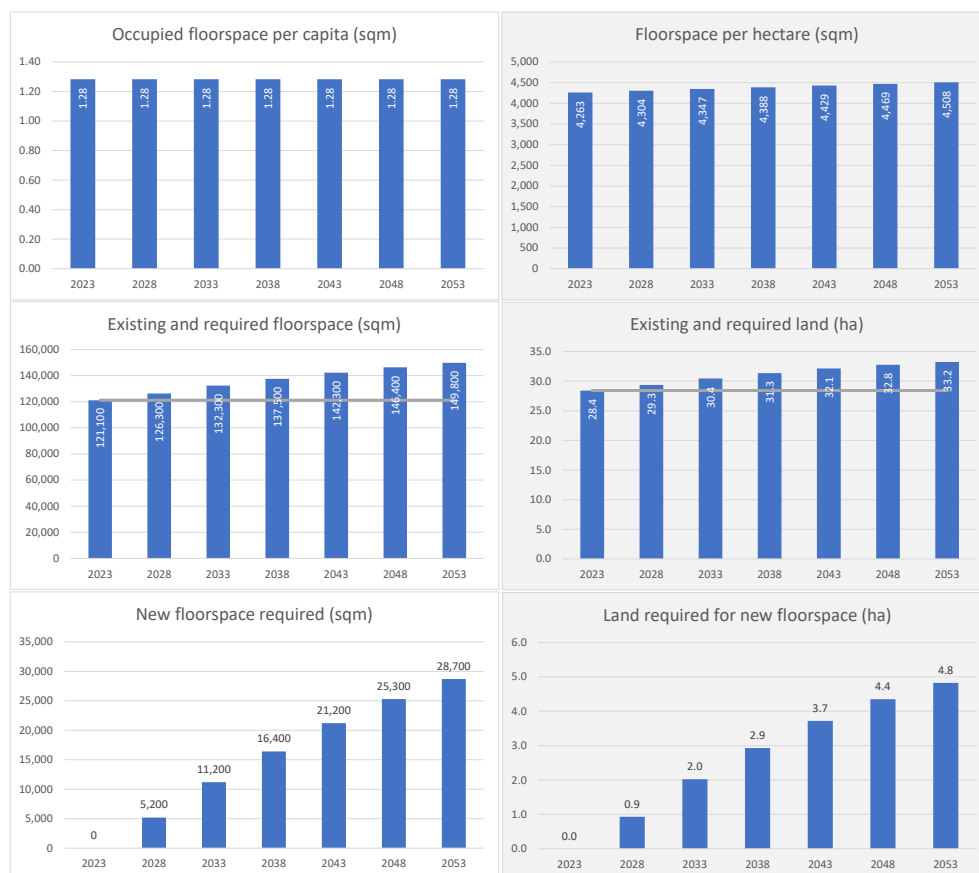
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	13,987	0	107,116	0	121,103
Occupied floorspace (sqm)	13,987	0	107,116	0	121,103
Developed land area (ha)	3.8	0.0	24.6	0.0	28.4

#### 4.5.1 Key results for large retail businesses

The key results for the base scenario are:

- Required floorspace per capita projected to remain unchanged at 1.28 sqm across the forecast period.
- Required floorspace projected to increase from 121,100 sqm in 2023 to 149,800 sqm in 2053 (+24%).
- 28,700 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 4,263 sqm in 2023 to 4,508 sqm in 2053 (+6%).
- Required land projected to increase from 28.4 ha in 2023 to 33.2 ha in 2053 (+17%).
- 4.8 ha of land required for new floorspace by 2053.

**Figure 19 Summary of modelled results for large retail businesses**

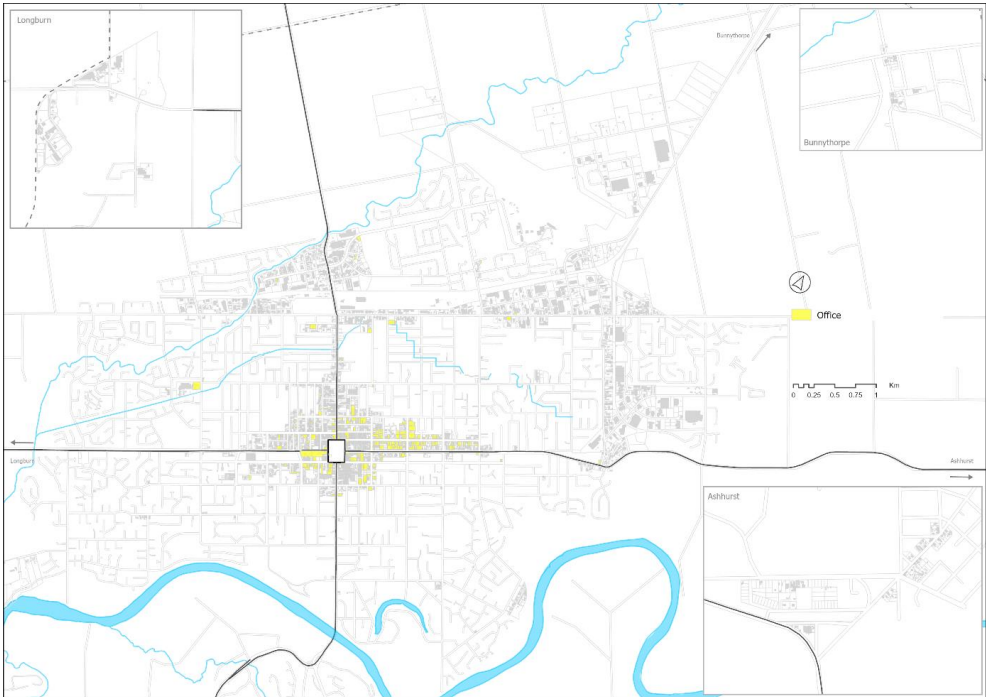




4.6 Commercial offices

The map below shows the locations of the land parcels occupied by commercial offices in 2023.

Figure 20 Commercial office land parcels in 2023



The table below shows floorspace and land areas for commercial offices in 2023 segmented by the commercial zones they are located within.

Table 34 Location of existing commercial offices in 2023

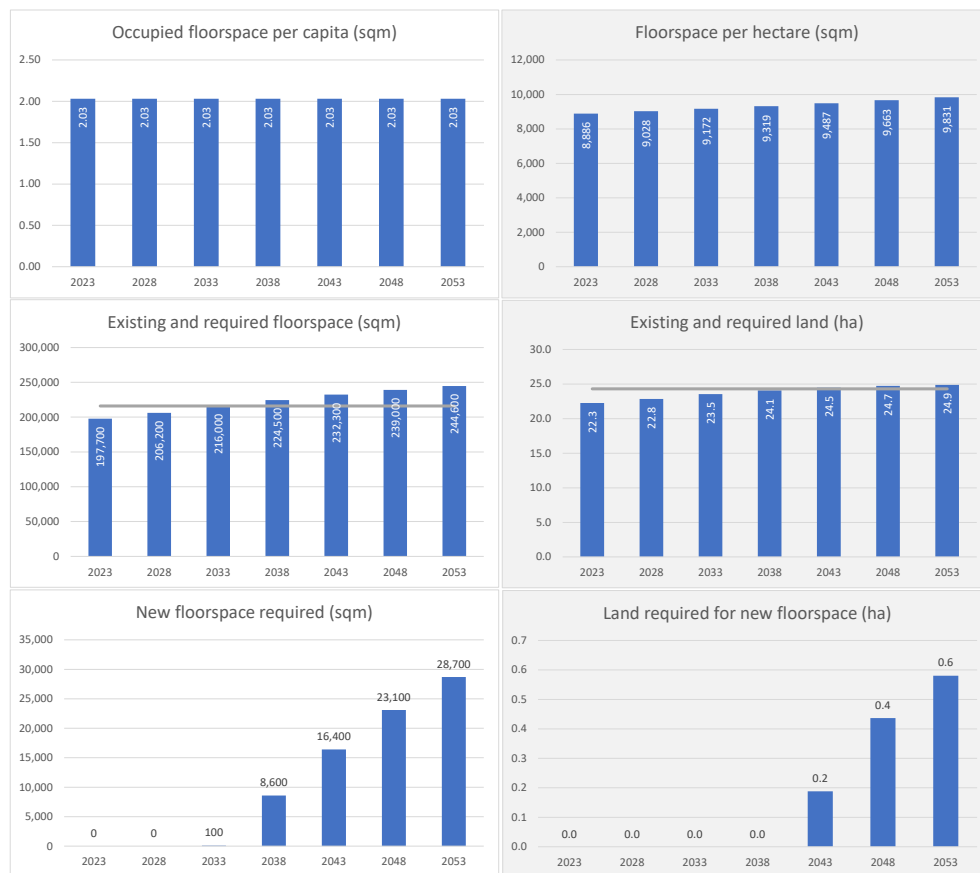
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	11,720	0	204,201	0	215,921
Occupied floorspace (sqm)	11,720	0	180,061	0	191,781
Developed land area (ha)	2.5	0.0	21.8	0.0	24.3

#### 4.6.1 Key results for commercial offices

The key results for the base scenario are:

- Required floorspace per capita projected to remain unchanged at 2.03 sqm across the forecast period.
- Required floorspace projected to increase from 197,700 sqm in 2023 to 244,600 sqm in 2053 (+24%).
- 28,700 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 8,886 sqm in 2023 to 9,831 sqm in 2053 (+11%).
- Required land projected to increase from 22.3 ha in 2023 to 24.9 ha in 2053 (+12%).
- 0.6 ha of land required for new floorspace by 2053.

**Figure 21 Summary of modelled results for commercial offices**

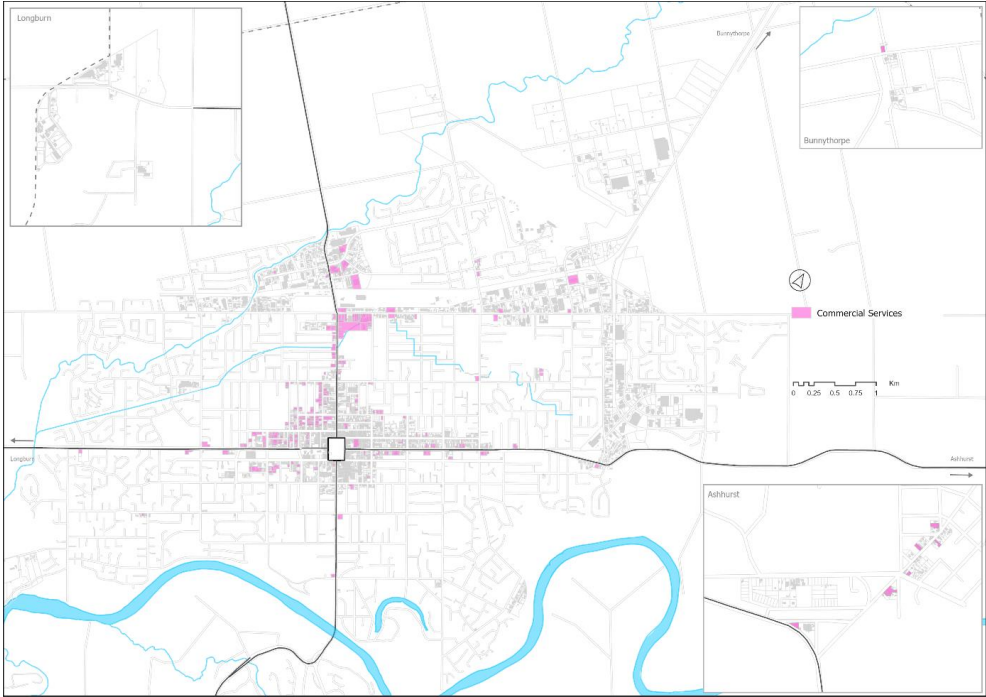




4.7 Commercial service businesses

The map below shows the locations of the land parcels occupied by commercial service businesses in 2023.

Figure 22 Commercial service land parcels in 2023



The table below shows floorspace and land areas for other commercial service businesses in 2023 segmented by the commercial zones they are located within.

Table 35 Location of commercial service businesses in 2023

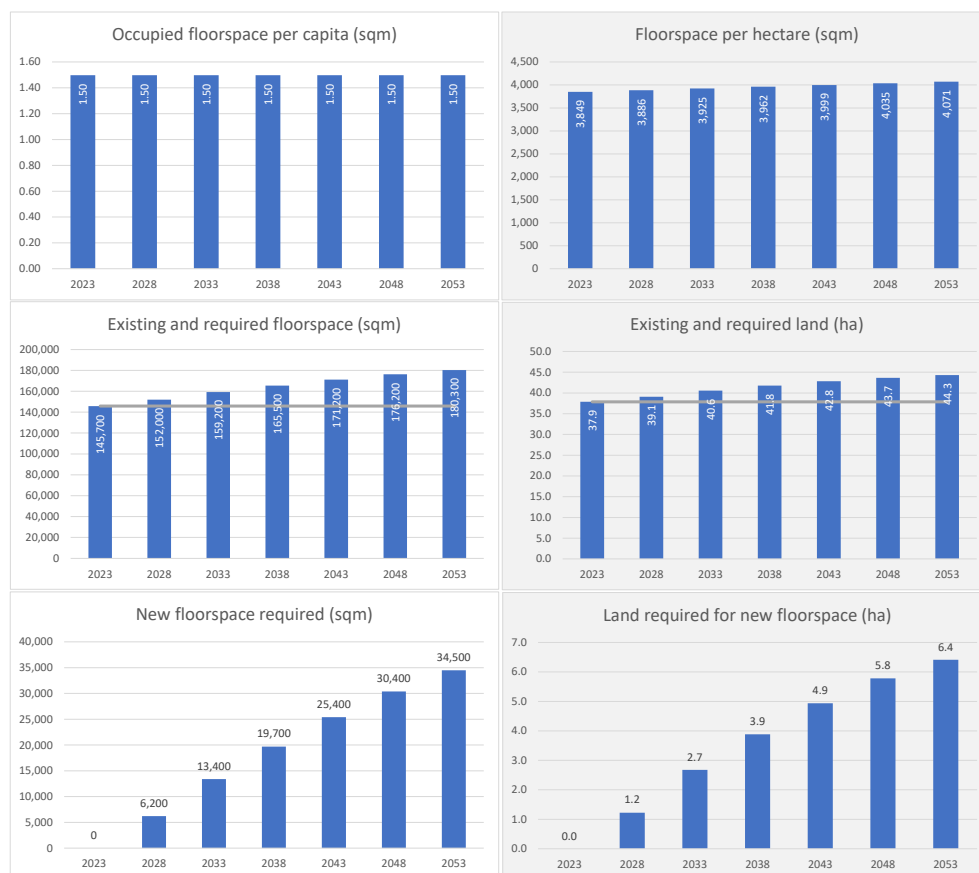
Measure	Airport & industrial zones	NEIZ	Business zones	Out of zone	TOTAL
Total floorspace (sqm)	26,177	0	119,620	0	145,797
Occupied floorspace (sqm)	26,177	0	115,182	0	141,359
Developed land area (ha)	9.1	0.0	28.8	0.0	37.9

#### 4.7.1 Key results for commercial service businesses

The key results for the base scenario are:

- Required floorspace per capita projected to remain unchanged at 1.50 sqm across the forecast period.
- Required floorspace projected to increase from 145,700 sqm in 2023 to 180,300 sqm in 2053 (+24%).
- 34,500 sqm of new floorspace required by 2053.
- Floorspace per hectare projected to increase from 3,849 sqm in 2023 to 4,071 sqm in 2053 (+6%).
- Required land projected to increase from 37.9 ha in 2023 to 44.3 ha in 2053 (+17%).
- 6.4 ha of land required for new floorspace by 2053.

**Figure 23 Summary of modelled results for other commercial service businesses**







## 5 Commercial zone results

This section converts the additional property type land requirements from the previous section into additional land requirements for the following commercial zones:

- Airport & industrial zones (aggregated)
- NEIZ
- Business zones (aggregated)

The process thereafter involves:

- Adding the NPS competitiveness margin to determine the total additional land requirement for each commercial zone in each NPS period ("Additional land requirement").
- Determining the amount of land currently available for development in each commercial zone in each NPS period ("Gross land available").
- Calculating the projected shortage of land in each commercial zone in each NPS period, if any ("Gross land deficit").

The base (2023) land availability values have been provided by Palmerston North City Council (see Table 14).

The conversion of property type land to commercial zone land is based on the assumptions in the table below about which commercial zone(s) the additional property type land will be located in (same as Table 23). These assumptions have been informed by current relationships (see Table 22) and discussions with the PNCC planning team. They are applied uniformly to all future years.

**Table 36 Allocation of additional property type land to commercial zones**

Property type	Commercial zone				
	Airport & industrial	NEIZ	Business	Out of zone	TOTAL
Small & medium industrial	95%	5%	0%	0%	100%
Large industrial	0%	100%	0%	0%	100%
Accommodation	0%	0%	100%	0%	100%
Small & medium retail	10%	0%	90%	0%	100%
Large retail	10%	0%	90%	0%	100%
Commercial office	10%	0%	90%	0%	100%
Commercial services	25%	0%	75%	0%	100%



## 5.1 Airport & industrial zones

### 5.1.1 Total land requirement in airport & industrial zones

The key results for the base scenario are:

- Total commercial requirement of 7.5 hectares of additional land in Year 3, 20.2 hectares in Year 10, and 44.5 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 8.9 hectares in Year 3, 24.3 hectares in Year 10, and 51.1 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Table 37 Demand projections for land in airport & industrial zones (hectares)**

Property type	3 years	10 years	30 years
Small & medium industrial	7.2	19.3	42.0
Large industrial	0.0	0.0	0.0
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.3
Large retail	0.1	0.2	0.5
Commercial office	0.0	0.0	0.1
Commercial services	0.2	0.7	1.6
<b>Total commercial requirement</b>	<b>7.5</b>	<b>20.2</b>	<b>44.5</b>
NPS margin	1.5	4.0	6.7
<b>Additional land requirement</b>	<b>8.9</b>	<b>24.3</b>	<b>51.1</b>

### 5.1.2 Capacity assessment for airport & industrial zones

The results of the capacity assessment indicate that the 66.4 hectares of available zoned land will be sufficient to accommodate projected commercial requirements in all periods considered, including associated public infrastructure requirements.

**Table 38 Capacity assessment for land in airport & industrial zones (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	8.9	24.3	51.1
Commercial requirement	7.5	20.2	44.5
NPS margin	1.5	4.0	6.7
Commercial zoned land available in 2023*	66.4	66.4	66.4
Private land parcels	63.5	63.5	63.5
Public infrastructure allocation	2.9	2.9	2.9
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

\* Excludes net loss of 33.5ha of land zoned Braeburn Industrial Area. This land is restricted through the District Plan to dairy-related industries only. Any other industrial use would require a non-complying resource consent, which would be difficult to obtain.



## 5.2 NEIZ

### 5.2.1 Total land requirement in NEIZ

The key results for the base scenario are:

- Total commercial requirement of 12 hectares of additional land in Year 3, 35 hectares in Year 10, and 101.9 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 14.4 hectares in Year 3, 42 hectares in Year 10, and 117.2 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Table 39 Demand projections for land in NEIZ (hectares)**

Property type	3 years	10 years	30 years
Small & medium industrial	0.4	1.0	2.2
Large industrial	11.6	33.9	99.7
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.0
Large retail	0.0	0.0	0.0
Commercial office	0.0	0.0	0.0
Commercial services	0.0	0.0	0.0
<b>Total commercial requirement</b>	<b>12.0</b>	<b>35.0</b>	<b>101.9</b>
NPS margin	2.4	7.0	15.3
<b>Additional land requirement</b>	<b>14.4</b>	<b>42.0</b>	<b>117.2</b>

### 5.2.2 Capacity assessment for NEIZ

The results of the capacity assessment indicate that the 145.9 hectares of available zoned land will be sufficient to accommodate projected commercial requirements in all periods considered, including associated public infrastructure requirements.

**Table 40 Capacity assessment for land in NEIZ (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	14.4	42.0	117.2
Commercial requirement	12.0	35.0	101.9
NPS margin	2.4	7.0	15.3
Commercial zoned land available in 2023*	145.9	145.9	145.9
Private land parcels	127.3	127.3	127.3
Public infrastructure allocation	18.6	18.6	18.6
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

\* Excludes net loss of 35ha of NEIZ land to KiwiRail freight hub. See section 3.2.6 for more information.



## 5.3 Business zones

### 5.3.1 Total land requirement in business zones

The key results for the base scenario are:

- Total commercial requirement of 1 hectare of additional land in Year 3, 4.1 hectares in Year 10, and 13.6 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 1.2 hectares in Year 3, 4.9 hectares in Year 10, and 15.6 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Table 41 Demand projections for land in business zones (hectares)**

Property type	3 years	10 years	30 years
Small & medium industrial	0.0	0.0	0.0
Large industrial	0.0	0.0	0.0
Accommodation	0.0	0.3	1.0
Small & medium retail	0.0	0.0	2.9
Large retail	0.5	1.8	4.3
Commercial office	0.0	0.0	0.5
Commercial services	0.5	2.0	4.8
<b>Total commercial requirement</b>	<b>1.0</b>	<b>4.1</b>	<b>13.6</b>
NPS margin	0.2	0.8	2.0
<b>Additional land requirement</b>	<b>1.2</b>	<b>4.9</b>	<b>15.6</b>

### 5.3.2 Capacity assessment for business zones

The results of the capacity assessment indicate that the 19 hectares of available zoned land will be sufficient to accommodate projected commercial requirements in all periods considered, including associated public infrastructure requirements.

**Table 42 Capacity assessment for land in business zones (hectares)**

	3 years	10 years	30 years
Additional commercial land requirement	1.2	4.9	15.6
Commercial requirement	1.0	4.1	13.6
NPS margin	0.2	0.8	2.0
Commercial zoned land available in 2023	19.0	19.0	19.0
Private land parcels	19.0	19.0	19.0
Public infrastructure allocation	0.0	0.0	0.0
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>



#### 5.4 Comparison with previous NPS-UD projections

The previous NPS-UD projections for Palmerston North city were produced by Property Economics in 2018. It is difficult to compare the current projections with those produced by Property Economics due to material differences in modelling and reporting approaches. However, the Property Economics report predicted the need for more industrial and business zoned land within the forecasting horizon, while the current projections indicate that there is sufficient industrial and business zoned land to meet all commercial requirements for the next 30 years. These opposing conclusions appear to be driven by the following differences in modelling approaches:

- Property Economics assumed that existing floorspace was operating at maximum productivity for retail and commercial service properties such that any extra demand would require new floorspace. The current projections assume that (a) vacant properties will absorb additional demand until the optimal vacancy rate is achieved. This may require the redevelopment of B and C grade buildings that are currently difficult to tenant; and (b) businesses will use floorspace more efficiently over time due to scale economies and higher occupancy costs. The cumulative outcome of these effects is an additional floorspace requirement that sits comfortably below the projected change in demand in percentage terms.
- Property Economics has assumed that current land use intensity (floorspace per hectare) will persist for the next 30 years. The current projections assume that (a) the land use intensity of developed land parcels will gradually increase as infill/redevelopment occurs; and (b) new developments will be built at a higher density than existing developments due to higher land and building costs. The cumulative outcome of these effects is an additional land requirement that sits comfortably below the projected additional floorspace requirement in percentage terms.

When extended across 30 years, these differences in modelling approaches result in materially different floorspace and land projections.

## 6 Sensitivity analysis

Sensitivity analysis has been conducted to manage uncertainty and understand the potential range of outcomes Palmerston North city could expect over the next 30 years.

The sensitivity analysis provides feasible lower (low land demand scenario) and upper (high land demand scenario) bounds around the base scenario. We would expect future commercial land requirements to lie within this range, and to generally follow the trend of the base scenario over time. **The most likely demand scenario for commercial land, as per NPS-UD tier 2 requirements, is therefore the base scenario.**

The assumptions driving the low land demand scenario result in a commercial footprint that is smaller than the base growth scenario, while the assumptions driving the high land demand scenario result in a commercial footprint that is larger than the base scenario. A summary of the sensitivity analysis assumptions is presented in the table below.

**Table 43 Summary of sensitivity analysis assumptions**

Driver	Reference	Low land demand scenario	High land demand scenario
Population growth	Table 15	Low	High
Occupied floorspace per capita relative to base scenario	Table 25	Low	High
Vacancy buffers	Table 26	Low	High
Floorspace per hectare of developed land in year 30 relative to 2023	Table 27	High	Low
Floorspace per hectare on newly developed land relative to land that is already developed	Table 28	High	Low



## 6.1 Low land demand scenario

### 6.1.1 Airport & industrial zones

The results for the low land demand scenario indicate that no additional land will be required within the forecasting period i.e. future demand can be accommodated within the existing commercial footprint.

**Table 44 Demand projections for land in airport & industrial zones (hectares) – low land demand scenario**

Property type	3 years	10 years	30 years
Small & medium industrial	0.0	0.0	0.0
Large industrial	0.0	0.0	0.0
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.0
Large retail	0.0	0.0	0.0
Commercial office	0.0	0.0	0.0
Commercial services	0.0	0.0	0.0
<b>Total commercial requirement</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
NPS margin	0.0	0.0	0.0
<b>Additional land requirement</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

The results of the capacity assessment indicate that none of the 66.4 hectares of available zoned land would need to be developed to accommodate future growth.

**Table 45 Capacity assessment for land in airport & industrial zones (hectares) – low land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	0.0	0.0	0.0
Commercial requirement	0.0	0.0	0.0
NPS margin	0.0	0.0	0.0
Commercial zoned land available in 2023*	66.4	66.4	66.4
Private land parcels	63.5	63.5	63.5
Public infrastructure allocation	2.9	2.9	2.9
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

\* Excludes net loss of 33.5ha of land zoned Braeburn Industrial Area. This land is restricted through the District Plan to dairy-related industries only. Any other industrial use would require a non-complying resource consent, which would be difficult to obtain.



### 6.1.2 NEIZ

The key results for the low land demand scenario are:

- Total commercial requirement of 7.7 hectares of additional land in Year 3, 20.6 hectares in Year 10, and 49.9 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 9.3 hectares in Year 3, 24.8 hectares in Year 10, and 57.3 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Table 46 Demand projections for land in NEIZ (hectares) – low land demand scenario**

Property type	3 years	10 years	30 years
Small & medium industrial	0.0	0.0	0.0
Large industrial	7.7	20.6	49.9
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.0
Large retail	0.0	0.0	0.0
Commercial office	0.0	0.0	0.0
Commercial services	0.0	0.0	0.0
<b>Total commercial requirement</b>	<b>7.7</b>	<b>20.6</b>	<b>49.9</b>
NPS margin	1.5	4.1	7.5
<b>Additional land requirement</b>	<b>9.3</b>	<b>24.8</b>	<b>57.3</b>

The results of the capacity assessment indicate that the 145.9 hectares of available zoned land will be sufficient to accommodate projected commercial requirements in all periods considered, including associated public infrastructure requirements.

**Table 47 Capacity assessment for land in NEIZ (hectares) – low land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	9.3	24.8	57.3
Commercial requirement	7.7	20.6	49.9
NPS margin	1.5	4.1	7.5
Commercial zoned land available in 2023*	145.9	145.9	145.9
Private land parcels	127.3	127.3	127.3
Public infrastructure allocation	18.6	18.6	18.6
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

\* Excludes net loss of 35ha of NEIZ land to KiwiRail freight hub. See section 3.2.6 for more information.





### 6.1.3 Business zones

The results for the low land demand scenario show only a very small requirement for 0.1 hectares of additional land in Year 10. However, this requirement is not present in Year 30 due to gains in land use efficiency.

#### Demand projections for land in business zones (hectares) – low land demand scenario

Property type	3 years	10 years	30 years
Small & medium industrial	0.0	0.0	0.0
Large industrial	0.0	0.0	0.0
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.0
Large retail	0.0	0.1	0.0
Commercial office	0.0	0.0	0.0
Commercial services	0.0	0.0	0.0
<b>Total commercial requirement</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>
NPS margin	0.0	0.0	0.0
<b>Additional land requirement</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>

The results of the capacity assessment indicate that the 19 hectares of available zoned land will be sufficient to accommodate projected commercial requirements in all periods considered, including associated public infrastructure requirements.

**Table 48 Capacity assessment for land in business zones (hectares) – low land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	0.0	0.1	0.0
Commercial requirement	0.0	0.1	0.0
NPS margin	0.0	0.0	0.0
Commercial zoned land available in 2023	19.0	19.0	19.0
Private land parcels	19.0	19.0	19.0
Public infrastructure allocation	0.0	0.0	0.0
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>



## 6.2 High land demand scenario

### 6.2.1 Airport & industrial zones

The key results for the high land demand scenario are:

- Total commercial requirement of 17.8 hectares of additional land in Year 3, 45.2 hectares in Year 10, and 108.8 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 21.4 hectares in Year 3, 54.2 hectares in Year 10, and 125.1 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Demand projections for land in airport & industrial zones (hectares) – high land demand scenario**

Property type	3 years	10 years	30 years
Small & medium industrial	17.2	42.7	101.5
Large industrial	0.0	0.0	0.0
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.3	1.4
Large retail	0.1	0.4	1.1
Commercial office	0.0	0.2	0.7
Commercial services	0.6	1.6	4.0
<b>Total commercial requirement</b>	<b>17.8</b>	<b>45.2</b>	<b>108.8</b>
NPS margin	3.6	9.0	16.3
<b>Additional land requirement</b>	<b>21.4</b>	<b>54.2</b>	<b>125.1</b>

The results of the capacity assessment indicate that the 66.4 hectares of available zoned land would be sufficient to accommodate short and medium-term growth, but that an additional 15.4 ha of land would need to be zoned to accommodate long-term growth. Under this scenario the 66.4 hectares of available land would be fully utilised in Year 14 (2037).

**Table 49 Capacity assessment for land in airport & industrial zones (hectares) – high land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	21.4	54.2	125.1
Commercial requirement	17.8	45.2	108.8
NPS margin	3.6	9.0	16.3
Commercial zoned land available in 2023*	66.4	66.4	66.4
Private land parcels	63.5	63.5	63.5
Public infrastructure allocation	2.9	2.9	2.9
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>77.1</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>61.7</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>15.4</b>

\* Excludes net loss of 33.5ha of land zoned Braeburn Industrial Area. This land is restricted through the District Plan to dairy-related industries only. Any other industrial use would require a non-complying resource consent, which would be difficult to obtain.



### 6.2.2 NEIZ

The key results for the high land demand scenario are:

- Total commercial requirement of 16.4 hectares of additional land in Year 3, 52.1 hectares in Year 10, and 170.8 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 19.6 hectares in Year 3, 62.5 hectares in Year 10, and 196.4 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

#### Demand projections for land in NEIZ (hectares) – high land demand scenario

Property type	3 years	10 years	30 years
Small & medium industrial	0.9	2.2	5.3
Large industrial	15.5	49.9	165.5
Accommodation	0.0	0.0	0.0
Small & medium retail	0.0	0.0	0.0
Large retail	0.0	0.0	0.0
Commercial office	0.0	0.0	0.0
Commercial services	0.0	0.0	0.0
<b>Total commercial requirement</b>	<b>16.4</b>	<b>52.1</b>	<b>170.8</b>
NPS margin	3.3	10.4	25.6
<b>Additional land requirement</b>	<b>19.6</b>	<b>62.5</b>	<b>196.4</b>

The results of the capacity assessment indicate that the 145.9 hectares of available zoned land would be sufficient to accommodate short and medium-term growth, but that an additional 86.4 ha of land would need to be zoned to accommodate long-term growth. Under this scenario the 145.9 hectares of available land would be fully utilised in Year 22 (2045).

**Table 50 Capacity assessment for land in NEIZ (hectares) – high land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	19.6	62.5	196.4
Commercial requirement	16.4	52.1	170.8
NPS margin	3.3	10.4	25.6
Commercial zoned land available in 2023*	145.9	145.9	145.9
Private land parcels	127.3	127.3	127.3
Public infrastructure allocation	18.6	18.6	18.6
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>86.4</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>69.1</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>17.3</b>

\* Excludes net loss of 35ha of NEIZ land to KiwiRail freight hub. See section 3.2.6 for more information.

### 6.2.3 Business zones

The key results for the high land demand scenario are:

- Total commercial requirement of 2.8 hectares of additional land in Year 3, 13.9 hectares in Year 10, and 44.6 hectares in Year 30. The commercial requirement describes the amount of land businesses would need (private land parcels) to accommodate their future floorspace levels.
- **Total additional land requirement of 3.3 hectares in Year 3, 16.6 hectares in Year 10, and 51.3 hectares in Year 30. This is calculated as the total commercial requirement plus the NPS competitiveness margin.**

**Demand projections for land in business zones (hectares) – high land demand scenario**

Property type	3 years	10 years	30 years
Small & medium industrial	0.0	0.0	0.0
Large industrial	0.0	0.0	0.0
Accommodation	0.1	0.8	2.7
Small & medium retail	0.0	2.8	12.9
Large retail	1.0	3.8	10.2
Commercial office	0.0	1.6	6.7
Commercial services	1.7	4.9	12.1
<b>Total commercial requirement</b>	<b>2.8</b>	<b>13.9</b>	<b>44.6</b>
NPS margin	0.6	2.8	6.7
<b>Additional land requirement</b>	<b>3.3</b>	<b>16.6</b>	<b>51.3</b>

The results of the capacity assessment indicate that the 19 hectares of available zoned land would be sufficient to accommodate short and medium-term growth, but that an additional 40 ha of land will need to be zoned to accommodate long-term growth. Under this scenario the 19 hectares of available land would be fully utilised in Year 12 (2035).

**Table 51 Capacity assessment for land in business zones (hectares) – high land demand scenario**

	3 years	10 years	30 years
Additional commercial land requirement	3.3	16.6	51.3
Commercial requirement	2.8	13.9	44.6
NPS margin	0.6	2.8	6.7
Commercial zoned land available in 2023	19.0	19.0	19.0
Private land parcels	19.0	19.0	19.0
Public infrastructure allocation	0.0	0.0	0.0
<b>Commercial zoned land deficit</b>	<b>0.0</b>	<b>0.0</b>	<b>40.3</b>
<b>Private land parcels</b>	<b>0.0</b>	<b>0.0</b>	<b>32.2</b>
<b>Public infrastructure allocation</b>	<b>0.0</b>	<b>0.0</b>	<b>8.1</b>



## 7 Conclusions

The overarching conclusion is that Palmerston North City has enough zoned land to meet its business and industrial requirements for the next 30 years. Even the high land demand scenario, which is based on an unlikely combination of high population growth, high optimal vacancy rate, and low floorspace productivity, indicates that there is enough zoned land to meet all commercial needs for at least 20 years.

However, factors such as land banking and high ownership concentration could create the perception of scarcity even though there is enough available land to meet long-term commercial requirements. This is something PNCC will need to monitor and respond to if it becomes an issue.

Table 52 Summary of Palmerston North City Commercial Land Assessment

	3 years	10 years	30 years
<b>Low land demand scenario</b>			
Airport & industrial zones	✓	✓	✓
NEIZ	✓	✓	✓
Business zones	✓	✓	✓
<b>Base scenario</b>			
Airport & industrial zones	✓	✓	✓
NEIZ	✓	✓	✓
Business zones	✓	✓	✓
<b>High land demand scenario</b>			
Airport & industrial zones	✓	✓	✗
NEIZ	✓	✓	✗
Business zones	✓	✓	✗



## Appendix 1

**Table 53 Total floorspace segmented by property type, grade, and detailed commercial zone (sqm)**

	Airport	Industrial	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Out of zone/ Residential	TOTAL
Small & medium industrial	8,540	698,252	33,333						740,125
Large industrial		228,998	112,969						341,967
Accommodation				20,659	21,242		1,930	1,170	45,001
Small & medium retail		21,374		129,097	112,924	5,786	34,263	1,469	304,913
Large retail		13,987		41,142	42,110	13,091	10,773		121,103
Commercial office		11,720		89,598	110,760	1,356	2,487		215,921
Commercial services		26,177		2,983	76,763	32,324	7,550		145,797
Other	14,821	15,023		45,731	26,704	6,627	3,229		112,135
<b>TOTAL</b>	<b>23,361</b>	<b>1,015,531</b>	<b>146,302</b>	<b>329,210</b>	<b>390,503</b>	<b>59,184</b>	<b>60,232</b>	<b>2,639</b>	<b>2,026,962</b>
A grade		244,599	146,302	74,320	115,024	12,830	15,603		608,678
B grade	23,361	650,241		185,593	190,765	40,487	33,118	210	1,123,775
C grade		120,681		69,297	84,700	5,867	11,511	2,429	294,485
Occupied commercial land		10			14	0			24
<b>TOTAL</b>	<b>23,361</b>	<b>1,015,531</b>	<b>146,302</b>	<b>329,210</b>	<b>390,503</b>	<b>59,184</b>	<b>60,232</b>	<b>2,639</b>	<b>2,026,962</b>



Table 54 Occupied floorspace segmented by property type, grade, and detailed commercial zone (sqm)

	Airport	Industrial	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Out of zone/ Residential	TOTAL
Small & medium industrial	8,540	686,014	33,333						727,887
Large industrial		228,998	112,969						341,967
Accommodation				18,939	21,242		1,930	1,170	43,281
Small & medium retail		20,362		104,759	104,727	5,786	31,864	1,469	268,967
Large retail		13,987		41,142	42,110	13,091	10,773		121,103
Commercial office		11,720		73,366	102,942	1,356	2,397		191,781
Commercial services		26,177		2,661	73,638	31,683	7,200		141,359
Other	14,821	15,023		44,716	26,056	6,627	3,147		110,390
<b>TOTAL</b>	<b>23,361</b>	<b>1,002,281</b>	<b>146,302</b>	<b>285,583</b>	<b>370,715</b>	<b>58,543</b>	<b>57,310</b>	<b>2,639</b>	<b>1,946,734</b>
A grade		241,120	146,302	62,357	114,590	12,830	15,218		592,417
B grade	23,361	642,346		175,243	182,806	40,267	31,391	210	1,095,624
C grade		118,805		47,983	73,305	5,446	10,701	2,429	258,669
Occupied commercial land		10			14				24
<b>TOTAL</b>	<b>23,361</b>	<b>1,002,281</b>	<b>146,302</b>	<b>285,583</b>	<b>370,715</b>	<b>58,543</b>	<b>57,310</b>	<b>2,639</b>	<b>1,946,734</b>



**Table 55 Vacant floorspace segmented by property type, grade, and detailed commercial zone (sqm)**

	Airport	Industrial	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Out of zone/ Residential	TOTAL
Small & medium industrial	0	12,238	0						12,238
Large industrial		0	0						0
Accommodation				1,720	0		0	0	1,720
Small & medium retail		1,013		24,338	8,197	0	2,399	0	35,947
Large retail		0		0	0	0	0		0
Commercial office		0		16,232	7,819	0	90		24,141
Commercial services		0		322	3,125	641	350		4,438
Other	0	0		1,015	648	0	83		1,746
<b>TOTAL</b>	<b>0</b>	<b>13,251</b>	<b>0</b>	<b>43,627</b>	<b>19,788</b>	<b>641</b>	<b>2,922</b>	<b>0</b>	<b>80,229</b>
A grade		3,479		11,963	435		385		16,262
B grade		7,896		10,350	7,959	220	1,727	0	28,151
C grade		1,876		21,314	11,395	421	810	0	35,816
Occupied commercial land		0			0				0
<b>TOTAL</b>	<b>0</b>	<b>13,251</b>	<b>0</b>	<b>43,627</b>	<b>19,788</b>	<b>641</b>	<b>2,922</b>	<b>0</b>	<b>80,229</b>





Table 56 Vacancy rate segmented by property type, grade, and detailed commercial zone (sqm)

	Airport	Industrial	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Out of zone/ Residential	TOTAL
Small & medium industrial	0.0%	1.8%	0.0%						1.7%
Large industrial		0.0%	0.0%						0.0%
Accommodation				8.3%	0.0%		0.0%	0.0%	3.8%
Small & medium retail		4.7%		18.9%	7.3%	0.0%	7.0%	0.0%	11.8%
Large retail		0.0%		0.0%	0.0%	0.0%	0.0%		0.0%
Commercial office		0.0%		18.1%	7.1%	0.0%	3.6%		11.2%
Commercial services		0.0%		10.8%	4.1%	2.0%	4.6%		3.0%
Other	0.0%	0.0%		2.2%	2.4%	0.0%	2.6%		1.6%
<b>TOTAL</b>	<b>0.0%</b>	<b>1.3%</b>	<b>0.0%</b>	<b>13.3%</b>	<b>5.1%</b>	<b>1.1%</b>	<b>4.9%</b>	<b>0.0%</b>	<b>4.0%</b>
A grade		1.4%	0.0%	16.1%	0.4%	0.0%	2.5%		2.7%
B grade	0.0%	1.2%		5.6%	4.2%	0.5%	5.2%	0.0%	2.5%
C grade		1.6%		30.8%	13.5%	7.2%	7.0%	0.0%	12.2%
Occupied commercial land		0.0%			0.0%				0.0%
<b>TOTAL</b>	<b>0.0%</b>	<b>1.3%</b>	<b>0.0%</b>	<b>13.3%</b>	<b>5.1%</b>	<b>1.1%</b>	<b>4.9%</b>	<b>0.0%</b>	<b>4.0%</b>



**Table 57 Available commercial zoned land area segmented by detailed commercial zone (hectares)**

	Airport	Industrial**	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Out of zone/ Residential	TOTAL
Area of developed land parcels	200.5	316.4	42.6	30.0	69.6	15.6	18.3	0.8	693.9
Parcels with commercial buildings	1.3	304.1	42.6	25.3	64.0	14.1	16.7	0.8	468.9
Parcels with non-commercial buildings	199.2	12.3		4.7	5.6	1.5	1.6		225.0
Other zoned land available for development	12.9*	87.0**	180.9***	1.6	10.4	4.0	3.1	5.9	305.9
Parcels not requiring infrastructure	12.9*	38.8	52.7	1.6	10.4	4.0	3.1	5.9	129.4
Parcels requiring infrastructure		14.7	78.2						92.9
KiwiRail hub allocation: commercial			15.0***						15.0
KiwiRail hub allocation: non-commercial			35.0***						35.0
Dairy industry allocation: commercial		33.5**							33.5
Total zoned land	213.5	403.5	223.6	31.6	80.0	19.6	21.4	6.7	999.8

\* Includes 8.65 ha within the airport that is designated for industrial development

\*\* Includes 33.5ha of land zoned Braeburn Industrial Area. This land is restricted through the District Plan to dairy-related industries only. Any other industrial use would require a non-complying resource consent, which would be difficult to obtain.

\*\*\* See section 3.2.6 regarding allocation of NEIZ land to the proposed Kiwirail freight hub.



Table 58 Breakdown of commercial zoned land available for development segmented by detailed commercial zone (hectares)

	Airport	Industrial	NEIZ	Inner Business	Outer Business	Fringe Business	Local Business	Residential	TOTAL
Car Park		0.1		1.2	3.1	0.2	0.7		5.3
Occupied	0.6	5.8	0.4		0.1	2.7	0.4		10.0
Rural/Residential	2.7	6.4	102.9	0.1	5.3	1.0	1.6	5.9	126.0
Under Construction		2.3	1.9	0.3	1.0		0.2		5.6
Vacant	9.6	72.4	75.7		0.9	0.1	0.3		158.9
TOTAL	12.9	87.0	180.9	1.6	10.4	4.0	3.1	5.9	305.9

\* Includes 50ha of NEIZ land allocated to the proposed Kiwirail freight hub. See section 3.2.6 for more information.

## Appendix 2

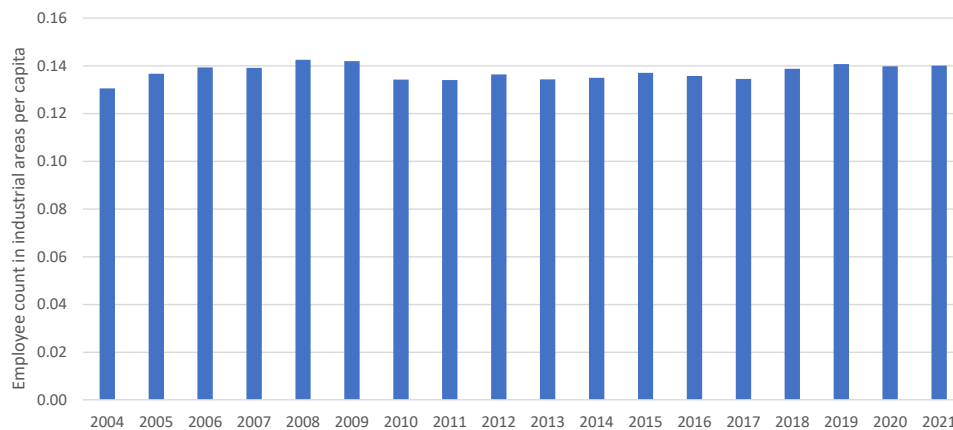
This section contains a direct extract of the NIEZ industrial land forecasting methodology used in the Te Utanganui study.

### Approach

Analysis conducted at the beginning of the project revealed a consistent long-term relationship between population and employee counts in industrial areas in Palmerston North. This is demonstrated in the graph below which shows that the employee count in industrial areas per capita has remained stable at around 0.14 since 2004.

**Figure 24 Employee count in industrial areas per capita in Palmerston North**

Source: Stats NZ



This stability indicates that there is an underlying structural relationship between employee counts in industrial areas and population, although the direction of causality is uncertain. The key implication is that growth in employment in industrial areas is likely to be accompanied by growth in other parts of the economy, such that the long-term employee count in industrial areas per capita of 0.14 is sustained over time. However, it is acknowledged that new developments could create short-term deviations from the long-term average.

What this means from a forecasting perspective is that long-term employment forecasts for industrial areas can be driven off population forecasts, and vice versa.

We have used Palmerston North population projections prepared by Infometrics to forecast employee counts in industrial areas at a city-wide level. The rationale for driving the analysis off population projections is threefold:

1. Population projections tell a broader story about the growth and development of Palmerston North. In our view growth in employment in industrial areas must be considered within this broader growth context, rather than being modelled in isolation.
2. This top-down approach allows us to avoid issues of incrementality and double-counting which are often present in bottom-up approaches. For example, if we were forecasting employment in industrial areas in



isolation there is a risk of counting every new industrial employee as a new employee in Palmerston North, even though some of these employees may be moving internally within the employment system. Starting at the system-wide level removes the possibility of this occurring.

3. This approach ensures that our analysis aligns with existing projections, rather than creating a new set of projections that compete with existing ones.

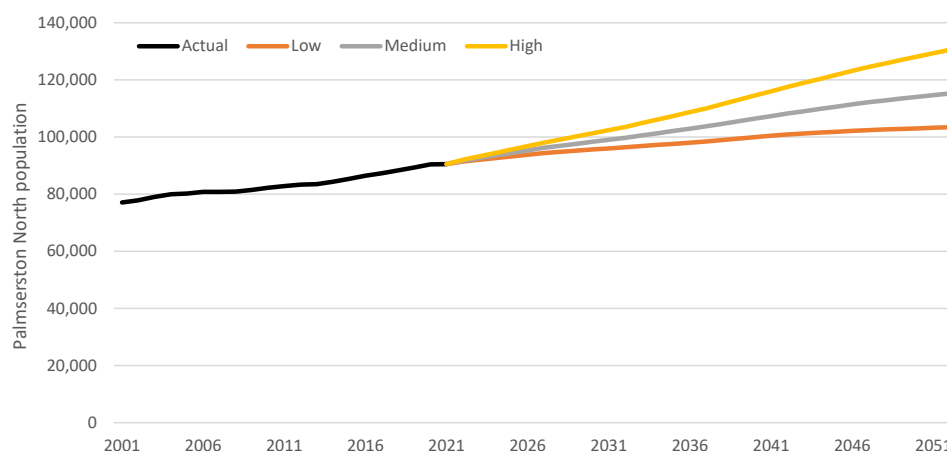
Infometrics provides PNCC with low, medium, and high population projections which have a 2018 base and extend to 2052 in five-year increments.<sup>3</sup> Each scenario represents a particular growth story for Palmerston North, both at an aggregate level and in terms of industrial activity and employment. We have assumed for the purposes of our modelling that:

- The low population projection is representative of a low-growth future for industrial activity and employment in Palmerston North.
- The medium population projection is representative of a medium-growth future for industrial activity and employment in Palmerston North.
- The high population projection is representative of a high-growth future for industrial activity and employment in Palmerston North

We consider it unlikely that Palmerston North could achieve a high-growth future for industrial activity and employment while only achieving low or medium growth in population. This would imply a major structural shift in the economic system that we find no previous evidence of.

**Figure 25 Palmerston North population projections**

Source: Infometrics



<sup>3</sup> The population projections were not updated to reflect latest (2023) forecasts, but the 2023 forecasts were very similar to the 2018 forecasts.

## Land demand in the NEIZ

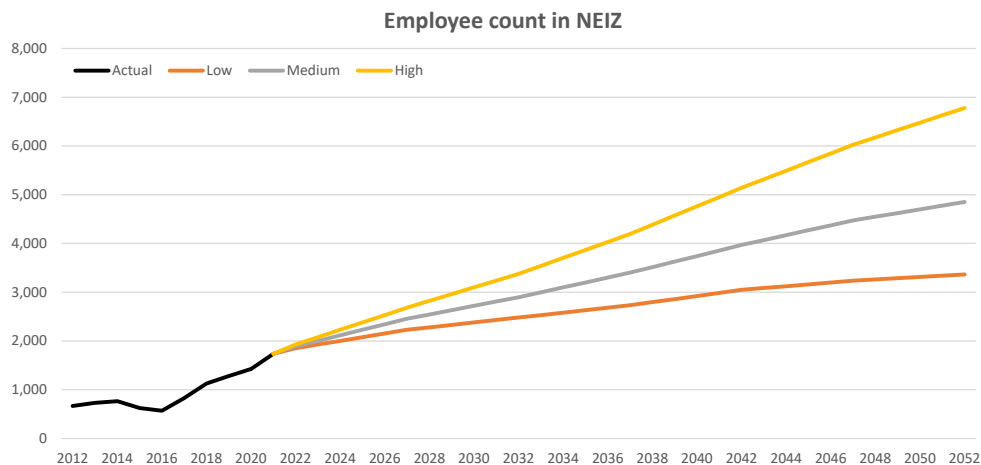
The first stage of the forecasting process involved forecasting the demand for land in the NEIZ. The main steps involved in projecting industrial land demand in the NEIZ were:

- Converting the population projections into projections of employee counts in industrial areas based on the long-term relationship described above.
- Allocating 90% of projected growth in employment in industrial areas to the NEIZ. 90% was chosen because the NEIZ is expected to absorb most, but not all, of the growth in industrial employment in Palmerston North. The remaining growth would occur in existing and/or potential industrial zoned areas. Historical employee counts for the NEIZ were sourced from Stats NZ.
- Dividing the resulting employee count projections by the current NEIZ employment density (number of employees per hectare of occupied land) to produce occupied land area projections. The current NEIZ employment density was derived by dividing Stats NZ employee count estimates for the NEIZ by the combined land area of occupied NEIZ land parcels.

The graph below shows the resulting forecasts of NEIZ employee counts under each growth scenario.

**Figure 26 NEIZ employee count forecasts**

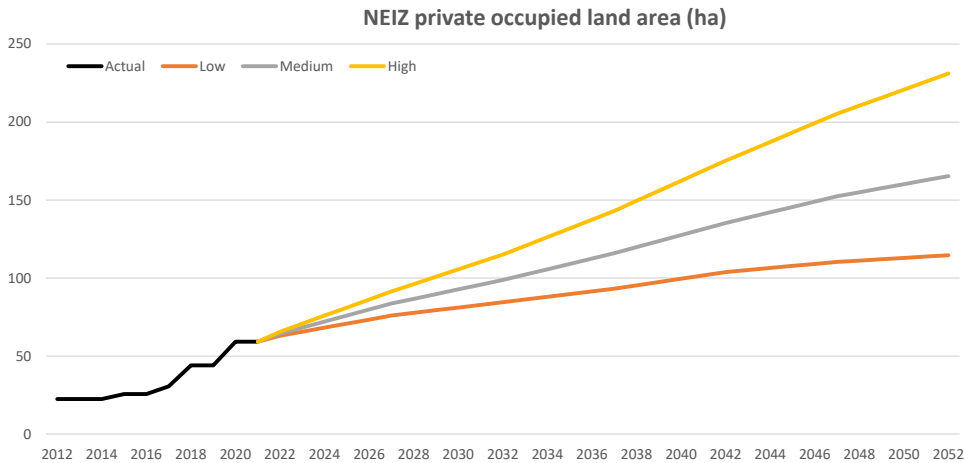
Source: Fresh Info





The graph below shows the resulting forecasts of demand for private land parcels in the NEIZ under each growth scenario. Private land parcels are privately owned pieces of land within the NEIZ that can be used for productive purposes. The remaining NEIZ land will be publicly owned and/or communal e.g. roads, stormwater treatment, greenspaces, public amenity.

**Figure 27 NEIZ land demand forecasts (ha)**  
Source: Fresh Info



## Land supply in the NEIZ

The second stage of the forecasting process involved the development of a land release model to predict when, and how much, new industrial land would need to be released to accommodate future growth. The main steps involved in projecting industrial land supply in the NEIZ were:

- Determining an appropriate “trigger” for when new industrial land should be released. Note that “pulling the trigger” represents the actual release of the new land. The planning process that precedes this is likely to take 5-10 years. Land release is triggered in the model when the existing NEIZ supply can only absorb 10 more years of demand, based on the demand scenario selected. 10 years was chosen to retain a sufficient buffer from a planning perspective and limit the impact of scarcity on land prices. This threshold can be changed in the model, if required. Note that the concentration of land ownership in the NEIZ could influence pricing even if land scarcity wasn’t an issue. Ownership concentration is beyond the scope of our analysis.
- Determining the quantum of land that should be released when the trigger is pulled. The model defaults to releasing enough land to absorb 20 additional years of NEIZ demand, based on the demand scenario selected. This means that there will be 30 years of land supply in the year the trigger is pulled – the 10-year buffer plus the 20 years of new supply. The 20-year period can be changed in the model, if required.
- Estimating the impact of KiwiRail’s freight hub on land supply in the NEIZ. Current estimates indicate that KiwiRail will acquire ~50ha of NEIZ land. However, KiwiRail intends to lease ~15ha of this land to commercial operators, so the net loss of industrial land in the existing NEIZ area is only 35ha. All scenarios remove 35ha of land from the NEIZ in 2022, but alternative scenarios can be run in the model, including the scenario that no land is removed from the NEIZ (i.e. the KiwiRail development does not proceed).

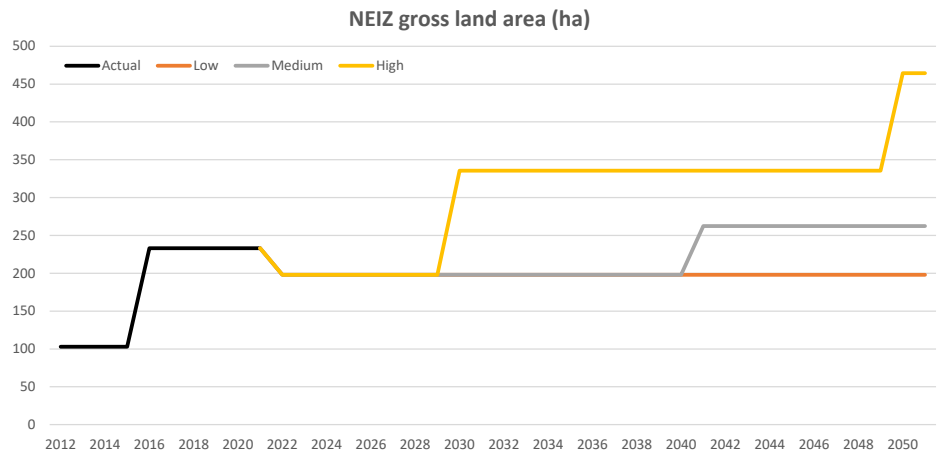
The modelling is based on demand for, and supply of, private land parcels. However, the private land forecasts are then scaled up to gross land area forecasts based on the assumption that 20% of the gross land area will be devoted to public infrastructure and amenity. This results in the gross land area (private and public land parcels combined) being around 25% higher than the private land area.

The graph below shows the resulting forecasts of gross land supply in the NEIZ in hectares under each growth scenario and provides a clear signal of when new NEIZ land will be required.





**Figure 28 NEIZ land supply forecasts**  
Source: Fresh Info



## Other forecasts

The third stage of the forecasting process involved the development of two derivative measures:

- Site coverage on private land parcels
- Employment composition in the NEIZ

### Site coverage on private NEIZ land parcels

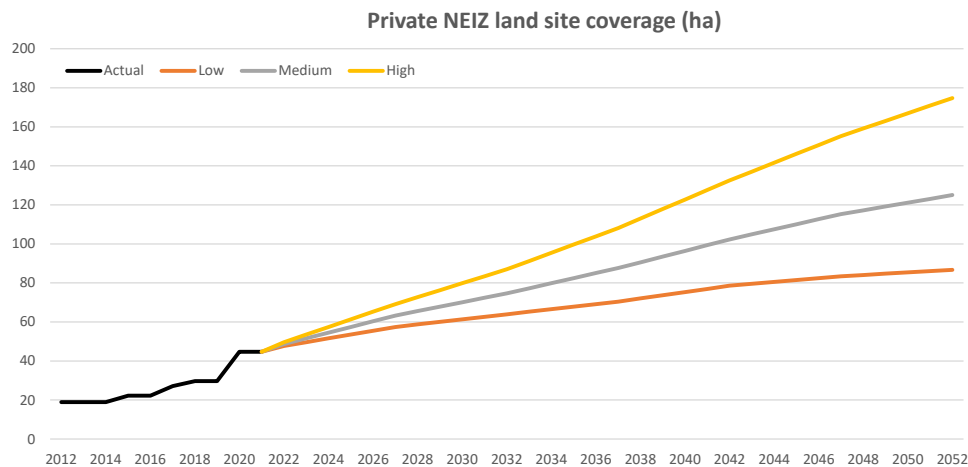
The main steps involved in forecasting site coverage on private land parcels were:

- Estimating site coverage on existing occupied private land parcels in the NEIZ using data sourced from PNCC and LINZ. This analysis indicated that 76% of occupied private land parcels were covered in buildings and impermeable surfaces.
- Assuming that average site coverage in the future will be the same as current levels (76%).
- Multiplying the NEIZ private occupied land area forecasts by the average site coverage rate to estimate site coverage on private land parcels in hectares.

The graph below shows the resulting forecasts of site coverage on private land parcels under each growth scenario.

**Figure 29 Site coverage on private NEIZ land parcels**

Source: Fresh Info





### Employment composition in the NEIZ

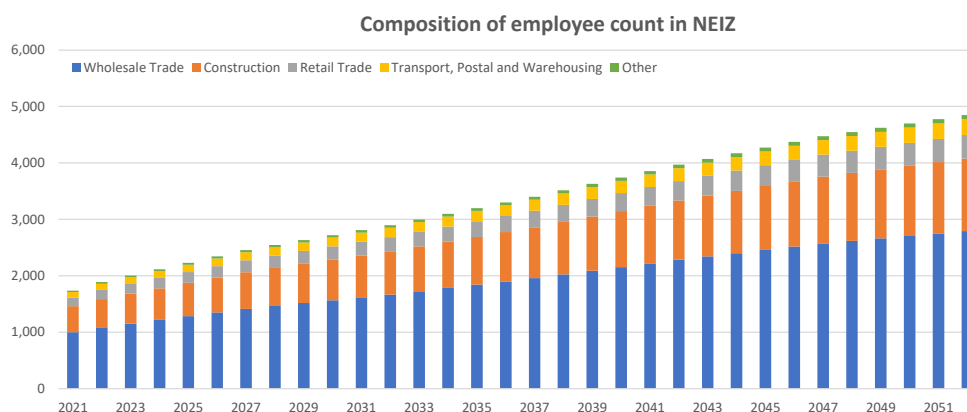
The main steps involved in forecasting the employment composition in the NEIZ were:

- Sourcing industry-level employment data from Stats NZ to understand the current composition of employment in the NEIZ.
- Assuming that the future employment composition in the NEIZ will have the same structure as the current composition. This is based on PNCC's current view that the NEIZ should remain a large format industrial area with a strong focus on distribution.
- Imposing the current employment composition in the NEIZ on the employee count forecasts to allocate future growth to specific industries.

The graph below shows the resulting forecasts of employment composition for the medium growth scenario.

**Figure 30 Composition of employee count in NEIZ (medium scenario)**

Source: Fresh Info



### Palmerston North households

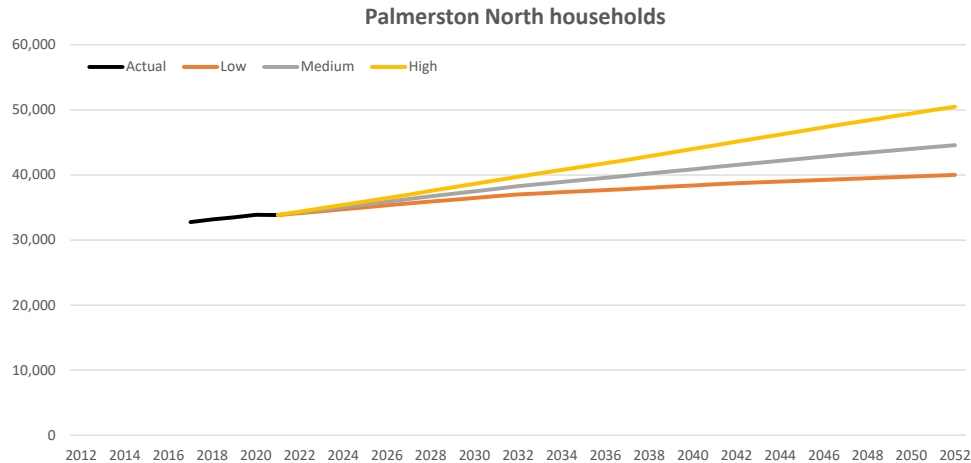
The main steps involved in forecasting the number of households in Palmerston North were:

- Obtaining the latest low, medium, and high household projections produced by Infometrics for PNCC. These aligned directly with the latest population forecasts produced by Infometrics.
- Calculating the average number of occupants per household for each year (population divided by number of households).
- Dividing the selected population scenario by the average number of occupants per household to produce estimates of the number of households required.

The graph below shows the resulting forecasts of Palmerston North households under each growth scenario.

**Figure 31 Palmerston North household projections**

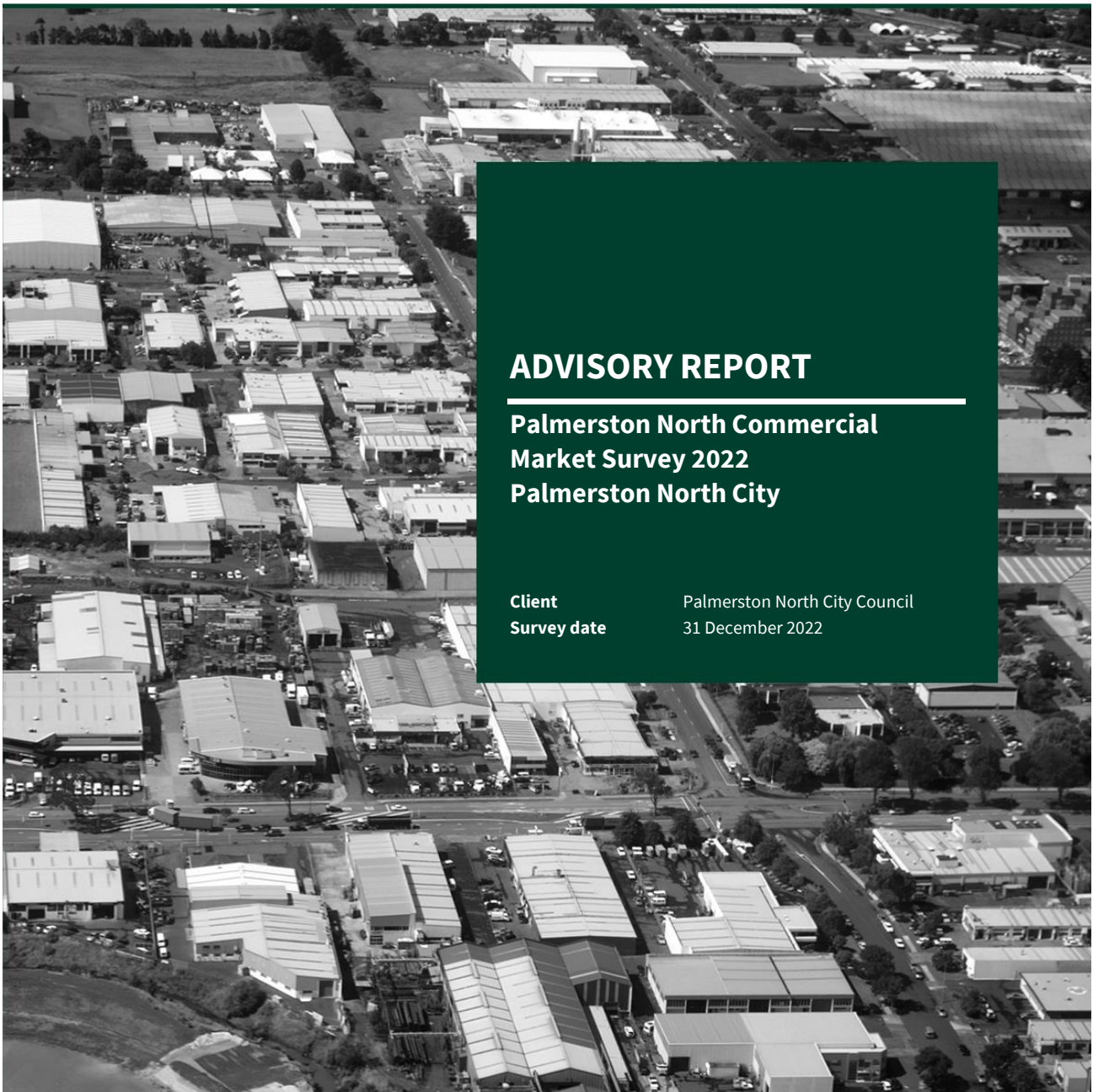
Source: Infometrics and Fresh Info



A key benefit of this approach is that it estimates the city-wide housing stock that would be required under each growth scenario. For example, under the low growth scenario around 40,000 households would be required within Palmerston North in 2052, compared with 44,600 under the medium growth scenario and 50,500 under the high growth scenario. This represents an additional 6,200 households under the low growth scenario relative to 2021, 10,700 under the medium growth scenario, and 16,600 under the high growth scenario.

Housing supply analysis contained in PNCC's latest Housing Capacity Assessment Report (June 2021) indicates that around 13,000 new households could be delivered over the next 30 years through various greenfield, infill, and rural/residential developments. This would comfortably accommodate the low and medium growth scenarios of 6,200 new households and 10,700 new households respectively but would fall short of accommodating the high growth scenario of 16,600 new households. PNCC would therefore need to make additional land available for residential development if Palmerston North achieved the high growth scenario.





## ADVISORY REPORT

### Palmerston North Commercial Market Survey 2022 Palmerston North City

**Client**  
**Survey date**

Palmerston North City Council  
31 December 2022

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17 May 2023

Palmerston North City Council  
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Palmerston North 4442

[michael.duindam@pncc.govt.nz](mailto:michael.duindam@pncc.govt.nz)

Attention: Michael Duindam

## **ADVISORY REPORT PALMERSTON NORTH COMMERCIAL MARKET SURVEY 2022 PALMERSTON NORTH CITY**

In accordance with instructions, we have now completed the Palmerston North City Council (PNCC) commissioned Palmerston North Commercial Property Market Survey. Summary reporting follows below. More detailed findings are recorded in the enclosed spreadsheet.

### **1 EXECUTIVE SUMMARY**

#### **1.1 BUSINESS ZONES**

- There is 127.7302 ha land zoned for commercial purpose in four business zones:
  - + Inner Business.
  - + Outer Business.
  - + Fringe Business
  - + Local Business.
- Currently 112.6699 ha (88.21%) has been developed and is offering 784,515 m<sup>2</sup> of floor space in the business zones. Said floor space is in Grade A buildings (25.34%), Grade B buildings (54.08%), and Grade C buildings (20.58%).
- As of December 2022, the overall vacancy rate across all business zones is 65,603 m<sup>2</sup>, this represents 8.36% of total floor space.
- In terms of floor area, the highest vacancy is in Grade C buildings (31,890 m<sup>2</sup>), followed by Grade B buildings (21,315 m<sup>2</sup>), and Grade A buildings (12,398 m<sup>2</sup>).
- The Inner Business zone has the highest vacancies at 44,831 m<sup>2</sup>, followed by Outer Business zone at 19,953 m<sup>2</sup>.

#### **1.2 INDUSTRIAL ZONES**

- There is 870.0971 ha land zoned for industrial purpose in three industrial zones:
  - + Airport.
  - + Industrial.
  - + North East Industrial.
- Currently 547.2998 ha (62.91%) has been developed and is offering 1,197,884 m<sup>2</sup> of floor space in the industrial zones. Said floor space is in Grade A buildings (33.71%), Grade B buildings (56.22%), and Grade C buildings (10.07%).
- As of December 2022, industrial premises vacancies are very low at 13,251 m<sup>2</sup> (or 1.11% of total floorspace) and associated with the industrial zone only. There are no vacancies in the Airport and North East Industrial zones.
- Within the Industrial zone the highest vacancy is in Grade B buildings (7,896 m<sup>2</sup>), followed by Grade A buildings (3,479 m<sup>2</sup>), and Grade C buildings (1,876 m<sup>2</sup>).



## 2 SCOPE OF WORK

### 2.1 OUR CLIENT

Palmerston North City Council.

Other than the client or addressee, the report may not be relied upon by any third party. We accept no liability to third parties. Written consent is required for any third party wishing to rely on this report. We reserve the right to withhold that consent, or to review the contents of the report if consent for third party use is sought.

### 2.2 PURPOSE

Vacancy survey of properties within the industrial and business zones in Palmerston North City.

Survey has included capture of individual property:

- Land use activity on a tenancy-by-tenancy basis.
- Building frontage photograph.

### 2.3 BASIS OF SURVEY

- Vacancy assessments are carried out on all properties where there is a building(s) that is rated as non-residential.
- Vacancy levels are assessed by reference to known floor area measure, scaled from records held, and lease advertising information.
- Vacancy levels are shown as a ratio of assessed vacant floor area to District Valuation Roll floor areas i.e., percentage (0%, 25%, 50%, 75%, 100%) against floor area from District Valuation Roll for ground floor and upper floors.
- Where property was being advertised for lease or sublease but was still occupied it was treated as occupied.
- Buildings are graded into the following categories:
  - + Grade A – built post year 2000.
  - + Grade B – built between 1960s to 1990s.
  - + Grade C – built pre-1960s.
  - + Adjustments are made to finalise grading by reference to physical viewing i.e., refurbished, modernised may be B grade rather than C grade.
- Where there is no significant building(s) i.e., where the building(s) > 50m<sup>2</sup>, properties are classified into the following non-graded categories:
  - + CP – Carpark.
  - + OC – Occupied (e.g., land used for storage without building, car yard where it could not be assigned to a business such as car rental).
  - + R – Residential or rural rated properties.
  - + UC – Under construction.
  - + V – Vacant Land.

## 2.4 DATE OF SURVEY

31 December 2022.

## 2.5 EXTENT OF INVESTIGATIONS

- Survey incorporated a viewing of all property identified in the Palmerston North City District Valuation Roll with zoning:
  - + Inner Business.
  - + Outer Business.
  - + Local Business (Terrace End only).
  - + Fringe Business.
  - + Industrial.
  - + Airport.
  - + North East Industrial.
- Initial property viewings were undertaken with an external inspection from roadsides and pedestrian ways.
- Where possible internal inspections were undertaken.
- Land areas that are used as road reserves and utilities are excluded. This includes water, electricity, and telecommunications facilities, plus land where wastewater treatment plant, and resource recovery centre are situated.

## 2.6 NATURE AND SOURCE OF INFORMATION RELIED UPON

Property data and market information has been sourced from but is not limited to:

- TelferYoung from CBRE property viewings and in-house database.
- PNCC.
- Real Estate Institute of New Zealand.
- Property Guru: CoreLogic New Zealand.
- Headway Systems Limited.
- Local Property Professionals.

No other information or documentation of particular significance to the exercise has been relied upon without specific verification by TelferYoung from CBRE.

### 3 MARKET SECTORS FINDINGS

#### 3.1 BUSINESS ZONES (IBZ + OBZ + FBZ + LBZ)

##### 3.1.1 Overview

Grade	No. of Properties	Total Land Area (ha)	Total Floor Area (m <sup>2</sup> )	Buildings Vacancy (%)
Grade A	103	34.1604	198,771	6.24%
Grade B	429	56.6181	424,284	5.02%
Grade C	246	21.8914	161,640	19.75%
<b>Total</b>	<b>778</b>	<b>112.6699</b>	<b>784,515</b>	<b>8.36%</b>

- There is 784,515 m<sup>2</sup> of floor space in the combined business zones. They consist of the following building grades:
  - + Grade A – 25.34%.
  - + Grade B – 54.08%.
  - + Grade C – 20.58%.
- The overall vacancy rate (combining all business zones) is 8.36% of total floor space. The highest to lowest vacancy rates are as follows:
  - + Grade C buildings – 19.75%.
  - + Grade A buildings – 6.24%.
  - + Grade B buildings – 5.02%.

##### 3.1.2 Ground Floor Vacant Area & Vacancy Rates

Grade	Total Floor Area (m <sup>2</sup> )	Total Floor Area (%)	Vacant Floor Area (m <sup>2</sup> )	Vacant Floor Area (%)
Grade A	155,882	27.59%	2,091	1.34%
Grade B	288,213	51.01%	11,722	4.07%
Grade C	120,924	21.40%	17,984	14.87%
<b>Total</b>	<b>565,019</b>	<b>100.00%</b>	<b>31,796</b>	<b>5.63%</b>

- There is 565,019 m<sup>2</sup> of ground floor space in the combined business zones. They consist of the following building grades:
  - + Grade A – 27.59%.
  - + Grade B – 51.01%.
  - + Grade C – 21.40%.
- The overall ground floor vacancy rate (combining all business zones) is 31,796 m<sup>2</sup> or 5.63% of total floor space. The highest to lowest ground floor vacancy rates are as follows:
  - + Grade C buildings – 14.87% (17,984 m<sup>2</sup> is available).
  - + Grade B buildings – 4.07% (11,722 m<sup>2</sup> is available).
  - + Grade A buildings – 1.34% (2,091 m<sup>2</sup> is available).

### 3.1.3 Upper Floor Vacant Area & Vacancy Rates

Grade	Total Floor Area (m <sup>2</sup> )	Total Floor Area (%)	Vacant Floor Area (m <sup>2</sup> )	Vacant Floor Area (%)
Grade A	42,889	19.54%	10,307	24.03%
Grade B	136,071	61.99%	9,635	7.08%
Grade C	40,536	18.47%	13,224	32.62%
<b>Total</b>	<b>219,496</b>	<b>100.00%</b>	<b>33,166</b>	<b>15.11%</b>

- There is 219,496 m<sup>2</sup> of upper floor space in the combined business zones. They consist of the following building grades:
  - + Grade A – 19.54%.
  - + Grade B – 61.99%.
  - + Grade C – 18.47%.
- Larger vacancy rates are evident with upper floor space. The overall upper floor vacancy rate (combining all business zones) is 33,166 m<sup>2</sup> or 15.11% of total floor space. The highest to lowest ground floor vacancy rates are as follows:
  - + Grade C buildings – 32.62% (13,224 m<sup>2</sup> is available).
  - + Grade A buildings – 24.03% (10,307 m<sup>2</sup> is available).
  - + Grade B buildings – 7.08% (9,635 m<sup>2</sup> is available).

### 3.1.4 Zone Vacant Floor Area & Vacancy Rates

Grade	Vacant Floor Area (m <sup>2</sup> )					Vacant Floor Area (%)				
	IBZ	OBZ	FBZ	LBZ	Total	IBZ	OBZ	FBZ	LBZ	Total
Grade A	11,963	435	-	-	12,398	16.10%	0.39%	0.00%	0.00%	6.24%
Grade B	12,912	8,183	220	-	21,315	6.88%	4.28%	0.54%	0.00%	5.02%
Grade C	19,957	11,335	421	178	31,890	29.27%	13.32%	7.18%	7.66%	19.75%
<b>Total</b>	<b>44,831</b>	<b>19,953</b>	<b>641</b>	<b>178</b>	<b>65,603</b>	<b>13.57%</b>	<b>5.13%</b>	<b>1.11%</b>	<b>2.34%</b>	<b>8.36%</b>

- The INZ has the highest total vacant floor area at 44,831 m<sup>2</sup>, and total vacancy rate at 13.57%.
  - + Although there is 16.10% vacancy in Grade A buildings (11,963 m<sup>2</sup> available) in this zone, this is entirely associated with one building i.e., 47 Ashley Street (the former IRD Building).
- Within each zone, there is consistent trend showing Grade C buildings has the highest vacant floor area, followed by Grade B, and Grade A buildings i.e., there is more vacant floor areas in older buildings compared to newer buildings.
  - + In the Inner Business zone there is 29.27% vacancy in Grade C buildings (19,957 m<sup>2</sup> available), 105-112 The Square (the former High Flyers Building) accounts for the largest part at 4,810 m<sup>2</sup>.
  - + In the Outer Business zone there is 13.32% vacancy in Grade C buildings (11,335 m<sup>2</sup> available), 2-14 Rangitikei Street (the former Phoenix Insurance Building) accounts for the largest part at 3,948 m<sup>2</sup>.

### 3.1.5 Rental & Investment Market

Assessment	Rental Market			Investment Market			
	Rent \$/m <sup>2</sup> Net	Trend	Supply	Demand	Availability	Yield Range	Trend
Office	\$120-\$400/m <sup>2</sup>	Stable	Moderate	Average	Limited	6.50-8.50%	Weakening

Assessment	Rental Market			Investment Market			
	Rent \$/m <sup>2</sup> Net	Trend	Supply	Demand	Availability	Yield Range	Trend
Retail*	\$150-\$400/m <sup>2</sup>	Stable	Average	Average	Average	6.50-9.50%	Weakening

\* Excludes Shopping Centre Rents e.g., The Plaza, and Downtown Shopping Centre.

- Over the past two-year period (from 2020 to 2022), the Palmerston North Commercial Property Market Survey shows vacancy levels have generally increased across combined business zones.
- In the current market, property sales that have occurred still achieve relatively strong investment yields particularly where property fundamentals such as building compliance and tenancy arrangements remain sound. Older or weaker tenanted properties require higher returns to attract purchaser support.
- In terms of the office rental market, as of late 2022 there is a wide divergence of rentals in Palmerston North. There is evidence of corporate and institutional tenants seeking new compliant office space, preferably with larger floor plates. Rentals established for modern purpose-built accommodation are largely development cost driven and are at levels exceeding that for older and/or less versatile space.
- Mid-Broadway and Terrace End commercial (Outer/Local Business) continue to benefit from sound tenancy support.
- The Central Business District remains with significant vacancies.
- Conventional strip or ribbon development retailing areas evidence a spread of restaurant/food, vape and pop-up outlets; and there has been little or no rental growth in the sector over recent years. This is influenced by a combination of factors including escalating property operating costs, competition from big box retailing, The Plaza Shopping Centre and internet shopping.

## 3.2 INDUSTRIAL ZONES (INZ + AIZ + NEIZ)

### 3.2.1 Overview

Grade	No. of Properties	Total Land Area (ha)	Total Floor Area (m <sup>2</sup> )	Buildings Vacancy (%)
Grade A	150	134.4650	403,826	0.86%
Grade B	473	368.8286	673,437	1.17%
Grade C	127	44.0062	120,621	1.56%
<b>Total</b>	<b>750</b>	<b>547.2998</b>	<b>1,197,884</b>	<b>1.11%</b>

- There is 1,197,884 m<sup>2</sup> of floor space in the combined industrial zones. They consist of the following building grades:
  - + Grade A – 33.71%.
  - + Grade B – 56.22%.
  - + Grade C – 10.07%.
- The overall vacancy rate (combining all industrial zones) is 1.11% of total floor space. The highest to lowest vacancy rates are as follows:
  - + Grade C buildings – 1.56%.
  - + Grade B buildings – 1.17%.
  - + Grade A buildings – 0.86%.

### 3.2.2 Ground Floor Vacant Area & Vacancy Rates

Grade	Total Floor Area (m <sup>2</sup> )	Total Floor Area (%)	Vacant Floor Area (m <sup>2</sup> )	Vacant Floor Area (%)
Grade A	387,756	33.84%	3,479	0.90%
Grade B	639,664	55.82%	7,896	1.23%
Grade C	118,472	10.34%	1,876	1.58%
<b>Total</b>	<b>1,145,892</b>	<b>100.00%</b>	<b>13,251</b>	<b>1.16%</b>

- There is 1,145,892 m<sup>2</sup> of ground floor space in the combined industrial zones. They consist of the following building grades:
  - + Grade A – 33.84%.
  - + Grade B – 55.82%.
  - + Grade C – 10.34%.
- The overall ground floor vacancy rate (combining all industrial zones) is 13,251 m<sup>2</sup> or 1.16% of total floor space. The highest to lowest ground floor vacancy rates are as follows:
  - + Grade C buildings – 1.58% (1,876 m<sup>2</sup> is available).
  - + Grade B buildings – 1.23% (7,896 m<sup>2</sup> is available).
  - + Grade A buildings – 0.09% (3,479 m<sup>2</sup> is available).

### 3.2.3 Upper Floor Vacant Area & Vacancy Rates

Grade	Total Floor Area (m <sup>2</sup> )	Total Floor Area (%)	Vacant Floor Area (m <sup>2</sup> )	Vacant Floor Area (%)
Grade A	16,070	30.91%	-	0.00%
Grade B	33,773	64.96%	-	0.00%
Grade C	2,149	4.13%	-	0.00%
<b>Total</b>	<b>51,992</b>	<b>100.00%</b>	<b>-</b>	<b>0.00%</b>

- There is 51,992 m<sup>2</sup> of upper floor space in the combined industrial zones. They consist of the following building grades:
  - + Grade A – 30.91%.
  - + Grade B – 64.96%.
  - + Grade C – 4.13%.
- The overall upper floor vacancy rate (combining all industrial zones) is zero i.e., across all industrial zones there is no vacant upper floor space.

### 3.2.4 Zone Vacant Floor Area & Vacancy Rates

Grade	Vacant Floor Area (m <sup>2</sup> )				Vacant Floor Area (%)			
	INZ	AIZ	NEIZ	Total	INZ	AIZ	NEIZ	Total
Grade A	3,479	-	-	3,479	1.36%	0.00%	0.00%	0.86%
Grade B	7,896	-	-	7,896	1.21%	0.00%	0.00%	1.17%
Grade C	1,876	-	-	1,876	1.56%	0.00%	0.00%	1.56%
<b>Total</b>	<b>13,251</b>	<b>-</b>	<b>-</b>	<b>13,251</b>	<b>1.29%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>1.11%</b>

- There are no vacant buildings in the Airport and North East Industrial zones.
- Building vacancies are associated with the Industrial zone only. The highest to lowest vacancy rates are as follows:
  - + Grade C buildings – 1.56% (1,876 m<sup>2</sup> is available).
  - + Grade B buildings – 1.17% (7,896 m<sup>2</sup> is available).
  - + Grade A buildings – 0.86% (3,479 m<sup>2</sup> is available).

### 3.2.5 Rental & Investment Market

Assessment	Rental Market			Investment Market			
	Rent \$/m <sup>2</sup> Net	Trend	Supply	Demand	Availability	Yield Range	Trend
Office	\$120-\$250/m <sup>2</sup>	Improving	Limited	Strong	Limited	6.00-8.00%	Stable

Assessment	Rental Market			Investment Market			
	Rent \$/m <sup>2</sup> Net	Trend	Supply	Demand	Availability	Yield Range	Trend
Warehouse	\$80-\$150/m <sup>2</sup>	Improving	Limited	Strong	Limited	6.00-8.00%	Stable

- Over the past two-year period (from 2020 to 2022), the Palmerston North Commercial Property Market Survey shows vacancy levels have decreased across industrial zoned properties and are now very low.
- There remains strong demand in industrial locations, particularly for modern versatile property. Owner occupiers are active in take up of property where available for purchase.
- Industrial land is characterised by short supply and construction costs have escalated significantly. This has influenced upward pressure on existing property rents and sale prices.
- The North East and East Terrace Industrial Estates are continuing strong growth sectors.
- Availability of land in the North East Industrial area remains complicated by developer land-banking and a volume of unserviced land holdings. The future KiwiRail regional transport hub development in the location will further diminish such supply in the location.
- There remains other vacant industrial zoned land within the City boundaries. However, a volume is compromised e.g., there is capacity at Longburn but a large area is held by Fonterra and is currently not available to the market, whilst nearby Works Road has infrastructural constraints.
- In our opinion the long-term outlook for the local property market is bright, associated with Palmerston North and the wider Manawatu area having a strong local economy underpinned by investment revolving around farming, education, research institutes, health, defence forces establishment, and industrial activities. Significantly, its strategic location in the lower North Island has led to Palmerston North City becoming a major distribution and logistics hub over the past 15 years.



## 4 STATEMENT OF LIMITING CONDITIONS AND ADVISORY POLICY

### Purpose

This report has been completed for the specific advisory purpose stated. No responsibility is accepted in the event that this report is used for any other purpose. We do not accept liability for losses arising from reliance on our value estimate.

This report is indicative in nature and should not be relied upon as a basis for any contract that relies upon this indication as a statement of value for the purpose of rental, sale, or purchase of a property or as an asset value to be relied upon by any other third party.

### Responsibility to third party

Our responsibility in connection with this report is limited to the client to whom the report is addressed and to that client only. We disclaim all responsibility and will accept no liability to any other party without first obtaining the written consent of CBRE Limited t/a TelferYoung from CBRE and the author of the report. CBRE Limited t/a TelferYoung from CBRE reserves the right to alter, amend, explain, or limit any further information given to any other party.

### Reproduction of report

Neither the whole nor any part of this report or any reference to it may be included in any published document, circular or statement without first obtaining our written approval of the form and context in which it may appear. Our report is only valid when bearing the Valuer's signature.

### Date of advice

Unless otherwise stated, the effective date of the advice is the date of the report. The advice provided is current as at the effective date only. The market may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property).

### Reliability of data

The data and statistical information contained herein was gathered for survey purposes from reliable, commonly utilised industry sources. Whilst we have endeavoured to ensure that the data and information is correct, in many cases, we cannot specifically verify the information at source and therefore cannot guarantee its accuracy.

### Assumptions

This report contains assumptions believed to be fair and reasonable at the date of reporting. In the event that assumptions are made, based on information relied upon which is later proven to be incorrect, or known by the recipient to be incorrect at the date of reporting, CBRE Limited t/a TelferYoung from CBRE reserves the right to reconsider the report, and if necessary, alter content.

Please contact the writer should you wish to discuss any matters raised in this report.

Yours faithfully

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## Draft Interim Speed Management Plan (School Speed Limits)

Analysis of issues raised during  
consultation in relation to proposed  
speed limits around schools, and  
recommendations for changes

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## Section 1 General Issues and Comments

1. While most submissions were made about specific schools or locations (and some submitters provided comments on multiple schools or locations), there were some general comments on the proposal to reduce speed limits. The following is an analysis of those issues. Though the comments were general in nature, they apply to many of the specific proposals and were often mentioned in relation to particular school areas.

### Speeding

- 1.1 A large number of submitters identified speeding drivers as the primary problem. This was an issue identified by submitters who favoured speed limit reductions and saw such reductions as one way to address speeding. It was also identified by submitters who did not favour speed limit reductions and believed that speed limit reductions alone would be ineffective against speeding drivers.
- 1.2 A large number of submitters suggested the installation of physical infrastructure, either in place of speed limit reductions or as a way to support proposed speed limit reductions. Some submitters pointed to existing infrastructure treatments, such as speed humps, as examples of how speeding had been reduced.

### *Discussion and analysis*

- 1.3 Dealing with speeding drivers is not the primary purpose of the ISMP. While it is a concern when drivers break the speed limit, and it is clearly unsafe and inappropriate to break the speed limit, this is a different issue than whether the current speed limit is safe for the environment.
- 1.4 In most of our urban areas, the speed limit currently defaults to 50km/h. However, in some locations this is not the safe and appropriate speed. Evidence shows that in the event of a crash involving a motor vehicle and a pedestrian, the risk of death for the pedestrian is 80% when the vehicle is travelling at 50km/h. The risk drops to 10% when the vehicle is travelling at 30km/h.
- 1.5 The Speed Management Guide, published by Waka Kotahi, describes “Safe and Appropriate Speeds”, which are dependent on the context and the environment. In highly pedestrianised, urban environments, such as the city centre, lower speeds are safer. In environments which are designed for high-speed vehicles, such as separated motorways, higher speeds can be safely achieved.
- 1.6 The Council allocates funding to the “low cost, low risk” programme which includes projects to address unsafe speeds through interventions such as raised pedestrian platforms or other infrastructural treatments. However, this is separate to the ISMP, which is focussed on setting safe speed limits around schools, appropriate to the current environment, and is a direct response to the requirement in the Setting of Speed Limits Rule to lower speed limits around schools.
- 1.7 Consequently, the focus of the proposals is on a reduction of the speed limit around schools rather than on slowing down drivers who are already exceeding the current speed limit. While we acknowledge that drivers who exceed the speed limit are already driving dangerously, the mechanism for addressing that issue lies elsewhere and is outside the scope of this proposal.

Preference for variable speed limits

- 1.8 Submitters commented (both generally and in relation to specific schools) that variable speed limits are very effective, and for most are the preferred way of lowering speed limits around schools. A frequent comment was that instead of permanent speed limit reductions, the speed limits around schools should be variable.
- 1.9 The arguments made by submitters in favour of variable speed limits are that they are highly visible when electronic signage is used, so are harder to ignore or overlook. Some also suggested that they avoid slowing down traffic at times when children are not present (such as outside of school hours, or during school holidays). Submitters were concerned about the consequences for using lower permanent speed limits, including increasing frustration for drivers (and consequently, low levels of compliance or even dangerous driving), and the impact on productivity through longer travel times. Some submitters suggested that if electronic variable speed limit signs could not be used or were too expensive, then static variable speed limit signs should be used instead. These are currently used in a limited number of locations adjacent to existing variable speed limits.

*Discussion and analysis*

- 1.10 There are three main points that we can usefully consider in response to the preference for variable speed limits. Firstly, the impact of longer travel times may be overestimated by submitters. The original proposals (and the refined recommendations) recognise the potential for impacts on travel times by recommending the use of variable speed limits on roads which typically have higher traffic volumes. The impact on travel times is typically considered by traffic engineers only in longer-distance journeys, where a range of factors are evaluated to assess whether the slower speed limit will have a measurable impact on travel times. For the short sections where slower speed limits have been proposed, a travel-time assessment has not been undertaken. For smaller roads, with lower traffic volumes, the lower speed limit is likely to have a much smaller impact on travel times. It may also discourage vehicles from using the smaller side roads as a “shortcut.”
- 1.11 Secondly, while variable speed limits may be preferred by some people, they are not the most appropriate tool for each road. No exit, residential streets are unlikely to be good candidates. Such roads are likely to have low average speeds, meaning most road users are already travelling slower than the current speed limit. A variable speed limit would be redundant in these situations.
- 1.12 Thirdly, it is not possible to implement widespread variable speed limit areas and use static variable speed limit signage in place of electronic signage to minimise the cost. The Traffic Control Devices Rule 2004 places restrictions on when these static variable speed limit signs can be used:
- They can be used only on roads adjacent to a road controlled by an electronic variable speed limit sign; and
  - They can only be used where the road is controlled by a stop sign or give way sign or is a no exit road.

Therefore, static variable speed limit signs must be accompanied by electronic signs. This cost negates most of the perceived savings from using static variable speed limit signs. If variable

speed limits are favoured and implemented widely or universally around schools, then the number of electronic signs will increase and significantly increase the cost of implementation.

- 1.13 Consequently, the options presented in attachment one are based on the legal requirements for use of variable speed limit signage (both static and electronic). We have not considered the option of exclusively using static variable speed limit signs as this would not be compliant with the Traffic Control Devices Rule.

#### Enforcement

- 1.14 Submitters expressed concern about whether changed speed limits (regardless of the type of speed limit) could or would be enforced. There are few speed cameras, and police resources are often unavailable to dedicate to enforce speed limits in the urban areas, including around schools. Submitters argued that these speed limits would be ineffective without adequate enforcement, and therefore the speed limit should not be lowered.

#### *Discussion and analysis*

- 1.15 While we acknowledge that current Police resourcing prevents active and focussed enforcement of speed limits, there is indication from Waka Kotahi that passive enforcement (i.e. using safety cameras) will be increased. As part of *Road to Zero*, the Government shifted the responsibility for safety cameras (formerly speed cameras) from NZ Police to Waka Kotahi. There have been informal indications that a significantly expanded and upgraded safety camera programme will be in place from 2024, with early trials of the new equipment currently underway in Auckland. This larger network of mobile safety cameras will potentially expand enforcement of changed speed limits (alongside other traffic offences, such as using a cellphone while driving, or failing to wear a seatbelt).
- 1.16 Additionally, the average speeds for most of the roads covered by changed speed limits are close to the proposed speed limits. So we expect that compliance will be generally good, and that active enforcement will not be necessary. Furthermore, the distinction between breaking the speed limit and inappropriate speeding (noted in paragraph 1.3) also applies here.

#### The need to reduce speed limits

- 1.17 Submitters queried why speed limits need to be reduced when average speeds are already low. They argued that infrastructure such as raised pedestrian crossings, speed humps, traffic lights, and roundabouts already lowered speeds and so the need for reducing the speed limit was not evident. They also argued that putting up new signs for lower speed limits would be an unnecessary cost.

#### *Discussion and analysis*

- 1.18 A lower operating speed provides safety benefits (as already discussed in paragraph 1.5), but a speed limit is still a legal requirement. Speed limits should be set close to the operating speeds. While it is true that if vehicles are already travelling slowly, then a lower speed limit won't change that fact. It will, however, require everyone to travel at the speed limit so that there is less conflict from people travelling faster than is safer.



Meeting the government's targets

- 1.19 Some submitters queried why the Council was aiming to lower speed limits around 100% of schools by June 2024, when the target is only 40%.

*Discussion and analysis*

- 1.20 There are two reasons for aiming for 100% compliance by 30 June 2024. Firstly, funding from Waka Kotahi is available in the current financial year. This provides a 51% subsidy to the cost that would not necessarily be available if the work was spread over the three years to 2027. Secondly, there are efficiencies if the lower speed limits are applied to schools at the same time. It will make communicating with the public and schools simpler, utilising the same messaging. It will also make it simpler if speed limits change around the same time, rather than staging them over several years.
- 1.21 Following consultation, changes to the costs for implementation, along with revisions to the original proposals, have increased the cost to implement the proposed changes. While we recommend that Council adopts the suggested changes to speed limits for all schools, there will be an implementation schedule that spreads the installation of the new speed limits over the 2023/24 and 2024/25 financial years.

Support for proposals

- 1.22 Many submitters made comments in support of the proposed changes. Submitters noted that using permanent speed limit changes in some places made more sense, being cheaper than electronic signage. They also recognised that while children were mostly around school during school hours, many school grounds were available outside of school hours for other activities and that permanent speed limit changes can provide the same benefits outside of school hours.
- 1.23 Submitters also observed that while children attending school are the prime beneficiaries of the slower speed limits, other road users benefit from permanent speed limit changes. The benefits include both improved safety when vehicle speeds are lower, and in terms of environmental amenity (such as quieter roads, fewer emissions, etc). One submitter also noted that similar changes made in other cities had been embraced, and while slower speed limits may be unusual for some people they do eventually get used to it.

## Section 2 Social Media Comments

2. We received 244 comments on social media about the interim Speed Management Plan (School Speed Limits). These commenters raised many points which were very similar to the points raised by those who made formal submissions. The following is a summary of those points:

### Speeding

- 2.1 Commenters made similar observations to formal submitters; they identified the real issue as people speeding or driving dangerously, and that addressing that problem was more important than reducing the speed limit for those who are already complying with the speed limit.

#### *Discussion and analysis*

- 2.2 As noted for those who made formal submissions, the proposal was not intended to address people who blatantly or deliberately exceed the speed limit. Officers agree that simply lowering the speed limit will have little effect on drivers who refuse to comply with the existing speed limit. However, the proposal was intended to make the existing speed limits safer. This approach is based on evidence that shows the risk of death for a pedestrian involved in a crash with a motor vehicle is 80%. This risk drops to 10% when the vehicle is travelling at 30km/h. With most of the roads in the proposal already having average operating speeds lower than the speed limit and close to the proposed 30km/h speed limits, the proposal is aiming to reinforce the safe and appropriate speed for these roads.

### Enforcement

- 2.3 Many commenters observed that enforcement of current speed limits by Police is poor, and that compliance with lower speed limits is likely to be just as poor if there is no active enforcement. This issue was associated with other issues such as the need for physical infrastructure to force drivers to comply with lower speed limits, and other ways to keep school children safe. Some examples were pedestrian crossings (including the suggestion that all pedestrian crossings outside schools should be controlled), overpasses or underpasses to allow people to cross roads safely.

#### *Discussion and analysis*

- 2.4 While the type of infrastructure suggested (such as overpasses or underpasses) is not practical for the majority of roads in Palmerston North, the Council does implement infrastructural changes such as raised pedestrian crossings when appropriate. The Council, however, is not responsible for active enforcement of speed limits, or for the establishment of road patrols for controlled crossings.

### Permanent speed limits vs variable speed limits

- 2.5 This was a common issue for many commenters, echoing the points raised in formal submissions. Commenters noted that permanent 30km/h speed limits on many streets would slow down traffic, aggravate road users (and potentially make them more dangerous or impatient, and thereby increase the risk of accidents), whilst not improving safety for children. As was noted in the formal submissions, commenters queried why lower speed limits would

be permanent when school children were only present on these roads for a short amount of time.

- 2.6 Some commenters also appeared to misunderstand the specific details of the proposal, with discussion amongst commenters as to whether the changes were variable or permanent, and how extensive were the proposed speed limit changes.

*Discussion and analysis*

- 2.7 As noted with the formal submissions, the impact of slower speed limits is often exaggerated. Similarly, the potential for aggravating or frustrating road users is assumed rather than known and could be lower or higher than expected. It is also not possible to know the extent to which any such frustration may manifest in dangerous driving or increase the risk of accidents.
- 2.8 Commenters also misunderstood how extensive the proposed changes would be. Taken collectively, the length of road with a slower speed limit would be 68km, which is just over 12% of the total number of roads in Palmerston North.
- 2.9 The misunderstanding of the proposal is unfortunate, and it appears that some commenters may not have read the details of the proposal in full. In most cases, the proposed speed limit changes included a mix of variable and 30km/h permanent speed limits. The policies included in the draft ISMP identified when we would propose using a variable speed limit, and when a permanent 30km/h speed limit would be more appropriate. In a small number of locations, a variable speed limit is not appropriate and so the proposal is to use permanent 30km/h speed limits exclusively in that location.

Personal responsibility

- 2.10 A common theme amongst many commenters was the need for pedestrians, including children and parents, to take personal responsibility for road safety. Reference was made to their own experiences in being taught road safety, and the belief that many children today are not taught the same skills. In a similar vein, commenters wrote of the risk of complacency with slower speed limits. They suggested that with slower speed limits children may get used to vehicles travelling slowly around schools, and this could make them complacent when crossing the road elsewhere and put them at greater risk.

*Discussion and analysis*

- 2.11 While everyone has a responsibility to take care around roads, it is a false dichotomy to suggest that personal responsibility is a direct alternative to safer speed limits. There are many facets to making our roads safer, and this includes road safety education, appropriate physical design, and appropriate speed limits.

Data and statistics

- 2.12 There were several comments about the data underpinning the proposal, and whether the statistics provided a compelling case for changing speed limits. Throughout the consultation period we posted some statistics to social media, and the same information was included in the consultation document, to illustrate some of the risks associated with inappropriate speed limits. Commenters discussed whether these statistics were severe enough to warrant what they saw as a substantial change and impediment to drivers. As with those who made formal

submissions, attention was also drawn to the small number of hours that school children are present, and how this compared to lowering speed limits permanently on some roads.

*Discussion and analysis*

- 2.13 While evidence-based decision-making is very important, the case for making changes to speed limits does not rest on the evidence of the number of crashes. A speed limit can be unsafe even if there are not a high number of crashes along a given section of road. Regardless of the number of crashes that have actually occurred, there is strong evidence that shows the speed at which a vehicle is travelling is a significant factor in the severity of injuries. A higher speed will result in more severe injuries or even fatalities.
- 2.14 This point was challenged by some commenters, who suggested that the logic of this argument suggests that all roads should be lowered to the lowest possible speed limit. Others argued that even at 5km/h there is a risk of injury. Neither of these arguments hold true, however. All activities carry risk, and the role of the Council as the road controlling authority is to balance those risks to achieve the best possible outcome. Lowering the speed limits to barely more than a walking pace would indeed achieve even safer outcomes but would be impractical on a daily basis. The proposed 30km/h speed limits for the roads included in the proposal represents a compromise between safety (with a reduced risk of death for pedestrians) and efficiency (allowing vehicles to travel at a suitable speed).
- 2.15 Applying the 30km/h speed limit to all roads, on the basis that 30km/h is safer than 50km/h and accidents can happen anywhere, was not considered as part of this proposal. The reason for the Council developing this proposal is that the Setting of Speed Limits Rule requires that we implement slower speed limits on roads around schools. Therefore, the roads weren't selected based on whether they had an excessively high crash history, but because the areas around schools have been identified at the national level as being at greater risk than other areas. This is because there are higher numbers of vulnerable road users (including, but not limited to, school children) in those areas.
- 2.16 While the Council was required to implement slower speed limits on roads around schools, the Council was free to determine which roads and which sections of roads would be included. The proposal focused on roads where children were more likely to be walking or cycling to school. It also deliberately limited the scope to roads where the average operating speeds were close to the proposed speed limit, so that the impact on efficiency could be minimized. Further, the use of variable speed limits on roads with a "movement" rather than a "place" function under the One Network Framework also minimizes the impact of slower speeds on overall network efficiency.
- 2.17 The selection of 30km/h as the speed limit on roads around schools is the maximum speed limit permitted by the Setting of Speed Limits Rule 2022. While the extent of the roads included can be determined by the Council as Road Controlling Authority, the maximum speed limit for any category 1 schools is 30km/h. For category 2 schools, which are determined as those with a lower number of pedestrian movements and/or an off-road pick up and drop off point (both attributes commonly found at rural schools), the maximum speed limit is 60km/h.

### Section 3 School-specific comments

<b>School area</b>	<b>Aokautere School</b>
<b>Current speed limits</b>	The speed limit on SH57 is currently 80km/h. Pinfold Road and Staces Road are currently 100km/h.
<b>Consultation proposal</b>	The proposal was to reduce the permanent speed limit on Pinfold Road and Staces Road to 60km/h. This was to align with the 60km/h variable speed limit that Waka Kotahi was proposing for SH57.
<b>Submission summary</b>	Twenty-six submissions were received. Eighteen were in support, with six opposed and two unsure.
<b>Recommendation</b>	Option 1A – confirm consultation proposal with the addition of Pheasant Lane

#### Arguments in favour of the proposal

- Children cannot walk or bike to school safely because of the speed of vehicles.
- Many trucks use the road at high speeds.
- Children crossing the road at the current speed limit is dangerous.
- Many cars exceed the current 80km/h speed limit making it unsafe for children biking, scootering or walking to school.
- The high speed of traffic makes it difficult to merge into fast traffic when coming out of school.
- Have experienced several near misses.

#### Arguments against the proposal

- Current approach is quite adequate. More variable speed limits will bring multiple problems, including more nose-to-tail crashes as cars suddenly reduce speed, increased CO2 emissions due to increased fuel use at lower speeds, and more distracted drivers.
- Lowering speed limits doesn't necessarily slow traffic.
- No justification for imposing permanent speed restrictions when the actual risk periods can be covered with variable speed limits.

#### Changes suggested by submitters

- Extend the proposed 60km/h speed limit to Pahiatua-Aokautere Road ("Pahiatua Track"), because it would be safer for children walking along this part of the road.
- Make the variable speed limit on SH57 a permanent 60km/h speed limit.
- Lower the variable speed limit from 60km/h to 50km/h.

#### *Infrastructure (out of scope)*

- Install a "no engine braking" sign.
- Add a turning bay into the school when approaching from Ashhurst.
- Build a limestone path on one side of the road for people to stay off the road.

#### Analysis

Most of the arguments in opposition to the proposal relate to the variable speed limit proposed by Waka Kotahi (though in some cases they can be applied generically to the other proposals). As the road controlling authority for SH57, Waka Kotahi is responsible for deciding whether to proceed with the proposed 60km/h variable speed limit.

The submissions indicate a number of concerns with the safety of the side roads, where children may be walking, cycling or scootering to school. They recognise the need for signalling the slower speeds that are appropriate around the school.

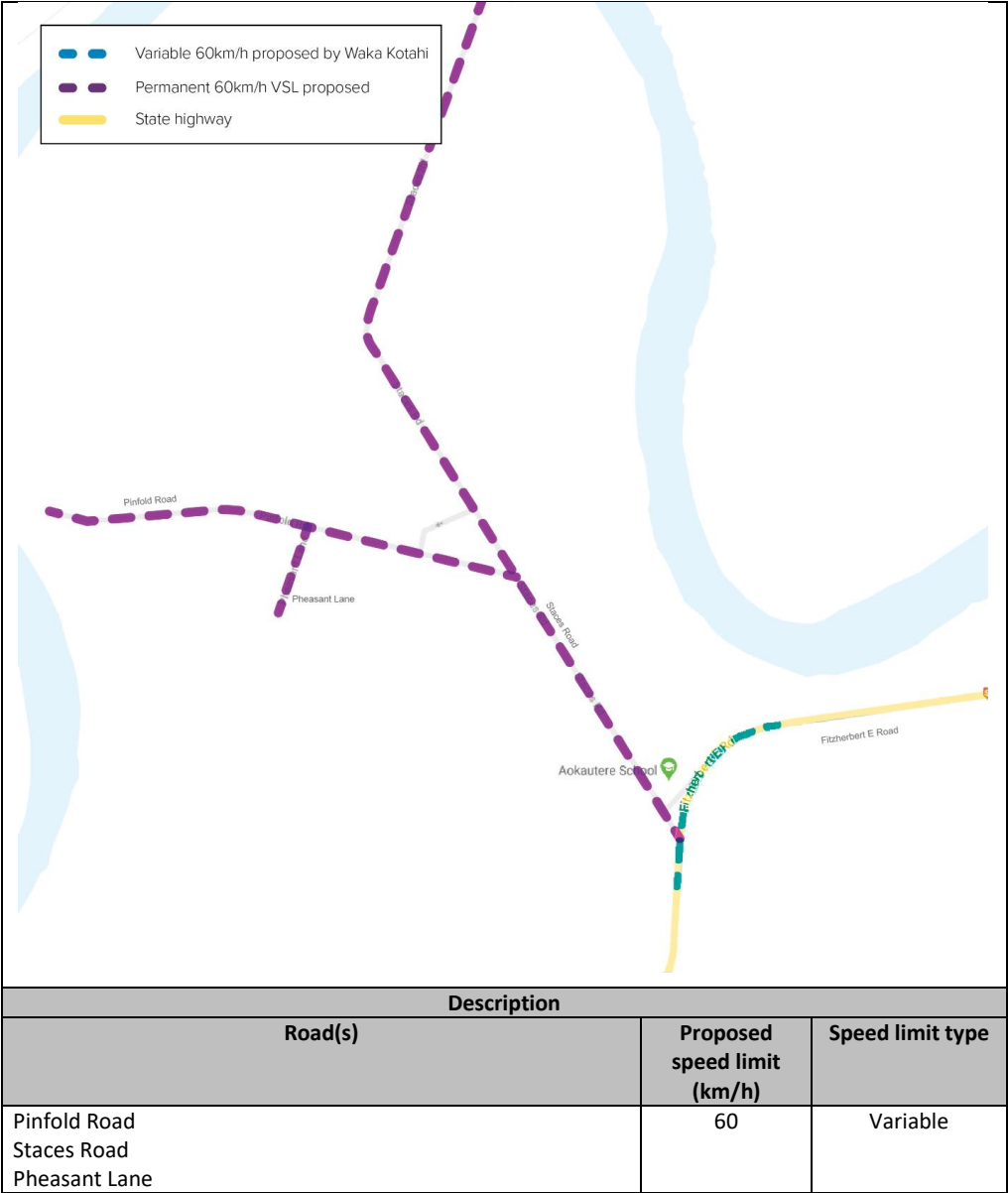
Options

OPTION 1A	Confirm consultation proposal with addition of Pheasant Lane
<b>Justification</b>	<ul style="list-style-type: none"> <li>- Those submitters in support of the consultation proposal didn't identify any major changes that are within Council's ability to change (such as extending the length of the variable speed limit on the SH57.</li> <li>- Pheasant Lane has been included due to the new subdivision development.</li> <li>- The use of a permanent speed limit gives allows for the speed limit to be reduced regardless of whether the variable speed limit is installed on SH57 by Waka Kotahi.</li> </ul>
<b>Approx. Cost</b>	<b>\$3,200</b>
<b>OPTION 1A MAP</b>	

Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Pinfold Road Staces Road Pheasant Lane	60	Permanent

**Note:** There is a 60km/h variable speed limit on SH57 Fitzherbert East Road which is proposed by Waka Kotahi.

OPTION 1B	Replace consultation proposal with variable speed limits for all roads
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This option includes extending the variable speed limit from SH57 further down Staces Road to capture any access to the school.</li> <li>- It would result in some efficiencies regarding the signage as the variable speed limit would tie with the SH57 variable speed limit.</li> <li>- Pheasant Lane has been included due to the new subdivision development.</li> <li>- A full variable speed limit zone would require coordination from Waka Kotahi to make sure that the speed on the side road and the speed on SH57 are implemented at the same time.</li> <li>- A risk does exist given the proposed variable speed limit for SH57 have not yet been confirmed by Waka Kotahi. In the event the variable speed limit along SH57 is not installed, the speed limit of Aokautere School Option B would not be implemented unless the Council installed its own electronic sign on Staces Road. This would increase the cost significantly.</li> </ul>
<b>Approx. Cost</b>	<p>If Waka Kotahi confirm the proposed 60km/h variable speed limit on SH57 - \$0</p> <p>If Waka Kotahi do not confirm the proposed 60km/h variable speed limit on SH57 - \$19,200</p>
<b>OPTION 1B MAP</b>	



**Note:** There is a 60km/h variable speed limit on SH57 Fitzherbert East Road which is proposed by Waka Kotahi.



<b>School area</b>	<b>Ashhurst School</b>
<b>Current speed limits</b>	Existing 50km/h on roads in Ashhurst around the school. There is a 40km/h variable speed limit on Cambridge Avenue which was installed in 2013.
<b>Consultation proposal</b>	The proposal was to replace the existing 40km/h variable speed limit with a 30km/h variable speed limit, and create permanent 30km/h speed limits on Stanford Street South, Hodgetts Place, Petes Way, Guildford Street, and parts of Salisbury Street, Winchester Street, Oxford Street, Bamfield Street and Stanford Street North.
<b>Submission summary</b>	Eleven submissions were received. Two were in support, eight were in opposition, and one was unsure.
<b>Recommendation</b>	Option 2A - Confirm consultation proposal with the extension of the 30km/h permanent speed limit up to Lincoln Street.

#### Arguments in favour of the proposal

- Support the variable speed limits in all areas around schools so long as the restricted hours are reasonable and related to times when students are likely to be using the area.
- Support the reduction of the speed limit on Cambridge Avenue, because people cross this road all day.

#### Arguments against the proposal

- Slower speeds should be variable speed limits only. Making them permanent is overkill and unwarranted.
- People will speed regardless of the speed limit, as they are already doing so.
- The proposed change will not reduce any harm to children but will inconvenience the public in a big way.
- Reducing speed limits when children are not present is non-sensical and will lead drivers to rationalise non-compliance with the restrictions.
- If the operating speeds are already low, then the proposed speed limit change is unnecessary.
- The money spent on these changes could be put to a far greater use.
- No justification for imposing permanent speed restrictions when the actual risk periods can be covered with variable speed restrictions.
- Reducing the speed limit will have no effect on bad drivers, it will just penalise the good drivers.

#### Changes suggested by submitters

- Extend the 30 km/h zone as far as Lincoln Street.

#### *Infrastructure (out of scope)*

- Install speed humps (in place of, or in addition to, proposed speed limit changes), especially on Stanford Street South.
- Schools should have areas to let children off and be picked up.

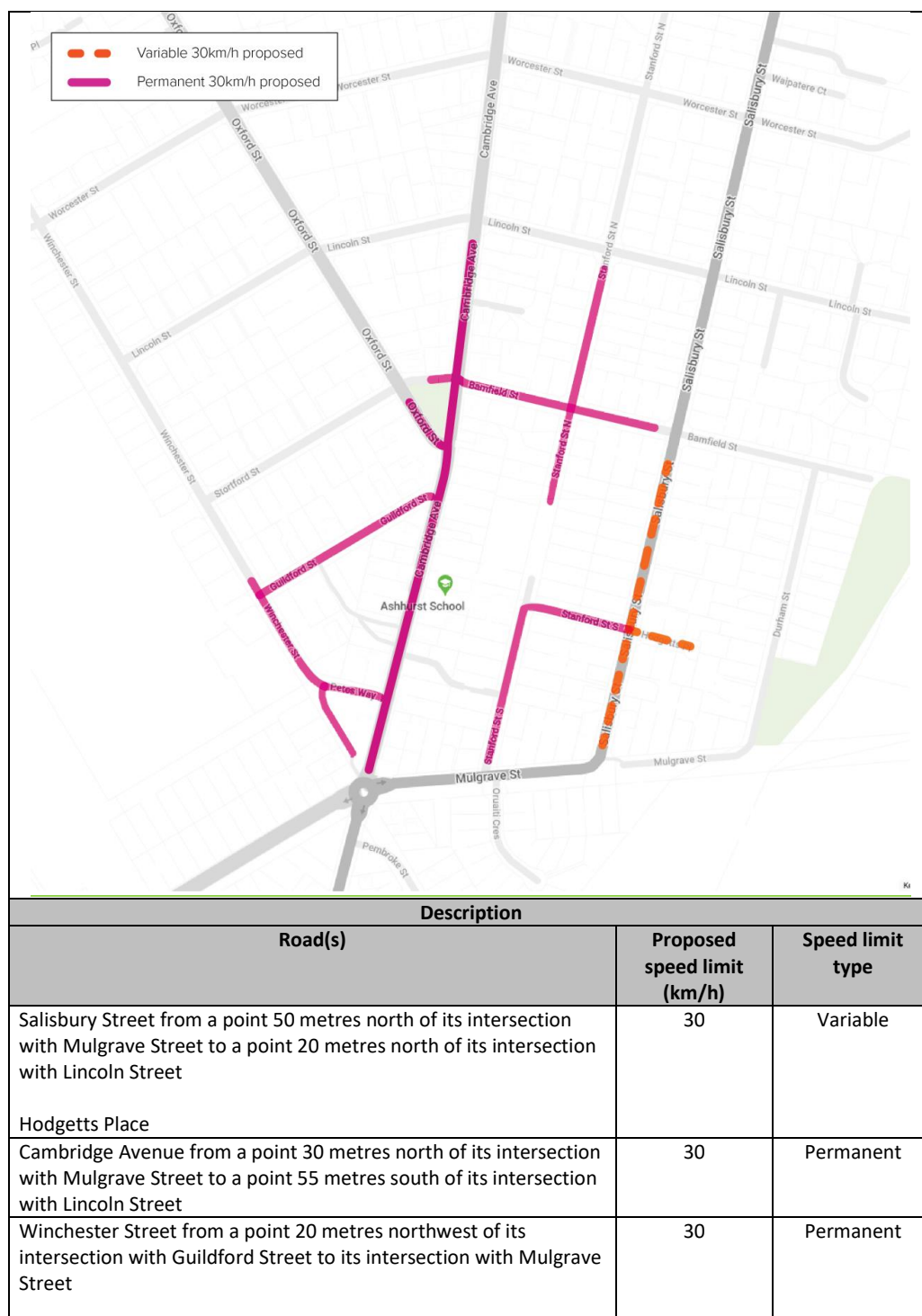
#### Analysis

Most of the submissions were opposed to the proposed speed limit changes around Ashhurst School, though it was accepted that the variable speed limit is an effective tool.

Note: the Consultation Document mistakenly identified the variable speed limit on Salisbury Street instead of Cambridge Avenue. The active signs on Salisbury Street installed by Waka Kotahi are not a legal variable speed limit, but instead are being used to warn users of the speed limit.

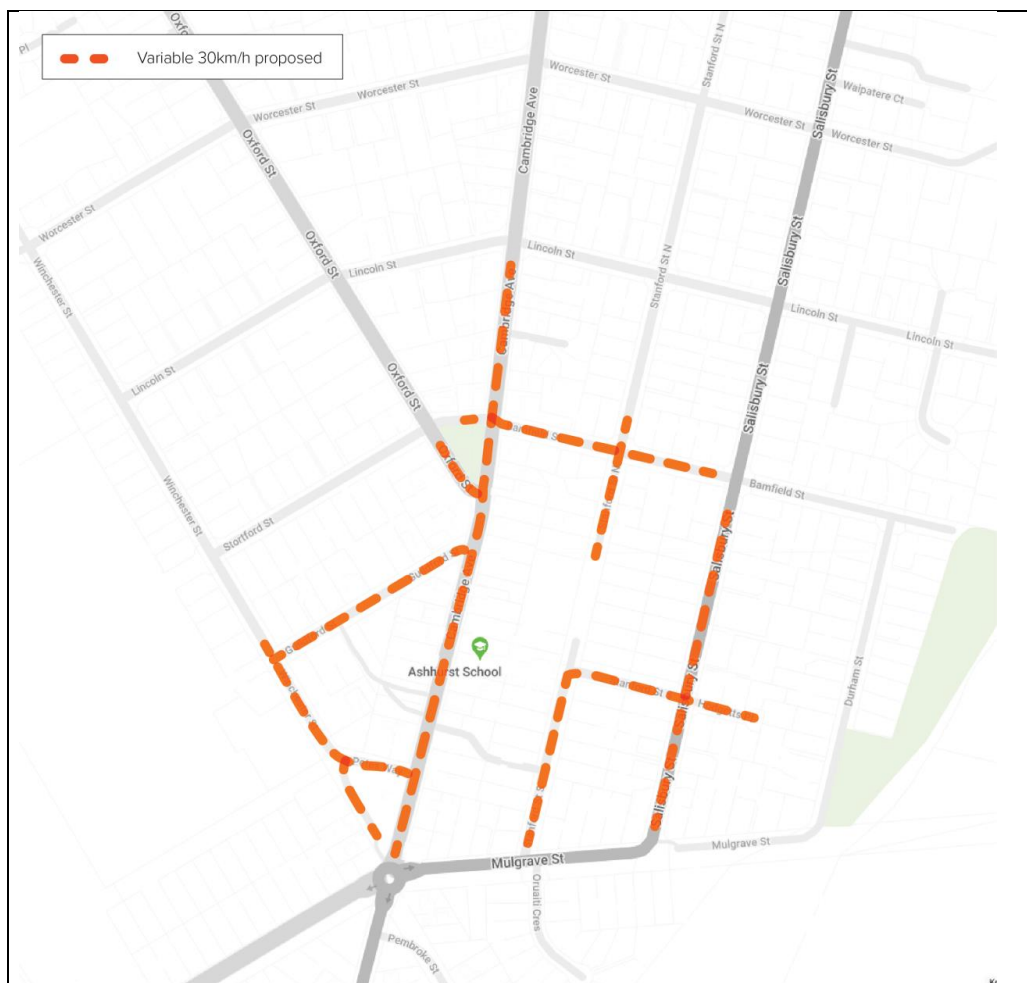
#### Options

OPTION 2A	Confirm consultation proposal with the extension of the 30km/h permanent speed limit up to Lincoln Street
Justification	<ul style="list-style-type: none"> <li>- This option supports the suggestion from submitters to extend the slow speed zones due to a higher number of parents and kids walking to school along this section of road. It aligns with the best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to.</li> <li>- The proposed permanent speed limits on Cambridge Ave will also provide safe movement for the pedestrians crossing the main street at all times of the day, for various activities. Changing Cambridge Ave to a permanent 30km/h speed limit would also involve removing the existing variable speed limit along Cambridge Avenue.</li> <li>- Extending the permanent speed limit zone up to Lincoln Street would involve extending the variable speed limit along Salisbury Street further towards Lincoln Street by 100m to 150m. This would incur additional cost, but the benefit of this extension would outweigh this cost. This variable speed limit now captures Hodgetts Place to reduce unnecessary signage.</li> <li>- Maintaining the proposed permanent speed limit along Cambridge Avenue is believed to be both a cost effective option as it reduces the amount of signage required to implement by at least four signs and aligns to the existing infrastructure on Cambridge Avenue, such as the speed platforms and road narrowing, while supporting safety along this busy activity street.</li> </ul>
Approx. Cost	\$59,100
OPTION 2A MAP	



Bamford Street from its intersection with Cambridge Avenue to its intersection with Salisbury Street		
Stanford Street North from a point 45 metres south of its intersection with Lincoln Street to the school access		
Pete's Way Guildford Street Stanford Street South		

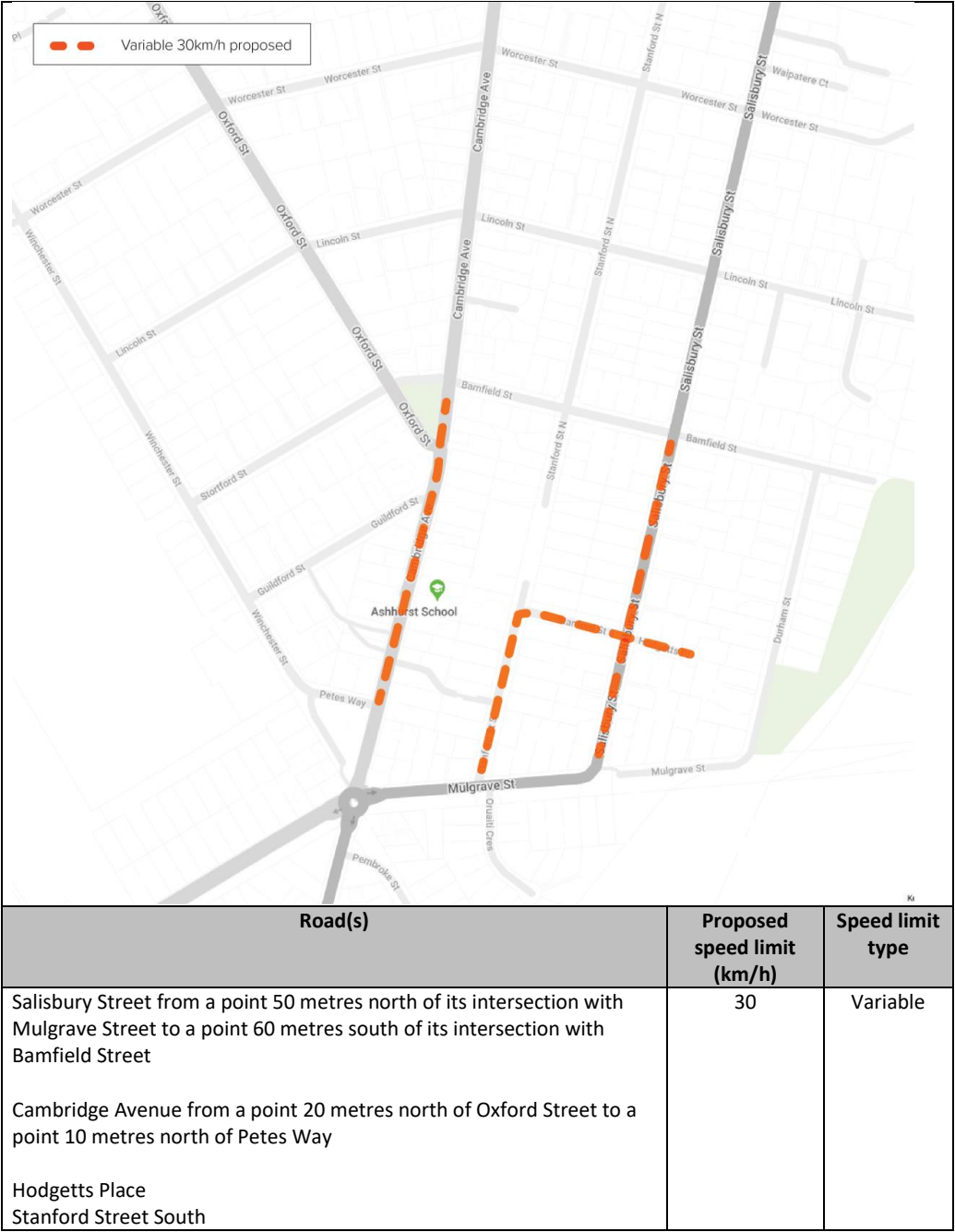
OPTION 2B		Replace consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"><li>- This option requires at least six electronic variable speed limit signs to remain within the traffic control devices (TCD) rules and best practice. This would incur a higher cost than the consultation proposal.</li><li>- While there are existing variable speed limits on Salisbury Street and Cambridge Avenue, the technology used is currently outdated. The Salisbury Street variable speed limit has also been recently changed to an active warning sign. Both signs would require replacing to remain within TCD rules, however where feasible the location of the poles has been maintained to gain some cost efficiencies.</li><li>- This option includes Hodgetts Place within the variable speed limit on Salisbury Street to reduce unnecessary signage.</li><li>- The size of the variable speed zone would be considered very large, which may require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li><li>- This option will not reap the benefits that a permanent speed limit will provide where there are pedestrians walking along and crossing the road at all times of the day – not just during school pick-up and drop-off times. Additionally, it contradicts the positive feedback from submitters that suggests that people are crossing Cambridge Avenue at all times of the day.</li></ul>	
Approx. Cost	\$97,000	
OPTION 2B MAP		



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Salisbury Street from a point 50 metres north of its intersection with Mulgrave Street to a point 60 metres south of its intersection with Bamfield Street	30	Variable
Cambridge Avenue from a point 30 metres north of its intersection with Mulgrave Street to a point 55 metres south of its intersection with Lincoln Street		
Winchester Street from a point 20 metres northwest of its intersection with Guildford Street to its intersection with Mulgrave Street		
Bamford Street from its intersection with Cambridge Avenue to its intersection with Salisbury Street		

Stanford Street North from a point 45 metres south of its intersection with Lincoln Street to the school access		
Hodgetts Place Pete's Way Guildford Street Stanford Street South		

OPTION 2C	A reduced version of the consultation proposal, but with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- This option would involve reducing the extent of the lower speed limits to solely cover the direct accesses to the school. This would include Cambridge Avenue, Stanford Street South, and Salisbury Street. These would all be covered by variable speed limits. The variable speed limit on Salisbury Street captures Hodgetts Place to reduce unnecessary signage. The variable speed limit stretches would still cover the main entrances to the school and the zebra crossings; however, this goes against overall best practice to capture the walking catchment of school children. It is the bare minimum approach.</li> <li>- This would require a minimum of five electronic variable speed limit signs to remain within TCD rules and best practice. Despite there being existing variable speed limit signs in place, the technology used for these variable speed limit signs is outdated and would still require replacement. This would incur higher costs than the existing proposal.</li> <li>- This option will not reap the benefits that a permanent speed limit will provide where there are pedestrians walking along and crossing the road at all times of the day – not just during school pick-up and drop-off times. Additionally, it contradicts the positive feedback from submitters that suggests that people are crossing Cambridge Avenue at all times of the day.</li> </ul>
Approx. Cost	\$97,000
OPTION 2C MAP	



<b>School area</b>	<b>Awapuni School, Riverdale School, West End School, Awatapu College, Manawatū Community High School - Manawatū Kura a Iwi</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all the local roads in the area. Additionally, there is a 40km/h variable speed limit on Botanical Road from College Street to Park Road, and on College Street extending either side of Botanical Road.
<b>Consultation proposal</b>	<p>We proposed to create a 30km/h variable speed limit on Rugby Street for Awapuni School for a 500-metre stretch. Additionally, we proposed permanent 30km/h speed limits on Alexander Street, Raleigh Street, Wyndham Street, Oban Place, Wainui Court, Dampier Avenue, Benbow Place, Rochester Street, and Bradford Place.</p> <p>We proposed to lower the permanent speed limit to 30km/h on Savage Crescent, Mansford Place, Nathan Place, Hodgens Place, Hammond Place, Townshend Place, and on Dittmer Drive and Slacks Road from Buick Crescent to a point 10 metres west of its intersection with Hampden Street.</p> <p>We proposed a 30km/h permanent speed limit for Long Melford Road from Pitama Road to a point 30 metres east of its intersection with Kapiti Place, Mudgway Place, Belgrave Place, Berkley Place, and for Pitama Road from its intersection with Slacks Road to a point 10 metres north of its intersection with Long Melford Road.</p> <p>We also proposed 30km/h permanent speed limits for Anzio Place, Busby Place, Adrien Way, Ngahere Court, Hartley Place, Buick Crescent, Hampden Street, Juliana Place, McDonald Place, Coronet Place, Rakino Place, Sharon Place, Akaroa Ave, Wikiriwhi Crescent, Wharite Place, Te Punga Place, Anaru Place, Huata Place, Katene Street, Henare Street, and Ruha Street.</p>
<b>Submission summary</b>	Sixty-three submissions were received in total. Thirty-five were in support, twenty-three were opposed, five were not sure.
<b>Recommendation</b>	Option 3A - Confirm consultation proposal combining 30km/h permanent speed limits and 30km/h variable speed limits, with an extension of the variable speed limit on Botanical Road to the Ferguson Street intersection.

#### Arguments in favour of the proposal

- Vehicles are travelling at high speeds during the hours children are walking to and from school, this new change will hopefully be safer for our kids in the area.
- Cars weekly, if not daily, speeding from College Street to Rugby Street along Alexander Street, sometimes as fast as 100km/h.
- Don't feel safe letting kids play on front lawn without supervision because the drivers speed past.
- Often witness drivers crossing the centre line as they speed around the corner; it's only a matter of time before a child or elderly person is seriously injured or killed.
- The average speed around Savage Crescent is less than 30km/h, and most drivers seem to drive slower than the speed limit.
- Permanent slow speed limits will be welcomed not only for the school but there are lots of kids living in the area.
- Many children use the Savage Reserve to play.



- Many roads around Riverdale School are small, dead-end roads where 50km/h is probably too fast anyway.
- Reducing speed limits is going to make roads safer and may encourage more children and people to walk or ride a bike. Those outcomes are good for everyone.
- Lower speed limits will help keep all pedestrians and cyclists safer in these areas, including those roads in the vicinity of the busy recreational areas beside the river.
- Botanical Road in particular is a dangerous place for parents and children trying to cross the street.
- Lots of walkers in the area, so lower speed limits would be welcome for them too.
- Speed of traffic along College Street and Cook Street makes it too risky for school age cyclists, even with the cycle lanes. Lowering the speed limit will help calm traffic and increase safety.
- Streets such as Dittmer Drive, Park Road and Wikiriwhi Crescent are key connecting streets for 1500 students in the cluster of schools, so it's good to see them included in the lower speed limits.

#### Arguments against the proposal

- A variable speed limit on Rugby Street is unnecessary because there is no access from the school directly to Rugby Street. Access to the school is actually from Rochester Street and Dampier Avenue.
- Don't reduce speeds at all times; only when students are travelling to/from school.
- Those that speed will continue to speed, a sign will not change that.
- Speed of average traffic isn't the problem, it's reckless driving by a few, lack of deterrents, and Council routing heavy traffic deliberately past schools, parks and swimming pools.
- Speed isn't the issue, it is students who just walk in front of vehicles, parents who cannot drive, and roads that are not suited for trucks.
- Without enforcement or physical protection to students there will be no improvement.
- Putting in speed humps to slow down traffic will only make drivers airborne, increasing the possibility of more damage to persons and property.
- 30km/h permanent speed limits around surrounding streets is way over the top.
- Current variable speed limits work well; permanent speed limits will not be effective just like with road works signs, they desensitise people to the possible dangers involved.
- Holidays would not need lowered speed limits.
- Should only be during school drop off and pick up times. Would be ignored at all other times.
- Streets are already busy so the speeds are naturally reduced during normal school arrival and leaving times, so no speed limit changes needed.
- Very few, if any, children walking or cycling on Long Melford Road. It is a through road from Maxwells Line and its unlikely traffic would respect a reduced speed limit.
- Those that don't obey the speed limit now won't obey the new speed limit either.
- Hartley Place is a short, no-exit road. Vehicles park both sides of the road, and parents always pick them up. A permanent speed limit defies logic; the electronic variable signs are a better use of money.
- Traffic lights on Botanical Road and College Street help with road safety. Additionally public transport is often used to bring children to school.
- Traffic will be brought to a crawl with slower speed limits.
- Speed is not the only factor in accidents – alcohol, unsafe vehicles, changing lanes without indicating, and roadworks also play a major part.
- Henare Street doesn't have a school on it, and parents don't park there to pick up kids. Reducing the speed limit on this road would be pointless.

#### Changes suggested by submitters

- The slow zones on these streets should be much larger to achieve the benefits being sought.
- Strongly recommend that Council lobbies Government to provide more Police to staff school zones and the courts to impose penalties on reckless drivers.
- The variable speed limit on Botanical Road/College Street should be permanent because the traffic is extremely fast.
- Include Keeling Street.
- Extend College Street variable speed limit to Thomson Street.
- Include Kingston Street, Burfield Place, Sheffield Street.
- Extend Park Road variable speed limit to Cook Street. The area is very busy in the morning and evening with school pickup, people accessing the Lido Aquatic Centre and the Esplanade.
- Extend Botanical Road variable speed limit to intersection with Rugby Street/Ferguson Street.

#### *Infrastructure (out of scope)*

- Install speed humps and/or curb planters to make sure the speed limit is enforced. The corners of Savage Crescent and Hodgens Place were suggested by submitters as the wide corners allow for high speed turns close to the park.
- Speed humps should be installed around school areas to physically force people to slow down.
- Needs traffic calming measures on either side of the Botanical Road corner to slow traffic.
- Convert temporary safe road crossing on Slacks Road to a permanent zebra crossing. Once the school patrols leave, there is no clear place for children to cross the road. Cars often go quite fast along this part of the road.
- Add a new permanent zebra crossing on Long Melford Road near to Mudgway Place. Winter sun-strike can cause visibility problems heading east. Children can have difficulty knowing if a driver has seen them.
- Need traffic calming measures on Pitama Road, Slacks Road, Long Melford Road and College Street. These are wide and straight roads that invite speed.

#### Analysis

##### *Awapuni School*

Submitters identified incidences of reckless driving well in excess of the current speed limit. While such speeding is not the focus of these proposals, the submitters' concern does recognise the greater harm to pedestrians caused by vehicles travelling at higher speeds. The risk of death when hit by a vehicle travelling at 50km/h is 80%, but at 30km/h this drops to 10%. While lower speed limits alone won't address drivers who flout the speed limit altogether, the lower speed limit will set an expectation for that road.

The arguments in opposition reiterate concerns expressed across most school areas, that a permanent speed limit reduction is unnecessary outside of school hours. While the primary benefit of a slower speed limit is to the students attending the school in that area, there are secondary benefits to all residents in the area through a slower and calmer road environment.

The suggestion to install speed humps or other infrastructure to physically slow traffic is a common suggestion. While the proposal is principally focused on roads where operating speeds are already low, there is an opportunity to install additional speed humps if necessary to improve the rate of

compliance. However, staff believe that the current average operating speeds are already sufficiently low to support the proposed speed limit.

*Manawātū Community High School - Manawātū Kura a Iwi*

The recognition that average speeds in Savage Crescent are already low supports the proposal to implement a 30km/h permanent speed limit.

*Riverdale School/Awatapu College/West End School*

This part of the proposal represents a significant cluster of schools in close proximity to each other. While the roads that have been identified for slower speed limits typically apply only to a specific school, they need to be considered as a whole to avoid fragmenting the local network. The roads affecting Riverdale School are linked to the roads affecting West End School and Awatapu College.

Submitters in favour of the proposals argued that many of the roads included are smaller, no-exit roads where 50km/h is not practical or achievable. A slower 30km/h speed limit is unlikely to create a negative impact on these roads.

Submitters emphasised the large number of children in the area accessing the schools, and that fast-moving vehicles make it feel unsafe for walking or cycling. Botanical Road in particular was identified as a dangerous road, but that a slower speed limit would likely make it feel safer and would encourage more people to walk or cycle.

Those who were opposed argued that permanent speed reductions were unnecessary and would be ignored outside of school times. Some submitters took issue with the scope of roads being included and argued that roads such as Long Melford Road had too few children using it to justify including it as a permanent 30km/h road. Submitters also expressed concerns that slower speed limits would increase congestion, and that people who ignore the speed limit would continue to ignore a lower speed limit.

A submitter suggested that Hartley Place is too short, with vehicles parked on either side, for vehicles to get up to a high speed, and therefore the speed limit should not be lowered, but instead an electronic variable speed limit should be installed. This 100-metre long cul-de-sac road would not be a good candidate for an electronic variable speed limit. Variable speed limits are most effective when the road is classified as a movement street under the One Network Framework; Hartley Place would be classified a place street, only being used to serve residences. However, a permanent speed limit is appropriate as part of the local area where children may walk to the schools in the vicinity.

A submitter argued that speed is not the only cause of accidents and gave several examples of other causes of accidents. There are indeed many causes of accidents, however this is not the issue being addressed with the proposed lower speed limits. The main concern is with the speed of vehicles travelling within the current speed limit. The chance of death for a pedestrian struck by a vehicle travelling at 50km/h is 80%, but it is only 10% if the vehicle is travelling at 30km/h. The intent of these proposals isn't to addressing speeding, but to make roads around schools safer by lowering speed limits.

A number of additional changes were suggested by submitters, including making the variable speed limit on Botanical Road/College Street permanent on account of the speed of traffic in that area. A permanent speed limit reduction on a main road such as Botanical Road and College Street is not recommended, as it is a movement street under the One Network Framework. The volume of traffic

and its place within the roading network means a permanent speed limit reduction is likely to have a significant negative effect on the performance of the network.

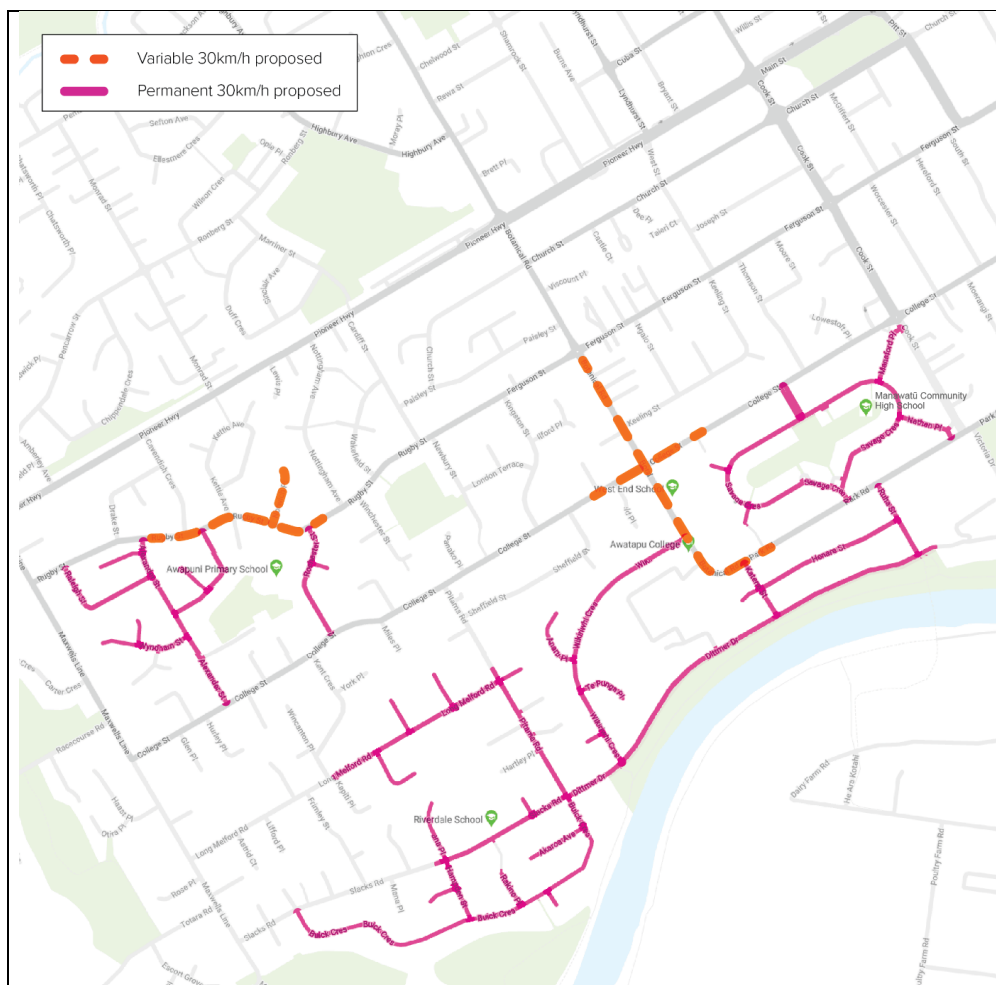
Submitters also suggested extending the variable speed limits on Park Road, Botanical Road and College Street. These can be considered, but the value of the variable speed limit can be diminished if the length is too long or disconnected from the reason for the lowered speed limit.

Several other roads were suggested for inclusion in the 30km/h zone, such as Kingston Street, Burfield Place, and Sheffield Street. These can be considered.

Some infrastructural changes were also suggested for consideration, including traffic calming measures on Pitama Road, Slacks Road, Long Melford Road and College Street, and changing or adding zebra crossings on Long Melford Road and Slacks Road. These will be referred to the Infrastructure Unit for further consideration but are out of scope for this proposal.

#### Options

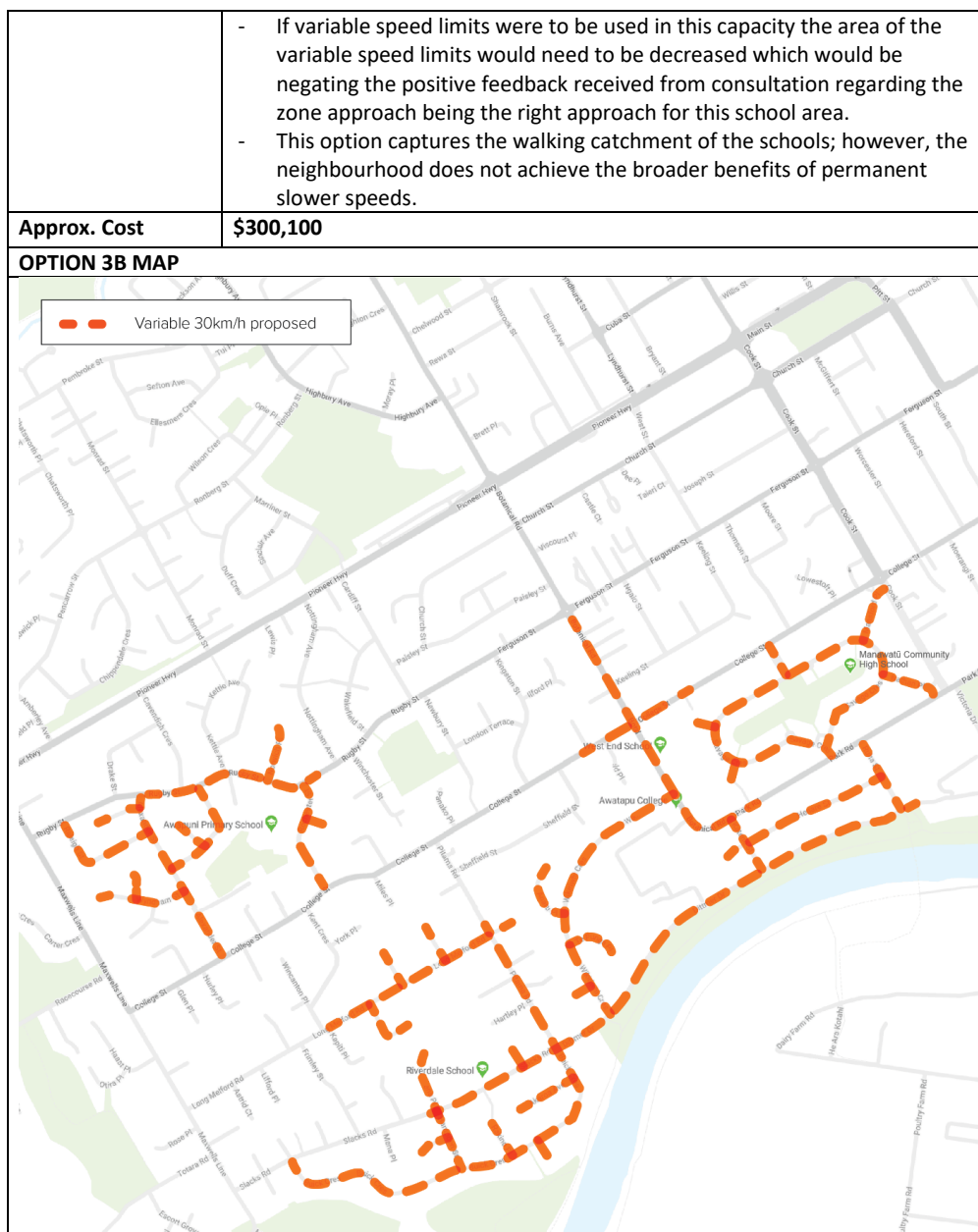
OPTION 3A	Confirm consultation proposal combining 30km/h permanent speed limits and 30km/h variable speed limits, with an extension of the variable speed limit on Botanical Road to the Ferguson Street intersection.
Justification	<ul style="list-style-type: none"> <li>- This aligns with positive commentary indicating that the areas selected are aligned to the behaviour of students, specifically noting the feedback that Dittmer Drive, Park Road and Wikiriwhi Crescent were noted as key connecting streets for students even though they are not directly adjacent to the school. This speaks to the benefits of the zone approach. It aligns with the best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speeds will be adhered to.</li> <li>- The existing proposal supports feedback from submitters suggesting that the permanent 30km/h speed limit will not only support the school kids around Manawatu Community High School - Manawātū Kura a Iwi, but also the kids living and using the area at all times of day, specifically Savage Reserve.</li> <li>- The extension of the variable speed limit on Botanical Road is technically feasible and will only incur additional cost for relocating the existing variable speed limit.</li> <li>- The variable speed limits on Park Road and College Street are not recommended to be extended as there is no clear visual differentiator at the proposed locations, and this may create challenges of recall during school times due to the increased length.</li> <li>- It is preferred that a continuous length of a variable speed limit be no longer than 700m, and if it is required a repeater may be necessary, increasing costs further as additional electronic signs would be required.</li> <li>- While there was feedback to remove the variable speed limit on Rugby Street as there is no direct school access on this road, there is a pedestrian crossing along Rugby Street indicating that it is a likely place for students to cross the road during school hours. Therefore, it has been maintained as part of this proposal.</li> </ul>
Approx. Cost	\$130,800
OPTION 3A MAP	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Botanical Road from a point 30 metres south of its intersection with Ferguson Street to its intersection with Park Road.	30	Variable
Park Road from its intersection with Botanical Road to a point 10 metres east of Katene Street		
College Street from a point 50 metres west of Botanical Road to a point 130 metres east of Botanical Road		
Rugby Street from a point 30 metres east of its intersection with Alexander Street to a point 50 metres northeast of its intersection with Rochester Street		
Norwich Place		

Slacks Road from its intersection with Buick Crescent to a point 10 metres west of its intersection with Hampden Street	30	Permanent
Long Melford Road from its intersection with Pitama Road to a point 30 metres east of its intersection with Kapiti Place		
Pitama Road from its intersection with Slacks Road to a point 10 metres north of its intersection with Long Melford Road		
Dittmer Drive	Juliana Place	
Ruha Street	Berkley Place	
Henara Place	Belgrave Place	
Huata Place	Mudgway Place	
Katene Street	Dampier Avenue	
Wikiriwhi Crescent	Benbow Place	
Anaru Place	Alexander Street	
Te Punga Place	Raleigh Street	
Wharite Place	Raleigh Service Lane	
Busby Place	Wyndham Street	
Hartley Place	Oban Place	
Adrien Way	Rochester Street	
Anzio Place	Bradford Place	
Buick Crescent	Savage Crescent	
Akaroa Avenue	Mansford Place	
Sharon Place	Nathan Place	
Rakino Place	Hodgens Place	
Hampden Street	Hammond Place	
Coronet Place	Townshend Place	
McDonald Place		

<b>OPTION 3B</b>	<b>Amend the consultation proposal with variable speed limits on all roads, with an extension of the variable speed limit on Botanical Road to Ferguson Street</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This goes against positive feedback towards the existing proposal of permanent speed limits that supports the use of this area by kids at all times of the days (as well as the Reserves).</li> <li>- To implement this option, at least 17 electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a significantly higher cost than the existing proposal. The variable speed limit on Rugby Street would also have to be extended beyond what was originally proposed to allow for appropriate signage installation. It also is not the intent of variable speed limits in this context to be used on local streets.</li> <li>- The size of the variable speed zone would be considered very large, which would require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement. This option is not recommended for a school speed area such as this.</li> </ul>



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Botanical Road from a point 30 metres south of its intersection with Ferguson Street to its intersection with Park Road.	30	Variable
Park Road from its intersection with Botanical Road to a point 10 metres east of Katene Street		
College Street from a point 50 metres west of Botanical Road to a point 130 metres east of Botanical Road		
Rugby Street from a point 30 metres east of its intersection with Alexander Street to a point 50 metres northeast of its intersection with Rochester Street		
Slacks Road from a point 40 metres west of its intersection with Raleigh Street to a point 50 metres northeast of its intersection with Rochester Street		
Long Melford Road from its intersection with Pitama Road to a point 30 metres east of its intersection with Kapiti Place		
Pitama Road from its intersection with Slacks Road to a point 10 metres north of its intersection with Long Melford Road		
Norwich Place		
Dittmer Drive		
Ruha Street		
Henara Place		
Huata Place		
Katene Street		
Wikiriwhi Crescent		
Anaru Place		
Te Punga Place		
Wharite Place		
Busby Place		
Hartley Place		
Adrien Way		
Anzio Place		
Buick Crescent		
Akaroa Avenue		
Sharon Place		
Rakino Place		
Hampden Street		
Coronet Place		
McDonald Place		
Juliana Place		
Berkley Place		
Belgrave Place		
Mudgway Place		
Dampier Avenue		
Benbow Place		
Alexander Street		
Raleigh Street		
Raleigh Service Lane		
Wyndham Street		
Oban Place		
Rochester Street		
Bradford Place		
Savage Crescent		
Mansford Place		
Nathan Place		
Hodgens Place		
Hammond Place		
Townshend Place		



<b>School area</b>	<b>Bunnythorpe School</b>
<b>Current speed limits</b>	The speed limit on roads within Bunnythorpe, including around the school, are 50km/h.
<b>Consultation proposal</b>	The proposal was to implement a permanent 30km/h speed limit on Baring Street and Dutton Street, being the streets most used to access the school.
<b>Submission summary</b>	Nine submissions were received. Six were in support, with three in opposition.
<b>Recommendation</b>	Option 4C - Confirm the consultation proposal, with extension of the permanent 30km/h speed limit onto Dixons Line and addition of a 30km/h variable speed limit on Campbell Road.

#### Arguments in favour of the proposal

- The proposed speed limits are essential for the safety of students because there is no pedestrian crossing to keep students safe from speeding cars and trucks.

#### Arguments against the proposal

- Signposted speed limits are worthless unless they are policed.
- Less than 100 students attend Bunnythorpe School. The permanent speed limit applies to two residential streets that have hardly anyone travelling along them most of the time, and no reported injuries.
- The proposal is overkill; we need to encourage people to teach their children to be safe around roads.
- The roads around Palmy have already become congested, slowing down cars. There is no need to do any more.

#### Changes suggested by submitters

- The proposed permanent speed limit should be extended to include Dixons Line from Campbell Road roundabout to Baring Street.

#### *Infrastructure (out of scope)*

- Painting the crossing area outside Bunnythorpe School and putting in a raised area would make it more visible and reduce speeds.
- Maybe school grounds should be fenced with drop off/pick up areas for when children arrive/depart.

#### Analysis

The arguments in opposition are generally applicable to most speed limit proposals – no restriction is likely to be effective without some degree of enforcement. However, the absence of enforcement is a weak argument for not reducing speed limits, as Council has no ability to influence the degree of enforcement that Police take.

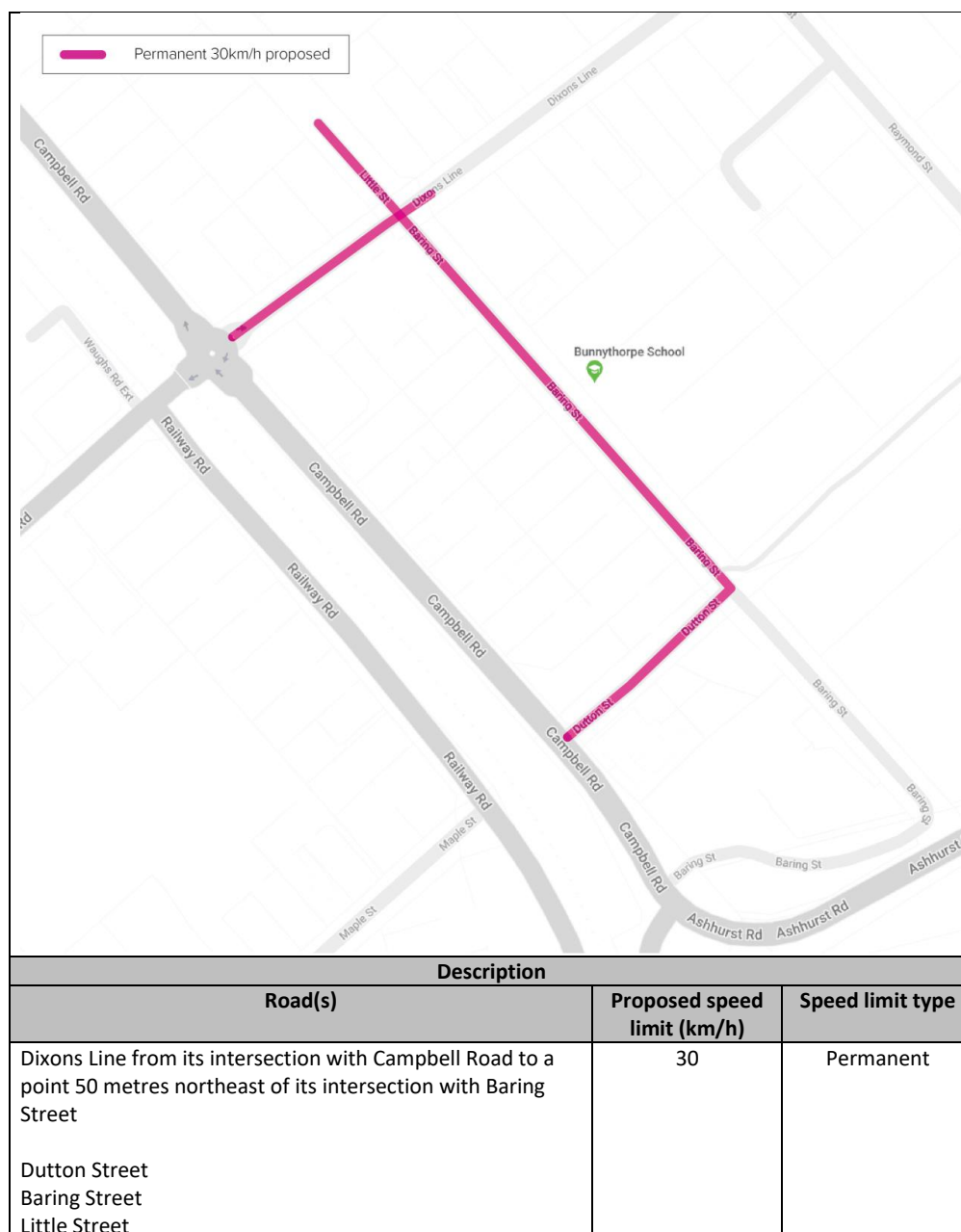
If operating speeds are already low, then a speed limit aligned to that speed will reinforce those operating speeds. Similarly, the low volume of cars using Dutton and Baring Streets are part of the reason why a permanent speed limit is appropriate here. Variable speed limits are more appropriate where there are high volumes of mixed traffic modes. The volume and nature of traffic on these streets suggest that a permanent speed limit is appropriate.

Road safety education is supported, but it does not need to be seen as “either/or.” Horizons Regional Council is responsible for road safety education within the region, and PNCC supports that programme. However, road safety education is not a substitute for considering speed limit changes.

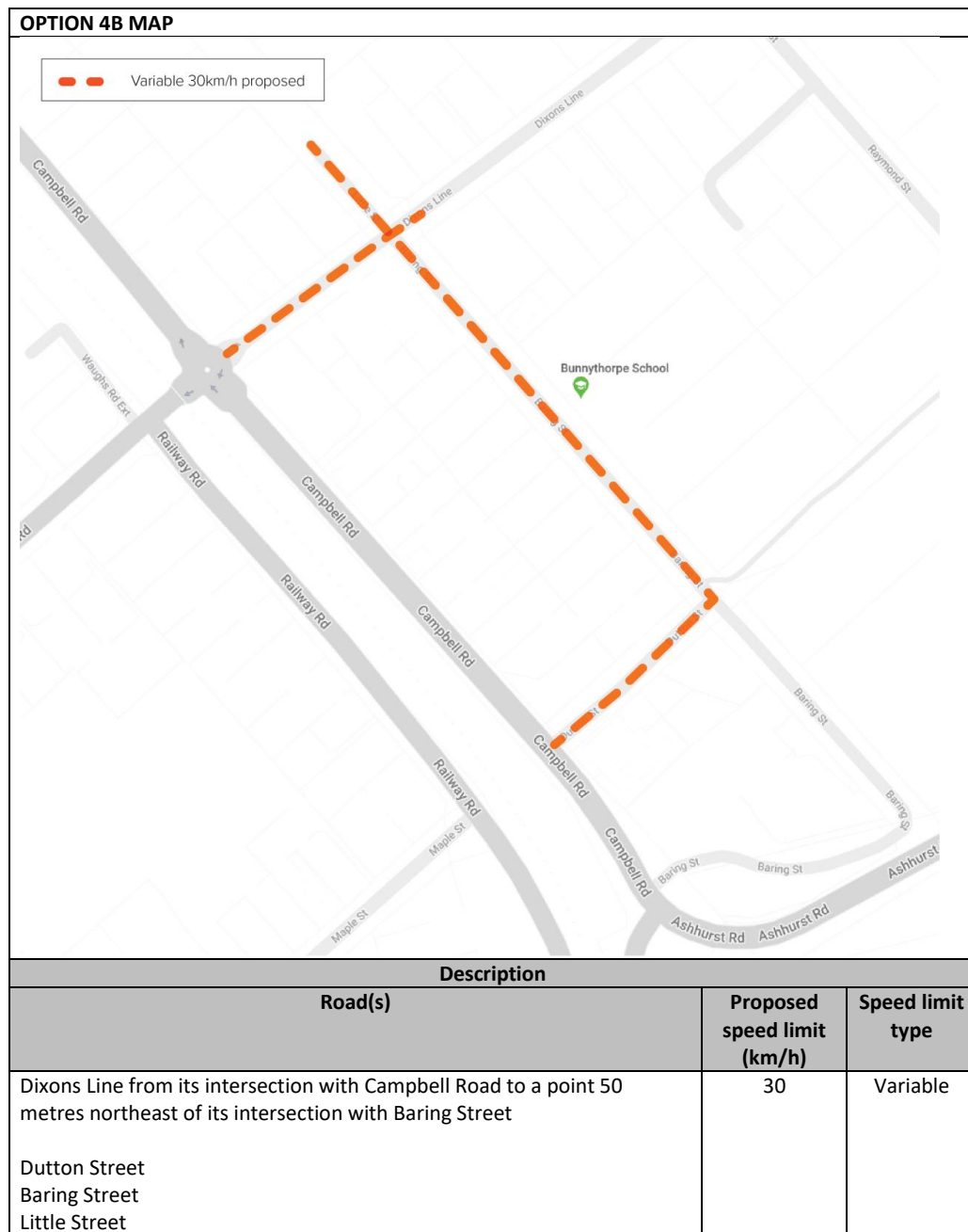
A case could be made for extending the proposed 30km/h speed limit to include Dixons Line from Campbell Road to Baring Street, to provide greater coverage for children walking to and from school. The same could also be said for Campbell Road through to Dutton Street.

Options

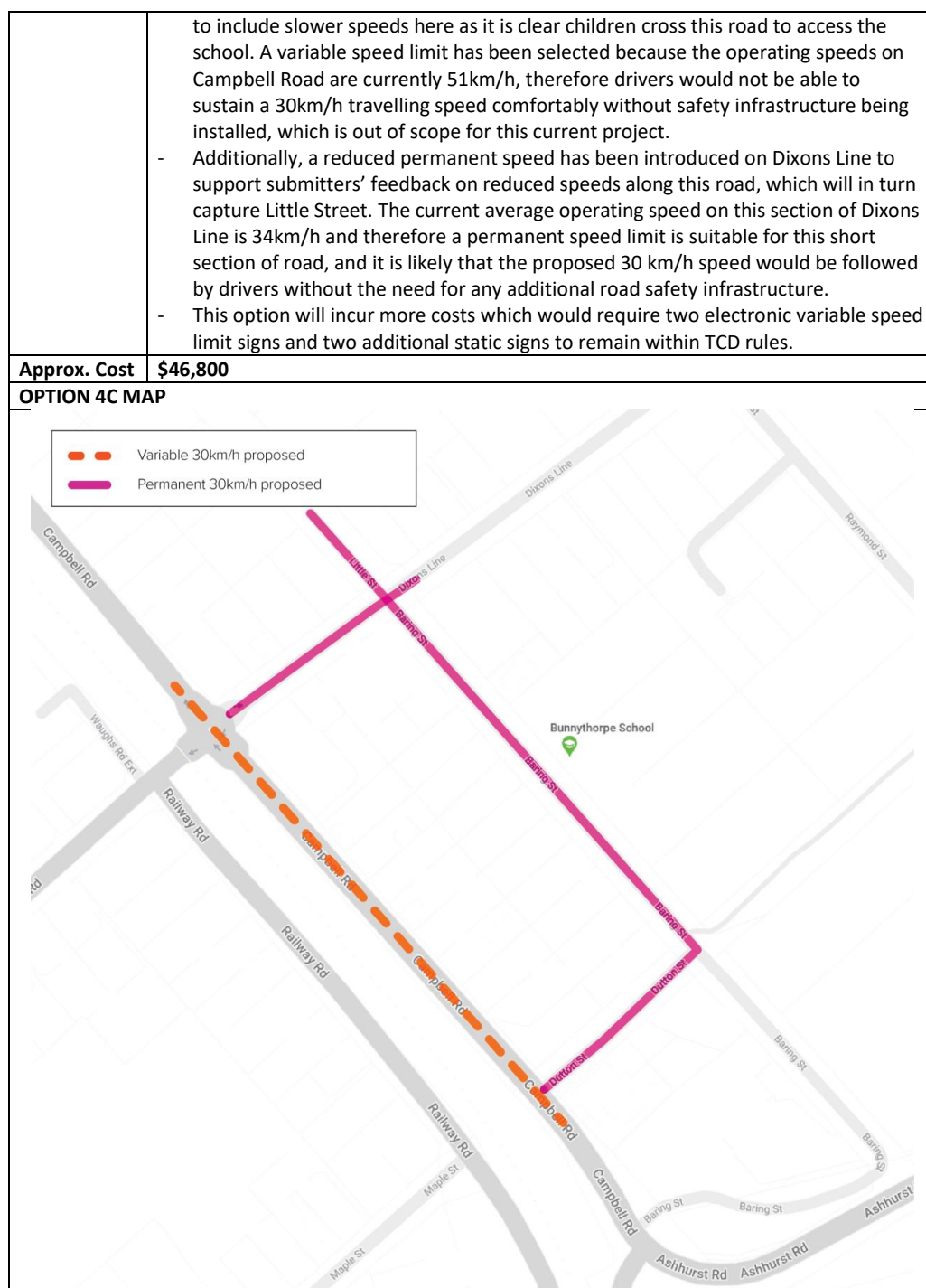
OPTION 4A	Confirm the consultation proposal, with the extension of the permanent 30km/h speed limit onto Dixons Line
Justification	<ul style="list-style-type: none"> <li>- This option supports the submitters feedback that was in favour of the proposed plan by lowering the speeds where there are no pedestrian crossing facilities for school children to use for safe crossing.</li> <li>- A reduced permanent speed has been introduced on Dixons Line to support submitters feedback on reduced speeds along this road, which will in turn capture Little Street. The current average operating speed on this section of Dixons Line is 34km/h and therefore a permanent speed limit is suitable for this short section of road, and it is likely that the proposed 30 km/h speed would be followed by drivers without the need for any additional road safety infrastructure.</li> <li>- This does not address Campbell Road for a speed reduction due to the high cost required to do so as a variable speed limit would be required, however submitters have identified Campbell Road as a crossing point for the school which is supported by the existing infrastructure in place.</li> </ul>
Approx. Cost	\$7,100
OPTION 4A MAP	



OPTION 4B	Amend the consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- This option requires the installation of three electronic variable speed limit signs as per the TCD which will incur more costs than the original proposal.</li> <li>- With the existing road purpose, environment, and operating speeds, these roads are more suited to permanent 30km/h speed limits rather than variables.</li> </ul>
Approx. Cost	\$57,400



<b>OPTION 4C</b>	Confirm the consultation proposal, with extension of the permanent 30km/h speed limit onto Dixons Line and addition of a 30km/h variable speed limit on Campbell Road
<b>Justification</b>	- A 30km/h variable speed limit is proposed on Campbell Road to capture the zebra crossing and would support the recommendations submitted through consultation



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Campbell Road from a point 50 metres northwest of its intersection with Dixons Line	30	Variable
Dixons Line from its intersection with Campbell Road to a point 50 metres northeast of its intersection with Baring Street	30	Permanent
Dutton Street Baring Street Little Street		

<b>School area</b>	<b>Carncot Independent School and Mana Tamariki</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	<p>We proposed creating a 30km/h variable speed limit outside the entrance of Mana Tamariki for a stretch of 420 metres.</p> <p>We also proposed creating permanent 30km/h speed limits on Vivian Street, Owen Street, Regent Street, Sydney Street and Rangitane Street.</p> <p>While not part of this proposal, consideration is being given separately to a 30km/h speed limit for the City Centre, including Broadway Avenue (which is the main road for accessing Carncot Independent School).</p>
<b>Submission summary</b>	Twelve submissions, seven in support, four opposed, one unsure.
<b>Recommendation</b>	Option 5A – confirm consultation proposal.

#### Arguments in favour of the proposal

- Supports an extensive 30km/h limit around schools and key commuting corridors; our streets should be designed for all ages to walk/cycle/drive in safety.
- Supports the lower speed limit and the installation of additional pedestrian crossings on Broadway Avenue.

#### Arguments against the proposal

- Speed limit signs won't deter drivers speeding up and down Vivian, Owen, Regent and Sydney Streets.
- Only supports variable speed limits, related to the times when students are likely to be using the area. The percentage of time when restrictions are required is less than 2.5% of the total hours in each year. It will ensure that ordinary reasonable people will ignore the law.

#### Changes suggested by submitters

##### *Infrastructure (out of scope)*

- The location of the existing island crossing outside Mana Tamariki should be moved or changed to a pedestrian crossing. It makes it difficult for vehicles turning right into the school.

#### Analysis

##### *Mana Tamariki*

None of the submissions received expressed any arguments in support of or in opposition to the proposal for Mana Tamariki. While the suggestion of moving or changing the existing island crossing on Grey Street can be considered, it is out of scope for this project.

##### *Carncot Independent School*

The arguments in favour of the proposal for Carncot Independent School identify that the benefits of slower speed limits are for more than just students. This point is sometimes under-valued by some submitters, who have suggested that the purpose of lower speed limits around schools is solely because they are accessed by students. While students travelling to and from school is a key focus,

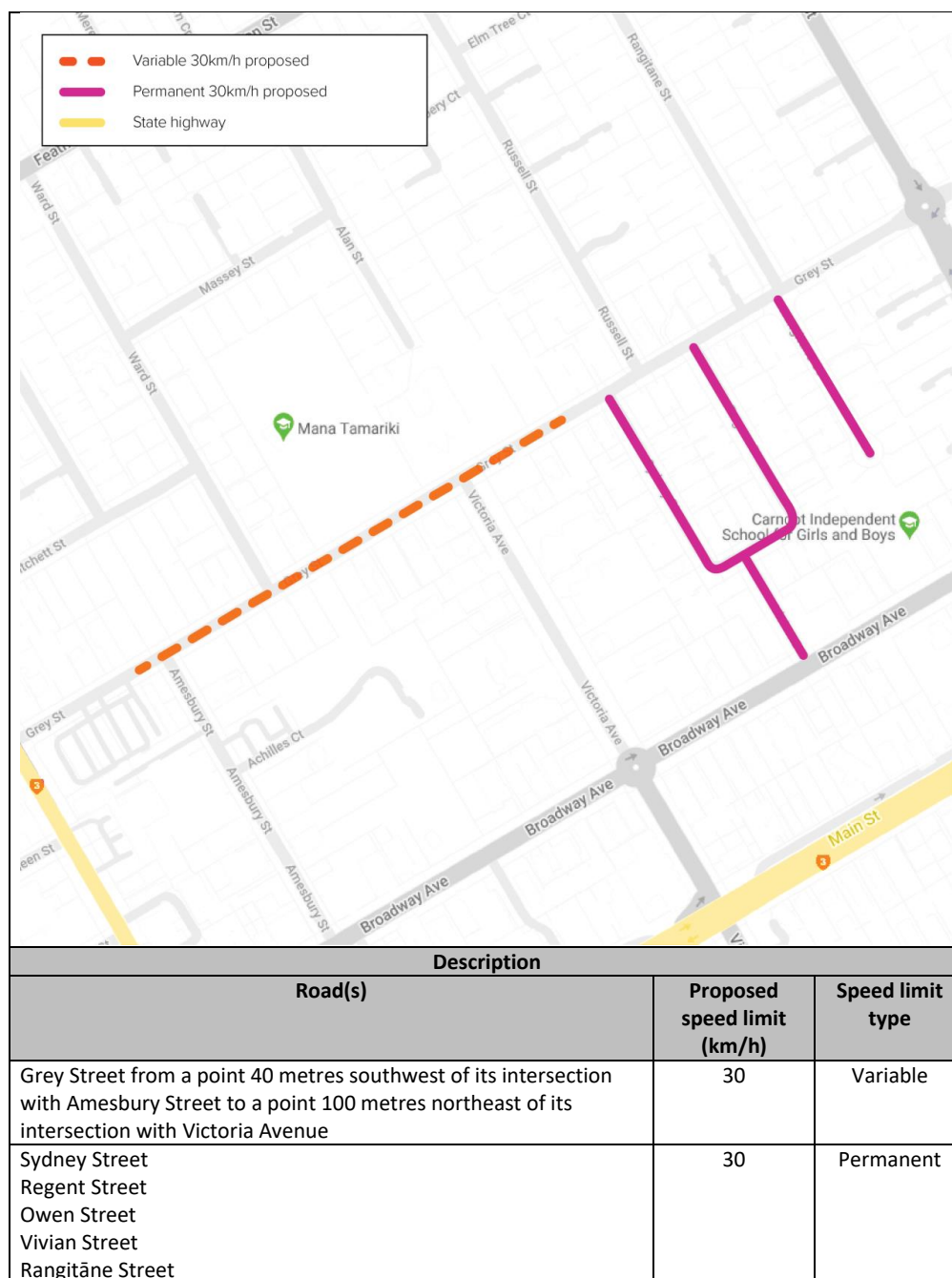
permanent slower speed limits also provide benefits for residents in the wider area, making it safer for all ages and degrees of mobility.

Some submitters argued that speed limit signs won't deter people who are speeding on these streets, often using them as a shortcut. While this may be correct, it was never intended to be used as a means to address reckless driving above the speed limit. Rather, for those who do obey speed limits (which is the vast majority, as demonstrated by the average operating speeds), lowering the speed limit will lower the risk of deaths or serious injuries in the event of an accident.

#### Options

OPTION 5A	Confirm consultation proposal
Justification	<ul style="list-style-type: none"> <li>- Submitters did not suggest any changes to the lengths of roads that should be included in the proposed changes.</li> <li>- This proposal with best practice for roads of this design and function as residential streets. Additionally, the operating speeds show that it is likely that the proposed permanent 30 km/h speed limit would be followed by drivers without the need for any additional road safety infrastructure.</li> <li>- The 30km/h permanent speed limits surrounding Carncot Independent School also aligns with the permanent 30km/h speed limit proposed on Broadway Avenue as part of the city centre speed changes, which are being consulted on currently.</li> </ul>
Approx. Cost	\$48,100
OPTION 5A MAP	





<b>OPTION 5B</b>	<b>Amend consultation proposal with variable speed limits on all roads, and connecting the roads into a variable speed limit zone</b>
<b>Justification</b>	- This option will require a minimum of three electronic variable speed limit signs which will incur a much higher cost than the existing proposal and is not the cost-effective solution.
<b>Approx. Cost</b>	<b>\$59,500</b>
<b>OPTION 5B MAP</b>	
 <p>Variable 30km/h proposed</p> <p>State highway</p>	

Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Grey Street from a point 40 metres southwest of its intersection with Amesbury Street to a point 60 metres northeast of its intersection with Rangitane Street  Sydney Street Regent Street Owen Street Vivian Street Rangitāne Street	30	Variable

<b>School area</b>	<b>Central Normal School, Queen Elizabeth College, Palmerston North Boys' High School</b>
<b>Current speed limits</b>	Existing 50km/h through all local roads in area. Existing 40km/h variable speed limit on Featherston Street from a point 10 metres east of its intersection with Bourke Street to a point 10 metres east of its intersection with Taonui Street. Existing 40km/h variable speed limit on Featherston Street from a point 20 metres west of its intersection with Pirie Street to a point 55 metres east of its intersection with Rangitikei Street.
<b>Consultation proposal</b>	The proposal was to create a 30km/h variable speed limit on Featherston Street in front of Central Normal School and Palmerston North Boys' School for a distance of 1km.  Additionally, we proposed to permanently lower the speed limit on Havill Street, Aroha Street, Argyle Avenue, Annandale Avenue, Beresford Street, Wellesbourne Street, Ivanhoe Terrace, Edgeware Road, and North Street to 30km/h.  Waka Kotahi is also proposing to create a 30km/h variable speed limit on Rangitikei Street to cover the frontage of Queen Elizabeth College from the intersection with Featherston Street to a distance 25 metres north of Guy Avenue.
<b>Submission summary</b>	Thirty-two submissions were received. Seventeen were in support, with thirteen opposed and two unsure.
<b>Recommendation</b>	Option 6C - confirm consultation proposal for lower permanent speed limits in local streets, with an extension to the proposed Featherston Street variable speed limit, and converting North Street to a shortened variable speed limit.

#### Arguments in favour of the proposal

- The reduced speed limit may shift some traffic away to Grey Street and Tremain Avenue.
- Dropping the speed limit permanently on Argyle Avenue, Aroha Street and surrounding streets would make it safer for children who walk and bike to the school.
- The timing, extents, and speed limits are important to make it safe for children to walk, scooter or cycle to school.
- The proposed change allows the residential area around the school to be more pleasant for non-car based transport and makes it more likely that we will walk or cycle in the area or into town.
- 30km/h balances mobility and safety in the area, as it improves safety with only a minimum effect on travel times. Over 1km, the drop in speed to 30km/h adds at most 48 seconds, and assuming lower normal speeds adds only 30 seconds to travel time. The argument that this would affect productivity is laughable.
- Slowing traffic down around schools is a good initiative, providing an environment that is perceived to be safer for pedestrians, children on scooters and bicycles.
- A wide extent is necessary. If speed restrictions only occur close to the school, then many children will still need to deal with higher speed roads on their way to school.
- Over the years there have been many near misses on Waldegrave and Wood Streets when cars are trying to get into the gap in traffic.

- The more area the slower speed limit covers the better. Be bold, we need to be safe to walk/bike. The car should no longer be the priority vehicle.
- Support permanent 30km/h speed limits in the area of Central Normal School, Palmerston North Boys' High School and Queen Elizabeth College. It supports school children and parents in using active travel. Also benefits residential streets through reduction in air and noise pollution, making the streets more attractive outside of school hours. The benefits of road safety exceed the inconvenience that motorists experience.

#### Arguments against the proposal

- Permanent 30km/h speed limit on North Street is unnecessary. It already has speed humps and the only difference a slower speed limit would make is to the residents who live on the street. Why punish them because students are using the area for a couple of hours a day? A good portion of the street is already allocated to buses to reduce the number of cars in the area.
- Don't support changes to the speed limits. The speed is naturally reduced during the normal school arrival and leaving times.
- In North Street, there is little pedestrian traffic crossing the road other than the intersection with Featherston Street. A speed limit change is not required in North Street because it is the back of Queen Elizabeth College and Palmerston North Boys' High School with the majority of pedestrians waiting for buses and not crossing the road.
- Changes make sense during school times only. Changing unnecessary streets around Central Normal School makes no sense. Change Rangitikei Street to 30km/h instead, which is busier than Argyle Avenue and Havill Street.
- People go slow anyway and getting to work anywhere on Rangitikei Street and Featherston Street is already time-consuming. Speed limits don't need to be dropped, it's just going to piss everyone off and make it more unsafe.
- Slowing down traffic on Rangitikei Street will increase traffic light avoidance so drivers start speeding down the side streets looking for a shortcut.
- There is no consistency – quiet streets like Argyle Avenue are slowed to 30 km/h permanently while busier streets like Featherston Street are variable.

#### Changes suggested by submitters

- Extend the 30km/h zone further down Featherston Street until Wood Street.
- Lower speed limits should be variable only, not permanent.
- Featherston Street should be widened into two lanes and speed limit lowered to 30km/h around school areas from Highbury to Roslyn.

#### *Infrastructure (out of scope)*

- Speed humps on some of the residential streets, as many are straight or used as a shortcut, and people accelerate down them.
- Traffic calming measures need to be installed to force drivers to comply.
- Traffic lights are needed at the intersection of North Street and Featherston Street.

#### Analysis

The proposal for this cluster attracted a large number of comments, reflecting the inclusion of three large schools in a single area. Many of the comments in support of the proposal noted that children are not safe at the moment, having to cross busy streets and taking risks with vehicles that may be

darting into gaps in traffic. Comments in support also acknowledged the benefits to the community beyond the school, with residents also benefitting from slower traffic outside school hours.

There were several comments about North Street, noting that as a back street with no direct access to the main gates for Palmerston North Boys' High School or Queen Elizabeth College, the main impact of lowering speed limits would be for residents in the area. Submitters commented that students only use the area for a couple of hours each day, and the area is mostly for buses rather than pedestrians.

Some submitters noted that people are already driving slowly, so a change to the speed limit isn't necessary and would just annoy motorists. However, this argument seems contradictory; if vehicles are already travelling slowly, then a lower speed limit won't change that fact. It will, however, require everyone to travel at the speed limit so that there is less conflict from people travelling faster than is safer.

There were concerns that lowering the speed limit on Rangitikei Street will encourage more people to use the side streets to avoid the slower speeds. However, the proposal already includes side streets so the area is treated consistently.

There was a question about why a variable speed limit is used on a busy street like Featherston Street, but a permanent speed limit is used on a quiet street like Argyle Avenue. In most cases, the streets which have been included already have low operating speeds. For some, like Featherston Street, a variable speed limit has been proposed because the primary purpose of the road is for the transport of people and goods (a "movement" street in the One Network Framework). Argyle Avenue, and other residential streets are primarily "place" streets. While people do use these roads to get to other places, they generally not used as a thoroughfare in the same way as busier roads like Featherston Street. The variable speed limit targets the reduction to the times when it is needed most.

Submitters suggested that speed humps should be installed on residential streets to slow down traffic, especially those who are using the roads as a shortcut. From the perspective of achieving compliance with speed limits, we will be monitoring average speeds if these speed limits are changed. Where these average speeds are inconsistent with the changed speed limits, then the Council may install infrastructure to slow down traffic. However these roads have been selected because they are already operating at or near the speed limits we are proposing, so minimal infrastructure is expected to be required.

Traffic lights for the intersection of Featherston Street/North Street can be investigated, but a decision would not be made as part of the speed limits process.

The Council is developing a separated cycleway for Featherston Street to be built in 2024. This will also have an impact on the speed profile of the road. However, widening the road, as suggested by a submitter, is not being considered.

## Options

<b>OPTION 6A</b>	<b>Confirm the consultation proposal, with an extension to the variable speed limit on Featherston Street</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- Maintaining the original proposal aligns to the positive sentiment displayed by submitters and this feedback demonstrates that the area selected for speed reduction is correct for the school catchment area and residents on these streets.</li> <li>- Noting however that there was feedback from submitters that permanent speed limits, such as on North Street, may not be appropriate given the nature of the road. Maintaining the proposal as originally consulted will not align to this feedback and may generate frustration with the community. It is however the most cost-efficient option.</li> <li>- The variable speed limit zone proposed on Featherston Street can be extended to Wood Street as per submitters comments, noting however this would increase cost as this is an existing variable speed limit that would require relocation.</li> </ul>
<b>Approx. Cost</b>	<b>\$112,100</b>
<b>OPTION 6A MAP</b>	



Description			
Road(s)		Proposed speed limit (km/h)	Speed limit type
Featherston Street from its intersection with Wood Street to a point 60 metres northeast of its intersection with Elizabeth Street		30	Variable
Nikau Street			
Havill Street	Wellesbourne Street	30	Permanent
Aroha Street	Ivanhoe Terrace		
Argyle Avenue	Edgeware Road		
Annandale Avenue	North Street		
Beresford Street			

**Note:** Waka Kotahi is also proposing to create a 30km/h variable speed limit on Rangitikei Street to cover the frontage of Queen Elizabeth College from the intersection with Featherston Street to a distance 25 metres north of Guy Avenue.



<b>OPTION 6B</b>	<b>Replace existing proposal with all variable speed limits, with minor alterations to North Street and Featherston Street</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- A full variable zone around these CBD schools creates some efficiencies with regards to signage as the variable speed limit would tie into the State Highway variable speed limit and variable speed limit proposed on Rangitikei Street. Noting however this would create a long variable speed limit zone which may generate need for additional signage to remind people within the zone of the variable speed limit speeds.</li> <li>- The variable speed limit zone proposed on Featherston Street can be extended to Wood Street as per submitters comments, noting however this would increase cost as there is an existing variable speed limit that would require relocation.</li> <li>- North Street can feasibly be installed as a variable speed limit that connects to the proposed variable speed limit on Featherston Street. It would however need to be shortened to follow best practice for variable speed limit implementation. It has been shortened to start just north of the park.</li> <li>- A full variable speed limit zone in this instance would rely on and require coordination from Waka Kotahi to make sure that the speed limits on the side roads and the speed on the State Highway are implemented at the same time to generate the intended cost savings.</li> <li>- A risk does exist given the State Highway proposed speed limits shown have not yet been confirmed by Waka Kotahi. In the instance the variable speed limit along Rangitikei Street is not installed, the speed limits on Beresford Street, Argyle Avenue, Havill Street, and Wellesbourne Street would either remain as they are currently, require re-consultation for a permanent speed change or they would require electronic speed signs to align to TCD rules, which would be excessive cost for the benefit it provides.</li> </ul>
<b>Approx. Cost</b>	<p><b>If Waka Kotahi confirm the proposed 30km/h variable speed limit on Rangitikei Street - \$101,300</b></p> <p><b>If Waka Kotahi do not confirm the proposed 30km/h variable speed limit on Rangitikei Street - \$235,100</b></p>
<b>OPTION 6B MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Featherston Street from its intersection with Wood Street to a point 60 metres northeast of its intersection with Elizabeth Street	30	Variable
North Street from its intersection with Featherston Street to a point 360 metres south of its intersection with Tremain Avenue.		
Nikau Street		
Havill Street		
Aroha Street		
Argyle Avenue		
Annandale Avenue		
Beresford Street		
Wellesbourne Street		
Ivanhoe Terrace		
Edgeware Road		

**Note:** Waka Kotahi is also proposing to create a 30km/h variable speed limit on Rangitikei Street to cover the frontage of Queen Elizabeth College from the intersection with Featherston Street to a distance 25 metres north of Guy Avenue.

<b>OPTION 6C</b>	<b>The middle ground – confirm consultation proposal for lower permanent speed limits in local streets, with an extension to the proposed Featherston Street variable speed limit, and converting North Street to a shortened variable speed limit</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This option captures the similar benefits and disadvantages of Option A and B, however provides a middle ground where North Street, which does have a wider design profile and faster operating speeds, is included as a variable speed limit instead of a permanent speed limit in response to concerns from submitters around the need for permanent speed limits generally.</li> <li>- The permanent speed limits in the local streets are the best approach for local roads and align to the submitters support for this and best practice for school catchments on local residential streets. Operating speeds are also low here so there will be little impact on drivers. This also means it is not reliant on the State Highway variable speed limit being implemented which for these schools presents a risk of delayed implementation.</li> <li>- As per Option 6A, the variable speed limit zone proposed on Featherston Street can be extended to Wood Street as per submitters comments, noting however this would increase cost as there is an existing variable speed limit that would require relocation.</li> <li>- As per Option 6B, a variable speed limit can feasibly be installed on North Street that connects to the proposed variable speed limit on Featherston Street. It would however need to be shortened to follow best practice for variable speed limit implementation. It has been shortened to start just north of the park.</li> </ul>
<b>Approx. Cost</b>	<b>\$124,500</b>
<b>OPTION 6C MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Featherston Street from its intersection with Wood Street to a point 60 metres northeast of its intersection with Elizabeth Street	30	Variable
North Street from its intersection with Featherston Street to a point 360 metres south of its intersection with Tremain Avenue		
Nikau Street		
Havill Street Aroha Street Argyle Avenue Annandale Avenue	Beresford Street Wellesbourne Street Ivanhoe Terrace Edgeware Road	30 Permanent

**Note:** Waka Kotahi is also proposing to create a 30km/h variable speed limit on Rangitikei Street to cover the frontage of Queen Elizabeth College from the intersection with Featherston Street to a distance 25 metres north of Guy Avenue.

<b>School area</b>	<b>Cloverlea School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area around Cloverlea School.
<b>Consultation proposal</b>	The proposal was to create a permanent 30km/h speed limit on Benmore Avenue from its intersection with Gillespies Line to a point 50 metres west from its intersection with Meadowbrook Drive. This proposed change includes the side streets coming off Benmore Avenue which includes Waltham Court, Cecil Place, Bendigo Street, Rosedale Crescent, Willowstream Grove, Herbert Avenue, Raglan Avenue, Geraldine Crescent, Bevan Place, Drury Street, Leslie Avenue, Hinau Place, and Rimu Place.
<b>Submission summary</b>	Twenty-seven submissions were received. Thirteen were in support, with ten opposed and four unsure.
<b>Recommendation</b>	Option 7A - amend the consultation proposal to include a 30km/h variable speed limit on Gillespies Line, and 30km/h permanent speed limits on the local roads on the western side of Gillespies Line.

#### Arguments in favour of the proposal

- Love the idea of reduced speed limits on Benmore Avenue. I have noticed horrific speeding down this street even with several speed humps in place, and my children are at high risk of being hit by a car.
- Many children walk to Cloverlea School from surrounding streets so support the proposed lower speed limits.

#### Arguments against the proposal

- Lowering the speed limit around Cloverlea School is a waste of money considering Benmore Avenue already has five speed humps so no one can get any speed up before the next one.
- Lower speed limits aren't needed when speed humps already slow down vehicles enough.
- Permanent reduced speed limits are ridiculous out of school hours, school holidays, weekends, it just sets people up to fail by driving the normal speed limit outside of school hours.
- Support variable speed limits during school hours, but permanent 30km/h seems like overkill.
- People will change their routes to avoid the slower speed limits and cause heavier traffic flows on other routes.
- The current variable speed limits provide ample awareness and safety around schools.
- The only streets that need to have the 30km/h restriction should be those that have access points into the school for about 300 metres from that point. Should not be 24/7. Not necessary at 6am or 6pm.
- Area is too wide. While kids may be walking/biking in the general area, they (especially the older ones) need to take a certain amount of responsibility for themselves.
- Have you tried driving at 30km/h? It's ridiculous.

#### Changes suggested by submitters

- Include Gillespies Line from Benmore Avenue to the over-ramp. Children cross Gillespies Line to get to school or go to the dairy.
- The proposed 30km/h on Benmore Avenue should be extended to just before Bennett Street rather than ending on the corner by Waltham Court.

*Infrastructure (out of scope)*

- Install speed humps on Raglan Avenue as traffic now uses this road to avoid speed humps on Herbert and Benmore Avenues. Children use the alleyway between Raglan Avenue and Geraldine Crescent and so they are in danger.
- Make the pedestrian crossing on Gillespies Line a raised crossing.

Analysis

Improvements have already been made in this area to reduce the impact of speeding vehicles with the installation of speed humps. However, some submitters commented that, in spite of these changes, some people continued to speed. This was noted as both an argument for and against the proposed speed limit changes. Those in support suggested that the speed limit changes are needed to further enforce the slower speeds, while those opposed indicated that slower speed limits are unnecessary if people are unable to exceed the speed limit on those roads where speed humps have been installed.

The main argument in favour of the proposed changes is concern for the safety of children who walk or cycle to school, noting that they often come from the surrounding streets so the speed limit changes need to reflect that area.

The opposing arguments identify the risk of “avoiding” slower routes and transferring congestion to other areas. This is similar to concerns about increase in travel times, which is often over-estimated. It is difficult to accurately estimate the change in congestion from such changes. However, Palmerston North’s road network is built on a grid which provides extraordinary resilience with alternative routes for most parts of the city. If some motorists do change their routes away from schools, this may add a small amount of additional time to their travel. However it is their choice whether they prefer the slight increase in travel distance more than the slight decrease in speed. If the consequence of those decisions is to reduce the amount of traffic around schools, then this will achieve the goal of improving the safety around those schools.

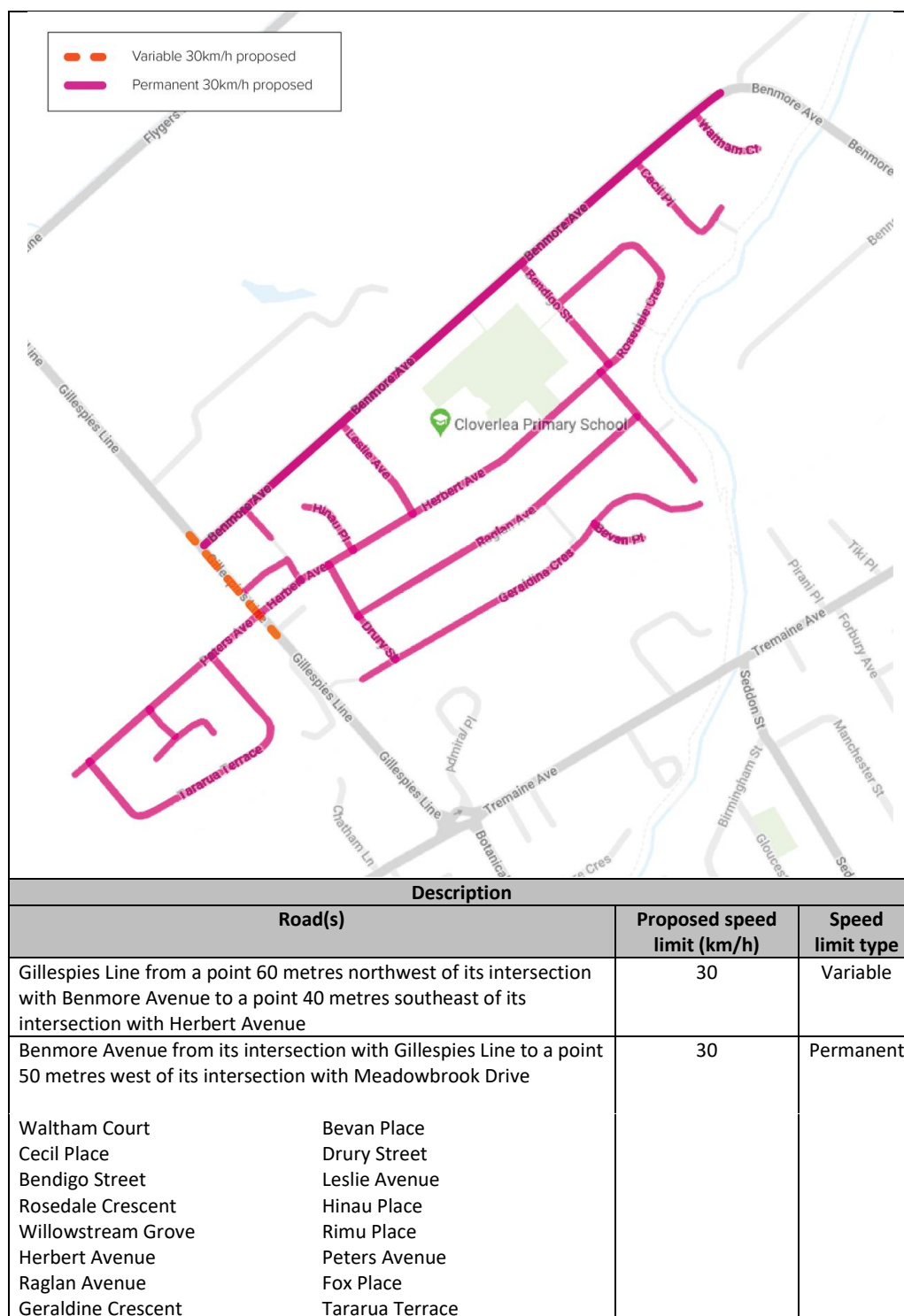
Some submitters felt that the proposed area of affected roads is too wide, and suggested that children, especially older children, need to take some responsibility for themselves. While road safety education is an important part of the equation, sometimes accidents do happen. If vehicles are travelling at slower speeds such as 30km/h, then the consequences when those accidents happen are more likely to be less severe, with a much lower risk of death. The proposals do not need to be considered as exclusive to other initiatives such as road safety education.

Options

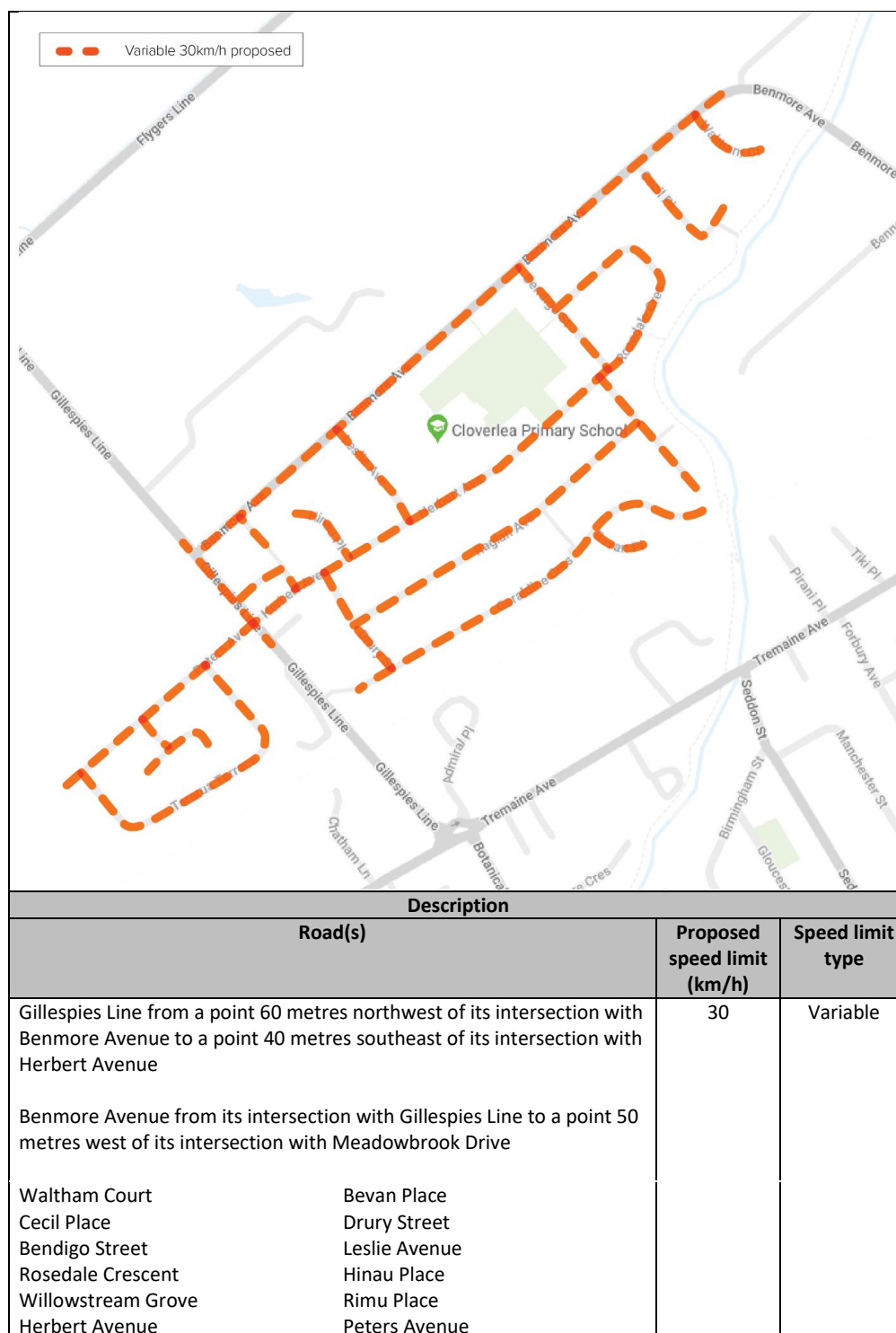
<b>OPTION 7A</b>	<b>Amend the consultation proposal to include a 30km/h variable speed limit on Gillespies Line, and 30km/h permanent speed limits on the local roads on the western side of Gillespies Line</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The permanent speed limits in the local streets are the best approach for local roads. Implementing permanent speed limits align with the submitters support for this, and best practice for school catchments on local residential streets. Operating speeds are also low here so there will be little impact on drivers.</li> <li>- Maintaining the original proposal aligns with the positive sentiment displayed by submitters and this feedback demonstrates that the area</li> </ul>

	<p>selected for speed reduction is correct for the school catchment area and residents on these streets.</p> <ul style="list-style-type: none"> <li>- Gillespies Line was suggested by submitters for inclusion due to the number of students regularly crossing and concern for their safety on this faster road. As it is a main road with the function of supporting many vehicle types and purposes, for a speed reduction to work here a variable speed limit would be required. It would be feasible to include a variable speed limit from Herbert Avenue to Benmore Avenue to capture the school crossings and bus stops. While this has cost implications of requiring two electronic signs and three static signs, the benefit this provides would make this a cost effective change.</li> <li>- Submitters also indicated that children walk to school on the opposite side of Gillespies Line and given the nature of the street designs being a singular entry road, it would be low cost and high benefit to extend the 30km/h permanent speed limit to the local streets opposite the school. The operating speeds on these roads are low, similarly to the original proposal, so a permanent speed limit of 30km/h is expected to have minimal impact on road users experience but will improve safety for residents and children alike.</li> </ul>
<b>Approx. Cost</b>	<b>\$51,100</b>
<b>OPTION 7A MAP</b>	





<b>OPTION 7B</b>	<b>Replace existing proposal with variable speed limits on all roads, including Gillespies Line and side streets to the west of Gillespies Line</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- Should the proposal be converted to a full variable speed limit zone around Cloverlea School, to be installed in alignment with TCD requirements, at least three electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> <li>- The size of the variable speed zone would be considered very large, which may require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li> <li>- This option captures the walking catchment of the school; however, the neighbourhood does not achieve the broader benefits of permanent slower speeds.</li> <li>- If variable speed limits were to be used for Cloverlea School, the extents would need to be significantly reduced to be effective, however there was clear indication from submitters feedback that the broader catchment was accurate for how the school is used. Converting to a smaller variable speed limit zone would directly negate this feedback from submitters and would not be following best practice for speed changes outside schools.</li> </ul>
<b>Approx. Cost</b>	<b>\$57,400</b>
<b>OPTION 7B MAP</b>	



Raglan Avenue	Fox Place		
Geraldine Crescent	Tararua Terrace		

<b>School area</b>	<b>College Street Normal School, Palmerston North Adventist Christian School, Palmerston North Intermediate Normal School, Palmerston North Girls' High School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area. There is an existing 40km/h variable speed limit on College Street from South Street to Linton Street, and from Morris Street to Union Street. There is also an existing 40km/h variable speed limit on Fitzherbert Avenue from a point 40 metres north of its intersection with Te Awe Awe Street to a point 40 metres north of its intersection with Palm Avenue, and on Park Road, from a point 40 metres east of its intersection with Batt Street to a point 90 metres east of its intersection with Linton Street.
<b>Consultation proposal</b>	We proposed lowering the existing 40km/h variable speed limits on College Street, Fitzherbert Avenue, and Park Road to a 30km/h variable speed limit.  We also proposed creating a new 30km/h variable speed limit on Pitt Street from the intersection with Church Street through to and including Ferguson Street from the intersection with Pitt Street to Linton Street.  We also proposed to create 30km/h permanent speed limits for Ferguson Street from Cook Street to Pitt Street, South Street, Linton Street from Ferguson Street to College Street, Chaytor Street, Snelson Street, Cleland Street, and McGiffert Street. We also proposed creating 30km/h permanent speed limits for Huia Street, Manawaroa Street and Graham Street near Palmerston North Girls' High School. We also proposed creating 30km/h permanent speed limits on Kensington Mews, Karaka Street, Marne Street, and Park Road from its intersection with Ake Ake Avenue to a point 60 metres west of its intersection with Union Street.
<b>Submission summary</b>	Fifty-five submissions, thirty-one in support and twenty-four opposed.
<b>Recommendation</b>	Option 8A - confirm consultation proposal with combined variable speed limits across the Park Road and Fitzherbert Avenue intersection as well as adding 30km/h permanent speed limits for Batt Street, Linton Street from College Street to Park Road, Hereford Street, Worcester Street, Moerangi Street, Marne Street from Park Road to Fitzherbert Avenue, Palm Avenue, Awatea Terrace, Seaton Court, Union Street, Ranfurly Street, Rolleston Street, Ada Street, Oxford Street, Morris Street, Milverton Avenue, and Colombo Street.

#### Arguments in favour of the proposal

- The proposed speed limit for South Street is badly needed.
- Noticed an increase in the number of speeding cars on South Street.
- Support the lowering of the speed limit around all schools to 30km/h.
- Increasing housing density on South Street will increase traffic hugely.
- As a former student of Palmerston North Girls' High School, a slower speed limit would be beneficial and encourage students to be aware.
- A lot of children ride their bikes on the road.
- High traffic volumes, especially on side streets like Marne Street.
- There is no need to drive any faster than 30km/h down Marne Street or other streets around College Street Normal School.

- Have had two cats killed on Marne Street by cars coming at speed around the corner from College Street. Worried about young children crossing when there is poor visibility due to the number of parked cars on the street.

#### Arguments against the proposal

- The current 40km/h speed limit is sufficient if it is enforced.
- Should only apply during peak times before and after school.
- Speed restriction won't fix the issue of excess car congestion.
- Traffic lights across from the school are good enough.
- School patrol crossings can be used.
- Slowing traffic on Ferguson Street will just slow down the ring road.
- Congestion during school times self-imposes a speed restriction anyway.
- Proposals are not about safety but an agenda to stop people using their cars.
- As a proportion of the number of trips each year, the number of crashes is a very low number.
- Reduced speeds aren't going to stop reckless drivers.
- Drivers won't respect a lower speed limit outside of school hours.
- Palmerston North Girls' High School is well covered by controlled crossings and traffic light intersections. There are ample controls in place currently.
- Drivers don't pay attention or act aggressively even though they must give way.
- There should be no issues outside of school times or holidays.
- School time only amounts to 3.3% of the total hours each year. Permanent speed limits will only result in high levels of non-compliance, just like road works around the country.
- All the changed speed limits should be variable, or pedestrian platforms with permanent warning signs for school zones.
- Most drivers are courteous and patient, but there are always some who have no regard for the safety of others. A speed reduction sign will not change their behaviour.

#### Changes suggested by submitters

- Include Hereford Street and Worcester Street in 30km/h zone.
- Include Batt Street and Linton Street from College Street through to Park Road.
- Include College Street from Cook Street to Fitzherbert Avenue in 30km/h zone.
- Seems to be less than the bare minimum. Should include Marne Street, Awatea Terrace, Seaton Crescent, and Palm Avenue.
- The proposed changes should be extended as far as possible – include Union Street, Morris Street, Oxford Street, Ada Street, Ranfurly Street and other streets on the other side of College Street. The catchment is much wider than what is shown.
- College Street should be permanent 30km/h from Fitzherbert Avenue to Albert Street.
- Park Road from Fitzherbert Avenue to Victoria Avenue, and all of Victoria Avenue, should be 30km/h.

#### *Infrastructure (out of scope)*

- Install speed humps on South Street to slow speed traffic.
- Convert crossing on College Street by Batt Street to permanent zebra crossing.
- Supports more pedestrian crossings particularly on Park Road – permanent crossing or traffic-light controlled.
- Suggests new raised platforms and kerb extensions for kea crossings on College Street and Park Road.

- Suggested new raised platforms on Ada Street, Marne Street, Oxford Street and Morris Street at intersections with College Street.
- Suggests new raised platforms on Marne Street (south) and Marne Street (north) and Kensington Mews where it intersects with Park Road.
- Pedestrian crossing should be painted on Park Road adjacent to Karaka Street.
- Keep clear grid should be painted outside Karaka Street to ease congestion for traffic leaving Karaka Street while school patrol has stopped traffic.

#### Analysis

##### *Palmerston North Christian Adventist School and Palmerston North Intermediate Normal School*

Submitters pointed to speeding cars and increasing housing density (South Street) as reasons to support the proposed lower speed limits. However, submitters opposed the changes on the basis that permanent speed limits were not necessary outside of peak hours (drop off and pick up times). Existing interventions were also identified – such as the traffic signals being installed on Ferguson Street as part of the current improvements to the intersection with Pitt Street, and school patrol crossings – as a reason why the speed limit doesn't need to be lowered. Submitters also suggested that the congestion caused at pick up and drop of times was sufficient to slow vehicles without the need for a speed limit change.

While the new traffic signals on Ferguson Street will improve safety, that doesn't mean that a reduction in the speed limit won't also help. The proposed variable speed limit on Pitt and Ferguson Streets will reinforce the slower speeds needed during school hours on a major street that children will use to access two schools in the area. School patrols provide an additional layer of protection but is not sufficient alone.

Submitters also challenged some of the data, suggesting that as a proportion of total trips the number of crashes was low. While that may indicate that travelling by car is generally safe, it doesn't alter the fact that accidents do happen, and when they happen at higher speeds the risk of death is much higher than at slower speeds.

Submitters were concerned about the impact of slower speeds on the ring road. The proposal is to implement a variable speed limit for Pitt and Ferguson Streets. This recognises the importance of these roads as part of the ring road, and that is why they are included as variable speed limits rather than permanent. Roads which are primarily "movement" streets such as Pitt and Ferguson Streets, should feature variable speed limits to minimise the impact across the network.

##### *Palmerston North Girls' High School*

Submitters pointed to the volume of traffic (on account of Fitzherbert Avenue as a major 4-lane road) and the size of the school as a reason why the lower speed limits are necessary. Submitters noted that a lot of students ride to school, and being a high school, some students also drive and park in neighbouring streets. For this proposal, the major roads of Fitzherbert Avenue and Park Road are treated with a variable speed limit, which recognises their place in the One Network Framework as movement streets. The smaller side roads are proposed for permanent 30km/h speed limits. Some submitters suggested that additional roads on the eastern side of Fitzherbert Avenue should also be included, such as Marne Street, Awatea Terrace, Seaton Crescent, and Palm Avenue.

The submitters in opposition noted that drivers won't adhere to lower speed limits outside of school hours. This argument is weaker when applied to the current proposal. Variable speed limits are proposed for Park Road and Fitzherbert Avenue, and the proposed permanent speed limits are on Manawaroa Street and a small section of Huia Street. These are not major thoroughfares, and average operating speeds are already low in recognition of their function as small access roads.

While there are good provisions for students crossing Fitzherbert Road, with a signalised pedestrian crossing, this doesn't preclude any other safety improvements, such as lowering the speed limit. Safety interventions are not exclusive and can be used in combination to improve outcomes.

#### *College Street Normal School*

The submissions in support of the proposed changes emphasised the concern for children crossing the road near College Street Normal School, especially when there are many cars parked on the side of the road and vehicles travel at speed around the corner.

Submitters opposed to the proposal expressed concern about the inclusion of permanent speed limits, suggesting that it was unnecessary to lower speed limits outside of school hours. Some submitters calculated the maximum amount of time when children are present and concluded that it represents a small fraction of the total time each year. Therefore, permanently lowering the speed limit was unnecessary.

While it is true that school hours (at the beginning and end of each school day) are a small portion of the total hours each year, vulnerable road users are able to make use of the road at any time. Variable speed limits are appropriate where the need to accommodate key transport routes outweighs the particular safety benefits of permanent lower speed limits. College Street, for instance, provides a key route for vehicles travelling across the city. There is a higher safety issue when children are travelling to and from school, and therefore the variable speed limit provides a suitable balance between both needs.

Submitters have queried why roads to the south of College Street are included, but roads to the north (such as Ranfurly, Ada, Oxford and Morris Streets) are not. There is merit in considering their inclusion, alongside revising whether there is a genuine need to include Park Road in this school zone.

A submitter observed that speed reduction signs won't change the behaviour of the small minority that has no regard for the safety of others. This is correct, and many people who intentionally speed will not be changed by a slower speed limit. However, these proposals are not aimed at people who deliberately and wilfully break the speed limit. Rather, they are focussed on setting a speed limit which is safe and which improves the chance of survivability in the event of an accident.

There are numerous suggestions for including new raised pedestrian platforms on several streets in the area. While such raised platforms can provide improved safety outcomes, especially around schools, the number suggested here is unlikely to be achievable within available resources. It also misunderstands the purpose of this proposal. While in some cases a proposed speed limit may need additional infrastructure to support the lower speed limit, these proposals are generally set where no additional infrastructure should be required.



## Options

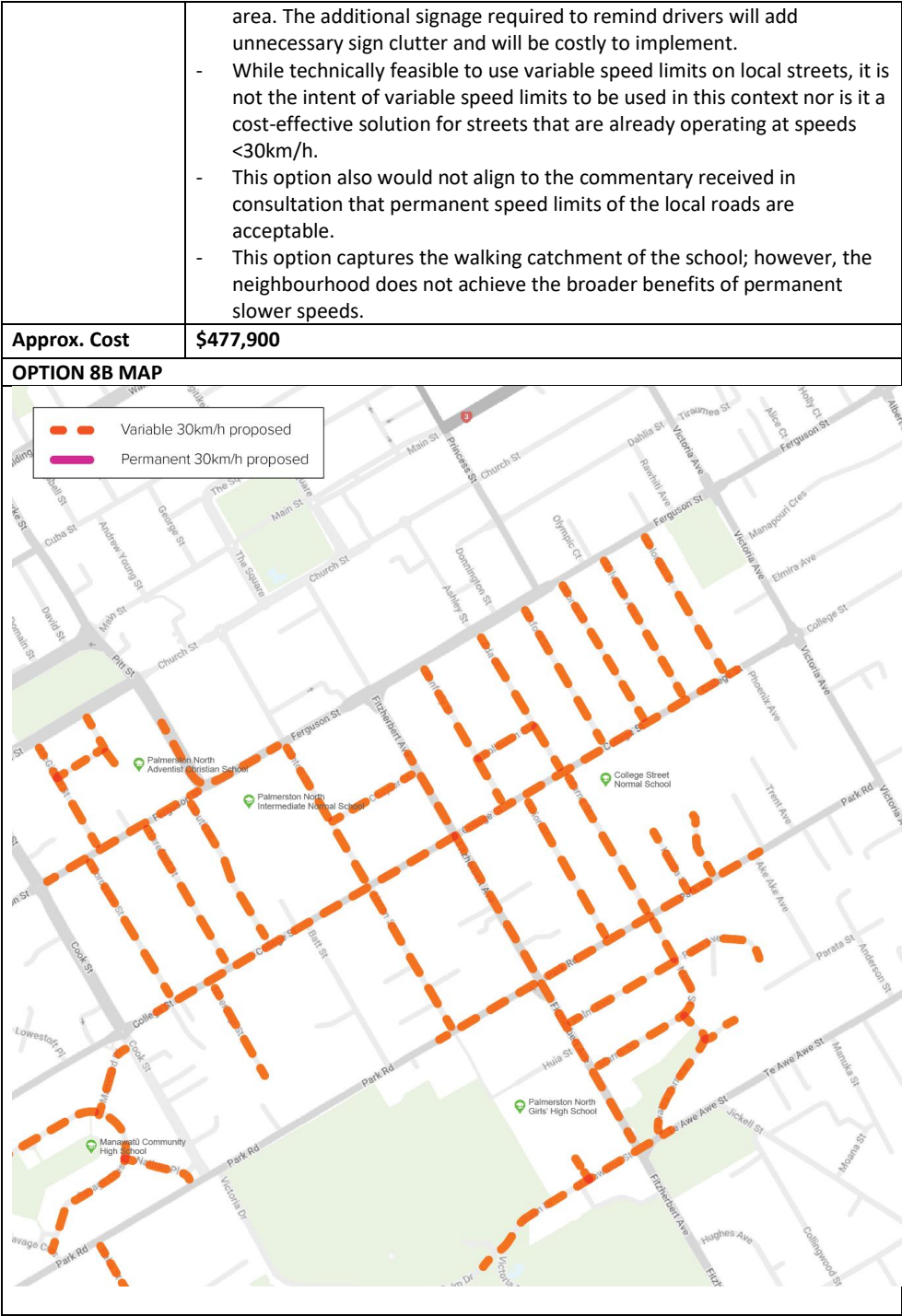
<b>OPTION 8A</b>	<b>Confirm consultation proposal with combined variable speed limits across the Park Road and Fitzherbert Avenue intersection as well as adding 30km/h permanent speed limits for Batt Street, Linton Street from College Street to Park Road, Hereford Street, Worcester Street, Moerangi Street, Marne Street from Park Road to Fitzherbert Avenue, Palm Avenue, Awatea Terrace, Seaton Court, Union Street, Ranfurly Street, Rolleston Street, Ada Street, Oxford Street, Morris Street, Milverton Avenue, and Colombo Street.</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This aligns to submitters feedback around additional roads that should have speed reductions. These roads are residential side streets with slow operating speeds and would be easy additions to the overall proposal and would provide a consistent speed limit and a safer environment for the students and active users on these streets at all times of the day. These also tie the reduced speeds together from the cluster as shown. Submitters have also indicated that this is a good combination of both variable speed limits and permanent speeds for the area based on how the roads are used for both drivers and pedestrians.</li> <li>- The additional roads, specifically Ranfurly Street, Ada Street, Oxford Street, Morris Street, Milverton Avenue and Colombo Street are close to the CBD. This extension of the slow speeds makes sense as it aligns with the current 30km/h CBD proposal which is out for consultation from 30<sup>th</sup> September. Should the CBD speed reduction get approved, this would tie together as a network well, noting that it is not reliant on the CBD speed limit proposal being approved to be implemented.</li> <li>- This collective area would create a zone effect for the block bounded by the major arterial roads and aligns with the best practice approach of a network assessment.</li> <li>- Park Road was proposed as an initial short section of variable speed limit. In an effort to minimise signage costs and possible confusion and clutter around intersections where a variable speed limit area across an intersection would make sense, the full intersection has been captured.</li> </ul>
<b>Approx. Cost</b>	<b>\$233,000</b>
<b>OPTION 8A MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
College Street from a point 80 metres west of South Street to a point 80 metres east of Linton Street	30	Variable
College Street from a point 20 metres east of Morris Street to a point 10 metres east of Union Street		
Fitzherbert Ave from a point 40 metres north of Te Awe Awe Street to a point 90 metres north of Park Road		
Park Road from a point 40 metres east of Batt Street to a point 40 metres east of its intersection with Cremorne Avenue		
Pitt Street from a point 90 metres south of its intersection with Church Street to its intersection with Fergusson Street		

Ferguson Street from its intersection with Pitt Street to a point 30 metres west of its intersection with Linton Street		
Ferguson Street from its intersection with Cook Street to its intersection with Pitt Street	30	Permanent
Linton Street from Ferguson Street to Park Road		
<div> <div>South Street</div> <div>Hereford Street</div> <div>Worcester Street</div> <div>Moerangi Street</div> <div>Batt Street</div> <div>Chaytor Street</div> <div>Snelson Street</div> <div>Cleland Street</div> <div>McGiffert Street</div> <div>Kensington Mews</div> <div>Karaka Street</div> <div>Marne Street</div> <div>Union Street</div> </div> <div> <div>Ranfurly Street</div> <div>Rolleston Street</div> <div>Ada Street</div> <div>Oxford Street</div> <div>Morris Street</div> <div>Milverton Avenue</div> <div>Colombo Street</div> <div>Manawaroa Street</div> <div>Graham Place</div> <div>Awatea Terrace</div> <div>Seaton Court</div> <div>Palm Avenue</div> </div>		

<b>OPTION 8B</b>	<b>Amend consultation proposal with variable speed limits on all roads, including the roads added in option 8A. This includes the extension of the variable speed limits on Fitzherbert Avenue and College Street.</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- To make the full zone a variable speed limit, several changes would be needed to make this feasible such as: <ul style="list-style-type: none"> <li>o Shifting the existing variable speed limit on Fitzherbert Avenue further south to capture the Manawaroa Street entrance. This will reduce the cost efficiency made by maintaining the existing location.</li> <li>o Capturing the additional streets east of Fitzherbert Avenue will require additional electronic signs to tie in to the variable speed limit zone and provide repeaters due to the length of Marne Street. This will increase costs.</li> </ul> </li> <li>- If variable speed limits were to be used for College Street Normal School, the extents would need to be significantly reduced to be effective, however there was clear indication from submitters feedback that the broader catchment was accurate for how the school is used, evident in the requests for more streets to be included. Converting to a smaller variable speed limit zone would directly negate this feedback from submitters and would not be following best practice for speed changes outside schools.</li> <li>- A full variable speed limit zone would be feasible using the original proposal, however, would incur at least 18 electronic variable speed signs, and some static signage. Noting that this would be combined with other nearby schools as shown in the map.</li> <li>- The size of the variable speed zone would be considered very large, which may require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large</li> </ul>



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
<p>College Street from a point 40 metres southwest of its intersection with Worcester Street to a point 20 metres northeast of its intersection with Colombo Street</p> <p>Fitzherbert Avenue from a point 40 metres north of its intersection with Chaytor Street to a point 30 metres south of its intersection with Te Awe Awe Street</p> <p>Park Road from a point 40 metres east of Batt Street to a point 40 metres east of its intersection with Cremorne Avenue</p> <p>Pitt Street from a point 90 metres south of its intersection with Church Street to its intersection with Ferguson Street</p> <p>Ferguson Street from its intersection with Pitt Street to a point 30 metres west of its intersection with Linton Street</p> <p>Ferguson Street from its intersection with Cook Street to its intersection with Pitt Street</p> <p>Linton Street from Ferguson Street to Park Road</p> <p>South Street                      Ranfurly Street</p> <p>Hereford Street                  Rolleston Street</p> <p>Worcester Street                Ada Street</p> <p>Moerangi Street                Oxford Street</p> <p>Chaytor Street                  Morris Street</p> <p>Snelson Street                  Milverton Avenue</p> <p>Cleland Street                  Colombo Street</p> <p>McGiffert Street                Manawaroa Street</p> <p>Kensington Mews                Graham Place</p> <p>Karaka Street                  Awatea Terrace</p> <p>Marne Street                    Seaton Court</p> <p>Union Street                    Palm Avenue</p>	30	Variable

<b>School area</b>	<b>Cornerstone Christian School, Te Kura Kaupapa Māori o Manawatū</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	We proposed to create a permanent 30km/h speed limit on Peter Hall Drive, Walnut Grove, Sunshine Place, Suzanne Grove, Colonial Place, Hillcrest Drive, Gladys Place, Cargill Grove, Lyndale Place, Cumberland Place, and Rhodes Drive from Peter Hall Drive to just west of its intersection with Hillcrest Drive. In addition, we proposed to lower the existing 40km/h variable speed limit to a 30km/h variable speed limit on Mihaere Drive and Roberts Line, and extending it to include the kea crossing.
<b>Submission summary</b>	Eleven submissions received, three in support, six opposed, two unsure.
<b>Recommendation</b>	Option 9A - Confirm the consultation proposal.

#### Arguments in favour of the proposal

- None given.

#### Arguments against the proposal

- Variable speed limits instead of permanent 30km/h speed limits will achieve greater compliance over the long term.

#### Changes suggested by submitters

- Change Peter Hall Drive from permanent to variable because it is a wide-laned road with high use outside of school hours.

#### Infrastructure (out of scope)

- Put in a raised pedestrian crossing on Roberts Line.
- Install speed humps to force drivers to slow down.

#### Analysis

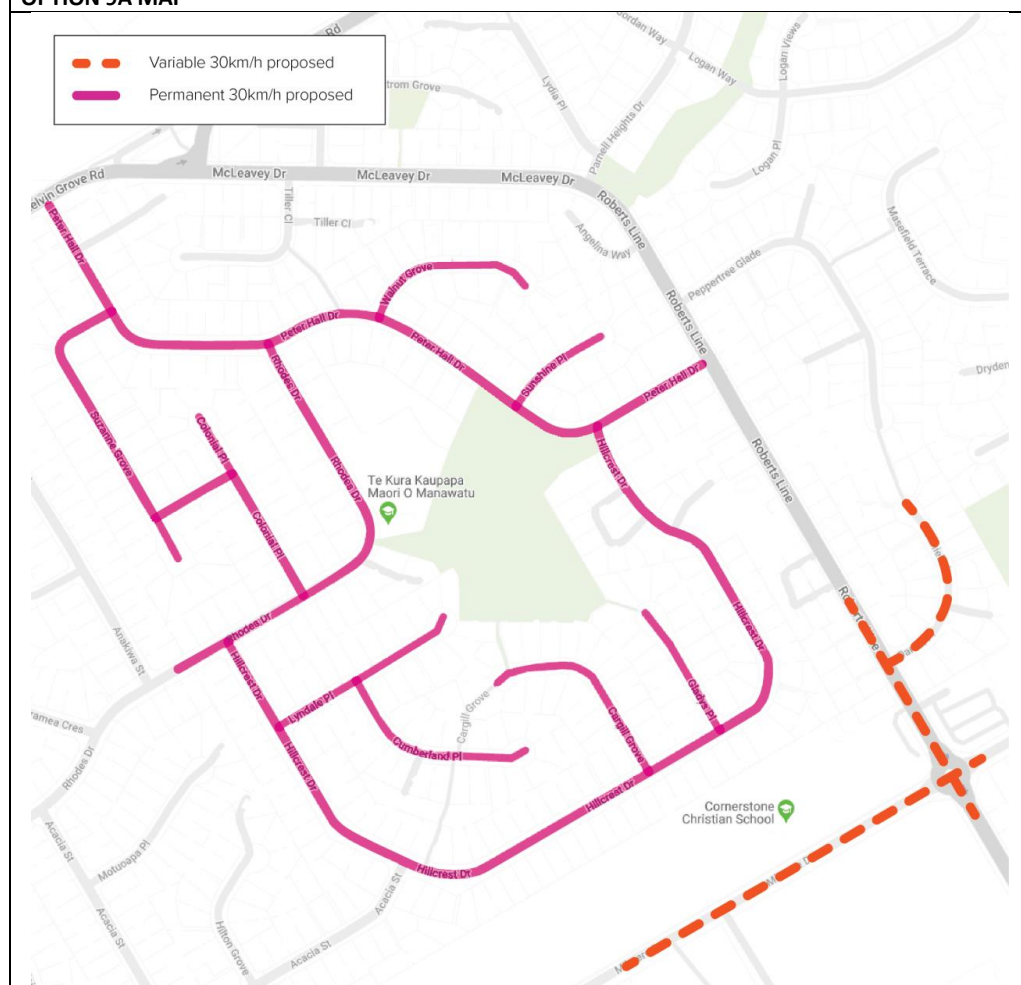
There were very few submissions on these proposals, and a total of three in support though none provided any arguments in favour of the proposals. The arguments in opposition suggested that permanent speed limits would not achieve good compliance, and that variable speed limits would be more appropriate.

Variable speed limits are most effective when they are used on roads primarily used for movement of goods and people. The roads included in the proposal are predominantly residential roads. While some are quite wide, such as Peter Hall Drive, their principal purpose is to provide access to the houses in the area, while a secondary purpose is to provide access for vehicles to major roads such as Kelvin Grove Road or Roberts Line. Variable speed limits on all these roads would be a complex and costly process that is unlikely to be justified.

## Options

OPTION 9A	Confirm the consultation proposal
Justification	<ul style="list-style-type: none"> <li>- The permanent speed limits in the local streets are the best approach for these low speed local roads for both consistency, broader neighbourhood benefits, and cost effectiveness. We acknowledge the concerns from submitters that compliance will be poor, however the existing operating speeds in this school area are already low so we anticipate that compliance will be good as the road is already designed and operating at these lower speeds without the need for safety infrastructure changes.</li> <li>- The variable speed limits are existing so cost efficiencies can be made as only the sign element needs to be replaced.</li> </ul>
Approx. Cost	<b>\$29,500</b>

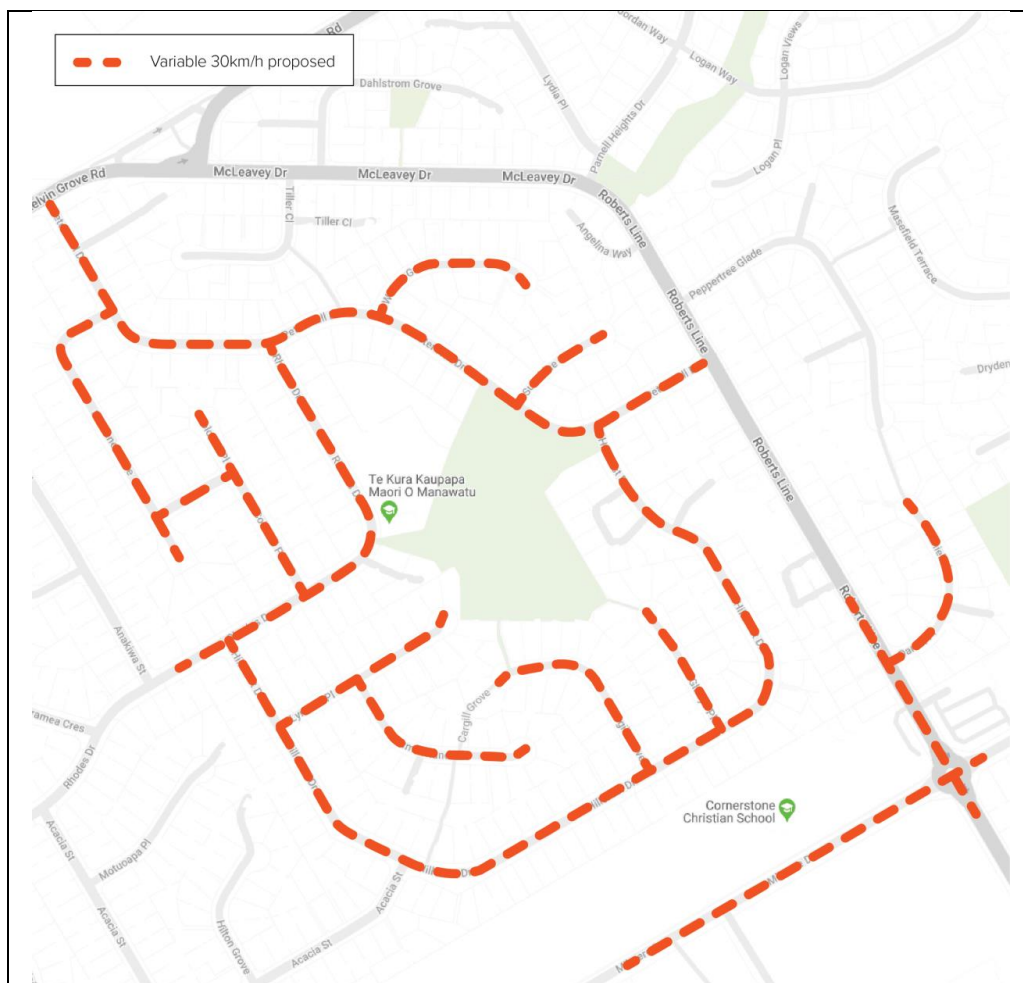
## OPTION 9A MAP



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Roberts Line from a point 40 metres south of Mihaere Drive to a point 80 metres north of Daniel Place	30	Variable
Mihaere Drive from a point 350 metres west of Roberts Line to its intersection with Roberts Line		
Fernlea Ave from a point 40 metres east of Roberts Line to its intersection with Roberts Line		
Daniel Place		
Rhodes Drive from Peter Hall Drive to a point 50 metres west of its intersection with Hillcrest Drive	30	Permanent
Peter Hall Drive		
Walnut Grove		
Sunshine Place		
Suzanne Grove		
Colonial Place		
Hillcrest Drive		
Gladys Place		
Cargill Grove		
Lyndale Place		
Cumberland Place		

OPTION 9B	Replace consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- Should the proposal be converted to a full variable speed limit zone around this cluster of schools, to be installed in alignment with TCD requirements, at least seven electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> <li>- The size of the variable speed zone would be considered very large, which may require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li> <li>- This option captures the walking catchment of the school; however, the neighbourhood does not achieve the broader benefits of permanent slower speeds.</li> </ul>
Approx. Cost	\$79,800
OPTION 9B MAP	

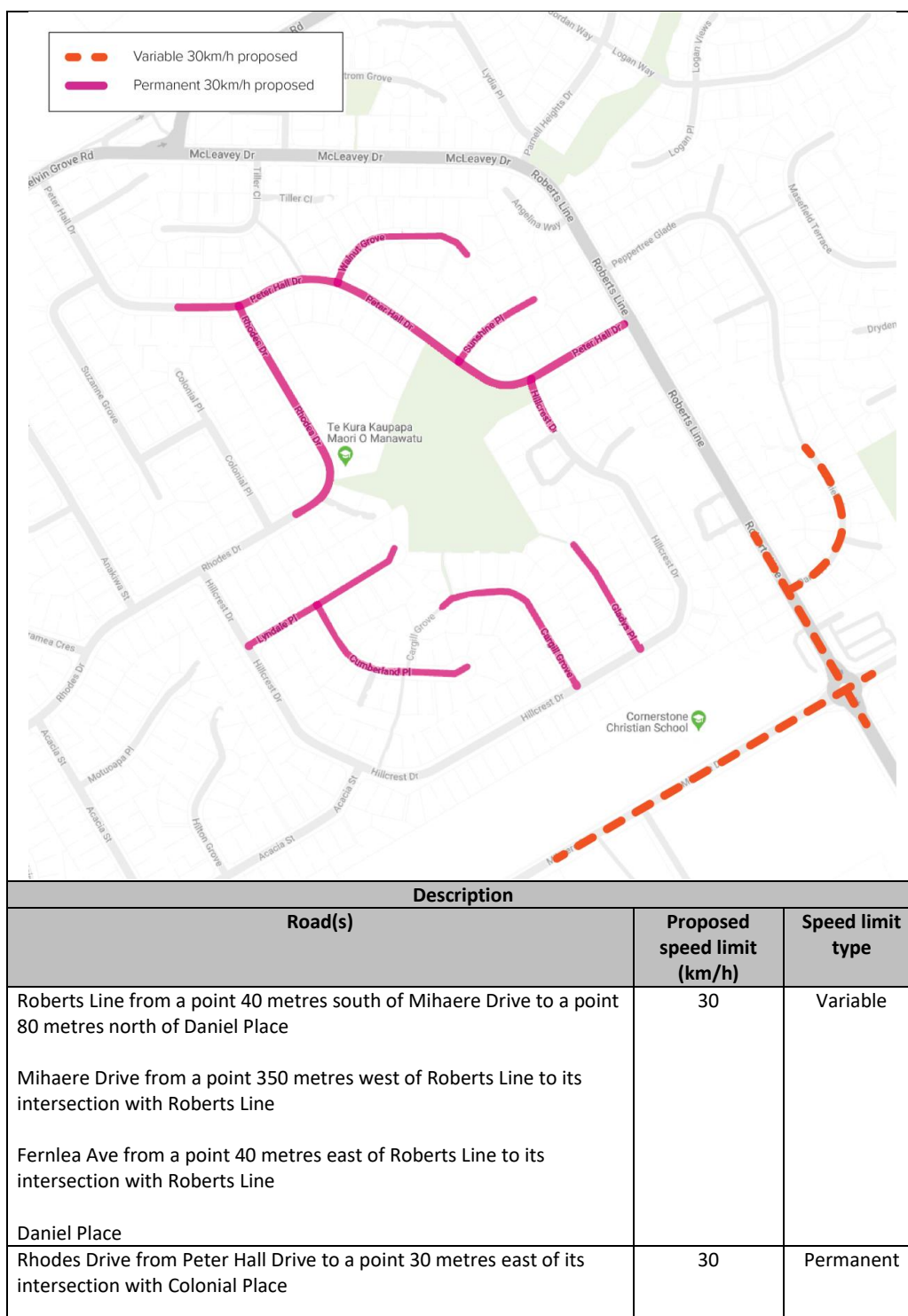




Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Roberts Line from a point 40 metres south of Mihaere Drive to a point 80 metres north of Daniel Place	30	Variable
Mihaere Drive from a point 350 metres west of Roberts Line to its intersection with Roberts Line		
Fernlea Ave from a point 40 metres east of Roberts Line to its intersection with Roberts Line		
Rhodes Drive from Peter Hall Drive to a point 50 metres west of its intersection with Hillcrest Drive		
Daniel Place Hillcrest Drive		

Peter Hall Drive	Gladys Place		
Walnut Grove	Cargill Grove		
Sunshine Place	Lyndale Place		
Suzanne Grove	Cumberland Place		
Colonial Place			

<b>OPTION 9C</b>	<b>Confirm the consultation proposal but reduce the lengths of roads covered by lower permanent speed limits</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This option has reduced the school speed area to be just the immediate streets around the schools and those which access Kelvin Grove Park. This option is in response to submitters requests to reduce the impact of the slow streets, however in order to align to legislative requirements, a number of streets must remain to capture these accessways. While this provides a minimum approach to the school area to minimise impact and would be feasible, it is not recommended as it does not follow the walking catchment approach, and the neighbourhood does not achieve the broader benefits of permanent slower speeds.</li> <li>- Costs will be increased as more signage is required due to the increased number of change points.</li> </ul>
<b>Approx. Cost</b>	<b>\$39,000</b>
<b>OPTION 9C MAP</b>	



<p>Peter Hall Drive from a point 100 metres east from its intersection with Suzanne Grove to its intersection with Roberts Line</p> <p>Walnut Grove          Sunshine Place          Gladys Place          Cargill Grove          Lyndale Place          Cumberland Place</p>		
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<b>School area</b>	<b>Freyberg High School, St Mary's School, Whakatipuria Teen Parent Unit, Ross Intermediate, Roslyn School</b>
<b>Current speed limits</b>	<p>There is an existing 50km/h speed limit on all local roads in the area.</p> <p>There is an existing 40km/h variable speed limit on Featherston Street from a point 20 metres west of its intersection with Rangiora Avenue to a point 80 metres east of its intersection with Freyberg Street. There is also an existing 40km/h variable speed limit on Freyberg Street, and on Ruahine Street from a point 30 metres south of Newhaven Place to a point 160 metres north of Featherston Street.</p>
<b>Consultation proposal</b>	<p>We proposed replacing the 40km/h variable speed limit on Freyberg Street with a permanent 30km/h speed limit, and lowering the 40km/h variable speed limit on Featherston Street to a 30km/h variable speed limit.</p> <p>We proposed lowering the 40km/h variable speed limit on Ruahine Street to a 30km/h variable speed limit, and creating permanent 30km/h speed limits for the side roads of Terrace Street, Newhaven Place, and Puriri Terrace.</p> <p>We proposed creating a new 30km/h variable speed limit on Tremaine Avenue just west of its intersection with Vogel Street through to just past the intersection with Shelley Street. We also proposed creating 30km/h permanent speed limits on Vogel Street from Tremaine Avenue to just past the intersection with Milton Street, Milton Street, Browning Place, and Kipling Street. We also proposed creating 30km/h permanent speed limits for Tyne Street, Thames Street, Humber Street, Esk Street and Tweed Street.</p>
<b>Submission Summary</b>	Thirty-seven submissions received, 19 in support, 15 opposed, three unsure.
<b>Recommendation</b>	Option 10A - confirm consultation proposal with extensions of the variable speed limit on Featherston Street and changing Vogel Street to an extended 30km/h variable speed limit.

### **Freyberg High School**

#### Arguments in favour of the proposal

- All the proposed speed limits should be permanent otherwise people just ignore them.
- Have had several near misses on Rangiora Avenue; the sooner the speed restrictions apply the better.
- A speed limit is a start.
- Cars race around Freyberg Street dropping their kids off; anything to slow traffic down would be good.

#### Arguments against the proposal

- Most people respect the existing variable speed limit; those that don't won't respect a slower speed limit.
- Teach kids better road sense instead; some children step out without looking for traffic. Motorists aren't the main issue here.
- Have witnessed few accidents during school hours. If any, it's usually failing to give way on the roundabout, but never at speed.

- Traffic naturally slows around school drop off and pick up times so reducing the speed would be of no benefit but would add to congestion which is already bad.
- A lower speed limit would be ineffective on Thames and Tyne Streets where people already drive faster than 50km/h.

Changes suggested by submitters

*Infrastructure (out of scope)*

- All primary schools should have monitored crossings.
- Bring buses to school rather than increasing congestion by slowing traffic.
- Place a speed hump before the roundabout on Featherston Street to slow traffic down.
- Put speed humps on Thames Street so it's not an attractive shortcut around the lights at Vogel Street.

**Ross Intermediate**

Arguments in favour of the proposal

- Busy street, with lots of people speeding.
- Need to keep children, and drivers, safe.
- Kids often run in front of traffic from between parked cars, and we don't see them until the last moment.
- Even driving at reduced speeds, have had six near misses this year.

Arguments against the proposal

- No need to be restricted outside of school hours or school holidays. It's enough of an issue navigating across the city, and speed is self-limiting at school drop off and pick up time.
- Why does the driver have to slow down? If a kid runs on the road it's the parent's fault.
- Average speed is less than 30km/h already; then why do we need to change the speed limits? Sounds like people are already driving to the conditions. If that is working, why do we need to change the speed limit?

Changes suggested by submitters

- Extend 30km/h on Vogel Street down to Featherston Street. Lots of kids catch the bus or cross the road on Vogel Street.
- Variable speed limit on Featherston Street should be extended from the Ruahine Street intersection down to Coromandel Court.

**Roslyn School**

Arguments in favour of the proposal

- Welcome the proposed changes to keep tamariki safe. Neighbours in the area think it's cool to drive fast up and down our street.
- Vogel Street is so dangerous, nearly been hit by a truck too close to parked vehicles.
- Milton Street is congested with parked cars at pick up and drop off times.
- Shelley Street has a hill that causes a blind spot for drivers as they come up it.

Arguments against the proposal

- Lowering the speed limit is the wrong approach, as people regularly disregard the speed limit anyway.
- Speed humps are more effective at reducing vehicle speeds, providing a physical obstacle whereas a lowered speed limit relies on voluntary compliance.

Changes suggested by submitters*Infrastructure (out of scope)*

- Many trucks use Milton Street as a shortcut to get to the industrial area. In addition to lower speed limits, suggest putting up “no trucks” signs.

Analysis

The submissions across all three schools identify similar themes in support and opposition – a concern about people driving too fast, and the belief that speed limits alone won’t address the issue. There is also a recurring view that the need for slower speed limits only applies during school hours, and there should be no permanent slower speed limits. Another view expressed was that the emphasis should be on teaching children road safety, rather than expecting drivers to slow down.

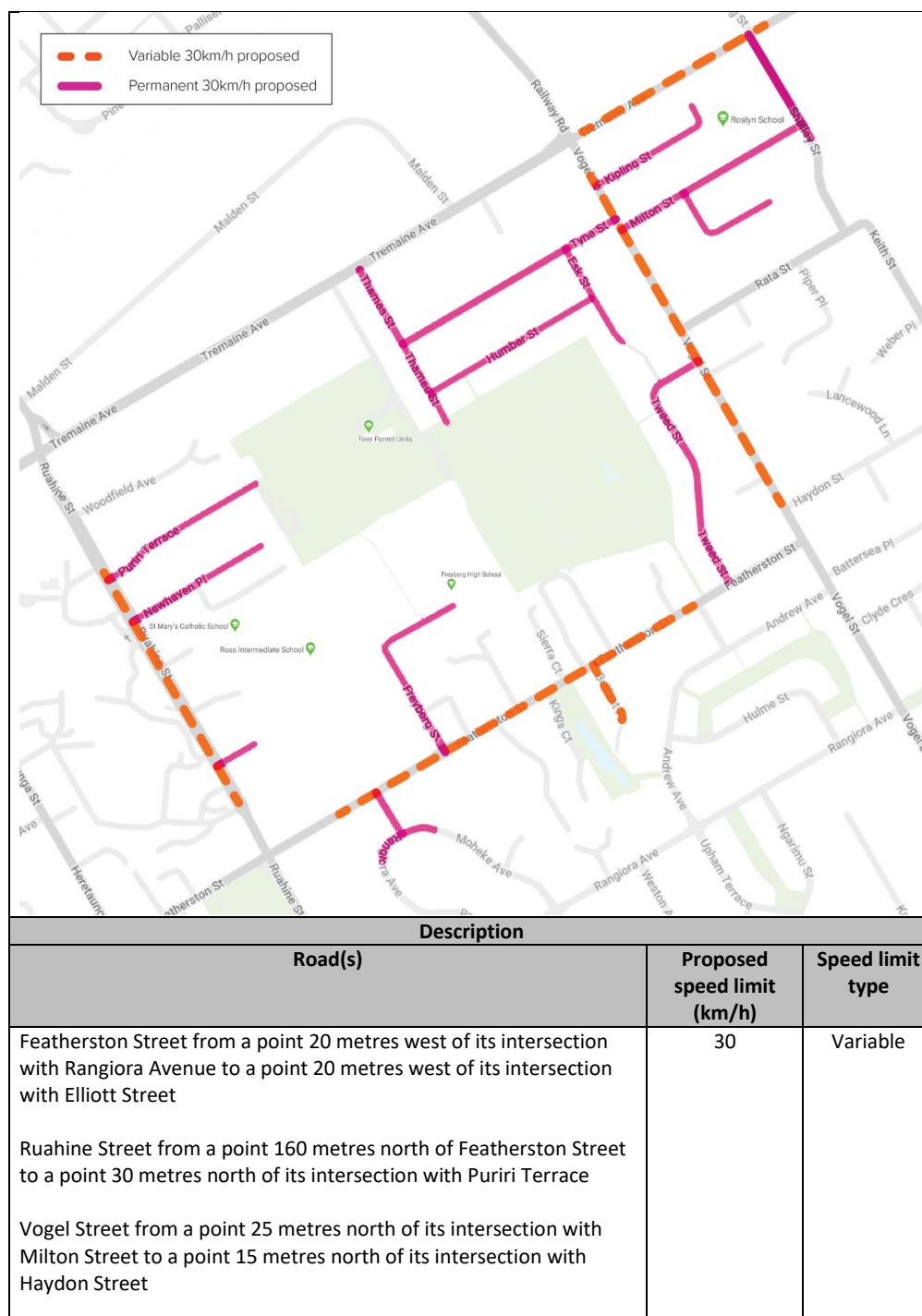
A proposal to lower speed limits doesn’t have to be exclusive of any other intervention. Road safety education, undertaken by Horizons Regional Council and Waka Kotahi, will continue to be an important part of improving safety outcomes on our roads. However, there is strong evidence that shows the risk of a fatality is much higher when vehicles are travelling faster. There are good cases to be made for physical interventions where drivers are speeding. But this doesn’t preclude also lowering speed limits to a safer level. The risk of death for a pedestrian hit by a car travelling at 50km/h is 80%. The risk is much lower – 10% - when the speed is 30km/h. Most drivers are compliant with the speed limit, especially when the conditions are adverse. By lowering the speed limit in areas where vehicles are already travelling at slower speeds, we are reinforcing the safe and appropriate speed limit to reduce the risk of fatalities.

Options

OPTION 10A	Confirm consultation proposal with extensions of the variable speed limit on Featherston Street and changing Vogel Street to an extended 30km/h variable speed limit
Justification	<ul style="list-style-type: none"> <li>- This option supports the submitters suggestions to extend the slower speed limits along Featherston Street and Vogel Street due to students crossing along here.</li> <li>- Extending the proposed variable speed limit on Featherston Street is feasible. However, the intersection of Featherston and Ruahine Streets has been excluded from this extension to minimise complications at the intersection.</li> <li>- Vogel Street was proposed as a short permanent speed limit in the consultation to address the crossing risk for students from Roslyn School through to the park, however submitter requests for the extension of this would require it to be converted to a 30km/h variable speed limit. This is due to the higher operating speeds along Vogel Street as traffic moves away from the concentrated school area and complex intersections. This is feasible and also supports the concerns submitters had on a permanent</li> </ul>

	<p>speed limit on this main road. Similar to the Featherston Street variable speed limit, the intersection of Vogel Street and Tremaine Avenue has been excluded so as not to complicate nor clutter the complex intersection.</p> <ul style="list-style-type: none"> <li>- This proposal aligns with the best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to by majority of drivers without need for safety infrastructure.</li> <li>- It is important to note that while Terrace End School has been addressed as a separate school for feedback analysis, its proximity to adjacent schools means that the recommended proposal is dependent on the options selected for the surrounding schools. This is because speed limits must be considered as a network, rather than in isolation so to create a coherent network for drivers. The map below demonstrates the preferred interfaces between the adjacent schools, noting that the analysis of the adjacent schools has been discussed elsewhere in the report. Noting this now connects to the Terrace End School safer speed area.</li> </ul>
<b>Approx. Cost</b>	<b>\$161,400</b>
<b>OPTION 10A MAP</b>	





Tremaine Avenue from a point 45 metres east of its intersection with Vogel Street to a point 70 metres east of its intersection with Shelley Street		
Belfast Place		
Shelley Street from its intersection with Tremaine Avenue to a point 30 metres south of its intersection with Milton Street	30	Permanent
<div>Terrace Street</div> <div>Newhaven Place</div> <div>Puriri Terrace</div> <div>Milton Street</div> <div>Browning Place</div> <div>Kipling Street</div>	<div>Tyne Street</div> <div>Thames Street</div> <div>Humber Street</div> <div>Esk Street</div> <div>Tweed Street</div>	

<b>OPTION 10B</b>	<b>Replace the consultation proposal with variable speed limits on all roads, including a 30km/h variable speed limit extension on Featherston Street and Vogel Street</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This option captures the complete change to variable speed limit for all streets, and an extension of the variable speed limit on Featherston Street to Coromandel Court, in response to submitters feedback.</li> <li>- To implement this option, at least 10 electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> <li>- The size of the variable speed zone would be considered very large, which would require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li> <li>- It is important to note that while Terrace End School has been addressed as a separate school for feedback analysis, its proximity to adjacent schools means that the recommended proposal is dependent on the options selected for the surrounding schools. This is because speed limits must be considered as a network, rather than in isolation so to create a coherent network for drivers. The map below demonstrates the preferred interfaces between the adjacent schools, noting that the analysis of the adjacent schools has been discussed elsewhere in the report. This now ties into the Terrace End School variable speed limit zone.</li> </ul>
<b>Approx. Cost</b>	<b>\$194,000</b>
<b>OPTION 10B MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
<p>Featherston Street from a point 20 metres west of its intersection with Rangiora Avenue to a point 20 metres west of its intersection with Elliott Street</p> <p>Ruahine Street from a point 160 metres north of Featherston Street to a point 30 metres north of its intersection with Puriri Terrace</p> <p>Vogel Street from a point 25 metres north of its intersection with Milton Street to a point 15 metres north of its intersection with Haydon Street</p> <p>Tremaine Avenue from a point 45 metres east of its intersection with Vogel Street to a point 70 metres east of its intersection with Shelley Street</p> <p>Shelley Street from its intersection with Tremaine Avenue to a point 30 metres south of its intersection with Milton Street</p> <p> Belfast Place                      Kipling Street  Terrace Street                      Tyne Street  Newhaven Place                      Thames Street  Puriri Terrace                      Humber Street  Milton Street                      Esk Street  Browning Place                      Tweed Street </p>	30	Variable

<b>School area</b>	<b>Hokowhitu School, St James School, Winchester School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area. There is also an existing 40km/h variable speed limit on Albert Street from a point 30 metres north of its intersection with Wallace Place to a point 50 metres north of its intersection with Te Awe Awe Street.
<b>Consultation proposal</b>	<p>We proposed lowering the existing 40km/h variable speed limit on Albert Street to a 30km/h variable speed limit.</p> <p>We also proposed lowering the permanent speed limit to 30km/h on Churchill Avenue, Epsom Road, Luton Street, Athlone Place, Wigan Place, Winston Avenue, Franklin Avenue, Newcastle Street, Swansea Street, Bond Street, Ascot Street, Surrey Crescent, Goodwyn Crescent, Roxburgh Crescent, and a 375 metre stretch of Ruahine Street outside of Winchester School.</p>
<b>Submission summary</b>	Thirty-nine submissions received, twenty-one in support, fourteen opposed, and four unsure.
<b>Recommendation</b>	Option 11C - a middle ground – local roads to remain at 30km/h but Ruahine Street and Pahiatua Street to be 30km/h variable speed limit.

#### Arguments in favour of the proposal

- Cars are driving too fast down Albert Street.
- The business and rush during school drop off time is crazy, so we need to make those parents and other motorists slow down.
- Ascot Street is home to a large number of students who attend Winchester School and walk or cycle to school. The increasing amount of anti-social behaviour and speeding in vehicles in our neighbourhood has been very concerning, so welcome the proposed changes.
- The speed of many drivers along Winston Avenue is not safe and I support the proposed changes.
- Maybe reducing the speed limits permanently could mitigate people from speeding out of the carparks/driveways too. Children are mostly good but do have moments where they don't look.
- Having a slower speed limit would help keep our children safe and would deter the many drivers that speed and risk our community every day and night.
- School children use Stewart Crescent and the speed and volume of vehicles during peak traffic is a risk to pedestrians and homeowners accessing driveways.
- These changes will make us all safer, not just kids.
- In many cases the streets which are suggested for permanent 30km/h are not suitable for driving at 50km/h due to parked cars, narrow and/or curved streets, or blocked visibility.
- Won't make a big difference to people's journey times.
- Children and other people may feel safer walking or cycling to school and might encourage more active transport use.

#### Arguments against the proposal

- Lowering the speed isn't going to make anything different except make people frustrated due to bottlenecks.
- Existing variable speed signs are absolutely fine.
- The real issue is that speed limits around schools are not rigorously policed.
- No need for permanent speed limit reductions, only support variable speed limits.
- Changing the speed limits takes away parts of the personal responsibility of the motorist.

- Proposed permanent reductions are too restrictive.
- NZ statistics indicate a long-term downward trend of injury and deaths-per-capita.
- Changing speed limits will not stop speeding or bad driving.
- Making Churchill Avenue 30km/h permanent is unnecessary; the only real part of Churchill Avenue used by parents is the first few metres by Albert Street.
- Opposed because the effect is almost a blanket speed limit reduction that is unnecessary, speed limit is not variable at school times only, and any changes should only happen on the road directly outside the school.
- Many will just ignore the change and drive at 50km/h.
- The number of school hours is a very small proportion of the total hours in a year, approximately 3.26%. Permanent speed limit reductions are therefore overkill.
- Emphasis should be on driver education.
- Lowering speeds may increase fuel consumption; up to a certain speed, the faster we drive the better the fuel economy and fewer pollutants are pumped into the air.

#### Changes suggested by submitters

- Include Stewart Crescent in the permanent 30km/h speed zone.
- Extend the 30km/h on Ruahine Street back to the intersection with Newcastle Street.
- Include Pahiatua Street with a variable 30km/h speed limit near Harrow Place.

#### *Infrastructure (out of scope)*

- Install speed humps on Stewart Crescent to deter people from using it as a bypass, and on Winston Avenue, Albert Street, and Ruahine Street outside Winchester School.
- Install raised pedestrian crossings outside all schools.

#### Analysis

We received a large number of comments from submitters about this cluster of schools. Those in favour of the proposals expressed concern about the speeds of cars in and around the neighbourhood. They argued that slower speed limits would help to keep children in the area safe. They observed that while children are mostly good, sometimes they don't look, and lower speed limits would help to keep them safe if accidents happen.

Submitters noted that for many of the streets, 50km/h is not a realistic speed for vehicles due to parked cars, the width of the street, or the number of corners. Therefore, the proposed 30km/h speed limit is reasonable, and likely won't have a big impact on journey times. The arguments of these submitters reiterate and rephrase arguments made in relation to other schools.

Similarly, those who opposed the proposal made arguments similar to those who opposed changes for other schools. The main argument is that speed limit changes should be variable only, because most people won't comply with permanently lower speed limits. Some submitters described the proposed changes as too restrictive and reiterated that the permanent speed limit changes would be overkill when compared to the small number of hours for which they calculated schools are open.

One submitter argued that lower speed limits could have a negative environmental impact. They argued that – up to a certain speed – vehicles are less efficient at lower speeds which increases fuel consumption. Conversely, driving faster (they argued) would emit fewer pollutants. However, this theory has been debunked. A research report published by Auckland Transport in May 2023 concluded that “the overall impact of speed management interventions on emissions in Auckland

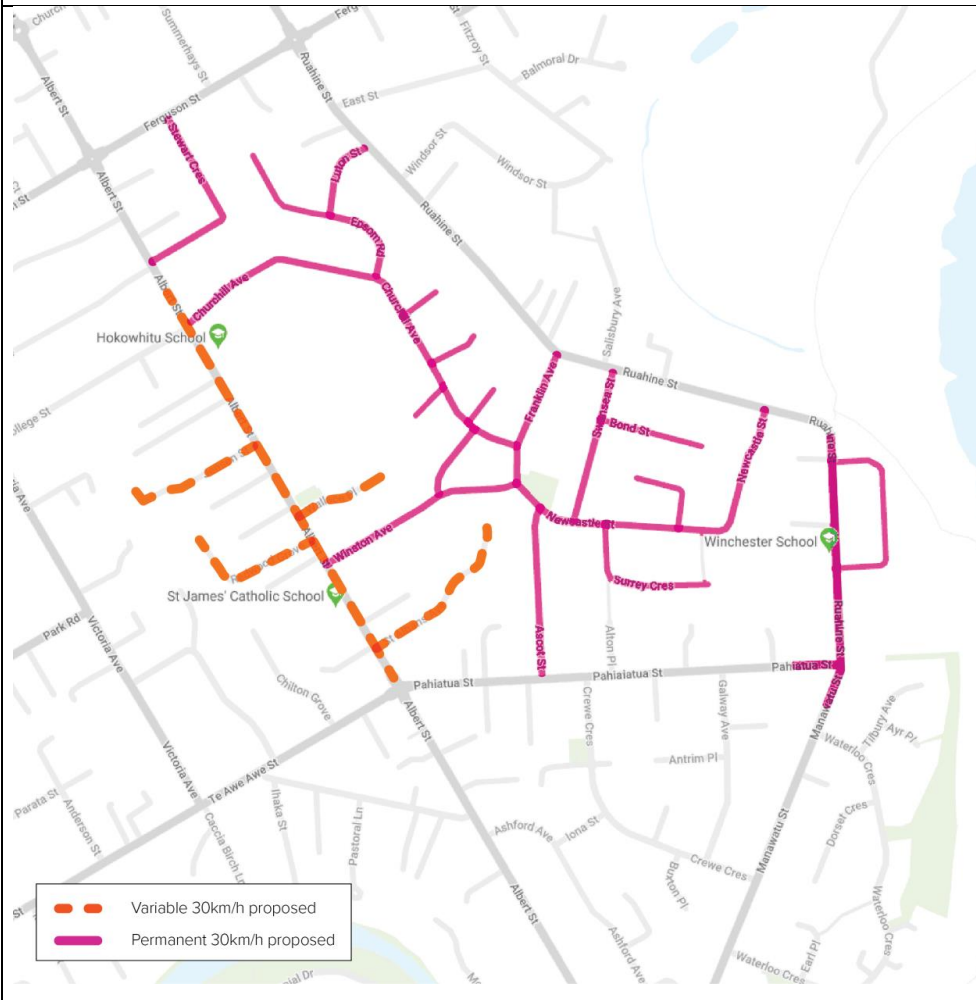
will not be significant.” When considering urban speed limit reductions specifically, the report cited three international studies that estimated the impacts of reducing speed limits from 50km/h to 30km/h. Those studies found “the impacts varied, from a small increase in emissions...(a few percent) to a 25% overall reduction which was attributed to the combination of traffic rerouting and smoother traffic flow at the lower speed.”<sup>1</sup> This report also indicates that often the contributor to increased emissions when considering speed changes is when there is not a consistent speed limit, as this causes continual acceleration and deceleration which is when harmful pollutants and emissions are emitted in higher volumes. This supports the proposal in the sense that a broader, zone-based approach would encourage a steady speed limit.

Submitters opposed to the proposals also argued that reducing speed limits takes away some of the personal responsibility of motorists, and that the emphasis should be on driver education. While improving driver skills through education is important, accidents sometimes happen regardless of the skill of the driver. When those accidents happen at higher speeds, the chance of death or serious injury is significantly higher. When vehicles are travelling slower, the impact on pedestrians is minimised which reduces harm and the risk of death. Slower speeds also improve reaction time, giving the driver more time to avoid an accident. Proposing speed limit reductions doesn’t have to be done in isolation from other road safety improvements; they can be undertaken simultaneously.

#### Options

OPTION 11A	Confirm consultation proposal and include 30km/h permanent speed limit on Stewart Crescent
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This option aligns with the positive consultation feedback along with best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to without need for additional safety infrastructure.</li> <li>- It is technically feasible to include Stewart Crescent at a low cost and this would align with the overall objectives of the ISMP to align to best practice, positive comments, and the network approach to speed management.</li> <li>- The submitters feedback to extend the 30km/h around Ruahine Street to Newcastle Street is a valid concern, however would not be feasible at a 30km/h permanent speed limit due to the sharp corner blocking visibility of the school. It is important for a permanent speed limit that the reason for the speed limit is clear, in this case it is not clear until after turning the corner.</li> <li>- The request for a variable speed limit on Pahiatua Street to capture the zebra crossing at the intersection with Ruahine Street is a valid concern from submitters, however should Ruahine Street remain as a permanent speed limit, a variable speed limit on Pahiatua Street would not be constructable nor make sense as the roads look and operate similarly. Therefore, for this option the permanent speed zone has been extended to capture this crossing risk to students at the intersection only. Because this is capturing the intersection which most</li> </ul>

<sup>1</sup> “The effect of speed on emissions: summary report”, Jayne Metcalfe, May 2023, Emission Impossible Ltd for Auckland Transport (<https://at.govt.nz/media/1992225/the-effect-of-speed-on-emissions-summary-report.pdf>)

	people should be slowing down for already, the impact on drivers is expected to be minimal.		
Approx. Cost	\$36,300		
OPTION 11A MAP			
			
Description			
Road(s)	Proposed speed limit (km/h)	Speed limit type	
Albert Street from a point 40 metres north of its intersection with Churchill Avenue to a point 50 metres north of Te Awe Awe Street	30	Variable	
Jensen Street Wallace Place Redwood Grove			



St Albans Avenue			
Ruahine Street from a point 130 metres east of its intersection with Newcastle Street to its intersection with Pahiatua Street		30	Permanent
Manawatu Street from its intersection with Ruahine Street for a distance of 90 metres			
Pahiatua Street from its intersection with Ruahine Street for a distance of 90 metres			
Roxburgh Crescent	Winston Avenue		
Stewart Crescent	Franklin Avenue		
Churchill Avenue	Newcastle Street		
Epsom Road	Swansea Street		
Luton Street	Bond Street		
Athlone Place	Ascot Street		
Woodstock Place	Surrey Crescent		
Wigan Place	Goodwyn Crescent		

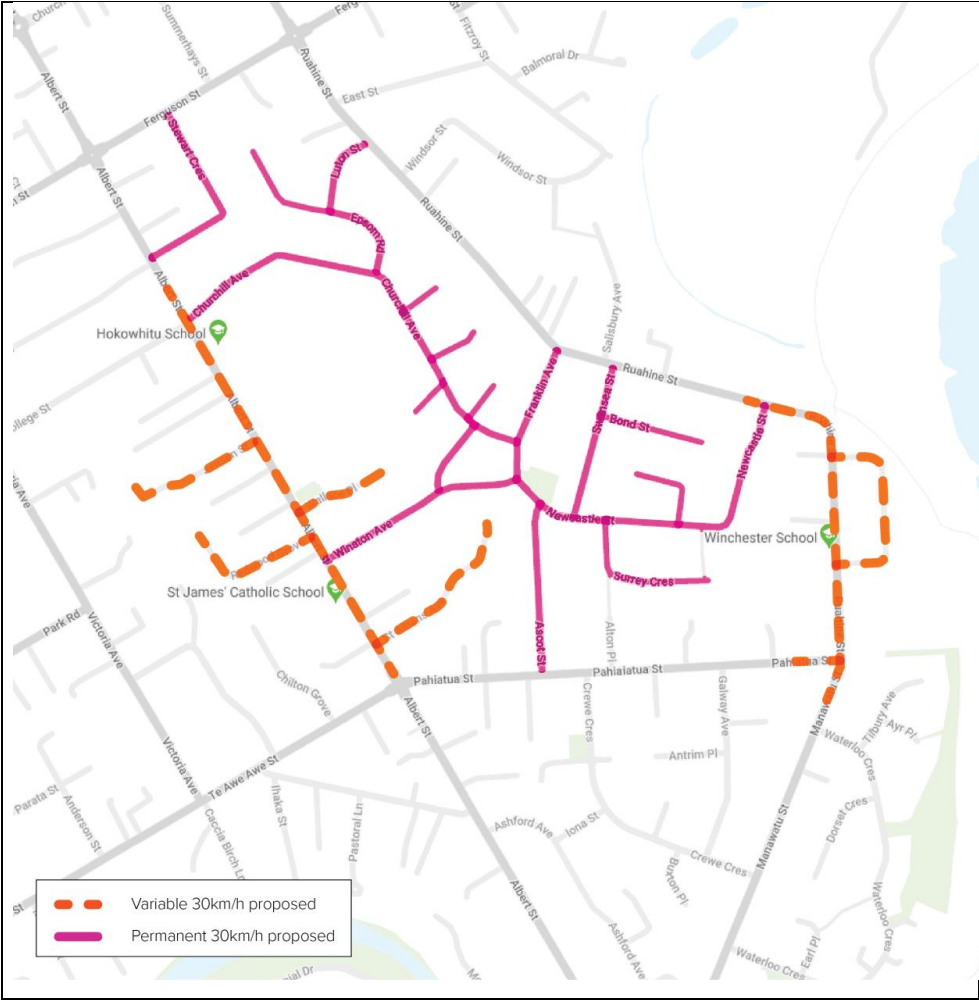
OPTION 11B	Amend consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- To implement this option, at least nine electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> <li>- The size of the variable speed zone would be considered very large, which would require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li> <li>- The request by a submitter for a variable speed limit on Pahiatua Street has been captured by extending the school speed outside Winchester School to capture the intersection with the zebra crossings, which supports crossing safety for school children using this crossing at peak times. This variable speed limit has also been extended around the corner on Ruahine Street to capture submitters feedback that it should be extended further. Since a variable speed limit is only operational at peak hours, the visual requirements of a variable speed limit are less than that of a permanent speed as during peak hours the presence of school kids and parents dropping off children is more apparent.</li> </ul>
Approx. Cost	\$145,800
OPTION 11B MAP	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
<p>Albert Street from a point 40 metres north of its intersection with Churchill Avenue to a point 50 metres north of Te Awe Awe Street</p> <p>Ruahine Street from a point 130 metres east of its intersection with Newcastle Street to its intersection with Pahiatua Street</p> <p>Manawatu Street from its intersection with Ruahine Street for a distance of 90 metres</p> <p>Pahiatua Street from its intersection with Ruahine Street for a distance of 90 metres</p>	30	Variable

Roxburgh Crescent	Wigan Place		
Jensen Street	Winston Avenue		
Wallace Place	Franklin Avenue		
Redwood Grove	Newcastle Street		
St Albans Avenue	Swansea Street		
Churchill Avenue	Bond Street		
Epsom Road	Ascot Street		
Luton Street	Surrey Crescent		
Athlone Place	Goodwyn Crescent		
Woodstock Place			

<b>OPTION 11C</b>	<b>A middle ground – local roads to remain at 30km/h but Ruahine Street and Pahiatua Street to be 30km/h variable speed limit</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This options captures the benefits of both Option A and Option B, as it captures Stewart Crescent, lengthens the extent of the reduced speed outside Winchester School as per submitters requests, without imposing a permanent speed limit as this would have created possible frustration for drivers on Pahiatua Street and Ruahine Street if implemented to be longer than initially proposed.</li> <li>- This approach will have a small cost increase with the additional variable speed limit, however for the added benefit it provides capturing the intersection crossing and extending round the corner on Ruahine Street, this is a cost-effective change.</li> </ul>
<b>Approx. Cost</b>	<b>\$85,500</b>
<b>OPTION 11C MAP</b>	



Description			
Road(s)		Proposed speed limit (km/h)	Speed limit type
Albert Street from a point 40 metres north of its intersection with Churchill Avenue to a point 50 metres north of Te Awe Awe Street  Ruahine Street from a point 130 metres east of its intersection with Newcastle Street to its intersection with Pahiatua Street  Manawatu Street from its intersection with Ruahine Street for a distance of 90 metres  Pahiatua Street from its intersection with Ruahine Street for a distance of 90 metres  Roxburgh Crescent Jensen Street Wallace Place Redwood Grove St Albans Avenue		30	Variable
Stewart Crescent Churchill Avenue Epsom Road Luton Street Athlone Place Woodstock Place Wigan Place Winston Avenue	Franklin Avenue Newcastle Street Swansea Street Bond Street Ascot Street Surrey Crescent Goodwyn Crescent	30	Permanent

<b>School area</b>	<b>91Kairanga School</b>
<b>Current speed limits</b>	There are stretches of 70km/h road at the intersection between Rongotea Road and Kairanga Bunnythorpe Road.
<b>Consultation proposal</b>	We proposed to create a permanent 60km/h speed limit to replace the existing stretch of 70km/h at the cross intersection of Rongotea Road and Kairanga Bunnythorpe Road.
<b>Submission summary</b>	Two submissions, all in support.
<b>Recommendation</b>	Option 12A – confirm the consultation proposal.

#### Arguments in favour of the proposal

- None given.

#### Arguments against the proposal

- None given.

#### Changes suggested by submitters

- Should be a longer stretch of 60km/h; people still drive at 100km/h right up to the intersection going past the school.
- Should be reduced to 30km/h; cars have to be slowing down and stopping at the intersection anyway.

#### *Infrastructure (out of scope)*

- There should be speed humps or cameras to ensure behaviour change.


#### Analysis

Both submissions received indicated support for the proposals, but also suggested changes. One submitter recommended that the section of road should be longer, to encourage people to slow down before they get to the school. Another suggested the speed limit should be as low as 30km/h, given its proximity to the intersection.

A longer stretch of road can be considered, but as with urban schools the extent of any speed limit change needs to be clearly related to the school. If the speed limit reduction applies too early then it may not have any additional effect.

Speed limits should be set at approximately the same speed as the average operating speeds. This indicates the speed where the majority of drivers intuitively feel comfortable driving, based on the conditions of the road. Setting a speed limit that is significantly lower than this can have poor compliance.

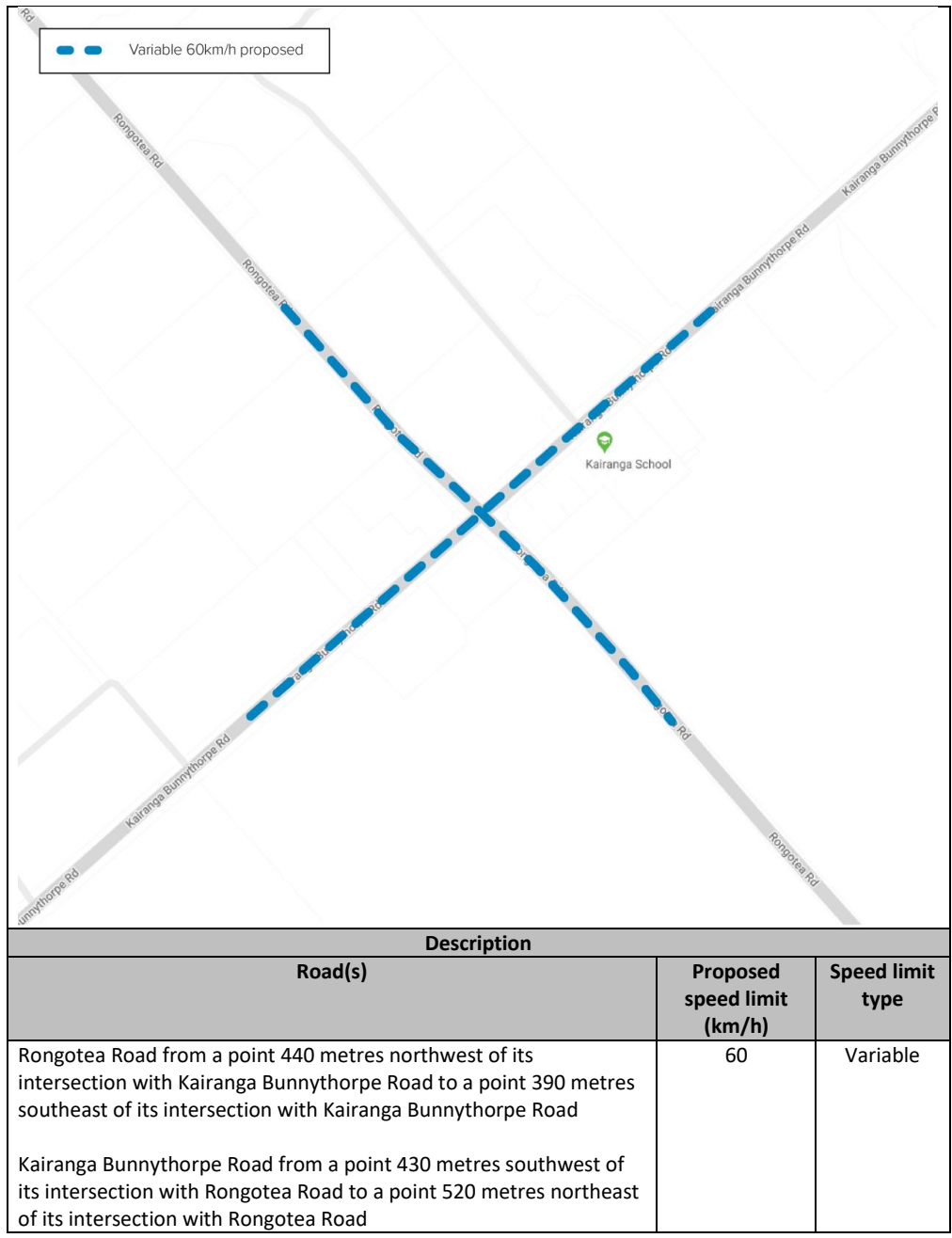
## Options

OPTION 12A	Confirm the consultation proposal
Justification	<ul style="list-style-type: none"> <li>- The original consultation proposal was made on the basis that the current speed limit signs are in the best place to indicate a reduced speed. While submitters have requested an extension of the permanent 60km/h speed limit to account for delayed decelerations, extending the speed limit may not have this intended effect without an obvious visual change at the side of the road. An alternative could be to install advanced speed warning signs, to encourage drivers to reduce their speed earlier.</li> <li>- The submitter requests for an even lower speed limit of 30km/h is not considered appropriate for this road environment. While there are some improved safety outcomes for pedestrians at the lower speed of 30km/h, it is too great a change in speed limit (from 100km/h to 30km/h) in a primarily rural environment close to an uncontrolled intersection.</li> </ul>
Approx. Cost	\$7,500
OPTION 12A MAP	
	

Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Rongotea Road from a point 440 metres northwest of its intersection with Kairanga Bunnythorpe Road to a point 390 metres southeast of its intersection with Kairanga Bunnythorpe Road	60	Permanent
Kairanga Bunnythorpe Road from a point 430 metres southwest of its intersection with Rongotea Road to a point 520 metres northeast of its intersection with Rongotea Road		

<b>OPTION 12B</b>	<b>Replace the consultation proposal with variable speed limits on both roads</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- A variable speed limit has not been proposed as the permanent speed limit is already at 70km/h and a variable speed difference of only 10km/h is considered to be ineffective and not cost effective.</li> <li>- Additionally, installing variable signs at a crossroads intersection could have negative impacts on safety at this intersection due to road clutter and distractions it may cause at a location where driver focus is required to minimise high risk side on collisions.</li> </ul>
<b>Approx. Cost</b>	<b>\$76,500</b>
<b>OPTION 12B MAP</b>	





<b>School area</b>	<b>Longburn Adventist College</b>
<b>Current speed limits</b>	There is an existing 70km/h speed limit on the whole of Walkers Road.
<b>Consultation proposal</b>	We proposed to lower the existing 70km/h speed limit on Walkers Road to a permanent 60km/h speed limit.
<b>Submission summary</b>	Four submissions were received, two in support, one opposed, and one unsure.
<b>Recommendation</b>	Option 13A – confirm the consultation proposal.

#### Arguments in favour of the proposal

- A lot of trucks use Walkers Road. We know that higher speeds mean less survivability in a pedestrian crash; a drop in speed limit from 70km/h to 60km/h will help the road to be safer and will not hold up the industry by a significant amount.

#### Arguments against the proposal

- No need to lower speeds in this area; never had any issues with other motorists' speed or driving.

#### Changes suggested by submitters


- The speed limit should be as low as 30km/h. There is no paved verge or white line, making it dangerous for pedestrians.

#### Analysis

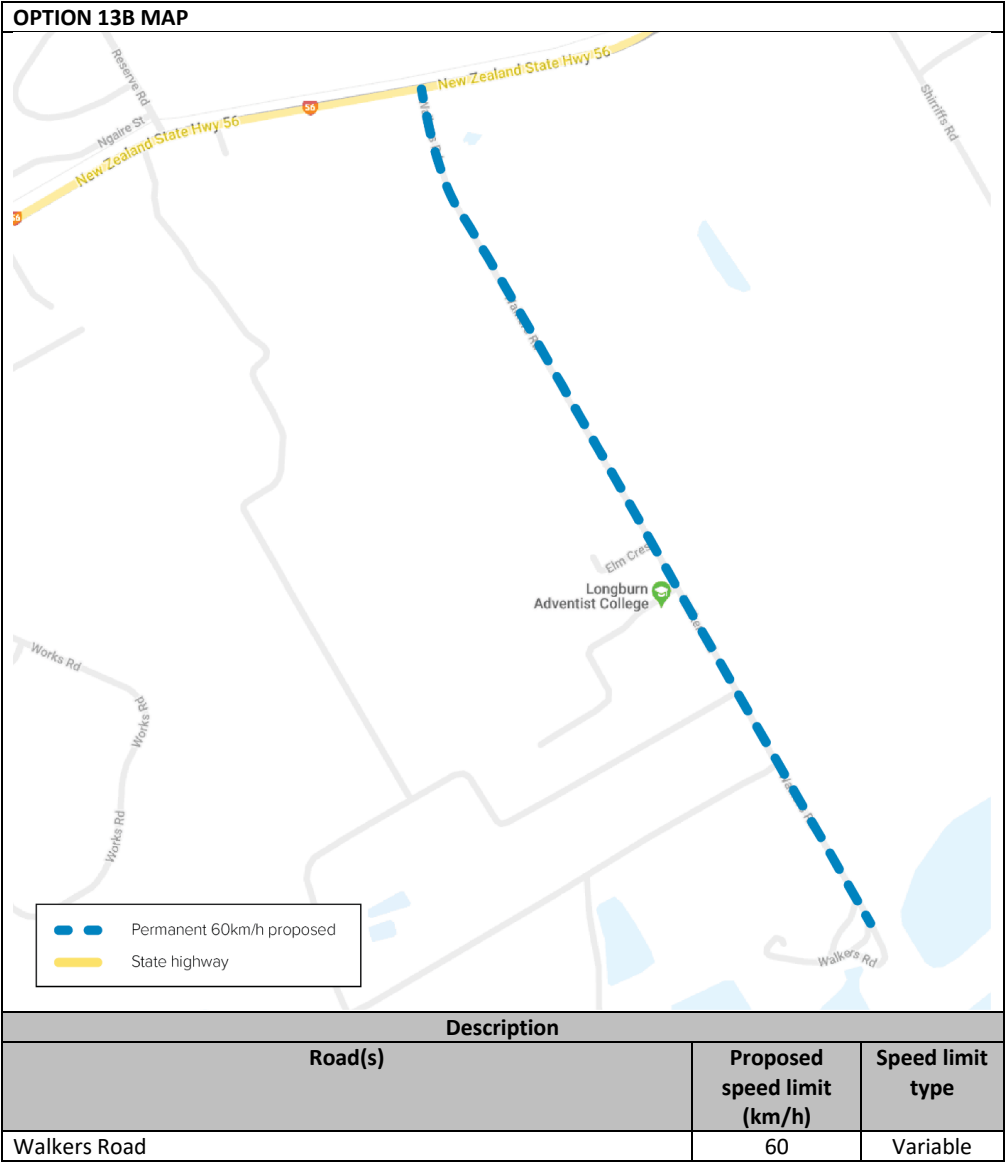
All schools are designated category 1 unless the Council designates the school as category 2. A school can be designated category 2 if it is rural in nature, or if there is a lack of pedestrian activity on the roadside (for instance, there is a pick-up and drop off location away from the road). Both of these apply to Longburn Adventist College, and so the category 2 designation is appropriate. For category 2 schools, the maximum speed limit is 60km/h. With the average speed already close to 60km/h, this seems the appropriate speed limit. A lower speed limit is less likely to be followed.

#### Options

<b>OPTION 13A</b>	<b>Confirm the consultation proposal</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The original consultation proposal was made on the basis that the current speed limit signs are in the best place to indicate a reduced speed. While submitters have requested an extension of the permanent 60km/h speed limit to account for delayed decelerations, extending the speed limit may not have this intended effect without an obvious visual change at the side of the road. An alternative could be to install advanced speed warning signs, to encourage drivers to reduce their speed earlier.</li> <li>- The submitter requests for an even lower speed limit of 30km/h is not considered appropriate for this road environment. While there are some improved safety outcomes for pedestrians at the lower speed of 30km/h, it is too great a change in speed limit (from 100km/h to 30km/h) in a primarily rural environment close to an uncontrolled intersection. Without the vertical hazards such as buildings and parked cars the roadside environment would lack the "feel" of a 30km/h road. This is likely to lead to increased frustration and unsafe behaviours</li> </ul>

Approx. Cost	\$1,900		
OPTION 13A MAP			
			
Description			
Road(s)	Proposed speed limit (km/h)	Speed limit type	
Walkers Road	60	Permanent	

OPTION 13B	Replace the consultation proposal with variable speed limits		
Justification	<ul style="list-style-type: none"> <li>- A variable speed limit could be installed at this location feasibly, however would incur additional cost as an electronic sign would be required to align to TCD rules and best practices.</li> <li>- Currently there is no State Highway speed limit change proposed so this would act as a stand-alone local road variable speed limit.</li> </ul>		
Approx. Cost	\$19,200		



<b>School area</b>	<b>Longburn School</b>
<b>Current speed limits</b>	There is an existing 70km/h speed limit on SH56 through Longburn, and a 50km/h speed limit on Carey Street.
<b>Consultation proposal</b>	We proposed to lower the permanent speed limit on Carey Street to 30km/h, to tie into Waka Kotahi's proposed 30km/h variable speed limit on SH56.
<b>Submission summary</b>	Ten submissions, all in support.
<b>Recommendation</b>	Option 14A – confirm consultation proposal.

#### Arguments in favour of the proposal

- It is difficult and harrowing to try and cross the road with children when vehicles are travelling at high speed.
- Many near misses witnessed on a daily basis.
- Children make silly decisions, so the 30km/h speed limit is much better in case a child quickly darts out in front of a car.
- The variable speed limit on SH56 is good because it tells drivers there is a school nearby that they need to slow down for.
- More kids may take up the option of walking if there is a lower speed limit.
- It will make a negligible difference to travel times for people driving through Longburn.

#### Arguments against the proposal

- None given.

#### Changes suggested by submitters

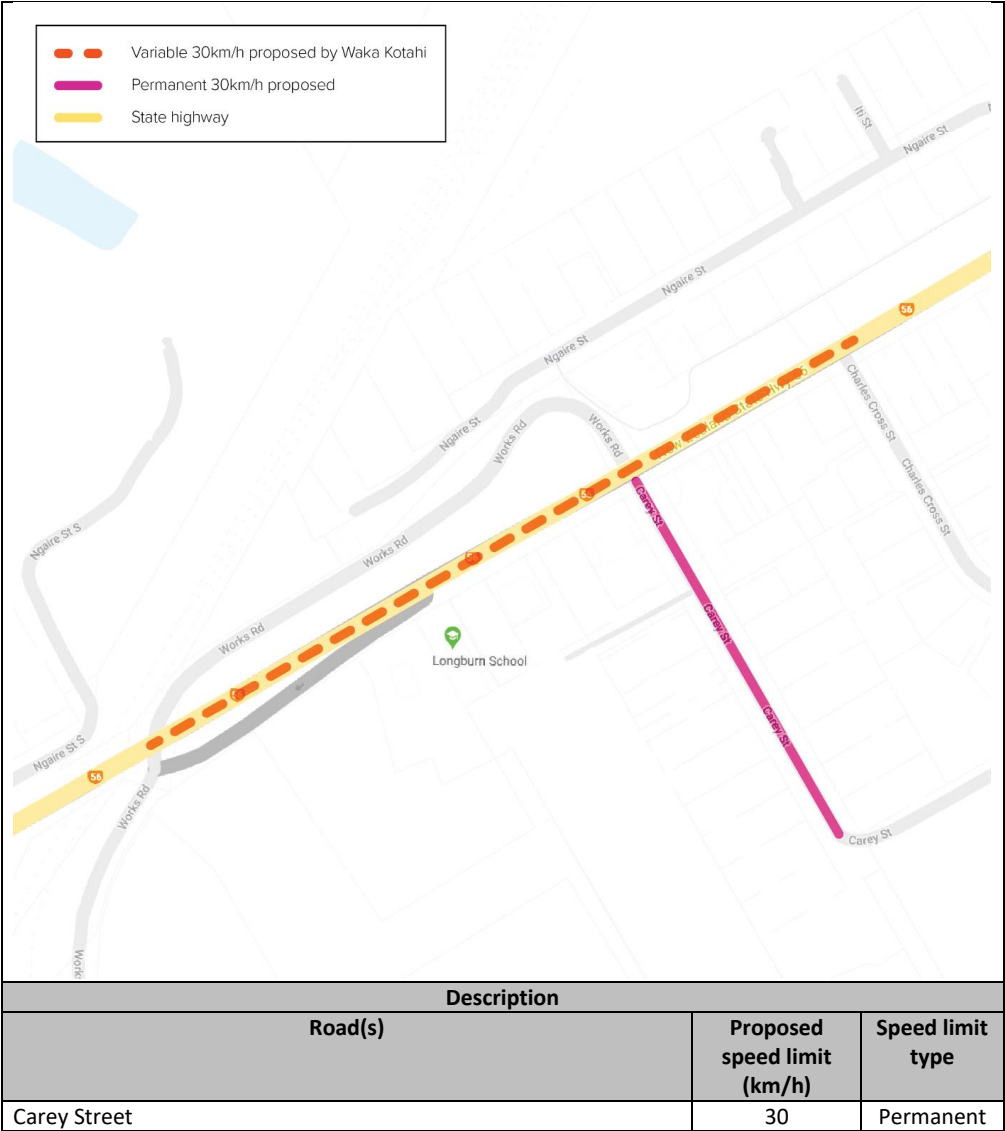
- None given.

#### Analysis

All of the submissions were in favour, and the arguments reinforce the value of this proposed change. No changes were suggested, other than comments about where signs should be positioned.

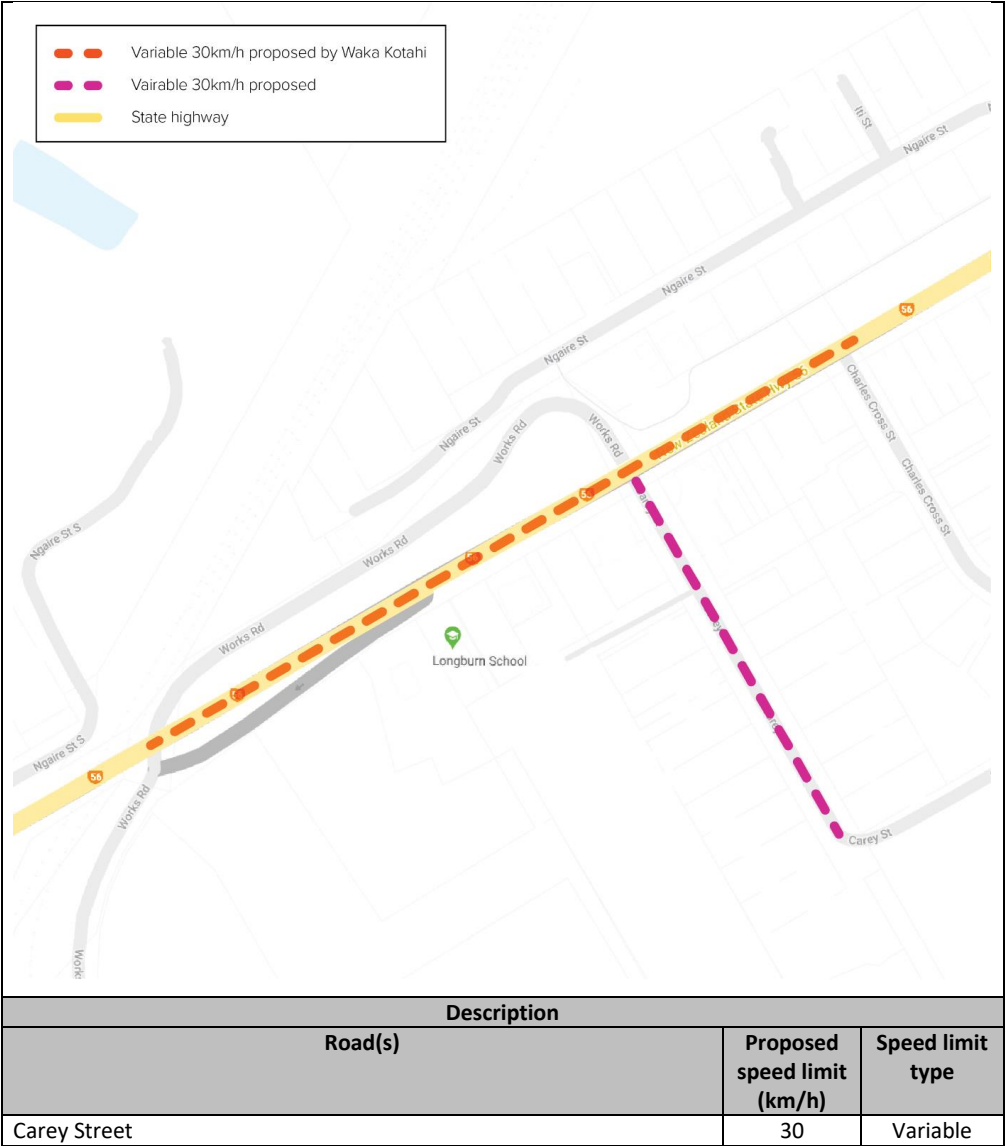
#### Options

<b>OPTION 14A</b>	<b>Confirm consultation proposal</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- Submitters were in favour of this proposal, and no changes were suggested to justify modifying the original consultation proposal.</li> <li>- Additionally, a permanent speed limit change means it is not dependent on Waka Kotahi proceeding with its planned variable speed limit for SH56.</li> </ul>
<b>Approx. Cost</b>	<b>\$2,400</b>
<b>OPTION 14A MAP</b>	



**Note:** Waka Kotahi has proposed a 30km/h variable speed limit on SH56.

OPTION 14B	Replace consultation proposal with variable speed limit on Carey Street
<b>Justification</b>	<ul style="list-style-type: none"> <li>- While it is not considered best practice to have local roads as variable speed limits in this context, implementing a variable speed limit would result in some efficiencies regarding the signage installation, as the variable speed limit would tie with the SH56 variable speed limit and little to no local road signage would be required.</li> <li>- Tying into this SH56 variable speed limit would require coordination from Waka Kotahi to make sure that the speed on the side road and the speed on SH56 are implemented at the same time.</li> <li>- A risk does exist given the proposed variable speed limit for SH56 has not yet been confirmed by Waka Kotahi. In the event the variable speed limit along SH56 is not installed, the speed limit of Longburn School Option B would not be implemented unless the Council installed its own electronic sign on Carey Street Road. This would increase the cost significantly.</li> </ul>
<b>Approx. Cost</b>	<b>If Waka Kotahi confirm the proposed variable speed limit on SH56 - \$0</b> <b>If Waka Kotahi do not confirm the proposed variable speed limit on SH56 - \$19,400</b>
<b>OPTION 14B MAP</b>	



**Note:** Waka Kotahi has proposed a 30km/h variable speed limit on SH56.



<b>School area</b>	<b>Milson School, St Peters College</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	We proposed permanently lowering the speed to 30km/h on Rennie Avenue, Grange Place, Moyne Avenue, Aspiring Avenue, Caitlins Crescent, Hunter Street, Kaituna Street, Holdsworth Avenue, Langley Avenue, Lockhart Avenue, Abraham Crescent, Cohen Place, Rutland Place and Fairs Road from its intersection with Milson Line to a point 20m west of its intersection with Langley Avenue.
<b>Submission summary</b>	Thirty-eight submissions received, twenty-one in support, seventeen opposed.
<b>Recommendation</b>	Option 15A – confirm consultation proposal.

#### Arguments in favour of the proposal

- St Peter's College does not have a huge space for cars to park so they are on local streets; cars driving with speed can be incredibly dangerous.
- Increase the school area; the school is big and parents often park far away from school.
- Seems like a good idea; it will have little or no effect on traffic flows.
- Time something was done to stop the high speeds in Abraham Crescent. It is a tiny street that is basically one lane when cars are parked yet people still go 50km/h and over. It's very unsafe with so many families and small children.
- Broadly supportive of the changes. It is a large area but it encompasses two schools.
- Support lower speed limit on Langley Avenue. Some vehicles enter Langley Avenue at dangerous speeds.
- The changes make good sense.
- The main streets that need attention are Langley Avenue, Holdsworth Avenue, and Rennie Avenue.

#### Arguments against the proposal

- Area is not a major thoroughfare outside of school hours so static variable speed signs would suffice.
- Biggest issue is failure of parents to observe road rules when dropping off children.
- Only makes sense to include Rennie Avenue, Fairs Road, and Langley Avenue; the other side streets seem a bit odd.
- Changing the speed limit is annoying for people who travel the streets daily.
- Boy racers will not pay attention to the speed limit.
- Parents and schools need to take responsibility for children learning and obeying road safety. Responsibility should be on children and their parents to educate and discipline them.
- Lockhart Avenue is not highly trafficked during pick up and drop off times.
- There has never been an issue, it's just a hassle for residents.
- What risk is there at 2am on a Saturday morning?
- Lowering the speed limit won't change driver behaviour; police are already too busy to monitor it.
- We are already slowed to a crawl because of the school crossings; don't want to be slowed down the whole time.
- The proposed zone area is too large and includes many irrelevant streets.
- A lot of the smaller streets seem to pose no risk at all.

- 30km/h is way too slow; the current 40km/h variable speed limits seem fine.
- The bus timetables will have to change to allow for extra time on these routes.
- The average speed is reported as less than 30km/h; it sounds like the system is working sensibly.
- Don't support part of Fairs Road being 30km/h; people won't stick to the rules as Fairs Road is like a ring road in the suburb.

#### Changes suggested by submitters

##### *Infrastructure (out of scope)*

- Put in a raised pedestrian crossing on either side of John F Kennedy Drive at the Rennie Avenue intersection.
- Consider adding speed humps in Rennie Avenue and Holdsworth Street.
- Add speed humps on the crossing on Langley Avenue.
- Add speed humps on Abraham Crescent.
- Add zebra crossings for St Peter's College on Aspiring Avenue and Holdsworth Avenue.

#### Analysis

Submitters in favour of the proposal noted that the area of lower speed limits was large, but it covered two schools including one large school. The limited parking area around St Peter's College meant parents were often parking further away, so a larger area was also justified on that basis.

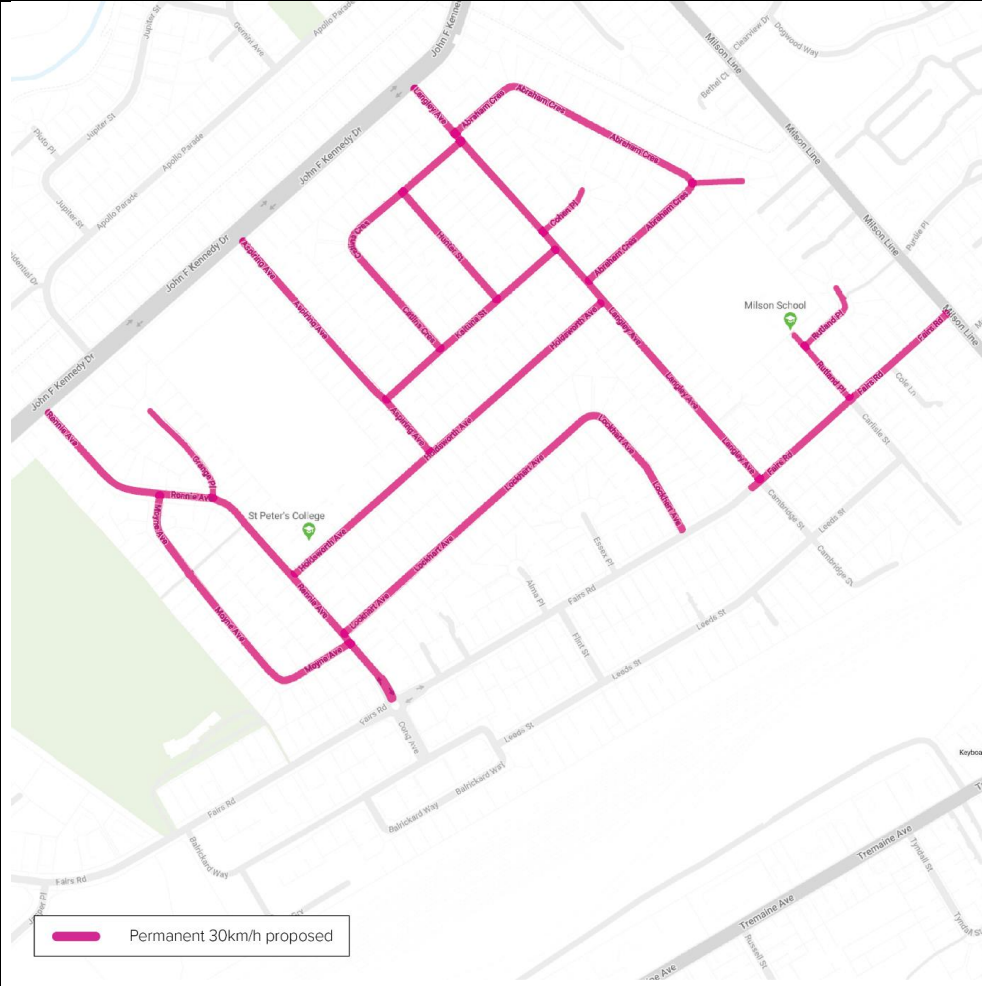
In contrast, submitters opposed to the proposal thought the area was too large, and that many of the roads included posed no risk at all. They suggested the focus should remain on the main roads of Fairs Road, Langley Avenue and Rennie Avenue. However, one submitter suggested that Fairs Road should not be limited to 30km/h, because it functions like a "ring road" within the neighbourhood.

Several submitters pointed to the inconvenience of slower speed limits on residents, suggesting the existing 40km/h variable speed limits work fine and that instead the emphasis should be on parent and student responsibility for road safety.

A suggestion was made that, as the area is not a major thoroughfare, the speed limits should be variable with static signage (as opposed to electronic variable speed limit signs). However, this approach is not permitted by the Traffic Control Devices Rule 2004. Static signs for variable speed limits can only be used on no exit, Stop sign or Give Way sign controlled roads, where they are adjacent to a road controlled by an electronic sign.

While there may be scope for reducing the size of the area, the connected nature of this neighbourhood and the schools located there make it difficult to develop alternative proposals. A variable speed limit sign is typically favoured on roads where the emphasis is on movement over place. Fairs Road is a marginal candidate, and while it may act like a "ring road" for some residents, the major road in the area is John F Kennedy Drive, which is not directly accessed by any school. A variable speed limit on John F Kennedy Drive could be considered, but this would be additional to the proposed permanent speed limits on the other roads in the neighbourhood.

## Options

OPTION 15A	Confirm consultation proposal
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This aligns well to the supporting commentary, and due to the general geographic area of the neighbourhood being Milson Line, John F Kennedy Drive and the railway, it creates a natural boundary where a neighbourhood speed change makes sense to the public and reduces signage needs.</li> <li>- The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to without need for additional safety infrastructure.</li> </ul>
<b>Approx. Cost</b>	<b>\$15,300</b>
<b>OPTION 15A MAP</b>	
 <p>The map displays a residential area with several streets. John F Kennedy Drive runs diagonally from the top left to the bottom right. Milson Line runs horizontally across the top right. Tremaine Ave runs diagonally from the bottom left to the top right. Other streets include Apollo Parade, Fair Rd, Lusk St, and Cambridge St. A pink line traces a path through the area, indicating the proposed permanent 30km/h speed zone. The path starts near John F Kennedy Drive, loops around St Peter's College, and extends towards Milson School. A legend at the bottom left shows a pink line segment with the text 'Permanent 30km/h proposed'.</p>	

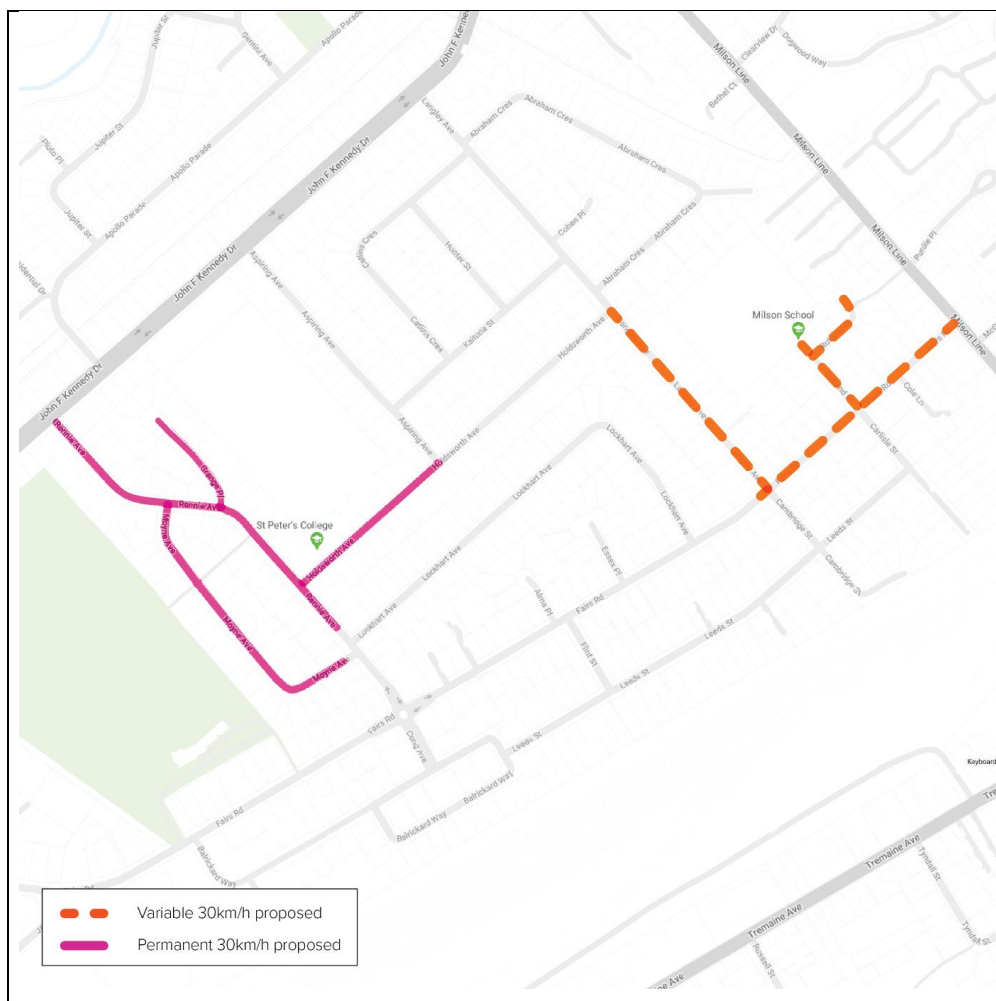
Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Fairs Road from its intersection with Milson Line to a point 20 metres west of its intersection with Langley Avenue	30	Permanent
Rennie Avenue	Holdsworth Avenue	
Grange Place	Lockhart Avenue	
Moyne Avenue	Langley Avenue	
Aspiring Avenue	Abraham Crescent	
Caitlins Crescent	Cohen Place	
Hunter Street	Rutland Place	
Kaituna Street		

<b>OPTION 15B</b>	<b>Amend consultation proposal with variable speed limits on all roads</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This would require at least six electronic variable speed limit signs to remain within TCD rules and best practice. The size of the variable speed zone would be considered very large, which would require more signs to be posted throughout the zone and may be difficult for drivers to remember as they are driving through the large area. The additional signage required to remind drivers will add unnecessary sign clutter and will be costly to implement.</li> <li>- A small extension of the variable speed limit on Fairs Road to Lockhart Avenue is required for this to be installed.</li> </ul>
<b>Approx. Cost</b>	<b>\$116,900</b>
<b>OPTION 15B MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Fairs Road from its intersection with Milson Line to a point 20 metres west of its intersection with Langley Avenue	30	Variable
Rennie Avenue Grange Place Moyne Avenue Aspiring Avenue Caitlins Crescent Hunter Street Kaituna Street	Holdsworth Avenue Lockhart Avenue Langley Avenue Abraham Crescent Cohen Place Rutland Place	

<b>OPTION 15C</b>	<b>The middle ground – reducing the length of road covered by lower speed limits, and changing roads around Milson School to a variable speed limit</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- Based on feedback to reduce the impact of the zone, the following “minimum” impact of permanent speeds could be achieved. This would limit the speed area to the following:</li> <li>- St Peters – maintaining a permanent 30km/h speed limit on: <ul style="list-style-type: none"> <li>o Rennie Avenue (from John F Kennedy Drive to between Lockhart Avenue and Holdsworth Avenue)</li> <li>o Moyne Avenue (to capture the walkway through to the school field)</li> <li>o Holdsworth Avenue (from Rennie Avenue to Aspiring Avenue)</li> </ul> </li> <li>- Milson School – converting to a variable speed limit proposal on: <ul style="list-style-type: none"> <li>o Langley Avenue (from Holdsworth Avenue to Fairs Road)</li> <li>o Fairs Road (from Lockhart Avenue to Milson Line)</li> <li>o Rutland Place</li> <li>o Grange Place</li> </ul> </li> <li>- The recommendation to convert to a variable speed limit for Milson Line has originated from submitters feedback around permanent speed limits on more open and faster roads. It is acknowledged that Fair Road, although containing some infrastructure, may be frustrating at 30km/h outside of school hours. Based on this feedback, a variable speed limit is proposed and for consistency, it also makes the rest of the Milson School zone need to be a variable speed limit.</li> <li>- This option captures the minimum walking catchment of the schools; however, this does not align with the speed management best practices and the neighbourhood does not achieve the broader benefits of permanent slower speeds</li> <li>- Many people who use those streets are people living on them and not commuters. This minimum approach also creates a disjointed network and generates more signage requirements. If this is the preferred approach, it would be strongly recommended by staff that this is considered for a neighbourhood treatment in the future speed management plans where it could be accompanied by supporting infrastructure on non-school streets.</li> </ul>
<b>Approx. Cost</b>	<b>\$69,000</b>
<b>OPTION 15C MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Langley Avenue from its intersection with Holdsworth Avenue to its intersection with Fairs Road	30	Variable
Fairs Road from its intersection with Milson Line to a point 20 metres west of its intersection with Lockhart Avenue		
Rutland Place		
Rennie Avenue from its intersection with John F Kennedy Drive to a point 50 metres south of its intersection with Holdsworth Avenue	30	Permanent
Holdsworth Avenue from its intersection with Rennie Avenue to its intersection with Aspiring Avenue		

Grange Place Moyne Avenue		
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<b>School area</b>	<b>Monrad Intermediate School, Takaro School, Our Lady of Lourdes School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area. There are also existing 40km/h variable speed limits on Brighton Crescent, Botanical Road from Pioneer Highway to Brighton Crescent, and Highbury Avenue from Brighton Crescent to Botanical Road.
<b>Consultation proposal</b>	<p>We proposed to lower the variable speed limit on Botanical Road from 40km/h to 30km/h and extend it to just south of its intersection with Pioneer Highway. We also proposed a new 30km/h variable speed limit on Pioneer Highway from approximately 100 metres west of its intersection with Botanical Road and extending to a point 30 metres east of its intersection with Shamrock Street.</p> <p>We proposed a permanent 30km/h speed limit on Shamrock Street from its intersection with Pioneer Highway to 30 metres south of its intersection with Chelwood Street.</p> <p>We proposed to replace the 40km/h variable speed limit on Highbury Avenue with a permanent 30km/h speed limit from its intersection with Botanical Road to a point 40 metres east of its intersection with Brighton Crescent.</p> <p>We proposed to replace the 40km/h variable speed limit on Brighton Crescent with a permanent 30km/h speed limit, along with a permanent 30km/h speed limit for Rewa Street, Duna Place, Moray Place, Radnor Place, Renfrew Place, MacEwen Place, and Opie Place.</p> <p>We also proposed a permanent 30km/h speed limit for Ronberg Street from its intersection with Highbury Avenue to a point 40 metres east of its intersection with Wilson Crescent.</p>
<b>Submission summary</b>	Nine submissions, four in support, five opposed.
<b>Recommendation</b>	Option 16A - confirm the consultation proposal, and include Brett Place.

#### Arguments in favour of the proposal

- The changes are supported because many of the roads included (Highbury Avenue, Ronberg Street, Pembroke Avenue, Brighton Crescent, Coventry Street, and Botanical Road) are dangerous for children.
- Decreasing the speed limits on Botanical Road as well as the other streets proposed would go a long way to make it safer for intermediate age kids to cycle.
- There is an economic benefit to the community from not requiring car transport for school kids, as well as social/environmental benefits of walking/cycling.

#### Arguments against the proposal

- Changing the speed limit just slows down the drivers who obey the speed limit. You need to find ways to slow down those who speed, such as more speed humps.
- Botanical Road is already busy; if you slow down traffic you will create more congestion.
- Shouldn't reduce speeds at all times, just when kids are travelling to and from school.
- Should only reduce the speed limit to 30km/h if there is evidence to support the need.

- No-one should assume that a lower speed limit makes the road safe. There is no such thing as a safe speed limit. Any speed brings risk. We shouldn't pretend we can eliminate it all.
- Some will ignore the lower speed limit, and others will be annoyed and accelerate hard as soon as they are beyond the limited area, which could be a greater hazard.
- It's important to teach kids about road safety.
- The majority of drivers won't observe the 30km/h speed limit around schools unless there is a visible police car or speed camera.
- The current speed limit of 40km/h around schools (variable speed limits) is more likely to be workable than 30km/h.

#### Changes suggested by submitters

- The permanent 30km/h speed limit should be extended down the entirety of Ronberg Street to the roundabout on Monrad Street.

#### *Infrastructure (out of scope)*

- Paint a no parking line on Brighton Crescent on the school side. When cars are parked on both sides it becomes an even greater hazard for kids crossing the road.
- Add cycle lights to traffic lights near schools.
- Where possible, entrances to schools should be altered to avoid main arterial roads.

#### Analysis

Submitters for this cluster of schools offered up several arguments against lowering speed limits, or imposing slower permanent speed limits, repeating arguments that others have made for other schools. The same responses apply. These proposals are not aimed at people who deliberately and wilfully break the speed limit. Rather, they are focussed on setting a speed limit which is safe and which improves the chance of survivability in the event of an accident. For those who do obey the speed limit, if they are travelling slower than 50km/h the chances of a pedestrian surviving the accident are substantially better. If vehicles are already travelling slower, then the slower speed limit will have a negligible impact on travel times.

While it may be true that any speed carries some risk, there is a substantial difference between the risk at 50km/h (80% chance of death) and at 30km/h (10% change of death). We are not proposing to eliminate all risk, but to make a small change which will have a substantial improvement in the survivability risk in the event of an accident.

While the current 40km/h variable speed limits may be satisfactory to some, they are no longer permitted. For schools in urban areas, the maximum speed limit (permanent or variable) is 30km/h.

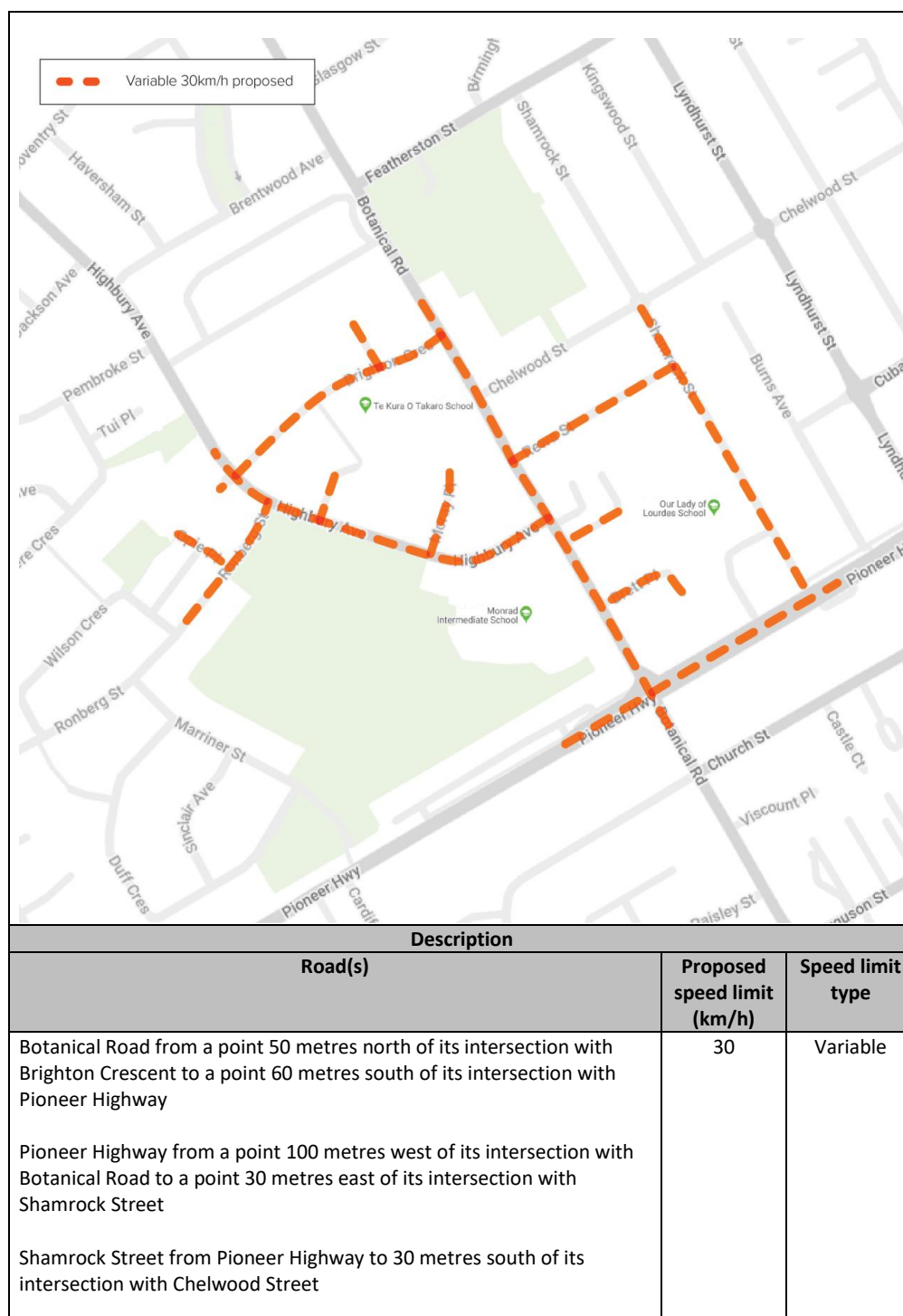
## Options

<b>OPTION 16A</b>	<b>Confirm the consultation proposal, and include Brett Place</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The existing proposal supports feedback from submitters suggesting that the permanent 30km/h speed limit will not only support the school kids, but also the kids living and using the area at all times of day.</li> <li>- While there was a suggestion to extend the 30km/h further down Ronberg Street, this road operates at higher speeds compared to the other local roads therefore without changing the road design, a permanent speed would be inappropriate down the full length of this road. The current extent down Ronberg Street captures a likely throughfare from the school through to Opie Reserve.</li> <li>- Brett Place has been included to better reflect the cul de sac nature of the road and to align to general feedback of having consistency.</li> </ul>
<b>Approx. Cost</b>	<b>\$84,000</b>
<b>OPTION 16A MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Botanical Road from a point 50 metres north of its intersection with Brighton Crescent to a point 60 metres south of its intersection with Pioneer Highway	30	Variable
Pioneer Highway from a point 100 metres west of its intersection with Botanical Road to a point 30 metres east of its intersection with Shamrock Street		
Highbury Avenue from a point 30 metres north of Brighton Crescent to its intersection with Botanical Road	30	Permanent
Shamrock Street from its intersection with Pioneer Highway to a point 30 metres south of its intersection with Chelwood Street		
Ronberg Street from its intersection with Highbury Avenue to a point 80 metres southwest of its intersection with Opie Place	30	Permanent
Brett Place Brighton Crescent Rewa Street Duna Place Opie Place		
Renfrew Place Radnor Place Moray Place MacEwan Place		

<b>OPTION 16B</b>	<b>Replace the consultation proposal with variable speed limits on all roads, include Brett Place, and extend the length of Ronberg Street included in the proposal</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- A full variable speed limit zone would incur a cost of at least seven electronic variable speed signs. Repeaters may be required increasing costs further. It also is not the intent of variable speed limits in this context to be used on local streets.</li> <li>- From submitters feedback, the variable speed limit on Ronberg Street has been extended to the roundabout, which in turn captures the adjacent side roads. This is a suitable change given a variable speed limit is the type of speed limit used since Ronberg Street is a wider and faster operating road, therefore a variable speed limit is more suitable.</li> </ul>
<b>Approx. Cost</b>	<b>\$108,200</b>
<b>OPTION 16B MAP</b>	



<p>Ronberg Street from its intersection with Highbury Avenue to its intersection with Monrad Street.</p> <p>Highbury Avenue from a point 30 metres north of Brighton Crescent to its intersection with Botanical Road</p> <p>Brett Place            Rewa Street            Duna Place            Opie Place            Wilson Crescent</p> <p>Renfrew Place            Radnor Place            Moray Place            MacEwen Place</p>		
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<b>School area</b>	<b>OneSchool Global</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	We proposed creating a 30km/h variable speed limit on Johnstone Drive outside the school entrance.
<b>Submission summary</b>	Twelve submissions were received, four in support, eight opposed.
<b>Recommendation</b>	Option 17B - withdraw the consultation proposal, designate OneSchool Global as a category 2 school, and retain the existing speed limit on Johnstone Drive and Ron Place.

#### Arguments in favour of the proposal

- None given.

#### Arguments against the proposal

- Speed limit changes for this school aren't needed because students don't cross the road at this school.
- OneSchool Global is a gated private school where all children arrive in vans or cars, driven up the driveway through the electronic gates and delivered directly to the main building.
- This school is completely different to other schools where there is a mix of pedestrians, cyclists, and vehicle transportation.

#### Changes suggested by submitters

- Consider making the variable speed limit permanent.

#### *Infrastructure (out of scope)*

- Consider installing speed humps to slow down speeding vehicles.

#### Analysis

Most of the submissions observed that the nature of OneSchool Global is different to other schools, with students at the school belonging to the Exclusive Brethren church. Many submitters observed that the practice of the church influenced how students access the schools, referring to private minivans being used to bring students direct to the school. Submitters observed very few children walking on either side of the school on the footpath before and after school. They suggest this demonstrates no need for the proposed variable speed limit.

Regardless of the nature of the school, the Speed Limits Rule requires that roads near schools have a slower speed limit. For category 1 schools, the maximum speed limit is 30km/h; for category 2 schools, the maximum speed limit is 60km/h. It may be possible to designate the school as category 2 on the basis that there is little pedestrian activity and students have a pick up/drop off facility away from the road. For a category 2 school, the maximum speed limit is 60km/h.

Options

<b>OPTION 17A</b>	<b>Confirm consultation proposal, and include Ron Place as an additional 30km/h variable speed limit</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The existing proposal would not align with feedback from submitters that indicated there is no pedestrian activity on the streets outside OneSchool Global due to the nature of the students being dropped off on school property in minivans.</li> <li>- This option is not recommended.</li> </ul>
<b>Approx. Cost</b>	<b>\$38,300</b>

**OPTION 17A MAP**





Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Johnstone Drive from a point 50 metres south of its intersection with Ron Place to a point 150 metres north of its intersection with Ron Place	30	Variable
Ron Place		

<b>OPTION 17B</b>	<b>Withdraw the consultation proposal, designate OneSchool Global as a category 2 school, and retain the existing speed limit on Johnstone Drive and Ron Place</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This proposal recategorises OneSchool Global as a category 2 school. This aligns with feedback from submitters that indicated that there is no pedestrian activity on the streets outside OneSchool Global due to the nature of the kids being dropped off on school property in minivans.</li> <li>- The existing speed limit on this street is already 50km/h so satisfies the category 2 requirements of a slower speed limit of 60km/h or less.</li> <li>- This option is recommended.</li> </ul>
<b>Approx. Cost</b>	<b>\$0</b>
<b>Map</b>	N/A

<b>School area</b>	<b>Parkland School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all roads in this area.
<b>Consultation proposal</b>	We proposed to create 30km/h permanent speed limits on Balmoral Drive, Heritage Place, Parkland Crescent and Croxley Place.
<b>Submission summary</b>	Ten submissions, six in support, two opposed, and two unsure.
<b>Recommendation</b>	Option 18A – confirm consultation proposal.

#### Arguments in favour of the proposal

- This includes a bus route, and a very congested street at school pick up and drop off. Traffic moves very fast through here, with children from kindergarten and school in the streets. Reduced speed limits will help.
- Number of cars dropping off kids has increased significantly. Restricted speeds reduce the risks around the school.
- Speed limit on Parkland Crescent should be 30km/h because of the twisty turns on the road.

#### Arguments against the proposal

- Support reduced speed limits but not sure that it will be effective, or that anyone will comply during weekends and school holidays.

#### Changes suggested by submitters

#### *Infrastructure (out of scope)*

- There should be another crossing added on Parkland Crescent.

#### Analysis

Most of the submissions are in favour of the proposal, though one submitter expressed concern about the effectiveness of the proposed speed limit outside of school hours, a sentiment expressed for most of the proposals around schools. Parkland Crescent is a somewhat narrow and twisting road which makes faster speeds unlikely. Compliance with a permanent 30km/h limit is likely to be good. The side streets of Balmoral Drive and Heritage Place provide back access to the school. The roads are no exit roads providing local access to residents, so their inclusion as permanent 30km/h speed limits is sensible.

#### Options

<b>OPTION 18A</b>	<b>Confirm consultation proposal</b>
<b>Justification</b>	- This option aligns with the submitters support to slower speeds on these streets. It also aligns best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to.
<b>Approx. Cost</b>	<b>\$7,100</b>
<b>OPTION 18A MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Balmoral Drive Heritage Place Parkland Crescent Croxley Place	30	Permanent

OPTION 18B	Amend consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- This option explores the submitters response of non-compliance outside of school times.</li> <li>- Balmoral Drive and Heritage Place would not be suitable for a variable speed limit. Electronic signs would be required at the entrance as a minimum to align with TCD and this is a dead-end slow speed road where the cost effectiveness</li> </ul>

	of this treatment would not be captured. A permanent 30 km/h will have next to no impact due to existing low operating speeds.		
	- A variable speed limit could be feasible along Parkland Crescent but similarly two variable speed limit electronic signs would be required to meet the TCD requirements, increasing cost. Given that submitter feedback for permanent speed limits has largely been positive it is believed that a variable speed limit here is unnecessary.		
Approx. Cost	\$57,400		
OPTION 18B MAP			
			
Description			
Road(s)		Proposed speed limit (km/h)	Speed limit type
Balmoral Drive Heritage Place Parkland Crescent Croxley Place		30	Variable

<b>School area</b>	<b>Russell Street School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	We proposed creating a permanent 30km/h speed limit on Tyndall Street and on Rongopai Street from its intersection with Russell Street to its intersection with Heretaunga Street. We also proposed creating a permanent 30km/h speed limit on Russell Street from Tremaine Avenue to approximately 50 metres south of its intersection of Rongopai Street. We also proposed creating a permanent 30km/h speed limit on Heretaunga Street from its intersection with Tremaine Avenue to a point approximately 25 metres south of its intersection with Florence Avenue.
<b>Submission summary</b>	Fourteen submissions, eight in support, four opposed, two unsure.
<b>Recommendation</b>	Option 19A – confirm consultation proposal.

#### Arguments in favour of the proposal

- Many people park on the yellow no-parking lines on Rongopai Street to get closer to the school when picking up kids. This can make it more dangerous for drivers to see kids moving between vehicles. Slower speed limits on these streets are necessary.

#### Arguments against the proposal

- Supports slower speed limits but only at pick up and drop off times, not permanent.
- Heretaunga Street should not be included as few children use that street as pedestrians.

#### Changes suggested by submitters

- Extend 30km/h speed limit on Russell Street to Featherston Street.

#### Infrastructure (out of scope)

- Prohibit all-day parking on streets near Russell Street School, so that crossing the road is safer for children.
- Put in a raised pedestrian crossing outside the school to slow down traffic.

#### Analysis


Most of the arguments in relation to Russell Street School repeat the points made for other schools, namely that traffic patterns create dangerous environments for children, or that permanent speed limits are unnecessary and should only apply during pick up and drop off times.

One submitter has suggested that the small number of children using Heretaunga Street means that a permanent speed limit is not justified. While school children are a primary focus for reducing speed limits, they are beneficial to all types of pedestrians.

The presence of the hospital in the area does tend to exacerbate parking demand, which can have an effect on the streets near Russell Street School. Limiting the length of parking could be considered, but it is likely to have a flow-on effect with people parking further away to avoid restrictions.

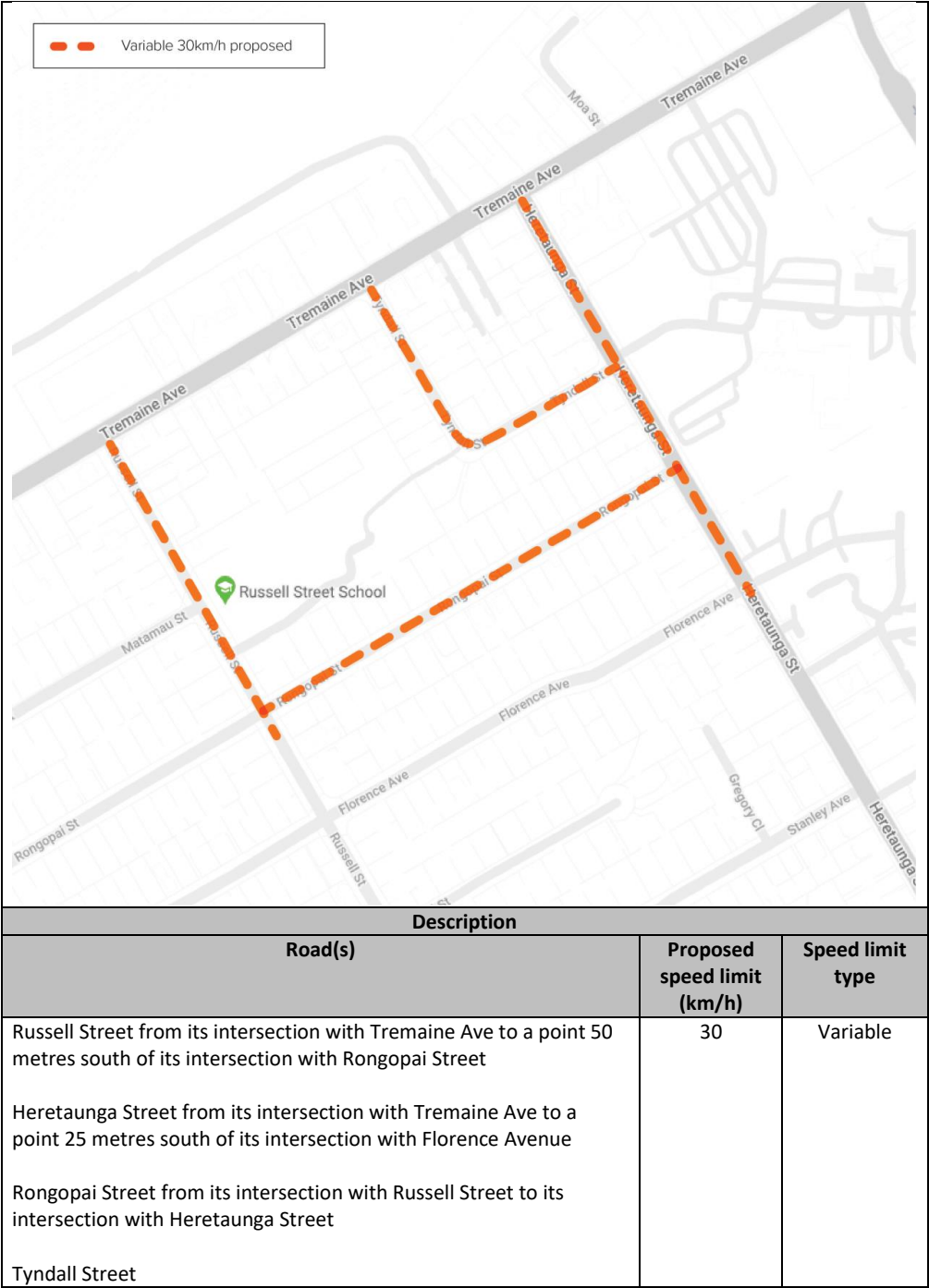
Extending the 30km/h speed limit on Russell Street can be considered. The effect of the speed limit can become diluted if it is applied too far away from the school or any other indicator of the reason for the slower speed limit, but this can be investigated.

Options

OPTION 19A	Confirm consultation proposal
Justification	- This option aligns with the positive consultation feedback along with best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to without need for additional safety infrastructure.
Approx. Cost	\$15,700
OPTION 19A MAP	
	

Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Russell Street from its intersection with Tremaine Ave to a point 50 metres south of its intersection with Rongopai Street	30	Permanent
Heretaunga Street from its intersection with Tremaine Ave to a point 25 metres south of its intersection with Florence Avenue		
Rongopai Street from its intersection with Russell Street to its intersection with Heretaunga Street		
Tyndall Street		

OPTION 19B	Amend consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- A complete change to variable speed limits only for this school is feasible and still captures the walking catchment of the school; however, this does not align with speed management best practice and the neighbourhood does not achieve the broader benefits of permanent slower speeds as the variable speed limit would be functional during school hours only.</li> <li>- To implement this option, at least five electronic variable speed limits will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> </ul>
Approx. Cost	\$98,900
OPTION 19B MAP	





<b>School area</b>	<b>Te Kura o Wairau</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area.
<b>Consultation proposal</b>	We proposed to create a 30km/h variable speed limit on Botanical Road for a stretch of 280 metres. We also proposed to permanently lower the speed limit to 30km/h on Lancaster Street, Somerset Crescent, Drayton Place, and on Highbury Avenue from a point 60 metres south of its intersection with Havelock Avenue to its intersection with Tremaine Avenue.
<b>Submission summary</b>	Four submissions, all in support.
<b>Recommendation</b>	Option 20A – confirm consultation proposal.

#### Arguments in favour of the proposal

- None given.

#### Arguments against the proposal

- None given.

#### Changes suggested by submitters

#### *Infrastructure (out of scope)*

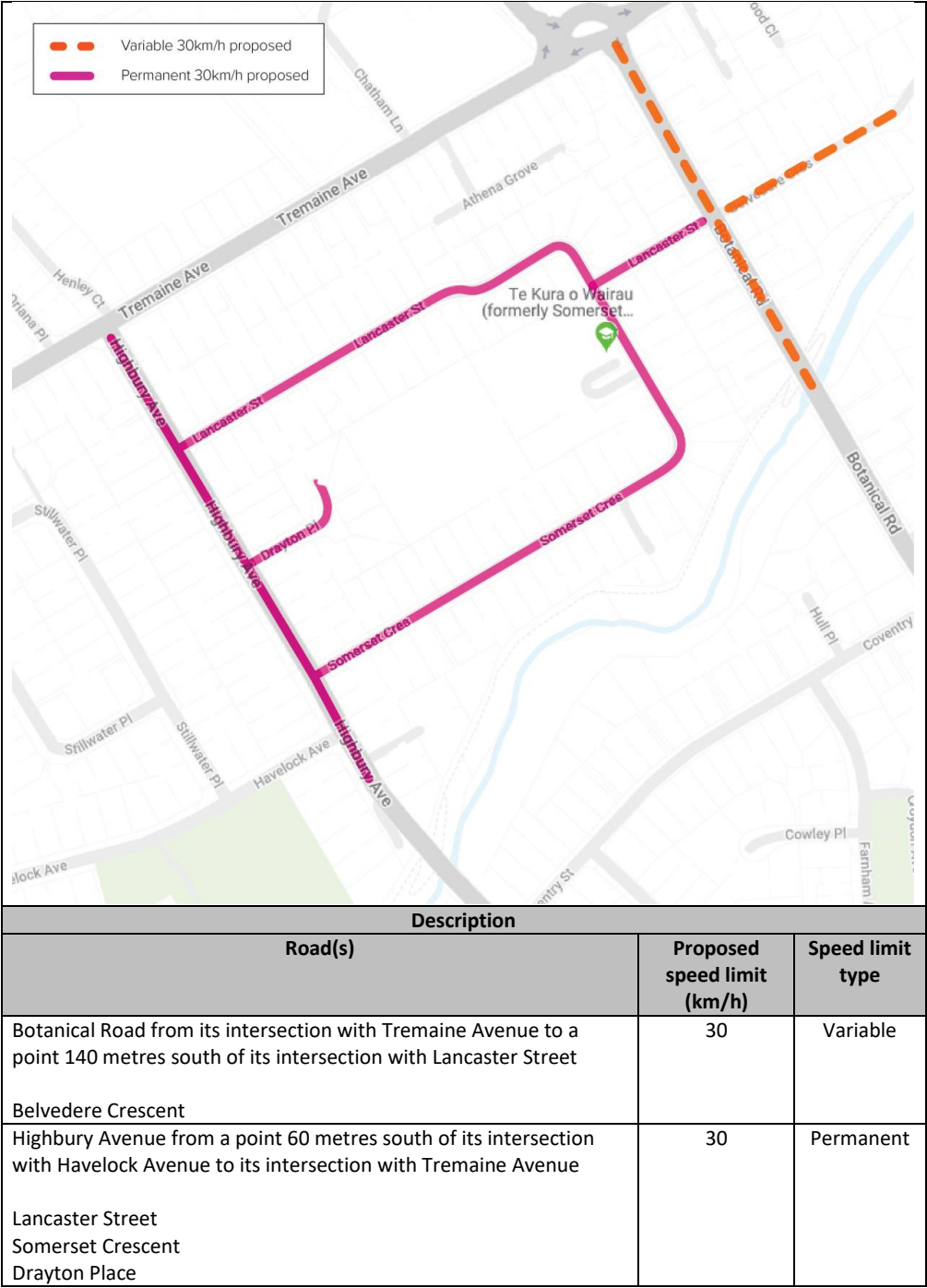
- Put speed humps on Lancaster Street.

#### Analysis

All submissions were in favour of the proposals for Te Kura o Wairau, but none made any comments about the proposed speed limits. The emphasis instead was on putting in traffic calming measures on Lancaster Street. Submitters noted they witness dangerous driving, and this poses a risk to the wide range of people who use the area, including elderly people and people accessing the daycare in the area.

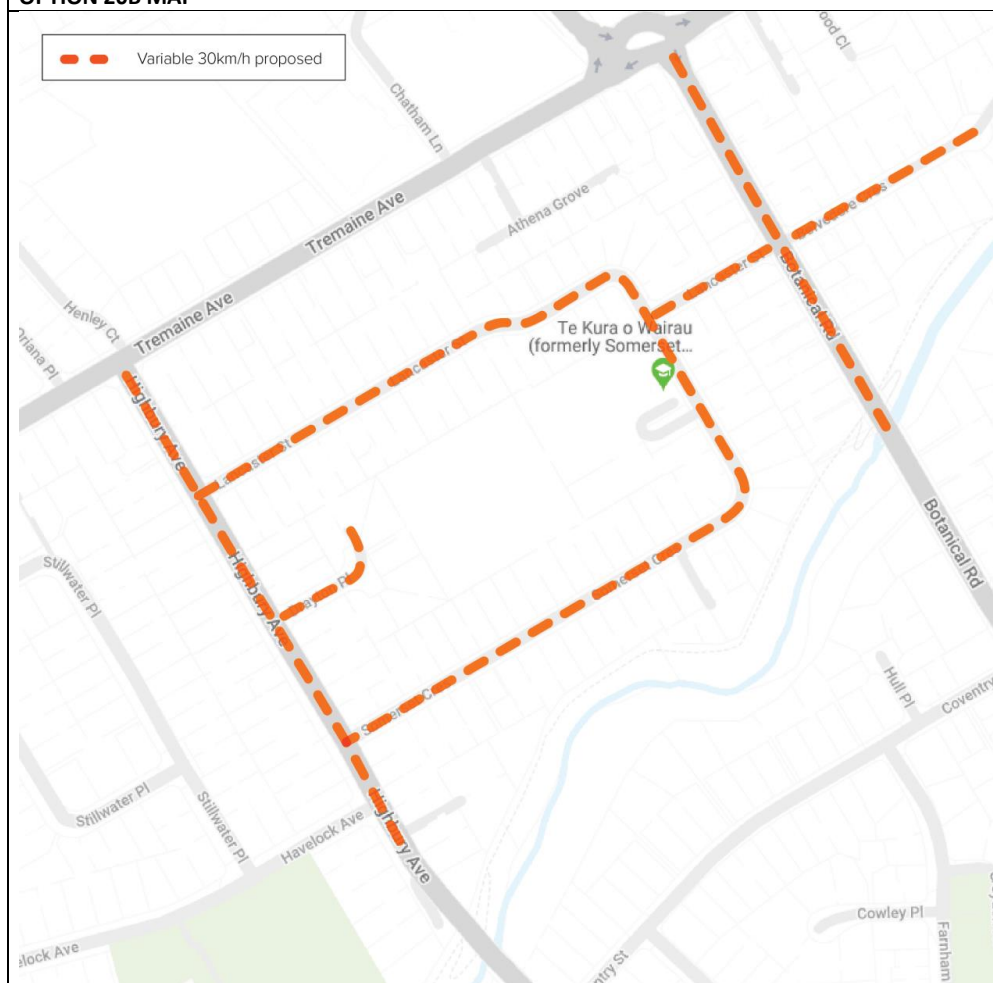
#### Options

<b>OPTION 20A</b>	<b>Confirm consultation proposal</b>
<b>Justification</b>	- This aligns with the positive response from consultation and aligns to best practice and overall policies. The current surrounding road environment as well as the current operating speeds indicate that the proposed speed will be adhered to.
<b>Approx. Cost</b>	<b>\$46,100</b>
<b>OPTION 20A MAP</b>	



OPTION 20B	Amend consultation proposal with variable speed limits on all roads
Justification	<ul style="list-style-type: none"> <li>- This is feasible, but to implement this option at least four electronic variable speed limit signs will be required to remain within the TCD rules and best practice. This would incur a higher cost than the existing proposal.</li> <li>- This is not recommended due to the increased cost and the potential risk of creating a variable speed limit zone that is too large for drivers to recall the speed limit at different times of day.</li> <li>- This option will not reap the benefits that a permanent speed limit will provide where there are pedestrians walking along and crossing the road at all times of the day – not just during school pick-up and drop-off times.</li> </ul>
Approx. Cost	\$77,200

## OPTION 20B MAP



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
<p>Botanical Road from its intersection with Tremain Avenue to a point 140 metres south of its intersection with Lancaster Street</p> <p>Highbury Avenue from a point 60 metres south of its intersection with Havelock Avenue to its intersection with Tremain Avenue</p> <p>Lancaster Street</p> <p>Somerset Crescent</p> <p>Drayton Place</p> <p>Belvedere Crescent</p>	30	Variable

<b>School area</b>	<b>Terrace End School</b>
<b>Current speed limits</b>	There is an existing 50km/h speed limit on all local roads in the area. There is also an existing 40km/h variable speed limit on Ruahine Street from a point 40 metres north of Grey Street to a point 30 metres south of Innes Place.
<b>Consultation proposal</b>	<p>We proposed lowering the existing 40km/h variable speed limit to a 30km/h variable speed limit and extending it a point 50 metres north of Koromiko Avenue, and down to a point 50m south of its intersection with Broadway Avenue for a total length of 500 metres. This will include Innes Place as a 30km/h variable speed limit.</p> <p>We also proposed to lower the permanent speed limit to 30km/h on Kauri Street, Koromiko Avenue, Plymouth Street, and Wharenui Terrace, on Rangiora Avenue from its intersection with Featherson Street to a point 60 metres east of its intersection with Koromiko Avenue, and on Moheke Avenue from its intersection with Rangiora Avenue to a point 90 metres east of that same intersection.</p>
<b>Submission summary</b>	Fifteen submissions, nine in support, four opposed, and two unsure.
<b>Recommendation</b>	Option 21A – confirm consultation proposal.

#### Arguments in favour of the proposal

- Support the permanent 30km/h speed limit on Kauri Street for Terrace End School.
- Our community supports the lower speed limits on Rangiora Avenue, Kauri Street and Ruahine Street.
- Ruahine Street is a very busy road and is a major thoroughfare for the city. While the volume of traffic does often reduce speeds, the people using the pedestrian crossings outside the school are at times highly vulnerable to vehicles not held back by the flow.
- Many roads are narrow streets where too many people go too fast.

#### Arguments against the proposal

- Concerned that the different speed limits will be confusing across the city, and it will be hard to know what the speed limit actually is.
- Permanently lower speed limits is overkill.
- The existing 40km/h variable speed limit doesn't need to change.
- The issue is impatience, so changing the speed limit isn't going to make school areas safer. Physical barriers or obstacles may be a more costly but effective solution.

#### Changes suggested by submitters

##### *Infrastructure (out of scope)*

- Put in no-parking lines on Kauri Street cul-de-sac to make it easier for people to turn around and park on the straights.

### Analysis

Those in favour of the proposal made reference to their support for specific streets such as Kauri Street, Rangiora Avenue, and Ruahine Street. They commented that many are narrow streets where people are driving too fast. Ruahine Street was identified as a major road for the city and although the pedestrian crossings do improve safety, people continue to drive fast when there is no congestion. The proposal for Ruahine Street is to change the variable speed limit from 40km/h to 30km/h, so would not be a permanent reduction, reflecting the role of the road as a movement street rather than a place street.

Submitters opposed to the proposal were concerned about confusing speed limits. A blanket reduction of speed limits would be less confusing but is unlikely to be effective and supported. Leaving the speed limits unchanged is not an option, as the Speed Limit Rule requires that roads around schools have slower speed limits of 30km/h in most cases. Consequently, the proposals attempt to target the proposed speed limit changes to the areas where they are likely to be most effective.

A submitter also argued that driver impatience is a bigger issue, and that lower speed limits would make people more impatient. While it is true that some drivers may find the slower speed limits inconvenient, the proposed speed limits are focussed on roads where operating speeds are already low. Permanent speed limit changes are not proposed for roads which are major thoroughfares or movement streets, which would minimise the impact on driver's patience.

### Options

<b>OPTION 21A</b>	<b>Confirm consultation proposal</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The current surrounding road environment coupled with current operating speeds being low indicate that the proposed speed will be adhered to without need for safety infrastructure on the local roads.</li> <li>- Using permanent speed limits on the local roads is the most cost-effective solution given average operating speeds are already low on these roads.</li> </ul>
<b>Approx. Cost</b>	<b>\$23,800</b>
<b>OPTION 21A MAP</b>	



Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Ruahine Street from a point 50 metres north of Koromiko Avenue to a point 50 metres south of its intersection with Broadway Avenue  Innes Place	30	Variable
Rangiora Avenue from its intersection with Featherston Street to a point 60 metres east of its intersection with Koromiko Avenue  Moheke Avenue from its intersection with Rangiora Avenue to a point 90 metres east of that same intersection  Kauri Street Koromiko Avenue  Plymouth Street Wharenuai Terrace	30	Permanent

<b>OPTION 21B</b>	<b>Maintain 30km/h for Kauri Street, change rest to variable speed limits</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- This approach is feasible and it acknowledges the possible confusion that may be experienced when using both variable speed limits and permanent speed limits. Upon assessment it would be feasible to install, however noting this would require an increased cost as at least five electronic variable speed limit signs will be needed to be feasible in alignment with TCD rules.</li> <li>- It is important to note also that this approach would not support the positive responses received for these streets to be a permanent 30km/h speed limit, of which several submitters did express support.</li> <li>- Kauri Street must remain as a permanent speed limit as it would not be cost effective to convert it to a variable speed limit as an electronic sign would have to be used which is not cost effective for a cul-de-sac road. Additionally, based on the operating speeds on this road, a permanent speed limit will have little to no impact on those accessing this road as slow speeds are already apparent.</li> </ul>
<b>Approx. Cost</b>	<b>\$79,600</b>
<b>OPTION 21B MAP</b>	





Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Ruahine Street from a point 50 metres north of Koromiko Avenue to a point 50 metres south of its intersection with Broadway Avenue	30	Variable
Rangiora Avenue from its intersection with Featherston Street to a point 60 metres east of its intersection with Koromiko Avenue		
Moheke Avenue from its intersection with Rangiora Avenue to a point 90 metres east of that same intersection		
Innes Place		
Koromiko Avenue		
Plymouth Street		

Wharenui Terrace		
Kauri Street	30	Permanent

<b>School area</b>	<b>Turitea School</b>
<b>Current speed limits</b>	There is an existing 100km/h speed limit on SH57.
<b>Consultation proposal</b>	We proposed to extend the 60km/h variable speed limit proposed by Waka Kotahi for SH57 outside Turitea School onto the side road controlled by PNCC.
<b>Submission summary</b>	Sixteen submissions received, fifteen in support, one opposed.
<b>Recommendation</b>	Option 22A – confirm consultation proposal

#### Arguments in favour of the proposal

- The current speed limit is too high for tamariki to bike to school along Old West Road. More will want to if the speed limit is reduced to 60km/h.
- Old West Road is a narrow road with a sharp bend by the school, and the risk of an accident is high when trying to turn into the slip road behind the school. The slower speed limit will make that safer.
- Parents and kids live on the opposite side of the road to Turitea School. A 100km/h limit is incredibly dangerous for people trying to cross the road.
- There is no bus to the school so a very high number of cars enter and exit SH57 from the side road at school drop off and pick up times. Reducing the speed limit allows car traffic to more safely move through the intersection, and could encourage more cycle and pedestrian access.
- The current speed limit is a danger not only to school families but to other families living close to the school.

#### Arguments against the proposal

- Reducing the speed limit to 60km/h on the side road is redundant, as no one will travel that fast. Faster than 30km/h is unsafe.

#### Changes suggested by submitters

- Make all of SH57 from Linton to Summerhill 80km/h all the time.
- Make the side road 30km/h.

#### Analysis

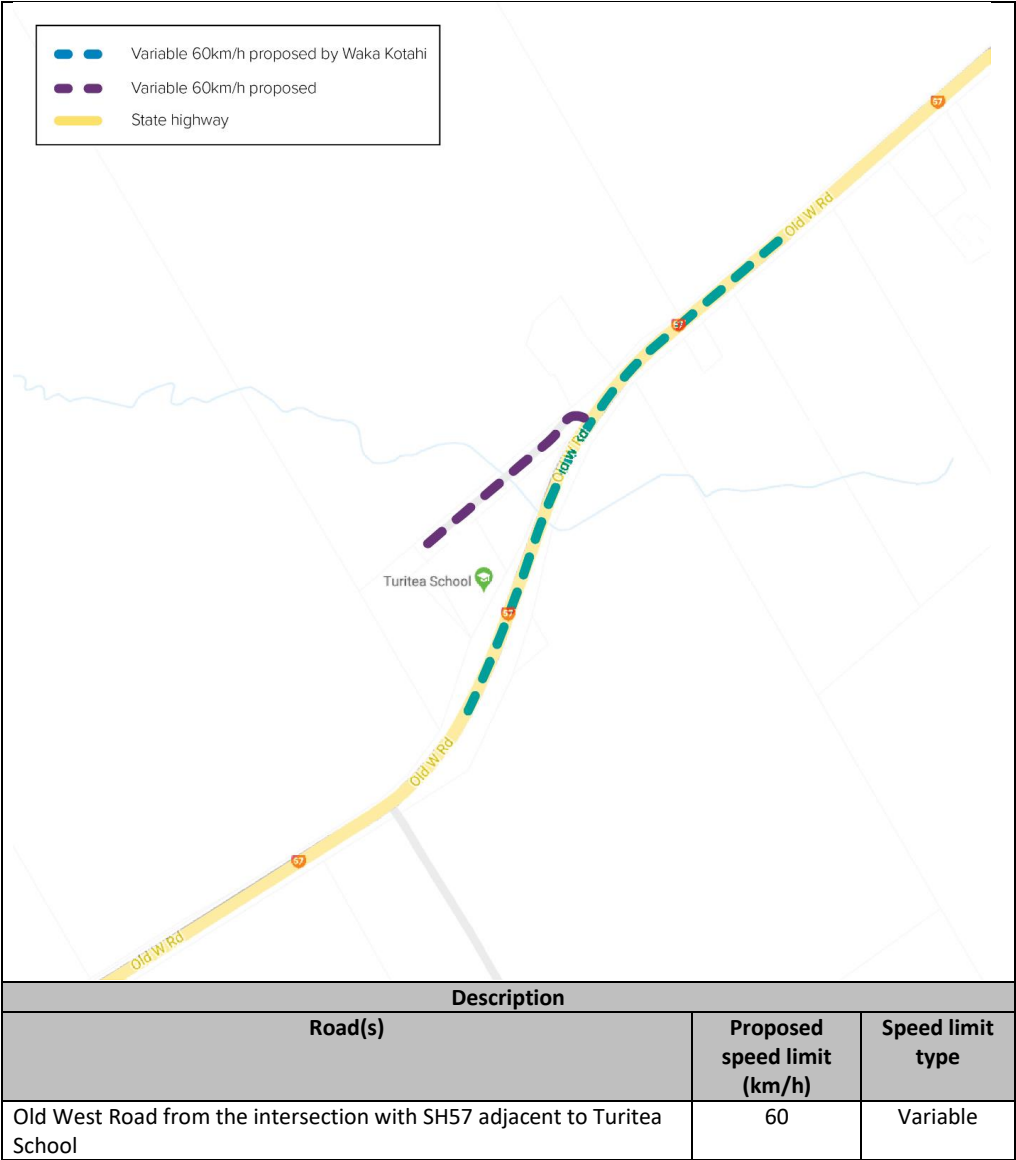
The submissions on this proposal were strongly in favour of the 60km/h limit for Old West Road proposed by Waka Kotahi and cited several examples why this change was needed. They included making the road safer for cycling, the narrowness of the road, and making it easier for people to cross the road.

The proposal to reduce the speed limit on the side road to 60km/h to match the proposal from Waka Kotahi was also supported. However one submitter argued that given it was only used to access the school, it was unlikely that people would drive that fast, and suggested driving faster than 30km/h was unsafe.

The suggestion to reduce the speed limit on all of SH57 to 80km/h is outside the scope, as it is a road controlled by Waka Kotahi and we have no authority to change the speed limit on a state highway.

Options

OPTION 22A	Confirm consultation proposal
<b>Justification</b>	<ul style="list-style-type: none"> <li>- The proposal for Turitea School was determined to match that of SH57 due to its short length, as the required minimum distances between the signs required to install a different speed limit than that of SH57 would mean the local road speed limit would look out of place.</li> <li>- While it is important that the speed limits are set for safe driving speeds, currently the limit is 100km/h and average operating speeds are still less than 60km/h, indicating that irrespective of the speed limit people are generally driving to the conditions on this road.</li> <li>- A full variable speed limit zone does require coordination from Waka Kotahi to make sure that the speed on the side road and the speed on SH57 are implemented at the same time.</li> <li>- A risk does exist given the SH57 proposed speed limits shown have not yet been confirmed by Waka Kotahi. In the instance the variable speed limit along SH57 is not installed, the speed limit proposed may not be implemented, and it will consequently then require an electronic sign be installed increasing cost significantly.</li> <li>- A permanent speed limit has not been recommended here because, due to the short length of the available road, it would not be feasible to pragmatically install the required signage to meet TCD requirements.</li> </ul>
<b>Approx. Cost</b>	<b>If Waka Kotahi do confirm the proposed 60km/h variable speed limit on SH57 - \$0</b> <b>If Waka Kotahi do not confirm the proposed 60km/h variable speed limit on SH57 - \$19,200</b>
<b>OPTION 22A MAP</b>	



**Note:** There is a 60km/h variable speed limit proposed on SH57 Old West Road by Waka Kotahi.

<b>School area</b>	<b>Whakarongo School</b>
<b>Current speed limits</b>	There is an existing 70km/h speed limit for a section of Stoney Creek Road. There is also an existing 60km/h variable speed limit on SH3 near Whakarongo School.
<b>Consultation proposal</b>	We proposed lowering the 70km/h speed limit on Stoney Creek Road to a permanent 60km/h speed limit.
<b>Submission summary</b>	Three submissions were received, two in support and one opposed.
<b>Recommendation</b>	Option 23A – confirm consultation proposal.

#### Arguments in favour of the proposal

- None given.

#### Arguments against the proposal

- None given.

#### Changes suggested by submitters

- Speed limit should be reduced further to 30km/h. The parallel parks on Stoney Creek Road mean some kids still access from the roadside.

#### Infrastructure (out of scope)

- The provided carpark for drop off and pick up is a great concept but access at 3pm needs to be improved.

#### Analysis

While most submissions were in favour, none of the submitters made comments about the proposed speed limits except to suggest that the speed limit is reduced even further to protect children who are still getting out of cars on the road side of Stoney Creek Road.

Whakarongo School has been designated a category 2 school because it has a dedicated off-road car park for dropping off and picking up students. This allows a maximum speed limit of 60km/h, though a slower speed limit can still be set.

#### Options

<b>OPTION 23A</b>	<b>Confirm consultation proposal</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>- SH3 currently has a 60km/h variable speed limit that was set earlier in 2022. When considering feedback for a further reduced speed, it has been decided that the 60km/h speed limit be maintained as proposed in consultation to match the SH3 variable speed limit so not to create confusion by having multiple speed limits around the same school, in accordance with best practice guidelines.</li> <li>- While a reduced speed limit would be beneficial, it is important to consider speed limits as a whole network and the SH3 speed limit is not planned to reduce, therefore a 60km/h permanent speed limit is preferred.</li> <li>- Reducing the existing 70km/h outside the school is required by law to be completed by June 2027 regardless, so including it now as part of school speed</li> </ul>

	changes allows Council to capitalise on funding for schools to complete these required works.	
Approx. Cost	\$3,800	
OPTION 23A MAP		
<div><div></div> Permanent 60km/h proposed</div> <div><div></div> Existing variable 60km/h owned by Waka Kotahi</div> <div><div></div> State highway</div>		
Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Stoney Creek Road from its intersection with SH3 to a point 200 metres south of its intersection with Hendersons Line	60	Permanent

**Note:** There is an existing 60km/h variable speed limit on SH3 Napier Road controlled by Waka Kotahi.

<b>OPTION 23B</b>	<b>Amend consultation proposal to include a variable speed limit for Stoney Creek Road</b>
<b>Justification</b>	<ul style="list-style-type: none"> <li>The proposal for a variable speed limit would tie the speed limit into the existing 60km/h variable speed zone on SH3. However, this would require maintaining the permanent 70km/h underneath, which in accordance with the Speed Rule 2022, must be removed from the network by June 2027. It would not be suitable to increase the speed to 80km/h along this stretch due to the school presence and the rail crossing, and therefore this option is not recommended as a 60km/h variable speed limit on top of a 70km/h permanent speed limit that will change to 60km/h in a few years is not pragmatic no a cost effective use of resources.</li> </ul>
<b>Approx. Cost</b>	<b>\$19,200</b>

**OPTION 23B MAP**





Description		
Road(s)	Proposed speed limit (km/h)	Speed limit type
Stoney Creek Road from its intersection with SH3 to a point 200 metres south of its intersection with Hendersons Line	60	Variable

**Note:** There is an existing 60km/h variable speed limit on SH3 Napier Road controlled by Waka Kotahi.

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Palmerston North Interim Speed  
Management Plan 2023  
(School Speed Limits)

## Compliance checklist

The following table is a summary of the legal compliance requirements for an interim Speed Management Plan prepared under the Land Transport Rule: Setting of Speed Limits 2022.

Category	Confirmation	Clause ^	Yes/no
<b>Public consultation complete</b>	Consultation for this speed management plan has been carried out in accordance with the Land Transport Rule: Setting of Speed Limits 2022, clause 3.9	12.14(1)(a)(i)	Yes
<b>Plan content check</b>	For each proposed change includes, to the extent practicable, information on the geographical area of the proposed speed limit, the type of speed limit, the proposed speed limit expressed in kilometres per hour, and the timeframe within which the change is proposed to occur	12.13(1)(a) & (b)	Yes
	Identify any school which is proposed to be designated a category 2 school and include an explanation for why, having regard to any guidance provided by the Agency about speed limits outside schools, the speed limit outside the category 2 school is safe and appropriate for the road.	12.13(2)(b) & (c)	Yes
	Include an explanation of how the plan is consistent with the road safety aspects of the GPS on land transport and any Government road safety strategy	12.14(1)(a)(ii)	Yes
	Include a general explanation of how a whole-of-network approach was taken to changing speed limits by considering a range of speed management interventions	12.14(1)(a)(iii)	Yes

## Executive Summary

This Interim Speed Management Plan (ISMP) for Palmerston North has been prepared in accordance with the Land Transport Rule: Setting of Speed Limits 2022. It outlines the proposed speed limit changes for roads around schools in the Palmerston North territorial authority area.

A total of 43 schools are covered by this Plan, representing 100% of schools operating in Palmerston North at the time of this Plan's publication. Given the close proximity of some schools to each other, and considering the network as a whole, we have aggregated several schools into "clusters" for the purposes of developing speed limit proposals. Each of these school clusters are treated as a single area for implementation, so that a more efficient programme of implementation can be achieved.

We intend to implement speed limit changes affecting a total of 30 schools in the 2023/2024 financial year, utilising available funding already confirmed for this project. The speed limit changes for the remaining schools will be implemented in the 2024/2025 financial year, subject to confirmation of funding through the 2024-2034 Long Term Plan.

This ISMP includes additional information required for certification by Waka Kotahi, including:

- A summary of our assessment methodology;
- Our community engagement and consultation approach;
- Our long-term speed management strategy, and our objectives;
- A summary of how our ISMP aligns to the Government Policy Statement on Land Transport.

The specific speed limit changes are documented in two tables. The first table includes all those roads associated with category 1 schools. The second table includes all those roads associated with category 2 schools. For each school or cluster, there is a map which illustrates the proposed speed limit changes.

## How we reviewed speed limits: methodology of assessment

Palmerston North City Council (PNCC) used the following high-level methodology to determine the proposed speed limit changes contained in this Interim Speed Management Plan (ISMP):

1. We initially identified all schools and the approximate catchments where the required reduced speed limits would be most appropriate. This was based on local data and knowledge, such as operating speeds (sourced from MegaMaps) and information gathered from early engagement with school. While only 40% was required for the ISMP scope as a minimum, we decided that all schools would be included in the ISMP.
2. We developed a broad scope of objectives and policies to help guide the technical assessment process. The intent of this was to assist in the overall messaging to the public and to provide a consistent approach to setting speed limits around schools in Palmerston North. In developing these, we also aimed to align the speed limit changes around schools with the priorities and objectives set out in the Waka Kotahi speed management guide and with our strategic direction.
3. We then determined the safe and appropriate speed, relevant school category, and type of speed limit (permanent or variable) for each school in alignment with the objectives and policies as mentioned above.
4. With all schools assessed individually, we took a broader road network view to ensure that any changes were consistent with other speed limits in the area and did not create unnecessary disruption to traffic or create confusion. This also considered upcoming and planned infrastructure where applicable/known to be implemented within the next year.
5. The draft ISMP was approved for public consultation at a meeting of the Council on 4 April 2023. The consultation period ran from 1 May until 2 June. The Council considered all the written and oral submissions on 15 November, and approved this document for certification by Waka Kotahi.
6. Once implemented, we intend to monitor the effectiveness of any changes to school speed limits and make adjustments as needed in the form of investigation of minor infrastructure works.

## How we engaged with our community: consultation and engagement

We undertook a comprehensive community consultation exercise to ensure that a wide range of views and perspectives were considered as part of the decision-making process.

We identified stakeholders who had a particular interest in the proposed speed limit changes. These stakeholders included:

- Schools
- Residents within school neighbourhoods
- Emergency services
- Industry groups such as AA and heavy vehicle operators

- Community and active transport advocacy groups
- Business groups including the Manawātū Chamber of Commerce and Palmy BID
- CEDA
- Environment Network Manawātū
- Large, location-based employers such as Massey University and IPU, and Te Pae Hauora o Ruahine o Taranua.

We contacted the above stakeholders directly and provided them with information about the proposals, and invited them to make a submission. We placed an emphasis on direct mail-outs to residents in areas affected by the proposals, and contacting schools with information that they could easily pass on to whanau of children attending that school.

We engaged with Rangitāne o Manawātū via the regularly scheduled hui Te Whiri Kōkō, and sought their input into the process and the proposed speed limit changes. They expressed general support for the process and proposals, but had no specific comments to make about the proposed speed limit changes.

We extended an invitation to attend meetings of groups and organisations who had an interest in the proposals. We also ran a series of drop-in sessions throughout the consultation period. Four of these drop-in sessions were held at schools around the city, towards the end of the school day to make it easier for parents and people within the neighbourhood to find out more information and ask questions. A fifth drop-in session was held on a weekend at the central library.

The consultation material was made available in several different places, including the customer service centre, at the central and community libraries around the city, and on our website. A dedicated page was set up to provide both general information about the process of setting speed limits, and specific information about the proposals to change speed limits around schools. An interactive map identified the locations around the city where speed limit changes were proposed, enabling people to click through to learn more information. An online form provided the opportunity for people to make a submission on multiple school areas, as well as make general comments.

We received 378 written submissions during the consultation period, and received oral submissions from five submitters at hearings held on 1 August 2023. All the written and oral submissions were analysed, and advice on those submissions was presented to the Strategy and Finance Committee on 15 November 2023. The Committee recommended that changes be made to the original proposals based on the feedback during the consultation period.

#### *Summary of consultation outcomes*

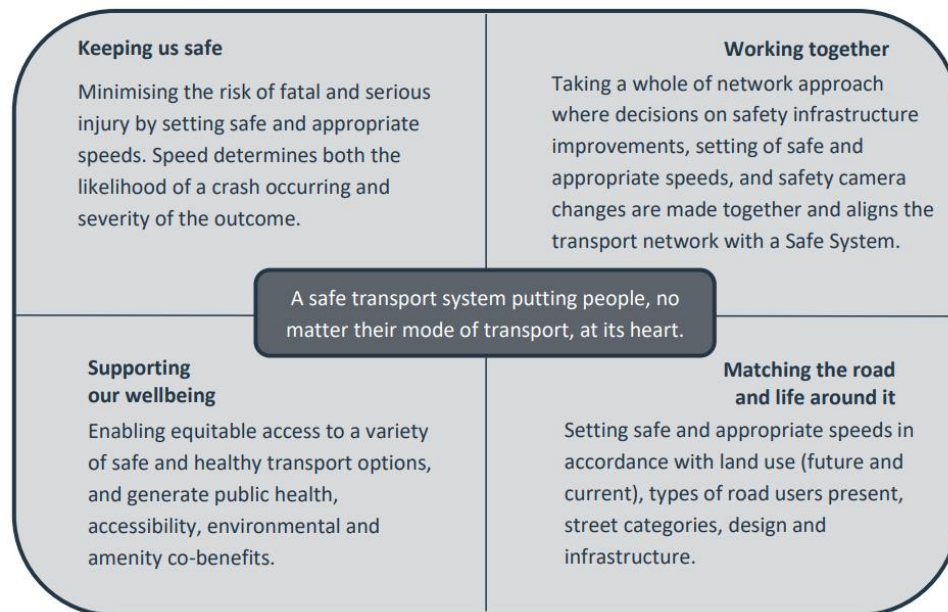
We consulted on proposed speed limit changes for roads around 43 schools. As a result of that consultation, we have made amendments to those proposals for 27 schools. For many of those schools the amendment include adding roads that were previously not included, or extending the length to which the slower speed limit applied. For a small number of schools, we have changed the type of speed limit from permanent to variable.

Details of the analysis of submissions, along with the recommended speed limits for each school, can be found in attachment one of the report presented to the Strategy and Finance Committee on 15 November 2023 [*link to be added*].

## Our approach to speed management: long-term speed management strategy

We have worked with Horizons Regional Council to take a co-ordinated approach to speed management, alongside other road controlling authorities (RCAs) in the region. As a result, the Regional Transport Committee adopted the following vision and principles to guide RCAs in their development of speed management plans. We have used the following vision and principles as a basis for development our interim Speed Management Plan:

### Our guiding principles:



*Figure 1 - Regional Vision and Principles for speed management, endorsed by the Horizons Regional Transport Committee, 6 December 2022*

### *Our objectives*

We used the following objectives to guide how we developed the proposals for slower speed limits around schools in Palmerston North:

1. We will use the Speed Management Guide published by Waka Kotahi to assess speed limits.

We have used the new Road to Zero edition of the Speed Management Guide to identify what speed limits are appropriate for our schools, and this has formed the starting basis for our proposals.

2. We will prioritise people over vehicles.

Slower speed limits around schools are about making these environments safer for pedestrians, especially school children. We've balanced the inconvenience for some motorists of a slower speed against the benefits of a slower speed environment for people making their way to and from school.

3. We will consider how the area around the school is used.

We've identified the streets that are used by people getting to and from school, to work out where there should be slower speed limits. In some cases, there are many side streets which provide access to the school, and we've proposed slower speed limits on these roads.

4. We will use permanent speed limits for side streets, and variable speed limits for main routes.

In most cases, where a school is accessed from a main route, we've used a variable speed limit that operates at the start and end of the school day. This provides safer speeds when there are many people around the school, without unnecessarily slowing down the network for things like freight and logistics. For most other roads, especially side streets, we've proposed a permanent slower speed limit.

## How our Plan aligns to the Government Policy Statement on Land Transport

The Ministry of Transport Government Policy Statement (GPS) 2021 is a strategic document that sets out the government's priorities and objectives for the transport sector. The overarching goal of the GPS 2021 is to create a safe, sustainable, and accessible transport system that supports New Zealand's social, economic, and environmental goals.

One of the key priority areas identified in the GPS 2021 is safety, and improving safety outcomes for all road users, including pedestrians and cyclists, is a critical focus. In order to achieve this objective, the GPS 2021 sets out a number of measures that can be taken to improve safety on New Zealand's roads, including the following:

- Reducing speed limits: Lowering speed limits can significantly reduce the risk of death or serious injury in the event of a crash. The GPS 2021 recommends that speed limits in urban areas be reduced to 30km/h in high-risk areas, such as around schools, and in residential areas where there is a high volume of pedestrian and cyclist activity.
- Enhancing active transport: Encouraging more people to walk, cycle, and use public transport can help to reduce congestion and improve safety outcomes. The GPS 2021



recommends investing in active transport infrastructure, such as cycleways and footpaths, to make it safer and more attractive for people to use these modes of transport.

- Improving road design: The design of roads and streets can have a significant impact on safety outcomes. The GPS 2021 recommends incorporating safety features, such as traffic calming measures and pedestrian crossings, into road design to reduce the risk of crashes and improve safety for all road users.

By aligning with the priorities and objectives set out in the GPS 2021, changing school speed limits in New Zealand can contribute to the government's broader goal of creating a safe, sustainable, and accessible transport system. Lowering speed limits in school zones can significantly improve the safety of children who are walking or cycling to school and is one of the key measures recommended by the GPS 2021 to improve safety outcomes for pedestrians and cyclists.

#### *NZ's Road Safety Strategy – Road to Zero*

The Ministry of Transport published *Road to Zero*, NZ's road safety strategy, in December 2019. The strategy sets out the Ministry's 10-year focus areas for improving road safety outcomes. The strategy is driven by the vision statement *"A New Zealand where no one is killed or seriously injured in road crashes. This means that no death or serious injury while travelling on our roads is acceptable."*

There are five focus areas in the strategy, with the first of these focussed on infrastructure improvements and speed management. Within this focus area, the strategy notes that:

*"A critical issue in New Zealand is that approximately 87 percent of our current speed limits are not appropriate for the conditions of our roads. Reducing travel speeds across parts of the network is one of the most efficient and immediate things we could do to reduce trauma."*

*"During the life of the strategy, we will work to create more consistent speed limits for roads according to their function, design standards and risk. While we can engineer up on the highest risk and economically important roads, speeds will need to be lowered in some other areas."*

Our interim Speed Management Plan is aligned to both the GPS on Land Transport and the *Road to Zero* strategy by focussing on lowering speed limits around schools. We have considered all schools at the same time, so that we can take a consistent approach to the roads around our schools, and this helps to maintain a whole-of-network approach. We have used a combination of permanent and variable speed limits to minimise unnecessary impacts on the wider network, while also considering the benefits of lower speed limits for a wide range of road users around schools. The use of permanent speed limits on smaller side roads around schools supports children who walk or cycle to school, but also supports the wider neighbourhood to be safer environments for all road users outside of school times.

## Our proposed speed limits

The following table identify the proposed speed limits for roads around category 1 schools. See appendix 1 for the maps for each school area.

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Ashhurst School (Map 2)	Salisbury Street from a point 50 metres north of its intersection with Mulgrave Street to a point 20 metres north of its intersection with Lincoln Street	50	30	Variable	2024/2025
	Hodgetts Place				
	Cambridge Avenue from a point 30 metres north of its intersection with Mulgrave Street to a point 55 metres south of its intersection with Lincoln Street	40 km/h variable speed limit	30	Permanent	

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	<p>Winchester Street from a point 20 metres northwest of its intersection with Guildford Street to its intersection with Mulgrave Street</p> <p>Bamford Street from its intersection with Cambridge Avenue to its intersection with Salisbury Street</p> <p>Stanford Street North from a point 45 metres south of its intersection with Lincoln Street to the school access</p> <p>Pete's Way Guildford Street Stanford Street South</p>	50	30	Permanent	
<p>Awapuni School</p> <p>Riverdale School</p> <p>West End School</p> <p>Awatapu College</p>	<p>Botanical Road from a point 30 metres south of its intersection with Ferguson Street to its intersection with Park Road.</p> <p>Park Road from its intersection with Botanical Road to a point 10 metres east of Katene Street</p> <p>College Street from a point 50 metres west of Botanical Road to a point 130 metres east of Botanical Road</p>	40km/h variable speed limit	30	Variable	2023/2024

School or cluster	Road(s) (Includes the start and end locations)	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Manawatū Community High School – Manawatū Kura a Iwi  (Map 3)	Rugby Street from a point 30 metres east of its intersection with Alexander Street to a point 50 metres northeast of its intersection with Rochester Street	50	30	Variable	
	Norwich Place				
	Slacks Road from its intersection with Buick Crescent to a point 10 metres west of its intersection with Hampden Street	50	30	Permanent	
	Long Melford Road from its intersection with Pitama Road to a point 30 metres east of its intersection with Kapiti Place				
	Pitama Road from its intersection with Slacks Road to a point 10 metres north of its intersection with Long Melford Road				

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Dittmer Drive Ruha Street Henara Place Huata Place Katene Street Wikiriwhi Crescent Anaru Place Te Punga Place Wharite Place Busby Place Hartley Place Adrien Way Anzio Place Buick Crescent Akaroa Avenue Sharon Place Rakino Place Hampden Street Coronet Place McDonald Place Juliana Place Berkley Place Belgrave Place Mudgway Place Dampier Avenue Benbow Place Alexander Street Raleigh Street Raleigh Service Lane Wyndham Street Oban Place Rochester Street Bradford Place Savage Crescent Mansford Place Nathan Place Hodgens Place Hammond Place Townshend Place				
Bunnythorpe School (Map 4)	Campbell Road from a point 50 metres northwest of its intersection with Dixons Line to a point 35 metres southeast of its intersection with Baring Street	50	30	Variable	2023/2024

School or cluster	Road(s) (Includes the start and end locations)	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Dixons Line from its intersection with Campbell Road to a point 50 metres northeast of its intersection with Baring Street  Dutton Street Baring Street Little Street	50	30	Permanent	
Carncot Independent School Mana Tamariki	Grey Street from a point 40 metres southwest of its intersection with Amesbury Street to a point 100 metres northeast of its intersection with Victoria Avenue	50	30	Variable	2024/2025 <sup>1</sup>
(Map 5)	Sydney Street Regent Street Owen Street Vivian Street Rangitāne Street	50	30	Permanent	
Central Normal School	Featherston Street from its intersection with Wood Street to a point 60 metres northeast of its intersection with Elizabeth Street	40 km/h variable speed limit	30	Variable	2024/2025 <sup>2</sup>
Queen Elizabeth College	Nikau Street	50	30	Variable	

<sup>1</sup> These speed limits are scheduled for implementation in 2024/2025 to align with planned works to install raised pedestrian platforms on Broadway Ave

<sup>2</sup> This is scheduled for implementation in 2024/2025 to align to the proposed installation of a variable speed limit on Rangitikei Street/SH3 by Waka Kotahi.

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Palmerston North Boys' High School (Map 6)	North Street from its intersection with Featherston Street to a point 360 metres south of its intersection with Tremaine Avenue	50	30	Variable	
	Havill Street Aroha Street Argyle Avenue Annandale Avenue Beresford Street Wellesbourne Street Ivanhoe Terrace Edgeware Road	50	30	Permanent	
Cloverlea School (Map 7)	Gillespies Line from a point 60 metres northwest of its intersection with Benmore Avenue to a point 40 metres southeast of its intersection with Herbert Avenue	50	30	Variable	2023/2024

School or cluster	Road(s) (Includes the start and end locations)	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Benmore Avenue from its intersection with Gillespies Line to a point 50 metres west of its intersection with Meadowbrook Drive Waltham Court Cecil Place Bendigo Street Rosedale Crescent Willowstream Grove Herbert Avenue Raglan Avenue Geraldine Crescent Bevan Place Drury Street Leslie Avenue Hinau Place Rimu Place Peters Avenue Fox Place Tararua Terrace	50	30	Permanent	



School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
College Street Normal School	College Street from a point 80 metres west of South Street to a point 80 metres east of Linton Street	40 km/h variable speed limit	30	Variable	2024/2025
Palmerston North Adventist Christian School	College Street from a point 20 metres east of Morris Street to a point 10 metres east of Union Street				
Palmerston North Intermediate Normal School	Fitzherbert Avenue from a point 40 metres north of Te Awe Awe Street to a point 90 metres north of Park Road				
Palmerston North Girls' High School (Map 8)	Park Road from a point 40 metres east of Batt Street to a point 40 metres east of its intersection with Cremorne Avenue				
	Pitt Street from a point 90 metres south of its intersection with Church Street to its intersection with Ferguson Street	50	30	Variable	
	Ferguson Street from its intersection with Pitt Street to a point 30 metres west of its intersection with Linton Street				
	Ferguson Street from its intersection with Cook Street to its intersection with Pitt Street	50	30	Permanent	
	Linton Street from Ferguson Street to Park Road				

School or cluster	Road(s) <i>(Includes the start and end locations)</i>		Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	South Street Hereford Street Worcester Street Moerangi Street Batt Street Chaytor Street Snelson Street Cleland Street McGiffert Street Kensington Mews Karaka Street Marne Street Union Street	Ranfurly Street Rolleston Street Ada Street Oxford Street Morris Street Milverton Avenue Colombo Street Manawaroa Street Graham Place Awatea Terrace Seaton Court Palm Avenue				
Cornerstone Christian School (Map 9)	Roberts Line from a point 40 metres south of Mihaere Drive to a point 80 metres north of Daniel Place		40km/h variable speed limit	30	Variable	2023/2024
	Mihaere Drive from a point 350 metres west of Roberts Line to its intersection with Roberts Line					
	Fernlea Ave from a point 40 metres east of Roberts Line to its intersection with Roberts Line					
	Daniel Place		50	30	Variable	

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Terrace Street      Tyne Street Newhaven Place      Thames Street Puriri Terrace      Humber Street Milton Street      Esk Street Browning Place      Tweed Street Kipling Street				
Freyberg High School	Featherston Street from a point 20 metres west of its intersection with Rangiora Avenue to a point 20 metres west of its intersection with Elliott Street	40 km/h variable speed limit	30	Variable	2023/2024
St Mary's School	Belfast Place	50	30	Variable	
Whakatipuria Teen Parent Unit	Ruahine Street from a point 160 metres north of Featherston Street to a point 30 metres north of its intersection with Puriri Terrace	40 km/h variable speed limit	30	Variable	
Ross Intermediate School					
Roslyn School (Map 10)	Vogel Street from a point 25 metres north of its intersection with Milton Street to a point 15 metres north of its intersection with Haydon Street  Tremaine Avenue from a point 45 metres east of its intersection with Vogel Street to a point 70 metres east of its intersection with Shelley Street	50	30	Variable	

School or cluster	Road(s) (Includes the start and end locations)	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Shelley Street from its intersection with Tremaine Avenue to a point 30 metres south of its intersection with Milton Street	50	30	Permanent	
Hokowhitu School	Albert Street from a point 40 metres north of its intersection with Churchill Avenue to a point 50 metres north of Te Awe Awe Street	40 km/h variable speed limit	30	Variable	2023/2024
St James School					
Winchester School (Map 11)	Jensen Street Wallace Place Redwood Grove St Albans Avenue	50	30	Variable	
	Ruahine Street from a point 130 metres east of its intersection with Newcastle Street to its intersection with Pahiatua Street  Manawatu Street from its intersection with Ruahine Street for a distance of 90 metres  Pahiatua Street from its intersection with Ruahine Street for a distance of 90 metres  Roxburgh Crescent	50	30	Variable	

School or cluster	Road(s) (Includes the start and end locations)		Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	Stewart Crescent Churchill Avenue Epsom Road Luton Street Athlone Place Woodstock Place Wigan Place Winston Avenue	Franklin Avenue Newcastle Street Swansea Street Bond Street Ascot Street Surrey Crescent Goodwyn Crescent	50	30	Permanent	
Longburn School (Map 14)	Carey Street		50	30	Permanent	2023/2024
Milson School  St Peter's College (Map 15)	Fairs Road from its intersection with Milson Line to a point 20 metres west of its intersection with Langley Avenue		50	30	Permanent	2023/2024
	Rennie Avenue Grange Place Moyne Avenue Aspiring Avenue Caitlins Crescent Hunter Street Kaituna Street	Holdsworth Avenue Lockhart Avenue Langley Avenue Abraham Crescent Cohen Place Rutland Place				

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Monrad Intermediate School	Botanical Road from a point 50 metres north of its intersection with Brighton Crescent to a point 60 metres south of its intersection with Pioneer Highway	40km/h variable speed limit	30	Variable	2023/2024
Takaro School	Pioneer Highway from a point 100 metres west of its intersection with Botanical Road to a point 30 metres east of its intersection with Shamrock Street	50	30	Variable	
Our Lady of Lourdes School (Map 16)	Highbury Avenue from a point 30 metres north of Brighton Crescent to its intersection with Botanical Road Brighton Crescent	40km/h variable speed limit	30	Permanent	
	Shamrock Street from its intersection with Pioneer Highway to a point 30 metres south of its intersection with Chelwood Street	50	30	Permanent	
	Ronberg Street from its intersection with Highbury Avenue to a point 80 metres southwest of its intersection with Opie Place  Brett Place                      Renfrew Place Rewa Street                      Radnor Place Duna Place                      Moray Place Opie Place                      MacEwan Place				
Parkland School (Map 17)	Balmoral Drive Heritage Place Parkland Crescent Croxley Place	50	30	Permanent	2023/2024

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Russell Street School (Map 18)	<p>Russell Street from its intersection with Tremaine Ave to a point 50 metres south of its intersection with Rongopai Street</p> <p>Heretaunga Street from its intersection with Tremaine Ave to a point 25 metres south of its intersection with Florence Avenue</p> <p>Rongopai Street from its intersection with Russell Street to its intersection with Heretaunga Street</p> <p>Tyndall Street</p>	50	30	Permanent	2023/2024
Te Kura Kaupapa Māori o Manawatū (Map 9)	<p>Rhodes Drive from Peter Hall Drive to a point 50 metres west of its intersection with Hillcrest Drive</p> <p>Peter Hall Drive                      Hillcrest Drive</p> <p>Walnut Grove                          Gladys Place</p> <p>Sunshine Place                        Cargill Grove</p> <p>Suzanne Grove                        Lyndale Place</p> <p>Colonial Place                         Cumberland Place</p>	50	30	Permanent	2023/2024
Te Kura o Wairau (Map 19)	<p>Botanical Road from its intersection with Tremaine Avenue to a point 140 metres south of its intersection with Lancaster Street</p> <p>Belvedere Crescent</p>	50	30	Variable	2023/2024

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	<p>Highbury Avenue from a point 60 metres south of its intersection with Havelock Avenue to its intersection with Tremaine Avenue</p> <p>Lancaster Street</p> <p>Somerset Crescent</p> <p>Drayton Place</p>	50	30	Permanent	
Terrace End School (Map 20)	Ruahine Street from a point 50 metres north of Koromiko Avenue to a point 50 metres south of its intersection with Broadway Avenue	40 km/h variable speed limit	30	Variable	2023/2024
	Innes Place	50	30	Variable	



School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
	<p>Rangiora Avenue from its intersection with Featherston Street to a point 60 metres east of its intersection with Koromiko Avenue</p> <p>Moheke Avenue from its intersection with Rangiora Avenue to a point 90 metres east of that same intersection</p> <p>Kauri Street</p> <p>Koromiko Avenue</p> <p>Plymouth Street</p> <p>Wharenui Terrace</p>	50	30	Permanent	

Speed limit proposals requiring special approval

The following schools are designated category 2, and require special approval from Waka Kotahi. The associated table and maps identify the proposed speed limits for roads around these schools:

School or cluster	Road(s) <i>(Includes the start and end locations)</i>	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe	Further information
Aokautere School (Map 1)	Pinfold Road Staces Road Pheasant Lane	100	60	Permanent	2024/2025	<p>This school is situated on a rural, no exit road with surrounding land use being primarily rural landscape with some residential housing.</p> <p>The primary reason for a Category 2 designation is that the 60km/h speed limit for this school is deemed the most appropriate for the prevailing road environment and existing travel speed behaviours, given there is no ability to change infrastructure at this time. A 30km/h speed limit on a road of this design would likely generate non-compliance and frustration.</p>

Supporting this justification is

- the presence of an off-road car park which is a measure to prevent pedestrian collisions, satisfying the requirements of a category 2 school designation.
- the adjacent State Highway has been identified as proposing a 60km/h variable speed limit for this school. In alignment with Waka Kotahi guidance to consider roads as a wider network, the 60km/h has been proposed to align to this intent and create a consistent speed limit at school times in the area. A variable speed limit was not proposed due to cost implications for this local road and the operating speeds indicated a permanent 60km/h speed limit would be complied with.

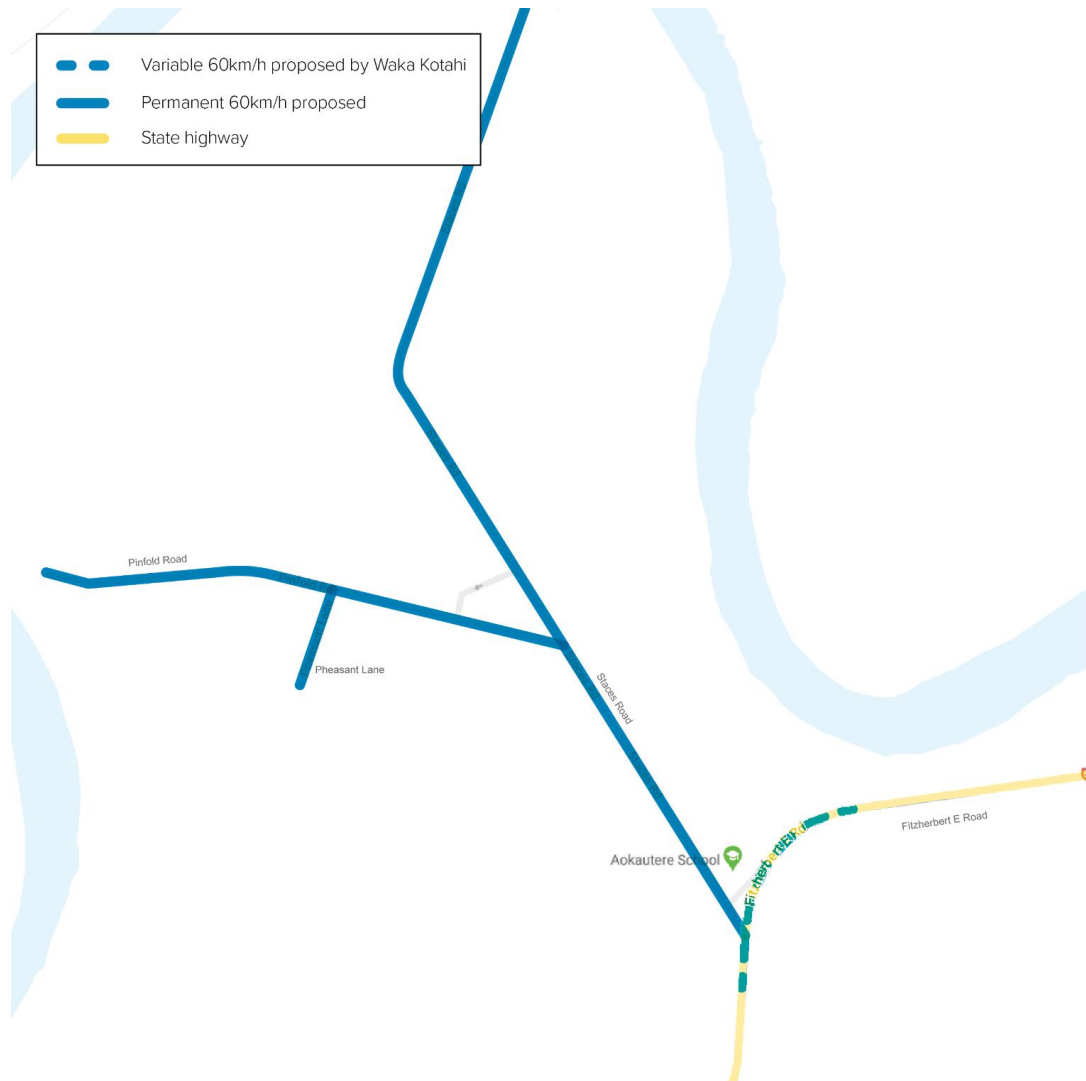
Kairanga School (Map 12)	<p>Rongotea Road from a point 440 metres northwest of its intersection with Kairanga Bunnythorpe Road to a point 390 metres southeast of its intersection with Kairanga Bunnythorpe Road</p> <p>Kairanga Bunnythorpe Road from a point 430 metres southwest of its intersection with Rongotea Road to a point 520 metres northeast of its intersection with Rongotea Road</p>	70	60	Permanent	2023/2024	<p>This school is situated on a rural crossroads which is priority controlled. It currently is posted at 70km/h and the proposal is to reduce the speed limit to 60km/h. The current operating speeds range from 42-57km/h on Kairanga-Bunnythorpe Road, and from 77-82 km/h on Rongotea Road.</p> <p>The primary reason for the Category 2 designation is that a 30km/h speed limit at this cross roads would be inappropriate for the design of the road in its current state and a 30km/h to 100km/h change point at this location may worsen the safety of the intersection. Additionally, as operating speeds are closer to that of 60km/h, it suggests a 60km/h speed limit is more suitable at this time.</p> <p>Supporting this justification is the presence of an off-road car park which is a measure to prevent pedestrian collisions, satisfying the requirements of a category 2 school designation.</p>
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Longburn Adventist College (Map 13)	Walkers Road	70	60	Permanent	2023/2024	<p>This school is situated on a rural, no exit road with surrounding land use being primarily rural landscape with some residential housing.</p> <p>The primary reason for a Category 2 designation is that the 60km/h speed limit for this school is deemed the most appropriate for the prevailing road environment and existing travel speed behaviours, given there is no ability to change infrastructure at this time. A 30km/h speed limit on a road of this design would likely generate non-compliance and frustration.</p> <p>Supporting this justification is the presence of an off-road car park which is a measure to prevent pedestrian collisions, satisfying the requirements of a category 2 school designation.</p>
OneSchool Global	Johnstone Drive	50	50	Permanent	2023/2024	<p>During the consultation process submitters noted that students attending OneSchool Global arrive together via vans that transport them directly onto the school site. Given the lack of significant pedestrian movements alongside the school, a category 2 designation is justified. The current speed limit is 50km/h, which is less than the maximum 60km/h speed limit permitted for a school designated category 2. Therefore, no speed limit change is proposed for Johnstone Drive.</p>

Turitea School (Map 21)	Old West Road from the intersection with SH57 adjacent to Turitea School	100	60	Variable	2024/2025	<p>This school is situated on a rural, no exit road with surrounding land use being primarily rural landscape with generally only school traffic using this road.</p> <p>The primary reason for a category 2 designation is consistency of message to the road users. In this case, the intent for the State Highway is to install a 60km/h variable speed limit which has been proposed by Waka Kotahi. The 60km/h speed limit has been proposed to align to this.</p> <p>A permanent speed limit has not been proposed primarily for cost reasons, as the operating speeds on this street are already low while currently posted at 100km/h and therefore the expenditure of signage required to install a permanent speed adjacent to a variable speed limit is deemed unnecessary for a road that is already operating at a safe speed.</p> <p>This is scheduled for implementation alongside the installation of the variable speed limit on SH57 by Waka Kotahi.</p>
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Whakarongo School (Map 22)	Stoney Creek Road from its intersection with SH3 to a point 200 metres south of its intersection with Hendersons Line	70	60	Permanent	2023/2024	<p>The school is situated on a rural road which intersects SH3. This is an existing 70km/h speed limit where drivers currently drive at speeds close to 60km/h.</p> <p>The primary reason for a category 2 designation is to align to the existing State Highway variable speed limit to create a consistent road network, particularly given the rural nature of the road not supporting a 30km/h speed limit in its current state.</p> <p>Supporting this justification is the off-road car park and barrier installed as a measure to prevent pedestrian collisions, satisfying the requirements of a category 2 school designation.</p>
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## Appendix One - Maps



Map 1 - Aokautere School





Map 2 - Ashhurst School



**Map 3 - Awapuni School, Riverdale School, West End School, Awatapu College, Manawātū Kura a Iwi - Manawātū Community High School**





Map 5 - Carncot Independent School, Mana Tamariki









Map 8 - College Street Normal School, Palmerston North Adventist Christian School, Palmerston North Intermediate Normal School, Palmerston North Girls' High School

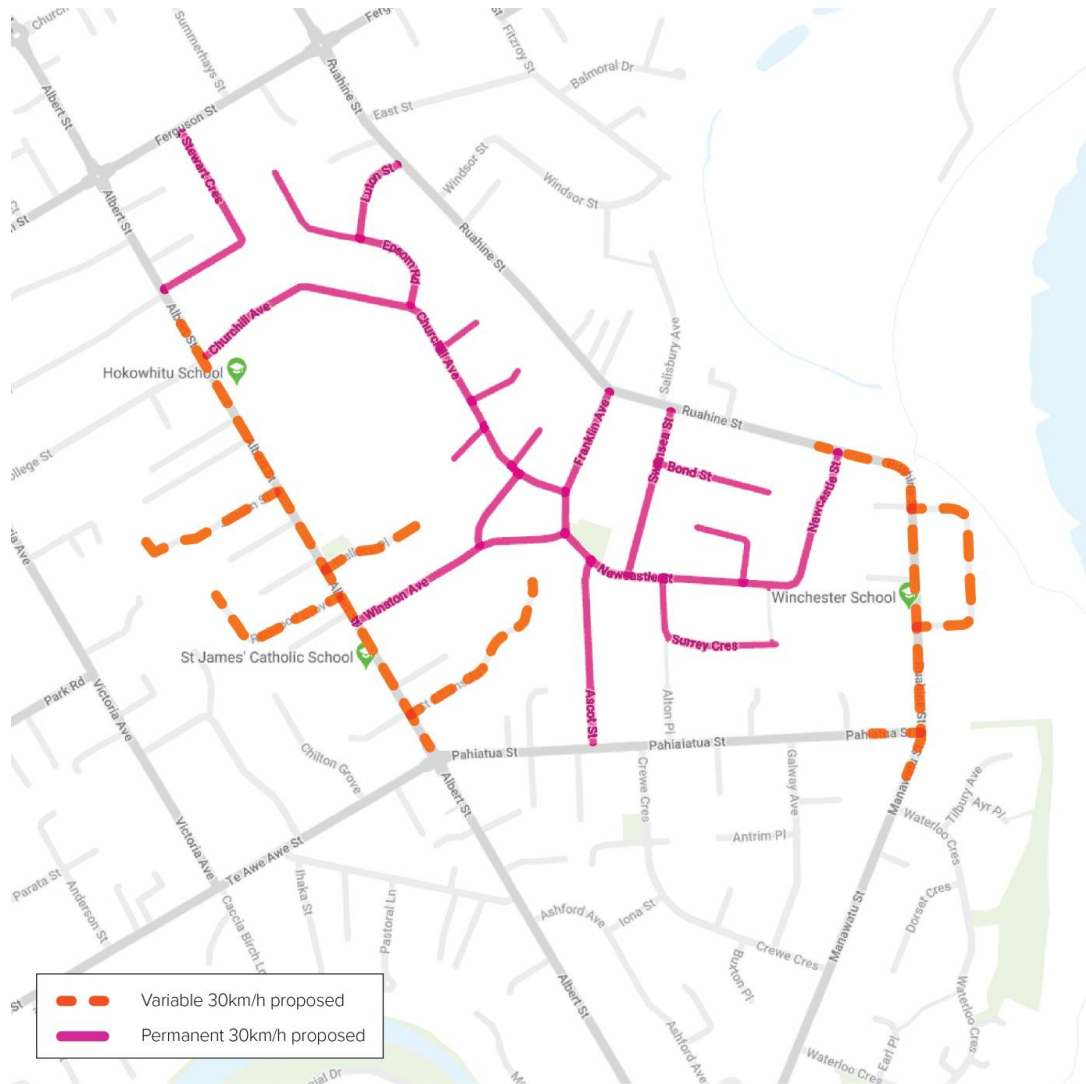


Map 9 - Cornerstone Christian School, Te Kura Kaupapa Māori o Manawatū





Map 10 - Freyberg High School, St Mary's School, Whakatipuria Teen Parent Unit, Ross Intermediate School, Roslyn School



Map 11 - Hokowhitu School, St James School, Winchester School



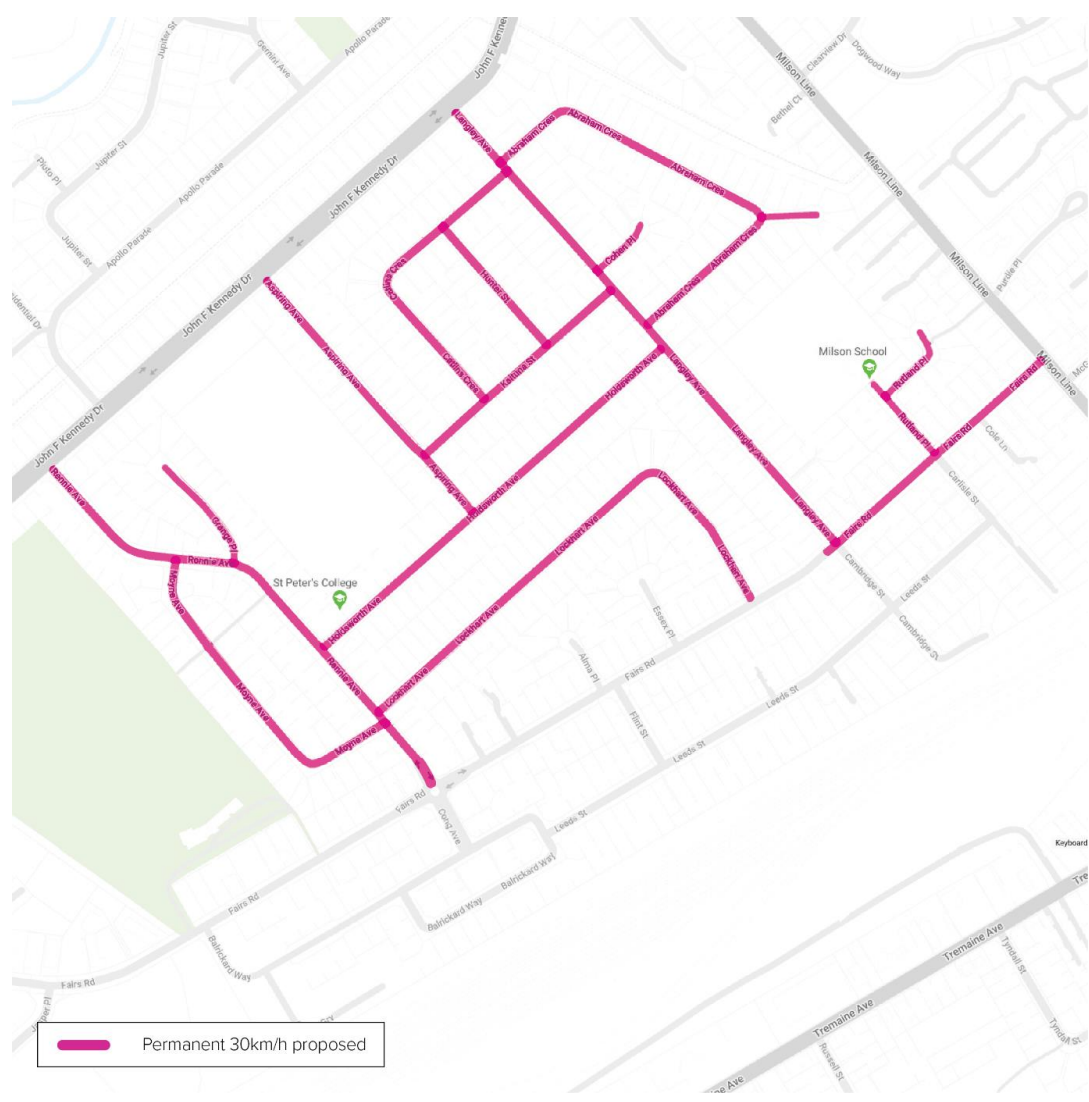
Map 12 - Kairanga School



Map 13 - Longburn Adventist College



Map 14 - Longburn School



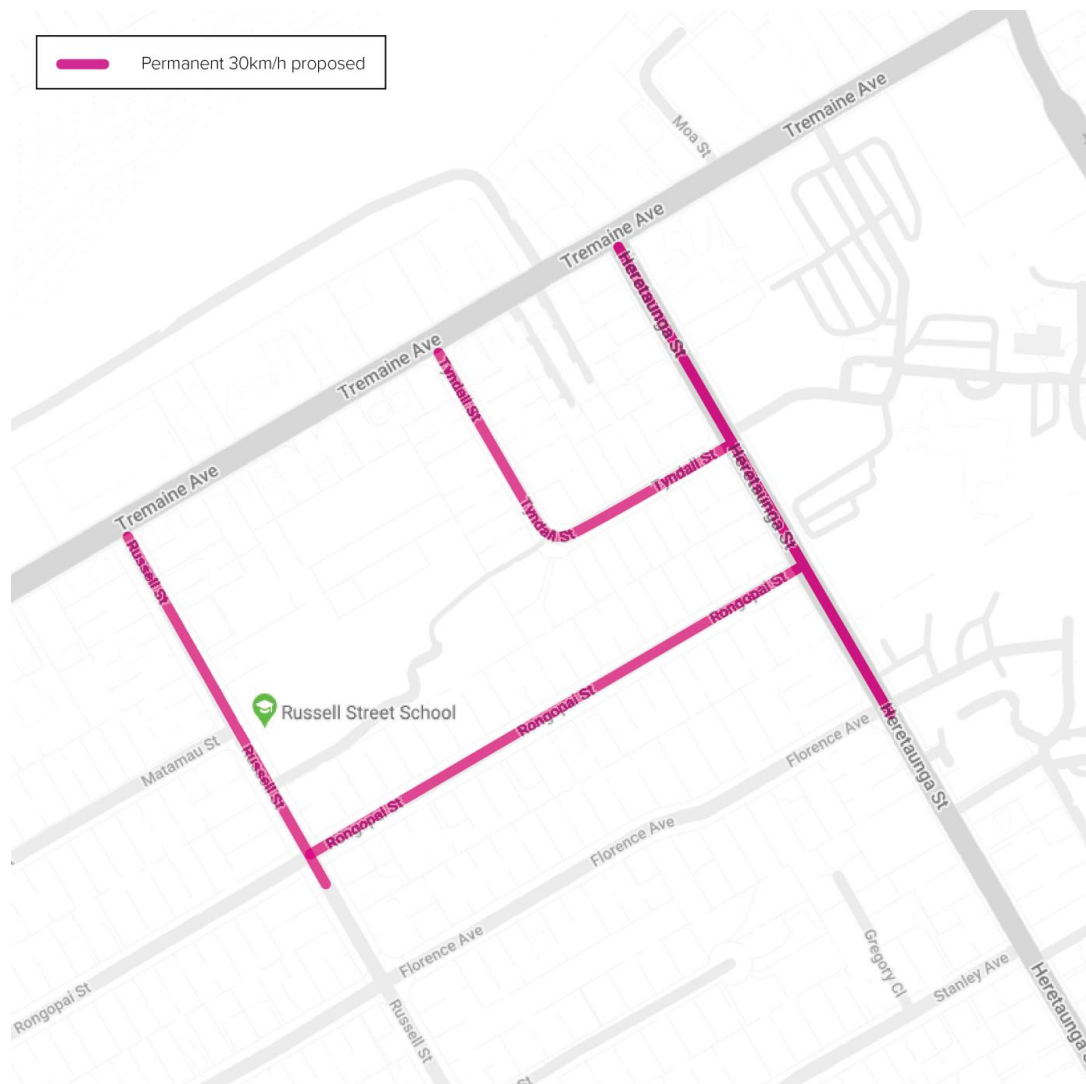
Map 15 - Milson School, St Peters College



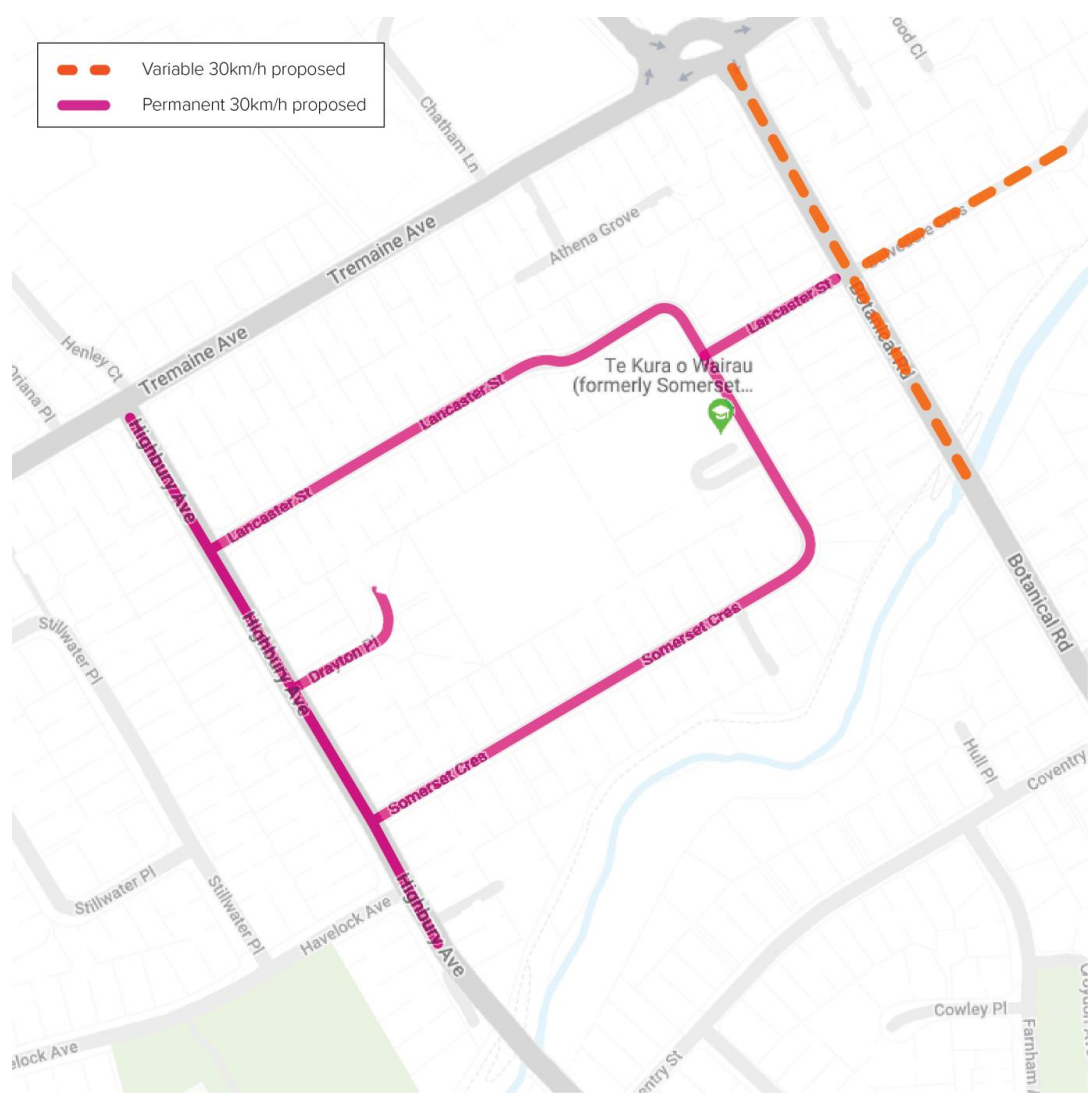


Map 17 - Parkland School

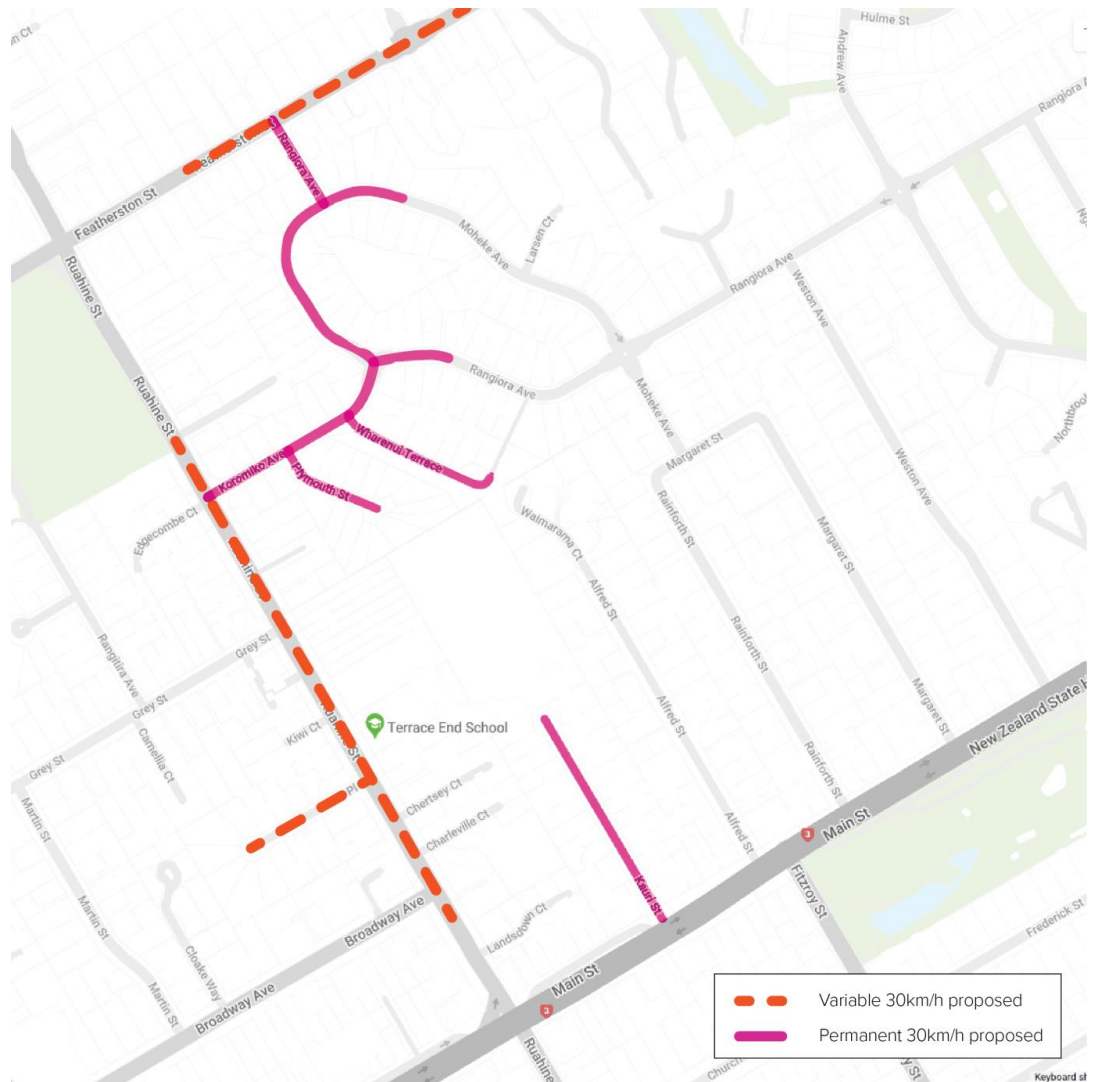




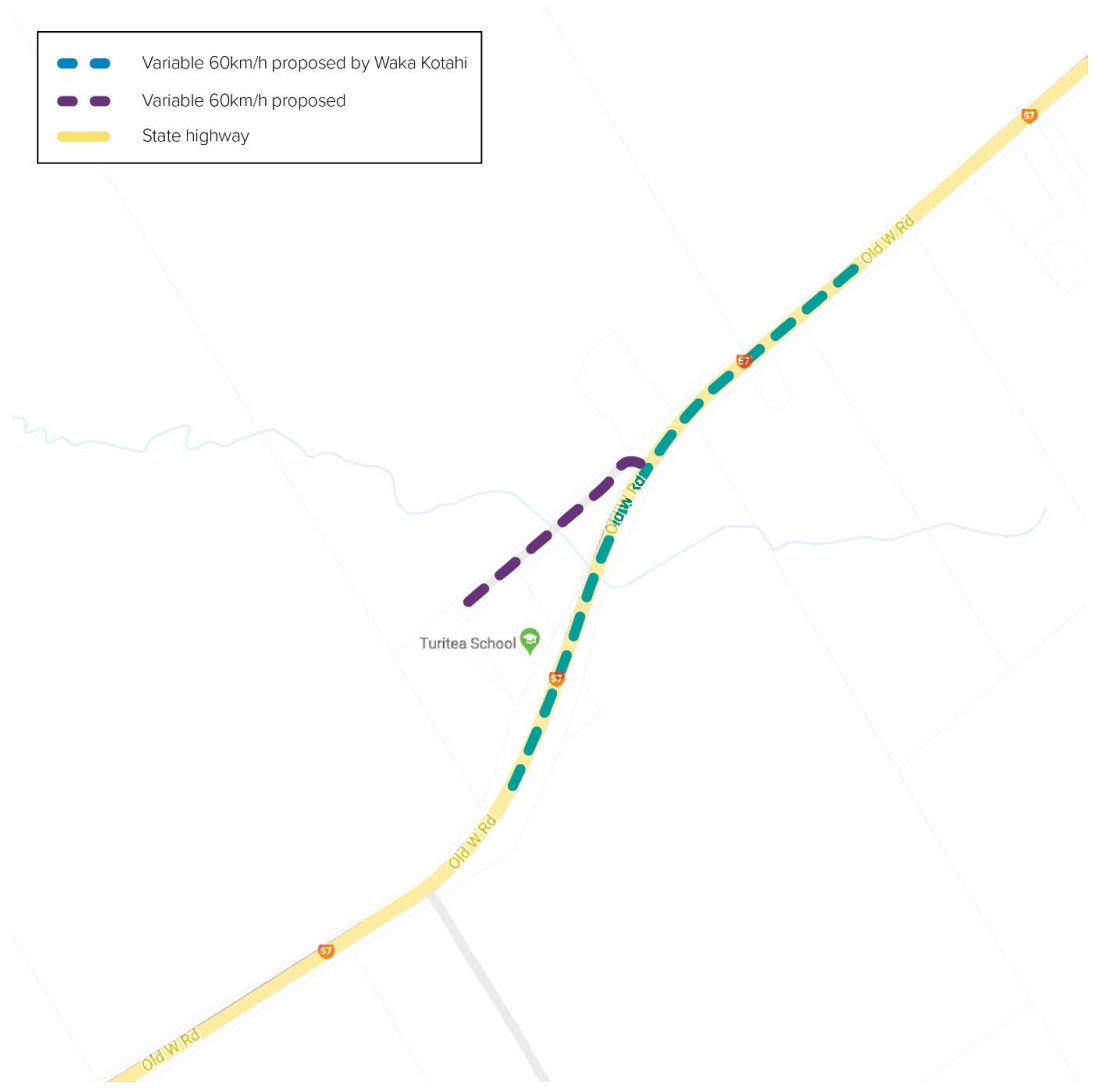
Map 18 - Russell Street School



Map 19 - Te Kura o Wairau



Map 20 - Terrace End School



Map 21 - Turitea School

