

Integrated Transport Framework: Programme Business Case New Plymouth District Council



What and Why?

New Plymouth is a growing district and there are significant opportunities to improve the transport network to align with the future needs of the district and its people. The purpose of the New Plymouth Integrated Transport Framework (ITF) Programme Business Case (PBC) is to demonstrate the case for change to establish a comprehensive and integrated transportation system for the New Plymouth District over the next 30 years.

The ITF is a PBC that outlines the problems and benefits, the evidence to support the problems and the decision-making process that has led to the selection of a preferred option.

This document has been substantively prepared under the 2021-24 Government Policy Statement on Land Transport (GPS). With the change in Government in late 2023, a new GPS covering 2024-34 has been prepared. While some of the priorities are similar, such as road safety, resilience, and economic growth, there has been a change in emphasis towards maintenance, value for money and increased productivity.

These changes include shifting from a focus on reducing vehicle-kilometres travelled and emissions to making journey times more efficient, increasing public transport patronage, improving access to markets and employment areas, improving housing supply, and making better use of existing capacity. This, along with other Government policies, are still expected to reduce emissions over time but will while supporting economic growth and productivity.

As a result, the PBC has been updated to reflect the changes in the 2024-34 GPS, and feedback on the affordability of the programme to fit in with the New Plymouth District Council's Long Term Plan and 30 year Infrastructure Strategy.

PBC Process

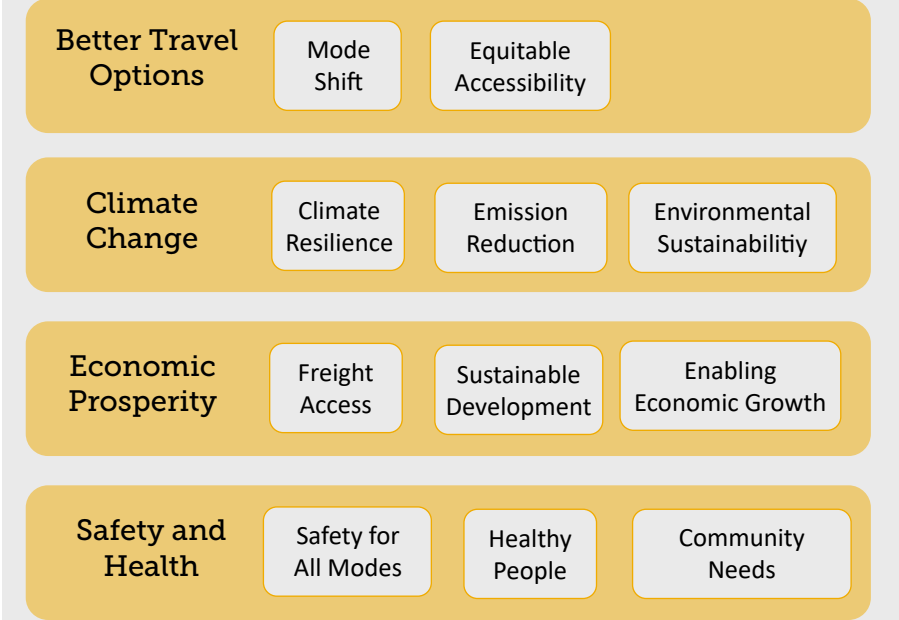
The ITF has been developed following the PBC process outlined below. The PBC team have worked closely with key stakeholders and the community to understand a broad range of views and priorities in the option development phase. Transport modelling was also used to develop, test and rank different short list options against the key performance indicators (KPIs).

Strategic case What is the compelling case for change?	Economic case Does the preferred option optimise value for money?	Commercial case Is the proposed Option commercially viable?	Financial case Is the investment proposal affordable?	Management case How can the proposal be delivered successfully?
Develop (or refine)	Develop	High-level only – completed in activity-level business case	High-level only – completed in activity-level business case	High-level only – completed in activity-level business case

Source: Programme business case phase (NZTA website)

Strategic Priorities

The strategies and priorities of the project partners on a national and regional level have been summarised into the following four areas.



The New Plymouth District

The New Plymouth Proposed District Plan and Infrastructure Strategy outline a number of over-arching objectives for the future of the New Plymouth District.





Problem Statements

Following an Investment Logic Mapping workshop with key project partners and stakeholders, four key problems were identified that encompass they key transport issues in the New Plymouth District.

Public transport (PT) is not competitive with private vehicle travel or convenient to access by active modes resulting in low public transport use and poor customer experience (35%)

- 0.5% of New Plymouth catch the bus to work
- 12.9% of New Plymouth catch the bus to education
- The bus is typically 17mins slower to access the CBD compared to driving
- Buses typically only depart every 1-2 hours
- Locals identified numerous barriers to using PT in a 2023 survey
- Key employment hubs like Waiwhakaiho-Bell Block South and Westown have limited PT connections

Most urban areas have low density residential developments that make access by public transport, walking and cycling difficult resulting in high dependency on private vehicles and increasing transport costs for the community that especially impact lower socio-economic groups (30%)

- The District features mostly low-density housing
- Many development areas are on the outskirts of town with limited PT or active mode connections
- The cost of owning a car is a major household expense (\$215 a week in 2019) and is increasing
- People living further away from New Plymouth who likely rely on driving have lower median incomes
- 80% of people use a car to get to work in the District, higher than the NZ average

The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance (particularly for centres on state highways, between communities and the coast, and residential areas with key destinations), and declining amenity (noise, dust, and pollution). (20%)

- Highways and Arterial roads across the District also serve as key activity and people focussed streets
- Places like SH45 and Bell Block where people want to walk or cycle for work or education are restricted by busy roads with no crossing facilities
- Traffic volumes on many highways through the District have over 12,000 vehicles a day using them and mean speeds of well over 30km/h where people are expected to cross
- 1,200 trucks travel through the centre of New Plymouth every day

The current active mode transport networks (walking, cycling, and micro-mobility) are fragmented and have unsafe connections resulting in safety issues, poor perception of the network and low active mode uptake (15%)

- The New Plymouth cycle network has significant gaps and unsafe existing facilities that discourage people from riding
- The Network Operating Framework report showed many pedestrian level of service gaps making it difficult to walk around the District urban areas
- There have been 184 crashes involving active mode users in the past five years (2018-2022)
- User counts are high on good quality facilities like the Coastal Walkway, but low everywhere else.
- Resident perception surveys show declining satisfaction with the footpath and cycle network





Project Benefits and Interventions

The preferred programme is expected to deliver on the following four investment benefits, and some of the listed interventions.

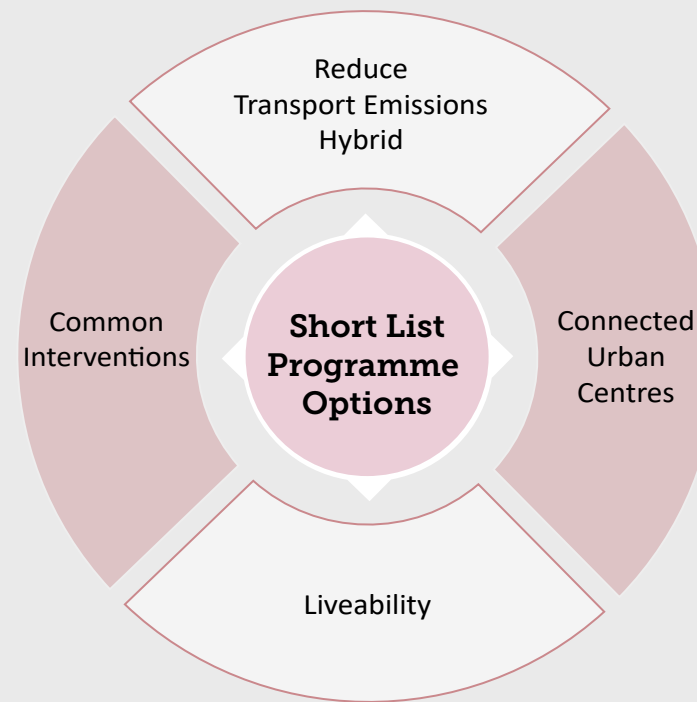
<p>Public transport (PT) is accessible, convenient and the preferred mode of transport for many (30%)</p> <ul style="list-style-type: none"> Align PT routes with destinations and improve accessibility Improve PT frequency and level-of-service Improve PT infrastructure and travel time Reduce the need to travel where PT is less viable 	<p>Decreased reliance on cars as the primary mode of transport and increased walking, cycling and PT use (35%)</p> <ul style="list-style-type: none"> Compact urban form Improve access to lower cost modes Resilient network connections at pinch points 	<p>Improved access to amenities (coast, schools and services) and employment along engaging and enjoyable transport corridors (15%)</p> <ul style="list-style-type: none"> Reconfigure streets for movement and place by reallocating space Support lower-emission transport Safe road connections Travel demand and behaviour management 	<p>A safe and connected city and towns to walk and cycle with active and healthy communities (20%)</p> <ul style="list-style-type: none"> Complete the urban cycle network Improve active mode accessibility and attractiveness Improve safety for existing facilities
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Short List Options

At the short list stage, four programme options were considered, which were tested with project partners and stakeholders.

These were the three options taken forward from the long list stage, as well as a new 'Common interventions' option that combined all of the common elements from the three unique short list options.



Selecting a Preferred Option

Transport modelling data, economic analysis and subject matter experts informed the Multi Criteria Analysis, which was used to select the preferred option.

The preferred option 'Connected urban centres' had the highest average MCA ranking following the sensitivity testing. The scheduling of this programme was then improved to increase affordability as detailed on the next page.

Programme Option Ranking					
	Common Interventions	Liveability	Connected Urban Centres	Reduce Transport Emissions Hybrid	
Baseline Weighting	4th	3rd	1st	2nd	
Sensitivity Scenario	Access 1	4th	2nd	1st	3rd
	Access 2	4th	2nd	1st	3rd
	Climate 1	4th	3rd	2nd	1st
	Climate 2	4th	3rd	2nd	1st
Average ranking	4	2.6	1.4	2.0	
40-year Discounted Cost	P5 cost (\$M)	315.2	508.8	689.7	499.4
	P50 cost (\$M)	372.1	637.0	871.1	613.9
	P95 cost (\$M)	499.3	889.6	1,216.6	842.0



What we Heard

Following stakeholder and community feedback, the most and least prioritised initiatives for each project benefit/challenge are shown below.

Benefit/Challenge	Most prioritised initiative	Least prioritised initiative
Improve public transport	Increasing the frequency of public transport and infrastructure	Increasing parking fees
Adapt to urban development along our coast	Connecting public transport to key destinations and a separate route for freight	Increasing road capacity
Enable reduced reliance on private vehicles and freight	Increasing accessibility around the district and shifting road freight to other modes	Reducing transport emissions and using alternative fuel
Fix our fragmented active travel network	Improving existing road connections, bridges and raised crossings	Reducing the road speeds





Preferred Option

The preferred option from the short list stage was refined to improve programme affordability while still delivering similar outcomes. This was achieved by changing the scheduling of the costed interventions to smooth the annual and total programme costs while maintaining the critical path of the costed interventions to deliver the desired outcomes. The refined preferred option has a 30-year non-discounted cost of **\$1,123.1M**.

Assessment Stage	Programme Option	40-year Discounted Cost		
		P5 cost (\$M)	P50 cost (\$M)	P95 cost (\$M)
Preferred Option	Connected Urban Centres Hybrid	567.6	717.2	999.4

Preferred Programme 40-year Discounted Benefits

Traffic travel time and reliability	251.6
Vehicle operating costs	27.1
Public transport travel time and reliability	1078.9
Crash reductions	27.1
Cycling travel time and user health	828.9
External impacts of emissions	17.8

Assessment Stage	Programme Option	BCR	Sensitivity Testing	
			Lowest BCR	Highest BCR
Preferred Option	Connected Urban Centres Hybrid	3.2	1.5	4.8



Next Steps

Aside from minor interventions already underway, next steps for the programme include follow-on studies to explore interventions in greater detail.

Studies in the first three years of this programme align with the Government Policy Statement on land transport 2024, as they focus on improving network productivity and reliability, providing better low-emission transport options, and enabling better housing supply.

Collaboration between NPDC TRC and NZTA will be required to deliver this programme as funding priorities may change over time. An increase in investment will be required from all parties to achieve the expected benefits of this programme.

Follow-on Studies Focuses

Public transport services detailed business case
Strategic upgrade priorities
District-wide One Network Framework classification
Network Operating Framework Update
District-wide active mode upgrade package investigation
Separated cycleway indicative business case and detailed business cases
Parking strategy
Identifying land use changes to support intensification and housing supply
Regional active mode connections
Road pricing strategy
Western Ring Route indicative business case



The Future Benefits

A selection of the Key Performance Indicators (KPIs) have been shown across the different modes to give an indication of the expected programme benefits.

The KPIs indicate benefits for all road users, including cars and freight, as a result of the projected mode shift and transport infrastructure interventions.

Investment Objective

KPI

Improve public transport network access, reliability, and travel times

KPI 3: % of population within 400 metres PT walking catchments.

KPI 4b: PT mode share for AM journey to school trips

Reduce private vehicle reliance and transport related emissions and increase mode shift

KPI 5: Tonnes of CO2E (change compared to do-minimum)

KPI 6b: VKT (change compared to do-minimum)

KPI 7: PT mode share for journey to work trips

Positive impact on local centres, network productivity and utilisation

KPI 10: PT travel time minus car travel time (Average of 4 Origins to CBD in mins)

KPI 13a: % of freight on non-arterial corridors

KPI 13b: Freight travel times from east to port (change compared to do-minimum in mins)

Improve the safety and attractiveness of active mode networks for all users

KPI 14: Annual deaths and serious injuries for cyclists

KPI 15: % of primary cycling network that is safe and separated

	2035		2053	
	Do Minimum	Preferred Programme	Do Minimum	Preferred Programme
KPI 3: % of population within 400 metres PT walking catchments.	57.2%	57.2%	55.5%	57.5%
KPI 4b: PT mode share for AM journey to school trips	13.9%	17.7%	13.5%	28.2%
KPI 5: Tonnes of CO2E (change compared to do-minimum)	-	-6%	-	-15%
KPI 6b: VKT (change compared to do-minimum)	-	-4%	-	-15%
KPI 7: PT mode share for journey to work trips	0.7%	6.4%	0.7%	19.6%
KPI 10: PT travel time minus car travel time (Average of 4 Origins to CBD in mins)	17	13	16.7	7
KPI 13a: % of freight on non-arterial corridors	76.5%	76.1%	75.1%	77.3%
KPI 13b: Freight travel times from east to port (change compared to do-minimum in mins)	-	-0.1	-	-1.6
KPI 14: Annual deaths and serious injuries for cyclists	2.88	1.4	3.72	0.92
KPI 15: % of primary cycling network that is safe and separated	13%	23%	13%	29%

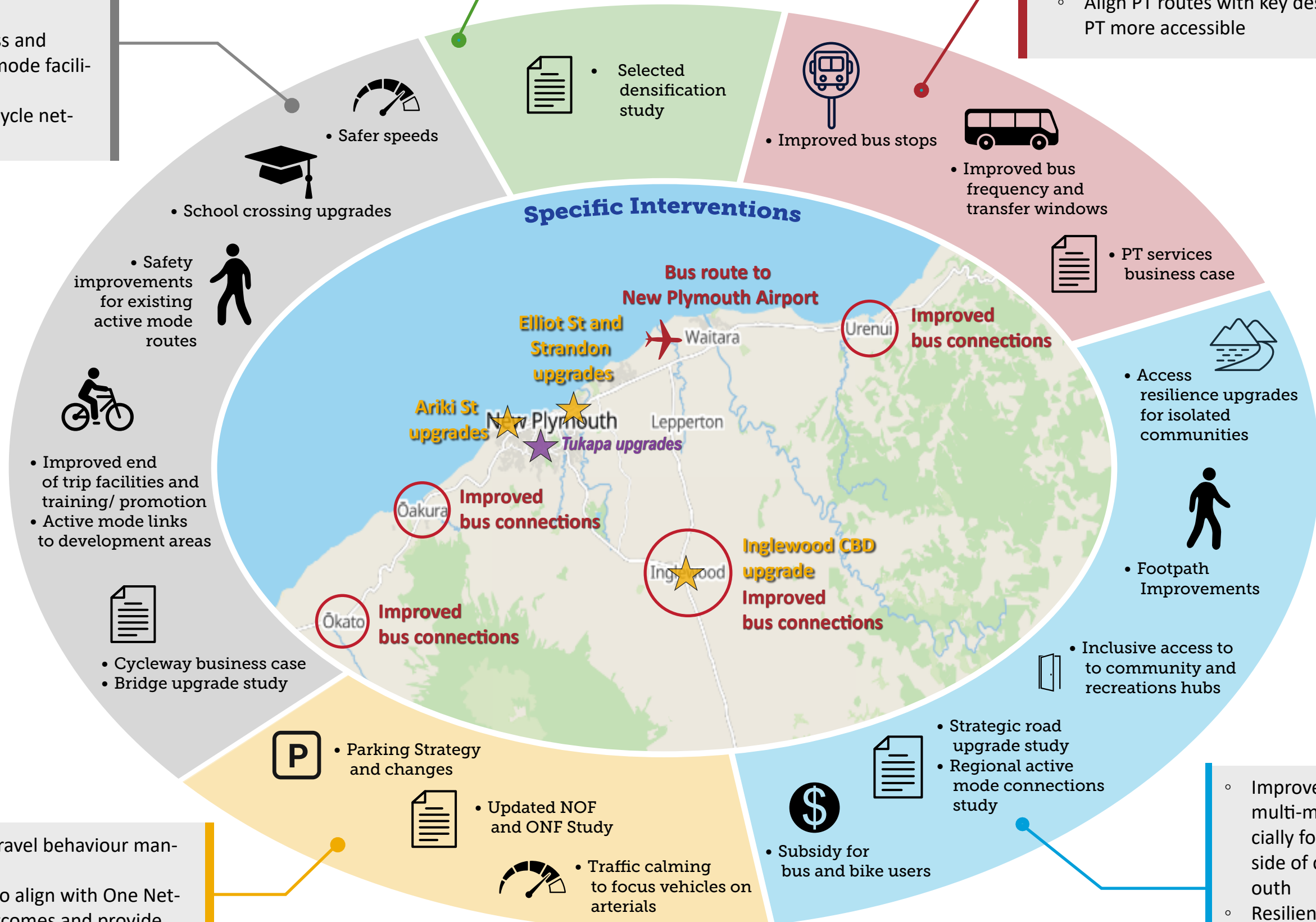


Preferred Option - Short Term

- Safety Improvements for existing active mode facilities
- Improve attractiveness and accessibility of active mode facilities
- Complete the urban cycle network

- Increase population density in areas close to key urban centres and destinations
- Reduce the need to travel where car alternatives are less viable

- Improve public transport infrastructure and travel time to make PT more attractive and accessible
- Improve PT frequencies, and LOS to make PT a more attractive option
- Align PT routes with key destinations and make PT more accessible



- Travel demand and travel behaviour management
- Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes

- Parking Strategy and changes

- Updated NOF and ONF Study

- Traffic calming to focus vehicles on arterials

- Subsidy for bus and bike users

- Strategic road upgrade study
- Regional active mode connections study

- Improve lower cost multi-modal access, especially for communities outside of central New Plymouth
- Resilient connections at network pinch points for all modes



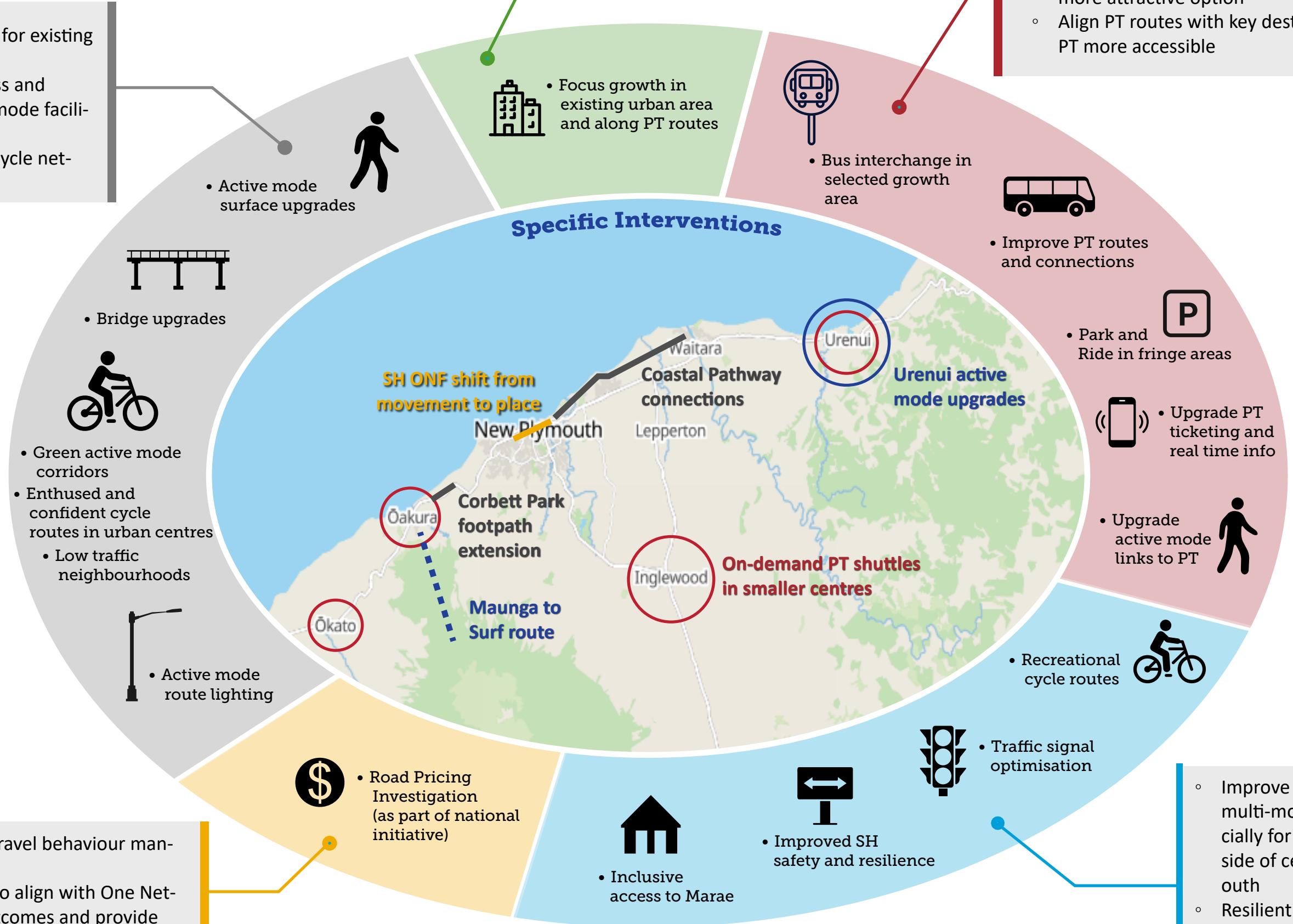
Preferred Option - Medium Term

Note all interventions in the medium term will proceed pending further investigation in the short term

- Safety Improvements for existing active mode facilities
- Improve attractiveness and accessibility of active mode facilities
- Complete the urban cycle network

- Increase population density in areas close to key urban centres and destinations
- Reduce the need to travel where car alternatives are less viable

- Improve public transport infrastructure and travel time to make PT more attractive and accessible
- Improve PT frequencies, and LOS to make PT a more attractive option
- Align PT routes with key destinations and make PT more accessible



- Travel demand and travel behaviour management
- Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes

- Improve lower cost multi-modal access, especially for communities outside of central New Plymouth
- Resilient connections at network pinch points for all modes



Preferred Option - Long Term

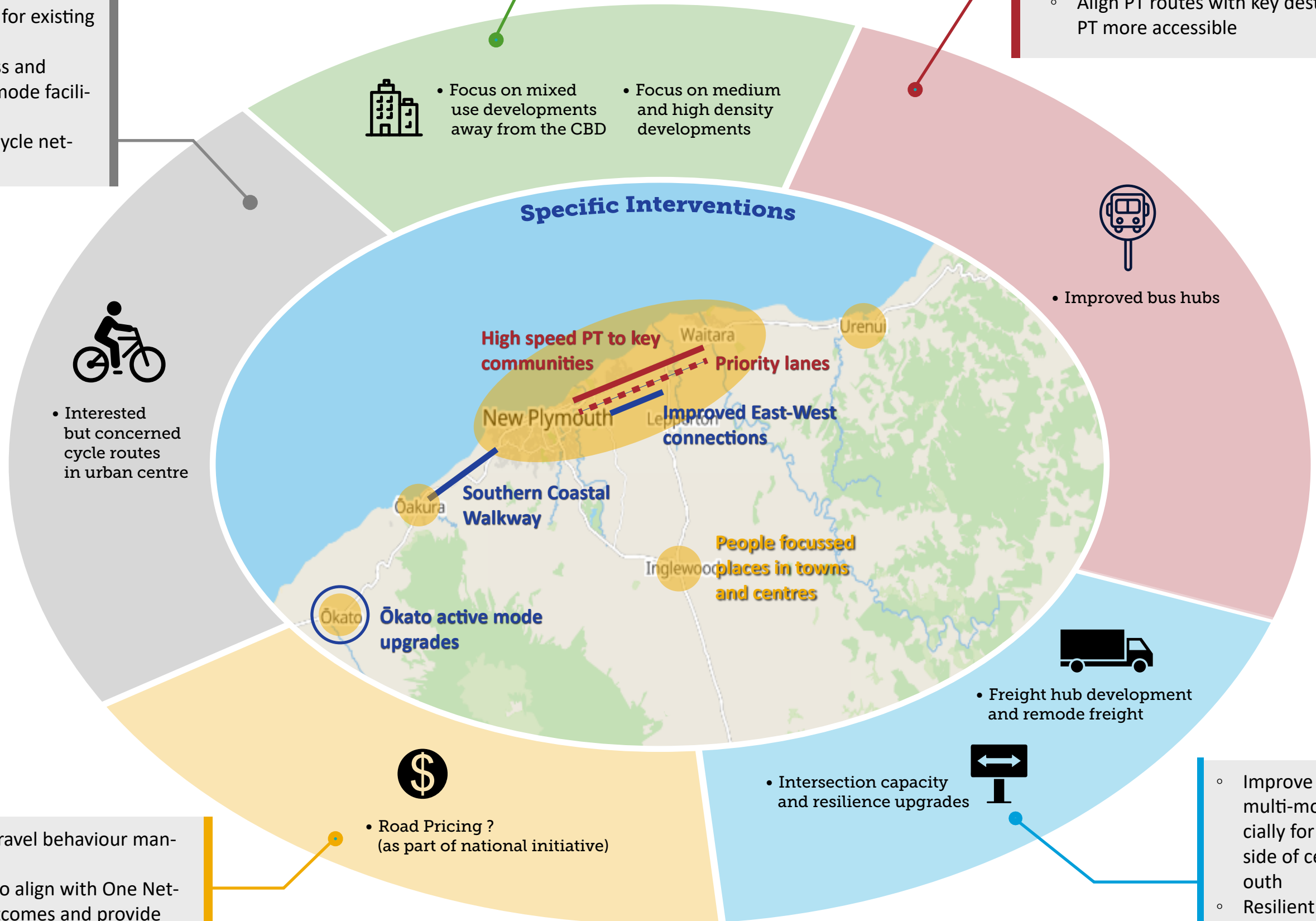
Note all interventions in the long term will proceed pending further investigation in the medium term

Draft subject to Council approval

- Safety Improvements for existing active mode facilities
- Improve attractiveness and accessibility of active mode facilities
- Complete the urban cycle network

- Increase population density in areas close to key urban centres and destinations
- Reduce the need to travel where car alternatives are less viable

- Improve public transport infrastructure and travel time to make PT more attractive and accessible
- Improve PT frequencies, and LOS to make PT a more attractive option
- Align PT routes with key destinations and make PT more accessible



- Travel demand and travel behaviour management
- Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes

- Road Pricing? (as part of national initiative)

- Intersection capacity and resilience upgrades

- Improve lower cost multi-modal access, especially for communities outside of central New Plymouth
- Resilient connections at network pinch points for all modes

